

IMPACT OF ISLAMIC VALUES AND CONCEPTS IN ARCHITECTURE: A CASE STUDY OF ISLAMIC COMMUNITIES

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ABSTRACT

Islamic teachings include principles and applications that directly influenced local Islamic architecture in the past. The principles of privacy, humility, and hospitality are fundamental to these religious guidelines and have had a major impact on the design of Muslim homes, as well as on the regulation of space and social behaviour in these homes. However, Muslims today are very distressed by the recent political and social changes, as well as contemporary ideologies, which are not compatible with Islamic cultural values, and that led to the emergence of some architectural models that contradict Islamic principles and values. This paper reviews the impact of Islamic cultural values on the shape, features, and elements of housing and the relationships between these elements in many Islamic cities with varying environmental conditions. The results of the research showed that religious values are the main pillars of local architecture and that the essence of the architectural product of Islamic societies is the Islamic concept. Despite the different architectural composition and its diversity in Islamic countries as a result of the different environmental conditions surrounding them, there is a common denominator for the diversity of architectural formations and it is the stability of the Islamic concept. The researchers concluded that awareness of Islamic concepts and values while taking into account the changing circumstances surrounding contemporary designs, is important to express the local Islamic identity in ways that meet the needs of modern society.

Keywords: Islamic religion, local Islamic architecture, privacy, Islamic cultural values, Islamic cities, contemporary architecture, social change, Islamic identity.

1 INTRODUCTION

Islamic architectural imperatives are relatively fixed and change little across time and space, but the form that architectural design takes is variable. Islamic architecture reflects environmental constants, resulting in a distinctive architectural philosophy for different types of buildings. This research investigated architecture in terms of Islamic principles, rather than Islamic architecture in general. The aim was to identify Islamic values and devise construction standards that incorporate these values while meeting the life contemporary requirements.

Islamic law, customs, and traditions in Arab society have played a major role in influencing the built environment. Two important relationships in monotheistic Islamic society – a person's relationship with God and a person's relationship with his brethren – affect the structuring of society and obviously have an impact on the design of Islamic houses. The aim of Islamic architectural design is to balance family privacy with social cohesion by organising the interfaces between private and public space.

Islam has laid down principles and rules for an individual's relationship with society, dictating his or her lifestyle, interactions, and etiquette. This has been reflected in the form and features of residences and the relationships between these features, because the home in Islam is a place of sanctity and privacy [1].



Studying the construction of housing in a specific spatial context necessitates a study of the relevant society. Societies, with their different cultures, cannot satisfy their urban needs in the same ways, since societies have specific trajectories of change. Traditional building in the Middle East and North Africa is based on religious values, social relations, and communication between neighbours, focusing on protecting the rights of neighbours and observing religious requirements.

2 THE EFFECT OF ISLAMIC CONCEPTS ON ARCHITECTURE IN ISLAMIC SOCIETIES

The essence of architectural practices in Islamic societies derives from Islamic concepts, as is obvious from the uniqueness of Islamic architectural styles and the stability of the concepts governing Islamic architectural models. The philosophy underpinning architectural practices in Islamic societies has been linked to two main factors, the first of which is the Islamic faith as an enduring and stable source of cultural values and architectural concepts. The second is the surrounding context, including cultural, climatic, social, political, and economic factors, which may vary considerably. Consequently, the architectural designs in Islamic societies differ from one place to another according to their specific contexts and their interaction with the Islamic faith [2].

3 THIS ISLAMIC ARCHITECTURE AS CULTURAL UNITY

Changing cultural visions affect architectural and artistic trends. Architecture is essentially a cultural product, reflecting social values and expressing the culture that prevails in the community; thus, changes in architecture represent an aspect of intellectual and cultural transformation. This has led to many designs being influenced by the spirit of the times, without reference to a specific cultural identity, and to the decline of local designs in the face of Western cultural influences [2].

