



## Housing Type Preferences Among Kuwaiti Citizens and the Concept of Interior Design and Urban Residential Density

Dr. Fawzi A. AL-Zamil\*  
Dr. Qutaiba E. AL-Shaheen\*\*

### *Abstract:*

Kuwait currently suffers from a housing crisis, due policies and executive procedures. This condition made worse by the widespread view among citizens that large houses are better and a lack of understanding of how urban planning and appropriate interior design can contribute to smaller liveable spaces. To address these problems, decision-makers and planners need to seek new solutions that are acceptable to the people. This paper seeks to contribute to this process by presenting the results of research designed to clarify the concept of urban density among Kuwaiti citizens and investigate their views on high-density housing and the pro and cons of smaller dwelling sizes.

The authors approached this by means of an electronic questionnaire, which also sought to identify citizens' housing priorities. The questionnaire was completed by 464 Kuwait residents, and in this paper, the answers are analyzed, both generally and according to demographic characteristics.

The results confirm Kuwaitis' general vagueness about the concept of housing density and their lack of acceptance of alternatives to the traditional town house. More specifically, Kuwaitis have a negative opinion of high-density housing, associating it with overcrowding and lack of privacy. When asked about their impressions of small houses, the most frequent response was negative, with respondents citing absence of privacy as the major issue, along with having no private garden. However, some pointed to prices, good use of space and

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\* Assistant Professor, Interior Design Department, College of Basic Education, Public Authority of Applied Education and Training.

\*\*General Manager, Architect, Al-Shaheen Consultants - ASCO.

closeness to services as possible advantages. Residential area, safety, price and availability of parking were top priorities among all respondents.

The overall conclusion is that the Kuwaiti housing problem can only be solved by using a range of experts to create new solutions that differ from the traditional town house, taking into account the opinions and requirements of the people. It will also be necessary to educate citizens about the alternatives available.

### *Introduction*

Kuwait's population is suffering from a serious housing crisis, while the obsession with owning a suitable house remains the main concern for both middle- and low-income Kuwaiti families. It is worth saying that the government strives to provide housing and seeks to cope with the continuous and substantial increase in demand for government housing. However, over time, responding to these increasing demands will be difficult, if not impossible, especially with the current laws, which stipulate that the land area for a government house should not be less than 375 square meters. (Council of Ministers, 2012).

Due to the limited supply of land, the growth of the metropolitan urban area and the great challenges facing the establishment of new cities, decision-makers and planners need to seek unconventional solutions that contribute to solving the problem and gaining acceptance from members of society. This is hampered by the fact that many government housing beneficiaries demand larger housing, without adequate justification, based on a misunderstanding of the concept of high-density housing and in complete lack of understanding of the standards of interior design.

In this paper, the researchers discuss the trend toward high-density housing, which would mean providing non-traditional apartments or smaller houses that meet society's requirements through higher standards of interior design.

One of the important tools that will help in the search for proper solutions to the housing crisis is to explain the concept of high-density

housing to Kuwaiti people and also to understand their attitudes toward small apartments and houses. At the same time, it is necessary to identify the preferences, specifications and standards that Kuwaitis want in their houses, while also studying the suitability of various design solutions, and interior design in particular, to achieve the requirements of the inhabitants and make housing more practical, functional, economic and aesthetic. Through this study, the researchers sought answers to all the above, and this research has resulted in a set of conclusions and valuable ideas that we hope will contribute to the development of possible solutions to the housing problems. In addition, some of the research outputs may provide indicators for planners, architects and designers about the most important criteria and elements in the dwelling for Kuwaiti society.

### ***Research objectives***

This research aims to identify the important characteristics of housing from the interior design perspective in the views of the Kuwaiti community and to understand their impressions regarding high-density housing. The research focused on the following priorities:

- 1 - To clarify the concept of urban residential density among the Kuwaiti community;
- 2 - To investigate Kuwaitis' impressions of high-density housing;
- 3 - To identify the housing and interior design priorities for the Kuwaiti citizen.

### ***Obstacles***

The researchers faced many obstacles, the most significant of which are discussed next.

### ***Resources***

It was difficult to obtain a sufficient number of Arabic sources that addressed the subject of the study. Part of the reason for this is related to the definition of housing density and its role in formulating planning policy in the Gulf region in general and in the State of Kuwait in particular. Because of the newness of the field of urban planning in

the region and the lack of workers in this field locally, there are few books or studies concerning housing density and its impact on the nature of residential suburbs and on the lives of individuals and society. Also, the ambiguity and lack of transparency that characterizes the work of the government, where the decision-making processes for determining densities are limited to field workers and to a small circle of decision-makers, means that only a few specialists are aware of the practical mechanisms for determining housing density and its applicable meaning in the State of Kuwait.

The same applies to interior design, since it is a relatively new specialty and there are still few professional interior designers in Kuwait. A general lack of awareness of the concept and scope of interior design, together with a poor understanding of the role and responsibilities of the interior designer, results in the interior designer not being considered important in the early phase of construction, with the result that their role is often limited to choosing the colors and interior decorations. All these factors have resulted in unacceptable designs that do not match the Kuwaiti daily lifestyle, causing residents to feel the need to repeatedly change the construction, design, number and size of rooms in their houses. This is common everywhere, of course, but what is really uncommon and unacceptable is that this happens in the first few months of moving in to a new home, and it causes insecurity and discomfort.

### ***Communication***

The researchers faced a communication problem with the focus group in which it emerged that the concept of housing density was not clear enough to the public to allow them to give informed answers. This forced the researchers to present some examples to aid understanding, and in some cases, this misled the participants and caused them to give inaccurate answers. It is obvious that the terminology and application of housing density as a new planning concept is still not clear to the public.

## ***Research significance***

### ***The importance of housing for the individual and the community***

In this section, the researchers focus on the need for housing at the individual and community levels. It is a generic need for all people to have a proper house. This means more than the spaces and roofs that protect people from the climate or secure their privacy; it goes beyond the physiological, social and security demands that need to be fulfilled and is subject to community and religious traditions.

