

Islamic Architecture between Civilizational Constants and External Influences: An Analytical Study of Environmental, Social, and Historical Dimensions

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Abstract

This study explores Islamic architecture as a holistic civilizational product shaped by the intricate interplay of religious, social, political, economic, and environmental factors. Rather than being a mere stylistic or aesthetic tradition, Islamic architecture is positioned as a dynamic expression of the Muslim *Ummah's* identity and its contextual interactions. The research aims to analyze how these diverse factors have contributed to the development of a distinct architectural language and to evaluate the extent of influence from earlier civilizations, such as the Roman and Byzantine without compromising core Islamic values. The central research question investigates whether Islamic architecture can authentically represent Muslim identity and serve as a viable foundation for contemporary architectural practice. Employing an analytical and critical methodology, the study examines various architectural models within their historical and cultural contexts. The findings reveal that Islamic architecture reflects a balanced civilizational consciousness, integrating functionality with aesthetic and spiritual values. Moreover, it presents environmentally responsive and ethically grounded alternatives that can inform and enrich modern architectural development.

Keywords: Islamic Architecture; Muslim Identity; Environmental Integration; Civilizational Interaction; Architectural Principles

Introduction

Significance of the Study

The significance of scientific research lies primarily in its capacity to serve society by identifying issues and opportunities that can enhance the well-being of individuals and communities (Klaina, 2024a). While openness to other human civilizations is essential, it should not lead to cultural assimilation or the erosion of identity (Klaina, 2023; Klaina, 2024b; Klaina & Ansusa, 2024). Rather, such engagement must be rooted in preserving one's unique values and characteristics, while selectively benefiting from the positive contributions of others. The Islamic world, historically, has made profound contributions to global knowledge—particularly in disciplines such as mathematics (Klaina, 2024c), sociology, medicine (Klaina, 2024d), and history. Among the fields in which Muslims have demonstrated remarkable creativity and influence is architecture, which remains a vivid testament to the depth and originality of Islamic civilization.

There is no doubt that architecture and the arts in any civilization are shaped by a range of influential factors throughout their development. These factors frame their inception, guide their evolution, and ultimately define their unique identity—distinguishing them from the architectural traditions of other cultures. Among the most critical of these factors are climatic, geographical, and geological conditions, which play a formative role in both human settlement and the built environment. These forces compelled communities to devise diverse architectural solutions, drawing upon their natural surroundings and the accumulated knowledge of previous civilizations to develop construction techniques suited to their needs (Al-Shāfi'ī, 1982, 236).

Islamic architecture, in particular, was shaped by a confluence of philosophical, religious, and cultural influences. Religious doctrine, along with prevailing traditions and customs, deeply informed the design of sacred structures—mosques, mausoleums, and other religious institutions—as well as domestic and civic buildings. This intricate interplay of belief, tradition, and form remained a hallmark of Islamic architecture throughout its historical trajectory, influencing not only spatial organization but also decorative arts.

In addition, political dynamics, social structures, and the architectural legacies of earlier civilizations played a decisive role in shaping the selection of building forms, materials, and decorative motifs. Islamic architects consistently engaged with external influences, selectively incorporating architectural features from other traditions while reinterpreting them in accordance with Islamic principles and aesthetic sensibilities.

A close study of historical Islamic monuments reveals that their emergence was not merely a product of site planning or stylistic preference, but rather the outcome of a principled architectural philosophy. This framework rested on implicit legal and ethical codes—what may be described as a jurisprudence of architecture—grounded in accumulated societal experience and refined by Islamic legal scholars (*fuqahā'*) in accordance with the principles of *Shari'ah* (Akbar, 1992, 19). These principles governed the relationship between individuals and communities, as well as between citizens and rulers, thereby shaping the built environment as an extension of the moral and legal order of Islamic society.

