

Social Alienation as a Concept in Urban Design: Exploring the Stages and Mechanisms of Separation in the Urban space

Ghadeer Ghaleb Abdul Kadhim,

Ameera J. Ahmed

*University of Babylon, College of Engineering,
Department of Architecture.*

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ABSTRACT

The harmony between the constructed environment and humanity manifests as an effective reciprocal relationship. However, if the relationship is unfavorable, it may lead to social alienation. In that case, a disconnection arises in that relationship, ultimately resulting in alienation. Social alienation is a human sentiment that impacts the individual and disrupts the urban system by severing the connection between the individual and the environment, leading to disintegration and an inability to fulfill human needs. There is a research gap among architectural scholars regarding the concepts of alienation and estrangement and the mechanisms of these phenomena in urban spaces in urban spaces. To analyze these phenomena, two levels

of indicators are needed: perceptual indicators related to the receiver within the urban space, which were measured by questionnaire method, and the second level is morphological indicators related to mass and space, which were measured by building a 3D simulation model of the study area through parametric programs (Agisoft metashap, cloud compere) and matching the analytical indicators of the programs with the indicators extracted from the study to test the research hypothesis. The research aims to address alienation by demonstrating the link between current design patterns and measures aimed at alleviating alienation

KEYWORDS: Social alienation, spatial alienation, alienation, strangeness, contemporary urban space.

*** INTRODUCTION**

The notion of alienation is pivotal in modern research across multiple disciplines, including psychology, sociology, philosophy, and architecture. The research problem aims to establish a systematic framework and methodology for understanding alienation in urban environments, addressing a scientific gap in architectural research regarding this phenomenon and the mechanisms underlying its occurrence, and the cognitive ambiguity surrounding synonymous terms related to the concept. These diverse meanings underscore the considerable challenges in precisely delineating its scope and significance. Examining the methodologies and approaches pertaining to alienated urban spaces, through the implementation of urban policies for contemporary urban areas of historical significance that are significantly affected by issues of transition and disconnection. This chapter elucidates the foundational relationship between architectural theories that elucidate alienation in urban environments and the various forms of alienation that manifest, alongside the essence of their reality. It aims to establish metrics for assessing these types of alienation in urban spaces. Additionally, it

encompasses studies and research that have examined alienation, synthesizing findings from prior investigations. The study posited that urban environments experience alienation during periods of transformation and discontinuity due to signs of social alienation, with a supplementary hypothesis suggesting that the mechanisms of alienation and estrangement from the system exacerbate the phenomena of alienation.

*** Research Issue**

The notion of alienation is a crucial theme in modern research across multiple disciplines, including psychology, sociology, philosophy, and architecture. The research aims to provide a structured perspective and methodology regarding the process of alienation in urban environments, addressing a scientific gap in architectural research concerning the phenomenon of alienation and its mechanisms, as well as the cognitive ambiguity surrounding synonymous terms related to the concept.

*** The research's theoretical framework**

The notion of alienation has become a fundamental axis in philosophical frameworks and many, often contradictory, social theories, resulting in differing interpretations based on perspective. Alienation

encompasses various nuances, including negation and destruction as opposites of positivity and construction, as well as extraction and dislocation, and negativity in terms of regression and introversion. However, the term alienation lacks these dimensions, despite their presence in the original concept. The endeavor aimed to incorporate alienation in instances where relationships or conditions denoted coercion, and alienation was also integrated when the described conditions and atrocities suggested a voluntary outcome (such as in productive-creative work) or an objective nature (Abdul-Jabbar, 2018).

* THE PHILOSOPHICAL BASIS OF ALIENATION AND ITS HISTORICAL EXISTENCE

Alienation was not expressly present in modern philosophy before to Hegel; instead, it manifested through concepts with similar meanings, such as separation, subjection, surrender, and abandonment. It manifested in two notions, one affirmative and the other adverse. Numerous prominent philosophers delineate their ideas into three distinct stages. The initial phases preceding Hegel. The second stage: The Hegelian stage The third stage: Post-Hegelian. (Paans, 2020.)

