

# Authority of Architectural Genes in Architectural Design: A Theoretical Exploration

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## Abstract

There is a common perception that ‘genes’, an idea most prevalent in Biology has implications in other fields such as architecture. It is based on the premise that building forms have their origins in genetic traits and that they influence the building elements as well as the forms of the buildings. In other words, there exists an ‘authority’ that underlies built-forms. This paper examines the concept of ‘authority’ as it is presented in literature, sociological studies and architecture.

This research analyzes the influence of architectural genes on architectural design. It examines the relationship between the genetic authority in architects’ design concepts. It seeks to understand the various aspects of this phenomenon and its applications in interpreting the community identity. According to literature, the influence of genes on architecture are of two types, based on the genetic traits and elements that impact the form of a building. The first is genetic qualities known as genotype authority, which expresses semantic meanings. The second is the phenomenon known as phenotype authority, which results from tangible geometric relationships that have been applied to the semantic meaning.

In the light of this, and through an inductive analytical approach, this paper examines previous studies and literature to reveal that there is a relationship between the authority of the architect and the genes of the generated architectural text. This paper explores that relationship and concludes that it affects the interpretation of community identity.

**Keywords:** Authority of architectural genetics, genotype in architectural design, phenotype in architectural design, architects’ authority, theories of architecture.

## Introduction

Genes, often associated with biology is seen also to have implications in architecture as a concept that yields origins, authority and power. The concept of power in architecture has been approached from various aspects, which vary with different philosophies and prevailing intellectual orientations. To comprehensively examine the various dimensions of power and authority in architecture, it is essential to explore the interplay between the authority of the architect and the influence of ‘architectural genes’ inherited in the process of conceptualization. Genetic factors are regarded as forces that shapes design and are, in turn, shaped by external powers. According to Mohammed & Al-Yousif, (2023). Indeed, the forms, inseparable from their meanings, embody the

genetic essence of the qualities that embody the spirit of the era and express them as Mohammed, (2014) says.

In this context, this research examines the significant theoretical and practical developments related to genetic authority in architectural production. It also examines the concept of power based on previous studies. Its aim is to explore the relationships between the authority of the architect and the inherited architectural genes based on situational architectural theories that explore the interplay between architecture and different domains such as sociology, politics and biology. As for legitimacy, it reflects the influence of the governing authority and the ruler, while expertise reflects the authority of design. Its objective is to establish the relationship between the authority of the architect with the authority of the architectural genes and its impact on shaping the architectural forms created in reality.

To achieve that, the research assumes that the inherited genes from architectural emulators represent external factors that interact with the authority of the architect to create architectural identity.

### **Theoretical Framework**

Many have defined authority. As a general concept it is defined as "a human and social organization that seeks to achieve justice". As Almaany dictionary (2010 -2023) defines it as "the power or right to give orders or make decisions". The philosophical dictionary defines it as "the power and strength one has over something" as well as "the control one person has over others." Saliba (1994) and Attia et al. (1990) define authority as "power." The verb is derived from references to domination and the ruler of a country. Paul-Alan (1994) says that authority means to increase, support, or give birth to a person who has the power to bring something into existence and contain it. The concept of psychological authority is applied to all individuals who can impose their will on others through their strong personality, firm character, good gestures and eloquence.

Krier (1991:19) says that authority is "built on knowledge, certainty, and skill, and any deficiency in these areas will result in a lack of responsibility to enforce judgment: no leadership and no authority". Therefore, when one says that a person has authority in their field of work or expertise, such as music or genetic studies, it does not mean that the person has authoritarian tendencies for control. This authority is derived from their opinions and judgments, which are based on their evaluation as expert opinions (Education in Chicago, 1992). However, in order for the work to have authority, it must inspire confidence based on the legislator's control over it (Baker, 1989).

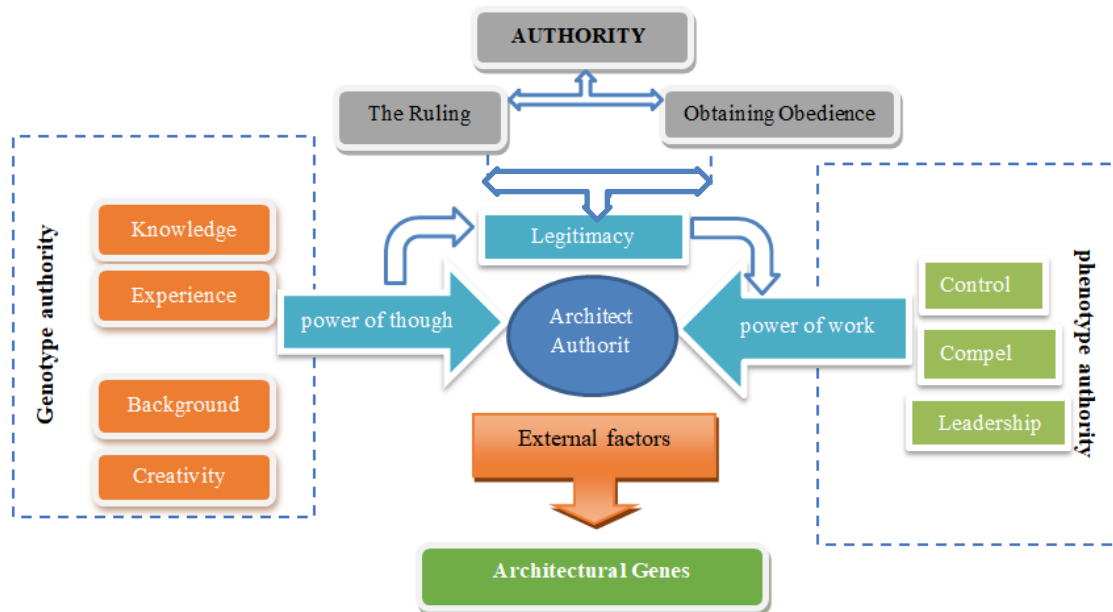
In relation to legitimacy, authority can be referred to as normative authority, which is derived from the prevailing norms. This includes maintaining public order, issuing orders, and establishing rules that are followed by various subjects. De facto authority refers to the ability of a person or a group of people to maintain order and ensure obedience by most individuals, often supported by arrangements or punishments. The subjects related to this authority do not necessarily have to be legitimate (Stanford Encyclopedia).

