

Cultural Continuity as a Pathway From Archaeology to the Creative Economy: Unlocking the Tourism Potential of the Saraswati–Sindhu Civilisation

Ar. Renu Khanna¹, Dr. Kasthurba A K², Dr. Prasad Krishna³, Dr. K K Muhammed⁴, Dr. Prashant Kumar Gautam⁵

¹ Department of Architecture and Planning, National Institute of Technology Calicut, India, renukhanna.architect@gmail.com

² Department of Architecture and Planning, National Institute of Technology Calicut, India, kasthurba@nitc.ac.in

³ Director, National Institute of Technology Calicut, India, director@nitc.ac.in

⁴ Padma Shri Dr. K.K. Muhammed, Ex-ASI Director, kkmohdtk@gmail.com

⁵ Professor, Punjab University, Chandigarh, prashantkgautam@gmail.com

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ABSTRACT:

The Saraswati–Sindhu Civilisation (SSC), one of the world's earliest urban civilisations, represents an exceptional archaeological and cultural legacy with considerable yet underutilised tourism potential. Unlike internationally recognised archaeological destinations such as Egypt, Greece, and Peru, most SSC sites continue to face challenges arising from fragmented interpretation, inadequate visitor infrastructure, weak destination branding, and limited community participation. This study develops an integrated conceptual framework to examine how Archaeological Resources, Cultural Continuity, Heritage Infrastructure, and Visitor Experience collectively facilitate the transformation of archaeological heritage into tourism products that contribute to the creative economy. The framework is informed by comparative international benchmarking and guided by UNESCO's Historic Urban Landscape (HUL) approach. Partial Least Squares Structural Equation Modelling (PLS-SEM) is proposed to validate the relationships among the five latent constructs while examining the mediating role of Visitor Experience and the moderating influence of Heritage Infrastructure. The framework highlights evidence-based interpretation, digital heritage technologies, integrated governance, and community participation as essential drivers for unlocking tourism potential, strengthening the creative economy, promoting heritage conservation, enhancing visitor engagement, and supporting inclusive local development.

Keywords: Saraswati–Sindhu Civilisation; Archaeological Tourism; Creative Economy; Sustainable Heritage Tourism; Cultural Continuity; Heritage Interpretation; Visitor Experience; PLS-SEM.

1. Introduction

Archaeological heritage has become an integral component of cultural tourism, contributing significantly to heritage conservation, cultural

identity, destination development, and local economic growth (Timothy & Boyd, 2003; Smith, 2006; Timothy, 2018). Internationally recognised archaeological destinations, including

Egypt, Greece, Italy, and Peru, demonstrate that tourism success depends not only on the archaeological importance of a site but also on effective conservation, engaging interpretation, high-quality visitor infrastructure, strategic branding, and coordinated governance (Ritchie & Crouch, 2003; UNESCO, 2021). These integrated approaches enhance visitor experiences while ensuring the long-term protection of cultural resources and generating sustainable socio-economic benefits. The SSC, one of the world's earliest urban civilisations, represents a remarkable legacy of planned cities, advanced hydraulic engineering, craft specialisation, and extensive trade networks. Major archaeological sites such as Rakhigarhi, Dholavira, Kalibangan, Lothal, and Banawali provide compelling evidence of sophisticated urban planning and technological innovation (Kenoyer, 1998; Possehl, 2002; Wright, 2010). Despite their outstanding archaeological significance, these sites remain underrepresented within the global heritage tourism landscape because of fragmented interpretation, inadequate visitor facilities, limited destination branding, and insufficient institutional coordination. Contemporary heritage scholarship increasingly advocates viewing archaeological sites as dynamic cultural landscapes where tangible remains are interpreted alongside living traditions, cultural memory, and community values (Smith, 2006). This perspective is reinforced by UNESCO's Historic Urban Landscape (HUL) Recommendation, which promotes an integrated approach combining conservation, interpretation, stakeholder participation, and sustainable development (UNESCO, 2011). However, the application of these principles to the SSC has received limited scholarly attention. To bridge this gap, the present study develops an integrated conceptual framework that examines the interrelationships among Archaeological Resources, Cultural Continuity, Heritage Infrastructure, Visitor Experience, and Sustainable Heritage Tourism. Drawing upon comparative international benchmarking and heritage tourism theory, the framework provides a foundation for empirical validation using Partial Least Squares Structural

Equation Modelling (PLS-SEM). The study offers both theoretical insights and practical guidance for policymakers and heritage managers seeking to enhance destination competitiveness while ensuring the conservation, authenticity, and sustainable development of SSC heritage sites.

