

## **THE CONCEPT OF UNIVERSAL DESIGN IN ADAPTIVE REUSE OF HERITAGE BUILDINGS: A NAQLI PERSPECTIVE TOWARDS INCLUSIVE CONSERVATION**

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### **ABSTRACT**

This conceptual paper examines the integration of Universal Design (UD) in the adaptive reuse of heritage buildings through a Naqli-based ethical perspective, advancing inclusive conservation aligned with Sustainable Development Goal (SDG) 11.4. Although adaptive reuse promotes cultural continuity and sustainability, heritage environments in Malaysia often remain physically and socially exclusive, particularly for persons with disabilities. Despite regulatory mechanisms such as the Persons with Disabilities Act 2008 (Act 685) and the Uniform Building By-Laws (UBBL 34A), accessibility in heritage contexts is inconsistently applied, frequently limited to technical compliance without moral or cultural grounding. This study aims to develop a Naqli-Based Conceptual Framework for Inclusive Heritage Conservation, synthesizing insights from global conservation charters, Malaysian policy frameworks, and Islamic ethical sources. Employing a qualitative interpretivist approach, the research analyzes how international charters, national regulations, and Naqli principles conceptualize inclusivity within adaptive reuse. Findings reveal a persistent imbalance between material preservation and social accessibility where global charters emphasize participation without operationalizing UD, Malaysian standards enforce access yet neglect ethical and spiritual imperatives, and Islamic teachings advocate rahmah (compassion), 'adl (justice), and maşlahah (public welfare). The proposed framework bridges these divides by embedding Islamic ethics within conservation practice, reframing accessibility as both a professional obligation and a moral responsibility. It offers a spiritually grounded yet practically actionable model that unites Universal Design, policy, and ethical stewardship toward inclusive, equitable, and sustainable heritage environments.

**Keywords:** Accessibility, Adaptive Reuse, Heritage Conservation

## 1. INTRODUCTION

Heritage buildings represent more than historical artifacts; they are living records of civilization that reflect their communities' spiritual, social, and aesthetic values (Jokilehto, 2017; Orbasli, 2008). As urbanization accelerates, conserving these assets becomes crucial to maintaining cultural continuity and social cohesion. The adaptive reuse of heritage buildings, repurposing obsolete structures for new uses while preserving their cultural significance, has emerged as a sustainable conservation strategy that supports both urban regeneration and community resilience (Foster & Saleh, 2021; Plevoets & Van Cleempoel, 2019). Through adaptive reuse, architecture evolves as a bridge between memory and modernity, enabling the continuity of heritage in dynamic urban contexts.

Contemporary conservation discourse increasingly acknowledges that heritage must be preserved and made inclusive and accessible to all users. However, many adaptive reuse projects prioritize physical restoration and economic gain over social participation. Integrating Universal Design (UD) principles, designing for usability by people of all abilities ensures equitable access without compromising authenticity (Higham et al., 2018; Steinfeld & Maisel, 2012). Studies demonstrate that UD enhances well-being and usability within public and heritage environments (Cellucci, 2023; Huuhka & Vestergaard, 2020). By incorporating inclusive design from the early stages of conservation, heritage buildings can become socially sustainable civic spaces, promoting participation, dignity, and cultural belonging (Bullen & Love, 2011; Stupar et al., 2019).

In Malaysia, as a multicultural nation, balancing authenticity and accessibility presents ongoing challenges. The nation's diverse heritage from colonial shophouses and vernacular kampung houses to civic landmarks illustrates the country's layered identity (Abidin et al., 2022; Azmi et al., 2021). While frameworks such as the Persons with Disabilities Act 2008 (Act 685) and Uniform Building By-Laws (UBBL 34A) advocate accessibility, inconsistent enforcement and heritage exemptions have limited their effectiveness (Kamarudin et al., 2014; Rahim et al., 2017; Zahari et al., 2020). Consequently, heritage conservation often favors material preservation over user experience, producing visually authentic but socially exclusionary environments. Bridging this gap requires reconceptualizing conservation not only as a technical process but also as a moral and spiritual practice.

Islamic architectural ethics provide a profound foundation for reconceptualizing inclusivity in heritage conservation. Naqli sources, the Qur'an and Hadith emphasize rahmah (compassion), 'adl (justice), and maslahah (public welfare), values that mirror the moral essence of Universal Design (Al-Attas, 2011; Kamali, 2020). The transformation of accessibility from a technical specification into a religious and social obligation reflects a moral imperative to uphold human dignity and communal welfare. Within Islamic ethics, this aligns with Aqli reasoning through ijtihad (independent reasoning), fostering ethical innovation that harmonizes authenticity, usability, and social justice. Concepts such as value-inclusive design and spatial justice (Harris et al., 2023; Rieger, 2024) strengthen this ethical discourse by promoting equity and participatory design, reinforcing that architecture is a medium of compassion and service to society.