There are many source from the Islamic tradition that emphasize on the importance of Housing. Such as the following verse from the Holly Qura'an:

“For the taming of Qureysh. (1) For their taming (We cause) the caravans to set forth in winter and summer. (2) So let them worship the Lord of this House, (3) who hath fed them against hunger and hath made them safe from fear. (4)

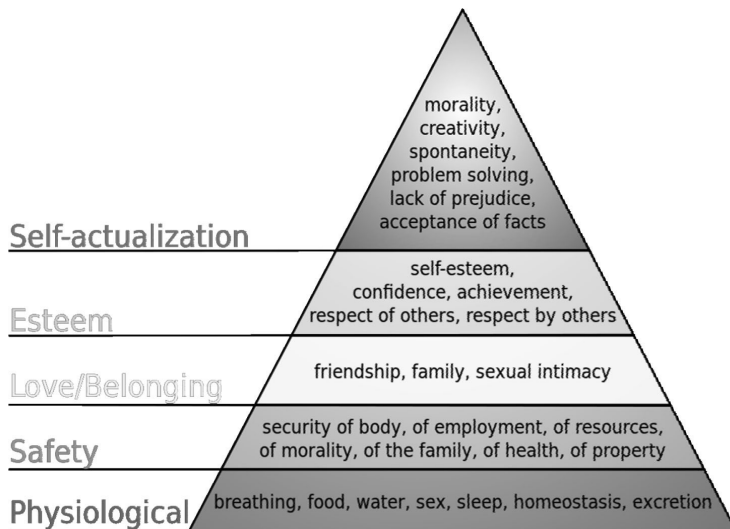
And the saying of the prophet Muhamed : “Whosoever begins the day feeling family security and good health; and possessing provision for his day is as through he possessed the whole world.”

Additionally; The Universal Declaration of Human Rights stated within Article number 25-1 “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness...”

Psychologist Abraham Maslow identified five categories of basic needs that all people must have. He represented these needs as a hierarchy in the shape of a pyramid with basic physiological needs at the base and higher-level needs, such as aesthetics and self-actualization, at the top. According to Maslow, people's lower-level needs must be met before they can aim for the next levels. He suggested that the first and most basic needs concern survival: food, water, and shelter. (Martin & Joomis, 2007: 72-75).

Looking back to Maslow's hierarchy of human motivation and needs (Figure 1), we can see that shelter is one of the main physical

needs, and any failure to secure adequate housing means that a person will not be able to move up to the self-actualization level.



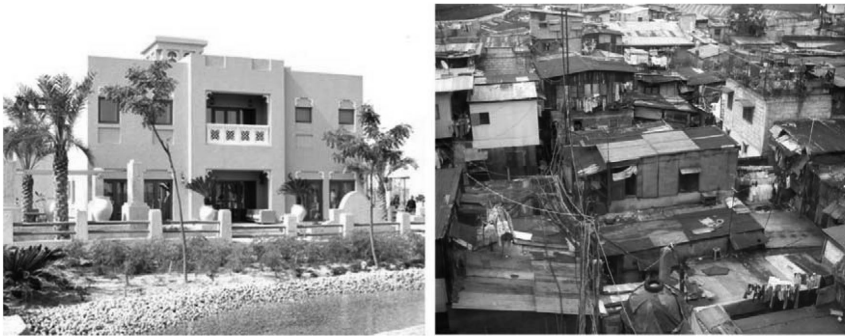
**Figure (1) - Maslow's hierarchy theory. (Wikipedia, 2012)**

Houses have different designs based on human circumstances and social standards. Rich people live in huge palaces with spacious nicely decorated rooms, with spaces supported by high artificial and natural light, alongside artificial and natural ventilation. Their houses are also provided with all the necessary support services, such as water and electricity, according to the highest standard. On the other hand, poor people live in houses made out of low-quality collected materials, without electricity and water, and these houses themselves do not provide the required structure to protect the residents from harsh weather conditions. Furthermore, such people constantly feel terrified that they might lose these houses, either because of the authorities or due to competitors/neighbors.

We fear the idea of homelessness, it means a life on the streets, of not having a place to sleep, to eat, to be. Our home is our base, a place that roots us to the earth, to the city or the landscape and stability and

allows us to build a life around in and within it. When we are away from it we pine, we are homesick.(Heathcote, 2012: 7)

Between these two situations, many live in various types of dwelling, ranging from private houses to rented apartments. Thus we can say that securing a suitable house is a common objective within all communities, especially if we take into consideration its direct effect on the growth and development of society: when a person succeeds in securing a house with all the necessary services, this will enable them to work harder to achieve the higher demands, such as a feeling of belonging, creativity and self-realization.



**Photo (1) - Abu Dhabi palaces and Cairo slums.**

### ***Research problem***

One of the main motivations for writing this paper is that, through our work in the field of interior design, we have seen the worsening of the housing problem in the State of Kuwait, and misconceptions about urban residential density and interior design standards are complicating the problem.

We have observed the continued suffering of citizens in trying to achieve the desired convenience and the constant changes that they make to the interior spaces of houses to match their lifestyle, tastes and social needs. We have also noticed that many people fail to achieve this objective. Moreover, all of the negative psychological, social and

physical effects resulting from this misconception and failure to achieve the objective have become very obvious.

Historically, the Kuwaiti government has paid great attention to the housing welfare case. Since the 1950s, it has succeeded in offering alternatives to citizens, and it has issued many housing regulations to cope with these demands, until the issuing of the Housing Welfare Law Number 47 in 1993 and Law Number 27 in 1995 and its amendments.

The housing problem got very complicated because it has been engraved in the mentality of the Kuwaiti citizen over the years that he has the right to have a separate house with all the necessary services. This in turn has become a burden on the government's shoulders as it has been accused of failing to fulfill this need and people consider that it is the government's role to find alternative solutions (Al Obaid & Salamh Ramzi, 2009).