Al-Hakim (1976) classifies two authorities that have been in constant conflict throughout history: phenotype authority, which represents the power of work, and genotype authority, which represents the power of thought. In fact, there is the hidden feeling that work harbors towards thought. "The power of work (execution) always fears and hates the power of thought (criticism and guidance)" (Al-Hakim, 1976).

Regarding its relationship with power, Galbraith (1994) sees the necessity of distinguishing between authority and power. He says, "Authority and power are two different things." Power is the ability to compel others to obey", while "authority is the legitimate right to confront and command others to listen and obey" (Galbraith, 1994: 86). Accordingly, authority requires power, but power without authority leads to oppression and tyranny. "Thus, authority means the right and legitimacy to use power" (Wafsa, 2000).

Foucault (1997) sees power as a relationship of forces, and every relationship of forces is a relationship of authority. Power is not an isolated force, but it is inherently linked to other forces (Al-Naim, 2005; Galbraith,1994). Indeed, there are two interconnected concepts with the concept of authority: power as the exercise of authority and legitimacy as the extent to which authority is based on a legitimate basis. These concepts give authority its stability as a primary source of support, trust and followership (Al-Saadi,2006).

Accordingly, the most important meanings associated with the concept of authority in general, with a specific focus on architect's authority is shown in the Figure 1.



**Fig. 1:** Extracting vocabulary and meanings  
Source: Authors

The "authority of genes" refers to the spiritual influence gained by architectural features through their ability and strength to be passed down through generations. This influence is shaped by the spirit of the time and the expertise of the architect (Mohammed,2014).

"The authority of the architect" is indeed derived from the sources of power, expertise, and legitimacy, which are influenced by external factors such as architectural genes and the spirit of the era. The nature of the relationship also plays a role in how these factors influence the architect.

### Procedural Definitions

**The authority of genes:** This refers to the ability of inherited architectural characteristics to pass through generations of architecture, resulting in concentrated form and realized meaning.

**Architect authority:** This is the authority that the architect as a person has gained from his/her ability and strength in imposing their vision on the design.

**Architectural Intentions:** This research examines the concept of power based on previous studies in order to accomplish the research objective. As for legitimacy, it reflects the influence of the governing authority and the ruler, while expertise reflects the authority of design, which will be further explored in future research.

### Review of Literature

This section reviews the significant theoretical and practical contributions that have explored the concept of architectural genes and their influence on the design process. It builds upon previous studies on authority and its impact, drawing from the diverse knowledge field specialized in these studies.

The aspects they have focused on, which relate to the concept of authority have varied. In order to explore the research problem and provide clarity, this section presents the most important previous studies that have directly or indirectly examined the influence of authority. In order to establish connections between these studies and the concept of this paper, it specifically highlights the research that have examined the impact on defining the identity of architectural forms. The aim is to identify the cognitive issues associated with the concept of the architect 's authority and the influence of genes on architecture.

In this connection, Al-Yousif (2023) has explored the concept of "eugenics with convergent architecture" as a mechanism to extrapolate and anticipate different architectural forms. He has adopted the principle of inheriting architectural traits through a communicative mechanism in order to enhance architectural design and anticipate the creation of architectural forms. He has utilized the concept of architectural genes to demonstrate the evolution of architectural heritage, drawing inspiration from the idea of "Mendelian" inheritance in living organisms, introducing a new mechanism inspired by the science of living organisms, known as the mechanism of eugenics. This mechanism explores genetic elements and their phenomenology, and adapt them to align with the current societal trends.

Al-Yousif (2023) concludes that "Architectural form can be passed down through generations, and it is possible to use eugenics to determine these inherited traits.", and that "Eugenics architecture convergence is the genotype from which the designer derives the expressive shapes aligning with the genetic code." He also points out that "through the application of architectural eugenics, it is possible to extrapolate the phenotype derived from the close shape or meaning of the architecture." However, he did not address the relationship between the influence of genes and the authority of the designer, as well as their respective impacts on architectural production. In contrast, Al-Naim, (2005) has examined the authority of meaning, specifically focusing on the relationship between form and meaning in architecture. He has explored the role of taming form and the authority of meaning in theory and application, with the goal of establishing clear guidelines for creating and comprehending creative works. He has found that the relationship between form and meaning is closely intertwined.

Indeed, as Al-Naim (2005) points out, when one is present, the other is also present. Conversely, when one is absent, the other does not exist. In light of the concept of authority, the relationship between them is represented by the following principle: "Form follows the authority of meaning". Interestingly, Al-Naim, (2005) has clearly demonstrated that the authority of meaning is manifested through the indicators represented by the taming of form. This authority is attained through the interplay and mutual reinforcement of various elements of such as control, the concept, selected references, credibility of representation and precision/familiarity at the level of execution, and eloquence of representation.

Al-Naim (2005) has also focused, in part, on the concept of authority in general and authority in architecture in particular. It is clarified that authority has multiple connotations. It serves as both the source and the actor, and it represents both the thing and its opposite simultaneously. This diversity is based on the context in which authority is exercised. In fact, Al-Naim (2005) says that addressing architectural determinants, represented by the triad of Vitruvius and expressed as forces, reveals a discourse of control or authority. The various images of this triad reflect different instances of taming or exerting authority. Any increase or decrease in it is solely the result of one of its elements dominating the others, and the significance of each determinant is decided by comparing it to the others, depending on the nature of the architectural project as a force. Thus, authority is concentrated in form and realized through the meaning of form. The interconnection between form and meaning establishes authority.

Nevertheless, Al-Naim (2005) has not addressed the various ways in which authority can be expressed in architecture and how it can be linked to different types or references such as cultural, economic, or political. Indeed, he did not explore the extent to which the architect is willing to engage with this authority based on their external or internal circumstances. Instead, he focuses only on presenting authority in architecture as a type of coherence between form and meaning.

On the other hand, Matte (2001) has focused on the motivating factors for authority in the design process, specifically the architect, and has explored the distinction of the human personality, its motives, and goals. This distinction ultimately leads to diversity in architectural productions. He has examined the personality of the architect in relation to his connections with personal formative foundations. Moreover, he briefly addresses the impact of external environmental factors, such as the environment and interaction. These factors are limited to those proposed by Gelernter in generating architectural form, namely functional considerations, the spirit of the era, and formative, social, and economic principles. However, Matte (2001) has examined how the architect 's personality influences the power dynamics in design and its effects on the production of architectural texts at different

stages. He has also explored how the architect's personality contributes to the uniqueness of the final product, taking into account the influence of the current era and the interconnectedness of the production stages. Despite these, he has not explored the extent to which the architect interacts with external influential factors that, in turn, contribute to the development of an architectural personality distinct from the architect itself.

