

Review Article

Recognition of the Elements of Power in Ancient Architecture

Mohsen Dehbozorgi

Department of Architecture, Islamic Azad University, Marvdasht, Iran

Email address:

memarbozorgi@gmail.com

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Abstract: Whenever man defines power, it means the condition that the individual would be able to do something with it. However, according to sociologists, power refers to various perspectives. In this study, “power in political sociology” has been discussed and according to Bertrand Russell, power has been interpreted on the basis of its effects and in this perspective, it is dated past and it has made its way within architecture over the time and it was initially proposed for monumental architecture. This simple structure represented the power of kings through their tombs and it has been gradually more complex. Then, in 1849, John Ruskin introduced The Seven Lamps of Architecture and he almost recognized power as the most important and influential relation between an architectural idea and its observer. The study aimed to recognize the elements of power in architecture. Firstly, power and its types and also, those parts of it may include architecture according to sociology were examined and finally, those indicators and elements which can be referred as the elements of power in architecture, were recognized and categorized studying global works registered in the UNESCO. In the present study, the research methodology is qualitative and it was performed through content analysis using library studies.

Keywords: Architecture of Power, Elements of Power, Ancient Architecture, Power, Architecture

1. Introduction

The most obvious signs of the difference between man and animal is his love for innovation, development and expansion of his power. Animals use their instincts to build nest and shelter and are convinced for thousands years and they have not changed them; on the other hand, man has always thought to his strength and ability. He firstly realized that his body skin is not able to maintain heat and coldness, and he discovered a second skin as clothing to compensate the weakness of his body skin. Again, he was not convinced and thus he built up his third shell to protect himself against heat and coldness, sun, predators and alien intruders. He named this third shell, home (Department of Education of Khorasan). He used symbols in making houses to protect his privacy and to frighten animals and to consolidate its position. In fact, it can be said that the ancient man observed and reinvented the whole world in the form of signs. These signs also played a special role in architecture and urban spaces [1].

It seems that human beings identified and recognized their existence in the universe by making a series of concepts at some stages of their evolution and this process partially made their surroundings understandable. These impressions naturally based on the patterns of human behavior, helped them to organize the world around them in terms of symbols; symbols firstly have acted as reality, then they had been replaced with more meaningful symbols and entered into fantastic and powerful world of myths. Thus the need, curiosity and the lust for power, have led human beings to reach the unknown and to identify and examine his habitat closely. Along the development of modern societies, this effort has been increased and recognition and utilization of man's habitat have been extended and in current era, knowing geographical and architectural factors and their impact on various areas of human life is necessary as one of the most important tools used for recognition of the societies. An architectural plan is wonderfully a very useful tool. It is even used to collect and display information and to communicate among men and their

biological phenomena that may appear to be unrelated and also, it gives them and their communities meaning and identity [2].

The increasing use of architecture in houses, training centers, military, political, cultural and even in cars and planes indicates the public confidence as a source of gaining information and understanding the situations of the surrounding environment. On the other hand, this issue has been raised that a map and architecture, as a data transfer, have been always a tool in the hands of power, the owner of the power and government to represent their goals, intentions and interests as well as to induce their policies. In other words, the relationship and connection between the map and the policy has been raised as an assumption [3].

With a more detailed study, it is understood that man has always studied the relationship between architecture, geographical environment and power descriptively and perhaps he has never studied the causes of such relationship [4].

Concepts as an instrument of man's cognition in relation with reality, has a regulated dimension and they have made

the world more understandable for him. Human's consciousness of political affairs and events through the formulation and conceptual refinement has helped him to understand the phenomenon. The main issue of this study is the recognition of different conceptual perceptions which are formed by the ontological and epistemological approaches. In this sense, science can be regarded as thoughts about this philosophy that what the human perception or understand from the world.