The notion of adaptive reuse extends these ethical principles by maintaining cultural integrity while meeting modern functional demands. Wolch et al. (2014) demonstrate that adaptive reuse supports urban greening and environmental justice values consistent with Islamic stewardship (khilafah) and ecological balance. Similarly, Rahman and Jalil (2021) highlight the Qur'anic concept of mizan (balance), which encourages harmony between humanity and

nature. Parallel to these values, architectural social-justice movements emphasize the architect's moral agency in advancing 'adl (justice) and maslahah (public benefit) through inclusive design (Roudbari et al., 2020). These perspectives integrate Naqli ethics with contemporary practice, offering a culturally rooted pathway toward sustainable conservation. Accordingly, this study examines how global heritage charters, Malaysian legislative frameworks, and Islamic ethical traditions converge in shaping inclusivity within adaptive reuse practice, leading to a Naqli-Based Conceptual Framework that bridges policy, culture, and spirituality for inclusive conservation aligned with SDG 11.4.- Protect the World's Cultural and Natural Heritage (United Nations, 2018).

## **2. LITERATURE REVIEW**

### **2.1 Heritage Conservation and Adaptive Reuse**

Heritage conservation sustains cultural memory by preserving the tangible and intangible values embedded within built environments (Jokilehto, 2017; Orbasli, 2008). Heritage buildings can evolve through adaptive reuse to accommodate contemporary functions while maintaining their historical essence (Augustiniok et al., 2023; Plevoets & Van Cleempoel, 2019). Adaptive reuse extends the life cycle of obsolete buildings and contributes to sustainable urban regeneration by reducing demolition waste, supporting circular economies, and preserving local identity (Bullen & Love, 2011; Conejos et al., 2013). Researchers emphasize that this approach fosters environmental efficiency and social inclusion when user-centered design is incorporated early (Foster & Saleh, 2021; Huuhka & Vestergaard, 2020).

However, existing conservation frameworks often focus heavily on physical preservation and aesthetic integrity, overlooking inclusivity and accessibility. Studies highlight that the success of adaptive reuse depends on integrating participatory approaches and inclusive design principles that address the needs of diverse users without compromising authenticity (Cellucci, 2023; Plevoets & Van Cleempoel, 2019). This critical intersection between preservation and participation forms the foundation for linking Universal Design (UD) with heritage adaptation.

### **2.2 Global Conservation Charters and Inclusivity Gaps**

International heritage charters have long provided global conservation practice's ethical and technical foundation. The Venice Charter (ICOMOS, 1964), the Burra Charter (Australia ICOMOS, 2013), the Nara Document on Authenticity (ICOMOS, 1994), and the Faro Convention (Council of Europe, 2005) collectively establish key principles of authenticity, integrity, and cultural significance that continue to guide heritage decision-making. Nevertheless, despite their influence, these instruments pay limited attention to accessibility and social inclusion. Although later revisions to the Burra Charter expanded notions of community value and participation, the framework still lacks prescriptive measures for equitable physical or sensory access (Chitty, 2023; Elsayed, 2020). Similarly, while the Nara Document on Authenticity (ICOMOS, 1994) acknowledges cultural relativism in defining authenticity, it does not include explicit guidelines for implementing Universal Design concepts for differently abled users (Jokilehto, 2017).

Recent scholarship highlights the pressing need for international charters to embed accessibility as a measurable dimension of conservation ethics. Studies reveal that although participatory and community-based approaches are encouraged, they rarely translate into tangible design benchmarks for inclusivity, while integrating Universal Design and life-cycle-assessment principles from a project's inception can align heritage preservation with human-centered sustainability (Aigwi et al., 2018; Bullen & Love, 2011; Huuhka & Vestergaard, 2020). Collectively, these works illustrate that heritage frameworks continue

to protect cultural assets for communities rather than with them, underscoring the need to reposition inclusivity as a core operational principle within global conservation discourse. Embedding Universal Design early in policy formulation and project development can ensure that conservation serves both cultural continuity and equitable access for all.