In contrast, Al-Jassar (2001) has focused on examining the role of the recipient in the authority of the architect, specifically the concept of the customer (employer) as an essential aspect in design effectiveness. This is achieved by leveraging the employer's unique personality traits and preferences to enhance the effectiveness of the design process, ensuring that it aligns with the employer's specific needs and requirements. He analyzes the process of receiving ideas and their progression from the stage of presenting them to the customer. This includes adopting the ideas that will be presented by the architect, as well as examining the role of intermediaries and communication elements in the process of presenting ideas. He has also examined the methods associated with the creation and execution of architectural forms, focusing on interpretations, communications, and persuasion.

Al-Jassar (2001) has identified the frameworks for the architect's relationships with the customer in conveying design ideas through the architect's preparations, persuasion, and means of presenting ideas. He has also addressed the variables related to the influential employer on design effectiveness, which are associated with their levels of understanding and comprehension, as well as the impact of architectural formal characteristics in them. These variables are, in turn, influenced by the architectural presentation of ideas and the impact of the intermediary in conveying them. Al-Jassar (2001) however did not delve into the fundamental differences between the various segments represented by the employers, such as the distinction between the primary objectives of a government institution and a traditional community, for instance. These differences have a significant impact on the effectiveness of the design process from its initiation. Nevertheless, Al-Jassar (2001) has presented the characteristics related to the concept of the employer in a general and unified manner.

Above studies clearly show that there is a paucity of studies that focus on the concept of the authority of architectural genes and based on the forms of authority in architecture. The table 1 explains the current situation of the previous studies.

**Table 1:** Summary of Previous Studies

Source: Authors

	Study	Subject	Methodology	Goal and limits of the knowledge gap	Research problem
1	Study of Mohammed and Al-Yousif, (2023)	"Eugenics with convergent architecture" as a mechanism to extrapolate and anticipate different architectural forms	Inductive approach based on the descriptive analysis	<b>Goal:</b> utilized concept of architectural genes to demonstrate the evolution of architectural heritage, drawing inspiration from the idea of "Mendelian" inheritance <b>Knowledge gap:</b> study did not address the relationship between the influence of genes and architect.	Study the influence of the architect's authority and its impact on the genetic traits of design to determine the architectural identity.
2	Study of Al-Naim, (2005)	Discovering the relationship between shape and meaning.	Inductive approach based on the descriptive analysis.	<b>Goal:</b> The structural relationships between form authority as products of meanings. <b>Knowledge gap:</b> The study did not discuss the authority of genes and their effect on architect's products.	

3	Study of Matte (2001)	Study the influence of the architect's authority and the presence of the spirit of the era on the text at various stages	Inductive approach based on the descriptive analysis	<p><b>Goal:</b> Study the recipient factor of the architect's authority, which is the concept of the customer (employer) as an essential aspect in design effectiveness.</p> <p><b>Knowledge gap:</b> The study did not address the effect of genetic traits.</p>
4	Study of Al-Jassar (2001)	The recipient's interaction with the authority of the architect is based on the concept of the customer, who is the employer.	Inductive approach based on descriptive analysis.	<p><b>Goal:</b> Study the recipient factor of the architect's authority, which is the concept of the customer (employer) as an essential aspect in the effectiveness of design</p> <p><b>Knowledge gap:</b> The study did not discuss the authority of genes and their effect on architect's products.</p>

### Research Method

This research adopts a philosophical approach using comparative analysis as a method to compare two distinct phenomena: authority of genes and authority of the architects. In order to identify similarities and differences between these phenomena, it depends on several steps:

- Dividing the research problem into aspects, which contribute to clarity by addressing the details and providing detailed explanations.
- Utilizing explanations and criticism, clarifying and critiquing each aspect of the problem to address any ambiguities.
- Drawing conclusions: providing an accurate description of the findings, supported by evidence obtained through the research.

The research adopts an inductive methodology that relies on an analytical theoretical framework. Its aim is to define and determine the concept of authority as it is presented in architectural theories, literature, and sociological studies. It also includes a review of relevant studies and literature related to the issue in order to extract the meanings that will help achieve the research objective.

### Previous Studies

Many previous studies have discussed the concept of power and its impact on the design process across various fields of knowledge. The aspects that these studies have focused on, which are related to the concept of power, vary. In order to clarify and present the research findings, the most significant previous studies that directly or indirectly have examined the impact of power are discussed. An attempt is made to connect these aspects and the vocabulary with the concept of the architect's influence and its impact on defining the identity of architectural texts. This is done in order to explore the cognitive issues associated with the concept of the architect's authority and the influence of genes and their impact on architecture.

According to the previous suggestion, power is one of the influential sources of authority for architects in architectural texts. In order to comprehend the influence of power on authority and its impact on the architect's output, it is crucial to understand the nature of the relationship between the parties involved in the power dynamics. This understanding is an essential factor in determining the level of influence for each party. The actions taken by each party involved in a power dynamic depend on the nature of their relationship. The most important studies that have addressed the concept of power are reviewed. The main framework that determines the relationships is the existence of a powerful party, the responsible superior (represented by authority), and a less powerful party, the subordinate.

**Khoshkish, 1991:**

This study has examined the adoption of power dynamics between two parties, based on the principle of action and reaction. The final outcome of this interaction represents the nature of the primary relationship. The clarification of the following forms depend on the premise that one party represents the powerful authority, while the other party is the less powerful party who follows or deals with the authority (table 2).

**Table 2:** Symbol Guide

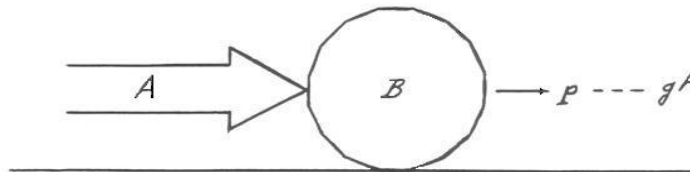
Source: Authors

Symbol	Meaning
(A)	the stronger party (being by force)
(B)	The party with the least amount of force ((being by action
(P)	Result of the Relationship
(g A) , (g B)	Result is the net force in favor of the specified party
(g)	Result is the net force. (Reaction)

Following is a classification of forms of power relations.

