# The Meaning of City Based on Ludwig Wittgenstein's Philosophy from Contemporary and Historical Architecture (Case Study: Semnan City)

[1] *Seyed Mahyar Hashemi Hezaveh*, [2*] *Faramarz Hassan Pour*, [3] *Saeed Kamyabi*

[1] *Department of Architecture, Zahedan Branch, Islamic Azad University, Zahedan, Iran.*

[2*] *Department of Architecture, Faculty of Art & Architecture, University of Zabol, Zabol, Iran.*

[3] *Department of Geography, Faculty of Human Science, Semnan branch, Islamic Azad University, Semnan branch. Semnan. Iran.*

**ABSTRACT:** The insights of Austrian philosopher Ludwig Wittgenstein can be useful in understanding the intricate dynamics of contemporary architecture and urban life and juxtaposing various facets of modernity and historical context. In his text, 20th-century modernism, which focuses on logic, modernity, technology, and spiritual matters, is intelligible. Wittgenstein was an analytic philosopher who believed in the correspondence between the real world, thought, and language. This study aims to analyze Wittgenstein's opinions and uses them to define a conceptual model that includes four components: Logic, avoidance of psychologism, viewing from the perspective of eternity, and modernity. The components are divided into ten subcomponents in architecture: Logic, usefulness, function, style, decorations, transcendence, positive feelings, tolerance, modernity, and technology. There was a focus on six cases, three historical buildings, and three contemporary ones in Semnan. Two questionnaires for citizens and experts have been prepared, and a field study has been implemented after the validity assessment. Then, the results of the questionnaires were entered into the data bank in IBM SPSS and were analyzed and compared. The findings show that three of the ten model variables, attention to excellence, creating a positive feeling, and a positive approach to technology, are ranked higher than the other variables, with an importance of nearly 80%. The acceptability of all three historical buildings is higher than the three contemporary buildings in both groups of citizens and experts, but the difference is much greater among experts.

**Keywords:** *Ludwig Wittgenstein, logical, contemporary architecture, historical architecture, Semnan*

## INTRODUCTION

Today's cities comprise a complex set of architectural, urban planning, social, economic, and cultural factors. These different elements form the cities and "people" shape a complexity. Analyzing people's understanding of urban environments and the city as a whole, called "meaning in architecture," is a subject that needs to be studied. The theoretical aspects and the research perspective are essential in this study.

Philosophers' and theorists' opinions can be used to recognize and understand architectural and urban phenomena. Ludwig Wittgenstein, one of the most significant philosophers of the 20th century, greatly impacted philosophy after himself and various aspects of social sciences, from sociology to linguistics. There were two main periods of his philosophy: the early and the late period. (Lacey, 1996, 292). This study connects Wittgenstein's explanation of meaning and meaning in architecture. After discussing and understanding Wittgenstein's philosophy and translating it into architectural components, the city of Semnan has focused on the case study.

Since the beginning of Wittgenstein's work about a century ago, some significant changes have been taken in Wittgenstein's readings, and commentators have sometimes divided his philosophizing period into two, earlier and later. Various contradictory interpretations have been made of his views. Some thinkers have assumed that he is a positivist philosopher who does not believe in supernatural phenomena and judges everything from experience, such as the Vienna circle, like Carnap (1963) and Ayer (1984). This is called "Positivist reading" (Schilpp,1963). In the majority, others consider him to be a continuation of Kant's path and an attempt to show the boundaries of language and

the world of "Transcendental reading" (McGuinness, 2002). However, the readings of the last three decades and the 21st century are somewhat different. This reading sees Wittgenstein as a critic of modernity but simultaneously a rationalist with cultural concerns (Therapeutically reading). Wittgenstein intended to criticize some aspects of modernity; ultimately, his intention was cultural (Audi,1999). He criticizes the lack of modern culture and its inhuman aspects. This reading can also be considered postmodern. In this study, recent readings have been given more attention due to their later priority and new opinions presented.

### Image in Logical Space

Wittgenstein (1922) defines his worldview "ontology" in the paragraphs of his significant book The Tractatus (Tractatus Logico-Philosophicus, His Logico-philosophical treatise), which can be described briefly as follows: "The world is everything that is the case. The world is the totality of facts, not of things" (Wittgenstein, 1922). He says the world's affairs are related and connected and should not be studied separately. He states that the "state of affairs," which he refers to many times and is one of the fundamental assumptions of his treatise, is a unit that shapes the world and consists of objects and how they are related (Mounce, 1990, 27). For example, Wittgenstein does not consider a book separate; rather, it acquires meaning from the surrounding objects, such as the table on which it is placed. We can't look at anything in a vacuum, and everything becomes meaningful because of the things to which it is related, or even not (Morris, 2008).

According to Kant, Wittgenstein believed in a categorical system and drew an important conclusion: some "states of affairs" are possible, and some are impossible, and logic allows them to be possible (Ayer, 1952). Wittgenstein (1922) notes, "A logical entity cannot be merely possible. Logic treats every possibility, and all possibilities are its facts." "Logic" is a determiner of meaning in the "visual theory of meaning" and provides a criterion for distinguishing between what is meaningful and what is meaningless. The meaning is directly related to what can be briefly called a "possible image in logical space." That means what is possible in the world is logical. "Another significant point is the language issue. According to Wittgenstein, thought and language are one thing. Therefore, when we think about something, including meaning, we use language" (Dabbagh & Farmanfarmai, 2010, 24).

