



## Analysis of the Araishi House (Traditional Dwelling) as a Component of the Environmental Identity of Al-Arish City

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### Keywords

Environmental Identity -  
 Traditional Dwelling,  
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 Arish House

**Abstract:** North Sinai is one of the Egyptian governorates characterized by a unique environmental character, giving it a distinct identity that is compatible with the various environments found there, whether coastal or desert. Al-Arish city is considered the most densely populated city and contains several residential styles, the most important and famous of which is the Araishi house, which has recently begun to disappear due to several different factors, the most important of which is the mixing of cultures due to the increase in expatriates and the city's residents' tendency towards modern styles, which have caused the city to lose its most important element of the human features of the components of environmental identity. The search ran into the problem of the reluctance of the people of Arish to build in traditional ways and to use the Arayshi house as an important tool to preserve their environmental identity and their tendency towards modern buildings using architecture vocabulary that is not compatible with the identity of the city. The research addressed several questions, including: What are the reasons for the reluctance of the population to build in the traditional style of the Arayshi house? What is the architectural vocabulary of the Arayshi house that qualifies it to be a basic element of the human features of environmental identity? How can the reluctance to build in the traditional Arish style be resolved, and how can we guide the use of this style within the framework of preserving the environmental identity of Al- Arish city?. The research aimed to study the Araishi house as a basic element of the environmental elements that make up the environmental identity of Al-Arish, as well as to discuss and study the reasons for people's reluctance to build with this type of housing and to encourage construction with this environmental style in an attempt to guide the preservation of the environmental identity of Al- Arish city through an analysis of the elements and components of the Araishi house. The research relied on a field visit to 8 Arish houses in the Al-Fawakhiriyah neighborhood located in the middle of Al-Arish city, which is considered one of the oldest neighborhoods that still maintains its environmental identity. This visit was documented through photography and analysis of the basic common elements that make up these houses

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Finally, the research concluded with a set of results that indicate the environmental importance of the Aarishi house and the extent of integration of the architectural elements and components with the surrounding environment and function, as well as the general climate of Al- Arish. The research also indicated the development of proposals to avoid the extinction of these houses and maximize the benefit from them as a unique architectural element.

## 1. Introduction

The term identity is considered one of the common terms in architecture and urbanism in general, as it refers to the uniqueness and originality of vocabulary, whether architectural or urban. On the other hand, the concept of environmental identity has emerged, which is considered one of the newly emerging terms, as it refers to the identity of the place and the extent of its connection to the surroundings and the different environments around it (natural or human), as it studies the extent of the influence and impact of all these elements and vocabulary on each other. It is worth noting that North Sinai governate in general and Al- Arish city in particular are areas with a special identity that must be cared for and preserved due to their cultural, geographical and climatic diversity.

The local community in Al-Arish is closely linked to the environment, as the environment constitutes a large aspect of the community's life and activities, and each community has its own way of dealing with the surrounding environment (Sinai Bedouins do not sleep under dense trees, for fear of a type of insect that they believe exists and is afraid of its ability to harm them). [1]. Local communities can be classified according to the quality of the ecosystem. In North Sinai, local communities can be divided into two main parts according to the quality of the ecosystem, as in Table. (1): Bedouin desert communities and coastal communities

**Table 1** Patterns of local urban communities according to the ecosystem in Al-Arish (**Source:** The work of the researcher)

|                                                               |                                   |                                                          |                                                                                             |
|---------------------------------------------------------------|-----------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Urban patterns according to the eco system in Al-Arish</b> | <b>Coastal communities</b>        | Urban patterns in Coastal communities in Al-Arish        | Arbors<br>Chalets<br>Fishermen's Dwellings<br>Farmers' Dwellings                            |
|                                                               | <b>Bedouin Desert communities</b> | Urban patterns in Bedouin Desert communities in Al-Arish | Tents<br>Arbors<br>Bedouin Dwellings<br><b>Al-Arish house Dwellings</b><br>Modern Dwellings |

Coastal communities depend on their surrounding environment, as they arise on the outskirts of the coasts in the region. They are areas that depend on fishing for their economic activities and differ in their components, lifestyles, and housing. They depend on stability and not constant movement as is the case in Bedouin communities. [1] as in table (1) samples of the most important housing patterns in the coastal areas of the city of Arish. Bedouinism in North Sinai in general, and Al-Arish in particular, is associated with the desert environment, and there are several types of housing in desert

areas and communities, it is only a clear reflection of the Bedouin lifestyle in the desert, and it is also a translation of the Bedouins' needs for housing that expresses the duration of their travel [1]. In this research the author focusses on Al-Arish house dwelling as the main dwelling in Al-Arish city and as a part of Urban patterns in Bedouin desert communities, so the research will produce Analyzing Environmental architectural characteristics of Al-Arish house as follows

## 2. Methods and tools

The research is based on the theoretical part which define the concept of environmental identity and its component and the analyses part which analyzing the elements and components of the Araishi house from the functional and environmental side , studying the extent of the connection between these elements and the components of the environmental identity of Al- Arish through a field visit to 8 Aarishi houses in the Al-Fawakhiriyah neighborhood located in the middle of Al-Arish city, which is considered one of the oldest neighborhoods that still maintains its environmental identity. This visit was documented through photography and analysis of the basic common elements that make up these houses. from the period of 13 January 2025 to28 February 2025.