Research Objectives

This study seeks to fulfill several fundamental objectives that constitute its principal rationale. Academic research derives its value from its capacity to serve society by addressing issues of practical and cultural relevance. Accordingly, this research focuses on themes that reinforce the Muslim individual's connection to their identity, while simultaneously appreciating the constructive aspects of intercultural engagement—without resulting in cultural dilution or the erosion of Islamic distinctiveness (Klaina, 2024). From this perspective, the study sets out to:

1. Illuminate the political, religious, and economic factors that have shaped the trajectory of Islamic civilization.
2. Explore the dynamics of influence and interaction between Islamic and other architectural traditions—particularly Roman and Byzantine—highlighting both synthesis and uniqueness.
3. Emphasize the distinctive architectural identity of Islam as a marker of Muslim cultural expression.
4. Highlight the jurisprudential foundations that governed architectural practices in Islamic societies.

Research Problem

Despite considerable scholarship, Islamic architecture continues to demand deeper critical engagement, particularly in analyzing the multifaceted influences that contributed to its development. This study thus asks: To what extent has Islamic architecture succeeded in integrating functionality and aesthetic expression while articulating a coherent Islamic identity? Was it merely derivative of pre-Islamic architectural traditions, or did it establish a distinctive presence that allowed for creative appropriation without loss of authenticity?

Methodology

The study employs a descriptive, analytical, and critical methodology. It examines the key factors that influenced the evolution of Islamic architecture, analyzes its representative models, and offers comparative insights into the interplay between external architectural elements and internal Islamic particularities.

Religious and Social Factors Influencing Islamic Architecture

1. Religious Factors

Religious principles exerted a formative influence on Islamic architectural development, first evident in the Prophet Muḥammad's (PBUH) house and mosque in Madinah. Simplicity characterized the layout, with no architectural complexity or ornamentation. The Prophet's Mosque became the prototype for mosques throughout the Islamic world, gradually evolving as the state's economic conditions improved.

The Prophet (PBUH) and his Rightly Guided Caliphs embraced simplicity in both construction and lifestyle, using basic materials and limiting worship spaces to their essential religious functions. The first mosque—attached to the Prophet's residence—consisted of a square area enclosed by mudbrick and stone walls, partially roofed with palm fronds layered in mud and supported by palm trunks. Doors and windows were added for ventilation and accessibility (Azab, 1997, 152). Its main purpose was to accommodate communal prayer in rows oriented toward the Ka'bah, following the change in qiblah from Jerusalem.

Due to their focus on spiritual mission and religious propagation, the Prophet (PBUH) and his companions devoted little effort to architectural embellishment (Al-

Shāfi‘ī, 1982, p. 64). With time, however, mosques were expanded and refined using sturdier materials like stone and baked brick, along with decorative elements reflecting the community’s growing prosperity (Al-Sarrāj, 2017, 27).

Religion also played a crucial role in maintaining ties between the Islamic East and West, despite political divisions. Shared language, traditions, and faith helped preserve cultural unity. Pilgrimages and scholarly journeys—particularly from the Maghrib to the East—reinforced these bonds (Al-Shāfi‘ī, 1982, 278).

Ultimately, religion remained the core unifying factor behind the stylistic identity of Islamic architecture and art across regions. Historical records attest to cities that emerged for religious purposes, underscoring faith’s role in shaping the Islamic city (Al-Ash‘ab, 1982, 8).

Architecture across civilizations is deeply shaped by the religious beliefs, cultural norms, and social customs of each society. This influence manifests not only in places of worship but also in civic structures, as evidenced by the legacies of Pharaonic, Greek, and Persian architecture. However, Islamic architecture transcended mere physical expression; it was a direct embodiment of a worldview inspired by Islamic belief and spirituality. Rather than borrowing solely from preceding styles, Islamic architecture arose from a unique creative consciousness that produced distinct forms—readily identifiable by their originality and symbolic depth.

Unlike Christian structures, early Muslims did not imitate church layouts in constructing mosques. For instance, the Umayyad Caliph ‘Abd al-Malik ibn Marwān commissioned the Great Mosque of Damascus as a deliberate architectural response to the allure of churches. Similarly, the Dome of the Rock was designed to rival the grandeur of the Church of the Holy Sepulchre (Ibn al-Faqīh, 1985, 101). With its red-gold dome, a richly articulated colonnade of mixed Corinthian and composite capitals, and arches resting on stone blocks supported by wooden beams, it exemplifies the sophisticated aesthetic and symbolic intent behind Islamic sacred architecture.