Mariam Al Obaid and Salamh Ramzi (2009:5) described the main features of the housing problem in Kuwait as follows:

- 1 - The growing gap between supply and demand - 174,000 requests have been submitted to the housing welfare institution to obtain a housing unit (house, land, apartment), but only 91,600 units were delivered between 1974 and 2009, which means 83,000 Kuwaiti families are still on the waiting list.
- 2 - The waiting period (average 10-17 years) is considered to be too long, exposing Kuwaiti families to unpleasant circumstances such as:
  - a - poor psychological conditions, especially for low-income people;
  - b - some families having to live with their relatives and parents, causing more burdens and overcrowding in the housing units;
  - c - physiological and social suffering for some families living in rented units or unsuitable areas;
  - d - inflation in expenses resulting from rent allowances incurred by the government for Kuwaiti families, which amounted to KD 810,412,890 between 1991 and 2009. (ibid).

### *Scope of the research*

Housing patterns in the State of Kuwait have multiplied and evolved as a result of the economic growth and urbanization that accompanied the discovery of oil and the State's independence. We can generally define the housing patterns as follows: villa, multiple-floor residential building, Arabic house, with a small percentage of marginal housing. It is worth mentioning that even 50 years after independence, these patterns still exist within the urbanized areas.

The courtyard Arab house may be considered as prototype diffused in many variations through all Arab countries and Islamic areas extending from the Arabian Gulf to the Atlantic Ocean. This prototype is conceived to produce the same variety of contacts with open space, the same response to shade and to the movement of the air at each hour of the day.(Abdurrahman Shahim, 2014:4).

The Arabic house model was prevalent before the oil boom, and it was very common in the desert environment as it reflects human adaptation to the surroundings, as shown in building materials and ventilation systems. In terms of planning, the Arabic house is surrounded by a high fence, with a few openings, including one main entrance and another for animals. In the middle of the house there is an open courtyard which often has a water well. This courtyard is usually surrounded by a number of rooms, depending on the family's social and economic level. In old houses, little attention was paid to details; they were simple and functional, apparently because of a common low economic standard.

The researchers emphasize that the Arab-Muslim house "was built from inside to outside and not vice versa. Families used to define their residential requirements during the construction phase with limited material"(Khaled Azab, 2013:5).

These types of houses were usually built randomly with no prior planning, which has caused narrow and cracked roads. Although the Arabic house was the most common type in Kuwait cities and near suburbs, it gradually started to disappear because of the planning policies in the 1950s and 60s, which aimed for government acquisition

of all the land within the boundaries of the city of Kuwait. In addition, resolutions about change of land use have encouraged owners to demolish and reconstruct differently (Asghar Mohamad Moradi & Mahdi Akhtarkavan, 2008: P.22).

Nowadays, with the urban development outside the old city of Kuwait, the Western-style detached villa has become the common house style in Kuwait. All modern building regulations issued by Kuwait Municipality have encouraged the expansion of this type of housing, as has the cultural exposure of Kuwaiti society to modern Western societies through travel, direct contact and various media channels. Building regulations have defined coverage ratios, construction percentages, dimensions, the heights and number of floors and other conditions to raise safety and security standards. These villas are usually constructed within planned organized housing areas, granted by the government or directly bought on the free real-estate market. People usually assign architect-designers to design the houses in different internal and external styles, such as modern, classic, English, French or other, in order to reflect the luxurious lifestyle.

It is worth pointing out that the housing type has shifted from the horizontal building that characterized the first Kuwaiti suburbs, which usually consisted of one or two floors, to three or more floors in modern private houses. This has caused there to be limited space between buildings and has resulted in physiological, social, privacy and neighborhood problems in addition to other environmental problems related to construction cost, exposure to the sun's rays and others (Hashem Al Moussawi & Yaqoub Haider, 2009: P. 174).

And as the population crisis deepens, the government's inability to provide adequate housing has meant that Kuwaiti families have embarked on a search for temporary alternatives. The crisis has been worsening since 1992, and the number of families on the waiting list increased from 11,000 to 98,000 in 2012, which is considered to be a worrying number in the context of the recorded Kuwaiti population of 1,088,000 citizens (Ahmed Al Masoudi & Mohammad Al Mosleh, 2012: P.3). And due to the prolonged wait, which may extend to more than 15 years, Kuwaiti families have to search for a different suitable

alternative, even if temporary, depending on the family's nature and financial status. This means that some new families may still be living with their parents in a separate room or apartment, or renting a house or apartment in an existing house within a housing area. In a very few cases, they may be able to rent an apartment within high density residential areas.

The increasing demand for apartments within the housing area has encouraged house owners to increase the size of their houses and rent the upper floors to Kuwaiti families. The Kuwaiti Municipality has responded to these increased demands by updating the building methods to comply with this new direction, and the building percentage in private housing areas has gradually increased by 210% and 240% :heights of three floors were allowed, dimension conditions were decreased to 1.5 meters on the neighbor's side and 2 meters on the main street; moreover, approval was given for two separate apartments to be built on the top floor. (Kuwait Municipality, 2012)

Laxity in enforcing building regulations has caused significant breaches in private housing areas in addition to breaches in both private and public concerns in the urbanized areas, while the housing unit is no longer limited to one family but in some case includes five or more families within the same unit. This is on top of the negative impact on the utilities and services in the neighborhood and suburb.

### ***Research assumption***

The researchers wanted to focus on the main causes of the housing problem in Kuwait, which they identified as the Kuwaiti family's desire to have a "model" house. The researchers noted that the Kuwaiti family has a typical perception of model housing based on four main factors: interior design, location, type and size.

- Interior design: studies claim that people spend more than 90% of their time indoor and 58% of time at home. (CECCIAQPH, 2011: P.44). Therefore, a suitable interior design with respect to number of rooms, windows and doors, ventilation, safety, natural and artificial lights, colors, privacy, materials and other related matters is

considered to be the main factor in having a suitable house that reflects the residents' taste and social standard.