4 SOCIAL VARIABLES AND THE TRANSFORMATION OF ARCHITECTURAL CONCEPTS

Political and social changes, accompanied by technological advances and the progress of contemporary scientific knowledge, have advanced the capabilities of European countries and enabled them to dominate developing countries, leading to unbalanced relationships and development between countries and the Euro centrality of architectural concepts. Several Western architectural schools adopted theories that expressed the material values of the Industrial Revolution, provided a framework for architectural designs, and aimed to simplify architectural forms and elements. The Industrial Revolution supported this trend by producing new building materials that depended on mechanised manufacturing and rapid production [3].

5 SHIFTS IN ISLAMIC CONCEPTS

Religious concepts and beliefs in Islamic communities were the dominant elements of social and human life until economic and technical changes occurred that affected the nature of social and civil life. Islamic architectural models embodied the ideas and values of Islamic society, but the advent of the Renaissance and the development of building materials led to unexpected problems that could not be solved with traditional expertise; consequently, architecture adopted ideas from other fields, such as science and art, importing utilitarian aesthetic principles and leading to local Muslim architecture borrowing from the vocabulary of Western architecture, trying to adapt it to the needs of Islamic society despite it failing to



express Islamic cultural and social values. Architecture became a ubiquitous international practice unrelated to the identity of Islamic societies [4].

6 INTELLECTUAL TRENDS INFLUENCING CONTEMPORARY ISLAMIC ARCHITECTURE

6.1 First trend: Rooting

“Rooting” involves returning to the “roots” of local architectural styles and architectural traditions, taking inspiration from their vocabulary and patterns as a matter of conscience and human creativity [5].

6.2 Second trend: Contemporary influences

This trend has been dominated by modern Western architectural schools; therefore, it reflects the Western cultural trend that follows scientific methods and depends on advanced technology. This trend does not take account of human and spiritual values; consequently, it has led to the emergence of housing models that do not reflect the Islamic cultural identity or the history and civilization of Arab Islamic communities.

6.3 Third trend: Contemporary originality

This approach recognises the imperative to adhere to local Islamic architectural principles as a means of resisting the bias towards innovation imposed by global architecture in all its forms and variants. This approach attempts to establish contemporary Islamic architectural theories based on the revival of architectural traditions, respect for the Islamic heritage, and the expression of Islamic values and cultural norms of social privacy [6], as shown in Fig. 1.

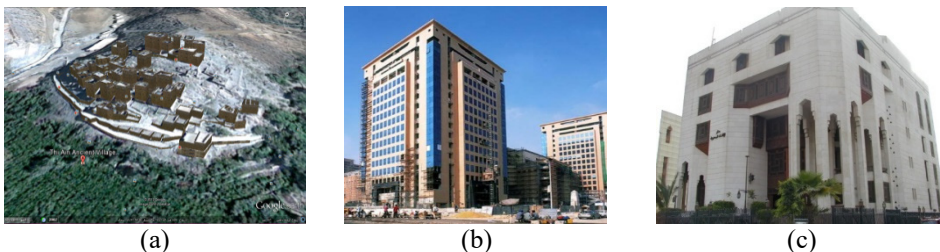


Figure 1: Illustrations of the various intellectual trends. (a) A rehabilitation project in Al-Ain Heritage Village in the Kingdom of Saudi Arabia (KSA); (b) An Intercontinental Hotel in Egypt reflecting the influence of Western culture on the Islamic community; and (c) The Al-Azhar (Mashiakhah) building in Egypt illustrating a link with the Islamic heritage in contemporary design.

7 RELIGIOUS VALUES AS THE BASIC PILLARS OF ISLAMIC SOCIETIES

Religious values are the main pillars of civilized Islamic societies, guiding individuals' behaviour towards others. Islamic societies accepted these values and non-commitment to them violates accepted norms, which are the set of ideals, goals, beliefs, laws, mechanisms, controls, and standards underpinning individuals' and groups' behaviours. Since Almighty God is the source of these values, they determine the relationships of people in general: their

relationships with Almighty God, with other people, and with the Universe. Religious values are embodied in the physical and sensory aspects of local architecture, influencing the design of homes according to Islamic principles. The preservation of privacy, respect for neighbours, avoid rising in buildings, and separate living spaces for different household members all contribute to ensuing privacy in Muslim houses. Religious values also concern the necessity for asceticism, as evidenced by a lack of extravagance and wastefulness in the decoration of buildings, palaces, and mosques, and a tendency towards simplicity and abstraction. The Almighty said: *والذين اذا انفقوا لم يسرفوا ولم يقتروا وكان بين ذلك قواما* (and those who, when they spent, did not waste and did not recite, and there was strength among that). One expression of these material values is the provision of religious buildings constructed for the purpose of worship [4].

