Traces of Islamic Civilization in Sustainable Development: An Ecosocial History Perspective of the Islamic World

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Abstract: *This article aims to explore the values and historical practices in classical Islamic civilization that reflect the principles of sustainable development, emphasizing the ecosocial dimension of history as the main analytical approach. In this research, a qualitative historical thematic approach is employed, utilizing primary and secondary sources to explore the practices and values of classical Islamic civilization. The method used is qualitative research with a historical-thematic approach, through a literature study of primary and secondary sources from three major Islamic civilization cities: Baghdad, Córdoba, and Timbuktu. This analytical approach enables a deeper understanding of the interconnections between the social, ecological, and spiritual dimensions of historical Islamic practices. The analytical techniques used include data reduction, thematic categorization, and hermeneutic interpretation of texts and social ecological practices. The results demonstrate that classical Islamic civilization has incorporated the principles of social justice, ecological balance, and spiritual responsibility into urban governance, agricultural systems, water management, and social institutions, such as waqf. The intellectual contributions of Muslim figures in the fields of science, agriculture, and architecture also laid the foundation for a holistic development framework. This research confirms that maqāṣid al-sharīʿah values have high relevance to the Sustainable Development Goals (SDGs) and can serve as an alternative to today's development paradigm, which is more ethical and contextual. The findings are expected to enrich the development discourse with a history- and value based Islamic perspective.*

Keywords: *Islamic civilization, sustainable development, ecosocial history, maqāṣid al-sharīʿah, classical Islamic cities, environmental ethics*

1. Introduction

Sustainable development has become a global discourse that encompasses economic, social, and environmental dimensions, aiming to strike a balance between

current and future needs (Brundtland, 1987; Sachs, 2015; Meadows et al., 2004). However, the narrative of sustainable development is often dominated by Western perspectives, thus ignoring the historical contributions of other civilizations, especially Islam (Nasr, 1996; Denny, 2010; Foltz, 2003). In this global context, it is essential to consider alternative approaches that incorporate non-Western perspectives, particularly from Islamic civilization, which offers valuable insights into sustainable development practices. In this context, it is essential to examine the heritage of Islamic civilization, which encompasses spiritual, ethical, and ecological dimensions that can enrich contemporary sustainable development approaches.

The climate crisis, environmental degradation, and increasing social inequality demand a development approach that is not only pragmatic but also value-based (UNDP, 2021; IPCC, 2023; Raworth, 2017). The history of Islamic civilization shows the integration between humans, nature, and God as a harmonious ecosocial whole (Al-Attas, 1985; Izutsu, 2002; Nasr, 2006). These interconnected dimensions of Islamic civilization can provide a profound foundation for a more ethical and sustainable approach to development. Therefore, understanding the historical values of Islam in the context of development can provide alternative solutions that are grounded in ethics and spirituality.

The concept of development in Islam is inseparable from maqāṣid al-sharī'ah (the goals of Shari'ah), which includes the protection of religion, soul, mind, offspring, and property, and is now extended to the protection of the environment (Kamali, 2010; Auda, 2008; Dusuki & Abdullah, 2007). Archaeological and historiographical studies reveal that major Islamic cities, such as Baghdad, Córdoba, and Timbuktu, were once centers of science and technology that applied the principles of sustainability through community-based management of water, agriculture, and urbanization (Saliba, 2007; Gutas, 2001; Hillenbrand, 1994).

Table 1. Principles of Sustainability in Classical Islamic Civilization

Aspects	Historical Practice Example	Historical Sources
Water Management	The qanat system in Persia	Hillenbrand (1994), Saliba (2007), Nasr (1996)
Sustainable Agriculture	Terraces in Al-Andalus	Foltz (2003), Gutas (2001), Denny (2010)
Eco-friendly Urbanization	City parks and mosques	Nasr (2006), Al-Attas (1985), Izutsu (2002)

Previous studies have focused on the normative aspects of Islamic spirituality and the environment, as seen in the works of Nasr (1996), Foltz (2003), and Khalid and O'Brien (1992). Meanwhile, other studies have highlighted maqāṣid al-sharī'ah in the context of economic and social development, as noted by Chapra (2000), Kamali (2010), and Dusuki & Bouheraoua (2011). However, there is a significant gap in

understanding how the historical practices of Islamic civilization have contributed to sustainable development from a more integrated, ecosocial perspective. However, the historical social approach is still lacking as a framework to assess the concrete contribution of Islamic civilization to sustainable development in an integrated manner.