Table 1. The table of alienation among philosophers to focus on the essence and reach the most important foundations of alienation

Stage	Philosophical context	Philosopher	Type of alienation	Meaning of the word	The content
preceding Hegel	Social	Thomas Hobbes	Subjective	Abandonment Transfer to another	It aims to explore the construction of an integrated society in which individuals confront the inevitability of losing their freedoms.
	Religious	Spinoza	Subjective	-Isolation -Separation	- Restricting the individual's liberty. He advocated for the oneness of life and the unification of the natural orders with the Creator.
	Legal	Jean Rousseau	Subjective Objective	Objectification/Salvage -Submission -Concession	It aims for comprehensiveness by addressing the paradoxes that result in alienation and exacerbate the divide between individual and social activities.
Hegelian stage	Religious	Hegel	Subjective Objective	-Separation Contradiction	Transcend the tangible realm to the intangible domain
	Abstract logic			-Alienation -Exit Transformation Loss of totality	- Dynamic moment, outcome, and causation - The abstract denial of alienation is realized by the restoration of unity, transcending the partial (subject and object), and reinstating the totality.
	Social			-Loss of belonging -Exit -Separation	It eliminates estrangement through alienation. It alleviates his alienation by facilitating his incorporation into the social system, enabling him to achieve harmony with the collective.
Post-Hegelian thought	Economic	Karl Marx	Objective	-Alienation of work -Disconnection -Unfamiliarity	Alienation is the detachment of human essence from the laboring individual. Alienation can be mitigated by systemic transformation.
	Psychological	Erich Fromm	Subjective	-Powerlessness -Isolation Meaninglessness -Loss of self	To foster a healthy society and mitigate alienation, social and economic reforms are essential.
	Social	Richard Schacht	Objective	-Transition -Discontinuity -Lack of meaning -Disconnection	- Deficiency of capability and jurisdiction. - The unavoidable cognitive disjunction of certain entities or elements within the fabric of existence.

* Alienation in contemporary and digital architecture

Alienation in the production cycle results in the self-aware individual distancing themselves, rejecting their role in the production process, whether this rejection is externally imposed or self-recognized, leading to a condition of self-alienation or unconscious self-denial, culminating in self-detachment. Al-Jaderji perceives alienation as an element of modernity, manifesting in an individual's existence through two modalities: the conscious, which constitutes the psychological condition of alienation, and the unconscious, which engenders a state of detachment. Al-Jaderji, 2006 Architectural edifices have

transcended conventional structures, as traditional designs formerly dictated, with the advent of technology in the late nineties, which has become a pivotal instrument of the era. Architecture has been significantly influenced by development, with the digital production of architectural forms emerging as a hallmark of the era, imparting fluidity, smoothness, and a sense of movement to the discipline. The conception of human values has arisen inside digital architectural models. Deconstruction in architecture appears to alienate the architectural subject, functioning as a mechanism that amalgamates forms of alienation within deconstructed architectural concepts. This approach maintains architectural thought in a state of suspension regarding contemporary meaning, estranged due to its detachment from any external semantic reference, whether natural or human. It becomes inherently alienated by its self-referential nature, characterized by its formal relationships, which preclude connections to others and inhibit communication and a sense of belonging (Carmona, 2021).

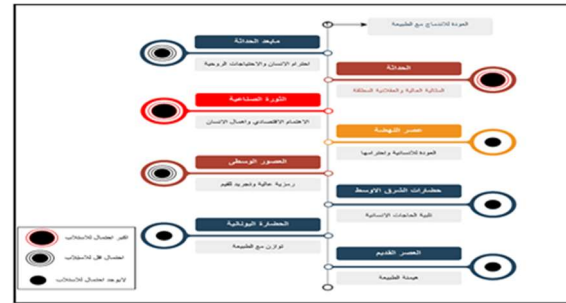


Fig. 1. Alienation in urban space historically/ prepared by the researcher
*** Literature Reviews of alienation in architecture**

Research pertaining to the topic of alienation was given, specifically highlighting the works by Idris (2017), Suqour (2018), Sahan (2021), and Alasady et al. (2022). The study (Idris, 2017) examined the human experience of alienation from urbanism, applicable to both the user and the observer. The study elucidated the concepts of alienation and estrangement as design trends that adhere to Western methodologies in articulating design lexicon or the peculiarity in meaning and logic within architecture. It has started to evolve into an urban phenomena owing to the supremacy of technology capabilities and economic forces. The second method, characterized by alienation from the human system, relies on embracing a sense of strangeness that diverges from the human scale and the concept of formative strangeness. (Sqour, 2018)Saqour (2018) posited that architectural practices were shaped by Western architectural ideologies,