## 3. The Concept of Environmental Identity

Studies have presented several concepts for the term *environmental identity*, and the connection between this concept and behavior and the psychological aspect has emerged, as has its concept on the urban scope. The concept of environmental identity in the behavioral scope depends on the relationship of human behavior to social relations, influenced by the surrounding environment around him. While in the urban scope, it was found that the concept of environmental identity revolves around a mathematical process consisting of the sum of the characteristics surrounding the urban context, [2] whether (social context and natural context), affected and influencing the artificial context existing in that environment over time, which distinguishes it from others, increases its value. A review of the key definitions that scholars have studied in this field is provided in the table below, Table (2).

**Table 2** Environmental identity definitions from the urban scope [8]

| year | Author         | Definition                                                                                                                                                                                                                                                              |
|------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1960 | Lynch          | "Identity is a case where an object is unique."                                                                                                                                                                                                                         |
| 1976 | Relph          | "The main characteristics which form spatial identity are the physical structure forming the space, the facilities it embodies, and the meanings created by users."                                                                                                     |
| 1979 | Norberg-Schulz | "Environmental factors are one of the most important factors impacting the identity an urban area adopts, and the people living in that environment add their own culture and lifestyles to that urban area in time, thus they allow the urban area to stick in minds." |
| 1980 | Correa         | "Identity is not a 'found object' but a process. We develop our identity by reacting to our problems and our circumstances."                                                                                                                                            |
| 2011 | Bell & Shalit  | "Cities reflect as well as shape their inhabitant's values and outlooks in various ways"                                                                                                                                                                                |
| 2012 | Ujang          | "In urban studies, identity is a translation of the distinct characteristics of the place or a mixture of the individuals as a total object"                                                                                                                            |
| 2013 | Yaldiz,        | "Urban identity, architectural identity and the urban images about them are sometimes                                                                                                                                                                                   |

| year | Author                             | Definition                                                                                                                                                                                                                                                                                                                                                    |
|------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Aydın,<br>&<br>Sıramka<br>ya,      | formed by very different components in a long period in urban space.”                                                                                                                                                                                                                                                                                         |
| 2017 | SAGLI<br>K, E., &<br>KELKİT<br>, A | “Identity is defined as the natural and artificial elements of a city, its social, cultural, and historical characteristics. Among these characteristics, the most obvious and impressive are the identity of that city. Every feature that differentiates one city from the other and appears differently is counted as the identity component of that city” |
| 2018 | Ziyaee,<br>M.                      | “Urban identity is a way of representing the city's natural, cultural, and manmade components.”                                                                                                                                                                                                                                                               |

After reviewing the most important definitions in this field, the authors found that the most accurate definition of *environmental identity* is the one proposed by Norberg-Schulz (1979), who described it as a combination of all surrounding environmental factors—urban, social, and natural. All these factors are considered key components. Due to the spatial identity's impact on individuals—who live in and shape their environment through their customs and culture over time—it becomes embedded in their minds. [2]. Meanwhile, Ujang (2012) interpreted identity as a reflection of the distinctive characteristics of a place or the individuals inhabiting it. This identity both influences and is influenced by the place. In this context, *environmental identity* refers to the sum of characteristics, including:

- **Natural factors** (such as climate, soil, topography, and natural components in general), and
- **Human factors** (such as social and cultural customs and traditions), in addition to urban elements—all of which influence and are influenced by one another over time. This dynamic interaction distinguishes one environment from another and enhances its value. [2]

### 3.1 The Components of Environmental Identity

According to the researcher, the natural environment has the greatest influence in shaping the identity of a place, through its geological, morphological, and climatic components. However, this does not diminish the role of the social element—with its customs, culture, activities, and psychological aspects—which also contributes significantly to the formation of identity. In turn, both the environmental and social elements influence the formation of the urban or physical element, which ultimately gives the place its distinctive identity. This concept can be illustrated through Fig. (1), which defines the interrelationship between these components and clarifies the role of each element in shaping urban identity. [2]

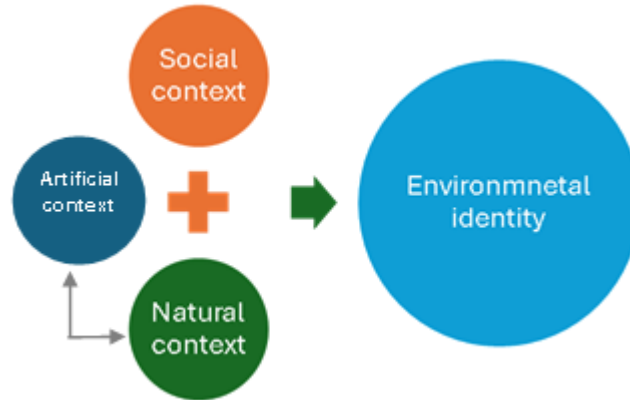
As shown in Figure (2), the natural context includes: (Geomorphological Features-Geographical features-Bio-climatic features-Soil-Water Resources-Natural vegetation)

The artificial context includes: (Settlement-scale features such as buildings, streets, squares, and green spaces-Urban Infrastructure-Symbolic elements) Both the natural and artificial contexts are categorized as physical features.