### Logic

As Wittgenstein (1999) argued in the "Philosophical Investigations," "What we do is to bring words back from their metaphysical to their everyday use." Consequently, the representative function of logic lost its central role, and everyday language replaced logic as "the model for philosophical thinking" (Last, 2000, 117). He generally focused on reducing philosophy to the "issue of language' (Stevanović & Raičević, 2017, 122). According to Wittgenstein, logic is the world's structure and possibility. He refers to "logical space" but does not believe that the images are created in your or my minds. These logical images originate from there; this logical space's structure is logic. As a result, logic establishes the order of the universe and determines what idea or thought is possible or not. A logical idea has the potential to be realized; that is, its image can exist in the logical space. In actuality,

what is conceivable makes sense. As a result, logic starts to require both possibility and meaningfulness (Dabbagh & Abedini Fard, 2012, 32). Bertrand Russell, the British philosopher, tries to be torn between two incompatible impulses, science and mysticism. Mysticism is a position of the world that is not indifferent to him, and logic is the main base of a philosopher's point of view (McGuinness, 2002). But Wittgenstein tries to distinguish between the "things to say" and "things to show." He is a philosopher of language, and his purpose is to define a boundary not between thinkable and unthinkable things but between things that can and cannot be talked about. "He tries...to show what things can be talked about and what things are meaningful if we talk about them, and about what things, if we use language, we will wallow in meaninglessness and what are meaningful words" (Dabbagh & Abedini Fard, 2012, 30). Wittgenstein delineated the boundaries between thought and speech. Nonetheless, a crucial query arises: in what instances, when speaking, do we risk descending into meaninglessness, and how can we engage in both speaking and thinking? His response was the concept of the "metaphysical subject."

### Attitude from the Eternal Aspect

Wittgenstein's purely logical view should perhaps have a problem in dealing with aspects like art, esthetics, ethics, and religion, but like all great philosophers, Wittgenstein and his disciples have a comprehensive worldview regarding these issues. In this case, Wittgenstein introduces "The subject" or "Metaphysical subject," one of his philosophy's central concepts. He devoted some parts of his logical-philosophical treatise to it, which means that the philosopher's point of view is from somewhere beyond time and space. The metaphysical subject does not have a body, mind, time, and place, so it does not have history. It is not the mind of me, you, or the philosopher himself, but it is somewhere outside the world, as Wittgenstein explained, "at the border of the world" (Dabbagh & Abedini Fard, 2012, 36). "In the usual way of looking, it is not possible to understand the necessity because, in it, the object is studied individually and in the narrowness of a certain time and place, but in looking from the eternal aspect, the object is associated with time and place, that is, with All its various possibilities are considered in the whole range of time and space. In this way of attitude, the object is not a subject of knowledge and experience but a perspective of the whole world because it can be observed in its background (Dabbagh & Abedini Fard, 2012, 39). Wittgenstein notes (1922), "The subject does not belong to the world but is a limit of the world." Wittgenstein expresses his views on the inexpressible from this perspective. By the "metaphysical subject," Wittgenstein talks about aesthetics, ethics, religion, and, of course, philosophy itself. The "philosophical self" determines the world. It decides where my world starts and ends. Therefore, the "philosophical self" sees the world as a whole and differs from the "psychological self." The subject discussed in psychology is in the world and is considered a fact. According to Wittgenstein, this "metaphysical subject" or "philosophical self" can think about the world philosophically. About art, the object itself does not have attributes such as ugly and beautiful, good or bad, right and wrong, because these attributes do not exist in the world". A piece of art is an object when viewed from an eternal perspective" (Wittgenstein, 1961, 7). Wittgenstein wants to "abandon the usual way of looking at things"

and recommends avoiding habituation. Wittgenstein believes esthetics and ethics are the same (Mulhaull,2007). He considers them related to the value category and beyond the world's boundaries and argues that "ethics and esthetics are the same thing" (Wittgenstein,1922). We can find a pragmatic view from the analysis of the opinions of Wittgenstein's students and commentators. In this context, pragmatism refers to a result-oriented approach. This school, known as "analytical aesthetics, "is based on the purpose of the artwork in such a way that the artwork creates "good or positive feelings" in the audience. Nonetheless, it is important to distinguish between this viewpoint and "popular art." The difference is in the second characteristic: the artwork should create a "sense of transcendence." Art should lead the audience toward excellence, morality, and values (Dabbagh & Farmanfarmai, 2010). In Charles Jencks' view, buildings hold semiotic significance, making them important study subjects. He emphasizes how modern architects mostly design buildings that alienate people since these designs are merely meaningful to the architects themselves (Hassan Pour et al., 2013, 27). Wittgenstein's construction of meaning aims to present a purely transcendental, non-contextual, and formal explanation for the potential of all meaningful expressions (Stokhof, 2008, 10). Therefore, we can count two artwork characteristics: "positive feeling" and a "sense of transcendence."