leading to inconsistencies in human existence and architecture. The research seeks to offer a theoretical perspective on Islamic architectural theory. It delineates a framework of principles in Islamic philosophy that architecture must fulfill in relation to human needs. It delineates thirty wants encompassing human dimensions, such as attaining enclosure and seclusion, emphasizing human unity, and fortifying social connections. The greater the attainment of these aspects, the more architecture aligns with human needs and the less it fosters alienation. Sahan (2021) conducted a study on the concept of alienation, elucidating its critical elements, particularly the relationship between the built environment and its material components in relation to humans as social beings with subjective and spiritual needs. This relationship is essential in mitigating the social issues arising from estrangement between individuals and urban structures by fostering a sense of belonging. Alienation is characterized as a condition of disconnection and estrangement from both the material and spiritual realms, rendering individuals unable of altering their lived reality. It is a contemporary occurrence that may be either voluntary or involuntary and

imposed. It is categorized as spatial, psychological, and social alienation.

* THE DIALECTIC OF COGNITIVE ALIENATION AND ALIENATION IN ARCHITECTURAL DISCOURSE



Alienation arises from a disconnection inside the urban framework. Subsequent to this alienation, architecture embraces two methodologies regarding alienation, which pertain to the processes affecting vocabulary and formulation.

- 1- Adopting Western styles
- 2- Direct transference from Western architecture

The habit of adopting several styles (Jamel Sadiq et al., 2019)

Alienation from the human and environmental systems, as evidenced in: -

- 1- Alienation during development
- 2- Alienation on a human scale
- 3- Stripping in psychology

Alienation transpires when components are introduced into a location. These characteristics do not arise from the interaction between

humans and the environment, and harmony is absent in both categories (Idris, 2017).

Alienation as a constructive design strategy is characterized by the implementation of mechanisms that draw upon prior sources and references. This approach facilitates the expression of concepts that may diverge from their original domain by analyzing, isolating, and reconstructing ideas to create an image that conveys intellectual embodiments rich in meanings and connotations. This process arises from the text or context's openness to alternative contexts, allowing for a continuum of these contexts. The interaction between them is either inconsistent, partial, or comprehensive (Ali, Al-Jabari, and Hamza, 2018).

*** Mechanisms and structures of the alienation process**

Spatial alienation refers to a condition of isolation and estrangement between an individual and their surrounding environment. This alienation transpires in metropolitan settings characterized by disintegration, fragmentation, and a lack of cohesiveness, resulting in an inability to fulfill individual needs. This phenomenon arises from alterations to the urban structure and its configuration, characterized by a

lack of connectivity among the components of the area and the predominance of one system over the existing urban systems due to the elimination and substitution of the original system. This process has four steps that result in the dissolution of the urban structure, including. (Sahan, 2021)

The initial phase: Erasure, The second phase: Discontinuity, The third phase: Intervention, The fourth stage: Conjunction of Opposition (Shakir & Khalil, 2022)

*** Social alienation**

Social alienation is described as the disconnection between the individual and social structures, manifesting as a human behavior in metropolitan environments marked by disintegration and an inability to fulfill human needs, resulting in a sense of diminished communication and contact. This is the most prevalent form of alienation, characterized by social and psychological characteristics (Shanti et al., 2023), which are outlined as follows:

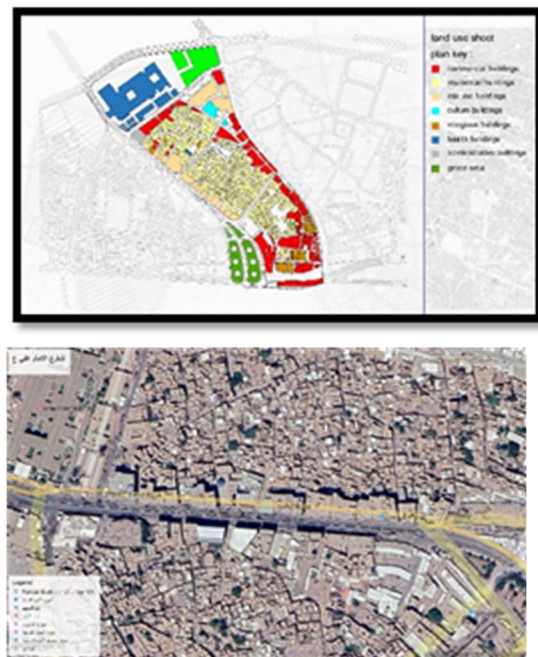
Anomie\Normlessness, Social isolation, PURPOSLESSNESS, Powerlessness, Rejection Estrangements-Self (Paans, 2020.)