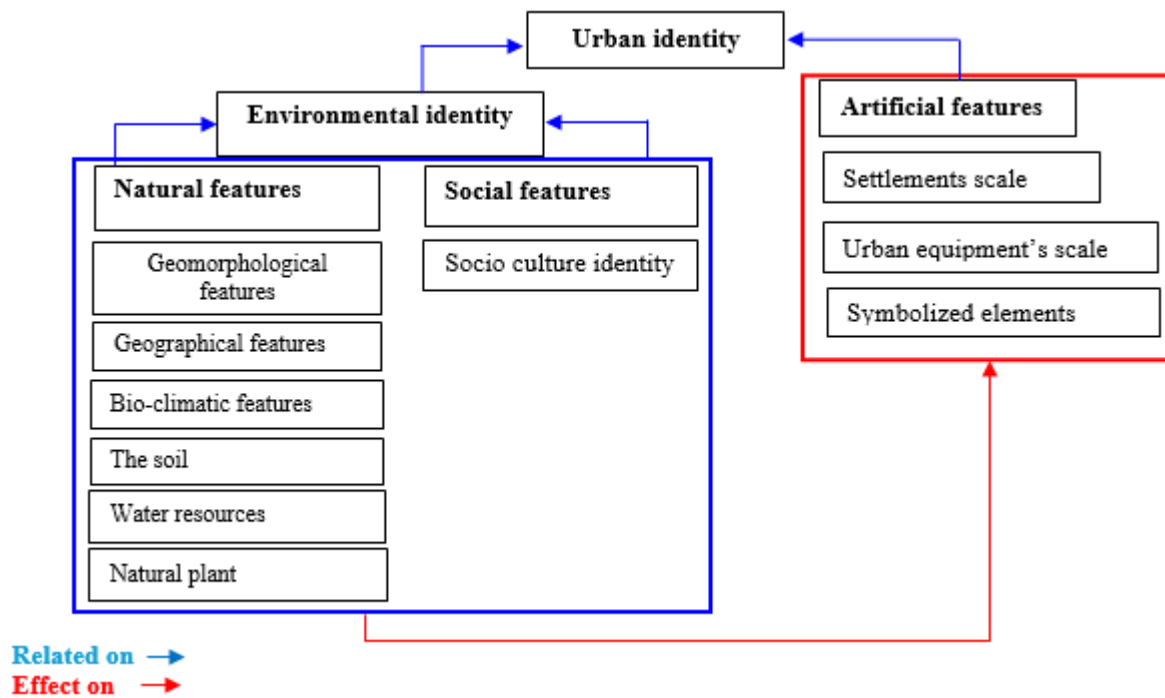
On the other hand, the social context includes: (Socio-cultural Identity-Demographic Characteristics-Cultural Aspects-Historical Features-Cooperative (corporate) features) These are classified as non-physical features.

Accordingly, the analysis of the Al-Arish house falls under the artificial context, specifically as a symbolic element within the city, making it one of the key components of environmental identity.[2]

In the following section, the authors present an analysis of the Al-Arish house and its elements from the perspective of environmental identity, discussing how these components interact with and influence the local environment and other contextual features



**Figure (1)** A mathematical process consisting of the sum of the environmental identity characteristics. [2]



**Figure (2)** The components of environmental identity [2]

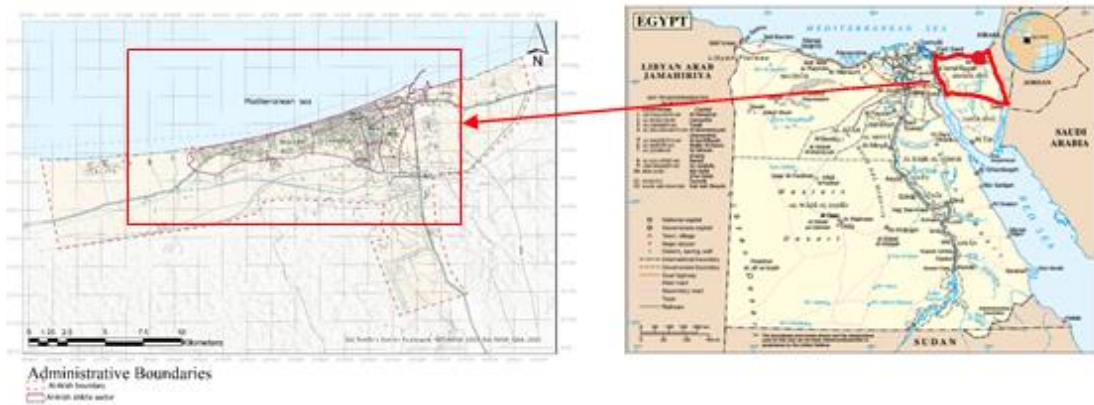
#### 4. Introduction to Al- Arish city

The Governorate of North Sinai has a unique character that sets it apart from the rest of Egypt. Located on Egypt's eastern border, it is considered the eastern gateway to the country. The governorate covers a large area characterized by diverse terrains and varying surface features, including mountains, seas, and deserts. These natural elements have significantly contributed to shaping the identity and distinct character of the governorate compared to other regions in Egypt.[3]

**Location:** North Sinai Governorate is situated in the northeast of Egypt. It is bordered to the north by the Mediterranean Sea, with a coastline stretching approximately 220 km. The governorate lies

between latitudes  $31^{\circ}17'N$  and  $34^{\circ}55'N$ , and longitudes  $29^{\circ}30'E$  and  $32^{\circ}50'E$ . The city of Al-Arish is located along the Mediterranean coast. It is bordered by Bir al-Abd to the west and Sheikh Zuweid to the east. The city stretches along the shoreline for about 20 km and is approximately 300 km away from Cairo. [3] See Figure (3).

