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THE REFLECTION OF SEMIOTIC THEORIES IN THE ARCHITECTURAL READING OF THE CONTEMPORARY MOSQUES OF TEHRAN

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ABSTRACT
The design of mosques in the Islamic countries has brought the recent designers with two key challenges. That is, the ideas and concepts regarding the tradition of Islam on the one hand, and the postmodern ideas of the global village on the other hand attract the design to themselves. Semiotics is a discipline that reads the texts to recognize and semanticize the signs of the texts. Architectural semiotics is a sub-discipline of art semiotics and therefore has a dependent representation. Considering the theoretical concepts of architecture, and along the linguistic and semiotic theories, it is required to develop and reproduce architectural semiotics. For this purpose, we introduced the linguistic concepts and theories of the semioticians, and then provided a model for semiotic reading of architectural works as spatial texts that are formed from diverse layers. These layers, which are classified into process and system layers, form the architectural text by their interrelation. The ideas about function, economic issues, time, aesthetic concepts, socio-cultural issues, and hermeneutic concepts form the system layers, and the issues regarding training, experience, subject, employer, and architect's attitude form the process layers of an architectural work. The semiotic reading of architecture aims to reproduce the design based on the relations existing between these layers and the impression of the addressee. In this paper, a model of architectural semiotics has been developed and introduced by the study of the theories of semioticians and based on the theoretical fundamentals of architecture. This model has been employed and tested for the reading of three contemporary mosques of Tehran (mosques of Tehran University, Tarbiat Modares University, and al-Ghadir Mosque in Mirdamad Street). The reading of the contemporary mosques can be used for the study of the concepts of Islamic tradition and its relation to the today's world. The reading of these experiences teaches the today's designers how to behave with the valuable principles of Islam tradition and its reflection in the recent era.

Keywords: Semiotic Models, Architectural Text, Architectural Reading, Semiotics of Mosques

INTRODUCTION
Today, there are different theories on the formation and reading of architectural products. Such theories have been derived from human science in the past three decades. For instance, the ideas of Derrida can be traced in the ideas and designs of Eisenman, the philosophy of Heidegger has been reflected in the notions of Norberg-Schulz, or the recent architects and theorists such as Alberto Perez-Gomez and Nader El-Bizri have conducted phenomenological researches in architecture.
Since 1970s, linguistic studies have been employed in art studies and it was followed by the application of semiotics as a branch of linguistics in the criticism and reading of artistic texts. In 1980s and 1990s, several books and PhD theses were written based on architectural semiotics. Such publications focused mainly on the literature of semiotics and tried to create a link between these concepts and the theoretical fundamentals of architecture. They provide no specific method based on semiotic theories for architectural reading. Considering these facts, this paper aims to introduce a method for architectural reading based on the semiotic theories.

Theoretical Framework
For the introduction of an appropriate method for architectural reading, the semiotic concepts and their origins in linguistics are to be focused. In must be noted that the study of the semiotics of art or socio-cultural semiotics may not provide us with a solution for the semiotic study of architecture. Therefore, it

Research Article

is required to refer to the linguistic-semiotic concepts as the means of the study of architecture as a spatial text existing in the environment.
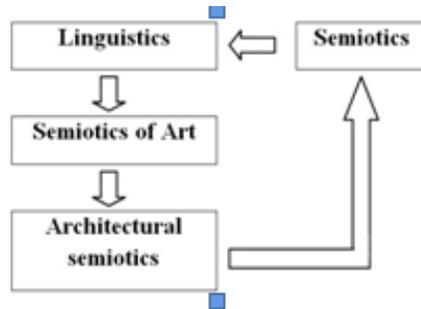

Figure 1: The subjects to be studied for introducing architectural semiotics

MATERIALS AND METHODS

Research Method

This research has an analytic approach towards linguistic and semiotic concepts in order to use the data of such analyses in the introduction of architectural semiotics. Therefore, we firstly apply a descriptive method to explain the semiotic concepts and then we create a link between the existing theories by applying an analytic approach. For this purpose, we build a model of the different ideas of the semioticians. In conclusion, a method and model is formed based on semiotic concepts and by the analysis and relating the studied models for architectural reading.