### Logic in Architecture

As this research aims to use Wittgenstein's thought in the study of architecture, how logic is translated in architecture should be investigated. Logic can be translated to architectural aspects related to "usefulness" and "function" (Gharibpour, 2010), such as orientation, readability, efficiency, order, coherence, and "utility. The root of the use of the words convenience and utilitarian purposes is derived from "Utilitas," a Greek word with the English equivalent of utility, which is one of the basic triads for defining architecture by Vitruvius (Roman architect and engineer, 1st century BC) (Stein & Spreckelmeyer,1999, 10). Therefore, the function is "the way and type that a space provides the purpose and benefit it is created for." The meaning of usefulness in architecture is the type of use of space. "What for a space is used?". Modern architecture aims to improve and harmonize space and utility. Therefore, usefulness shows itself as a pillar. Utility is used in urban planning with the same meaning, but a broader approach and different urban areas are divided for different functions. Therefore, from this point of view, a difference can be made between the words usefulness and function. Usefulness: the purpose for which the space or building is created and the function, manner, form, and organization that the space fulfills this purpose. Logic shows itself in different dimensions in architecture, especially in modern architecture; logic shows itself in the form, honesty, openness, similarity of plan and section, function, and usefulness. Cupen, in his formulation of architecture, divides it into three main categories of form, function, and meaning; in the second category related to function, he defines the field of related words: Function, purpose, reason, utility, use, practicality, work, activity, movement, needs, ability, means, intentions-effect, satisfaction, expediency, comfort, pleasure, exchange, interaction, economy, costs, values, systems, planning, services, heating, energy, behavior. (Cupen, 2013, 25). Here comes a wide range of words on function-

related topics that can be very useful, although some may seem less relevant. Concerning the built environment, the term "function" refers to the purpose of a building or structure. It can also relate to the proper operation, process, or performance of something and how it works, such as plants, tools, lifts, and building services.

### Avoiding Psychologism

This view was common among analytical philosophers of the early 20th century, as opposed to sentimentalism and romanticism, which dominated the 19th century. Here, Wittgenstein shows his modernist roots and has a positive approach to "rationalism" in art and philosophy. It stands against interest in the past and history (Mounce, 1990, 113). Avoiding psychologism contradicts historicism, traditionalism, and romanticism. These views appear in modern architecture manifest in different ways, such as opposing the use of styles, neoclassicism, decorations, and ornaments in art and architecture (Duncan, 2004). Language is the amalgamation of the real state of the world. According to Wittgenstein, a symbol as a linguistic sign acts like an image. It has and shows some of its characteristics.

A symbol or linguistic sign is also a characteristic of that thing in itself by having it. Its symbol is placed, a characteristic that can show that thing (Beigpour, 2011, 189). In the later period of his philosophy, Wittgenstein became more interested in the use of language and, in a way, changed his approach to issues such as reality. He took a much more nuanced view of issues such as the characteristics and individuality of humans. (Hanfling, 2018). There are two different approaches regarding Wittgenstein's aesthetic views.

Regarding the first period of his works, some thinkers like Kosuth (1993) have gone towards conceptual formalism, started searching for deep concepts in artworks by more performance, and have searched for pure and simple art forms in everyday objects. The second group of scholars interpreted Wittgenstein's pragmatically and logically. When there is no beauty or ugliness in the world, what remains is pragmatic utility. In both groups, unnecessary things and extraneous parts are left aside, and a kind of sincerity and attention to pure and functional form can be seen. This attitude also results from opposition to historical styles, classicism and neoclassicism, historicism, and romanticism.

### Modernity

In Wittgenstein's words, especially in interviews and letters (Duncan, 2004), a kind of criticism of modernity, especially in art, can be seen. He does not like "modern" art and music. However, this may be considered a personal issue separate from his philosophical thought. As a positivist philosopher, Wittgenstein looks at the world from the viewpoint of modernity, and his view is according to rationalism (Glock, 1996). He considers logic to be the framework of the world and the order of everything. However, in some ways, he is skeptical of modernity and modernization. He says the sign of civilization without culture comes from the boundless belief in technology, which he describes as "apocalyptic." In other words, Wittgenstein distinguishes between Rationalism/Enlightenment and Progressivism/Positivism. He does not agree with the purely scientific approach to studying all-natural, supernatural, and artistic phenomena. The entire modern worldview is based on the illusion that what are known as the laws of nature are

natural [materialistic] phenomena (Weir, 2007). With more attention, it can be seen that modernity always has two sides. It always has negative and positive dimensions. Everything that can be placed in the field of postmodern thought is a critique of the natural consequences of the modern mind. It is also a criticism of modernity and the expression of its negative aspects. Industrialism, capitalism, and the modernization of war are the characteristics of the modern world. However, when the Pruitt-Igoe Housing Project, designed by Minoru Yamasaki, was demolished less than 20 years after its completion in 1954, this symbolized the failure of modern architecture and its controversial International Style by Charles Jencks (Hassan Pour et al., 2015, 772).

### Technology

One of the results of modernity is modernization, which is interpreted as technology. Wittgenstein does not distinguish between different aspects of modernity. He is a bit pessimistic that everything should be evaluated scientifically through pre-determined and prejudicial rules, in other words, mere rationalism. He considers rationalism important and logic the world's condition, but he is aware of the limitations of human reason, which he sees in the limitations of language. In general, he is a modernist who pays attention to the limitations of modern reason. He is also critical of the hardware aspects of modernity, such as technology, industrialization, and machine life, which have distanced man from nature and art. In the meantime, he gives credit to the ancients, with all their shortcomings and ignorance, who paid attention to the world's mystery (Neurath, 1983).