**Area :** Al-Arish ranks fourth in terms of area among the cities of North Sinai Governorate, with a total area of 807.8 km<sup>2</sup>. It serves as the urban capital of North Sinai. The total land area of the city is estimated at approximately 9,500 acres. [3]



**Figure (3)** shows the location of the governorate of North Sinai from the Arab Republic of Egypt. [3]

Al-Arish is characterized by its vast area, diverse natural vegetation, direct proximity to the seacoast, and expansive deserts. These features contribute to its unique landscape and distinguish it from other governorates in the country. The geographical features of Al-Arish are generally classified into two distinct types: coastal and desert regions. [4]. Due to its geographical location, Al-Arish lies within the domain of the marine environment and is influenced by the Mediterranean climate. [5]. Moreover, Al-Arish is notable for its cultural richness, as illustrated in Figure (4). The Bedouin culture is a dominant and defining characteristic of the city, giving it a unique cultural identity. In addition, the city is naturally rich—especially in palm trees, which are abundant and widely distributed, becoming a defining feature of the city's natural environment.

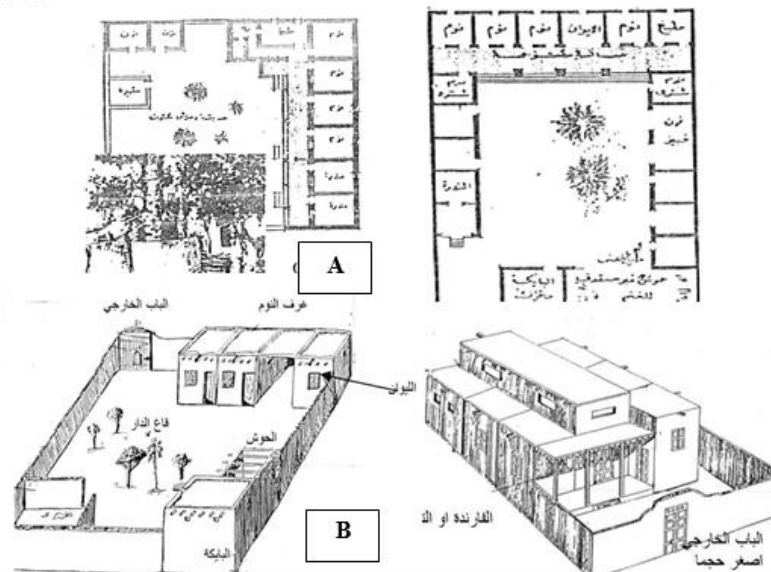
Al-Arish also exhibits a diverse pattern of population distribution, which is strongly influenced by tribal affiliation. People tend to live near their extended families, often in shared buildings or in close proximity. This leads to areas densely populated by members of the same tribe or family. In some parts of the city, the level of population density is also linked to economic activity, which is itself influenced by the tribal system. Certain families are traditionally associated with specific occupations, and their residential locations are often centered around their sources of income. [4]



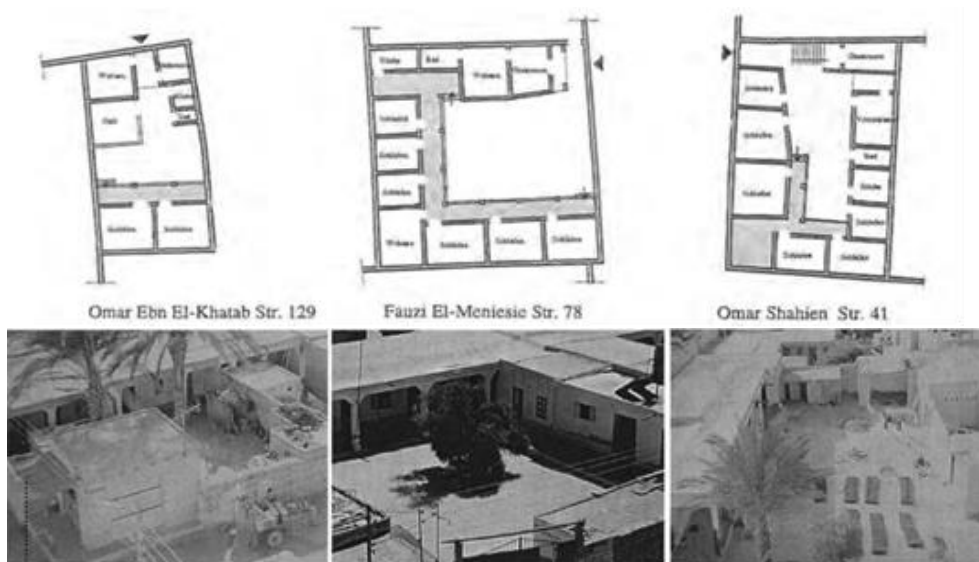
**Figure (4)** The natural and human wealth of Al-Arish city

## 5. Al-Arish House (Traditional Dwelling)

The Al-Arish House is the traditional and distinctive type of residence in the city of Al-Arish. It is notable for its unique environmental architectural style and relatively large area. These houses were traditionally built using local materials, such as clay deposited in the ground, as well as palm fronds and straw leftover from the barley harvest. The Al-Arish house represents a self-sufficient economic and social unit, typically accommodating the extended family, as illustrated in Figure (5). [6] According to Naoum Bey Shaqir (1991), the Al-Arish house comprises multiple rooms and spaces, including: the house room, Al-Liwan, Al-Baika, the oven room, Al-Housh, Qa'a El-Dar, and Al-Mandara. After 1994, the traditional structure of the Al-Arish house began to undergo changes. This was due to the arrival of military personnel and non-local workers who settled in the area. Consequently, closed apartment-style dwellings began to emerge, featuring private toilets and a veranda or terrace, while still utilizing traditional local construction materials. These developments are depicted in Figure (6). [7]