There is a void in the literature regarding in-depth historical analysis of Islam's ecosocial contribution to sustainable development (Esposito, 2005; Sardar, 2006; Rahman, 1982). Existing studies have not systematically linked the values of classical Islamic civilization, the socio-urban practices of Islamic societies, and the concept of sustainable development in the modern sense. This research aims to fill this gap by providing an interdisciplinary approach that integrates history, sociology, and development theory better to understand the contributions of Islamic civilization to sustainable development. Therefore, an interdisciplinary approach that integrates history, sociology, and development theory is needed.

This article presents a new perspective by examining the historical traces of Islamic civilization from an ecosocial perspective, providing a basis for sustainable development. This approach not only views Islam as a religion or normative system, but also as a civilizational entity with an integral social, technological, and environmental structure (Al-Jayyousi, 2012; Kamali, 2010; Auda, 2008). Thus, this article is a new contribution to the study of Islam and contemporary development.

This research aims to (1) trace the historical contribution of Islamic civilization to the concept and practice of sustainable development; (2) analyze ecosocial practices in classical Islamic societies as an alternative development model; and (3) develop an Islamic values-based framework for sustainable development today. The results of this research are expected to challenge conventional Western-centric development narratives by introducing a non Western, Islam-based framework that offers a more inclusive and ethical approach to sustainable development. The results of this research are expected to enrich the development literature with a non-Western perspective derived from the intellectual and social heritage of the Islamic world (Nasr, 2006; Chapra, 2000; Al-Jayyousi, 2012).

2. Method

Research Approach and Type

This research employs a historical qualitative approach, specifically a type of ecosocial history documentation study. This approach aims to understand past phenomena in their context, especially the contribution of Islamic civilization to shaping the principles of sustainable development (Carr, 1961; Tosh, 2015; Creswell, 2013). In this case, history is positioned as a source of data to understand the social, environmental, and religious dynamics in the structure of classical Islamic society (Ali, 2006; Hourani, 1991; Gutas, 2001).

Location and Scope of Research

The objects of study include the three central regions of classical Islamic civilization: Baghdad (Abbasid), Córdoba (Andalusia), and Timbuktu (West Africa). These three regions were chosen because they have strong historical documentation and reflect diverse geographical, social, and ecological contexts (Nasr, 2006; Saliba, 2007; Hillenbrand, 1994).

Data Collection Technique

Data collection was carried out through the library research method by analyzing primary and secondary documents in the form of:

a) Ancient manuscripts (such as Al-Muqaddimah, Risalah fi al-Tibb, and Kitab al-Kharaj)
b) Contemporary scientific work
c) Archaeological documents and urban-ecological archives
d) Journals and chronicles of Islamic history

Data were collected from international digital libraries, such as JSTOR, Aluka, and Brill, as well as the manuscript collections of Al-Azhar University and Al-Qarawiyyin (Esposito, 2005; Sardar, 2006; Al-Jayyousi, 2012).

Data Analysis Technique

The data obtained was analyzed using historical thematic content analysis, with the following procedure (Krippendorff, 2004; Bowen, 2009; Mayring, 2000):

Table 2. Data Analysis Steps

Analysis Steps	Explanation
Data Reduction	Sorting documents according to themes: social, ecological, and Islamic spiritual values
Thematic Categorization	Identification of key themes, such as water governance, environmental ethics
Historical Contextualization	Links between the context of time, place, and social structure
Critical Interpretation	Interpretation of meaning based on maqāṣid al-sharīʻah and development theory
Triangulation	Cross verification with secondary sources and contemporary theories