2. Literature Review and Research Gap

2.1 International Archaeological Heritage Tourism

Archaeological heritage tourism has evolved beyond the preservation of historic sites to encompass destination management, visitor engagement, and sustainable regional development. Contemporary studies suggest that the success of archaeological destinations depends not only on the intrinsic significance of heritage resources but also on the quality of interpretation, governance, visitor infrastructure, destination branding, and community participation (Timothy & Boyd, 2003; Ritchie & Crouch, 2003; Timothy, 2018). Internationally recognised destinations such as Egypt, Greece, Spain, and Peru demonstrate that the integration of effective conservation practices, innovative interpretation, digital heritage technologies, and coordinated governance significantly enhances visitor experiences while strengthening cultural identity and supporting sustainable socio-economic development (UNESCO, 2021).

In comparison, research on the Saraswati-Sindhu Civilisation (SSC) has predominantly focused on its archaeological, historical, and cultural significance. Extensive investigations have documented its advanced urban planning, hydraulic engineering, craft production, and trade networks, establishing the civilisation as one of the earliest examples of urban development (Kenoyer, 1998; Possehl, 2002; Wright, 2010). Nevertheless, these scholarly contributions have rarely been translated into integrated tourism planning or destination management strategies. As a result, many SSC sites continue to function primarily as archaeological research locations with limited interpretation and visitor-oriented facilities.

2.2 Cultural Continuity and Heritage Interpretation

Recent heritage scholarship increasingly views heritage as a dynamic process shaped by the interaction between physical remains, cultural memory, and community participation rather than as a static collection of monuments (Smith, 2006). This perspective highlights the importance of interpreting archaeological sites through both tangible and intangible heritage, including rituals, traditional knowledge, craftsmanship, oral traditions, and collective memory, thereby enriching visitor understanding and strengthening cultural identity (Ashworth et al., 2007; UNESCO, 2003).

Within the context of the SSC, cultural continuity provides a valuable interpretive perspective for linking archaeological evidence with enduring cultural practices. However, such interpretations should be supported by multidisciplinary archaeological, historical, and anthropological evidence to maintain academic credibility. This approach is consistent with UNESCO's Historic Urban Landscape (HUL) Recommendation, which advocates integrating conservation, interpretation, and sustainable development while preserving scholarly rigour (UNESCO, 2011).

2.3 Research Gap

Although previous studies have significantly advanced understanding of the archaeology and conservation of the Saraswati-Sindhu Civilisation, comparatively little attention has been given to integrating these findings with heritage tourism and destination competitiveness. Existing research has largely examined archaeological resources, cultural continuity, visitor experience, and tourism planning in isolation, resulting in the absence of a comprehensive framework capable of explaining their interrelationships. Addressing this gap, the present study develops an integrated conceptual framework that combines comparative international benchmarking with heritage tourism theory. The proposed

framework links Archaeological Resources, Cultural Continuity, Heritage Infrastructure, Visitor Experience, and Sustainable Heritage Tourism, providing a robust foundation for empirical validation through Partial Least Squares Structural Equation Modelling (PLS-SEM) and offering practical guidance for evidence-based destination planning and sustainable heritage management.

3. Conceptual Framework and Hypothesis Development

3.1 Conceptual Framework

This study presents an integrated conceptual framework to explain how archaeological resources can be leveraged for sustainable heritage tourism through the combined influence of Cultural Continuity (CC), Heritage Infrastructure (HI), and Visitor Experience (VE). The framework integrates perspectives from heritage tourism, destination competitiveness, visitor experience and UNESCO's Historic Urban Landscape (HUL) approach (Ritchie & Crouch, 2003; Smith, 2006; Chen & Chen, 2010; UNESCO, 2011). It proposes that the archaeological importance of a site, while fundamental, is insufficient to achieve sustainable tourism outcomes unless supported by meaningful interpretation, quality visitor infrastructure, participatory governance and active community engagement.