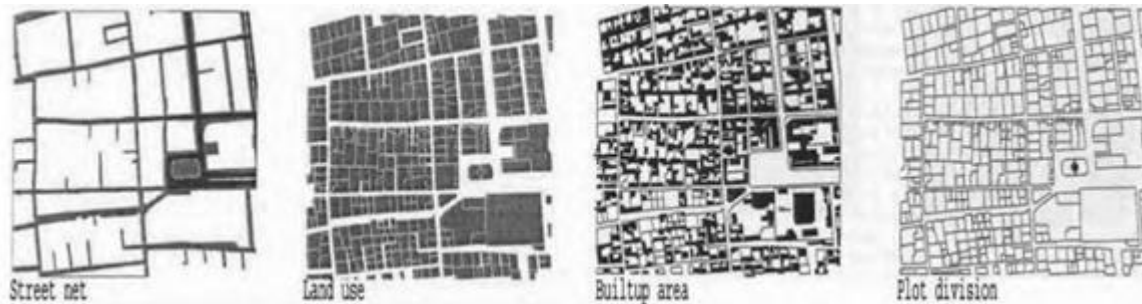
**Figure (5)** (A) Horizontal plan for Al-Arish House (traditional dwelling) located in Al-Arish. (B) 3D isometric for Al-Arish House (traditional dwelling) located in Al-Arish. [7]



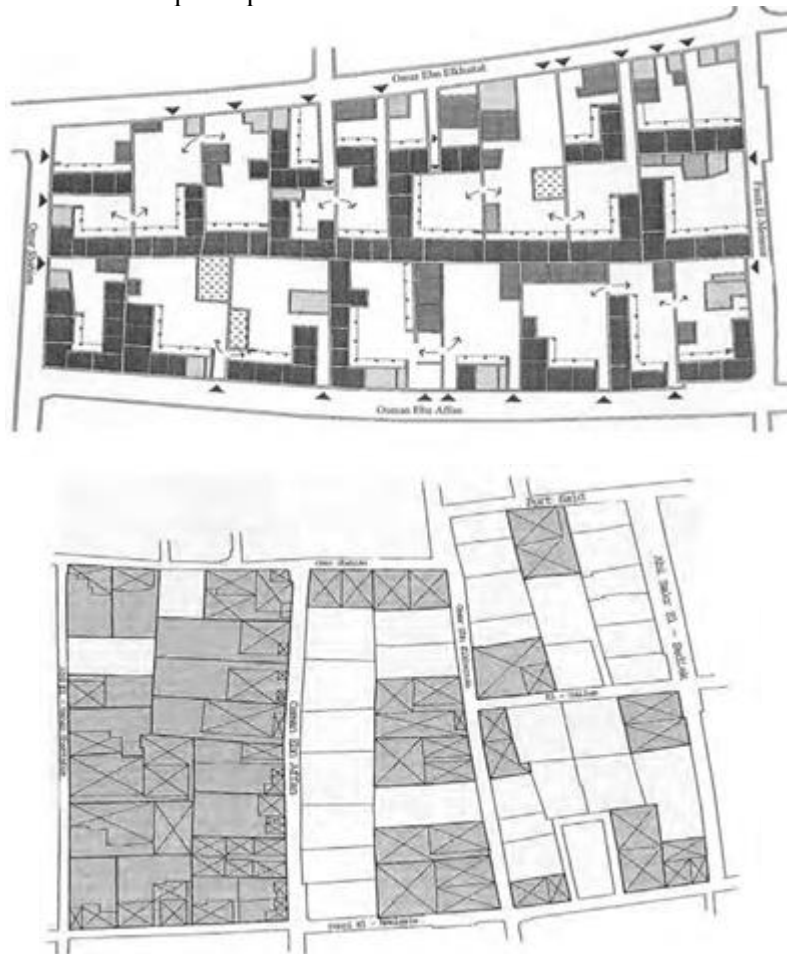
**Figure (6)** (A) horizontal Plans and (B) Family courtyard, the most dominant space in the traditional houses that connects all other spaces and accommodates most of household activities. [8]

### 5.1. Urban Characteristics of Al-Arish House:

The local urban planning of Al-Arish was based on a perpendicular grid system, where residential units were arranged in a pattern of intersecting streets. This planning approach resulted in adjacent housing units, influenced by local customs and traditions that emphasize the importance of close family and community ties within neighborhoods. [8] This layout is illustrated in Figures (7 and 8). According to Ragab, A. A. M. (2007), the inhabitants of the traditional settlement in the Al-Fawakhria residential block in Al-Arish developed a unique solution during the Israeli occupation to circumvent the prohibition of movement. In response, they created internal doors between adjacent houses, allowing for the exchange of medicine and essential supplies among families. Remarkably, some of these connecting doors still exist today in the remaining traditional houses.[8]



**Figure (7)** Characteristics of the spatial pattern of the traditional desert settlement structure in Al-Arish [8]



**Figure (8)** Inhabitants of the traditional settlement in Al-Fawakhria residential block invented a solution to overcome the wandering prohibition ordered by the Israeli occupation by creating doors between houses to exchange medicine and other living materials [8]