### Tolerance

According to Wittgenstein, there is no value in the world. It would no longer be in the world if there were any value. Because everything in the world is accidental (Mounce, 1990, 120). It can be measured in terms of Wittgenstein's philosophical view of the world. According to him, morality does not exist in the world and cannot be discussed, but it is a transcendental matter. Wittgenstein remarks, "Ethics cannot be expressed. Ethics are transcendental (Ethics and aesthetics are one." (Wittgenstein,1922, 125). Wittgenstein talks about morality as happiness, acceptance of the world, and harmony. (Dabbagh & Mahdian, 2013, 30) In his view, accepting the world as it is and striving for a moral life are duties. Wittgenstein does not deny morality; he considers it something outside the world and transcendental (Graver,1994). Here, we can move on to the issue of tolerance in his philosophy. In a way, Wittgenstein avoids moral judgment and considers morality a personal, internal, and individual matter. (Pihlstrom, 2019). It is possible to find a simple expression in Hafez's poetry: "If I am good or bad, you go be yourself" (Hafez, 2008, 123). Tolerance is an ethical result of Wittgenstein's philosophy. The culture of modernity and humanism has a significant relationship with tolerance. These two cultural/philosophical/social trends promote and support tolerance in two ways. Humanism, as the word suggests, gives originality to humans or individuals. Therefore, individualism is the result of humanism. People are how they are, whatever they think (Ahmadian & Nouri, 2010). Wittgenstein's concerns are cultural and moral. Cultural, both in artistic culture and the prevailing philosophy

among people. He considers the goal of philosophy to be to correct thoughts. "The philosopher's treatment of a question is like the treatment of an illness" (Wittgenstein,1999, 255).

Research aims: This research aims to develop a conceptual model for urban studies by examining different dimensions of Wittgenstein's philosophy and extracting related variables. The hypothesis is that Wittgensteinian views on logic, utility, aesthetics, ethics, and tolerance can help understand architecture. Achieving a coherent model helps to achieve a more accurate understanding of the characteristics of architecture and urban planning and their quality in the city. This method is done by quantifying qualitative variables with social studies methods, data collection and statistics, and analyzing and comparing this data. Also, in a case study, Semnan City has been studied as a case, and six buildings, three historical and three contemporary ones, were analyzed. To better understand the intricate dynamics of contemporary architecture and urban life and juxtapose various facets of modernity and historical context, the insights of Austrian philosopher Ludwig Wittgenstein can be useful. In his text, 20th-century modernism, which focuses on logic, modernity, technology, and spiritual matters, is intelligible.

Research novelty: The novelty of this research lies in the use of theoretical and philosophical studies in understanding architecture and urban planning using the views of an analytical philosopher, Ludwig Wittgenstein. By studying the architecture of Semnan and comparing contemporary and historical architecture in this city, this study attempts to establish a bridge between theoretical-philosophical and field studies.

## MATERIALS AND METHOD

This research method is quantitative, using quantification of variables and collecting data through field methods, questionnaires, and interviews. After analyzing various sources, the following components are considered as factors, "variables" in the study of architecture. This conceptual model includes four "components" that are extracted from theoretical foundations, and each component has many "sub-components" that are explanations and their meaning in architecture (Table 1).

### Research Methodology

The research was qualitatively evaluated according to its components. The researchers use the Likert questionnaire scale to quantify and score (one to five) these components. It is possible to obtain a qualitative description of the pointed phenomenon.

The point is that the issues have been polarized in transforming the components into variables to clarify the issue and make it possible to pose questions. For example, Wittgenstein's attention to modernity has been presented as a positive approach to modernity that can be measured. In other words, the components are used as raw sources without positive or negative bias.

After studying the related literature and analyzing experts' opinions, focusing on Wittgenstein's opinions, 10 components were selected as variables for statistical studies. The method of selection is that three of the four components have entered the study model in most of their

Table 1. Components and subcomponents, equivalents in architecture, and variables used in software

| Components | Sub-components | Equivalents in Architecture | Variable |
|---|---|---|---|
| Logic | Logic as the condition of the world | Logic in Architecture, Honesty, Openness, Proportions | Logic |
| | | Type of use of space, Needs, Economy, Costs, Values | Usefulness |
| | | Functional aspects: use, practicality, work, activity, movement, ability, intentions-effect, satisfaction, expediency, comfort, pleasure, interaction, economy, costs, systems, planning, services, heating, energy, behavior. | Function |
| Avoiding Psychologism | Modernist philosophers, logical positivism, Avoid romanticism and idealism | Opposition to Style, Historicism, Romanticism, and Psychologism | Style |
| | | Avoiding decorations and ornaments | Decorations |
| Viewing the world from the perspective of eternity | Ethics is the center of attention; ethics and aesthetics are the same thing | Transcendental approach to art | Transcendent |
| | Happiness, acceptance of the world, attention to nature | Create a positive feeling and pay attention to nature | Positive feelings |
| | Ethics as an individual and transcendental matter, avoiding moral prejudice | Pluralism and Cultural Tolerance | Tolerance |
| Modernity | The modern philosopher criticizes aspects of modernity: the complete reliance on the modern scientific method and the world moving away from art and nature. | Approach to modernity | Modernity |
| | Technology is like a frame for humanity and should be criticized. | Approach to Technology | Technology |

subcomponents. The only component of logic has been entered directly because of the complexity of turning it into an architectural equivalent and being far from the mind of the common citizen.

