

Heritage in capital projects: Blending preservation and progress

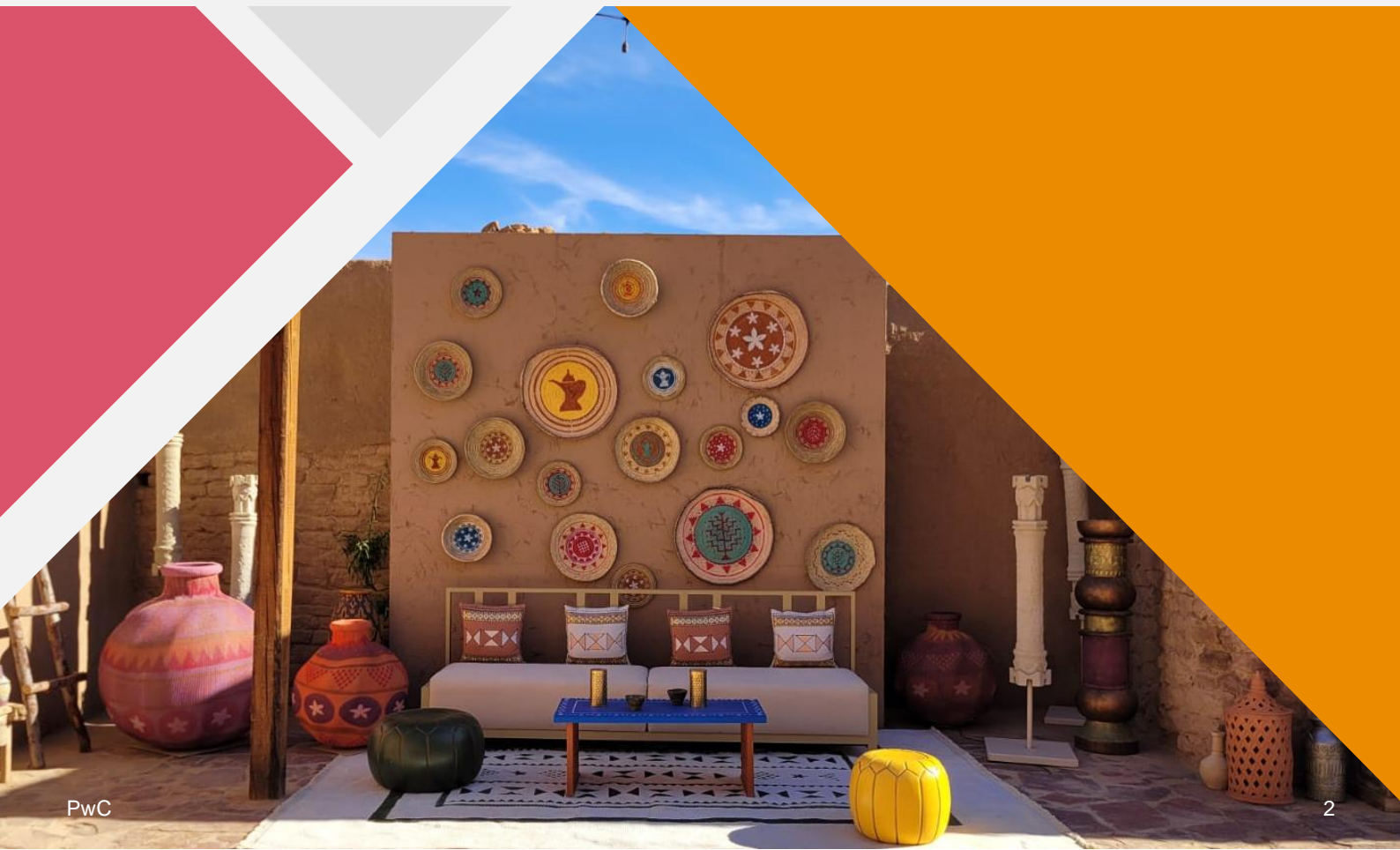


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Introduction

Heritage preservation has emerged as a key focus in the urban development strategies of the Gulf Cooperation Council (GCC) countries, reflecting their commitment to cultural enrichment and economic diversification. Iconic projects, such as Saudi Arabia's AlUla and Diriyah Gate illustrate the challenges of blending historical assets with modern developments. These efforts require meticulous attention to structural preservation, regulatory compliance, and harmonising historical authenticity with modern functionality.