**1) Catatonic Power Relationship**

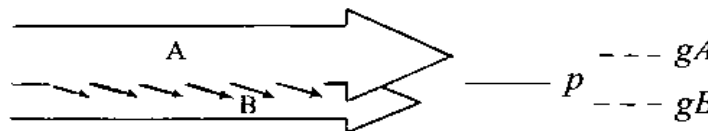
When terminal A is stiff, the resistance required for B is negligible. Therefore, the acquiescence resulting from B does not come from the latter's achievement of its goals, but rather from its inability to accurately assess and manage the reality of its relationship with A. If this relationship continues to deteriorate, it can be said that the outcome for both parties will be zero. Figure 2 shows the trajectory of this relationship.

**Fig. 2:** Catatonic Power Relationship

Source: Khoshkish, 1991

**2) Commensal Power Relationship**

"Commensal": This is a term used by the dictionary to designate the relationship between similar organisms with their parallel effort to create their similar requirements in their surroundings. "Eating from the same table" literally means sharing a meal together. When A has the power to transition B from an introductory strategy to a more suitable second strategy, the concept of co-existence becomes evident. Figure 3 shows the trajectory of the relationship.

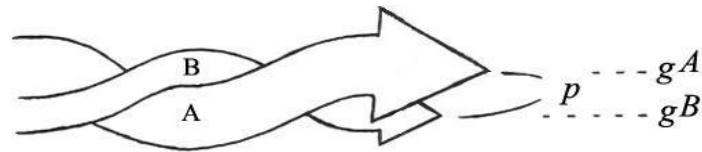
**Fig. 3:** The relationship of Commensal force.

Source: Khoshkish, 1991

**3) Symbiotic Power Relationship**

Symbiotic means interdependence and cooperation, where different types do not mean complete difference, but diversity of sources. For example, parties with their different ideologies may get involved in symbiotic relations with each other. Symbiosis is different from cohabitation in that cohabitation is simpler. The resultant force relationship of B and A can move towards one goal with the participation of the other, but the result of the resultant for each party differs from the other party due to different basic interests. Like the relationship between an army commander and his soldiers,

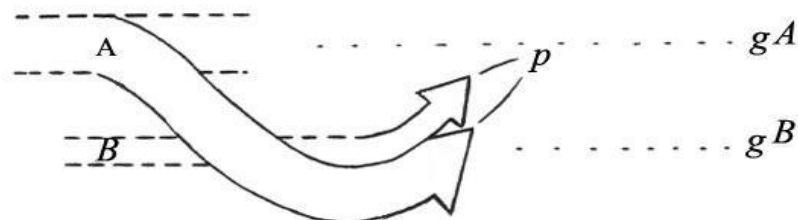
there is no commander without an army and no army without a leader. Figure 4 shows the trajectory of the relationship.



**Fig. 4:** Symbiotic power relationship.  
Source: Khoshkish, 1991

#### 4) Divergent Power Relationship

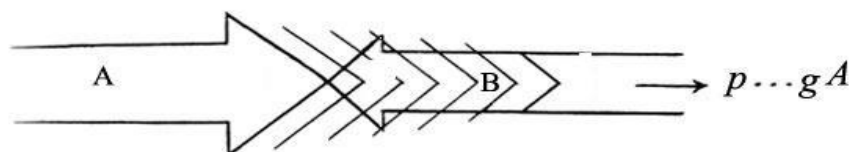
This is when the goals for each B and A do not match. However, the confluence of parts of these goals leads to the distortion of one force in favor of the other depending on the strength of the distorted party. The closer the result is to A, it can be said that A is stronger. Figure 5 shows the trajectory of the relationship.



**Fig. 5:** The Divergent Power Relationship.  
Source: Khoshkish, 1991

#### 5) Conflicting Power Relationship

The clash of opposing interests. When one side emerges victorious from a confrontation, with the intention for both sides to win. Collision situations vary. For example, two football teams facing off to win a match, or a war between two states over a specific territory. or, the previous power relations can escalate into a clash when a point of disagreement is reached between the goals following their development or due to a change in circumstances. For example, a collision between targets A and B may result in some of B's positions being retained, eliminated altogether, or a new iteration of B being created through the product. Figure 6 shows the trajectory of the relationship.



**Fig. 6:** Conflicting Power Relationship.  
Source: Khoshkish, 1991

#### John Kenneth Galbraith, 1994

Galbraith (1994) has sought to arrange three types of power:

- 1- Compensatory power, in which submission is bought;
- 2- Condon power, in which submission is won by making the alternative sufficiently painful;
- 3- Conditioned power, in which submission is gained through persuasion. In short, money, force, and ideology.

It further divided power by source, power either stems from personality or leadership, property, wealth, or organization.



The study provides a brief history of the use of power, noting the broad arc of history in moving away from condign power towards compensatory and then conditioned power, and from personality and property towards organization.

Finally, it details what Galbraith views as the main sources of power in the modern world: “government, the military, religion, and the press”.

### **Folger, Poole & Stutman, 2021**

Folger, Poole & Stutman (2021) discusses the role of power in structuring the dynamics of conflict interactions. They define power as a function of the relationships between parties rather than individual ownership. Forms of power are distinguished in terms of both surface and ideological processes. Formation of power is discussed as it is implemented through social categorization, the allure of power, direct interaction, and the acceptance of legitimate authority. The use of power in conflict tactics is evident in the analysis of threats and promises, the control of relationships, and the control of the issue. Balance of power in conflicts is discussed, along with the benefits and challenges of unequal power positions (Folger, Poole & Stutman, 2021). Indeed, they classify the power relationships within groups based on the principle of reaction to power, which consists of five responses.

1. The first relationship is obedience to authority and compliance with all its standards. It primarily relies on the adaptable human personality (compliance).
2. The second relationship is the relationship between power parties in the form of subgroups for the purpose of mutual benefit or a common goal. Alliances are based on two fundamental theories: the theory of least power ("weakness is strength"): in a group of three parties, the weakest party will always join the alliance. The theory of least source ("strength is weakness") suggests that the stronger parties in coalitions often have less influence than weaker members.
3. The third relationship involves a covert form of communication and manipulation by the party opposing the power dynamic. This party intentionally assumes a weaker position in the relationship as a means of resistance.
4. The fourth relationship is the overt form of non-compliance. When confrontation is intentional and public, it distinguishes itself from resistance as a reaction. Confrontation occurs when a party in a power relationship realizes that they cannot improve their position in the relationship through resistance or forming alliances.
5. The ultimate relationship is the capacity to confidently and skillfully articulate your ideas and emotions. It requires persistence, determination, sensitivity to others' emotions, and the ability to assert oneself (assertiveness).