Therefore, in this study we will see the formation of these questions and try to examine the effects of power on the architecture, or vice versa, what are the definitions and meanings of power and architecture? What are their indicators? What types of architecture can be called power architecture and in what elements of architecture can power exist? The main objective of this paper is to follow the development of the notions of architecture and to find the signs of its power indicators. In this regard, content analysis and qualitative method have been used. Studies in this field are divided into two main branches and present study is carried out based on the following graph. (Figure 1)

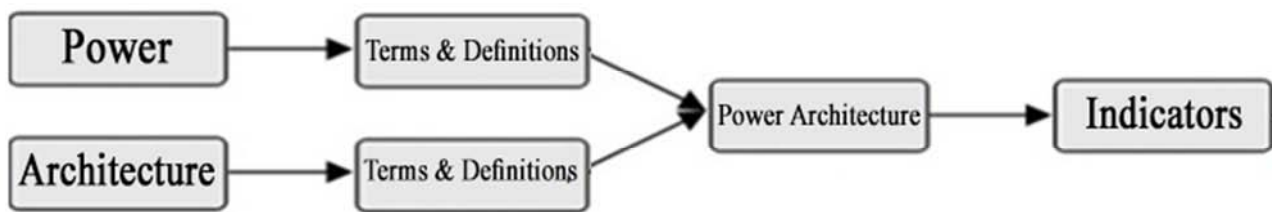


Figure 1. Advancing research chart.

2. Research Literature

In the field of power and its manifestations in architecture, no studies have been done in detailed in comparison with other sociological issues. So, in this regard, except for few studies such as the article “*Columns, a Symbol of Achaemenid Architecture*” by Mahtab Mobini and Aboulghasem Dadvar (2011) in the journal of scientific research of Negareh, there is not much background. Also in the above article, only the columns in Persepolis and Pasargadae were examined and the issue of power has not been examined in its sociological meaning. The result of this article is clearly atomistic and it only focused on appearance and physical dimensions of the column in the Achaemenid civilization. In this paper, it has been tried to specify the main gap of the study in this field, i.e. identification of the most of architectural elements of power. Of course, in future, like mentioned article, this issue can be studied in more detailed and the elements of power would be studied separately.

3. Research Methodology

In this study, through a descriptive-analytical perspective, the issue of power and its characteristics in architecture has

been investigated. The basis of expression, analysis, description and interpretation of the contents has become available through documentary and library study. The present research is qualitative and it was performed based on content-analysis method. Thus, firstly, the issue of power and related theories were examined using library studies. Finally, by observing the remaining architectural monuments from the powerful civilizations, the elements which were considered as characteristic of power and have forced their audience into obedience and feeling of fear and respect were extracted.

4. Findings and Results

4.1. Power and Its Types

Power has a very broad sense and it can be almost said that it has many applications in all or most specialized sciences, including physical and human or individual and social sciences and many political thinkers have understood its importance and even, some of them have written independent books about it. But, since this concept is vast and complex, it requires to be examined accurately so that various expressions would not be combined. Vastness and complexity of power have led that everyone examines it from a certain perspective or according to a particular work, or

considers a kind of special power or just uses a very general or vague definition of it. The concept of power, not only in the physical, human and social sciences, but also in philosophy and theology and religious sciences has its own importance and application. So, explanation of such concept, with such wide applications and particularly a main role in philosophy and theology and the social-human sciences, and above all, an important position in political sciences and wide applications in society, is extremely important and requires more detailed explanation [5].

In the Persian dictionary, the term “power”, is used in the sense of being “able”, or “having ability”, which is its infinitive meaning and “ability” is its gerund form [6]. It is sometimes used as a synonymous of the word “afford” and with the meaning of strength that is eligible to affect [7]. And also, it is meant as a characteristic that its effect are according to the will. It can be said that this meaning is very similar to the concept of power in theology. In Arabic culture, “Power” is originally taken from the matter “value” meaning the “actual capacity and the ultimate and perfect limit of everything”. Some masters have meant the word “power” with respect to its relationship with the “value”, including the power of God over creatures which means it would give them the capacity and the ultimate limit that he himself wanted and intended. Others translated power as richness and wealth [8] which are naturally associated with a kind of virtual telling and in fact in this case, “power” refers to the factors of power.