A contemplation of contemporary Islamic cities reveals that many religious values are absent from their design, resulting in a sense of disintegration and isolation due to the transfer and imitation of Western architecture that does not coincide with Islamic social values [7].

Indications of religious values are monuments and buildings as sources of beauty and aesthetic pleasure, representing the simplicity and purity of the soul, and a commitment to buildings that benefit people, rather than the construction of entertainment buildings for activities prohibited in Islam [2]. Physical expressions of religious values are shown by the following: respect for privacy, recognition of neighbours' rights, equality, and simplicity and abstraction.

8 THE CONCEPT OF PRIVACY

Privacy means singularity or decline, which is the opposite of generalisation, on a personal level (i.e. *awrah*), and it implies the ownership of a private, secure residential sanctuary; quiet communication; and respecting the privacy of others. The Islamic religion has many principles that protect and preserve an individual's private life. Privacy has been categorised as personal, psychological, and/or exclusive, involving the separation of a person from his or her social environment. Islamic ideas of privacy are based, for example, on the prohibition against looking into others' homes. Privacy in Islamic society means balancing the privacy of individuals and groups, but it should not prevent social communication and does not mean total isolation and separation from society. Privacy should be a means to facilitate communication within a framework of religious controls and community behaviours. Some studies have indicated that privacy is a phenomenon linked to a person's way of life and related customs and traditions; hence, sociologists have paid attention to privacy as it relates to the relationship between individuals, linked to specific criteria such as gender, age, customs, and traditions [4].

9 DETERMINANTS AFFECTING PRIVACY

9.1 Activities

The activities that take place inside a residence require spaces with different purposes, but the relationship between these activities varies according to accepted notions of individual privacy and community interaction. Different activities may be practiced in a single space or a separate space may be allocated for each activity. This means that privacy, for a designer, involves making decisions about the creation of places and spaces that fit the activities of individuals and groups and provide them with visual and acoustic comfort [2]. Such design depends on the appropriate orientation and organisation of spaces that suit people's purposes;



in other words, privacy efficiently enables movement and usage while respecting existing social mores.

9.2 Individuals

Individuals in a house, and their relationships to privacy, can be divided into groups, such as undesirable outsiders and desirable outsiders (e.g. guests and servants). In Islamic societies, there is a separation between men and women, as well as between boys and girls. Privacy is also ensured by asking permission to enter homes; for example, a child who reaches adulthood no longer enters his parents' home without asking permission at appropriate times [8].

9.3 Levels of privacy in Islamic houses

Privacy in a Muslim house is divided into three levels:

First – Privacy at a general level includes privacy in public spaces, such as in residential neighbourhoods; on main roads; in commercial areas; and in open, green areas. In these spaces, the level of available privacy is at its lowest and communication between individuals should only be through sight and hearing [9].

Second – Privacy at a semi-general level includes privacy in areas that are in general use in residential neighbourhoods, where contact is through speaking and looking, facilitating a measure of intimacy and affection that leads to a sense of social affinity and affiliation to a locality.

Third – Personal privacy is the highest level of privacy. At the individual level, a person in a house should have the personal privacy to carry out certain activities that require his presence separately from others. Privacy at the family level means providing sufficient privacy for the family to carry out its activities without being monitored by others.

10 CASE STUDIES









The case studies for this research comprised important models that represent the architecture of Islamic societies in KSA, Egypt, Algeria, and Yemen as shown in Table 1. Each of these countries has unique environmental conditions, but all are subject to the directives and principles of Islamic law, which have been adopted from the Holy Qur'an and the Prophet's Sunnah. The architectural styles differ in these countries, according to their unique geographical and cultural conditions.