The steps outlined in Table 2 illustrate the systematic process by which the collected data is analyzed to understand the various dimensions of Islamic civilization's contribution to sustainable development. Data reduction involves

categorizing the collected documents into key themes, such as social values, ecological practices, and Islamic spiritual principles, which are crucial for understanding how these elements interact within the context of sustainable development. In the thematic categorization step, these documents are examined for recurring themes such as water governance and environmental ethics, which are central to Islamic principles of sustainable development. Historical contextualization provides a framework for linking these themes with specific periods, places, and social structures, ensuring that the analysis is grounded in historical reality. Critical interpretation applies the principles of maqāṣid al-sharī'ah and contemporary development theories to decode the deeper meanings of the documents, highlighting their relevance to today's challenges. Finally, triangulation ensures that the findings are cross-verified with secondary sources and contemporary theories, enhancing the reliability and validity of the research.

Data Validity and Validity

To ensure validity, triangulation of sources and theories, as well as audit trail documentation of the analytical process, was conducted. Interpretive validity was strengthened through cross referencing between classic sources and contemporary academic interpretations (Lincoln & Guba, 1985; Maxwell, 2013; Merriam, 2009).

Interpretation Technique

Interpretation is conducted through a historical hermeneutic approach, aiming to understand the text's meaning within its historical context and to reveal Islamic philosophical values relevant to the principles of sustainability (Gadamer, 1975; Ricoeur, 1981; Izutsu, 2002). Each finding will be interpreted in light of the principles of maqāṣid al-sharī'ah and the Sustainable Development Goals (SDGs) to foster a dialogue between traditional values and contemporary issues, thereby enabling a more nuanced understanding of the relevance of Islamic values to global sustainability efforts.

3. Result & Discussion

Ecosocial Values in the Structure of Classical Islamic Civilization

Classical Islamic civilization deeply embedded ecosocial values that unite religious, social, and ecological dimensions. In maqāṣid al-sharī'ah, the protection of life (ḥifẓ al-nafs), environment (ḥifẓ al-bi'ah), and property (ḥifẓ al-māl) became the foundation of social interaction and development (Kamali, 2010; Auda, 2008; Dusuki & Abdullah, 2007). For example, Islamic urban planning is designed with ecological balance and spiritual aesthetics in mind, as seen in Baghdad and Córdoba (Hillenbrand, 1994; Nasr, 2006; Saliba, 2007).

The concept of waqf as a social and economic system also shows concern for environmental aspects and collective welfare (Hoexter, 2002; Mandaville, 1979; Singer, 2008). Waqf institutions are often used to build urban parks, irrigation canals, hospitals, and schools that are environmentally friendly. Thus, waqf becomes an instrument of sustainability based on the values of distributive justice and collective responsibility (Kuran, 2001; Baskan, 2002; Sait & Lim, 2006).

Agricultural activities also reflect an ecosocial approach, such as *terrace farming* practices in Al-Andalus that prevent soil erosion and conserve moisture (Watson, 1983; Glick, 1979; Bolens, 1981). This shows that sustainability in Islamic civilization is not a new concept, but has been embedded in the historical practices of Muslim societies.