### **2.3 Malaysian Policies and Accessibility Practice**

Malaysia's policy landscape demonstrates commendable progress toward inclusion, yet enforcement gaps persist. Legal frameworks such as the National Heritage Act 2005 (Act 645, the Persons with Disabilities Act 2008 (Act 685, the Uniform Building By-Laws (UBBL 34A, and the Malaysian Standard – Universal Design and Accessibility Code of Practice (MS 1184 collectively establish a robust legislative and technical foundation for accessibility. However, implementation within heritage contexts remains inconsistent because of exemptions, overlapping jurisdictions, and limited stakeholder awareness (Kamarudin et al., 2014; Zahari et al., 2020.

Empirical research shows that despite comprehensive regulation, accessibility for persons with disabilities in historic environments remains uneven and largely reactive. Persistent issues include inadequate physical infrastructure, weak maintenance regimes, and limited Universal Design (UD principles integration into conservation workflows (Kosmas et al., 2020; Zainal Abidin et al., 2022; Zainol et al., 2019. Malaysian scholars argue that authentic inclusivity requires participatory planning, performance-based evaluation, and cross-agency collaboration to ensure that heritage accessibility evolves from compliance to culture (Hooi, 2016; Zahari et al., 2016. By coupling the National Heritage Act's protection mechanisms with the enforcement mandates of the Persons with Disabilities Act, Malaysia can transform its built heritage into a model of social sustainability that upholds both authenticity and equity.

### **2.4 Naqli Integration in the Built Environment**

Integrating Naqli (revealed knowledge into the built environment introduces a spiritual and ethical foundation for design. Qur'anic teachings such as Surah Al-Hujurat (49:13, which emphasizes human equality and mutual respect, and Surah Ta-Ha (20:44, which calls for humility and empathy, support the moral imperative for inclusivity. Islamic jurisprudence, through the maqasid al-shariah, enshrines rahmah (compassion, 'adl (justice, and maslahah (public welfare as guiding principles in governance and daily life (Al-Attas, 2011; Kamali, 2020. These values align naturally with the goals of UD, reframing accessibility as a religious duty to remove hardship (raf' al-haraj and protect human dignity.

In architectural discourse, scholars advocate the application of Islamic ethics in design and policy, ensuring that conservation reflects both functional excellence and spiritual responsibility (Phan & Mohd Yaacob, 2019; Utaberta et al., 2015. Recent studies on inclusive mosque design and participatory community spaces in Muslim societies demonstrate how faith-based ethics and modern UD principles can coexist to achieve socially equitable environments (Kahfi & Jamaluddin, 2025; Nasir et al., 2022. Thus, Naqli integration provides the missing moral dimension in contemporary conservation—transforming accessibility from a regulatory obligation into an act of worship and stewardship (khalifah within the built environment.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Research Design**

This study adopts a qualitative interpretivist approach, emphasizing understanding over measurement. Such a paradigm aligns with exploring ethical, cultural, and regulatory dimensions in heritage conservation rather than testing predetermined hypotheses (Creswell & Creswell, 2018). The interpretivist lens enables an in-depth interpretation of how Universal Design (UD) principles are conceptualized and practiced across international and national conservation frameworks, and how these intersect with Islamic values. The research design employs a conceptual content analysis strategy to evaluate texts, charters, and policy frameworks. Primary sources include international documents such as the Venice Charter (1964), Burra Charter (2013), Nara Document on Authenticity (1994), Faro Convention (2005), and Hoi An Protocols (UNESCO, 2009). These are compared against Malaysian regulations, namely the National Heritage Act 2005, Persons with Disabilities Act (2008), UBBL 34A (2012), and MS1184:2014, and key Islamic ethical sources, including the Qur'an and Hadith. Supplementary secondary materials include scholarly publications, journal articles, and policy analyses relevant to inclusivity in conservation and design ethics. Data were synthesized through thematic coding to identify recurring ideas related to accessibility, authenticity, and spiritual ethics. The process followed the framework of Miles et al. (2014) for qualitative data analysis: data reduction, data display, and conclusion drawing. Thus, the researcher could trace conceptual overlaps and tensions among conservation frameworks, ensuring analytical rigor through triangulation of sources.