Review of Literature

In 1960s, linguistics entered a new era by Chomsky and his theory of generative grammar, which was based on child language acquisition and universal grammar. According to his syntax-based approach towards language, language is introduced as an innate phenomenon that has a psychological character and it is endowed to human being from the birth. Such an approach, which is based on Cartesian rationalism, introduces sentence as the study unit of linguistics. In 1970s, discourse-based semantics was introduced in linguistics. Sociological studies and attentions paid to the cultural context of language were the bases of such an approach in linguistics. In the discourse-based approach, context is regarded as the most important factor of meaning of each linguistic unit. In such an approach, sentence is not regarded as an independent unit and is to be studied within its context. According to discourse-based linguistics, even a sound segment or a word can be considered as a text. That means text has no limited size. Considering the integration of linguistic concepts in human sciences and reflection of such an approach in architecture, the key question is that "if architecture can be studied like language as the outcome of intralingua conventions", and what is the role of the non-expert audience in architectural semanticizing and how such conventions are interpreted by such audience.

In search of answers to the above questions, the books *Semiotics and Architecture* and *A Plain Man's Guide to the Theory of Signs in Architecture* have found that in contrast to the theory of Chomsky, architecture has no innate or internal meaning, and is to be interpreted using social conventions. Roland Barthes and Umberto Eco are the only prominent semioticians, who have theorized architecture and urban development [5]. They introduced architecture as a layered text that has original links with its social and cultural context.

Semiotics: A Method for Reading the Text

In any interpersonal action or communication, we produce and reproduce text. Any social text (like architecture) contains a message or a set of messages that are transferred to the addressee through signification nodes and intertextual relations. The addressee receives the messages of the text and semanticizes the text based on the network forming the text as well as the intertextual relations and layers that are interpreted by social conventions, subjective issues and understandings, and his point of view. That is, any text provides the addressee with a signification system and network, and each component of

Research Article

this network refers to another component in the network. Each component of the network is a sign inviting the addressee to represent and reproduce the text, which is itself a network of signs. These signs have no meaning in isolation, and they only receive their signification function when they are inserted in a network-like context of a text. To understand, interpret, and semanticize the text, a coherent discipline is required to recognize the elements of a text, intertextual relations, and interpret the meaning of a text. This discipline is called semiotics, and it is concerned with anything that can be taken as a "sign" (Eco, 1979). Semiotics is the understanding of the phenomena of the world by reading the existing signs (Chandler, 2009), and it produces meaning for the social phenomena based on signification relations.

Semiotics is in search of meaning by exploring the deeper layers of a text (Martin and Ringham, 2000). This discipline surveys the whole text or a phenomenon, and it comprises all forms of meaning based on the phenomena that have been encoded as signs (Johansen and Larsen, 2002). In other words, semiotics is the study of signs based on all cultural manifestations such as language, music, film, fashion, architecture, and the layers beyond tangible signs, as well as connotations and the absent realms of a text (Bal and Bryson, 1991). Semiotics has three main functions including the study of signs, the relation between signs, and reading of addressee (See www.answers.com/semiotics/pilosopydictionary). Two structuralist and poststructuralist approaches govern semiotics. The structuralist semioticians (such as Saussure, Jacobson, Strauss, etc) had a linguistic approach and decoded the texts by believing in a direct relation between text and its meaning. The poststructuralist semioticians (such as Peirce, Eco, Barthes, Derrida, etc.) recognized an indirect relation between the text and its meaning, and dealt with the pluralistic aspects, internal layers of the text, intertextual relations, and *Difference.*

Review of the Theories of Semioticians for the Development of Text Semiotics

Saussure's Approach to Text Semiotics

According to Saussure, any text is composed of signs, and each sign is composed of two components, signifier (*signifiant*) and signified (signifié), that have internal and external relations.

A- Signifier is the image of a sign.

B- Signified is the concept of that image.

The Saussurean sign relates a sound- image to a concept. The sign is formed from the link between signifier and signified (Saussure, 1983).
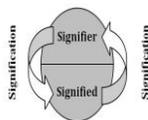
Figure 2: The Saussurean Sign and its Internal Relations
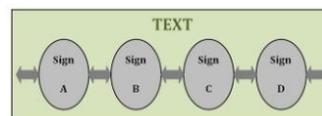

Figure 3: The Affirmative and Negative Relations between Sign and Text

In practice, the signs refer to each other, and a sign has no meaning intrinsically, and its value is derived from the relation of that sign with the other ones (Saussure, 1983). The meaning of a sign is the concept of that sign extracted from a semiotic structure. No sign has a meaning in isolation, and it creates a meaningful text when it relates to other signs (Zeymaran, 2003).

