

# Rethinking the residential urban environment in Iraq - literature review

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**Abstract.** Is a new study to understand the residential architectural environment in Iraq through survey of a series of international, regional and local research and studies related to the residential architectural environment (1991-2019), which approximates 20 studies. the general problem the absence of a clear theoretical scenario that describes the architectural residential environment for the circumstances experienced by the Iraq now. Therefore, the aim of study to give an accurate description and definition of vocabulary and concepts through Theoretical conception to achieve a broader understanding of the residential architectural environment in Iraq (definition of the residential living environment, Housing satisfaction standards and description of the problem of informal housing). This is done by introduction of a three-stage model research, and classification of three items (Housing Satisfaction, Urban Context, Architectural Formation). The results of this study are a set of factors are related to spatial objective reasons for different architectural residential environments are similar the Iraq circumstances. and the research put its observations in a table divided into three axes, to archived aim.

## 1 Introduction

Housing structure and related problems have intensified in Iraq since 2003 due to rapidly rising housing needs, non-compliance with laws and regulations, and ineffective government programs and policies in the face of growing cities, reflecting declining living standards in many cities. cities, Since the creation of the Iraqi state for over 100 years, many housing plans and programs aimed at solving housing problems and access to a living environment meet the objective needs of the population, but most of these strategies and programs have not been implemented due to the lack of an integrated approach in aspects. This study presents a new concept for understanding the residential architectural environment in Iraq by reformulating and identifying the components of the living environment in them and identifying the most important problems and defining the principles of composition, and then Develop solutions that contribute to the provision of decent housing. Therefore, the importance of the study lies in the study of the basic vocabulary and factors that influenced the formation of the living environment in the Middle East, Middle East, Eastern Europe and the West, as well as in Asia such as China, India and Malaysia. What constitutes a model of strategic vision, built on an objective basis in the process of redefining the components of the living environment, and how to reflect the achievement of comfort in a residential area based

on the definition of the components of the principles of residential architecture applied in the Middle East and in Iraq in particular W, in (Iraq).

Studies of the first group, Classification of residential architectural environment in Iraq, concerned the concept of residential architectural environment [1], [2], [3], [4], [5], [6], [7], [8], [9], [10]. and focused on the meanings and form of residential architecture. Accordingly, they presented a set of issues related to socio-cultural factors and housing satisfaction standards that directly influence the formation of a residential architectural environment. where one could develop a conceptual formula entitled "Problems of Formation", which would later become the basis for the development of a conceptual framework to paraphrase the residential architectural environment. It was like that. in the table (1)

Group Two Studies, Housing Satisfaction Standards or Socially Acceptable Housing.

are devoted to housing policies, programs and standards [11], [12], [13], [14], [15], [16], [17], [18]. aimed at solving the housing crisis in general. They referred to housing programs that could reduce the size of housing problems in different countries and establish housing criteria that can be adopted in addressing the challenges of the residential architectural environment in Iraq. It was like that. in the table (2)

Third group studies, Informal housing.

focused on informal and casual housing [19], [20], [21], [22], [23], [24], [25]. These are the most common housing problems in Iraq. At present, due to informal and casual housing, the urban environment does not provide a decent life for both individuals and families and society as a whole. The Researcher was able to find a new formula of knowledge (perspectives of problems) to form a conceptual framework in the future to develop appropriate solutions to describe problems, as well as through research in table (3).

1.4 A summary of the concepts and terminology that make up the residential architectural environment. Research - Model and Strategy Formulation for Redeveloping the Architectural Environment in Iraq By defining and understanding the components of this environment, it is based on concepts and factors, Seven factors have been identified (Social and Cultural Factors, Economic, Environmental and Climate, Geographic, Political and Security, Subjective or psychological planning) and six concepts (Concept of architectural emergence, Housing problems, Housing standards, Housing satisfaction and decent housing, Programs and strategies, Identity and transformation) that shape the living environment in a step towards solving the research problem by redefining the residential architectural environment and understanding its characteristics.