#### **3.2. Analytical Process**

The analysis was conducted through three iterative stages based on Figure 1. First, a textual review and categorization of international and national policy documents was carried out, where each document was coded according to the seven Universal Design (UD) principles: equitable use, flexibility, simplicity, perceptible information, tolerance for error, low physical effort, and appropriate size and space for approach and use as outlined by Steinfeld and Maisel (2012). Second, a comparative evaluation was undertaken to assess convergence and divergence between heritage charters and Malaysian frameworks in addressing accessibility; for instance, while the Burra Charter highlights social value and participation, it lacks practical implementation tools, whereas Malaysia's UBBL 34A enforces accessibility but omits cultural or moral imperatives. Finally, an ethical integration stage interpreted Naqli sources alongside maqasid al-shariah principles rahmah (compassion), 'adl (justice), and maslahah (public welfare) to frame accessibility as an ethical rather than merely regulatory obligation. Collectively, these stages produced a triadic conceptual understanding that connects policy, practice, and principle in shaping an inclusive conservation paradigm.

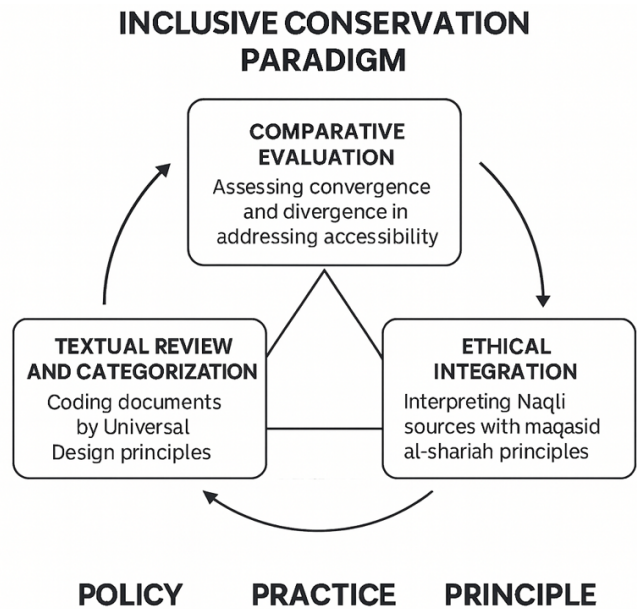


Figure 1: Three-Stage Iterative Framework Connecting Policy, Practice, and Principles Toward an Inclusive Conservation Paradigm.

#### 4. ANALYSIS AND FINDINGS

##### 4.1 Comparative Analysis of Inclusivity Frameworks

The analysis consolidates insights from international conservation charters, Malaysian regulations, and Naqli ethics to examine how inclusivity and Universal Design (UD) are articulated across different policy and practice levels. As summarized in Table 1, the comparative review highlights the degree to which inclusivity is embedded within each framework, identifying overlaps, omissions, and ethical parallels that reveal conceptual and practical gaps. This analysis aims to synthesize these findings into an integrated perspective that can inform the development of a more comprehensive, inclusive conservation framework grounded in cultural, legislative, and spiritual values.

Table 1: Comparative Analysis of Inclusivity Frameworks in Heritage Conservation

Level	Framework / Source	Primary Focus	Inclusivity / Gaps in Practice	Ethical Parallel (Naqli Values)
International	<i>Venice Charter (1964).</i>	Authenticity & material preservation	No explicit UD provisions; prioritizes material fabric over user experience.	‘Adl – justice and balance between preservation and access
	<i>Nara Document (1994).</i>	Cultural context & plural authenticity	Recognizes diversity but omits accessibility; inclusivity remains conceptual.	Rahmah – empathy toward diverse users
	<i>Burra Charter (2013).</i>	Social value & community participation	Encourages participation but lacks measurable accessibility criteria.	Maşlahah – public benefit through participation
	<i>Faro Convention (2005).</i>	Heritage as a human right	Acknowledges access rights, but limited enforcement and monitoring.	‘Adl – equity in heritage enjoyment
	<i>Hoi An Protocols (UNESCO, 2009)</i>	Regional best practice for Asia-Pacific	It focuses on authenticity and integrity, but accessibility is not included as a criterion.	Khilāfah – stewardship duty to facilitate access

National (Malaysia)	<i>National Heritage Act (Act 645, 2005)</i>	Legal protection of heritage assets	Establishes a conservation mandate but lacks accessibility integration.	Maşlahah – collective welfare through cultural continuity
	<i>Persons with Disabilities Act (Act 685, 2008)</i>	Equal rights & non-discrimination	Legal foundation for accessibility, but no heritage-specific provisions.	‘Adl – equitable treatment for all users
	<i>UBBL 34A (2012 Amendment)</i>	Mandatory accessible facilities	Provides prescriptive compliance; exemptions are still allowed for heritage sites.	Raf’ al-Ḥaraj – removal of hardship
	<i>MS 1184:2014 Code of Practice</i>	Technical UD standards	It offers detailed UD guidance but weak enforcement within the heritage context.	‘Adl – fair and consistent implementation
Naqli (Islamic Ethics)	<i>Al-Qur’an 49:13 &amp; 20:44</i>	Human equality & humility	Moral imperative for inclusion; limited integration into design pedagogy.	Raḥmah & ‘Adl – compassion and justice
	<i>Maqāṣid al-Sharī‘ah (Kamali, 2020)</i>	Ethical objectives of Islamic law	Promotes social equity; requires operationalization in conservation policy	Maşlahah – public good and welfare
	<i>Islamic Stewardship (Khilāfah)</i>	Human responsibility as custodians of the earth	Responsibility to ensure universal access; rarely reflected in practice	Amānah – accountability to God and society