Through the previous studies presented, it is concluded that there are two equations that govern the type of relationship between the aforementioned parties, at both the general and specific levels, according to specific circumstances and data (Al-Saadi, 2006)

- 1- Equation of Dependence-Independence:** According to Curtis (1996), this Equation focuses on the relationship at the general level between the stronger and weaker parties (the authority and the subordinate). It emerged significantly in the mid-twentieth century with the rise of new, liberationist, popular, and newly independent governments. These governments and their people had a need for architecture that expressed their inclinations towards independence, while also requiring support from more advanced and technologically developed countries to provide the necessary resources and tools for creating such architecture. An example of this is the reliance of wealthy countries like those in the Arab Gulf on foreign expertise in establishing contemporary architecture in those countries. Due to the dependence of these countries' policies on foreign architects, the latter used their authority to impose their design ideas on the architectural output in the Arab Gulf countries, resulting in these countries losing their original identity and becoming characterized by a hybrid nature.

Within this Equation, architectural emulators are active, including those that support the need for dependence, such as emulators of modernity and progressiveness that connect independence with the use of modern materials and technology. An example of this is the emulator of "empty surfaces = cultural progress."

**2- Equation of Concessions-Protection:** According to Strong (1996), this equation focuses on the relationship at the specific level between the architect and the client. Concessions represent the architect's ability to accommodate the design effectiveness data in exchange for a certain level of concessions to meet the requirements, without compromising architectural distinctiveness and creativity. An example of this is the control of the job market in contemporary Iraqi architecture by the architectural profession, and the compromises made by architects in creating architecture that prioritizes luxury and formal grandeur, in response to the demands of the job market.

Genetic emulators can be classified into two types: those that support constraints, which occur when the practice of the profession is governed by the visual phenotype emulators or social or intellectual genotype emulators imposed on the architect, or when there is a group of genetic emulators that establish the prevailing style and ensure its spread, making the architect influenced by mental or visual templates. Mohammed (2014)

From the previous, it can be concluded that the inherited genes of architectural emulators or the external determinants influence their practice of power dynamics with the architect in a linear manner to achieve their goals. This means that they aim to obtain compliance from the counterpart based on the solid foundation of their sources of power and capabilities to achieve their goals, with clarity of the goal and its formulation as the necessity of achieving the goal. As for the authority of the architect, the achievement of the goal depends on several factors related to protection and independence. These factors include the available sources of power, the architect's inclinations and influence, and the intensity of the opposing authority. These factors work together to ensure an appropriate relationship in achieving the architect's goals. The nature of the relationship between the two authorities depends on the mechanism of interaction through genetic emulators and the representation of their authority in the design. This effectiveness is achieved through the dualities of dependence-independence and concessions-protection.

### **Relationship between the Authority of the Genes and the Authority of the Architect**

The research has to examine the vocabulary that describes the nature of the relationship between the authority of the architect and the authority of architectural genes as follows.

#### ● **Inflexibility Theory**

The architect is influenced by his intellectual and mental frameworks that he creates for himself, drawing inspiration from the architectural heritage in his environment (Genotype). However, he may struggle to adapt to the various surrounding conditions. The variables of the equations are as follows:

- **Independence:** relying on the architect's own knowledge and adhering to their preferred intellectual doctrine.
- **Concessions:** surrendering and succumbing to the influence of mental molds.

#### ● **Compliance Theory**

The weaker power here is based on the principle of conformity and compliance with the conditions and goals of authority, and it relies entirely on the power and legitimacy of this authority and its guidance to him. The variables of the binaries are as follows.

- **Reliance:** relying on the existing intellectual genes (genotype) and the surrounding architectural structures (phenotype), especially those that embody the preferred methods of the institution or society through its architectural generators.
- **Concessions:** achieved through conformity with the purposes and methods of the genetic authority of the model, similarity of solutions to the surrounding structures, and adopting emulators of prevailing methods.

### • Association Theory

The relationship ranges between coexistence and mutual support depending on the sources of power for both parties. The weaker power possesses the elements of successful work but primarily relies on the existence of authority to achieve its goal, which serves the interests of authority more. The variables of the binaries are as follows:

- **Reliance:** relying on external sources of power and legitimacy or the proliferation of architectural generators and their effectiveness.
- **Independence:** the position, reputation, and self-capabilities of the architect represent sources of power for his authority.
- **Concessions:** influenced by project determinants and yielding to influential decisions, as well as the architect 's aspiration for success, which is reflected in the concessions data.
- **Protection:** This is represented by the architect 's confidence in their style and their adherence to design principles, as well as the level of support from the environment, such as the availability of materials and resources to bring different ideas to life.

### • Creativity Theory

It is characterized by boldness and innovation, achieving its goals either by supporting authority or relying entirely on its capabilities. The opposing party to authority is characterized by innovative and groundbreaking leadership that inspires those around them. The variables of the binaries are as follows:

- **Independence:** This is represented by improving the effectiveness of design through credible sources and the utilization of architectural gene forms. It also involves the architect 's position, reputation, compliance, and understanding of genetic emulators within their environment, as well as their capabilities and knowledge base.
- **Protection:** represented by the architect 's possession of confidence and compliance with design determinants through a new vision of the design problem and its environment.

Table 3 shows the four possible relationships between the authority of genes and the authority of the architect that represent the nature of their relationship, based on the influence of the relationship mechanism through architectural emulators.

**Table 3:** Relationships of the authority of the genes and the architects  
Source: Authors

Authority of the architect VS Authority of the Genes		Authority interaction	Equation representation	Authorities Relationships
1	Falling under the influence of the authority of intellectual genes	Authority is compulsory in achieving its objective	( <u>Dependence</u> -Independence) ( <u>Concessions</u> -Protection)	<u>inflexibility</u>
2	Willingness to match and comply with gene authority	Authority is compulsory in achieving its objectives	(Dependence- <u>Independence</u> ) ( <u>Concessions</u> -Protection)	<u>Compliance</u>
3	Architect 's power association with gene authority for the return	Authority is compulsory in achieving its objectives	(Dependence-Independence) ( <u>Concessions</u> -Protection)	<u>Association</u>
4	symbolism	Authority is compulsory in achieving its objectives	(Dependence-Independence) ( <u>Concessions</u> -Protection)	<u>Creativity</u>

### Architectural Emulators and External Factors

This term pertains to the mechanism of the relationships between external factors and the authority of the architect. This is based on the research hypothesis that “the inherited genes from

architectural emulators represent external factors that interact with the authority of the architect to create architectural identity” as Patnaik (2019) and Mohammed, Al Nuaimi, (2020).