## **2 Ways to solve the identified problems**

The study also shows that the problem under study will go through three main stages in order to solve it based on the classification. These classifications have been ordered according to previous studies and a diagram which is shown in Figure 1 below These classifications are considered as the core for solving the research problem, studying the architectural habitat in Iraq, clarifying the activities taking place in the residential environment, identifying them and further making planning and urban planning decisions after familiarizing themselves with the existing problems through the approved standards and achieving the main problem in the residential environment ... The study identified three categories of management studied. The researchers prepared tables indicating the most important concepts and factors related to the residential architectural environment, which were explained by previous studies and the reasons for their appearance, as well as the observations of the researchers as part of the action plan to analyze the selected studies. As shown in (Table 1,2,3). 1. Residential architectural environment. 2. Criteria for satisfaction with housing or socially acceptable housing. 3. Informal housing.

**Table 1.** Showing summary of research related to Architectural formation and the environment

Index	Study	Related Factors	Causes of the Phenomenon	Related Concepts	Research Notes
A1	(Mariam Yakub, 2017) "Open Source Architecture: Redefining Residential Architecture in Islamabad".	Related to climatic and cultural factors that constitute the residential environment and provide housing options	The need to address the shortage of units and control the residential environment according to specific architectural standards for design	Related to the concept of residential architectural formation	There is no objective definition of the residential environment, although the four options for residents are defined.
A2	(Tatiana Vadimovna, 2017) "ADAPTATION OF THE LIVING ENVIRONMENT OF MASS micro districts TYPICAL DEVELOPMENT TO MODERN SOCIAL ECONOMIC PROCESSES".	Social and environmental factors	The need for the environment social housing instead of industrial residential environment	Concept of residential formation and residential standards	It is necessary to identify the research items which constitute the backbone of the residential architecture.
A3	(Zhanna, 1993) "Conditions for the formation of low-rise residential buildings for high-density urban development (on the example of Iraq) b"	Climate and social factors	Formation of low rise residential buildings for high density development	Related to the concept of problems of architectural formation	The study did not address residential criteria in determining the levels of residential buildings.
A4	(A. GHAFFARIANHOSEINI et al., 2014) "The Essence of Malay Vernacular Houses: Analysis of the Socio-Cultural".	Social, cultural and climatic factors	The nature of the population's association with daily behavior	Related to the concept of residential architectural formation	Adopting the study as a way of life and a work methodology to assess the assessment of different environments
A5	(MAZDAK ARMSTRONG, 2017) "evolution of Residential Building in Iran based on Organization of space"	Related to the historical and cultural factors of a society	Transition to the concept of mass construction and loss of fertility and social values	Concept of residential formation and residential standards	The resulting urban context has eroded the true spirit of architecture in Iran and has been reflected in the social relations of the inhabitants.
A6	(Jiboye Est, 2014) Significance of house-type as determinant of residential quality in Osogbo, Southwest Nigeria	Social factors and factors related to the quality factor of the same person	The desire of the inhabitants is to provide them with adequate housing through various traditional and contemporary houses	Related to the individualization of the formation and the reformulation of the residential environment and the standards of residential satisfaction	The concept of residential quality is inherent to the concept of evaluation and through it, housing satisfaction or socially acceptable housing is achieved.

**Table 1.** Continued

A7	(Mohammed Thajil, 2005)"THE SOCIAL INFLUENCE OF THE CHANGMENT OF THE HOUSE FORM (BAGHDAD CITY)"	Social and aesthetic factors	Because of social impact, the shape of housing changes.	Related to the concept of architectural formation and formation standards	Changing the shape of housing is associated with architectural and design characteristics linked to social changes and economic level.
A8	(Aysu Akalin, 2009) "Architecture and engineering students' evaluations of house facades: Preference, complexity and impressiveness".	Social and environmental factors/psychological and subjective factors	Reflecting the behavior of individual identity by the inhabitants themselves, where they change the facades of their homes.	Related to the concept of problems of architectural formation and future prospects of formation	The preference is a general urban context, as well as individual behavior that arises in the inhabitants and crystallizes into reality in changing the facades of houses, individually, reflecting their individual identity.
A9	(Omar Al-Hafeet, 2018) "A systematic assessment of architectural approaches to solving the Iraqi housing problem."	Housing satisfaction criteria and subjective factors	Lack of a preferred architectural style for residents	Architectural design concept and housing satisfaction	The aim of the study is socially acceptable housing as the most important factor in the residential architectural environment
A10	(Zhdanova Irina Viktorovna, 2013) "Architectural methods for assessing and improving the consumer properties of the living environment".	Social and aesthetic factors Planning factors	Development of a system for assessing the quality of architectural and spatial solutions of the living environment	Housing standards Housing satisfaction and decent housing	Improving living conditions is associated with improving the functional characteristics of residential buildings through the creation of new functional relationships