This report examines the integration of heritage assets into urban developments, guided by stage-based frameworks, such as the RIBA framework, which supports the project life cycle from initial conception to operation. It provides practical strategies to navigate the complexities associated with heritage preservation, while incorporating environmental considerations into the development process. This report also provides a roadmap that highlights how GCC countries can harmonise preservation and innovation in their dynamic urban landscapes.



The growing awareness around heritage preservation

In recent years, KSA has placed a strong emphasis on heritage and culture as key elements of Vision 2030. These efforts aim to enhance the country's global profile, with significant cultural investments allocated to major developments like NEOM, the Diriyadh Gate and AlUla. The Saudi Ministry of Culture reports that the contribution of culture and heritage to national GDP grew by **7%** annually between 2017 and 2023¹, and is projected to contribute more than **US\$47.9 billion** to GDP by 2030².

This growth is fueled by both domestic and international tourism. Heritage projects such as Diriyah Gate and the AlUla region not only serve as cultural landmarks but also attract millions of visitors. The At-Turaif district in Diriyah, a UNESCO World Heritage Site since 2010, exemplifies the Kingdom's dedication to preserving its historical sites while promoting tourism³. Global marketing efforts around these heritage sites have also enhanced Saudi Arabia's image as a prime cultural destination, boosting tourism and creating jobs, stimulating the economy through both direct and indirect channels.

Similarly, in the UAE, cultural and creative industries contributed **4%** to GDP in 2022, with the country seeking to grow this share to **5.5%** by 2031 under the National Strategy for the Cultural and Creative Industries⁴. Cultural tourism, which accounted for around **3%** of total tourism revenue in 2022, is poised for growth, supported by iconic cultural sites like the Louvre Abu Dhabi and events such as the Sharjah Biennial. Similar to KSA, strategic marketing efforts have bolstered the UAE's image as a global cultural destination.

However, heritage development presents significant challenges. Striking the right balance between preserving cultural authenticity and integrating modern infrastructure demands meticulous planning, specialised expertise and diligent stakeholder collaboration.



¹ The Report on the State of Culture in the Kingdom of Saudi Arabia 2023

² <https://www.arabnews.com/node/2578632/business-economy>

³ <https://www.diriyah.sa/en/at-turaif>

⁴ <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/finance-and-economy/national-strategy-for-the-cultural-and-creative-industries>

Navigating the challenges of heritage site development



Building on these complexities, heritage development requires addressing a range of challenges, and we highlight the key ones below:

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Structural integrity and material preservation:

Heritage sites often have fragile structures that must be preserved or restored using specific materials and techniques. These materials may not be easily sourced, requiring custom solutions to ensure historical accuracy. Skilled craftsmen and artisans familiar with traditional construction methods may be needed, which can significantly drive up costs and timelines. For example, restoring ancient stone facades means reinforcing them carefully while maintaining their original character.

Integrating modern amenities such as heating and air conditioning systems or electrical wiring without damaging the original structures can also pose a challenge to preserving historical integrity.

Over time, we have seen the earthen architecture of At-Turaif suffer significant decay due to environmental exposure and insufficient maintenance. Restoration required meticulous assessment and stabilisation to prevent further degradation⁵. To maintain material authenticity, over 180 million mudbricks were handcrafted, reflecting the site's traditional Najdi architectural style.

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Compliance with preservation and regulatory standards:

Heritage sites must adhere to strict preservation laws and regulations to protect their historical, cultural and architectural integrity. Heritage laws under Saudi Vision 2030 emphasise preserving cultural and historical sites, with the Ministry of Culture's Heritage Commission and other commissions such as the Royal Commission of Al-Ula (RCU) overseeing the protection and restoration of these assets.

Developers must follow stringent guidelines for any alterations, ensuring that the site's character and value are maintained. These efforts are guided by international charters and best practices, such as the Venice Charter and the Burra Charter, and supported by national regulations like the Saudi Building Code 901 and 902⁶.