Peirce's Approach to Text Semiotics

According to Peirce, a sign has three aspects (*representament*, *interpretant*, *and object*). The interaction between these three elements forms the process of *semiosis.*
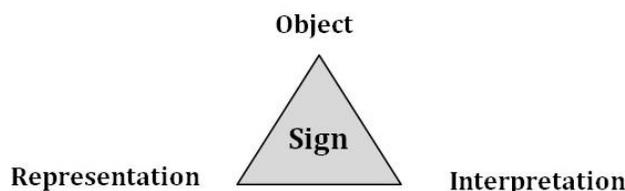

Figure 4: Peirce's Semiotic Triangle

Research Article

Each text is formed by collocating signs, and each sign can be converted to another representament (sign) using the interpretant, which is itself one of the vertices of the triangle of semiosis. Indeed, another triangle of semiosis is formed and this process continues unlimitedly.
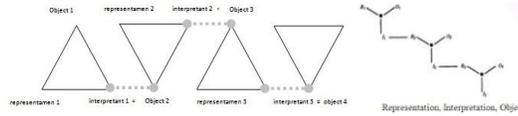

**Figure 5 & 6: Interpretation Cycle in Peirce's Triangle of Semiosis**

The processes of interpretation and semantization that are derived from the triangle of semiosis was the basis for post-structuralist semiotics, and the unlimited semiosis of Eco, intertextuality of Roland Barthes, the infiniteness of signifiers and freeplay of text signs of Jacques Derrida, and the text production and reproduction of Julia Kristeva are all based on the Peirce' principle.

Eco's Semiotic Approach

Eco classifies semiotics into two classes: 1) semiotics based on the process of communication, 2) semiotics based on the process of signification. According to Eco, in the process of communication, a code is transferred from a source and a sender through a channel to a definite destination. In this process, specific information is transferred from the sender to a receiver. In the process of communication, information is exchanged between two systems (not meaning and signification). However, the process of signification is a system that begins after the completion of the process of communication, and the destination of this process is the human being/interpreter. According to Eco, four different systems are involved in the transmission of a code:

- Syntactic system: consists of constituents and the internal combinations of communication process for the transmission of a code.
- Semantic system: is comprised of meaningful communication codes
- Behavioral system: is a series of different behavioral reactions of the receiver
- Process system: is the relation between the three syntactic, semantic, and behavioral systems.

According to this approach, any architectural design has three system layers and a process layer (four system or structure, or layer).
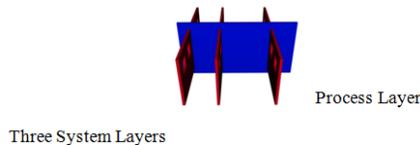
Figure 7: The Layers of an Architectural Design based on Eco's Theory

The process layers of a design create a link between system layers like an interconnected network to construct a structure.
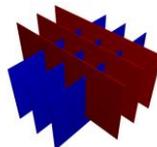
**Figure 8: The Application of Eco's Theory in Forming a Network of System Process Layers in Architecture**

Eco believes that the most important factor in the semantization of a design is the role and status of the addressee. He introduced the link between signifier and signified, in the perspective of the addressee and the observer, as sign-function (Eco paid no attention to the status of the addressee while introducing sign-

Research Article

function. The researcher has inferred that the behavioral system can be understood as the viewpoint of the addressee in the classification of the semantic, syntactic, and behavioral system layers of Eco. Therefore, the researcher has employed this inference in modeling of Eco's theory see: (Johansen & Larsen, 2008)). Therefore, it can be said that each process layer has a sign-function to link the syntactic, semantic, and addressee system layers to each other (Figure 9). The sign-functions of a design may vary differently based on the viewpoints of the addressee (Figure 10).
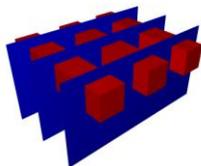

Figure 9: Eco's Sign Function
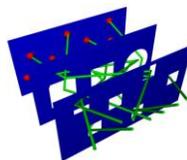
Figure 10: Addressee's viewpoint as the Most Important Factor in Reading a Design and Semantization

Roland Barthes's Semiotic Approach
Barthes says that a text is formed using its own language, and therefore, it must be rad by the very language. To read the related text, it is required to find the language of the text. The reading of a text creates in general a new semiotic system that aims to reread and reproduce the text. That is, the text is simultaneously both object and subject. According to Barthes, the following issues are of importance in reading a text:
- There are sociological ideas in the text.
- In reading a text, the life of the text is of importance, and not that of the author.
- Any text provides the addressee with a wide range of meanings.
- The reading of text does not mean the search of truth or meaning, rather it must create a linguistic-semiotic structure. The purpose of reading a text is to find its language.