**Table 2.** Summary Research on Housing Standards, Programs and Policies

Index	Study	Related Factors	Causes of the Phenomenon	Related Concepts	Research Notes
B1	(Tiwari Est, 2016) "Housing Markets and Housing Policies in India"	Economic factors as well as housing policies and programs	Residential growth, living conditions, lack of financial resources and poor program implementation	Related to the concept of problem prospects	Make decent housing a constitutional right and address programs and policies with objective programs
B2	(Onyemaechi Est, 2016) "Motives and Motivation for Implementation of Public Private Partnerships (PPPs) in Housing Provision in Nigeria"	Economic factors and political factors	Addressing the acute shortage of housing units and the desire for partnership between the public and private sectors	Related to the concept of problem prospects and concept of partnership	The relationship between the public and private sectors is one of the most important elements of facing the housing crisis in an approved residential environment. The partnership is based on the desire of both parties to develop the residential environment and achieve profits.

**Table 2.** Continued

B3	(Huda Ahmed, 2015) "National housing policies in Iraq"	Economic factors, political factors and housing standards	Because of the failure to implement the policies adopted to resolve the housing crisis in Iraq	Related to the individual housing problems as well as policies and programs	Iraqi policies and programs must be based on a future vision based on the reality of the country.
B4	(Khalaf A. Ali, est,2017) "Planning for Affordable Housing Units in Dohuk / Iraq, Survey"	Economic and financial factors as well as factors related to housing indicators such as family income	Because of economic factors and investment trends as well as laws that do not meet ambition	Related to the concept of problem prospects	Encouraging investment is one of the best ways to solve affordable housing as investment laws change according to elected environments
B5	(Lien, Laura Est 2016) "Assessment and analysis of housing accessibility: adapting the environmental component of the housing enabler to United States applications"	Social and accessibility factors	Because of the problem of disability in how to reach homes	Related to the concept of housing satisfaction and housing standards	The study adopted specific measurement measures to achieve the principle of arrival, and quantitative measurement, which is one of the best methods adopted to show the results of a particular experiment.
B6	(Christian A. L et al., 2016) "Housing Policy in Switzerland, UK and USA".	Political and security factors	Housing policy lessons in a developed country are one of the most important drivers for housing policy development in the Middle East.	Programs and strategies	Using the experience of developed countries in finding solutions to housing problems in Iraq, taking into account social standards to achieve this goal
B7	(Xin Liu et al., 2016) "Exploring the Problems of Quality Housing Design in China."	Economic and planning factors	Understand the challenges of improving the quality of housing design in China.	Housing problems and housing standards, programs and strategies	Examining the most important elements for improving design quality and identifying variables and causes
B8	(Rachel M .N. et al., 2019) "Assessing Resilient Aspects in the Housing Sector to Overcome Housing Stress in Northern Iraq."	Economic factors and planning factors	This study aims to assess the sustainability aspects (environmental, economic and social) of the housing sector.	Housing Problems, Housing Standards, Programs and Strategies.	Achieving a balance between social and economic standards in residential buildings in accordance with the adaptation criteria