⁵ https://encyclopedia.pub/entry/27075?utm_source=chatgpt.com

⁶ https://docs.google.com/presentation/d/186ck32W9TsTWqp5DjW2tR07OmP4r7EB1S7d-dO6QT3g/edit#slide=id.g30539816c62_0_39

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Developing heritage and environmental assessments:

These assessments are key regulatory tools. The Heritage Impact Assessment (HIA) evaluates how proposed developments will affect a site's heritage value, ensuring interventions are compatible with its historical significance. It identifies potential risks, such as changes to visual or structural aspects, and proposes mitigation strategies.

The Environmental and Social Impact Assessment (ESIA) assesses the broader environmental and social impacts of a project, examining factors such as ecological sensitivity, local community impact and sustainability. Both assessments are typically required by regulatory bodies before any project can proceed, adding complexity and extending timelines compared to conventional construction.

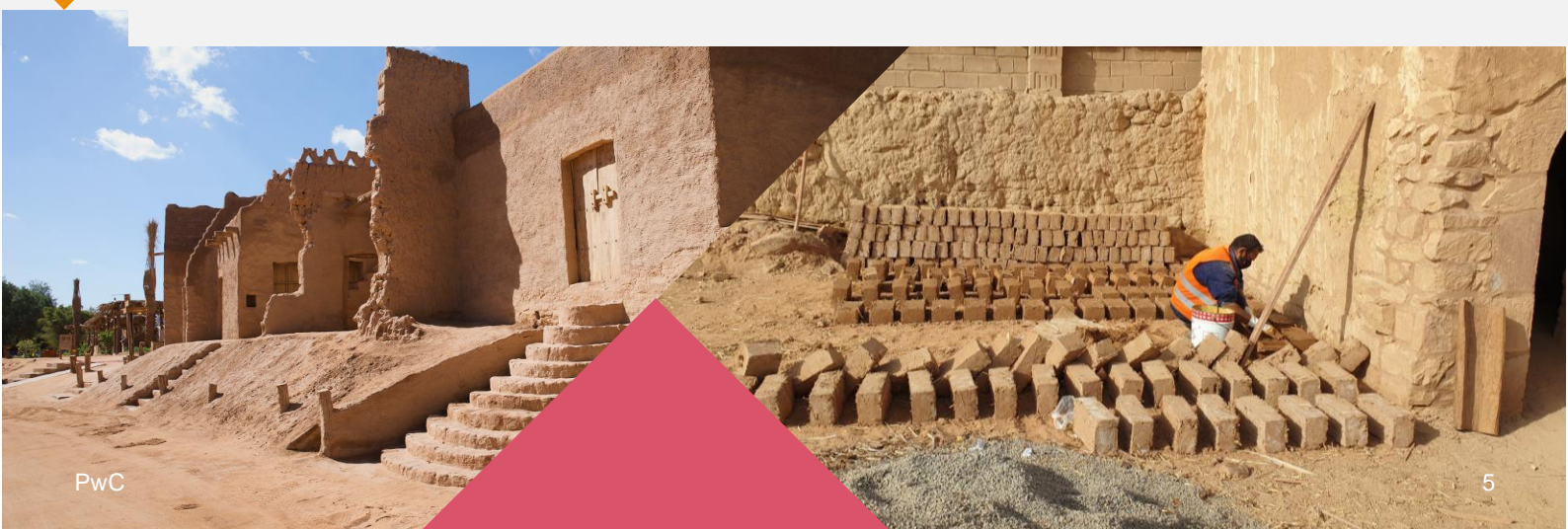
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Balancing modern functionality with historical authenticity:

A significant challenge in heritage site development is balancing historical authenticity with modern functionality. Many heritage sites are being adapted for contemporary use, whether as commercial properties, residential spaces or cultural institutions. Adapting these sites to meet modern building codes, accessibility standards and environmental sustainability requirements can be difficult without compromising their historical character. For instance, installing modern amenities like elevators or accessible entrances may conflict with the site's original design.

Developers must rely on specialist professionals and find creative, customised solutions to integrate modern elements without disrupting the aesthetic or structural integrity of the site. Advanced techniques, including detailed Building Information Modeling (BIM), allow planners to map the location and measurements of artifacts, ensuring modern interventions respected the site's historical character.

The restoration of At-Turaif exemplifies this challenge. Transforming the site into a living museum and cultural destination required careful integration of modern amenities and infrastructure while preserving its historical integrity.