Whenever power is used to describe man, it means the condition that the person succeeds to do something with it, however, if it is used as an attribute to God, this means that he is not unable to do anything [9]. In Arabic, the most important synonyms of “power” are “domination” and “authority” which are also used in Persian language and in particular, they have more applications in political science. Also, the literal meaning of power and its synonyms would involve the meaning of “will” [7]. In the Western political culture, the words such as “power” and “authority” are used as equivalent to the word “potency” which means the talent and the ability to work (Oxford Advanced Learner’s Dictionary).

Power can be examined from different perspectives and of course, in this study, it is examined only in the field of “power in political sociology”. Knowledge of sociology expresses its own concept of power. Since the field of research on political sociology is not only limited to the political aspects of society, power should be defined in such a way that it will include all relations of society, including political and non-political power. Now, a number of definitions of power in sociology are examined as follows:

4.1.1. Class Definition of Power

From the perspective of sociology, power is the “violence of one class for suppressing another” [10]. According to Marx, power is characterized by three features:

A - power has class features and it will always be realized in the relationship between a class with another class [11].

B - Power can never be well and legitimate because the manifestation of power in a society is of the unhealthy effects of that society and it is rooted in class society. If a society is healthy and classless, the phenomenon of power would not appear. In his view, power will be only the source of oppression and cruelty and the suppression of a class by another class [12].

C - Power has additional attributes and it represents the relationship between the ruling and the sentenced class [13].

4.1.2. Definition of Power Based on Its Effects

Bertrand Russell says: “Power can be defined as creating good works” [14]. According this definition, he concluded that power is a general and measurable concept and it can be easily commented on the power of individuals and their quantitative comparisons. In this case, people would reach the common and desirable works which are quantitatively different. He also explained: “If two painters would be willing to paint beautiful pictures and become rich and one of them achieves beautiful pictures and the other gains wealth, there is no way to determine which of them has more power”. Immediately, he continued the following statement: “However, it can easily be said that this one has more power than the other one.”

4.1.3. Definition of Power with Capability

Parsons says: “Power is the generalized capability for ensuring the implementation of binding commitments of units in the system of collective organization” [12]. In this explanation, he referred to two important factors, firstly, the legitimacy of the mentioned obligations in terms of their positive impact in providing social goals according to the beliefs and views of people (capability of commitment implementation). And secondly, the factor of government enforcement that appears in the form of reward and punishment and more generally, penal code. Based on the aforementioned factors, two levels of power will emerge. The first level relates to the field of people’s beliefs in the legitimacy of the law and its managers and executives and the second level relates to those cases where people rebel because they don’t believe in the legitimacy of laws or because of any other causes, and the criminal law compels them to follow. MacIver knows social power as the capability to make others obey in any social relation. He further emphasizes that social power is the capability to monitor the behavior of others, whether directly or indirectly and with the use of existing tools [15]. Max Weber has used the word “opportunity” instead of the term “capability”. According him, “Power is the opportunity that arises in the context of social relationships and allows individuals to impose their will on others, even despite their resistance” [16]. Table 1 shows an example of the division of powers. The method and parts which focused in this study, have been determined.

Table 1. Form of power divisions in sociology.

Types of power	Field of effect	Field of power	Field of action	
			Occupation	Mastery
Power	Hard Power	Military	Land Occupation	-----
			-----	Mastery of the Sea - Ocean
	Semi-hard Power	Economic Political Social	Government Occupation	Mastery of the Air – Space
			Market Occupation	Mastery of Government
			Social Occupation	Mastery of Economic Resources
	Soft Power	Cultural Mental Information	Hearts Occupation	Mastery of Society
			-----	-----
				Mastery of Brains

Now the root of diversity and difference of political power in different societies can be found. Variety of social power depends on economic, political, military, religious and cultural power and will be proportionate to the objectives, powers and talents, tendencies and actions. The rudimental diversity of political power goes back to the diversity of acceptable political goals of society. It means that in the political arena, every society would identify a purpose as its national ideal and its most excellent destination which is rooted in its insight and recognition and culture and it would somehow affect other goals and efforts of that community and would coordinate everyone with itself. Thus, the goals of power in different societies include: Safety, growth and development, justice and equality, independence, prosperity and consumption, nationalistic, socialistic, physical, spiritual, moral and humanistic objectives [5].