## 5.2. The Importance of the Araishi House

The social life of the majority of Al-Arish's population is deeply rooted in blood ties, with its inhabitants organized into tribes, clans, and families. Traditionally, the tribes of Al-Arish reside in the valleys, living in hair houses made by women from the wool of sheep and goats. Each cluster of these houses is called a "Nagaa", which may include towers known as "Nawawis" — a historical term still in use today. A Nagaa represents a unit within the tribe, encompassing several families. Several Nagaa together form a tribe, whose affairs are managed by a leader called the Al-Aqela, with the Omda serving as the head of the tribe. The tribe is further divided into several clans, each headed by a sheikh. These clans are subdivided into smaller units called "robaa", each led by a "kabeer robaa." [6]

Each tribe has a distinctive mark or brand ("dag") used to identify their camels and prevent mixing with those of other tribes. Tribes also have their own territories, with clearly defined borders shared with neighboring tribes. The dialects spoken in Al-Arish vary according to the tribe, with each tribe having unique customs and traditions that distinguish them in terms of food, drink, housing, and clothing. However, many customs overlap due to trade and familial relations. Despite these differences, the tribes share common values such as love of freedom and pride, hospitality and generosity, reverence for the noble, respect for honor, chivalry and courage, storytelling, and a tradition of fighting and weaponry. The Sinai tribes follow a customary justice system based on Sinai traditions and Islamic law, which remains in effect today.

To this day, families, elders, and sheikhs continue to follow tribal governance, considered the foundation of Al-Arish's social system. The Al-Arish house serves as a microcosm of this tribal structure. Sons traditionally remain in the family home with their fathers and grandchildren, reinforcing strong family bonds and emphasizing the significance of the Al-Arish house as a multi-generational residence. Recently, however, due to cultural mixing and urbanization, younger generations have begun to move out and live independently in modern-style apartments. Consequently, the traditional houses have started to disappear. Nevertheless, the traditional Al-Arish house held significant environmental importance, as its design was well-suited to its function and compatible with the surrounding environment, which will be elaborated upon in the following sections.

## **6. Environmental Architectural Characteristics of Al-Arish House**

Al-Arish House relies on the use of local materials in construction, and the design also considered the special nature of the city of Arish, both environmentally and socially as follows:

### **6-1- Environmental Treatment**

The architectural features of the Araishi house are based on developing environmental solutions that harmonize with both the natural conditions and the functional needs of the inhabitants of Al-Arish. The authors observe that each architectural element directly relies on components from the surrounding environment to effectively fulfill its intended purpose.

#### **6-1-1- Wooden Ceilings Coated with Clay**

Materials were used to roof the veranda and the corridors between the rooms, providing both shade and thermal comfort. The people of Al-Arish utilized these spaces to receive close guests and to sit at different times of the day, as illustrated in Figures (9) and (10).



Figure (9) Wooden ceilings on corridors between the rooms in Al-Arish house Source: Field visit of the researcher,2025

### 6-1-2- Roofs

Fig. (11) depends on the use of local wood from olive trees, as they are initially provided with thick veins, while panels of less thickness are placed on top of them, and to ensure that rain does not leak, they are covered with clay material. In some homes, palm fronds are used instead of wooden boards as a kind of trellis.



Figure (10) Wooden ceilings on roof the veranda area in Al-Arish house Source: Field visit of the researcher,2025



Figure (11) palm fronds are used instead of wooden boards as a kind of trellis, In some homes. Source: Field visit of the researcher,2025

### 6-1-3- Walls

It is created by Using local clay and mixing it with barley straw in Fig. (12) helped maintain thermal comfort inside the houses (in winter the house is warm, while in the summer it has a nice, moderate atmosphere). Also, using double walls of clay helped prevent noise from passing inside the houses. The construction process of walls is carried out by making a layer of clay bricks and then covering them with a layer of about 2 cm of barley straw mixed with clay. The outer layer is covered with a layer of liquid clay

to ensure the smoothness of the wall surface. In some homes of the wealthy class, the outer surface is painted with a layer of lime added to it. colour



**Figure (12)** Using local clay and mixing it with barley straw to maintain thermal comfort inside the houses.

**Source:** Field visit of the researcher,2025

#### **6-1-4- windows**

In Fig. (13) were distinguished by their large size to allow the greatest amount of air inside the rooms, and wooden windows made of shutters on the outside of the house, Solid windows are used for bedrooms were used to preserve the privacy of the people of the house.



**Figure (13)** wooden windows made of shutters with large size on the outside of the house **Source:** Field visit of the researcher,2025