The proposed conceptual framework (Figure 1) illustrates the hypothesised relationships among the five latent constructs: Archaeological Resources (AR), Cultural Continuity (CC), Heritage Infrastructure (HI), Visitor Experience (VE), and Sustainable Heritage Tourism (SHT). The framework proposes Visitor Experience as a mediating construct between Cultural Continuity and Sustainable Heritage Tourism, while Heritage Infrastructure moderates the relationship between Archaeological Resources and Visitor Experience. The proposed relationships are tested through nine hypotheses using Partial Least Squares Structural Equation Modelling (PLS-SEM).

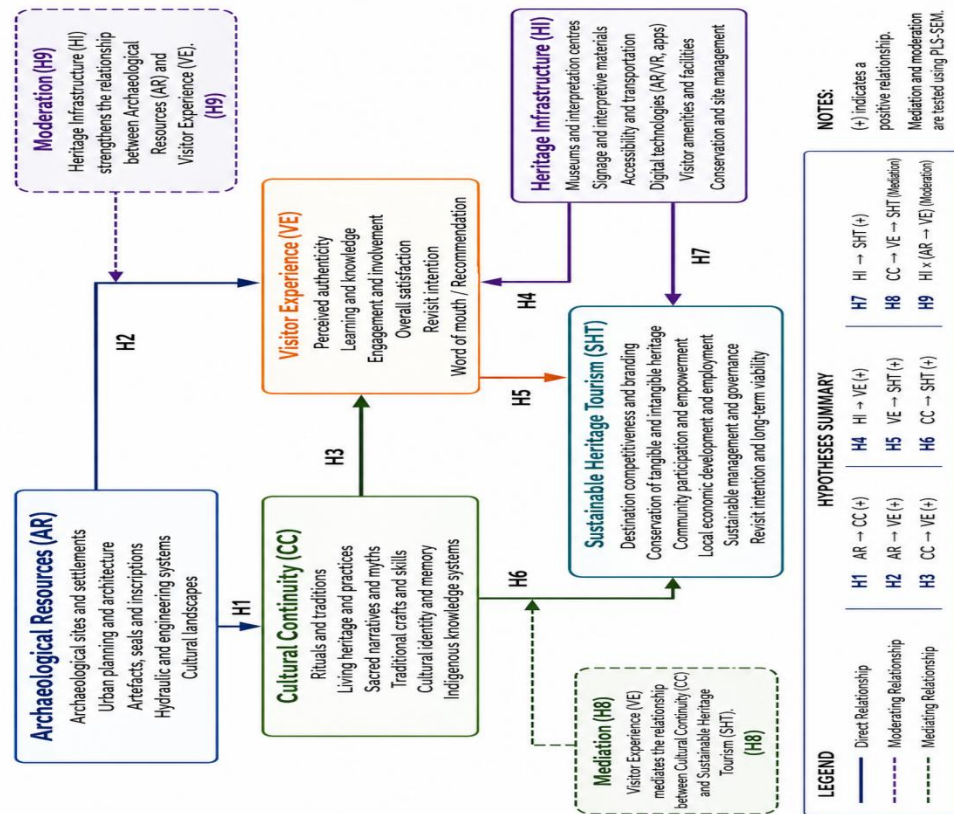


Figure 1. Proposed Conceptual Framework for Sustainable Heritage Tourism in the Saraswati-Sindhu Civilisation

Five latent constructs underpin the proposed conceptual framework, as shown below:

Construct	Representative Indicators	Key Authors / Source of Construct
Archaeological Resources (AR)	Archaeological sites; Urban planning; Architecture; Artefacts; Water management; Cultural landscapes	Kenoyer (1998); Possehl (2002); Wright (2010)
Cultural Continuity (CC)	Rituals & traditions; Living heritage; Sacred narratives; Cultural identity; Indigenous knowledge	Smith (2006); UNESCO (2003, 2011); Ashworth, Graham & Tunbridge (2007)
Heritage Infrastructure (HI)	Museums; Interpretation centres; Accessibility; Signage; AR/VR; Visitor amenities	Timothy & Boyd (2003); UNESCO (2011); Timothy (2018)
Visitor Experience (VE)	Authenticity; Learning; Engagement; Satisfaction; Revisit intention; Recommendation	Chen & Chen (2010); Pine & Gilmore (1999); Otto & Ritchie (1996)
Sustainable Heritage Tourism (SHT)	Destination competitiveness; Conservation; Community participation; Economic development; Branding; Sustainable management	Ritchie & Crouch (2003); Timothy (2018); UNESCO (2021)

The framework positions **Visitor Experience** as the central mechanism through which archaeological resources and cultural continuity influence sustainable tourism outcomes.