- Location: since the 1950s, Kuwait City has experienced rapid growth out from the center indifferent directions. Unfortunately, this rapid growth was not accompanied by comprehensive development, with the result that all the commercial and social services are located around the center only, as this remains the basic employment area, while services and traditional commercial areas like Shuwaikh and Salmiya continue to play their traditional roles. In addition, new families usually wish to be close to the residential areas of their parents and relatives, so staying near the city center is one of the main criteria in choosing a house.
- Type: it is noted that, for most Kuwaiti families, detached house has become the only acceptable type of dwelling. This approach has developed overtime as a reaction to different social and economic factors. Since the government began to link welfare housing services to limited-income families, all families started to seek ownership of detached houses. This has imposed a burden on the government, which now has to offer a larger number of suitable houses to the increasing number of families.
- Size: the developments that have taken place in all aspects of life in Kuwait and the continuous improvement in income level, as well as a greater openness to world culture, have led to the Kuwaiti family seeking to own private houses based on the concept "bigger is better." Kuwaiti law states that the land size of a government house should not be less than 100 square meters, (Council of Ministers, 2012) and this concept has become the only acceptable size for any private family house. As for the interior design, people have formed opinions on minimum standards for housing components, internal spaces, sizes and design, which increase in line with the family's financial standing.

### ***What is housing density?***

Since the industrial revolution, most city planners have sought to provide enough open spaces to ensure the quality of the location,

whereas industrial cities have started to attract a huge number of immigrant laborers to work in the newly opened plants, causing overcrowding and poor health conditions.

Modern architects took the lead and started to construct housing projects that considered more green areas, natural light and ventilation. Le Corbusier (1967) mentioned that 95% of city lands should be kept empty. allow for more freedom of movement on the ground. In terms of habitation, he recognized that “it was not enough to design merely comfortable homes, but that access, surroundings, amenities, and locations were also crucial to the creation of a satisfactory living environment” (Le Corbusier, 1967: P.218). The garden city came as a clear example of a city with surrounding gardens owned by individuals or by the public, with large gardens and children’s playgrounds managed by the local authority. This approach promised residents the enjoyment of nature and increased freedoms. (Rydin, 2003: P.16).

Within the proposition of this research, low density is used in private housing areas that are planned to accommodate units of one family; Kuwait Municipality has defined this as 10 units per hectare. In order to control the supply in certain areas, local authorities have defined density and building system specifications such as heights, building percentage, and the dimensions of the physical shape of the buildings.

There are number of definitions of population density:

**Number of units per hectare:** the total density of a certain area and the number of units per total area.

**Number of units:** a housing unit usually contains one or more rooms, including a bathroom and kitchen. It has one service counter and one address.

**Total density:** number of units per hectare based on size of total area.

**Net density:** number of units per hectare based on net size of area. In net size road sizes and space for pedestrians are not counted.

**Building percentage:** The proportion of the total built-up area to the land area. This proportion, along with other criteria, functions as

an accurate tool to control and measure density. (The Density Atlas, 2011).

There are two ways to measure density: molecular and molar. While molecular density measures the number of individuals per meter, molar density is based on total area size (number of population per hectare (Chia-Ling Chuang, 2001: P. 38). This measurement allows us to understand the complexity of the concept of density and how it could emerge as a misunderstanding among citizens.

It is worth noting that specialists use different tools to measure density based on their scientific backgrounds, resulting in yet more methods and recommendations. In addition, by nature, people have their own styles and impressions of density, which may differ from what specialists see. Based on this, there are three different kinds of density:

- 1 - **Tangible density:** what people feel based on their cultural backgrounds and social and financial level.
- 2 - **Physical density:** judged by the individual based on what he sees and understands in the urban environment.
- 3 - **Measured density:** as measured by planners.

Overcrowding is measured by the number of people per room and is considered the main reason behind low health standards. While the government tries to decrease the overcrowding percentage, it does not do the same with the density. As the government is responsible for securing houses for its citizens, and it usually faces shortages in coping with the growing population, this may result in increasing densities. In any case, authorities should work to avoid the increasing problem of overcrowding. Most people wrongly think that high buildings mostly represent high density. This is a misconception, and we should work to correct it, because low density may express a focus on making the pedestrian's environment as small as possible, especially in a hot climate like that in Kuwait. We should forget about buildings separated by highways and big empty spaces, and focus on building spaces that match with the scale of the walking human not the driving one (Colin Buchanan, 2008: P. 25).

### *What is interior design?*

The field of interior design is relatively young and rapidly developing. However, the concept is also still not clear to the general public in Kuwait. Interior design is defined as “a multi-faceted profession in which creative and technical solutions are applied within a structure to achieve a built interior environment” (ASID: American Society of Interior Design, 2015). These solutions are mostly functional to enhance the culture and quality of life of residents and to be attractive at the same time. Design always abstracts out from the building, taking into consideration the location and the social environment. Designs should always commit to complying with building regulations and encourage the concept of environmentally sustainable development. (The Council for Interior Design Qualification, 2004). The professional interior designer is defined as a person who is “qualified by means of education, experience and examination to protect and enhance the health, life safety and welfare of the public.” (The Council For Interior Design Qualification, 2004). Some specialists define good interior design as combining function and beauty, comfort, efficiency, economy or durability, while others state that design is everywhere; touching and affecting society, it counts on human beings. (International Interior Design Association 2013).

The influence of interior design is based on many factors, including aesthetics. In addition, interior design has the capacity to raise the functional, physiological and psychological aspects of housing, which will raise the level of satisfaction of the place and thus achieve general happiness. It also tends to drive up the physical value of the home. The application of a scientific and functional design by a professional designer can make a home look wealthier. Making interior spaces that are carefully designed requires intervention from a professional expert with certain skills that the majority of people do not acquire. The interior designer has sufficient knowledge of the latest materials and furniture and its suitability to the place and function, which will positively affect the house and the daily use of the place.

The researchers have noted through experience and practice that

the desire of many people to own a home with a large area is largely due to lack of understanding of design methods, and the erroneous inherited belief that biggest is best and most luxurious, although this is not necessarily true, as recent studies have shown. History has proved that bigger is not necessarily better. That is why the small 1930s' and 40s' houses endured for a long time and we still admire their design despite their lack of technological features and gadgets. In fact, focusing on the interior is more important as we spend more time within the house than outside it. Besides, it is the interior that makes house a home. Sara Susanka puts it this way:

The reason these houses have aged well is that they were designed for the human beings who live in them, not for the technology of the time. Wright, working in the 1930 and 40s, proposed the equivalent of the not so big house, putting emphasis on interior details and livability rather than on quantity of space" (1998:179).