11 TYPES OF ACOUSTIC PRIVACY IN ISLAMIC HOUSES

The concept of privacy in architecture is related to the availability of space for a person to fulfil the requirements of his or her daily life in appropriate social and psychological conditions and with complete freedom. Privacy, in relation to architecture, means providing various spaces that meet different needs and requirements, appropriately and flexibly. These needs differ from one society to another, because they are affected by cultural, religious, social, and psychological factors. Achieving privacy in design does not mean complete separation or complete isolation, which have adverse psychological effects on humans. The aim is to achieve the required degree of privacy to ensure adequate insulation [9], as shown in Fig. 2.



Table 1: Types of vernacular Muslim houses.

<p>Vernacular Muslim houses in KSA (Al ain Village)</p>	 <p>Urban planning reflects security and defence purposes, built in a compact form, and generally on hilly terrain.</p>	 <p>Design of houses comprises two or three floors; the ground floor consists of a large courtyard separated into areas for corralling animals.</p>
<p>Vernacular Muslim houses in Egypt (Al Kharga Oasis)</p>	 <p>Urban planning is compact, and reflecting security concerns, and achieves climate-efficiency through shading and ventilation.</p>	 <p>Design of houses in general, consist mainly of three parts. The first one dedicated to guests the second used as a living area, consisting of a courtyard, The third part contained the services.</p>
<p>Vernacular Muslim houses in Algeria (Mzab Valley)</p>	 <p>The residences in all the cities of the Mzab valley surround the mosque, and there are cohesive dwellings among them.</p>	 <p>The houses are very similar. Each one is 100 m square, including two floors, and in the centre is the part of the room called the <i>tizfari</i>.</p>
<p>Vernacular Muslim houses in Yemen (Shibam City)</p>	 <p>The city is located on a hilltop and has a pattern of intense planning. it is surrounded by a wall for security purposes and there is only one entrance to the city, called (dam) [10].</p>	 <p>Houses in Shibam City are distinguished from other cities of Wadi Hadramou by their heights, consisting of nine mud floors [11].</p>

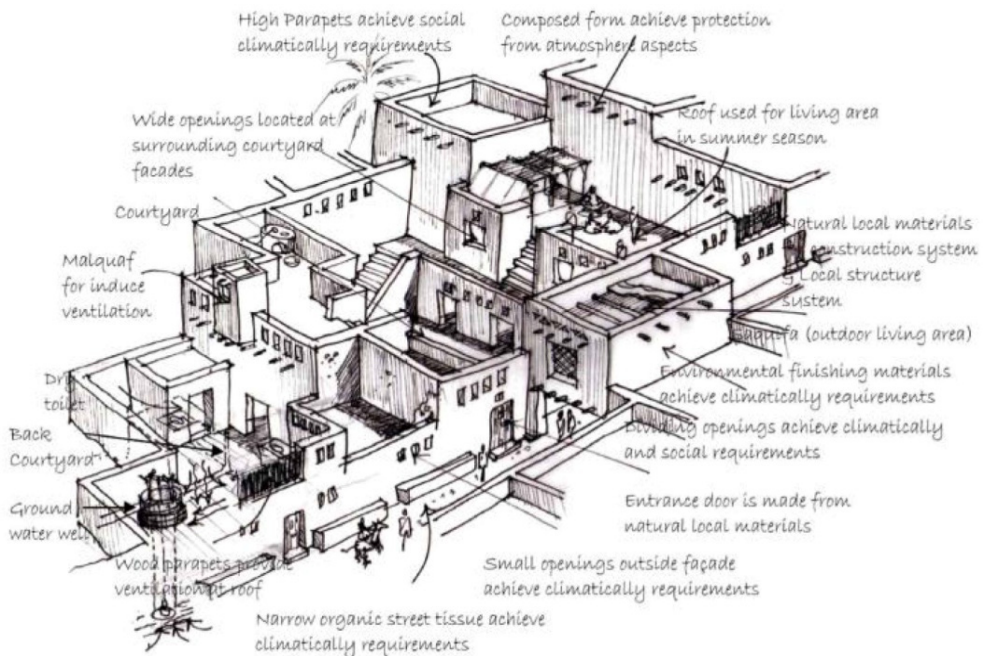


Figure 2: The concept of privacy in a traditional historic house.