According to the mentioned cases, in this research, only indicators of political power, which are one of the most significant types of social power, are discussed. Now, according to various sociological interpretations of power, “power on the basis of its effects,” is one of the simplest ways for measuring the concept of the power of communities and governments which has been highly regarded in ancient civilized societies. Thus, architecture of each society is one of the main aspects of its power.

4.2. Architecture and Its Variants

What is “Architecture”? Architecture, is a scientific-artistic activity for creating and organizing the space and its architecture. It is a n expression of a society’s culture over time and it is a clear mirror of social conditions in different periods [17]. “Architecture” can have the following meanings:

- A general term used to describe buildings and other physical structures.
- The art and science of designing buildings and some non-building structures.
- The style of designing and construction method of buildings and other physical structures.
- The knowledge of art, science, technology and humanity [18].
- An architectural activity where architecture is meant to provide professional services related to the design and construction of buildings or built environments [19].
- Activities related to the design of architect, from macro-level (urban design, landscape architecture) to the micro level (construction details and furniture).

Architecture, apart from the construction of building or masonry of it, is also about how to create it; and it does not relate to the materials of building; but it is linked to how we build a house or city to meet our non-material and human needs. From the distant past, when carving and building became routine, architecture was developed too and has continued its life until today that proceeds in a more complex and systematic way than the past and its different types have been created over time:

1-Folk architecture: It is the architecture of natural and local people in an organization and it has been created based on the need to build.

2-Vernacular architecture: It is an advanced form of folk architecture and it is formed in relation to climate, culture and construction materials of that particular area. This type of architecture, is worthy of love in addition to before worthy of praise.

3-Spiritual or Religious architecture: It is the representation of the human relationship with metaphysics and it tries to give a spiritual color to the construction.

4-Monumental architecture: The aim of this type of architecture is commemorating and remembering of the decedents. Its simplest shape is a pile of soil to show the power of the king in the shape of a pyramid which was built on his tomb and it gradually took other forms.

5-Useful architecture: This type of architecture is more a product of modern civilization and it serves the interest and efficiency and according to it, building is constructed so that it will be used more physically and nothing else; therefore, it has narrowed the arena on other types of architecture. It should be noted that these five types of architecture, also coexist with each other [17].

Construction will always be influenced by the culture of a country, therefore, this is inaccurate that we know home as only one shelter. A suitable housing unit should induce relaxation to its residents, and not separate them from nature (but it should also create a sense of unity with nature within them), it should protect humans against noise pollution, and it should not take man’s sense of independence from him and etc.

Due to such characteristics, many studies have been done on the relationship between the physical environment and the human behavior. For example, how to make an office or residential unit affects the management of the environment. It is rare that a person doesn’t go to bank. Does this issue ever attract your attention that bank employees are always working; but in other offices, the employees sometimes spend time by drinking tea and etc. and like bank employees, they do not

work full-time? One of the factors of this issue is that in offices, chairmen and employees work in separate rooms; but in the banks, the workplace of everyone is separated from others only with a table and the chairman works somewhere in the end of the bank that can see other. The building form of the bank and the location of the chairman, force employees to work permanently; even though the chairman would not pay attention to them or the employees have no work to do!