Stakeholder engagement and community sensitivities:

Heritage sites hold deep cultural and emotional significance for local communities, making stakeholder engagement a crucial part of the development process. In areas like AlUla, for instance, the views of local tribes, historians and cultural advocates must be prioritised to ensure the transformation of these sites honors and preserves their historical and cultural essence.

Developers must engage with the community early, conduct public consultations, and align various aspects of the project with local values. Placing community interests at the forefront fosters a shared sense of ownership and responsibility for the site's future. Failure to do so risks alienating the very people whose heritage is being shaped, ultimately undermining the long-term success of the development.



At-Turaif case study

The At-Turaif case study underscores how careful planning, traditional techniques, and modern technologies can address the complexities of heritage site development, offering a blueprint for balancing preservation with progress. Techniques such as mudbrick construction ensured the restored structures reflected the original Najdi style. Additionally, the adaptive reuse of existing buildings, such as converting them into museums and visitor centres, preserved their historical significance while providing contemporary utility.

By leveraging precise BIM models, designers could work around existing ruins, maintaining the integrity of the site while accommodating modern needs. The restoration also emphasised sustainability by utilising locally sourced materials and traditional construction methods, which reduced environmental impact and honored the site's cultural heritage.

As heritage site development involves tackling diverse challenges, a structured framework is essential for successful developments.

Urban heritage classification: a crucial step in the masterplan roll-out

The transition from masterplan development to asset realisation is crucial in heritage site projects. This stage ensures strategic goals are aligned with implementation while prioritising heritage preservation. **Urban heritage classification** plays a key role in bridging the masterplan with asset-level planning by identifying and categorising heritage elements that inform design and development. As a systematic process, it identifies and categorises urban areas and elements based on several factors:



Historical significance: This considers the site's importance in reflecting a particular historical period, event or cultural development, identifying the structures or areas that are vital for preserving the historical narrative of the location.



Architectural value: Structures are assessed for their unique architectural features, whether they represent a specific style, era or innovation in design. This ensures that any redevelopment respects the original architecture's form and detail.



Cultural importance: Some areas hold cultural value beyond their physical presence, representing traditions, practices or activities that are important to local communities. These intangible elements may be as critical to the classification as physical structures.



Social significance: This considers the broader social context of the site, focusing on its value to the local population. Sites that hold collective memory or serve as important public spaces are given priority for preservation.

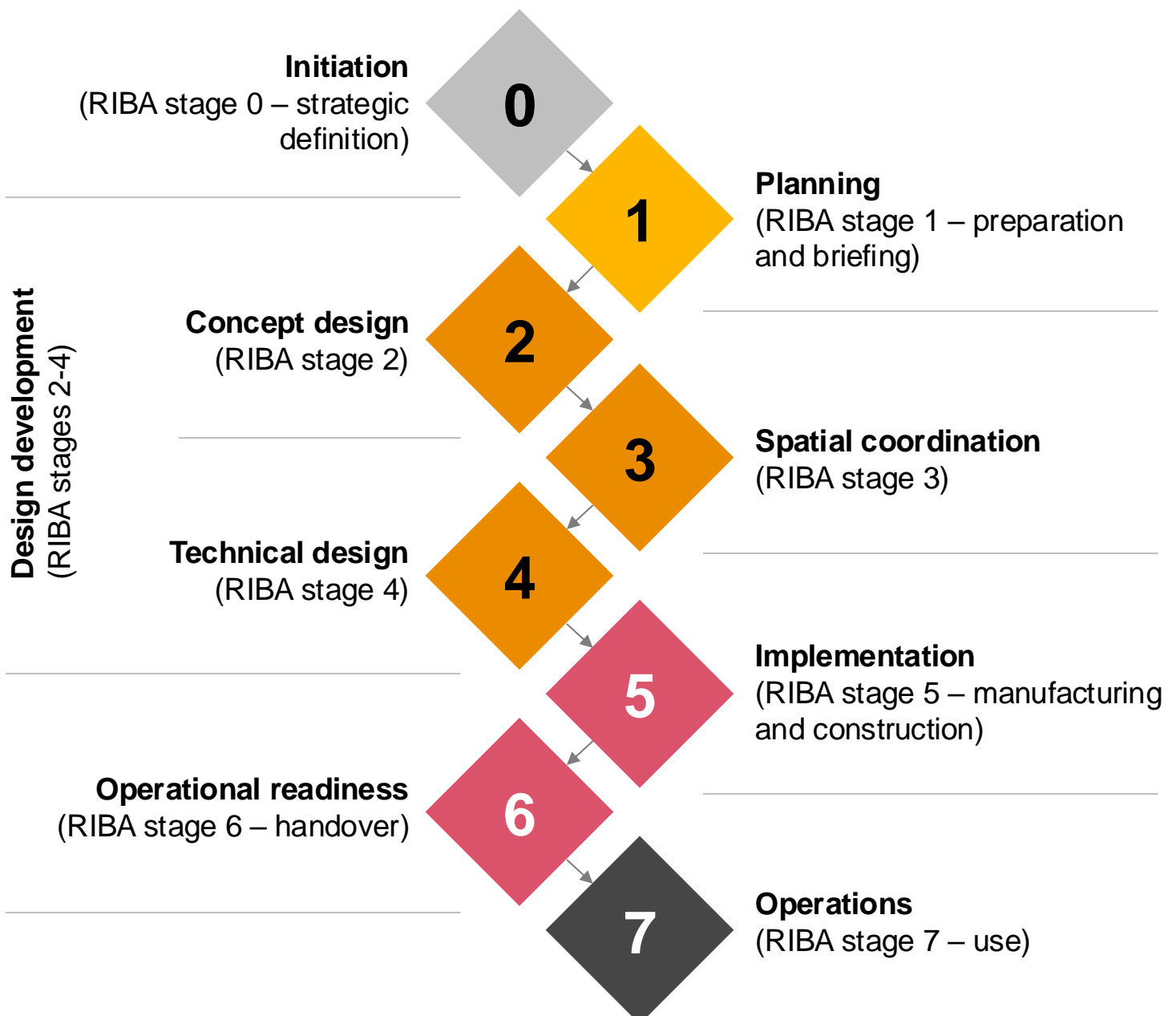
Completing this classification during the final stages of the masterplan rollout ensures that heritage assets are identified and prioritised before moving to asset realisation. It provides essential guidance for integrating these components into the design and construction phases, ensuring decisions balance preservation with modern development needs.