According to Barthes, any text is formed by a multi-layered language. That is, it does not have only one image, but also proliferation of meaning. That is only the viewpoint of the addressees, their social status, and temporal conditions that are subject to change and lead to semantization. By referring Eco's the Open Work (*opera aperta*), Barthes acknowledges that any text may have various significations, and the addressee can interpret the text based on his own viewpoint. The addressee receives the meaning of the original code to some extent, and explores the deeper levels of meaning by reading the symbolic code. The understanding of any more levels of meaning depends on the depth of vision of the addressee.
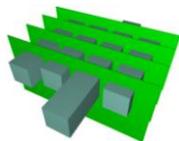
Figure 11: The Levels of Meaning/representation of Text According to Barthes

Jacques Derrida's Semiotic Approach
Derrida believes that signification can relate a sign to another sign at any time (Zeymaran, 2000). In the lecture *La Structure, le Signe et le jeu dans le Discours des Sciences Humaines* (Structure, Sign, and Play in the Discourse of the Human Sciences), he claims that there is a play among the signs, and it defers meaning. Therefore, in the language of a text, any signifier is a metaphor of a signified, and this fluid movement continues endlessly. As a result, we must be in search of the freeplay of signs instead of phenomena (In contrast to Saussure, who introduced signifier and signified as the two sides of a coin, Derrida believes that signifiers and signified convert to each other continuously, and therefore, we never reach an ultimate signified). That is, there is no immediate meaning in the sign, and the signifier does not

Research Article

provide the addressee with the signified directly (Zeymaran, 2000). That means meaning exists always in the absence of sign, it is distributed across the spectrum of signifier, it escapes from the addressee in a deferral and postponed manner, and the addressee is always in search of it. To find out the meaning of a sign, we must know what a sign is not, and that is the beginning of Derrida's deconstruction. According to Derrida, the metaphysics and philosophy of the West have been always surveyed the presence nature of the phenomena in cognitive, ontological, and semiotic fields, and have paid no attention to the absence realms of phenomena. He believes that this is because of the two-sided approach of the Western metaphysics. The semiotic approach of Derrida has the following characteristics:

- Derrida has changed the Saussurean concept of sign. According to Derrida, any text is the ground of signs, in which any signified is converted to a new signifier, and this trend or the free play of sign continues eternally.

- Any text embraces unlimited meanings based on the free play of signs, therefore, there is no question of only one meaning of the text or transcendental signified.

- According to Derrida, the roles of the signifier and signified always are replaced by each other. The presence of the signifier fades out and it converts to the signified, which itself starts to fades out and transfers a meaning, and it changes to a new signifier.

- Derrida believes that no sign can be present in the text unless it refers to any other sign. As a result, each sign is connected to other signs by a trace, and the connection of the chain of interwoven signs creates a textile, which is formed by changing the original text. This interweaving network is called *grammé* by Derrida.

- Grammé was introduced in the Derrida's semiotics as a "new structure of non-presence". This network is realized based on the systematic play and deferral (*différance*) and not based on the contrast between their presence and absence (binary opposition). The grammé presented by Derrida is composed of sign, sign distinctions, the trace that connects each sign to another sign, the play between them, and temporal element (*différance*), and network system.

- Derrida presents a network, in which the references of a text to other texts (or a sort of a change in the text that is subject to reading) form the rows of that network, and the traces of the conversion of signs to another sign relate the texts to each other.
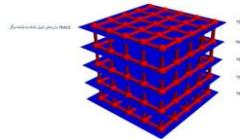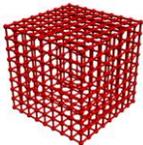

Figure 12: Derrida's Network System of Signs and their Signification   **Figure 13: Derrida's Grammatology Model**

The Reflection of Semiotics in the Formation of Architectural Text

The distinction of architectural semiotics from other social texts is the spatial nature of architecture. Therefore, architectural semiotics is classified into a larger discipline called spatial semiotics (Lukken & Searle, 1993). Architecture is a spatial layered text, and like any other text of today's world, it has various meanings and contents. Semiotics read the space based on the social and cultural relations and as a text made by human being. The audience facing architectural space converts it to recognizable locations and reproduces it by his own mental images. Therefore, the meaning of architectural space or location is reconstructed and it receives a new identity. The user of this space (the addressee) is never an inactive agent, but rather as a person, who possessed the space, he reads or reproduces it as a marked text, and provides the space with his mental character based on his senses (including the five senses, sixth sense, and psychological senses). The constructed meaning varies for each design, and it is always subject to deferral. The audience semanticizes the design based on his social status, cultural backgrounds, and the cultural ground of the architectural design. Architecture is a medium, which is understood by the audience based on the spatial and environmental signs.