11.1 Visual privacy

Relates to the sense of sight and depends on distance and lighting. The ideal distance for clearly seeing and recognising facial expressions ranges from 3 to 9 m. The ideal distance for recognising the facial expressions of unknown people is 12 m, but for familiar people it is 24 m. Lighting plays a major role in visibility and it is evident that Islamic houses provide visual privacy [12], as shown in Fig. 3.

Residential privacy is always guaranteed by separating residential areas from commercial ones.

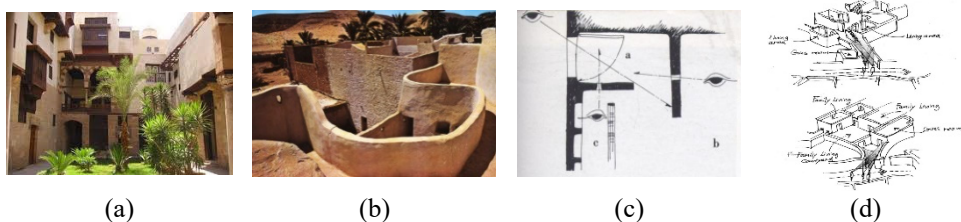


Figure 3: Types of visual privacy. (a) Illustrates the courtyard that provides for a private family life (Egypt); (b) Illustrates the high surrounding wall that ensures privacy [13]; and (c) and (d) Illustrate the twisting entrance to prevent pedestrians from seeing inside the house.

In the village of Beni Miezab in Algeria, public activities take place only in the downtown area of the settlement, near the marketplace. There is a hierarchical arrangement of outdoor spaces, with houses generally opening into semi-private spaces or cul-de-sacs. The home is considered to be a sacred place that should not be violated. It is a place for women to be isolated from public and communal life and all women cover themselves when they go out, to avoid strangers' gazes. The measures used to ensure visual privacy are as follows:

- Houses are separated from public places and reached via narrow paths.
- Each house is arranged around an inner courtyard to provide a secluded area for private family life.
- The walls surrounding the roof form barriers that are high enough to prevent eye contact with neighbours.
- The roads are designated for both pedestrian and animal traffic. (By contrast, in the oasis villages of Egypt, where there is greater privacy for pedestrians, animals remain on farms).
- The streets are narrow and irregular and are covered by arches and palm branches to ensure privacy, safety, thermal comfort, and durability.
- Privacy within the family depends on the separation of men and women, and women are not supposed to meet any males except for close relatives. The housing in Mizab village, for example, is separated into two distinct parts. The *douiria* (place of men) is where the male guests are usually received and is often accessed from the *taskift*. This space in Egypt is called the *salamleq*. The remaining space, reserved for women, is called the *haramlik*, as can be seen in the Al Senari house in Egypt [14].
- There are two separate entrances: one for women and another for men.
- A high surrounding wall provides privacy, as does the high level of the outdoor windows.
- The twisting entrance of the main house prevents pedestrians from seeing what is inside the house.

11.2 Auditory privacy

Involves providing appropriate sound insulation, inside and outside the house, to achieve the required level of psychological comfort and enable activities to be conducted without inconvenience or intrusion [5]. It also means that conversations cannot be overheard internally or externally. Auditory privacy does not mean complete isolation from the surrounding environment, but rather protection from undesirable noise, giving people the freedom to express themselves and their emotions inside the house. Auditory privacy must protect against levels of noise that can cause inconvenience and adverse health effects. The measures used to achieve auditory privacy in Islamic houses are shown in Fig. 4.

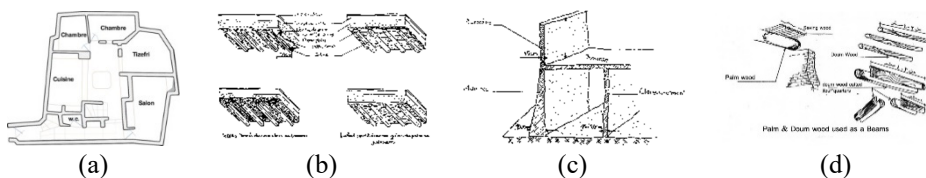


Figure 4: Types of auditory privacy. (a) Illustrates the orientation of private rooms towards inner courtyards to achieve auditory privacy; and (b) to (d) illustrate the use of thick walls and natural materials to provide good sound insulation [15].