#### **6-1-5- Floors**

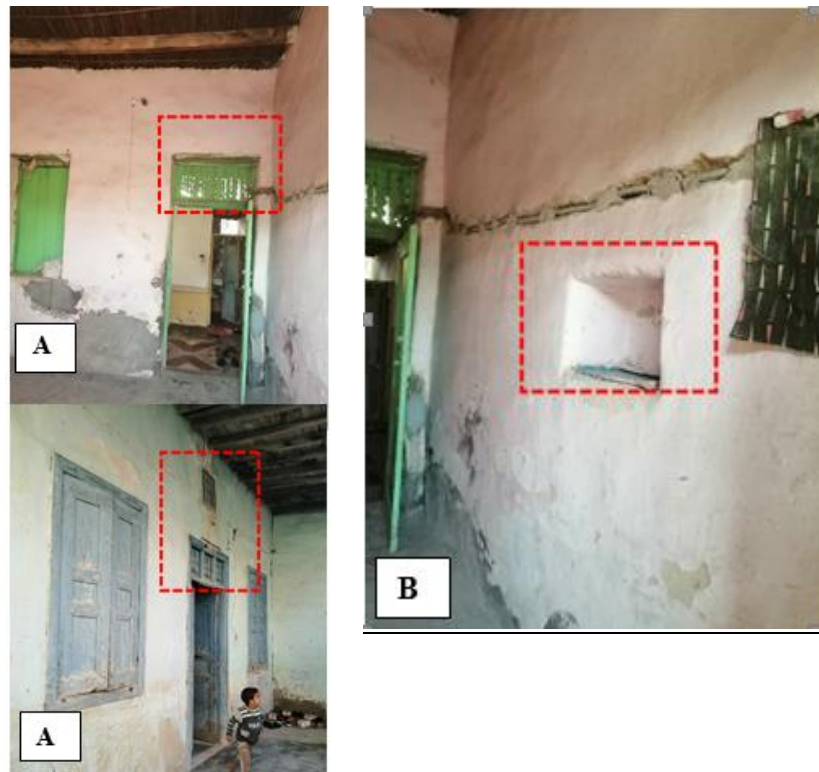
White sand from the seashore or from the sand dunes spread in Al-Arish was used to cover the middle area of the house, while the floors inside the rooms were covered either with a layer of clay, or recently the clay was replaced with cement plaster, Fig. (14).



**Figure (14)** shows the White sand from the seashore or from the sand dunes spread in Al-Arish covering the middle area of the house. **Source:** Field visit of the researcher,2025

### 6-1-6-- What is called "Taqa"

was created above the doors of the rooms, as in Fig. (15) to allow light to enter and illuminate the space with natural lighting, as artificial lighting was not available in the past, but rather they relied on gas lamps. Each space was provided with a hollow area to place the gas lamp to illuminate the space at night.



**Figure (15)** (A) "Taqa" above the doors of the rooms to allow light to enter and illuminate the space with natural lighting (B) a hollow area to place the gas lamp to illuminate the space at night Source: Field visit of the researcher,2025

### 6-1-7-Rain drainage systems

Due to the scarcity of water resources in Al-Arish, the people relied on collecting rainwater in the winter, as it is considered a very important source for storing water, so slopes were made in the roofs and their ends were provided with a sheet of iron duct equipped with a pipe to collect water in barrels that were placed at the bottom of this pipe, Fig. (16)



**Figure (16)** Rain drainage systems as a very important source for storing water. Source: Field visit of the researcher,2025

### 6-1-8- The Centre Courtyard

On Fig. (17) creates an air current inside the house, and the people planted olive, grape, fig, and citrus trees to use as umbrellas while they sit in the middle area inside the house.

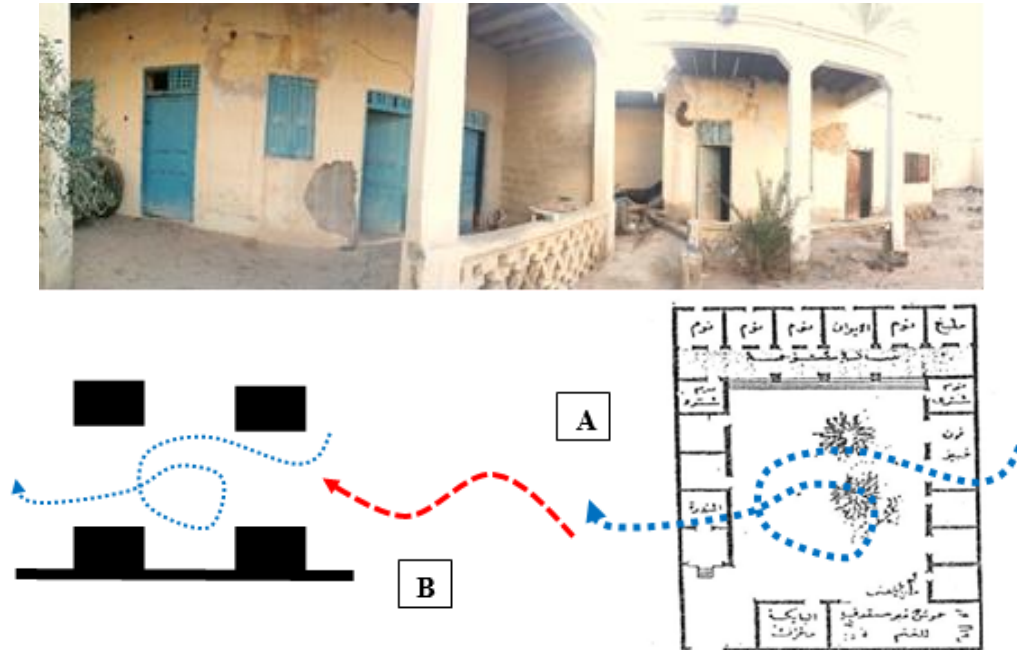


Figure (17) (A) the courtyard area in the Al-Arish house  
(B) horizontal plane and section for the air flow on the courtyard area Source: Field visit of the researcher, 2025

### 6-1-9- Furniture

The furniture in the Al-Arish house is distinguished by its simplicity and its reliance on seating and the floor. We find the main element in the bedrooms and living rooms is “Al- shaltah”, which is a mattress made of leftover cloth sewn by hand for sleeping and leaning on, in addition to some cushions made of straw, Fig. (18).