2. Social Factors

The formation of Islamic cities was also significantly shaped by social dynamics. Distinct traditions and lifestyles characterized each tribe or social class, particularly in the early Arab society, which was strongly tribal and kinship-based (‘Uthmān, 1988, 51). Each

household maintained its own customs and values, while religious and intellectual life deeply influenced social norms. Islam, by regulating the minutiae of daily life, shaped the moral and behavioral framework of urban communities.

This social diversity was especially apparent in the contrast between newly established Islamic cities—like Kūfa, Baṣra, Fuṣṭāṭ, and Qayrawān—and the older conquered cities, which integrated diverse ethnic groups, including Persians, Copts, Arameans, and Berbers. Without Islamic tolerance, coexistence would have been far more challenging (Shākir, 1988, 16).

In response to these complexities, the Prophet Muḥammad ﷺ introduced a model of brotherhood between the Muhājirūn and Anṣār, aimed at dissolving tribal divisions and establishing social solidarity. The emigrants had left behind their wealth and families, making this spiritual and social bond essential for unity. This practice laid the foundation for Islamic social justice, which evolved into binding legal principles grounded in the creed itself and played a critical role in reinforcing the strength and cohesion of the Islamic community (al-Būṭī, 1980, 121).

The everyday life of the general populace in the Islamic city provides an authentic mirror of its social reality, shaped by the breadth of social relationships and the transmission of traditions across generations. These practices not only reflected the lived experience of urban communities but also influenced the city's physical and developmental trajectory. From this perspective, the study of social life in Islamic cities seeks to explore how urban planning accommodated and facilitated communal and familial activities, emphasizing the alignment between spatial organization and social function (‘Uthmān, 1988, 55).

Islamic society was structured into three principal social strata: the ruling class—comprising the caliph, sultan, and appointed governors; the administrative and affluent class, including ministers, high-ranking officials, and merchants; and the general populace, including the middle and lower classes. The first two classes exerted significant influence on the quantity and quality of artistic and architectural production, as evidenced by surviving monuments. In contrast, the lower classes left little physical legacy due to the fragility of their domestic structures, which have not withstood the passage of time (Al-Shāfi‘ī, 1982, 268).

Islamic jurisprudential principles, particularly the legal maxim "*lā ḍarar wa-lā ḍirār*" ("no harm shall be inflicted nor reciprocated"), had a direct and profound impact on the planning of Islamic cities. This foundational principle gave rise to various legal rulings that shaped the spatial logic of the urban fabric. Jurists defined what constituted material harm and required that certain facilities likely to cause nuisance be situated at a distance from residential zones, thereby ensuring that urban design supported both physical well-being and social harmony. These principles found early and exemplary application in the city of Madinah (Ibn Idrīs, 1982, 177).

One of the earliest and most influential legal-political measures undertaken by the Islamic state was the *Constitution of Madinah*, authored by the Prophet Muḥammad ﷺ. This foundational document regulated intra-Muslim relations and outlined the rights and responsibilities of non-Muslim communities—most notably the Jewish tribes—within the Islamic polity. By promoting cohesion and explicitly prohibiting division, the document laid the groundwork for a unified and inclusive urban society (Ḥamīdo Allāh, 1985, 64).

Political and Economic Factors

1. Political Factors

Political factors encompass the responsibilities of governance and both internal and external public relations. When the relationship between the government and its citizens is grounded in principles of democracy and freedom, it cultivates an environment conducive to intellectual vitality and creative innovation—conditions that are reflected in the flourishing of architectural and artistic expression. In contrast, when such relationships are characterized by oppression, authoritarianism, or corruption, the result is a general deterioration in the quality of life and a decline in all societal functions, including architecture and urban development (Ḥamūda, 1987, 86).

The political climate plays a pivotal role in either advancing or hindering architectural and scientific progress. This is largely determined by the prevailing political system and whether it fosters stability and peace or breeds conflict and unrest. In times of political stability, the presence of security enables the state to invest in social development and the spread of knowledge. Consequently, architectural activity tends to focus on civil projects that serve public welfare. However, during periods of war or external threats, architectural efforts shift toward military construction—fortifications, citadels, and other

defensive structures—often at the expense of civic and artistic development (Al-Shāfi‘ī, 1982, 233).