3.2 Hypothesis Development

Drawing upon previous heritage tourism research, nine hypotheses are proposed to

examine the relationships among the five constructs.

Hypothesis	Proposed Relationship
H1	Archaeological Resources → Cultural Continuity (+)
H2	Archaeological Resources → Visitor Experience (+)
H3	Cultural Continuity → Visitor Experience (+)
H4	Heritage Infrastructure → Visitor Experience (+)
H5	Visitor Experience → Sustainable Heritage Tourism (+)
H6	Cultural Continuity → Sustainable Heritage Tourism (+)
H7	Heritage Infrastructure → Sustainable Heritage Tourism (+)
H8	Visitor Experience mediates the relationship between Cultural Continuity and Sustainable Heritage Tourism
H9	Heritage Infrastructure positively moderates the relationship between Archaeological Resources and Visitor Experience

These hypotheses collectively examine how archaeological significance, supported by interpretation and infrastructure, contributes to

4. Research Methodology

4.1 Research Design

This study employs a quantitative, cross-sectional research design to evaluate the proposed conceptual framework using Partial Least Squares Structural Equation Modelling (PLS-SEM). The selection of PLS-SEM is justified by the presence of multiple latent constructs, together with mediating and moderating effects, making it well suited for theory development, predictive modelling and the analysis of complex structural relationships (Hair et al., 2022). In addition, comparative benchmarking is incorporated to identify internationally recognised practices that can be adapted to strengthen heritage tourism development within the Saraswati–Sindhu Civilisation (SSC).

4.2 Study Area

The study focuses on the archaeological sites of Rakhigarhi (Haryana) and Dholavira (Gujarat), supported by evidence from Kalibangan, Lothal,

destination competitiveness and long-term sustainability.

and Banawali. Together, these sites represent the geographical diversity of the Saraswati–Sindhu Civilisation and provide a strong basis for comparative heritage tourism research. Benchmarking against archaeological destinations in Egypt, Greece, and Spain helps identify best practices in conservation, interpretation, and visitor management.

4.3 Data Collection

Primary data will be gathered through structured questionnaires administered to a diverse group of stakeholders, including visitors, archaeologists, heritage professionals, Archaeological Survey of India (ASI) officials, tourism practitioners, researchers, local community members and tour guides. A sample size of approximately 500 respondents is proposed, consistent with established recommendations for PLS-SEM analysis (Hair et al., 2022). Secondary information will be compiled from ASI reports, UNESCO publications, government tourism policies and relevant peer-reviewed academic literature to support the empirical investigation.

4.4 Measurement Model

Reflective constructs will be measured using validated indicators adapted from previous heritage tourism studies.

Construct	Representative Indicators
Archaeological Resources	Urban planning, reservoirs, pottery, seals, fire altars
Cultural Continuity	Rituals, sacred geography, storytelling, crafts
Heritage Infrastructure	Museums, interpretation centres, signage, AR/VR technologies
Visitor Experience	Authenticity, learning, engagement, satisfaction
Sustainable Heritage Tourism	Revisit intention, recommendation, community benefits

Reliability and validity will be assessed using Cronbach's alpha, Composite Reliability (CR), Average Variance Extracted (AVE), Heterotrait–Monotrait Ratio (HTMT) and Variance Inflation Factor (VIF), following established guidelines for PLS-SEM (Hair et al., 2022). The structural model will be evaluated through bootstrapping to estimate direct, indirect and moderating effects.

4.5 Comparative Benchmarking

Comparative benchmarking assesses internationally recognised archaeological destinations using six key dimensions: (i) conservation quality, (ii) visitor interpretation, (iii) digital heritage applications, (iv) community participation, (v) heritage circuits, and (vi) destination branding. These dimensions provide a practical framework for adapting globally recognised best practices to the Saraswati–Sindhu Civilisation (SSC) while respecting its archaeological significance, cultural values, and regional context.

5. Comparative Benchmarking Findings and Discussion

The comparative assessment indicates that the global success of archaeological tourism destinations is shaped by an integrated combination of conservation, interpretation, destination branding, digital innovation, and community participation rather than by archaeological significance alone (Ritchie & Crouch, 2003; Timothy, 2018; UNESCO, 2021).