**Figure (18)** The ground is covered with Mats and Sinai kilims which are hand-woven by the women of Al-Arish **Source:** Field visit of the researcher, 2025

The ground is covered with Mats and Sinai kilims, which are hand-woven by the women of Arish and take a distinctive shape, While the kitchen relies on the fire area, which is a gathering of olive wood used to make food, coffee and tea, and recently it was replaced by “cannon”, Fig. (19). We also find some of the distinctive elements of the Arish house, such as the door lock made entirely of wood, which is used for protection and security of the doors, while the group of pictures show some of the components of the Arish house, such as the plants planted in the middle of the door.



**Figure (19)** (A) clay oven as a tool in the kitchen, (B)the fire area which used to prepare food  
**Source:** Field visit of the researcher,2023

In Table (3), through the field visit to the Arayshi houses, the researcher collected the average percentage of voids compared to the total area of the house, as well as the extent of coverage with wooden and clay roofs for the ceilings, and the materials used in the floors. The following is a detailed explanation of the voids:

**Table 3** The percentage of spaces in the Araishi house, source:(the work of the researcher)

| Elements           | Area          | %     | Wooden Ceilings<br>Coated with<br>Clay(roofs) | Walls      | Floors     | Windows<br>W:6<br>L:4 | Taqa<br>H:4<br>W:6 |
|--------------------|---------------|-------|-----------------------------------------------|------------|------------|-----------------------|--------------------|
| qa`a el-dar(patio) | 516 M         | 43.7% | Not Covered                                   | Not closed | Mud & sand | -                     | -                  |
| Bedrooms           | 22(7) M       | 13%   | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| Kitchen            | 61 M          | 5.17% | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| the oven room      | 42 M          | 3.56% | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| Mandara            | 45 M          | 3.81% | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| Al-Baika           | 35 M          | 2.96% | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| Iwan               | 22 M          | 1.86% | Covered                                       | closed     | cement     | (1.5*2)<br>12.5%      | (.50*.20)<br>0.4%  |
| Open Veranda       | 114 M         | 9.66% | Covered                                       | Not closed | cement     | -                     | -                  |
| Al-Housh           | 79.3M         | 6.72% | Not Covered                                   | Not closed | Mud & sand | -                     | -                  |
| <b>Total</b>       | <b>1179 M</b> |       |                                               |            |            |                       |                    |

Araishi houses share common components such as bedrooms, courtyards, the oven room, bakehouses, and iwans. The courtyard represents the largest proportion of the house's area, reaching 50% of the total area of the Araishi house. The floors of the rooms are covered with cement, while the floors and courtyard are covered with sand and clay.

## **7. Results**

The research concluded that the Al-Arish house is considered one of the residential buildings with a distinctive environmental architectural vocabulary, which gives it unique characteristics compared to other regions. There is a strong connection between the architectural elements of the Al-Arish house, the culture and traditions of its people, and the surrounding natural environment. Courtyards (qa'a el-dar) are an integral part of any Al-Arish house, serving both as a private space for daily activities and as an environmental feature that moderates indoor temperatures. Local plants, such as olives, figs, lemon, and citrus trees, which the people of Al-Arish are known for, are commonly grown in these courtyards. The Al-Arish house consists of many rooms, including "the house room," Al-Liwan, Al-Baika, the oven room, Al-Housh, qa'a el-dar, and Al-Mandara. The mud walls, constructed with mud blocks and coated with a mud layer, help moderate indoor temperatures, providing coolness and comfort in summer and warmth in winter. This serves as a low-cost, environmentally friendly treatment for the residents.

Due to the people's strong preference for privacy, they used the *Taqa* (a sail-like feature) over wooden doors to allow light and air inside without compromising privacy. The *Taqa* drilled into the walls also served as holders for gas lamps used for lighting. Furniture in Al-Arish is distinctive: Bedouins and locals traditionally sit on mattresses or kilims made from natural materials such as animal skins or handwoven fabrics crafted by women of Al-Arish. Rainwater drainage systems enabled the reuse of water for drinking and cooking. Ventilation openings, including large windows and ventilation *Taqa*, helped distribute air and natural light throughout the house. The furniture complemented this environment, reflecting the desert nature and Bedouin culture.

The oven room contains a clay oven used for baking homemade bread. People in Al-Arish prefer locally produced, handmade foods and reject processed foods. Animal pens adjacent to the house are also a typical feature, used for raising goats and chickens for household consumption. The influence of extended and tribal families is evident in the number and distribution of rooms, as multiple generations lived together under one roof, increasing the number of rooms per house.

## **8. Discussion**

Field visits and analyses revealed that the Al-Arish house is an essential part of the environmental identity of Al-Arish city, closely linked to its cultural and natural context. However, this traditional housing style is gradually disappearing due to various factors, chiefly cultural mixing caused by an influx of expatriates and a shift towards modern housing styles. Urbanization and the move towards nuclear families living in cement apartments have also contributed to this decline, causing the loss of key human elements in the environmental identity of the city.

## 9. Conclusions

Therefore, the researcher recommends preserving the remaining Al-Arish houses, especially those in old neighborhoods such as Al-Fawakhiriyah and downtown. It is advisable to use natural building materials that are environmentally friendly and compatible with the local climate. Furthermore, documenting and standardizing the Al-Arish house model as a crucial component of the city's environmental identity is essential, encouraging new construction to follow traditional styles, as seen in Bedouin houses, supported by state policies. Preserving local crafts, such as the traditional furniture industry, is also vital to maintain cultural heritage, and supporting women and local artisans in this field will help prevent the profession from disappearing. Lastly, digital documentation and adapting the Al-Arish houses for contemporary sustainable housing are recommended.

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