The consolidation of Islamic rule historically corresponded with a significant revival in art and architecture, with the emergence of a distinct Islamic style particularly evident during the Umayyad period. Landmark structures such as the Umayyad Mosque in Damascus and the Dome of the Rock in Jerusalem attest to this cultural and political maturation (Wazīrī, 2004, 21).

Architecture, therefore, serves as a visible extension of state ideology and authority. A state’s political vision—whether focused on defense or civic welfare—is often mirrored in its architectural priorities: from military fortifications to religious and public institutions such as mosques, madrasas, hospitals, markets, and essential infrastructure like roads and aqueducts. Consequently, shifts in political power often lead to changes in architectural style, as built forms reflect the ideological, intellectual, and religious orientations of those in power.

2. Economic Factors

Economic factors played a crucial role in fostering stability and encouraging architectural expansion and innovation in regions settled by Muslims. When individuals secured reliable sources of sustenance—through agriculture, livestock husbandry, and the utilization of animals for meat, milk, and wool—they were more likely to adopt a settled lifestyle, as agricultural practices necessitate long-term residency to maximize productivity.

During the early Islamic period in Medina, disparities in living standards were evident between the *Anṣār* (native residents) and the *Muhājirūn* (emigrants). The *Anṣār* were established agriculturalists with stable livelihoods, while the *Muhājirūn* had left their wealth behind in Mecca and were generally unfamiliar with farming, having been more engaged in trade. In response, the Prophet Muḥammad (PBUH) introduced a system of brotherhood (*mu’ākbāb*) that economically integrated both groups. The *Anṣār* cultivated the land, while the *Muhājirūn* either sold produce or worked as tenants. This approach laid a foundational model for economic unity and state-building (‘Uthmān, 1988, 54).

This example highlights a broader principle: a nation's strength and cohesion are closely linked to the independence and robustness of its economy. In contrast, economic

dependency and weakness can lead to fragmentation, insecurity, and a diminished sense of sovereignty (Al-Mūsawī, 1990, 193).

Trade, alongside agriculture and industry, is a fundamental mode of livelihood. In Islamic thought, labor is the foundation of production, wealth creation, and ownership, thereby contributing to economic independence and societal stability (Muḥyī, 1972, 153). Muslims expanded their commercial networks to obtain essential goods not locally available—such as spices, textiles, and metals—enhancing urban wealth and regional prosperity. As civilizations evolved, so did their dependence on external resources, intensifying trade and fostering cross-cultural exchange. Commerce linked the Islamic world with China, Persia, and India, with three main routes to India—one overland and two maritime (Le Bon, 2013, 541). Notably, women were active participants in trade, including prominent figures like Khadija bint Khuwaylid and Salmā bint ‘Amr.

Agriculture was not merely a subsistence activity but a principal economic sector, underpinning commercial development in Arabia (Muḥsin, 1982, 38–55). Fertile regions such as Yemen, ‘Umān, Baḥrayn, Hajar, and al-Yamāmah were centers of cultivation. Al-Yamāmah, for example, was noted for its abundance of crops and fruit-bearing trees. Likewise, Ṭā’if and Medina were recognized for their rich soils and agricultural productivity, including the cultivation of fruits and the import of new plant species, as well as honey production (Jawād, 1993, p. 215). Across the Islamic world, Muslims cultivated grains, fruits, cotton, vegetables, and medicinal plants, and introduced advancements in irrigation, plowing, and planting techniques—many of which were later transmitted to Europe.

Muslims also excelled in horticulture, developing gardens that featured both edible and ornamental plants. The Qur’an itself acknowledges the value of industry and craftsmanship, as exemplified in the naming of the chapter *Sūrat al-Ḥadīd* (Iron), highlighting the strategic and industrial significance of this metal (Yaḥyā, 2019).

Architectural style—particularly in the Islamic context—is ultimately the result of multiple intertwined factors: functional requirements, building methods and materials, local climate and topography, traditions, and cultural values. Economic prosperity and the availability of local resources also played a significant role. Andalusian agronomist Ibn

Baṣṣāl, for instance, recorded detailed instructions on tree cultivation and optimal planting seasons (Ibn Baṣṣāl, 1995, 59).