With urban heritage classification establishing a clear foundation, the next step involves translating this understanding into actionable steps.



A framework for capital projects lifecycle development

Effectively managing the complexities of heritage site development requires a structured, comprehensive approach. The Royal Institute of British Architects (RIBA) – for example – offers the foundations for this framework¹. Combining the RIBA framework with fundamental heritage components ensures each development phase safeguards cultural assets while advancing modern functional goals. Once masterplans are completed and rolled-out, the subsequent asset realisation stages outline a clear roadmap. While there are more granular details and specifics for each stage, this report highlights the key steps and main deliverables to be considered for effective delivery of heritage assets within each RIBA stage:



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Initiation (RIBA stage 0 – strategic definition):

This phase defines the project's strategic objectives, establishes its feasibility and confirms the optimal approach to meet the client's requirements. For heritage projects, this includes identifying the heritage context, by conducting a **situational analysis** and identifying the site's **heritage significance and sensitivity**. Initial deliverables include an assessment of the **historical context** and **project-related risks** associated with the preservation of heritage assets, following early-stage consultations with heritage stakeholders.

This stage addresses challenges like structural preservation and stakeholder engagement by creating a clear foundation for the project's heritage aspects.



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Planning (RIBA stage 1 – preparation and briefing):

The foundation for all subsequent activities, this phase establishes the project brief, defines the key deliverables and constraints and defines the procurement strategy and delivery model ensuring alignment with the unique requirements of heritage conservation.

For heritage the components of a **Conservation Management Plan (CMP)** should be prepared, which outlines the conditions, characteristics and significance of the place, investigate opportunities and constraints that affect the site and develops overarching policies to guide the conservation, management and development of the place.

This phase also includes obtaining necessary permits, conducting **archaeological clearance and investigation work**, and a **preliminary condition assessment report**, which provides a detailed evaluation of the current state, providing critical insights and guidelines to support informed decision-making and effective management of heritage assets during the development process. Additionally, a **Heritage Impact Assessment (HIA) screener decision** is made to determine whether a full HIA is needed or if exemptions with conditions apply. Completing these tasks early provides a roadmap for integrating heritage preservation into the project, addressing challenges like compliance with regulations and early material planning.