Architectural emulators, when represented and disseminated in a specific environment, have an impact on design effectiveness through the authority they acquire. This authority can come from external support, the authority of the architect, or the characteristics of the emulators themselves, which define the nature of effective authority within the design multifaceted. It refers to the form or shape in which the emulators themselves are constructed to ensure design effectiveness based on specific conditions. Its success depends on its spread in the environment. (Al-Nuaimi, Mohammed, 2022). It is represented through:

**Information environment emulators:** These are simulated ideas and beliefs that govern social and practical relationships, influencing the effectiveness of design decisions. They are represented through:

- 1- **Social emulators:** are intellectual and ideological templates that govern the relationships of individuals in a specific society.
- 2- **Political emulators:** refer to emulators that explore the dynamics of a society, including the understanding of the state and the relationship between the ruler and the ruled.
- 3- **Economic emulators:** these emulators are related to linking society to economic developments and the modern concept of the state and its structures.
- 4- **Architectural emulators:** are related to the ideas and design principles of architectural styles in a practical environment. They are represented through:
- 5- **Design emulators:** These are the mental and design templates created by architect s (or a group of architect s) for themselves in order to maintain their style or distinctive fingerprint and consistently incorporate it into their work.
- 6- **Stylistic emulators:** These are the visual and compositional rules that govern the general frameworks of prevailing architectural practice through the use of a unified language to employ design elements.

### Authority of Emulators

It is the fundamental principle of emulators authority and its origin that shifts the balance of authority towards one of the three authorities (external, architect, emulators) and determines the dominant authority within the concept of design authority. It pertains to the sustainability of architectural emulators in a particular environment and their integration with significant entities that enhance their effectiveness. Al-Nuaimi & Mohammed (2022). It is represented through:

**Emulators supported by external authority:** These are forms of external authority that utilize emulators of the information or architectural environment to support their objectives and achieve their goals. They are represented through:

- 1- Institutional Emulators: The slogans and ideas of the institution, in their various forms, support the genetic emulators that serve its purposes.
- 2- General taste emulators: This refers to the dominant construction methods, material suggestions, and preferred forms of representation and expression in a particular environment.
- 3- Thought Emulators: This term refers to the specific vocabulary used in the prevailing intellectual discourse to describe and support the concept of architectural emulators.

**Emulators supported by the expertise of the architect:** When an architect reinforces their unique style or the prevailing architectural style by incorporating and consistently showcasing genetic emulators in their works. They are represented through:

- 1- Supporting the style's leadership: The architect supports and enhances the architectural emulators of the predominant style that they represent through academic and practical experience.
- 2- Adopting stylistic emulators: The architect creates a set of mental and visual guidelines for themselves in order to establish a unique style that aligns with their aspirations and

becomes recognized within the professional community. This process often involves the development of mental templates.

**Emulators supported by their own authority:** Emulators gain authority when they successfully establish themselves as intellectual and design beliefs in architectural practice over time. This authority allows emulators to present themselves as ideas and concepts that have a significant impact on design effectiveness. They are represented through:

- 1- Visual and formal emulators: This refers to a collection of visual emulators that dictate the utilization of specific design elements to convey particular expressive ideas.
- 2- Functional emulators: These emulators govern the processing and design of the functional plan of the building.
- 3- Cultural emulators: These emulators explore the social, political, economic, and religious relationships within different environments, and how architecture is connected to them. They involve a set of emulators that govern the integration of specific ideas into the purposes of different environments. Table (3) and Table (4) illustrate the formulation of the extracted terms and their corresponding values.

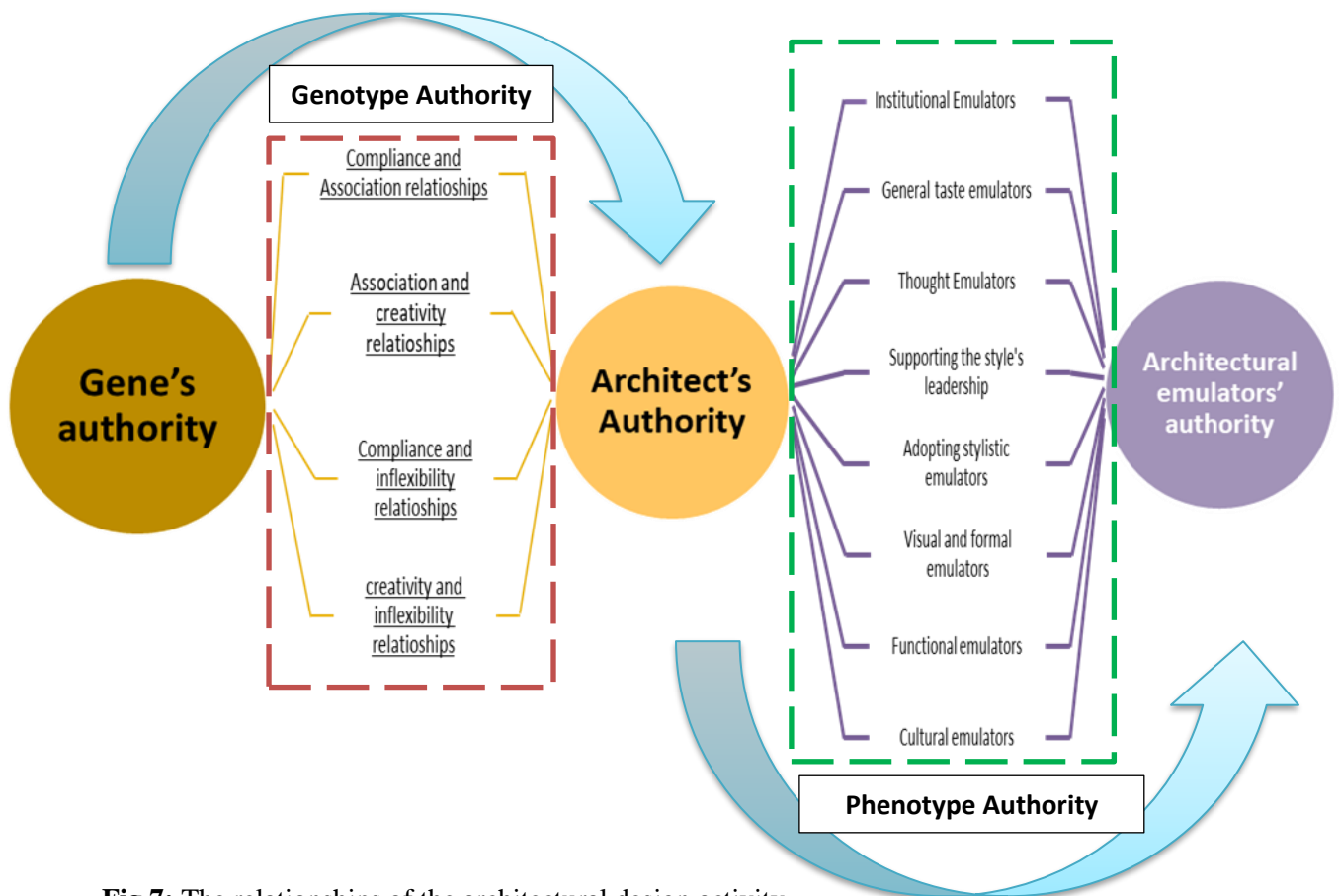
**Table 4:** Extracted relationships between authority of (gens and architect)  
Source: Authors