Two or more questions were proposed for each variable, and a citizens' questionnaire was formed. In total, about fifty questions of variables, about 20 questions about 6 selected buildings, and six individual questions structured the questionnaire. Then, the questionnaires were completed using the internet and volunteers, and the results were analyzed in the statistical database. Case Study:

Semnan is a city with old textures and historical buildings next to new neighborhoods. It was chosen as an Iranian city where tradition and modernity are confronted.

**Statistical Society**

Table 2. Three historical buildings (case study), function, period, and architectural characteristics

| Building | Function, age, style | specifications | Picture |
|---|---|---|---|
| Imam Mosque of Semnan | Mosque, Qajar, 18th century, traditional style | Four introverted porches, Qajar decorations |  |
| Jameh Mosque of Semnan | Mosque, 6th to 18th century, traditional style | Central courtyard, single porch, single minaret, few decorations, brickwork |  |
| Arg (citadel) of Semnan | Historical memorial of Naser al-Din Shah- traditional eclectic style | The gate of the government citadel, extroverted, Qajar decorations, six small minarets |  |

The target statistical population is the people of Semnan. According to Cochran's method, the sample size should be calculated based on the city's population. "The population of Semnan city is equal to 185,129 people according to the results of the census of 2015 [the last published results]" (Semnan University website).

Cochran's method and Morgan's table were used to determine the sampling method and sample size, so the sample size was equal to 382.

**Validity:** The validity of the questionnaires was evaluated through a survey of experts. The validity rate by 21 experts is 4.17 out of 5 evaluations, which is in the excellent range and is evaluated at 79%.

Then, the questionnaires were completed using the site and volunteers, and the results were analyzed using the statistics bank in the IBM SPSS. It is similar to this questionnaire with more emphasis on case studies, using the Delphi method and a survey of 21 experts in the construction industry with higher education and university professors, which is the basis of comparison in concluding the results of these two questionnaires.

**Case study:** The selection of case studies was based on experts' opinions. Three historical buildings were chosen for comparison, and their suitability for the research dimensions; all are from the Qajar era and exhibit traditional style and Qajar architecture, as agreed upon by

the specialists. These buildings, which date back to the Qajar era and earlier, play a significant role in today's city's identity. One of the most important monuments is the remaining gate from the citadel known as the Arg (Citadel) of Semnan, which has become a symbol of the city of Semnan (Table 2).

The selection of three contemporary buildings was made similarly; the two commercial-administrative towers, Phoenix and the Bu-Ali Clinical Center, were chosen due to their economic and Application significance, large project dimensions, and importance in the urban landscape, agreed upon by the experts. The only building, the Khosravani Commercial Building, is smaller in scale but was still selected due to its prominent location, unique style, and representation of contemporary popular architecture. A list of the selected buildings as case studies and brief descriptions is provided in Table 3.

**RESULTS AND DISCUSSION**

As shown in Fig 1. all 10 variables extracted from the theoretical bases have an average of more than 50%. However, the two variables of style and decorations, expressed negatively (avoidance), are very close to the average of 50% and are lower than the others. It can be said that the citizens are unsympathetic to the style component, which

Table 3. Three contemporary buildings (case study), function, period, and architectural characteristics

| Building | Function, age, style | specifications | Picture |
|---|---|---|---|
| Ghoghnoos tower | Commercial-office tower, 5 years, Modern style | 18-story tower with commercial service use on the lower floors and office and hotel on the upper floors, modern facade covered with glass |  |
| Bu-Ali Clinical Center | Administrative and medical building, Modern style | The 12-story building, with an atrium, set back in a modern facade |  |
| Khosravani building | Commercial, 5 years of age, neoclassic | Roman decorations, a Small commercial building in a city square |  |

in the questionnaire meant emerging and neoclassical styles, and they do not attach much importance to these two avoidances and even consider it unimportant compared to other components, as well as usefulness, contrary to expectations. The respondents did not attach more importance to it than the average.

However, the average difference for the other eight variables was more than 5%, and the results are significant. In the two components of function and tolerance, the average results obtained are nearly 60%, which shows the importance of these two components. In addition, the variable of positive feeling achieved a good score of approximately 67%. However, the noteworthy point of the two variables of attention to Transcendent, with about 86%, and technology, at the rate of 84%, shows the importance of these two issues among citizens. In addition, a score of approximately 70% for the modernity variable is very significant. Because the purpose of the questionnaire was to use technology and modernity in architecture and urban planning, the respondents' approach was very positive. The order of components in terms of importance and acceptability can be considered as follows: transcendence, positive feeling, technology, modernity, function, tolerance, logic, decorations, usefulness, and style. (Fig 2.)

**Buildings**

The results from two questionnaires are extracted and shown in the following table based on the buildings and variables.

In this section, regardless of the variables, we will compare the results of the six buildings investigated and the survey of three historical and three contemporary buildings. (Table 4)

**Overall comparison**

Fig 3. displays that respondents, citizens, and experts have evaluated the three historical buildings as more acceptable and of higher quality than the three contemporary buildings. These results are general and have been obtained regardless of the differences in variables. The difference among urban residents is less, around 9%, but still significant. The important point is that the difference in results among experts is much greater, and they have evaluated historical buildings as more acceptable by about 35%, which is very significant. It can be said that experts know historical buildings much better and citizens make less difference between them.