Good and considered use of a given space can result in an elegant house that fulfills the individual's current and future needs.

### ***Research methodology***

The descriptive approach has been chosen to study the concept of urban density and interior design. This approach seeks to describe the phenomena clearly and define them using qualitative descriptions and features. It also applies quantitative methods using numbers and tables to explain the extent of each phenomenon and its association with other phenomena.

Scholars have developed a variety of research tools and means of collecting and analyzing information, including direct interviews, telephone interviews, sending questionnaires by fax or mail or email, and publishing a questionnaire on the internet. It is worth noting that electronic surveys have large advantages that need to be considered.

### ***Study procedures***

There are certain procedures that need to be followed when using research questionnaires (Gall et al., 1996: P. 291):

Define the research problem.

- 1 - Choose the pilot sample.
- 2 - Design the questionnaire.
- 3 - Conduct an initial test to check the level of questions.
- 4 - Pre-contact participants.
- 5 - Distribute the questionnaire with a simple introduction on the subject of the research.
- 6 - Analyze the questionnaire answers.

Based on the above, the researchers defined the research problem and listed the research objectives by first setting out the general idea and gradually defining the objectives. Considering the research objectives, the pilot sample was taken from Kuwaiti adult males and females (over 18 years old). The researchers also recognized the importance of designing the questionnaire so that it would be interesting for the participants. It is well known that the design of a questionnaire and questions plays a significant role in motivating participants to respond and answer honestly. In this context, the researchers followed the guidelines below when designing the questionnaire:

- Keep the questions as short as possible.
- Avoid words and terms that might confuse some of the participants.
- Design the questionnaire in an attractive way.
- Organize the questionnaire elements in a logical way that helps the participants to interact positively and read it more easily.
- Provide the questionnaire with an initial description that explains the purpose of the research.
- Provide a brief explanation when using any given term so as to help the participant to answer correctly. (In this research, the researchers explained the term “population density”, as it is difficult for some people to understand.)
- Avoid criticism or offensive words, because they can stimulate mental chaos and may affect participants’ sequence of ideas, possibly leading to inaccurate or incorrect answers.
- Avoid the use of positive or negative words that would affect the neutrality and hence the integrity and objectivity of the questionnaire.

- Avoid the use of words that do not convey a clear and precise meaning.
- Avoid asking questions that need two separate ideas in one answer.

After preparing the questions, the researchers tested the questionnaire in a pilot test, by distributing a number to a group of respondents. Spaces were left to enable the participants to write their comments or criticize questions. The questionnaire was tested several times to ensure the correct understanding of the questions. This study also showed that pre-contact with participants increased the effective serious participation and thus obtained positive honest results. Many emails were sent to motivate and encourage positive participation in the electronic questionnaire.

### ***Electronic questionnaire***

The electronic questionnaire is considered to be an effective tool when cost and time is an issue in the research, but here the researchers preferred it simply as a modern methodology. The use of this modern tool allows researchers to understand the limitations, obstacles, negatives and positives of such methodologies. In addition, electronic questionnaires allow rapid interaction, especially through modern tools and social networking applications like WhatsApp, Facebook and Twitter.

Many researchers have stated the advantages of the electronic questionnaire (Jansen et al. 2006; Andrews et al., 2003) as they are considered to be more comprehensive and to reach a larger number of participants compared with traditional tools. In addition, its low cost enables researchers to invite more participants and repeat the process as necessary. Since collecting the data is done electronically, the researcher has the privilege of being able to analyze it more quickly and at a lower cost.

When designing the questionnaire the researchers were keen to develop an informative introduction that aimed to explain the objectives of the research and its importance and to build confidence. It also urged the participants to complete the questionnaire seriously and honestly. The researchers also paid great attention to the

protection of privacy. They therefore sent random invitations to reassure the participants about the confidentiality of their answers, instead of sending the questionnaire via email, which might have discouraged participation. The researchers followed the scientific steps in building up the questionnaire, starting with preparing the pilot tests and seeking review by experts to ensure that the questions were valid and that the content was comprehensive, as well as to ensure the appropriateness of the language for the purpose of the study. After taking the views of specialists and making the necessary alterations, the questionnaire was designed and described in its final form and was sent to the initial pilot sample.

One serious disadvantage of using an electronic tool is that it is difficult to generalize the results, since it only includes people who use the technology. Also, some users may answer the questionnaire repeatedly using different tools, which could affect the accuracy of the answers. Some researchers repeat the application on some people after few weeks, allowing them to calculate correlation coefficients of the final results.

### ***The field study***

#### ***Pilot tests***

The questionnaire was distributed randomly through the electronic network to a sample of Kuwaitis living throughout the metropolitan area. A total of 464 correctly completed questionnaires were received. Table 1 describes the pilot sample according to the different study variables.

The responses to specific questions are shown in Tables 2-5 and discussed below.

#### ***Definitions:***

Within the scope of this study, the author finds it necessary to clarify some of the terms and concepts used in this research. As stated before in this paper, that this study is specific to the State of Kuwait. And most of the terms used have specific meaning that applies to the context of the country.

***Residential Area:***

When the author uses the terms residential area; it refers to a suburb with land use that permits the construction of detached single family houses. This land use is different from High Density residential; where Multi-Storey buildings with multiple residential units are permitted

***Rented apartment in a detached house & Floor in a detached house:***

This term refers to apartments rented in a detached house that is located within (Residential Area). These apartments usually have separate entrance from the main house and retend to members of the public that are not necessarily related to the house owner. (See Figure 2). The Author distinguish this from an apartment that takes an entire floor in a detached house occupied by a related member of the family. (See Figure 3)

***Apartment in a High Density residential Area:***

This term describe developments in High and medium residential areas that are more dense than low density single family suburban areas. These areas allow the construction of high rise residential buildings that house multiple residential units (apartments). It has been the trend that such residential type is mostly occupied by expats living in Kuwait.(See Figure 4).