Islamic Architecture and Natural Factors

Islamic civilization emerged in the Arabian Peninsula, where divine revelation was first received by the Prophet Muḥammad (PBUH). It began to flourish within the socio-cultural fabric of Arabia and gradually expanded into the territories reached by Muslim conquests. Naturally, the geographical setting in which Islamic civilization developed had a considerable influence on the formation of its architectural identity. Early Islamic cities were typically established with defensive priorities in mind, with site selection shaped by geographical and environmental criteria that ensured the health of inhabitants and troops, while facilitating strategic access and communication with surrounding regions (Al-Ṭabarī, 1978, 2: 33).

This geographic domain extended from India in the east to the Atlantic Ocean in the west, encompassing diverse landscapes and climatic zones. Such variety fostered a multiplicity of peoples, flora, fauna, and resources. Overall, these regions were marked by fertility, abundance, and a temperate climate—conditions that enabled Islamic civilization to develop within a rich, self-sustaining environment.

1. Geographical Factors

Most Islamic cities were founded in locations shaped by geographical logic, often situated along rivers or lakes. This pattern mirrors the emergence of earlier civilizations, such as those of Egypt and Babylonia, which were also anchored around water sources (Fever, 1970, 429). A case in point is the strategic decision of ‘Amr ibn al-‘Āṣ to establish al-Fuṣṭāṭ on the banks of the Nile, taking full advantage of the river’s centrality and the potential for northward expansion. This foundation later facilitated the growth of new districts such as al-Qaṭā’i‘ and Cairo during the Fāṭimid period (Nāṣif, 1999, 9).

Urban locations were never chosen haphazardly; rather, early planners followed carefully considered criteria. Chief among these was the suitability of the site for human habitation—often elevated areas along coasts or hillsides, ideally exposed to the northerly winds known for their health-promoting effects (al-Qazwīnī, 2007, 8).

2. Climatic Factors

Climate plays a critical role in shaping architectural form and function. It influences decisions about site orientation, building design, column height, wall thickness, foundation depth, spatial organization, and the choice of construction materials. Climatic conditions directly affect human productivity and movement, and are thus central to the design of livable structures.

The most significant climatic elements—solar radiation, air temperature, humidity, wind, and precipitation—form the environmental framework within which human activity unfolds. These factors shape ecosystems and influence agriculture, transportation, urban development, and industrial activity (Şifar, 1985, 9).

The Roman architect Vitruvius insightfully emphasized the importance of aligning architectural designs with local climates. He argued that a house plan suitable for Egypt would differ from one suitable for Pontus or Rome, as each region's solar exposure and atmospheric conditions vary due to differences in latitude and celestial orientation. As such, architectural forms must be adapted to suit regional climates and physical conditions (‘Ābidīn, 1914, 167). This observation remains relevant today, as open, breezy structures dominate hot climates, while enclosed, insulated forms prevail in colder zones—each tailored to the thermal and environmental demands of its setting.

3. The Environmental Ethos in Islamic Architecture

Islamic architecture, regardless of its typology or functional intent, has consistently embraced an ecologically conscious and regionally responsive design philosophy. This stems from the recognition that climate is a defining and immutable element of a building's context, intrinsically linked to the geographical identity of its site. As such, traditional Islamic architectural planning prioritized environmental harmony—ensuring year-round thermal comfort while reducing energy demands for heating and cooling—through the strategic use of natural ventilation, shaded courtyards, and climate-adaptive facades.

Under the influence of Islamic values, architecture acquired a distinct symbolic dimension. It created spatial connections between the mosque and the sacred Ka‘ba in Mecca, and fused the architectural expression of the desert nomad—whose open courtyards reflected a spiritual connection to the sky—with a new architectural language grounded in the physical and metaphysical relationship between humans and the earth

(Tharwat, 1994, p. 20). Main entrances typically featured the horseshoe arch framed within a rectangular panel adorned with conventional Islamic ornamentation.

The aesthetic ethos of Islamic domestic architecture leaned toward restraint and humility, consciously avoiding ostentatious displays of wealth. In most cases, the external facade of a house offered little indication of the owner's socioeconomic status. However, subtle clues such as the craftsmanship of decorative elements surrounding external openings could occasionally hint at affluence (Martínez, 1991, 82).