This significant difference is also evident in a case-by-case comparison
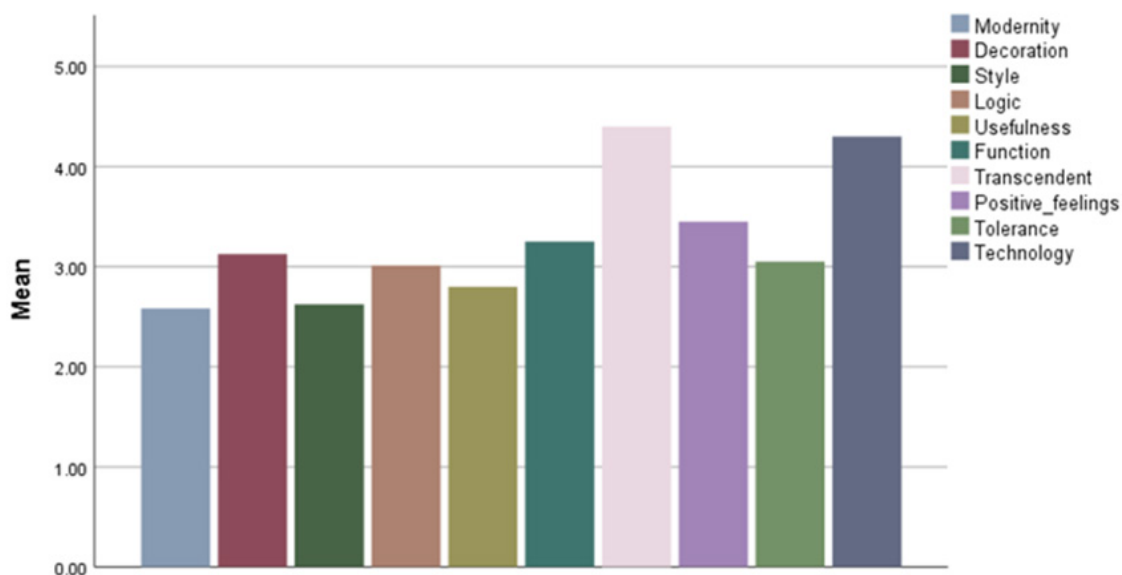
Fig 1. The results of the statistical analysis of expert questionnaires in the variables
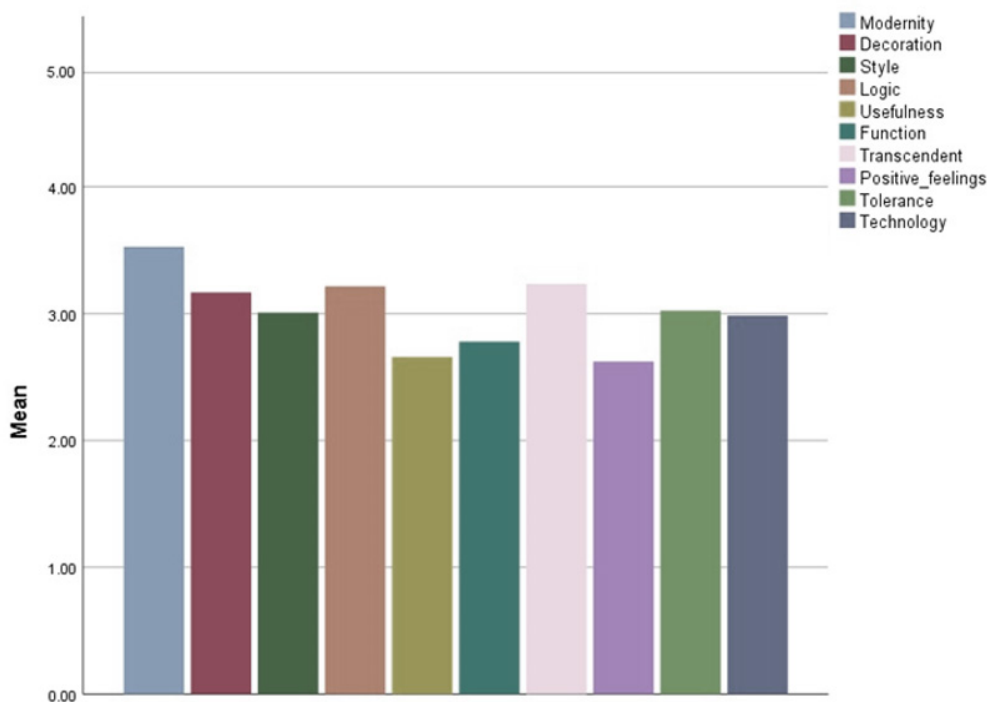


Fig2. The results of the statistical analysis of citizens' questionnaires in the variables

of buildings. Fig 4. presents the results of the citizens' questionnaire about the buildings. Table 5 shows the average results as a percentage.

Citizens: As seen in the table and graph, the citizens' acceptance of historic buildings is a bit higher than that of contemporary ones.