**Figure (2) - Apartment in a detached house- Al-Shaheen Consultants**



Figure (3) - Floor in a detached house - © Al-Shaheen Consultants



Figure (4) - APARTMENT IN A MULTI STOREY BUILDING - AEAI-Shaheen Consultants

**Table (1)**  
**Description of sample according to the study variables**

<b>Variable</b>	<b>%</b>	<b>Number</b>
<b>Sex</b>		
Male	<b>53.0</b>	246
Female	47.0	218
<b>Age</b>		
20-29	34.7	161
30-39	29.1	135
40-49	23.7	110
50 or older	12.5	58
<b>Education</b>		
Higher education	10.8	51
University graduate	54.9	260
Diploma	20.5	97
Secondary school	10.5	50
Intermediate school	3.4	16
<b>Social status</b>		
Married	78.2	363
Single	21.8	101
<b>Current occupation</b>		
Governmental sector	60.3	280
Private sector	15.7	ñ
Not working	23.9	111
<b>Governorate</b>		
Capital	32.8	152
Hawalli	27.6	128
Al Farwaniya	14.7	68
Al Jahra	4.7	22
Al Ahmadi	5.4	25

*Cont/ Table (1)  
Description of sample according to the study variables*

Variable	%	Number
Mubarak Al Kabeer	14.9	69
<b>Type of current house</b>		
Separate house	34.5	160
A floor in family house	11.4	53
Apartment in family house	28.0	130
Rented separate house	3.7	17
Rented apartment in a separate detached house	19.0	ii
Rented apartment in a building (Multi-Storey building).	2.8	13
Apartment owner	0.6	3

N = 464

***Question 1: What does high-density housing mean?***

Table 2 shows the numbers and percentage scores for the question “What does high-density housing mean?”The most frequent answer in the pilot study was overcrowded houses, which was the response made by 158 individuals (34.1%).Apartments in buildings was second, with 107 individuals choosing this response (23%).Seventy-seven individuals (16.6%) answered don’t know, while the remaining responses were given less frequently.

***Table (2)  
Question 1: What does high-density housing mean?***

Response	%	Frequency
Overcrowded houses	34.1	158
Apartments in buildings	23.1	107
Don’t know	16.6	77
Absence of privacy	13.3	62
Sharing services	7.1	33
Small houses	5.8	27

N = 464

***Question 2: What are the advantages of living in residential buildings or small houses (less than 400 square meters)?***

In Table 3 we can see the number and percentages of responses to Question 2 about the advantages of living in residential buildings or small houses. The most frequent response was from those who thought there were no benefits (133 individuals, 28.6%). Next was reasonable house prices, with 117 individuals (25.2%). Sixty-Three individuals (13.6%) answered that it was the best use of space, while 46 individuals (9.9%) said closeness to services like work, shops and other utilities was the main advantage.

***Table (3)***

***Question 2: What are the advantages of living in residential buildings or small houses (less than 400 square meters)?***

Response	%	Frequency
No benefits	28.7	133
Reasonable price	25.2	117
Best use of spaces	13.6	63
Close to services (work, shops and other utilities)	9.9	46
Don't know	8.2	38
Other	4.1	19
Feeling of the neighborhood	3.9	18
Security and services	3.7	17
Less maintenance spaces	2.4	11
Easy access to public transport	0.2	1
Less use of private cars	0.2	1

N = 464

***Question 3: What are the disadvantages of living in residential apartments or small houses (less than 400 square meters)?***

Table 4 shows the numbers and percentages of the answers to the question about the disadvantages of living in small houses or apartments. A total of 197 individuals (42.4%) replied that the biggest

disadvantage was the annoyance and absence of privacy, 72 individuals (15.5%) said it was the small size, while 51 individuals (11%) said having no backyard or private garden was the biggest problem. Forty-three individuals (9.2%) were concerned about undesirable social standards, and finally, 38 individuals (8.2%) thought it was the overcrowding.

**Table (4)**  
**Question 3: What are the disadvantages of living in residential apartments or small houses (less than 400 square meters?)**

Response	%	Frequency
Annoyance and absence of privacy	42.5	197
Small spaces	15.5	72
No backyard or private garden	11.0	51
Undesirable social standards	9.3	43
Overcrowded	8.2	38
Lack of car parking space	6.7	31
Don't know	3.0	14
Absence of security	1.7	8
Others	1.5	7
No negatives	0.6	3

N = 464

**Question 4: What are the top priorities when searching for or building your house?**

Table 5 shows the respondents' top priorities when looking for housing and gives details and percentages for the answers. The most frequent response was that the residential area was the top priority, with 430 individuals (92.7%), while nearly as many (419 individuals, 90.3%) rated security as important. Price was given as an answer by 418 individuals (90.1%), parking availability came in fourth with 368 individuals (79.3%), and quietness was fifth (355 individuals, 76.5%).

*Table (5)*

**Question 5: What are the top priorities when searching for or building your house?**

Response	Ē	Frequency
Residential area	92.7	430
Security	90.3	419
Price	90.1	418
Parking availability	79.3	368
Quietness	76.5	355
Closeness to family	72.6	337
Neighbors	71.8	333
Spaces	65.3	303
Interior design	59.9	278
External design	58.2	270
Closeness to work	54.5	253
Service availability	50.6	235
Diwaniya available	28.7	133
Maintenance fees	25.9	120
Public transport availability	6.9	32

N = 464

### ***Analysis of the results***

#### ***1. Clarify the concept of population density in the Kuwaiti community***

To answer the study questions, percentages were calculated from the frequency data and then all answers with different variables were compared. As shown in Table 2, most people thought that high-density housing meant overcrowding (34.1%). Apartments in multi-storey buildings was the second most frequent answer, at 23.1%, and 16.6% of respondents said they did not know what the term meant. Absence of privacy was chosen by 13.4%.