Sometimes the physical environment sometimes represents the executive authority or hierarchy of power in an office or organization. Often in multi-storey departments, the chairman's room is usually placed on the top floor and in the quietest place. The top floor is the sign of power and superiority of the chairman over others. This means that a specific location in the building, finds an ability to express a feature of the chairman and this point is sometimes considered deliberately in architecture of the building that it induces the position of chairman to staff and clients [20]. So with a broader look, in fact, it can be said that architecture and urban elements represent the personality of the people of that region. Thus, architecture, both in its small-scale, i.e. the role of a family shelter or in a larger scale, represents the taste of its builders and the power (strength) of their users.

4.3. Power and Architecture

In 1849, an article by John Ruskin was published as a book with eight chapters, one chapter as an introduction and seven chapters for each of the "bulbs" [21] which expresses the wishes that a good architecture must fulfill them. These stages represent the relations of the ideas with the observer in the following way:

1-*The victim*: It shows the art and Industrial human commitment to God, as the visible proof of the love and obedience of man

2-*Truth*: It is the honest depiction of industries, materials and their structure. The honest representation of buildings and materials that had been known in Gothic architecture since 18th century.

3-*Power*: A building should be able to get help from nature, the human mind and organization of physical effort to induce greatness, ideas and achievement of excellence.

4-*Beauty*: It is an ideal that is expressed in ornaments from nature and its own creation toward God.

5-*Life*: Buildings must be built by human hands so that the happy relationship between the masons and the carved stone can be freely observed.

6-*Memorial*: Buildings should respect the culture that

created them.

7-*Obedience*: This architecture does not have any originality [22].

In these lamps, power architecture has more shine and also, more impact on its observer. Because more thoughtful and organized materials, energy and ideas are located within it and somehow it can also be used as monumental architecture. Architectural importance in politics and representation of power is so important that many states have a government official as "the architect of the state" that has certain duties, but in general, it is responsible for designing and constructing public buildings in the state. Organizational unit of the state architect and its subordinates are often formed in various times and with the name of the office of the state architect or a similar name (The state Architect System of California). Now we must ask ourselves: is the architecture important in politics as mentioned? And really why?

The answer to this question is rooted in the old architecture that shaped the great civilizations and their main task was to show the power and majesty of their respective owners and its footprint can be found in the symbols of early humans in several thousand years ago and pursued in the great civilizations such as Persia, Rome, Greece and Egypt. So in this regard, the evolution of the architecture in some of these civilizations should be observed to find out the characteristics of the architecture that can be remembered as the elements of power.

4.4. Attributes and Elements of Power Architecture

One of the important characteristics of civilizations is the art of architecture [23] and also the most powerful civilizations in history are the ancient civilizations of Persia, Greece, Rome, China and Egypt according to the definition of power provided by sociologists. So, it is right to find the elements of power in these civilizations. The largest ancient empire was Achaemenid Empire in the fifth century BC but the greatest empires existed in ancient China that each of them was destroyed for some reasons after a while. So to find a proper answer solution in this section, it is tried to determine the common architecture elements of power civilizations with the help of UNESCO statistics and video documentation. Certainly, given what was said, architecture has been one of the tools used to demonstrate the military and political power of powerful civilizations in history. Even today a different kind of this representation can be seen. Here, to summarize these observations, they are presented in a table (Table 2).

Table 2. The number of the ancient monuments of the countries with powerful civilizations.

Countries with powerful civilization-s	The total number of recorded works in UNESCO	The total number of registered cultural monuments in UNESCO	Number of architectural monuments of the ancient period	The name of ancient cultural monuments of the great civilizations (mostly BC)
Egypt	7	5	3	Ancient Thebes, Memphis and the pyramids of Giza, the Ethiopian works to the Abu Simbel
Greece	17	15	6	Temple of Apollo, Acropolis, Delphi site, the Temple of Scopus, site of Olympia, Pythagorion

Countries with powerful civilization-s	The total number of recorded works in UNESCO	The total number of registered cultural monuments in UNESCO	Number of architectural monuments of the ancient period	The name of ancient cultural monuments of the great civilizations (mostly BC)
Iran	19	19	7	Persepolis, Takht-e Soleiman, Susa, Zambil, Pasargad, Bisotun, Arg-é Bam
Italy (Rome)	51	47	7	Necropolis of Etruscan, Agrigento area, Pompeii and Herculaneum, Romana Villa, Paestum Site, Hadrian's Villa, the historic center of Rome
China	48	34	5	Temple and Cemetery of Confucius, the Great Wall, Mount Tai, Mount Qingcheng, caves of Yogang

Source: Author and site of UNESCO system, December 2015.