Among them, the Semnan Citadel building is the most acceptable for more than 60%; next to it, Jame Mosque and Imam Mosque are less than one and two percent. The score for three contemporary buildings is about 10% less, and the lowest is for the multi-purpose building. The Ghoghnoos Tower gains a score of 48 percent. It should be noted that 48, 49, and 53% acceptance rates of three contemporary

Table 4. The mean results of the statistics obtained from the questionnaires for the buildings are in the order of the variables obtained from IBM SPSS.

| Building / Variable | Emam Mosque | Jame Mosque | Semnan Arg | Ghoghnoos Tower | Bo-Ali Building | Khosravani Building |
|---|---|---|---|---|---|---|
| Logic | 3.1 | 3.4 | 2.9 | 4.1 | 3.8 | 2.6 |
| Usefulness | 3.4 | 3.4 | 2.2 | 3.6 | 3.1 | 2.8 |
| Function | 3.9 | 3.3 | 2.8 | 3.4 | 2.9 | 3.1 |
| Style | 3.8 | 3.9 | 3.8 | 2.4 | 2.3 | 2.2 |
| Decoration | 3.9 | 3.1 | 3.9 | 2.1 | 2.6 | 3.9 |
| Transcendent | 3.9 | 4.1 | 3.8 | 2.9 | 2.7 | 2.3 |
| Positive feelings | 4.0 | 3.9 | 4.0 | 3.2 | 3.2 | 2.9 |
| Tolerance | 3.5 | 3.4 | 3.4 | 3.8 | 3.6 | 3.6 |
| Modernity | 2.8 | 2.9 | 3.3 | 4.0 | 3.6 | 3.0 |
| Technology | 2.6 | 2.9 | 3.0 | 3.9 | 3.8 | 2.8 |
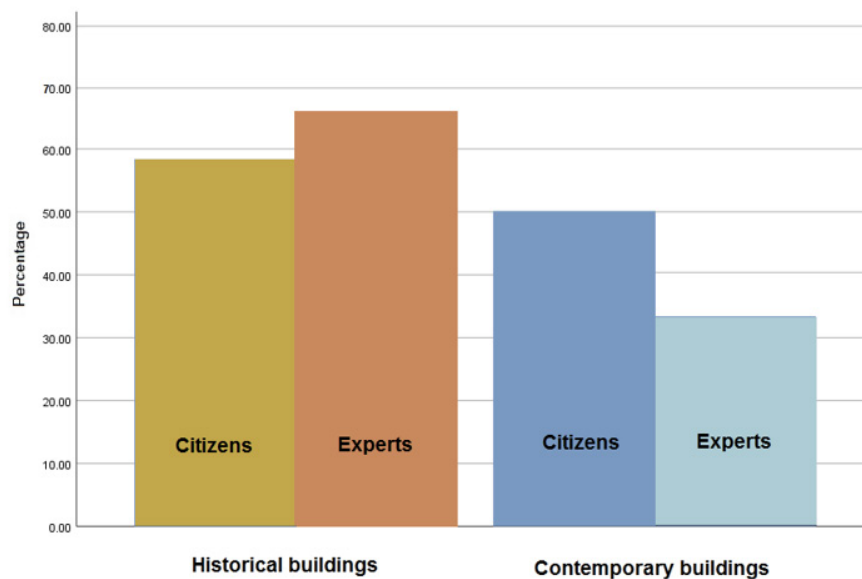


Fig3. Comparing statistics of experts and citizens in historical and contemporary buildings

buildings are still close to the average. According to the relatively large statistical sampling collected in this case, it can be said with a good approximation that all six buildings under study received an acceptable score from the citizens.

**Experts:** There is a significant difference between the opinions of citizens and experts. But Table 6 and Fig 5. shows that three historical buildings each have nearly 75% acceptance, and among them, Imam

Semnan Mosque from the Qajar era has a brilliant statistic with 78% acceptance. These three historical buildings are very successful and well-evaluated by experts.

The difference in the assessment of citizens and experts is very high and is not less than 15 percent, and in the case of the Imam Mosque, it reaches 19 percent, which is very significant. Experts seem to have a very positive view of these three historical buildings. On the opposite

Table 5. average results of the citizens' questionnaire about the six studied buildings, the output of the software IBM SPSS

|  | Imam Mosque | Ghoghnoos tower | Jame Mosque | Bu_Ali Center | Arg_e Semnan | Khosravan building |
|---|---|---|---|---|---|---|
| Mean | 58.9334 | 48.4229 | 60.3427 | 49.1402 | 60.6324 | 52.6285 |
| N | 176 | 178 | 175 | 158 | 188 | 171 |
| Std. Deviation | 12.57667 | 6.62069 | 14.08981 | 9.33452 | 15.78698 | 8.96768 |
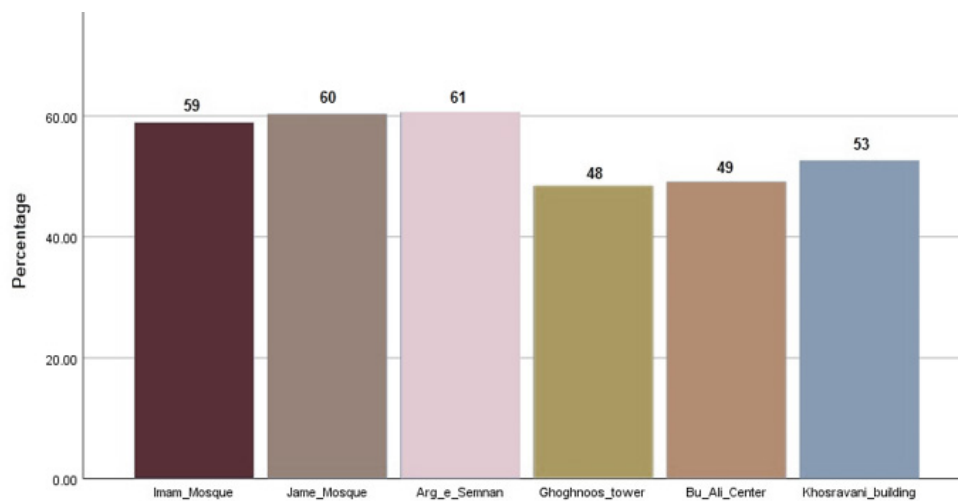


