



Sustainability of Iraqi Holy Sites' temporary housing' Floors

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ABSTRACT

The current research aimed to find out the types of floor finishes used in temporary housing during the pilgrimage season to the holy places (Najaf and Karbala) and the extent of their impact on visitors from a health standpoint. It also sought to identify the barriers to the non-sustainability of internal space floors made of environmentally friendly materials, which has a positive impact on environmental and functional health. On the study sample, the study used an analytical descriptive technique (30 tents).

The investigation came to the following conclusions:

- 1- There is a statistically significant relationship between the visitor's health status and the floor of temporary housing in the holy places.
- 2- There is a statistically significant link between unsustainable flooring practices
- 3- There is a favorable and statistically significant association between the durability of the temporary housing's floors and its practical and aesthetically pleasing features.

Among the study's most crucial recommendations:

1. The study advocated utilizing the interior designer's expertise to develop interior environments that satisfy societal and individual demands while also achieving the aesthetic, practical, and financial goals of the interior spaces.
2. Promoting sustainable green interior design that not only serves to minimize pollution but also doesn't impact the surrounding environment.

Keywords:

finishing's floors holy sites, green interior design , sustainability

1-Introduction:

The holy cities of Iraq, including Karbala and Najaf, have been distinguished by serving visitors to the city over the years, as visiting these two holy cities is one of the most important Shiite rituals in Iraq, so the Iraqi government has paid

great attention to serving visitors to the fullest. To provide the opportunity for the largest number of them to perform their visit with ease, ease and reassurance in a healthy and sound environment. Performing the visit while enjoying residence in housing that includes the highest quality and

health standards. After the tourist season ends, some companies cover the clay tent floors with worn carpets that are kept in warehouses, while others opt to install industrial ceramic tile. Al-Taweel (2004) stated, based on earlier research, that soil in open areas serves as a habitat for animals and insects, collects dirt from hair, feathers, and nails, and is exposed to heat and humidity, which promote the emergence of numerous volatile fungi and accelerate their spread during peak times, friction, and crowding. As a result, the soil serves as a repository for microbes as well as a source of dirt. Pathogenic fungi are dangerous to people and their volatilization, which affects the eyes and nose, makes them worse. It helps with pharynx irritations and causes fatigue and headaches.

Al-Madhkuri (2009) explains in her study that environmental pollution with dust is a problem that haunts societies, as it has an impact on individuals in some respiratory diseases, allergic and skin diseases, in addition to accompanying some psychological variables. From a millimeter, it escapes and is deposited on the fibers of carpets and rugs, and this dust is often rich in toxic heavy elements. Carpets stored throughout the year in warehouses under the influence of humidity and heat are considered an environment. Help in the formation of fungi and microbes that contribute to the spread of allergies and the emergence of asthma among pilgrims.

Al-Mashat (2021) confirms in his study to enhance the internal healthy environment for pilgrims that approximately 15% of the types of bacteria polluting indoor air come from floors. Halaby and others (2014) show in their study that the criteria for sustainable environmental design in the developed Mina camps - environmentally

friendly materials - have not been met. The quality of the internal environment has a significant impact on the health and comfort of visitors in light of the rapid development in the field of sustainability and the use of new technologies in finishing methods and building materials for the interior design of temporary housing.

4-Study's Terms:

1- The concept of sustainability as a general framework that aims to improve the quality of life (Al-Rafaidi, 2018)

2- Interior design: It is a creative and planning process that has many and varied aspects, with codified scientific, engineering and technical standards (Al-Sarraj, 2021).

3- Temporary housing: It is called collective housing. It is a housing designated for the collective residence of a group of individuals linked by similar circumstances, special situations, or common goals. Examples of that are camps, orphanages, students' homes, nurses' and doctors' housing, workers' housing, hotels and hotel apartments. Accommodation for pilgrims, and all residents of the collective housing are considered one family, regardless of their number. (Jordanian census, 2018)

4- The Shaaban visit, which is a visit to the Abbasid shrine in Karbala in Iraq, and it is called (the visit of the half of Shaban).