As overcrowding and apartments in multi-storey buildings came

at the top, this shows that high-density concepts are linked to the general outlook and physical description. The answer small houses came at the end, with 5.8%, which means that small houses are not necessarily perceived as high density.

While absence of privacy came in the fourth rank for the sample as a whole, at 13.4% for males, it ranked third, and for females it was fourth. The responses also showed that privacy was in the top rank among those with different educational levels. It also ranked in fourth place with married and single people, while it varied between third and fourth rank in respect of current housing. The answers reflect the importance of privacy among the sample, and the strong link between the concept of high building density and the absence of privacy. In this regard, it is important to note that privacy issues can be solved in all housing types if professionals skilled in interior and architectural designs are employed.

It is also noted that the option do not know was the third most frequent overall (16.6%). In terms of gender, it was ranked fourth for males and second for females. It also seemed clear when compared with educational qualification: it ranked first for those with intermediate school qualifications, came in third place for those with secondary school qualifications as well as for the university and diploma qualified, while it was fourth for secondary school qualified respondents. These results underscore the lack of clarity of the concept of high-density housing. The answers directly reflect the prevailing housing preferences in the community, without clear scientific justification.

## ***2. Investigate the impression Kuwaitis have of high-density housing***

Investigating and understanding Kuwaitis' impressions of the nature of high-density housing was one of the main objectives of the research. The questionnaire may have contributed to that through the answers to Questions 9 and 10, which investigated the views of the community on the pros and cons of high-density housing.

Looking at the answers of respondents to Question 9 about the advantages of living in apartments in residential buildings or small

homes, in Table 3, it can be seen that the option no benefit was chosen by 28.7%. This is a large percentage and shows society's perception of any kind of housing contrary to what they are accustomed to - i.e. the detached house less than 400 square meters.

As shown in Table 3, many respondents opted for the option price of housing is appropriate, as it came in second place with 25.2%. This answer reflects the grumbling of society about the massive rise in housing prices and the inability of the middle-income families to own a suitable house.

The study sample ranked the option better use of spaces third, with 13.6%. This answer gives an indication of the conviction of the study sample about the most important advantages of apartments or small houses, the better use of space compared with the waste and poor or unusable distribution of space in traditional houses. This is due mainly to a lack of appreciation of the role of the interior designer and others with expertise and specialization in the areas of construction and reconstruction.

As for the choice of near services, it was ranked fourth by 9.9%, reflecting one of the most important features of high-density areas, which is that residents have easy access to all kinds of services rather than struggling to access these services in the usual residential suburbs and the need to rely on private cars and suffer in traffic jams.

Looking more closely at the distribution of answers according to the pilot-test sample variables, the gender variable (see Table 6, in Appendix 1) did not show any difference from the participants' answers overall. A comparison in terms of the educational qualifications with the overall answers from the pilot sample shows that they are generally consistent (Table 11, in Appendix 1). Highly qualified people were fully consistent with the participants as a whole in that do not know was chosen as the first-place answer. In second place was if the price of housing is appropriate, while in third place was better utilization of spaces, and in fourth was near services. The answers of university graduates were consistent with the overall responses, with a slight difference in the order of priorities: the right price was in first place, while no benefits was second. The diploma holders' answers

were generally consistent with the overall answers. Those who had completed secondary education were generally consistent with the overall sample, with do not know in fourth place, while the intermediate qualifications holders' answers showed no significant preference, being evenly distributed over more than one option.

Looking at the marital status variable, married people's answers were consistent with the overall pattern (Table 15, in Appendix 1). In first place came the option do not know, while in second place was the price of housing is appropriate, and in third was better utilization of spaces, while near to services was the fourth most popular choice.

The answers of single people were somewhat different. In first place they opted for price of housing is appropriate. This maybe an indication of the obsession with owning a house among single people in Kuwaiti society. In second place was the option of no benefits, and this corresponds generally with the answers of the sample overall, perhaps reflecting the negative impression of the participants toward apartments in residential buildings or small houses. Single people also chose near services in third rank, which was consistent with the overall answers. In fourth place was do not know, which is in line with the general trend of the answers.

Comparing the answers in relation to the current accommodation variable with the overall responses (Table 19, in Appendix 1), it can be seen that they are generally compatible. However, for those who live on a floor in a family house or in an apartment in a family house, the option of do not know came in third and fourth ranks, respectively, while people who rent an apartment in a residential building ranked the option of safety and security in second place, showing that this is a significant benefit for people who have experience of this type of housing.

When answering Question 10, which looked at the negative aspects of living in apartments in residential buildings or small homes (Table 4), a large proportion (42.5%) of participants chose inconvenience and lack of privacy, illustrating the importance of calmness and privacy in Kuwaiti society stemming from its social and cultural background.

In second rank, 15.5% of participants chose small spaces. This is of great significance as it demonstrates the strong impression among respondents that small apartments or small houses mean small living spaces and highlights their fondness for large living spaces. In third place, participants chose the option of absence of yard or private garden (11%), and this shows the importance that the pilot-test sample attached to this element of a traditional house.

In fourth place, the total pilot sample chose undesirable social standards (9.3%), and this illustrates the respondents' views about the social and historical issues associated with residential suburbs. It also indicates the desire of many in Kuwaiti society to live in areas that are socially compatible with them in terms of nationality, ethnicity and caste. This clearly requires further study and analysis.

Comparing the participants' answers with the other variables, the researchers were keen to consider whether any meaningful conclusions could be drawn. Viewing the gender variable (Table 8, in Appendix 1), we can see that males' and females' answers were in line with the views of the sample as a whole.

When comparing the educational qualification variable with the views of the overall participants when answering Question 10 (Table 12, in Appendix 1), we can see general agreement on the first rank in terms of negatives (inconvenience and lack of privacy), which confirms the importance of these criteria.

It is also noted that the university-qualified people opted for lack of car parking space, which demonstrates the need for this component and its clear absence in areas where residential buildings are located. For the secondary and intermediate education holders lack of back-yard or private garden came in second and third. This confirms the keenness of a proportion of the test sample in regard to this element, which must be taken into account when designing homes.