**Table 3.** Summarizing research on informal housing

Index	Study	Related Factors	Causes of the Phenomenon	Related Concepts	Research Notes
C1	(Adekoyejo Est, 2017) "Emergence of Informal Housing: Implications for Development of Low-Cost Housing Delivery Strategies in Abeokuta, Nigeria"	Economic factors and building strategies	High property prices in city centers	Related to the concept of formation problems and decent housing standards	Testing the housing strategies in the study area and diagnosing the objective solutions
C2	(Nabil Taha, 2010) " The Informal Areas and the ways Treated it with Planning Standard for Residential Areas"	Environmental factors, planning factors and standards-related factors	Increasing the size of families and economic conditions and the desire to own a housing unit	Related to housing problems as well as to adopted programs and policies	Dealing with informal houses as a needing and a housing balance
C3	(Hanan Mahmoud, 2008) "The phenomenon of random housing in some Arab cities, an analytical study of the causes of emergence and planning scenarios of the possibilities of treatment"	Economic factors, social factors and the way resources are managed	Unprogrammed planning and non-realistic solutions to existing problems	Related to housing problems, as well as to adopted programs and policies	An experienced Arab's experiences represent a basis for dealing with informal housing, taking into account the specific environment
C4	(Haidar Attia, 2014) " The Spatial Analysis of Random Residence Phenomenon Reality in Al-Kufa City "	Social factors and criteria for planning	The acute shortage of housing, absence of laws, its application, and commercial speculation	Related to the concept of problem prospects and the concept of standards	The theme of random neighborhoods is no less important than other official neighborhoods in terms of physical characteristics and geographical location
C5	(Miguel Amado Est ,2018) 'TRANSFORMATION OF INFORMAL SETTLEMENTS: CASE OF CAPE VERT'	Standards and principles of urban planning	The lack of clarity of land ownership is one of the reasons for the increase in informal areas	Related to future prospects to resolve the problem	The design of a program that helps in identifying, distributing and clarifying land ownership is one of the reasons for the increase in informal areas
C6	(Yue Zhang,2017) The credibility of slums: Informal housing and urban governance in India	Economic factors as well as principles of urban planning and policies	Informal neighborhoods have proven their credibility through economic, political and housing opportunities.	Programs, policies and standards	Formalizing informal neighborhoods through government programs to provide credibility

**Table 3.** Continued

C7	(Paula Meth ,2017) INFORMAL HOUSING, GENDER, CRIME AND VIOLENCE: THE ROLE OF DESIGN IN URBAN SOUTH AFRICA	Planning, design and security, political and social factors	Excessive permeability of residential structures is the biggest problem in generating violence and crime.	The concept of residential problems residential programs and residential standards	It addresses the treatment of crime and violence through housing programs, redesign and resettlement in informal neighborhoods.
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## 2.1 Analyze and discuss the results

The factors and concepts that make up the residential architectural environment are identified, determined by seven factors and six concepts, Table (4) This was done using previous studies that show the extent of its impact and its relationship with the residential environment. The process of formulating the results was done by knowing the degree of relationship of each concept and each factor with the living environment, where the results and available knowledge were interrupted by three groups of studies that were accepted in the study, namely (studies related to the formation of a residential architectural environment, studies related to housing standards, problems, policies and research related to informal housing), it was found that there is a need to reformulate and define the residential architectural environment, knowing the degree of connection (between the residential architectural environment and factors and specific concepts), This relationship is divided into three levels (1-strong correlation with degree 2, 2-average correlation with degree 1.3-weak correlation with degree 0). This explains the levels of concepts and factors involved in redefining and articulating a living environment capable of providing a better quality of life for its inhabitants.

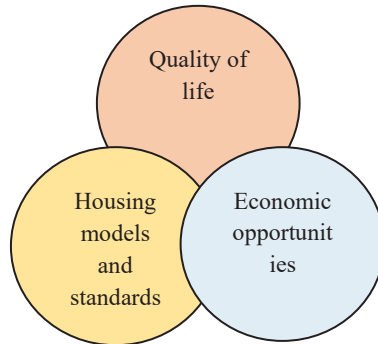
**Table 4.** The most important factors and concepts related to the residential architectural environment.