Main Vocabularies	Variables	Possible values
<u>inflexibility</u>	Dependence	The mental treasury of the architect
		Adherence to certain intellectual references
	Concessions	Introversion under the influence of mental templates
<u>Compliance</u>	Independence	The architect 's environment from the surrounding buildings
		Preferred methods of the institution or society
	Concessions	Alignment with the purposes and style of authority
		Similarity of solutions to the surrounding buildings
		Adopting simulators of prevailing methods
<u>Association</u>	Independence	Sources of power and legitimacy of external authority
		Spread and success of simulators
	Dependence	The architect 's position and reputation
		Architect 's self-capabilities and knowledge base
	Concessions	Similarity of prevailing solutions in architecture
		Submission to influential decisions
		Introversion under the influence of mental templates
	Protection	The architect 's style possesses confidence
		Practice data, such as material availability
Compliance with design parameters of the project		
<u>Creativity</u>	Dependence	Enhancing forms of external authority
		The architect 's position and reputation
		Compliance with architectural simulators
		Architect 's self-capabilities and knowledge base
	Protection	The architect 's style possesses confidence
		A new vision for the design problem and the environment
		Compliance with design parameters of the project

**Table 5:** Extracted relationship of (architectural emulators authority)  
Source: Authors

Main vocabularies	Secondary vocabularies	Possible values
Formula of Architectural emulators	Information environment emulators	Political emulators
		Economic emulators
		Social emulators
	Architectural emulators	Design emulators
		Stylistic emulators
Authority of emulators	Emulators supported by external authority	Institutional Emulators
		General taste emulators
		Thought Emulators
	Emulators supported by architect authority	Supporting the style's leadership
		Adopting stylistic emulators
	Emulators supported by their own authority	Visual and formal emulators
		Functional emulators
		Cultural emulators

From table 3 which represented the four possible relationships between the authority of genes and the authority of the architect, based on the influence of the relationship mechanism through architectural emulators, and the table 5 which represented the extracted relationship of architectural emulators authority based on the influence of the architect environments aspects, the research has to extract the mechanism that governed the total relationships of the architectural design activity as shown in the Figure 7.



**Fig 7:** The relationships of the architectural design activity  
Source: Authors

## Findings and the Discussion

The research has produced a set of interpretations through the review and the analysis of the theoretical framework of the relationship between the aspects of architectural design activities such as the architectural genes, the architect and the architectural emulators or authorities. They can be summarized in the following

- The representation of the authority of the genes and the designers converges through the depiction of genetic simulations authority in the environment. These emulators can take the form of informational representations of the environment or stylistic representations that are unique to architectural practice in that environment.
- The interaction between the designer's creative authority and the influence of genes takes place through the manifestation of genetic simulations. These emulators form the cultural network of society and its institutions (genotype authority), or through the adoption of prevailing architectural methods and styles by the architectural designer (phenotype authority).
- The interaction between the designer's authority and the authority of genes occurs through architectural emulators and is represented by the equations' of the designer and the external genes. The nature of the relationship is an association aimed at diversifying the sources of authorities among the three parties. It also involves compliance with external authority or genetic emulators in the event that one party becomes dominant. Creativity belongs to the designer who possesses various determinants.
- The interaction between external authority and genetic emulators occurs when external authority reinforces the authority of emulators and influences the design process. This influence can take the form of compliance or alignment with the goals of external power or rigidity such as inflexibility in response to the intensity of external power.
- The interaction between the designer's expertise and genetic emulators takes place when it enhances the effectiveness of simulations and influences the design activity by either fostering creativity (the ability to design effectively) or promoting rigidity (being influenced by preconceived mental patterns).
- The authority of architectural emulators, by supporting the designer and external influences, can develop its own influence. Over time, as it accumulates and spreads within the relevant environment, it becomes a significant factor in design effectiveness.
- Design authority is not a singular power with a specific direction or form, nor is it solely the effectiveness of the designer. It is the interaction between the designer's authority and the authority of genes that shapes each other and influences the type of relationship between them. This is achieved through architectural and informational simulations that facilitate interaction between these two forces. Therefore, the effectiveness of design is determined by the strength of its components (genes, the designer, and architectural emulators). The architectural outcome is influenced by the strength of each component and its influence on the design activity.

## Conclusions

This research thus draws the following conclusions

**A.** The convergence of Authority motivations and designer authority, is achieved through genetic emulators, which acknowledge, enhance, and support each other:

- 1- The representation of authority and the designer's authority converge through the depiction of genetic emulators in the environment. These emulators can take the form of informational representations of the environment or stylistic representations that are unique to architectural practice in that environment.
- 2- The interaction between the designer's creative abilities and the influence of genes takes place through the manifestation of genetic emulators. These emulators shape the cultural connections within society and its institutions (genotype authority), as well as the specific stylistic approaches adopted by architectural designers (phenotype authority).
- 3- The interaction between the designer's authority and the authority of genes occurs through architectural emulators and is represented by the duality of the designer and external

genes. The nature of the shared relationship is an alliance aimed at diversifying the sources of power among the three parties. Compliance with external power or genetic emulators occurs when their determinants are dominant. Creativity lies with the designer who possesses various determinants.