Reading the answers to Question 10 and comparing them with the marital status variable (Table 15, in Appendix 1), we can, in general, see consistency with the overall answers, in that married and single people agreed that the first-ranked cons in apartments in residential buildings and small houses were inconvenience and lack of privacy.

Both single and married people agreed with the overall participants in ranking small spaces in second place, but married people put lack of yard or gardening third place. This may be attributed to the concern of married couples with having a place for children to play. In contrast, single people's third-place choice was lack of parking.

Next, the answers to Question 10 were examined in relation to the current housing variable (Table 20, in Appendix 1). It is noticeable that, whatever their current type of housing, all segments chose inconvenience and lack of privacy as their top option, in line with the overall sample. Those who live in a house independently or in an apartment on a floor in a family house chose small spaces as their the second option, in line with the views of the participants as a whole.

People who live in rented apartments in a residential area or residential building ranked the option lack of yard or gardening second place. This demonstrates the requirement for this element and for outside places for private family use.

### ***3. Identify the priorities and preferred types of housing and interior design for the Kuwaiti citizen***

From Table 1 we can figure out that all participants chose the following ten priorities when searching for or building a house: residential area, safety, price, availability of parking, the availability of community services, tranquility, near to family, neighbors, interior design, design and outward appearance. And answers to Question 11 give clear indications about Kuwaiti citizens' housing priorities and preferences.

Considering answers to Question 11 and comparing them with the gender variable (Table 9, in Appendix 1), we can extract the following points. Both males and females in the pilot tests agreed that the three most important priorities are the residential area, price and safety, although they ordered these differently -while females chose residential area, males chose safety, which expresses the different viewpoints of each.

Males chose neighbors in fourth place, reflecting the fact that men are the ones who usually interact with neighbors and deal with them

about any issues related to the residential neighborhood. In contrast, females chose parking availability, which may be due to the fact that women come and go from the house frequently to meet their daily needs and therefore a place for the car is really important.

When examining the marital status variable and answers to Question 11 (Table 17, in Appendix 1), we can see great similarities between the responses of married couples and single people in the pilot test. However, the married couples opted for neighbors in seventh place, and this may be due to the importance of the surrounding social environment and its impact on the family. In contrast, single people chose design and exterior in tenth rank, and this may be due to the interest of this segment in general appearance and its superiority over the rest of the priorities at this age and social stage.

### ***Conclusion***

This research has sought to identify the most important characteristics of housing in Kuwaiti society and shed light on the concept of high-density housing. The researchers therefore worked to define this concept according to scientific definitions. However, the researchers felt it was important to assess the understanding and the impression of the community members of this concept and to identify the most important characteristics of urban planning and housing in general. Therefore a questionnaire was distributed to a random sample of Kuwaitis and, in order to unify effort and get the best results, the basic priorities were identified as follows:

- 1 - Clarify the concept of urban density among Kuwaiti society.
- 2 - Extract Kuwaitis' impressions of high-density housing.
- 3 - Identify the priorities and preferences for housing and interior design among Kuwaiti citizens.

First, the research results confirmed the citizens' general vagueness about the concept of population density, with a large number of participants reporting that they did not know the meaning of the terms "population density" and "interior design." This means that the authorities need to raise the level of awareness among the general public about these concepts and explain the various housing options,

emphasizing that the quality of housing is not necessarily linked to its size or shape. It needs to be made clear to Kuwaitis that there are many technical solutions such as interior design that can meet the requirements of owners and contribute to the better utilization of space, even if it is limited.

The research results also confirmed the negative opinion of high-density housing, and identified this concept with many negative perceptions such as overcrowding, lack of privacy and lack of services. The results also confirm the non-positive impression in the Kuwaiti mentality of any type of accommodation in contravention of what used to be a private house, that is, not less than 400 square meters, and the lack of basic interior design. On the other hand, participants thought there were a number of pros of high-density housing. These could be used as indicators to change the attitude of Kuwaiti citizens toward high-density housing. The analysis of the participants' answers pointed out that the right price is one of the most important advantages of apartments or small houses, which shows the public's dissatisfaction with rising house prices and the inability of even middle-income families to obtain the right home. Another of the pros confirmed by the participants was better utilization of space compared with the spaces lost and wasted in interior design in some large private houses. This emphasizes the ability of interior-designed projects to meet the requirements and desires of residents, despite the small or limited space available. Participants' awareness of one of the most important advantages of high-density housing areas was also noted, namely the nearness of services and the ability to access services and move easily without the need for a private vehicle.

The survey also showed that one of the main perceived disadvantages of high-density housing areas is the inconvenience and lack of privacy and the small spaces. Participants also pointed to the negative aspect of the lack of an outside yard or garden in apartments, which seemed to be of great importance to married people. In addition, the participants' answers demonstrated the link between residential apartments or small houses and social diversity and the unwillingness of Kuwaitis to interact with standards they see as different. The

research results have clarified the priorities of the participants regarding housing as follows: residential area, safety, price, availability of parking, the availability of community services, tranquility, close to family, neighbors, interior design, design and external appearance. And the survey clearly confirmed that the top priority was housing in residential suburbs or locations. This is largely due to the centralized nature of the urban area in the State of Kuwait and the continued feeling of bonding to the capital or to commercial areas and traditional services, which makes those residential suburbs closest to the capital more favorable. The poorness of interior and exterior standards was also noted in the housing preference order among the participants, which points to weaknesses in estimating technical and aesthetic aspects. It also confirmed the lack of awareness among Kuwaiti citizens about the positive role that can be played by a professional interior designer.

Based on the above, it is necessary to look for creative solutions to the acute housing crisis being experienced by the Kuwaiti population. These may include finding alternative housing solutions that differ from the traditional town house of not less than 400 square meters. We can use interior designers, architects and engineers to create new solutions to help in solving the housing problem in an acceptable way for all citizens. In order to find solutions that are acceptable and satisfactory to society, it is essential for decision-makers to consider public opinion and try to develop a better understanding of the preferences of the residential community. And that is the goal of this initial research.

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