To preserve environmental harmony and spiritual serenity, Islamic architects incorporated landscaped elements—such as gardens or planted courtyards—within or adjacent to the built structure. These green spaces were not decorative afterthoughts but integral to the spatial composition. Central courtyards, often planted with trees or hosting a small fountain, served as the nucleus of the home, facilitating a seamless relationship between built and natural environments. The availability of local materials—such as stone, mudbrick, plaster, timber, and reeds—played a critical role in determining both the form and durability of buildings, shaped by the climatic and geographical conditions of each region (Simon, 1991, 2).

The traditional Muslim house thus encapsulated the principles of Islamic environmental consciousness. Rooms typically opened onto a private central courtyard, providing fresh air, natural light, and acoustic insulation from the public street. This inward-oriented design created a tranquil and secure domestic environment, visually defined by four internal facades rather than one external street-facing facade (Ibn al-Rāmī, 1999, 33). The courtyard also served as a safe, shaded space for children to play under the family's watchful eye, reinforcing the integration of social, environmental, and spiritual dimensions in Islamic architectural thought.

Environmental considerations were deeply embedded in the construction of traditional Muslim dwellings. Builders relied on locally sourced materials—such as mudbrick and stone—with low thermal conductivity to regulate indoor temperatures. The internal courtyard served as a central feature, optimizing light and thermal comfort while reducing reliance on artificial energy. Openings were typically oriented toward the north to capture the cool, temperate winds, which helped decrease humidity in both the courtyard and the home.

A common architectural strategy involved raising the southern side of the building to enhance air circulation. This height differential facilitated the upward displacement of hot air due to pressure variation, allowing cooler air to enter and circulate more effectively (Khaḍr, 2003, 12). These passive cooling methods reflect an advanced understanding of climatic responsiveness in architecture.

External windows followed customary spatial norms, ensuring that no opening faced neighboring residences directly. Similarly, interior courtyards—where families spent much of their time—were carefully designed to remain secluded from surrounding views, preserving privacy and social decorum.

In terms of decoration, Muslim artisans demonstrated exceptional sensitivity to detail. Ornamentation often featured repetitive and interlacing patterns—both geometric and vegetal—that, while visually intricate, were not merely decorative. Rather, they embodied a philosophical and spiritual dimension, symbolizing unity, infinity, and abstraction at the heart of Islamic visual expression (Ukkāsha, 1994, 47–48).

External Factors

1. The Influence of Roman Architecture on Islamic Architecture

Roman architecture inherited elements from earlier architectural traditions, yet developed its own distinctive character. The Romans demonstrated a strong inclination toward institutional structures, constructing vast and spacious buildings capable of accommodating large populations. This reflected their societal openness and was manifested in the construction of theaters, libraries, markets, bathhouses, courthouses, sports arenas, and venues for public entertainment. They also engineered aqueducts and transported water over long distances using clay pipelines. Italy's geographic position—bordered by the Mediterranean Sea on three sides—facilitated broad cultural and architectural exchanges with many parts of the world, especially in architecture and the arts, contributing to the spread of civilization (Al-Qaḥṭānī, 2009, 23).

Moreover, the diversity of climates—ranging from cold to temperate to hot—and the geological nature of the terrain led to a variety of materials being used in construction and decoration. Unlike Greek architecture, which heavily relied on marble, Roman architecture made extensive use of diverse stone types, bricks, pottery, and tiles. Concrete

became one of the most important materials due to its versatility and ability to facilitate the construction of complex architectural forms. Romans also favored travertine, a durable and aesthetically pleasing yellow stone.

Roman architects employed multiple types of domes and vaults constructed using various techniques and materials. Some of these structures were original Roman innovations, others were inherited from earlier civilizations, and some were likely influenced by Eastern architecture, particularly from Persia (Lancaster, 2010). The use of arches, vaults, and domes allowed for wide interior spaces without internal supports, and concrete enabled even greater spatial freedom by reducing the need for vertical columns to bear the load of ceilings.