Figure 1. Schematic of the Ecosicial Concept in Maqāṣid al-Sharī'ah
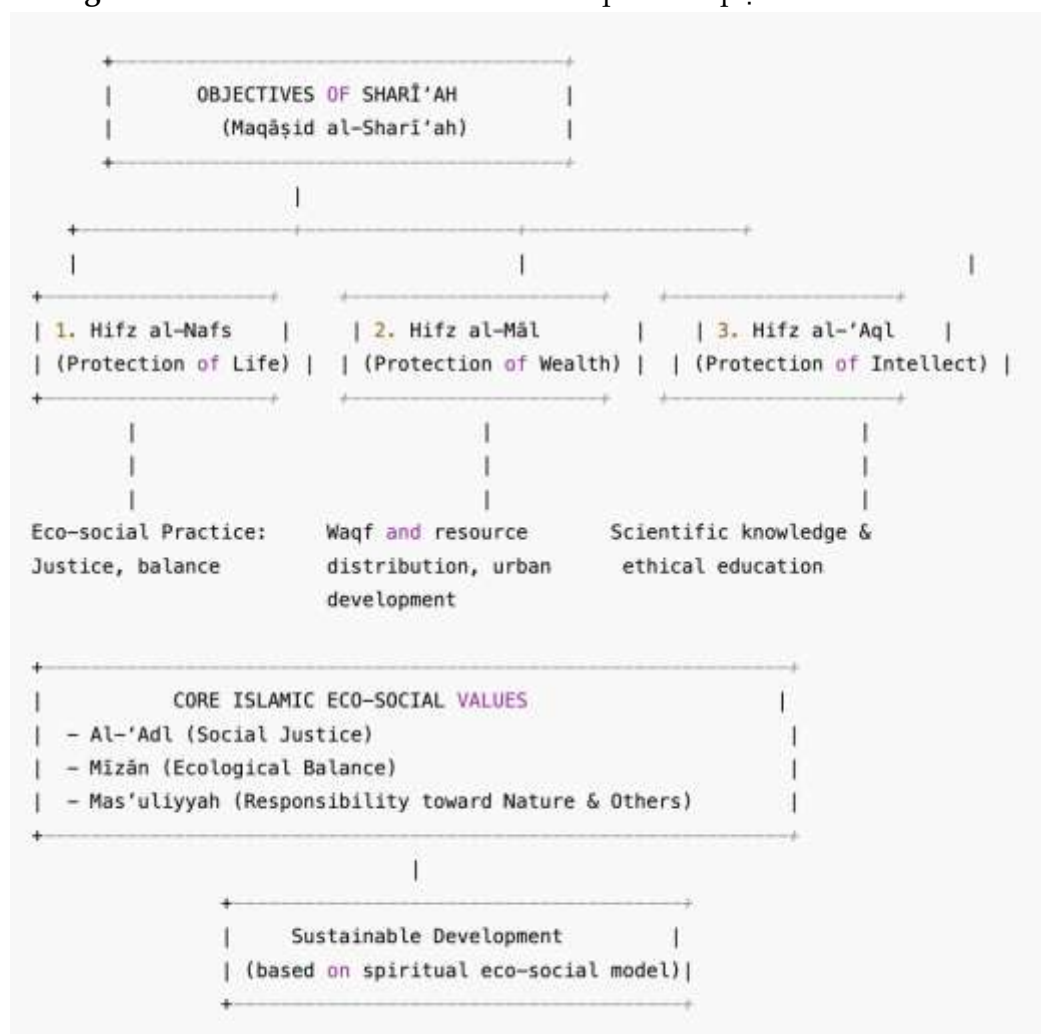
Source: Auda (2008), Kamali (2010), Nasr (2006)

Urban and Environmental Planning in Islamic Civilization Centers

Classical Islamic urban planning was based on principles of social justice and ecological harmony. The city of Baghdad, for example, was designed in concentric circles that reflected cosmic justice and easy access to centers of power and spirituality

(Creswell, 1969; Hillenbrand, 1994; Kennedy, 2001). The central mosque and marketplace in the city center reinforce Islamic value based social and economic ties.

The city of Córdoba exhibits a blend of urban and natural infrastructure. Water canals, parks, and drainage systems were developed to maintain ecological balance and meet the community's needs (Fierro, 1992; Dodds, 1992; Barrucand & Bednorz, 1992). This demonstrates a profound understanding of urban ecology, with a focus on resource conservation.