Design development (RIBA stages 2-4):



Concept design (RIBA stage 2):

This stage focuses on developing the initial design concept. In heritage projects, this includes developing a **detailed historical and heritage context report** and a **preliminary conservation proposal** that satisfies the CMP and depicts the full range of interventions to preserve, restore and reuse the asset. Deliverables include the **HIA scoping report**, which builds on the HIA screener decision and outlines how the project will impact heritage assets. These deliverables ensure that heritage considerations are embedded into the design from the start, addressing challenges like regulatory requirements and material preservation.



Spatial coordination (RIBA stage 3):

This stage refines the design into coordinated architectural and engineering plans. **The conservation proposal** is finalised, including a **conservation maintenance plan**, both of which address challenges such as material preservation and balancing modern functionality with historical authenticity. A critical step at this stage is the **HIA statement**, which is based on the findings of the HIA scoping report and evaluate the potential effects of the proposed project on the heritage asset. This ensures any potential impacts are carefully managed to preserve historical and cultural values while accommodating the development needs.



Technical design (RIBA stage 4):

Detailed technical specifications and coordinated detail designs are prepared in this stage. The **detailed conservation Proposal** is refined, to include **detailed integrated design drawings**, construction details, **material specifications**, and **methods** for maintaining or enhancing the historical integrity of the site. It addresses **compliance with conservation standards**, **structural assessments**, and provide clear guidance for contractors to ensure that the work aligns with best practices in heritage conservation. A comprehensive tender package is compiled, encompassing all of the above elements. Revisiting the **procurement strategy** is critical to ensure the onboarding of qualified specialists and contractors who can effectively execute the work while preserving the site's value and authenticity.

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Implementation (RIBA stage 5 – manufacturing and construction):

The project moves into the construction stage, where the approved designs are executed while ensuring heritage preservation through **heritage conservation monitoring** and **conservation inspection reports**. Specialist **conservation architects** oversee heritage-sensitive design, while **archaeologists** ensure that heritage artifacts are protected during construction. **Structural engineers with heritage experience** handle the reinforcement of ageing structures, and **artisans** skilled in traditional methods restore and preserve historical elements.

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Operational readiness (RIBA stage 6 – handover):

This stage focuses on pre-handover operational readiness. It includes approval of **heritage preservation and maintenance plans** – which ensure that long-term conservation strategies are embedded into the asset's management and operation – in addition to system testing, final inspections, and the transfer of the site to its future operators .

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Operations (RIBA stage 7 – use):

At this final stage, the asset becomes fully operational. Key tasks include implementing the **Operation Environmental and Social Management Plan (O-ESMP)** and maintaining the **building manual** to ensure the continued preservation of heritage elements. Post-occupancy evaluations ensure the site continues to honour its historical integrity, addressing long-term challenges like ongoing maintenance and community engagement.

The way forward



Heritage preservation has become increasingly central to the urban development strategies of GCC countries, particularly as part of economic diversification efforts. As sustainable development takes center stage, the integration of heritage into urban planning will remain a critical factor in the success of capital projects. Iconic developments, such as Saudi Arabia's AlUla and Diriyah Gate illustrate the challenges of balancing historical authenticity with modern functionality.

This report explores strategies to integrate heritage assets into urban projects, emphasising frameworks like the RIBA framework, which guide developments from initiation to operation while addressing structural integrity, regulatory compliance and environmental considerations. Case studies, such as At-Turaif, underscore the value of traditional techniques, adaptive reuse and stakeholder engagement in overcoming complex challenges. It provides a comprehensive roadmap for managing heritage site development, ensuring that these cultural treasures remain vital, sustainable, and relevant in a rapidly evolving world.

It is also important to note that while this report focuses on heritage site development, the principles outlined are equally applicable to other brownfield projects. As urban environments evolve, developers must ensure projects resonate with local communities while meeting contemporary demands. By doing so, these projects can foster cultural appreciation and economic growth. Moreover, clients today seek projects that align with sustainability goals and emphasise long-term asset management. Integrating detailed life cycle management strategies is essential to meeting these expectations effectively, ensuring the longevity and relevance of urban landscapes.

For further insights, please refer to our report, [Cognitive revival: Modernising historical and heritage cities through emerging technologies](#), to explore how emerging technologies are modernising historical and heritage cities, ensuring their preservation while integrating them into the contemporary urban fabric.



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