- 4- The interaction between external power and genetic emulators occurs when external power supports the authority of emulators and influences the design by imposing an authoritarian character through relationships of compliance (aligning with the goals of external power) or rigidity (resisting the influence of external power).
- 5- The interaction between the designer's authority and genetic emulators occurs when it enhances the authority of emulators and influences the power of design. This interaction can either empower design by fostering creativity (the ability to effectively design) or restrict it by succumbing to rigid mental frameworks.
- 6- Architectural emulators, by supporting the designer and external stakeholders, have the ability to gain their own influence. Over time, through accumulation and dissemination in the relevant environment, they become a powerful tool in enhancing design effectiveness.

**B.** Design authority is not limited to a singular direction or form, nor is it solely dependent on the effectiveness of the designer. It is the interaction between the designer's authority and the authority of genes that shapes each other and influences the type of relationship between them. This is achieved through architectural and informational emulators that facilitate the interaction between these two forces. Therefore, the strength of design power comes from the intensity of its constituent elements: the power of genes, the power of the designer, and the power of architectural emulators. The architectural outcome depends on the intensity of each element and its dominance over the path of design effectiveness.

## References

- Almaany dictionary (2010 -2023) available [online]: <https://www.almaany.com/en/dict/ar-en/authority/International>
- Al-Mawsooa, A. (1996) *Arabic Encyclopedia*, Foundation for Publishing and Distribution.
- Al-Nuaimi, S. F. & Mohammed, W. (2022) Creating Preventive Spaces: A strategy for designing environmental urban spaces to deter the pandemics. *ISVS e-journal*, V. 9, No. 3, p. 209
- Al-Naim, M. (2005) Taming the Form and the authority of Meaning, An Applied Study on the Exercise of authority in Architecture", PhD thesis, unpublished, Department of Architecture, University of Technology.
- Al-Jassar, I. N. (2001) The personal differences of the customer and his conviction in the design of the architectural project, Unpublished Master Thesis, Department of Architecture, University of Technology,
- Al-Saadi, H. (2006) Design Authority and the Expression of Architecture, unpublished master's thesis, Department of Architecture, University of Baghdad.
- Al-Hakim, T. (1976) *Equivalence, My Doctrine in Life*, Library of Arts, Model Press, Cairo
- Amar Patnaik (2019) *Institutional Change and Power Asymmetry in the Context of Rural India*, Springer.50. India
- Attia, H. A. et al. (1990) *The Intermediate Dictionary*, Dar Al-Amwaj publisher, Beirut, Lebanon.
- Geoffrey H. Baker (1989) *Design strategies in architecture, an approach to the analysis of form*, E & F spon, an imprint of Chapman & Hall.
- William J. R. Curtis (1996) *Modern architecture since 1900*, Phaidon Press; 3rd Revised. Edition. Dictionary of terms of education and psychology. Available [online]: <http://www.khayma.com/almoudaress/mousstalahat/mousstalahat5.html>
- Folger, J.P., Poole, M.S. & Stutman, R.K. (2021) *Working Through Conflict: Strategies for Relationships, Groups, and Organizations* (9th ed.). Routledge. <https://doi.org/10.4324/9>
- Galbraith, J. K. (1994) *Anatomy of Power*, Translated: Abbas al-Hakim, second edition, Publisher: Alaa Al-Deen for publishing and translation, Damascus,.



- Johnson, Paul-Alan (1994) *The theory of architecture. Concepts, Themes and practices*"; Von Nostrad Reinhold.
- Krier, Lion (1991) *Decade of Architectural Design*, London: Academy Edition
- Khoshkish, A. (1991) *Power or Authority? The Entelechy of Power*, Publisher: Lanham, University Press of America. ISBN-10: 0819183954, ISBN-13: 978-0819183958.
- Library of Congress Catalog Data: ISSN 1095-5054, available: [online]  
<https://plato.stanford.edu/index.html>
- Matte, S. (2001) *The Personality of Architecture and its Impact on Architectural Design*, Unpublished Master Thesis, College of Engineering, Architectural Department, University of Baghdad.
- Mohammed W. M. & Al Nuaimi, S. F. (2020) *Investigate the Sustainable Efficient Spaces in Islamic Inheritance Houses*. IOP Conf. Ser.: Mater. Sci. Eng. V. 881 012029, 3rd International Conference on Sustainable Engineering Techniques (ICSET 2020) 15. DOI:10.1088/1757-899X/881/1/012029
- Mohammed, W. M. (2014) *Genotype And Phenotype In Architecture And Interior Design: Analytical Study of Traditional Architecture In Arabian Gulf Cities*, unpublished Thesis, Master of Science in Architecture, Kingdom University, Bahrain.
- Mohammed W. M. & Al-Yousif, I. J. (2023) *From Bio-engineering to Architectural Design: Converging Eugenics to Create Meaningful Architectural Form*, ISVS e-journal, Vol. 10, Issue 7, pp 361. Available [online]:  
[https://www.researchgate.net/publication/373014302\\_From\\_Bio-engineering\\_to\\_Architectural\\_Design\\_Converging\\_Eugenics\\_to\\_Create\\_Meaningful\\_Architectural\\_Form](https://www.researchgate.net/publication/373014302_From_Bio-engineering_to_Architectural_Design_Converging_Eugenics_to_Create_Meaningful_Architectural_Form)
- Rosenthal, M. & Youdin, B. (1987) *Philosophical Encyclopedia*, a commission of Soviet scientists and academics, translated by Samir Karam, 6th Edition (Beirut: Dar Al-Tali'a).
- Strong, Judith (1996) *Winning by design: Architectural competitions* Butterworth-Heinemann Ltd.
- Saliba, J. (1994) *Philosophical Dictionary: Arabic, French, English and Latin Words*, International Book Company", Beirut.
- The Stanford Encyclopedia of Philosophy is (2023) *The Metaphysics Research Lab*, Department of Philosophy, Stanford University. available[online]: <https://plato.stanford.edu/index.html>
- Watfa, A. (2000) *The Structure of Power and the Problem of Educational Authoritarianism in the Arab World*, Center for Arab Unity Studies, Second Edition, Beirut.
- Wikipedia, the free encyclopedia [online]: <http://www.en.wikipedia.org>
- Al-Nuaimi, S.F. & Mohammed, W.M. (2022) *Creating Preventive Spaces: A strategy for designing environmental urban spaces to deter the pandemics*. ISVS e-journal, V. 9, No. 3, p. 209