Countries including Egypt, Greece, Spain, and Peru have successfully developed internationally recognised heritage destinations through coordinated governance, immersive interpretation, sustained investment in visitor infrastructure, and effective destination management.

The analysis highlights six strategic dimensions that distinguish these destinations from the Saraswati–Sindhu Civilisation: conservation quality, visitor interpretation, digital heritage applications, community participation, heritage circuits, and destination branding. Although archaeological investigations at sites such as Rakhigarhi and Dholavira have substantially advanced scholarly understanding of the civilisation, tourism development continues to be constrained by fragmented interpretation, inadequate visitor amenities, and limited institutional coordination. Consequently, the tourism potential of the SSC remains largely untapped despite its exceptional archaeological importance.

A significant contribution of this study is the incorporation of cultural continuity as an evidence-based framework for interpreting archaeological heritage without compromising scientific rigour (Smith, 2006; UNESCO, 2011). Rather than treating historical continuity as an established fact, the framework encourages interpretation based on multidisciplinary evidence linking archaeological remains with traditional knowledge, ritual landscapes, craft

traditions, and collective memory. This perspective is consistent with UNESCO's Historic Urban Landscape approach, which promotes the integration of tangible and intangible heritage to strengthen interpretation while preserving academic integrity.

Illustrative example: The Pashupati Seal and the Lubdhaka Narrative. The Pashupati Seal from Mohenjo-daro, often interpreted as depicting a proto-Shiva figure, and the Tiger Seal exemplify the potential linkage between archaeological artefacts and later Shaiva traditions. Although direct cultural continuity cannot be archaeologically verified, these symbols may be interpreted through the Puranic narrative of Lubdhaka, in which a hunter unknowingly worships a Shiva Lingam and

attains liberation. This narrative, still recited during *Rudra Abhishek* in the month of *Sawan*, demonstrates how archaeological remains and living traditions can be integrated as interpretive heritage resources. Such interpretations can support heritage tourism through storytelling, museum exhibits, interpretive trails, festivals, and immersive digital experiences while strengthening the creative economy by creating opportunities for local artisans, performers, storytellers, and community enterprises. Similar interpretive approaches are employed at heritage destinations such as Angkor and the Nile Valley to enhance visitor engagement (Winter, 2007; Hawass, 2003). Within this study, however, this association is presented as an interpretive framework rather than evidence of archaeologically established cultural continuity.

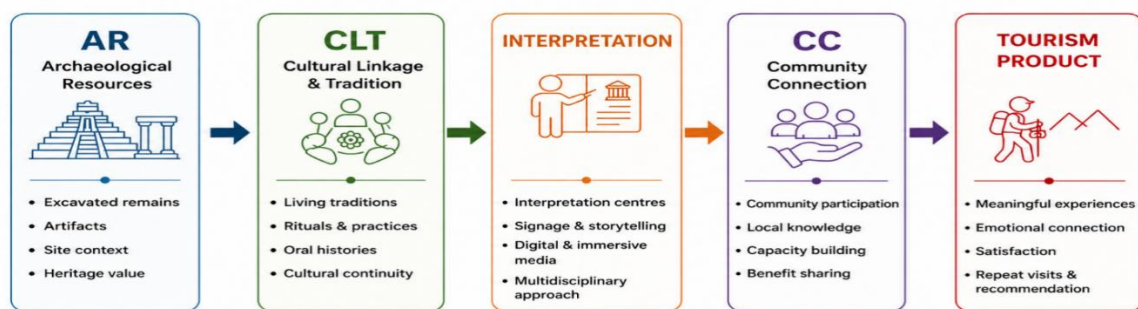


Figure 2. Heritage and Community Engagement Process-Developed by the author

Visitor experience is widely recognised as a critical determinant of destination competitiveness, visitor satisfaction, and behavioural intentions (Chen & Chen, 2010; Otto & Ritchie, 1996; Ritchie & Crouch, 2003). Authentic interpretation, engaging storytelling, museums, digital technologies, and educational initiatives enhance visitor engagement, encourage repeat visits, and strengthen public support for heritage conservation. Furthermore, emerging technologies such as augmented reality (AR), virtual reality (VR), and immersive interpretation create innovative opportunities to communicate archaeological significance while minimising physical impacts on vulnerable heritage resources.