Since the religious architecture (Christianity and Islam) and its consequences are not the intention of this article, in Table 2, it is tried to list the works related to before the birth of Christ (BC). Now, the specific elements of all of these ancient architectural monuments, mentioned in the last column, must be listed and examined. This will reveal which

elements are common among the works and certainly they should be named "Elements of Power Architecture", because these elements have gradually evolved in the history of mankind and thus they have been tested in a quite feasible way (Table 3).

Table 3. Abundance of each ancient architectural element in every civilization (28 selected works).

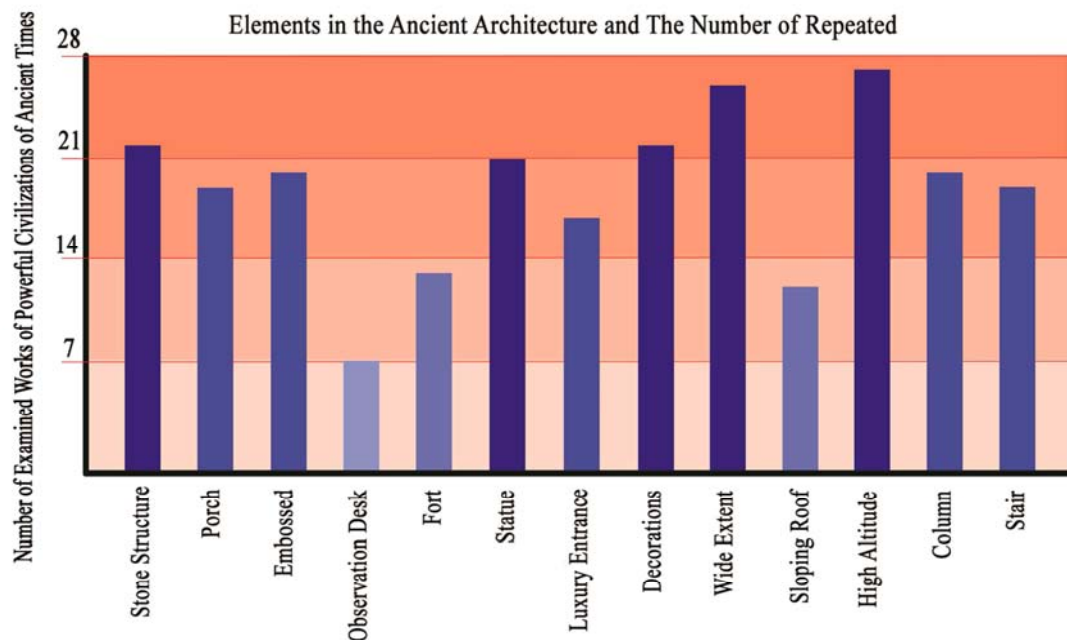
Countries	Architectural Elements Selected Works (BC)	Stone Structure	Porch	Embossed	Observation deck	Fort
Egypt	Ancient Thebes	*	*	*		*
	Memphis and the Pyramids of Giza	*		*		
	The Ethiopian works to the Abu Simbel	*	*	*		*
	Temple of Apollo	*	*	*		
Greece	Acropolis	*	*	*	*	
	Delphi site	*	*		*	
	The Temple of Scopus	*	*		*	
	Site of Olympia	*	*			
	Pythagorion	*	*	*		
	Persepolis	*	*	*		*
	Takht-e Soleiman			*		*
Iran	Susa	*				*
	Zambil			*		
	Pasargad	*	*	*		*
	Bisotun	*		*		
	Arg-é Bam				*	*
	Necropolis of Etruscan	*		*		
Italy (Rome)	Agrigento area	*	*	*	*	
	Pompeii and Herculaneum	*	*	*	*	*
	Romana Villa	*				
	Paestum Site	*	*	*		
	Hadrian's Villa	*	*			*
	The historic center of Rome	*	*	*	*	*
	Temple and Cemetery of Confucius		*	*		
	The Great Wall					*
China	Mount Tai	*	*	*		*
	Mount Qingcheng		*	*		*
	caves of Yogang	*	*	*		
	28 works	22	19	20	7	13