#### 4.2 Conceptual Framework: Naqli-Based Model for Inclusive Heritage Conservation

The synthesis of global, national, and Naqli perspectives reveals that existing conservation frameworks approach inclusivity in fragmented ways. International charters emphasize authenticity and participation but fail to translate ethical aspirations into spatial accessibility. While providing legal structures, national frameworks prioritize compliance over moral or cultural engagement. This fragmentation produces a conceptual void where inclusivity remains procedural rather than principled. The Naqli-Based Conceptual Framework for Inclusive Heritage Conservation (Figure 2) bridges this gap by aligning maqāṣid al-sharī‘ah values raḥmah (compassion), ‘adl (justice), and maşlahah (public benefit) with adaptive reuse strategies and Universal Design (UD) principles. The framework advances three interdependent dimensions:

- i. Ethical Foundations (Naqli Values): Forming the moral compass that guides decision-making, emphasizing compassion, justice, and social welfare.
- ii. Adaptive Reuse Strategies: Translating ethics into practice through reversibility, stakeholder engagement, and integration of tangible and intangible heritage values.
- iii. Inclusive Outcomes: Generating accessibility, dignity, participation, and sustainability as measurable results of ethically guided design.

This triadic structure situates inclusivity as a spiritual mandate and a design responsibility, ensuring continuity between moral reasoning, conservation action, and social impact. It positions heritage conservation not merely as preservation of form but as preservation of values, reaffirming humanity's custodial role (khilāfah) in shaping equitable environments.

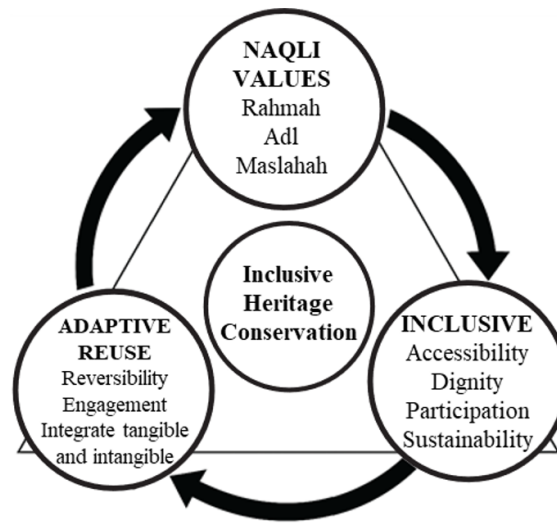


Figure 2: The Naqli-Based Conceptual Framework for Inclusive Heritage Conservation

## 5. CONCLUSION

This study reaffirms that heritage conservation must evolve from a practice of material preservation into a holistic pursuit of inclusivity and ethical responsibility. Anchored in Naqli principles *rahmah* (compassion), *'adl* (justice), and *maṣlahah* (public benefit), the research highlights how existing global and national frameworks often emphasize technical or procedural compliance while neglecting moral imperatives that ensure equitable access. The proposed Naqli-Based Conceptual Framework for Inclusive Heritage Conservation offers a transformative synthesis that connects ethical reasoning, Universal Design principles, and adaptive reuse strategies. It positions accessibility not merely as a technical specification but as a manifestation of human dignity and environmental stewardship, aligning conservation with spiritual and social values.

The framework's practical significance lies in its applicability for policymakers, architects, and educators seeking to embed inclusivity into heritage management. Linking Islamic ethical principles with contemporary conservation standards provides a reference for assessing and enhancing projects through participatory engagement and design innovation. Future implementation across Malaysian heritage sites and museums could validate its adaptability, inform policy enhancement, and inspire curriculum development in faith-informed Universal Design. Ultimately, this study advocates for an inclusive conservation paradigm that harmonizes preservation, functionality, and spirituality, ensuring that heritage is a record of the past and a shared moral legacy for future generations.

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