The lack of harmony and integration in the modern Arab city, between the individual identity of

each building and the overall urban formation, has resulted in systemic imbalance. The contemporary city has forfeited the organic cohesion among its various components, while the decline in interpersonal connections has contributed to the phenomenon of social alienation (Al-Bazzaz, Abuna, 2007).

PRACTICAL FRAMEWORK OF THE RESEARCH: -

1- Description of the study area: Imam Ali Street is situated in the heart of Hillah city and connects to the city's historical heritage fabric. It is a significant thoroughfare in the heart of Hillah city. It links Saad Bridge (Indian Bridge) with Bab Al-Mashhad, marking the boundary of the medieval city of Hillah. Flanking it are structures ranging from two to five stories, housing a variety of commercial enterprises. The road was constructed in the early 1970s. The research area encompasses numerous historical urban locations that constitute the mental representation of Hillah city, including the Hanging Gardens Park, the old central markets, and the heritage districts of Jubran, Aqd Al-Mufti, Al-Mahdiya, and Al-Maktaba Street.



**Fig. 2. Description of the study area
Imam Ali Street**

The indicators of the fundamental link between the urban environment and humans comprise: Cognitive indicators pertain to human identity and the development and interaction of individual personality within urban environments.

Morphological indicators provide a spatial alienation pattern associated with mass and space, contingent upon the presence of key measurable components influencing the phenomenon's patterns.

* METHODS OF MEASUREMENT

First: Measuring indicators of social alienation

The assessment was conducted via a site questionnaire for the beneficiary. The questionnaire was a series of inquiries designed to assess

social alienation by evaluating variables related to the respondent's awareness and human interaction inside the constructed environment. The Likert Scale was employed to assess opinions, sentiments, and evaluations. In summary, it is typically employed to assess subjects that reflect individuals' opinions towards a certain issue and the extent of its influence on user behavior, as illustrated in the table below.

Table 2. The table of Measuring indicators of social alienation

Main Indicator	Possible values of indicators	Question about it	Strong 1	Average 2	Weak 3
Discontinuity	- Disruption of communication links	Q1: What is your use of the street?			
	- Withdrawal and submission	Q2: How long can you stay inside the alley?			
	- Social disintegration and fragmentation	Q3: Can you communicate and interact with others?			
Deficit	- Weak social interaction	Q4: Can you express yourself and enjoy while walking around?			
	- Lack of feeling of effective presence	Q5: Is there freedom of movement inside the space?			
Unfamiliarity	- Loss of spatial belonging	Q6: Do you feel familiar with the content of the place?			
	- Lack of sense of identity	Q7: Can you do certain activities inside the space?			
	- Rejection of everything unfamiliar in the context	Q8: Does your visit to the area include?			
Aimlessness and meaninglessness	- Contradiction between mental images and urban reality	Q9: What is the purpose of visiting the place?			
	- Displacing the traditional environment and replacing it with another abstract and meaningless one	Q10: Are there strange ideas within the place?			
	- Formal and intellectual fragmentation and paradox	Q11: Is the space characterized by fragmentation and separation?			
Self-alienation of the recipient	- Social isolation and conflict with others (neighbors)	Q12: What is your impression of the place?			
	- Alienation of the self from other spaces (neighborhood)	Q13: Do you feel alienated from others?			
	- Feeling frustrated as a result of the urban mechanism	Q14: Do you feel frustrated when you are in the place?			
Non-normativity	- Lack of clarity of connections (contracts)	Q15: Can you move between nodes from one space to another?			
	- Poor services and means of communication	Q16: Services do not meet the needs of visitors?			
	- Breach of rules and regulations	Q17: Is there any intrusion and discomfort while roaming?			

Second: Assessing the morphological indications of spatial alienation

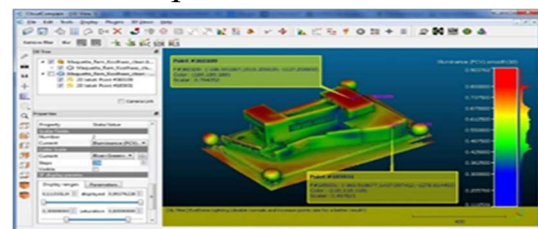


The process was executed in two phases utilizing a parametric program designed for modeling and analyzing data through sophisticated algorithms, aligning the morphological signs of spatial alienation with the analytical

indicators in the software, as illustrated below:

Stage One: Constructing parametric simulation models via the software Agisoft Metashape is a sophisticated software solution, as its engine is perpetually enhanced to incorporate contemporary scientific advancements in photography. The program facilitates the processing of images from RGB or multispectral cameras, including multi-camera systems, and transforms them into valuable spatial information represented as photographic point clouds. It is quite beneficial for architectural analysis of buildings. It provides significant potential for examining structures, redesigning them, and analyzing their physical and spatial characteristics by generating precise three-dimensional models from images (Yakar et al., 2022).