Spaces can be classified according to people's interactions and levels of noise: the sleeping and reception rooms need to be quieter than those for children, and the kitchens and living rooms are usually sources of noise. The measures used to ensure auditory privacy are as follows:

- Natural materials are used for partitions and doors to insulate rooms from noise.
- The orientation of private rooms towards inner patios and courtyards protects against external noise.
- Thick walls built of natural materials, such as timber waste and clay, provide good sound insulation between units.
- Sleeping and living spaces are placed inside the house, away from noisy inner courtyards.
- Trees and plants in courtyards help to reduce noise.

12 RELIGIOUS CONCEPTS HAVE INFLUENCED ACOUSTIC PRIVACY

The teachings and principles emanating from the Holy Qu'ran and the Sunnah of the Prophet are the main factors influencing the concept of privacy as a religious value. These principles have affirmed the right of the family and the right of neighbours to build and live in private homes, and their impact on privacy can be clarified [16] as follows:

12.1 Family rights

Islam has always been concerned with the rights of families in Islamic communities. God instituted certain prohibitions, such as turning a blind eye, not looking upon the sanctity of others, and not entering houses without permission. These prohibitions have been reflected in the design of the entrances to Islamic houses, which are twisted or followed by an internal space to block the view from outside. Family members' routes go inward, but those of the guests are excluded from those inner areas to prevent them from passing through the main house. Measures to ensure family rights are as follows:

- The openings overlooking the inner courtyard are large, but external openings are small and high to ensure privacy.
- The family room is private, cannot be entered without permission, and can only be accessed at specific times; thus, for example, the bedrooms are secluded at the back of the house or on the upper floors and the boys' and girls' rooms are separated when children reach puberty. Almighty God said: يقول الله عز وجل وإذا بلغ الاطفال منكم الحلم فليستأذنوا كما استأذن الذين من قبلهم ... سورة النور 59 (if your children becomes an adult, let them ask the permission as the ones before they ask the permission) [13], as shown in Fig. 5.

12.2 Neighbours' rights

The Prophet (Peace be upon him) said: "whoever believes in God and the day of judgment does not hurt his neighbour". This was reflected in the following measures taken to ensure neighbours' rights:

- Directing the rooms inward onto courtyards, thereby reducing external openings, blocking the view of neighbours, and providing privacy.





Figure 5: Al Senari traditional house in Islamic Cairo, Egypt, is a model of a traditional Islamic home and the design exemplifies the measures taken to ensure the family's rights and privacy. The openings overlooking the courtyards enable guests to request permission to enter the house, which has a twisted entrance [13].

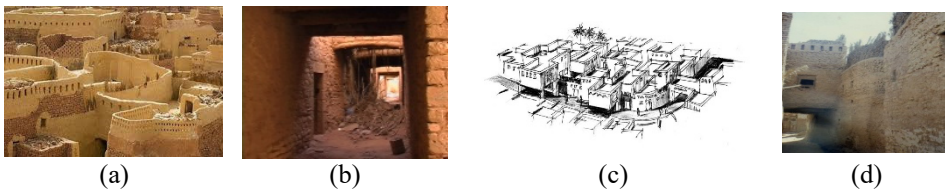


Figure 6: (a) Illustrates the height of the roof walls providing privacy for neighbours; (b) Illustrates how the entrances of the houses do not face each other, preventing the possibility of extending the trunks of palm trees to the edge of neighbouring walls; and (c) and (d) illustrate the constructing of rooms across streets as a measure taken at oases in Egypt [13].

- The height of the surrounding walls on the roofs, blocking the view of neighbouring houses.
- Ensuring that the entrances of the houses do not face each other across external roads. The relationship between neighbours' houses prevents house owners from exploiting the intervening street by extending the trunks of palm trees to the edge of neighbouring walls to create a room called a *tiarah* in the Al-Olah village in KSA [15], as shown in Fig. 6.