Notably, Roman columns diverged from their Greek counterparts in proportions and decorative features. While in Greek architecture the height of a column generally matched the ceiling height, Roman columns—especially after the adoption of the arch—were often raised on pedestal bases, sometimes tiered. Additionally, Corinthian capitals in Roman architecture were more ornate and extended to all four sides, unlike the two-sided Greek versions. As a result, the Roman Corinthian order became more visually refined than its Greek predecessor (Tawfiq, 2000, 430).

Roman bathhouses were among the most characteristic architectural forms and reflected key aspects of Roman culture, including their appreciation for hygiene, physical health, and social interaction. These buildings served multiple purposes beyond bathing, including functioning as centers for athletic training, public assemblies, and scholarly discussions. Their general layout consisted of three primary sections: a main hall surrounded by various units, a warm room leading to a hot room, and an adjacent cold room. Among the most famous of these is the Bath of Caracalla, which featured a large central hall dedicated to bathing chambers, with hot, warm, and cold-water rooms arranged around it. At the rear were the water tanks, while lecture halls and libraries lined the flanks.

In front of the building were rest chambers used by poets, writers, and athletes (Tawfiq, 2000, 424). Romans also constructed triumphal arches to commemorate emperors and military leaders, serving as monuments to victories or significant historical events. Additionally, aristocratic residences resembled palatial homes with central square or rectangular courtyards illuminated from above, surrounded by rooms lacking external windows—thereby ensuring the privacy of the household (Mūsawī, 2011, 314).

Islamic architecture was influenced by many elements of Roman design. Among these was the hollow dome, a technique commonly employed in Roman construction. Other significant features included the use of arches and columns, which provided buildings with strength and durability, as well as the use of marble to decorate both interiors and exteriors. Roman houses, in general, bore a resemblance in their layout to Islamic residential structures, particularly in their lack of windows on the external walls. These houses were typically composed of two parts: the first was the entrance door, which opened onto the street façade and led into a corridor that in turn gave access to the central courtyard. The second part was the interior core of the house, which could include a basin or fountain and was surrounded by other domestic spaces such as bedrooms and dining areas (Join Learning, 2022).

2. The influence of Byzantine architecture on Islamic architecture

Architects of the time gained renown for their skill in combining domes of various sizes—large, small, and semi-domes—into harmonious compositions, resulting in structures that were architecturally unique across eras. Notably, bell towers had not yet appeared in churches of that period. The columns were crafted from single pieces of colored marble, topped with capitals carved from white marble.

The Byzantines used mosaics to cover floors, as well as large slabs of colored marble—similar to Roman practices but on a grander scale. Church walls were adorned with mosaic panels depicting public life or scenes of the emperor and his entourage. In terms of construction materials, they followed Roman precedent, utilizing brick and concrete for walls and domes, though they reserved brick specifically for walls due to its considerable weight (Tawfiq, 2008, 21).

Windows in churches were typically narrow, rectangular, and arched at the top—designed to reduce both the brightness and heat of the intense Eastern sunlight. The interior walls of significant buildings were lined with decorative materials, arranged in regular patterns using multicolored marble panels, above which were set mosaic inlays.

It is notable that Eastern Christian artists generally refrained from creating fully three-dimensional sculptures for religious reasons. Exceptions were limited to representations of emperors or shallow relief carvings, which were considered an extension of pictorial art. As a result, their artistic focus remained on painting, with shading used to

substitute for color gradients. Sculpture was confined to small-scale works, such as ivory or bronze carvings (Ebersolt, 1923, 165).

Byzantine architecture was itself shaped by earlier architectural traditions, particularly Greek architecture, which had flourished in cities such as Alexandria, Ankara, and Antioch at the time of the empire's emergence. In early Christianity, its aims became closely aligned with Roman architecture, particularly after Constantinople became the new capital. As is the case with all civilizations, artistic traditions are shaped by what precedes them—no artistic style arises in isolation but inevitably draws upon previous expertise (Ma' ruf, 2007, 18).

This architectural tradition distinguished itself from earlier styles through its intricate detailing, proportional elegance, and rich ornamentation. It featured both engraved and sculpted decorations, employing vibrant and strikingly beautiful colors (Tawfiq, 2000, 391). Moreover, the influence of Sasanian Persian art was both evident and profound (Runciman, 1997, 315), and the convergence of these two venerable artistic traditions gave rise to the distinctive identity of Byzantine art.