Table 3. Continue.

Statue	Luxury Entrance	Decorations	Wide Extent +500m ²	Sloping Roof	High Altitude +5m	Column +5m	Stair
*	*	*	*		*	*	*
*		*	*	*	*		*
*	*	*	*		*	*	
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*	*	*	*		*	*	*
*	*	*	*		*	*	*

Statue	Luxury Entrance	Decorations	Wide Extent +500m ²	Sloping Roof	High Altitude +5m	Column +5m	Stair
*	*	*	*		*	*	*
*			*		*		*
*	*	*	*		*		*
*		*	*	*	*	*	*
	*	*	*		*		*
		*		*			
*	*	*	*	*	*	*	*
*	*	*	*		*	*	*
*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
21	17	22	26	12	27	20	19

* These are answers that their accuracies have been certainly confirmed.



(In 28 works of that period with checking every repeat of each element)

Figure 2. Determination the Elements of Power in ancient architecture.

5. Conclusion

According to the results obtained from above graph (Figure 2) in the part of the research findings on the architectural elements in the powerful civilizations of ancient times, these elements can clearly be classified into two main groups: the works that were repeated more than 14 times in these 28 works, (more than 50% of total) can be considered definitely as the “power element in architecture” and the rest can be set as another group that would perhaps display less power in this issue and would have less political effects on the viewer. On the other hand, it should be noted that some of these factors have been thoroughly influenced by the

surrounding factors. For example, the observation deck used to show power had been very important in some ancient civilizations. Of course, due to some cultural conditions in other civilizations, it had been addressed less or it had been not addressed. So, according to listed items and the research findings, our results are summarized as follows:

A. Very powerful indicators and elements (almost in all architectures) are as follows:

1. Tall height and making the elements of greatness.
2. The vast zone in terms of area and building privacy.
3. Construction of buildings in terms of facades, foundations and in general, stone structures.
4. The use of decorations and decorating buildings with

jewelry and exquisite fabrics.

5. The use of statues and legend-like figurines.
6. The use of massive stone columns in different styles.

B. Local powerful indicators and elements (function of climate and culture of the region) are as follows:

1. The use of embossed design as a function of the dominant culture.
2. The use of big or sequential stairs.
3. The use of porch around the building.

4. Building luxury entries with waiting areas.

5. Building defensive towers and walls and monitoring stations.

6. Building the sloping roofs that are affected by the climate and culture.

It should be noted that, in some civilizations, the number of buildings with different uses have been also discussed as an element of power.

Table 4. Comparison of the frequency of each of the elements of ancient architecture (as percentage).

Elements %	Stone Structure	Porch	Embossed	Observation deck	Fort	Statue
Percent of Abundance	78	67	71	25	46	75

Table 4. Continue.

Luxury Entrance	Decorations	Wide Extent +500m2	Sloping Roof	High Altitude +5m	Column +5m	Stair
60	78	92	42	96	71	67

In this study, as can be seen in Table 4, elements of power in the ancient architectural monuments were compared with each other and it is proved that the architecture of this period could try to introduce themselves as power architecture in its own time and even today with the help and assistance of the influential elements. It is hoped that in the future, with a scientific outlook towards the remaining architecture from the predecessors, we can study on them in terms of all sociological aspects and use their experiences in modern architecture.

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