Fig4. Comparing the results of the desirability of buildings in the Citizens' questionnaire

point, according to experts, the statistics for three contemporary buildings are significantly low, and the best of them is the Phoenix building with 40%. The worst is the Bo-Ali building, with only 28% acceptance, which is 22% lower than the average.

Therefore, experts consider historical buildings much more acceptable and better and consider contemporary buildings significantly inappropriate.

## CONCLUSION

Logical aspect: The most important aspect of the study model, which shows itself almost in 9 out of 10 variables, is its logical and rationalist aspect. This model comes from the thoughts of a modernist philosopher of the early 20th century, and its centrality is the component of logic, as mentioned in the theoretical foundations section. This component manifests in function, tolerance, usefulness, technology, and modernity. This logical strain makes the technical aspect stronger. This technical aspect shows itself, especially when the model asks about the use of technology in architecture. There are few citizens, although traditionalists, who oppose technology in architecture today, so this

variable gets a very high score of about 80%.

Transcendental Aspect: Transcendence in Wittgenstein's thought exists alongside the logical aspect. Since Wittgenstein considers spirituality as belonging to the outside world and sees it "from the eternal aspect, " it relates to categories such as faith and spirituality, ethics, and esthetics. These value aspects manifest in the variables of transcendence, positive feelings, and tolerance.

Iranians pay attention to spiritual aspects and give a positive answer, giving the highest score in Transcendence in Architecture, 85.5%. However, they do not sympathize with the style (neoclassical and Roman facades). They give the lowest marks to style so that this mark does not exceed 50%. The person in question has a relative agreement with modernity but, at the same time, has a critical and suspicious position. This shows that he gives a good score of 80% on the questions about technology, but whenever he comes across philosophical modernity, he takes a lower position. Grades are reduced up to 70%.

The acceptability of all three historical buildings is significantly higher than the three contemporary buildings in both groups of citizens and experts, but the difference is much greater among experts. The results of contemporary buildings are not so low among citizens and are close

Table 6. Average results of the experts' questionnaire about the six studied buildings, the output of the software IBM SPSS

|  | Imam Mosque | Jame Mosque | Arg_e Semnan | Ghoghnoos tower | Bu_Ali Center | Khosravani building |
|---|---|---|---|---|---|---|
| Mean | 78.2895 | 74.6875 | 74.4048 | 40.0298 | 28.1250 | 35.5655 |
| N | 19 | 20 | 21 | 21 | 5 | 21 |
| Std. Deviation | 21.07860 | 21.71937 | 18.58309 | 19.43084 | 15.62500 | 18.78840 |
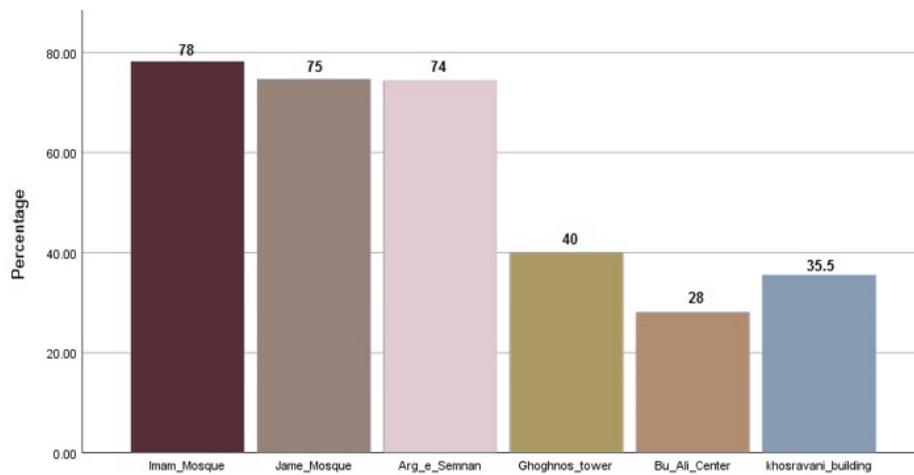


Fig5. Comparing the results of the desirability of buildings in the Citizens' questionnaire

to the average, but for experts, the difference between historical and contemporary buildings is much higher and sometimes reaches nearly 25%.

## AUTHOR CONTRIBUTIONS

S. M. Hashemi Hezaveh, the first author, performed the literature review, analyzed and interpreted the data, and prepared the manuscript text and edition. F. Hassan Pour, the second author, undertook the conceptualization, the design of the methodology, the main review tasks, rewriting, and reviewing the data analysis. S. Kamyabi, the third author, contributed to critically reviewing and editing the entire content and approving the final version.

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## CONFLICT OF INTERESt

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the authors have witnessed ethical issues, including plagiarism, informed consent, misconduct, data fabrication or falsification, double publication and/or submission, and redundancy.

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