Table 3. Comparison of Sustainable Elements in Three Islamic Cities

| City	Environmental Elements	Social Elements	Reference
Baghdad	Water canals, city parks	Mosque, open air market	Hillenbrand (1994), Kennedy (2001)
Córdoba	Garden, natural irrigation	Madrasah, hospital	Fierro (1992), Nasr (2006)
Timbuktu	Oasis farming	Literacy centers (mosques & madrasas)	Hunwick (2003), Esposito (2005)

The environmental and social elements described in Table 3 highlight the integrated approach to urban planning and development in three major Islamic cities. Baghdad, for instance, reflects a well-balanced relationship between the environment and social structures, with its water canals and public spaces, such as city parks, reinforcing accessibility and communal values. Córdoba also displays a harmonious blend of natural and urban elements, where gardens and irrigation systems contribute to sustainable resource management. Timbuktu, as an important intellectual and trade center, demonstrated sustainable agricultural practices and the establishment of literacy centers such as mosques and madrasas, which served both educational and ecological purposes. Each city exemplifies how environmental elements were deeply intertwined with social institutions, showcasing the importance of ecological balance in Islamic urban development. Meanwhile, the city of Timbuktu developed into an environmentally friendly hub for trade and science. The use of local materials, such as clay and low-lying building structures, served to maintain temperature and integrate with the natural landscape (Hunwick, 2003; Saad, 1983; Levtzion, 2000).

Islamic Science and Its Contribution to Sustainability

Muslim scientists such as Al-Razi, Ibn Sina, and Al-Biruni made important contributions in the fields of health, astronomy, and the environment, which are now integral to the concept of sustainable development (Nasr, 2006; Saliba, 2007; Gutas, 2001). Al-Biruni, for example, wrote about the relationship between geographical conditions and social behavior, a concept now known as geo-sociology (Kennedy, 2001; Lindberg, 2007; Rashed, 1996).

In the field of agriculture, Ibn Al-'Awwam in *Kitab al-Filaha* discussed sustainable farming methods relevant to modern agroecological practices (Watson, 1983; Bolens, 1981; Glick, 1979). This knowledge contributed to increased food security and environmental conservation.

Figure 2. Map of Islamic Intellectual Centers and Traces of Scientific Innovation
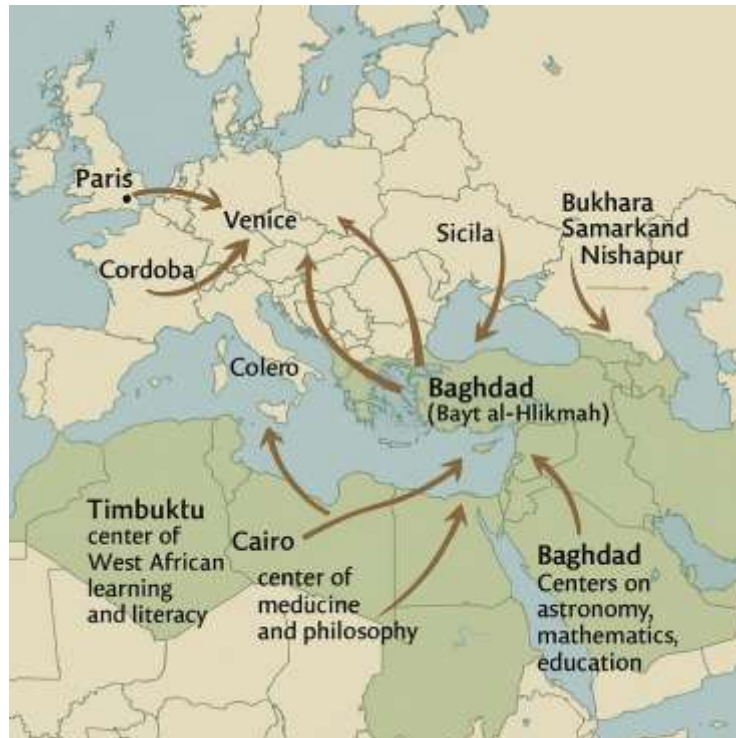
Sources: Saliba (2007), Gutas (2001), Nasr (1996)

Science in Islam is inextricably linked to spiritual and ethical values. Knowledge is not just a means of mastery over nature, but a means of self-knowledge and responsibility for God's creation (Nasr, 2006; Izutsu, 2002; Al-Attas, 1985).