Beyond its tourism potential, the proposed framework positions archaeological heritage as a driver of the creative economy. Community-

based interpretation, traditional crafts, cultural festivals, heritage entrepreneurship, and digital cultural content can generate livelihood opportunities while reinforcing conservation awareness and cultural identity. Accordingly, the framework broadens the role of heritage management from the protection of archaeological monuments to a catalyst for inclusive regional development and sustainable economic growth (Timothy, 2018; UNESCO, 2021).

6. Policy Implications

The findings suggest that sustainable development of the Saraswati-Sindhu Civilisation requires coordinated interventions across conservation, interpretation, governance and community engagement. Priority actions are summarised in Table 3.

Table 3. Strategic Recommendations for Sustainable Heritage Tourism

Challenge	Recommended Strategy	Expected Outcome
Weak destination branding	Develop a unified national SSC brand supported by international promotion	Improved global visibility
Limited visitor interpretation	Establish interpretation centres, museums and multilingual signage	Enhanced visitor learning and satisfaction
Poor digital engagement	Introduce AR/VR applications, digital storytelling and virtual exhibitions	Immersive visitor experiences
Fragmented archaeological sites	Develop integrated heritage circuits connecting major SSC settlements	Longer visitor stays and regional tourism growth
Limited community participation	Promote community-led tourism, heritage enterprises and traditional crafts	Inclusive local economic development
Institutional fragmentation	Strengthen coordination among ASI, tourism departments and local governments	Improved governance and sustainable site management

Implementation of these strategies would strengthen destination competitiveness while ensuring that tourism development remains compatible with archaeological conservation and community well-being. Comparative international experience indicates that integrated governance and visitor-centred interpretation are essential for transforming archaeological resources into sustainable tourism destinations (Ritchie & Crouch, 2003; UNESCO, 2021).

7. Theoretical Contributions

This study makes four key contributions to heritage tourism research.

First, it conceptualises **Cultural Continuity** as an evidence-based interpretive construct linking archaeological heritage with sustainable tourism while preserving archaeological authenticity (Smith, 2006; UNESCO, 2011).

Second, it integrates comparative international benchmarking with heritage tourism and destination competitiveness theories to identify strategies for sustainable archaeological destination management (Ritchie & Crouch, 2003; Timothy, 2018).

Third, it proposes a **PLS-SEM** framework integrating Archaeological Resources, Cultural

Continuity, Heritage Infrastructure, Visitor Experience, and Sustainable Heritage Tourism (Hair et al., 2022). Finally, it demonstrates how archaeological tourism can support the creative economy through heritage conservation, community participation, destination competitiveness and inclusive regional development (Timothy, 2018; UNESCO, 2021).

8. Conclusion

Although the Saraswati–Sindhu Civilisation (SSC) possesses outstanding archaeological value, it has yet to realise its full potential as a heritage tourism destination. This study presents an integrated framework linking Archaeological Resources, Cultural Continuity, Heritage Infrastructure, Visitor Experience, and Sustainable Heritage Tourism, demonstrating that long-term destination competitiveness depends on the combined influence of conservation, interpretation, governance, and community participation rather than archaeological significance alone.

The framework identifies Cultural Continuity as an evidence-based interpretive construct and highlights Visitor Experience as the key mechanism through which archaeological resources enhance sustainable heritage tourism.

By integrating comparative international benchmarking with a PLS-SEM framework, the study contributes to heritage tourism scholarship and provides practical guidance for destination branding, digital heritage initiatives, heritage circuits, and community-based tourism. Overall, the proposed framework offers an evidence-based pathway for developing SSC sites into internationally competitive heritage destinations while promoting conservation, inclusive local development, and sustainable destination competitiveness (Timothy, 2018; UNESCO, 2021).

9. Limitations and Future Research

As a conceptual study, the proposed framework requires empirical validation through stakeholder

surveys conducted across major SSC sites. Future research should evaluate the framework using PLS-SEM in combination with GIS-based spatial analysis. In addition, longitudinal investigations of visitor behaviour, digital heritage initiatives, and community participation would provide stronger evidence for sustainable heritage tourism planning.

The framework positions the Saraswati–Sindhu Civilisation as an interconnected cultural landscape, establishing an evidence-based foundation for sustainable heritage tourism and globally competitive destination development (UNESCO, 2021; Smith, 2006).

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