Influencing Factors	Related concepts
Social and cultural factors	Concept Architectural formation
Economic forces	Housing problems
Environmental and climatic factors	Residential standards
Geographic factors	Housing satisfaction and decent housing
Political and security factors	Programs and strategies
Subjective or psychological factors	Identity and transformation
Planning factors	

## 2.2. Methods for achieving the satisfaction of residents with elements of the living environment

Research is a model and strategic research for reformulating the architectural environment based on the vocabulary of this environment, determined by that time by the preparation of theoretical foundations based on two concepts of knowledge related to the subject of our research (problems of architectural configuration) and (shaping the prospects for possible solutions). If research shows that the process of connecting to any habitat depends on the nature of the environment chosen in terms of the quality of daily life and the most appropriate housing schemes, and the other party determines the incentives and housing standards based

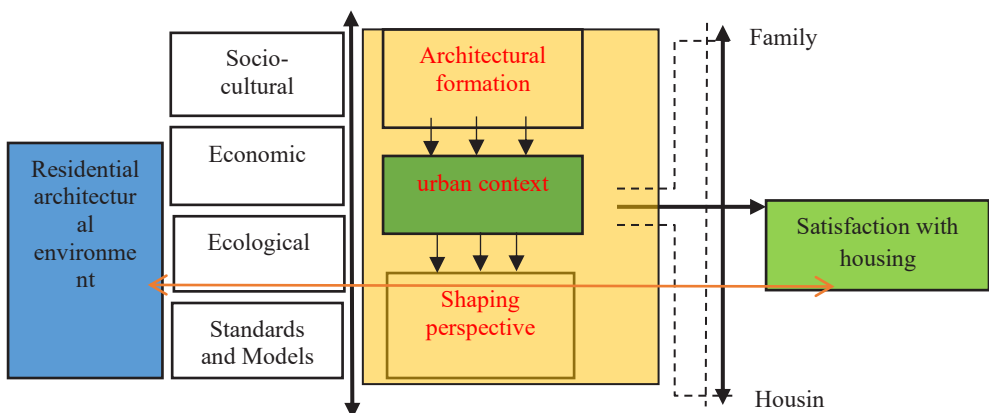
on the availability of economic opportunities to meet housing needs, thereby providing the population with more opportunities (Fig. 1).



**Fig. 1.** Scheme for determining criteria for satisfaction with housing

### 2.3. Redefining Residential Architecture in Iraq

A residential architectural environment can be defined as a social activity for individuals or a society with residential elements that make up an environment based on social norms and traditions, in accordance with modern conditions and requirements, as well as constant changes in intellectual products that are formed in the human mind ... And thus, reflecting on the behavior of people on a daily basis and based on this research, a new definition of the architectural environment can be developed: as an urban context that depends on the socio-cultural economic context of specific environmental conditions and in accordance with standards and models. Housing is based on systems and laws and programs that are sustainable taking into account the requirements of modern life, the population. And thus, access to socially acceptable housing, providing the concept of decent housing or housing satisfaction. (Fig. 2).



**Fig. 2.** Scheme for determining criteria for satisfaction with housing

### 3 Conclusion

1. The main stages and patterns of development of the architecture of the residential environment in Iraq have been identified (1. the formation of the residential architectural



environment. 2. The criteria for satisfaction with housing or socially acceptable housing. 3. Informal housing). By rethinking the architectural environment in Iraq, which includes a set of factors that make a living environment acceptable to Iraqis by conducting and analyzing global, regional

2. Examination of the existing literature has shown that the research available in Iraq is scarce and of low quality, since it does not use modern research methodology that could cover the living environment in different aspects and from different points of view. The most important factors that are related to the problems of the living environment are reflected in the realities of the country, as well as in informal or casual housing, which requires close examination.

3. Previous research develops social patterns after working with architectural environments in which the researcher can choose the best way to solve the problem of the elite living environment from certain aspects of the research. This is consistent with behavior, customs and social traditions and understanding of other aspects of tension, divided into economic, political and natural aspects of security.

4. The study presents a summary of cognitive trends from previous works through their main observations and analysis, which in the future can become a guideline in the preparation of a theoretical framework that determines the main research problem. The study identified factors that influenced the architectural environment in the public sphere, which are divided according to objective directions, which can be understood by three basic concepts (Satisfaction with housing, urban context, architectural formation). They are related to objective reasons for the various residential environments considered in the study. These equations and factors created architectural concepts and research formulas that can be adopted to understand the broader residential architectural environment. It is very important to determine the criteria on the basis of which decisions are formed for specific forms of the living environment, which would reflect the life of the population.

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