The Crusades facilitated direct encounters between European architects and Eastern architectural traditions, particularly those of Iraq and the Levant. Through these exchanges, Europeans adopted a variety of elements, such as the use of colored marble, Arabesque ornamentation, mosaic artistry, and circular domes. The influence of geography and available building materials became evident in architectural forms, affecting not only massing and volume, but also proportions—such as door and window dimensions, dome sizes, wall thickness, and overall aesthetic composition.

This becomes especially apparent when comparing Byzantine churches, which display considerable variation in form and elegance based on their proximity to hot climatic zones. For instance, the Church of Hagia Sophia, located in a region marked by high temperatures, may appear less refined externally due to the types of materials employed. Nonetheless, its architectural brilliance, artistic grandeur, and intricate decorative schemes are concentrated within its interior (Tawfiq, 2008, 247).

Following the transfer of the Byzantine capital from Rome to Byzantium (later Constantinople), a distinct architectural style emerged throughout the capital, the Greek peninsula, the Balkans, and Armenia. Although the primary function remained the construction of churches—similar to early Christian Roman architecture—the Byzantine

approach introduced innovations in building materials and decorative techniques. Notably, domes became a defining feature, influenced by architectural traditions from Persia and other parts of the East. Architects of this period earned renown for their exceptional creativity in composing domes of varying scales—large, small, and semi-domes—in spatial configurations that remain architecturally unparalleled (Tawfiq, 2008, 15).

This interaction fostered a reciprocal exchange between Byzantine and Islamic architecture. Islamic civilization assimilated numerous Byzantine innovations, particularly in dome construction, which became a central architectural element in Islamic design. Other features included arches, complex geometric ornamentation, and the application of ceramics and glass in decorative schemes. The confluence of these influences produced a distinguished architectural heritage within the Islamic world, characterized by both functional ingenuity and aesthetic refinement. Islamic domes, in turn, acquired a unique Arab identity and went on to influence the architectural vocabulary of other civilizations, particularly in religious and palatial contexts.

Following the Muslim presence in al-Andalus, a distinctive architectural expression emerged, representing a fusion of Islamic and Byzantine aesthetics. This became known as *Mudejar architecture*, associated with the *Mudejares*—Muslims who remained in the Iberian Peninsula after the fall of Islamic rule. The Mudejar style, encompassing architecture, art, and craftsmanship, continued to flourish well into the late Renaissance, leaving a lasting legacy of intercultural synthesis (Briffaut, 1919, 165).

Conclusion

This study reveals that Islamic architecture did not emerge as a blind imitation of preceding civilizations, but rather as the outcome of a dynamic synthesis involving religious, social, political, economic, and environmental influences, in addition to a deliberate engagement with earlier traditions such as Roman and Byzantine architecture. It was grounded in a legal and civilizational vision that placed human dignity at the center of its architectural philosophy, aligning spatial design with the higher objectives (*maqāṣid*) of Islamic law—thereby endowing it with a distinct identity and conceptual autonomy.

The findings indicate that Islamic teachings served as the foundational framework for the development of architectural expression, beginning with the simple mosques and dwellings established by the Prophet Muhammad (peace be upon him), and expanding in

form and function as Islamic societies evolved across the East and West. Social values—such as cohesion, solidarity, and cultural traditions—profoundly influenced the configuration of neighborhoods and urban layouts. Furthermore, political stability and economic prosperity played a pivotal role in the flourishing of both religious and civic architecture, while environmental and climatic conditions shaped the regional character and stylistic diversity of Islamic built forms.

This study proposes a re-evaluation of Islamic architecture through a comprehensive lens that transcends aesthetics and ornamentation, emphasizing instead its functional, humanistic, and spiritual dimensions. Such an approach may inform and inspire contemporary architects and planners to engage more meaningfully with context, culture, and climate—producing innovative models rooted in Islamic architectural heritage that are responsive to present-day needs without forfeiting authenticity or continuity.

In this light, there is a pressing need for further research into Islamic architecture, especially in relation to current environmental and social challenges. Harnessing its philosophical depth and material legacy may offer a pathway toward developing sustainable architectural paradigms that are both future-oriented and culturally grounded.

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