12.3 The veiling of women

Islam urged the veiling of women from strangers' eyes, as evidenced by the orientation and use of *al masrabiya* in homes, as shown in Fig. 7.

Almighty God said: *قال تعالى قل للمؤمنين ان يغضوا من ابصارهم و يحفظوا فروجهم ذلك* (30) *ازكى لهم ان الله خبير بما يصنعون النور* (say to the believers that they should turn a blind eye and keep their eyes lowered); hence, strangers should not look into people's houses and this has been reflected in the measures taken regarding external openings and twisted entrances.

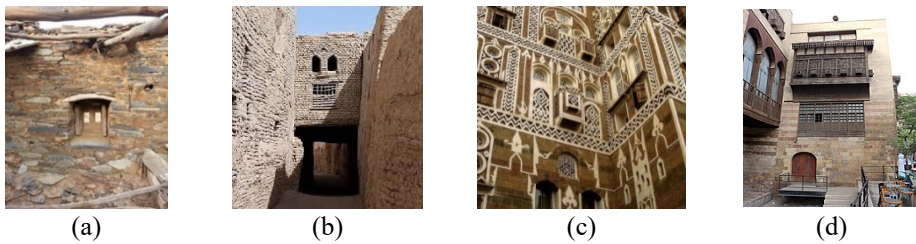


Figure 7: The Mashrabiya in traditional homes in Islamic countries ensures privacy. (a) Al Ain Heritage Village, KSA; (b) Kharga Oasis, Egypt; (c) Shibam City, Yemen; and (d) Islamic Cairo, Egypt.

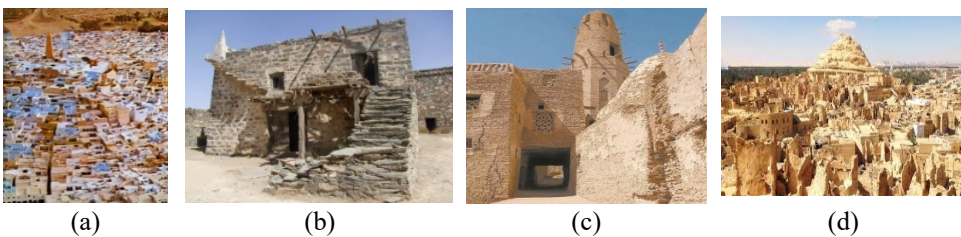


Figure 8: Types of minarets used in different countries to ensure privacy for the neighbouring houses. (a) Mizab village, Algeria; (b) Bin Raqosh Palace, KSA; (c) Old village, Yemen; and (d) Siwah Oasis, Egypt.

12.4 Turning a blind eye (turning the gaze away)

Relates to the principle of neither harming nor receiving harm from others, which prevents the muezzin from ascending to the top of the minaret and looking down upon the neighbouring houses. The use of a symbolic minaret for one of the mosques near the houses in Bin Rakosh in KSA prevents anyone from seeing the surrounding roofs, as shown in Fig. 8.

12.5 Simplicity and abstraction

Using local materials such as stone, clay, and wood for construction may simply relate to people's artistic taste and ideas of aesthetic harmony; however, it is also a way of guaranteeing that functional elements meet environmental requirements and climatic conditions [5].

- Simplicity was apparent in the building of the Shabam House in Yemen, where the construction with stone and bricks raised the foundations above the ground to a height of 1 m in order to support the outer walls and protect those on the ground floor from erosion and disintegration. Ash or clay was used to hold the stones together and the top part of the wall was coated with two layers of clay mixed with straw and sand. The walls were then lightly plastered with a limestone or ash and the roofs were constructed from lengths of timber, set at regular intervals and covered with a layer of palm fronds and

clay. According to one study, the thickness of the walls on the ground floor of the Shabami house is roughly 2 m, decreasing as the building increases in height [16].

The simplicity of construction techniques is evident in one of the traditional villages in Dhafir, in KSA, which used tree trunks to support the roof and staircase, as shown in Fig. 9.