5-The holy city of Karbala, and the planning processes in this religious city in particular are of great importance, as it puts the city and its vital and economic facilities in a way that secures the city to perform its urban activities properly. In addition to organizing religious tourism, which has become a prominent feature of contemporary religious cities. Fig.(1)



Fig. (1) Karbala city plan

The city is characterized by a great religious status at the internal and regional levels, in addition to the city's exposure to thousands of visitors to its religious shrines throughout the year, which makes the city's planning operations

for the movement of visitors somewhat difficult and contributes to revealing the planning and population imbalances that this religious city suffers from. Fig.(2)



Fig.(2)The shrines of Imams Al-Abbas and Al-Hussein in Karbala

6- The city of Al-Najaf Al-Ashraf is a holy province, It is located to the southwest of the capital Baghdad, with a population of 1,221,248 people, according to 2011 statistics. It is considered the fifth city in terms of population and also one of the important cities in Iraq due to the shrine of Ali bin Abi Talib.

5-Components of temporary housing

The holy buildings undoubtedly have a connection to Islam, Muslims, and the culture of the Muslim people in general. It is regarded as an exceptional architectural setting that examines the origin's history and its architectural styles. Recently, there has been a need to enhance and enlarge the buildings, as well as supply them with

amenities and modern technologies, due to the rise in pilgrims and visitors to the sacred places. There are several useful design indications used in the construction of the holy buildings:

5-1 Floor finishing materials: Finishing materials are used according to the different uses in the voids of the temporary dwelling. Sometimes it is preferable to use the hard materials needed by the voids of the temporary dwelling to comply with the nature of use, and it may differ from one place to another in order to choose the shape, type, degree of its hardness, degree of friction and endurance over a vacuum in another place. It is used to treat floors with a stone material such as Fig.(4), or wooden or

chemical materials, and other materials. (The Long, 2004



Fig(3) Floors in holy spaces

5-2 Determine the choice of material: The appropriate material is chosen and determined according to the technical specifications suitable for use when treating the surfaces of the internal spaces of the temporary dwelling, as its shapes and degrees of hardness or refinement vary according to the nature of its use. (Al-Mathkuri, 2009)

Healthy ceramics: Healthy ceramics are antimicrobial. During manufacturing, they are treated by making a film to finish the outer surface of the ceramics by mixing shiny materials with silver ions or photo catalysts for antimicrobial nanoparticles. Antimicrobial ceramics are used in floor coverings in the interior environments of temporary housing, which serves to sterilize these spaces.

5-3 Healthy carpets: Scientific research has proven that carpets are one of the causes of indoor environment pollution. This is due to the spread of unpleasant odors from it and the change of dyes in it due to poor storage in warehouses throughout the year under the influence of heat and humidity without ventilation, which causes the presence of microbes and dust with water vapor inside, which causes the carpet to quickly lose its luster and become difficult to clean. clean it up. Therefore, it was necessary to treat the carpet during the manufacturing process by using "special materials treated against fungus and microbes" to find a kind of safe and healthy carpet

that reduces the adhesion of dust and pollutants to it and gets rid of microbes, bad odors and color changes, so it is easy to clean, increases its validity period and improves the type of air in the indoor environment. It becomes a healthy, disease-free environment (Attiyah, 2016)

5-4 Wooden floors that are in good health have indeed been treated and are meant for public areas. Because they are warmer in the winter than other floor types like ceramic and marble, they can be utilized in vast galleries. In dry locations that are not near water, wooden floors are preferred. if not protected with a waterproof and moisture-resistant substance.

It also takes into account when choosing the appropriate material, not only to deal with the necessary technical techniques, but also with the realization of considerations next:

5-4-1- Durability:

- A - Ease of use, cleaning and maintenance, and maintaining the beauty of appearance and finishing.
- b- Frictions resulting from the movement of furniture pieces or the movement of the feet of the users of the place, or the condensation and filtration of moisture and chemical reactions resulting from the inside of the material.