The second stage: Analysis and assessment of potential indications and values utilizing the Cloud Compare software



The Cloud Compare software facilitates the improvement of 3D modeling projects and accommodates an indefinite quantity of numerical

fields for each point cloud, to which various custom algorithms can be implemented (smoothing, gradient assessment, statistics, etc.). It facilitates the visualization of numerical fields for each point efficiently by constructing bespoke models utilizing a toolbox that encompasses many advanced techniques for resampling, color modification, scalar field manipulation, and more. It oversees statistics, sensor data, segmentation, and related aspects.

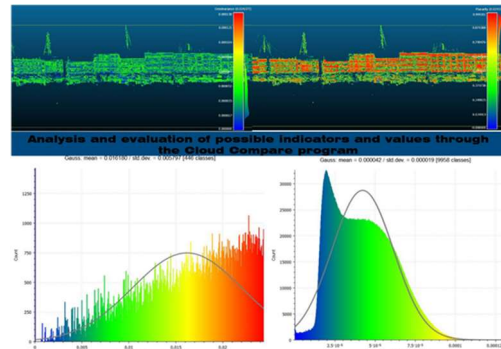
* Analyzing the measurement models using the Agisoft metashape program

To assess spatial separation, visual and motion overlap of patterns, excessive homogeneity, and to discover lost spaces through 3D models derived from Agisoft, digital elevation models (DEM) can:urban space of Imam A.S. Street in Hillah

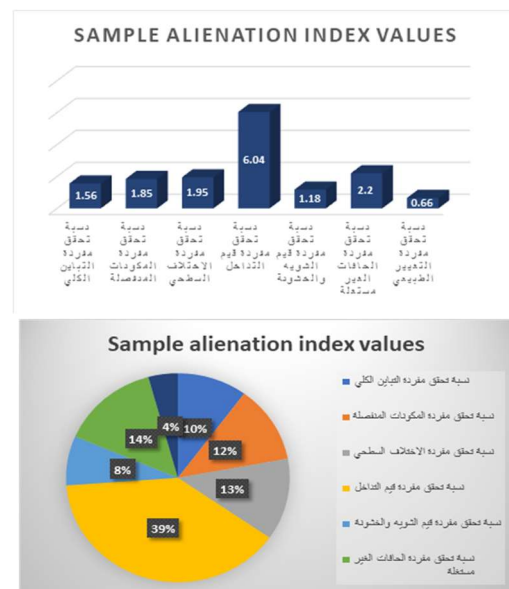


Fig. 2. Description The complete model of the study area using the program
Source: The researcher

Stage 2: Analysis and evaluation of possible indicators and values through the Cloud Compare program



* STATISTICAL ANALYSIS OF ALIENATION INDEX VALUES



RESULTS AND CONCLUSIONS: -

- 1- We ascertain that the alienation process influences the urban environmental system and its effects on the product, recipient, and society via indications of the fundamental interaction between the urban environment and humanity. These variables encompass both physical and cognitive dimensions
- 2- Cognitive indicators pertain to humans, their identity, and the

development and interaction of individual personality within urban environments. Spatial alienation leads individuals to experience emotional states characterized by a deficiency in amicable connections with their environment, stemming from an unclear understanding of urban and architectural environments.

3- The research conducted an impartial analysis of spaces to address alienation by delineating the correlation between the current design pattern and the techniques employed to mitigate alienation.

4- The measurement indicator in software clearly displays a variety of values and patterns associated with the software's interaction with current cultural and historical settings. Sample analysis yielded various verification rates for terms related to total variance, distinct components, surface discrepancies, overlap values, distortion and roughness, and unutilized edges.

5- It may be inferred that there is a distinct variety in the actual percentages of various vocabularies, such as nostalgia and cultural reliance, which illustrates the limitations of modern design. The distinct components and surface disparities suggest an incompatibility among the design aspects,

necessitating a reevaluation of the integration of heritage patterns within contemporary contexts.

6- The findings underscore the significance of comprehending the interplay among various factors and the influence of cultural environments on software design. The research indicates the necessity to reevaluate the integration of heritage patterns with modernity, highlighting the issues confronting software in the digital era.

7- The findings derived from this research offer significant insights for the development of future software that aligns with contemporary cultural and societal requirements.

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