12.6 Safety and security

Safety and security were reflected in the pattern of urban planning at a time when such concerns were paramount; thus, buildings were built in a compact form and located on hilltops to ensure the greatest possibility of defence.

Measures taken inside houses afforded families privacy, safety, and tranquillity under their own control. They also provided protection from sun and rain and met social requirements, as shown in Fig. 10.

13 CONCLUSION

This paper constitutes one of only a few pioneering studies that have examined architecture in Islamic societies. It is thus an important step towards rediscovering the diversity of Islam’s architectural forms and the stability of Islamic concepts. The research provided a review of the literature regarding Islamic values and their role in the design of traditional Muslim homes by considering the concept of privacy and the principles that are related to it as neighbour’s rights, equality, simplicity, and abstraction. Similarities and differences were identified in the architecture of different Islamic countries and cultures in the Middle East:

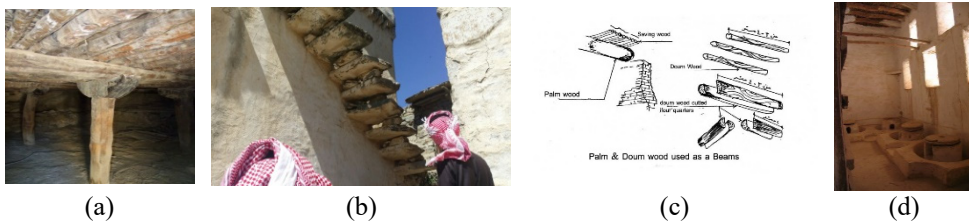


Figure 9: Simplicity arising from the use of local construction materials and construction techniques. (a) Al Zafeer village, KSA; (b) Al Zafeer village, Saudi; (c) Baharia Oases, Egypt; and (d) Shibam City, Yemen.

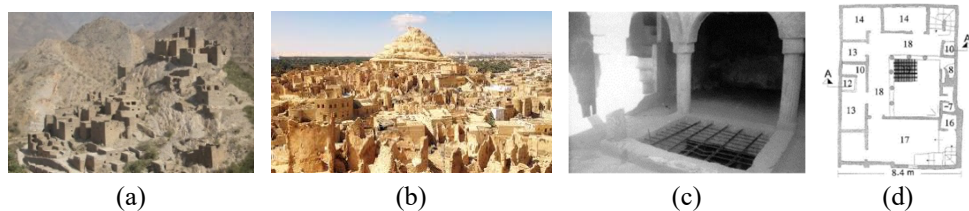


Figure 10: (a) and (b) Illustrate the pattern of urban planning reflecting security concerns, with buildings built in a compact form and located on hilltops; and (c) and (d) Illustrate the measures taken inside houses to ensure family privacy. (a) Al Ain Heritage Village, KSA; (b) Siwa Oasis, Egypt; (c) Mizab village, Algeria; and (d) Mizab, Algeria.

specifically, KSA, Egypt, Yemen, and Algeria. The architectural examples of the different Islamic societies presented in this research offer design solutions based on Islamic values and principles, despite the different environmental conditions of these societies. The research also considered the differences and similarities with regard to these values in KSA, Egypt, Yemen, and Algeria, with a special focus on the principle of privacy, reflecting on its impact on the design of houses in those countries.

Islamic values, which include privacy, families' rights, neighbours' rights, hospitality, and similar, were practiced in all sectors of Islamic society in the past and are still practiced today, despite the social changes that have occurred over time, and the need for them continues.

Religious and spiritual values have been the main pillars of local architecture in Islamic societies; therefore, the revival of local architecture must be consistently aligned with these values and their continuation linked to the development of technical capabilities and the economic and social changes that occur in human communities.

The design of contemporary local architecture must be conducted in a way that combines religious values with contemporary requirements and progressive developments so that the designs reflect local identities in a balanced way. Architects can refer to and apply the values and ideas of local culture and religion, taking into account current changing conditions, in order to achieve a combination of local identity and contemporary character. Privacy is considered an important Islamic value that affects the architectural void. It is practiced in all Islamic societies, but every society has its own interpretation of its meaning and that the need for it still exists in every time and place.

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