5-4-2- Economic considerations:

- Which is represented in the prices of raw materials to be used with the budget for furnishing the dwelling.

- Economic cost in the long run for periodic cleaning and maintenance.

Aesthetic appearance and degree of compatibility with ease of use:

- The appropriate degree of use, such as softness to the touch and softness when used and friction.
- The degree of brilliant gloss causes reflections on the surfaces, as well as bright colors or dark colors that cause darkening of the colors.
- The degree of noise resistance and thermal insulation required.
- The visual effect of color for texture and texture.

5-4-3- Safety:

- Prevention and safety from fire hazards.
- Prevention of injury resulting from some asthma and allergy diseases.
- Reducing the spread of fungi and microbes resulting from the crowding of visitors in a particular place

6-Study Methodology

The research used a descriptive methodology and conducted analytical analyses of model flooring in various tents. A questionnaire about visitors to the internal spaces in the holy sites (Najaf and Karbala) was created and given to the research participants who were chosen as samples for the study. The results were then statistically extracted using the percentages of visitors to the internal spaces in the holy sites. The descriptive analytical approach was used by the researcher to describe the phenomenon by gathering data on it, tabulating it, connecting its meanings, and expressing it quantitatively. This approach helps to understand the phenomenon

being studied and aids in drawing conclusions and making generalizations of improvement and development from the target reality. visitors Studying the effectiveness of the sustainability of the floors of the internal space of the temporary dwellings (tents) in the holy places with environmentally friendly materials and their reflection on the visitors

Before heading out into the field to gather the necessary data and information from the research community, the researcher prepared the tools she will rely on and did the initial testing of these tools. This process relies on specialized professors to appraise the selected tools (Nasef 2014, p. 30). In the same context, Abu Allam (2007, p. 270) explained that building the tools that the researcher will use in collecting data is one of the main tasks in survey research, and that the two basic and most common types of data collection tools that are used in survey research are the questionnaire and the interview

. After reviewing the research literature and previous field studies related to the subject of the study. Based on the nature of the data to be collected, as well as on the method used in the study, it appeared that the most appropriate tool for achieving the objectives of the study is the "questionnaire".

The researcher prepared a questionnaire to define the phrases according to the following:

Determine the purpose of the questionnaire

- Determine the type of resolution
- Accordingly, the researcher used the five-point Likert scale as follows:

Table (1) Scores of the five-point Likert scale

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

7-Sample responses:

The researcher relied on estimating the sample responses using the mean weighted method, where the value of the weighted arithmetic mean is interpreted on the number of options and categories in the five-point Likert scale, where the range {(highest option) 5 - (lowest option) {1} = 4

is calculated and calculated The length of the category by dividing the range by the largest value in the scale (4/5 = 0.80) and then adding this value to the lowest value in the correct single scale. Table (2) shows the scale used in the questionnaire, and its correction criterion.

Table (2) Estimating the five-point Likert scale scores under study.

Mean		appreciation level	weight
from	Less than		
4,20	5	very high	5
3,40	4,19	high	4
2,60	3,39	middle	3
1,80	2,59	low	2
1	1,79	Very low	1

8-Results:

1-There is a statistically significant correlation between the non-sustainability of the floors of the internal space of temporary housing with environmentally friendly materials in the holy places, and the economic aspect of the owners of tourism companies, whether internal or external.

2- There is a positive and statistically significant correlation between the sustainability of the floors of the internal space of the temporary dwellings and the functional and aesthetic aspects of the temporary dwellings in the holy places.

9-Recommendations of the study:

1- The study recommended activating the role of the interior designer in creating an interior environment that meets the needs of the individual and society and achieves the aesthetic, functional and economic aspect of the interior spaces.

2- Advocating for a sustainable green interior design that does not harm the external environment, but works to reduce its pollution.

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