Relevance of Islamic Civilization Heritage to SDGs

The ecosocial heritage of classical Islam has many intersections with the 17 Sustainable Development Goals (SDGs), especially on SDG 6 (clean water), SDG 11 (sustainable cities), SDG 13 (climate action), and SDG 16 (inclusive institutions) (UNDP, 2021; Sachs, 2015; Raworth, 2017). Values such as social justice (al-'adl), responsibility (mas'uliyyah), and balance (mīzān) form the basis of development ethics.

The concept of welfare in Islam (falāḥ) encompasses not only material aspects, but also spiritual and ecological considerations. Thus, development is not exploitation, but rather social reconstruction that aligns with the values of sustainability (Al-Jayyousi, 2012; Kamali, 2010; Auda, 2008).

In the current global context, Islamic heritage can be a source of inspiration in developing an ethical framework for development that emphasizes environmental

integrity, social justice, and spiritual balance (Foltz, 2003; Khalid & O'Brien, 1992; Sardar, 2006).

Table 4. Relevance of Islamic Values to the SDGs Goals

Islamic Values	Related SDGs	Academic Sources
Al-'Adl (Justice)	SDG 10 (Reduce Inequality)	Kamali (2010), Chapra (2000), Nasr (2006)
Mas'uliyyah (Responsibility)	SDG 13 (Climate)	Auda (2008), Foltz (2003), Al-Jayyousi (2012)
Mīzān (Balance)	SDG 6 & 11	Izutsu (2002), Khalid (1992), Sardar (2006)

Table 4 presents a critical view of the intersection between Islamic values and SDGs. The value of Al-'Adl (Justice) aligns with SDG 10, which addresses inequality. Islamic principles of justice have long emphasized the fair distribution of resources and opportunities, making it an essential framework for reducing inequalities in modern society. Mas'uliyyah (Responsibility) is closely linked to SDG 13 (Climate Action), as Islam teaches a profound sense of duty towards environmental stewardship, which is directly relevant to global efforts combating climate change. Lastly, the value of Mīzān (Balance), which underscores the equilibrium between human needs and environmental preservation, resonates with SDGs 6 and 11, which focus on clean water and sustainable cities. A critical discussion of these values offers a deeper understanding of how Islamic teachings can provide more ethical and balanced solutions to contemporary sustainability challenges.

4. Conclusion

This research successfully reveals that classical Islamic civilization has a significant historical contribution to the idea and practice of sustainable development. Through an ecosocial history approach, it was found that Islamic values such as justice (al-'adl), balance (mīzān), and responsibility (mas'uliyyah) have been integrated in various aspects of Muslim life, including urban planning, agriculture, water management, and education. Cities such as Baghdad, Córdoba, and Timbuktu provide clear evidence of holistic environmental and social governance, based on the maqāṣid al-sharī'ah principles, which include the protection of life, property, reason, and nature.

This research also demonstrates that the concept of development in Islam is not limited to material progress but encompasses spiritual and ethical dimensions that align with the principles of the SDGs. The approach that combines Islamic intellectual heritage with contemporary development analysis provides a foundation for building an alternative paradigm that is more inclusive and sustainable. Thus, the results of this research enrich academic discourse and inform public policy by guiding the direction of future development, drawing on the wisdom of non-Western civilizations, particularly the Islamic world.

While this study provides valuable insights into the historical contributions of Islamic civilization to sustainable development, it has several limitations that should be acknowledged. First, the research is based on historical sources, which may be incomplete or biased, limiting the scope of the findings to those sources that are available and accessible. Second, the study's focus on three cities, Baghdad, Córdoba, and Timbuktu, might not fully represent the diversity of Islamic civilizations across different regions. Third, the integration of Islamic values with contemporary SDGs is an evolving field, and the interpretations of maqāṣid al-sharī'ah concerning modern global challenges may require further empirical research to substantiate their practical applications. Finally, while the study offers a comprehensive historical perspective, it does not engage in a detailed examination of the contemporary challenges in implementing these values within current Islamic societies, which may vary significantly across regions.

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