Research Article

The following model was introduced for the reading of architectural works based on the interpretation cycle of Peirce semiosis process (Figures 5 & 6), sign-function, addressee's viewpoint, as well as system and process layers introduced by Eco (Figures 9, 10, and 11), layered text and depth of vision presented by Barthes (Figure 12), and the network system of signification and conversion of text to a new text suggested by Derrida (Figures 13 & 14).

System layers (including performance, economic, aesthetic, socio-cultural, design time, and hermeneutic layers) and process layers (including the layers of project subject, training, architect's experience, other projects, and architect's personal attitude) are collocated to form the architectural layered text.
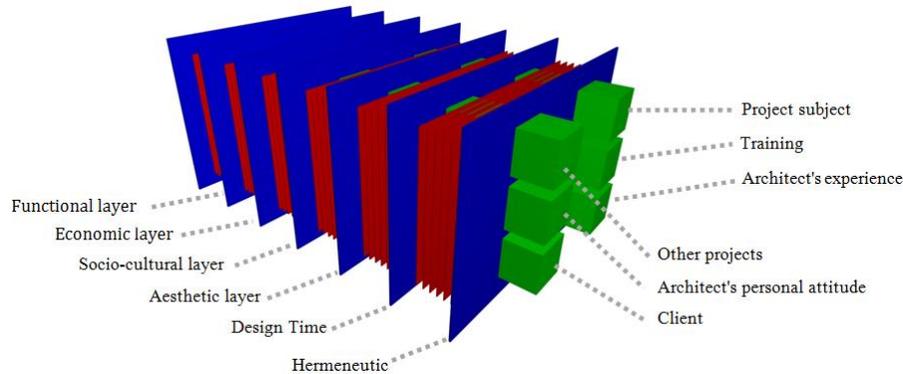

Figure 14: System and Process Layers in Architecture

A Case Study

The Reading of Several Contemporary Mosques based on Semiotic Approach

In the following, several contemporary mosques in Tehran have been studied using semiotic approach. Mosque has been a place for the manifestation of religious principles and realization of spiritual art and architecture. Religious art aims to realize divine tradition (The divine tradition here means the fixed and unchangeable principles proceeding from God that are for teaching purposes at any location and any time, and even if it fails superficially to survive, it returns to its divine origin (Ardalan & Bakhtiar, 2001)) on earth and create a link between the realm of nature and the realm of divinity (Burckhardt, 1997). Mosque is a place, in which human being as the vicegerent of God on earth offer prayer. This is a bridge between the terrestrial world and world of the heavens. The architect of traditional mosques uses architectural themes (Architectural themes include materials, time, light, and energy (see Falamaki, 2002)) to represent and deliver spiritual contents. For instance, *muqarnas* built beneath the dome is used to the absorption and emission of light in addition to the representation of the relation between unity and diversity (Burckhardt, 1987). According to Sohrevardi, light is the drive of motion, distinction, and life of creatures (Ahmad, 1979). Light is the most significant symbol of divine unity. The verse 35 of surah al-Nur (the Light) of Quran stating that, "Allah is the light of the heavens and the earth", refers to the Essence of Necessary. In Islamic architecture, space, material, surface, color, and shape are the means of delivering traditional concepts. The space has a qualitative concept and spiritually esoteric nature that exalts human being from the terrestrial world to the worlds of heavens. The shape formed by limiting the space reminds us of the imaginal world (*Alam-i Mithal*) through the application of geometry and numbers (the iteration of the unity). That means the whole creatures are created by the repetition of the one, and mathematical structures and proportions govern the nature and existence of human being. Therefore, the application of numerology in architecture is a method of recognizing the unity. The surface is also used for reflecting something beyond the substance. The ornaments of the surface aim to represent extraterrestrial concepts. In metaphysical terms, the colors reflect the duality of the light and darkness. The pure light or colorlessness is the origin of life and emergence of colors (Ardalan & Bakhtiar, 2001). According to this notion, the creatures of this world are the ideal forms of the divine world. Garden and yard in Iranian architecture remind us of the promised paradise (Ardalan & Bakhtiar, 2001). Minaret resembles the

Research Article

transcendental realm of human's spirit that desires to return to his pre-eternal origin (Ardalan & Bakhtiar, 2001). In other words, the Islamic-Iranian traditional architecture is a text that imitates and manifests the imaginal world. In the following table, the elements of traditional architecture have been interpreted in a narrative manner (Stierlin, 1998):

Table 1: The Reading of the Elements used in the Traditional Architectural Text of Iran, (Source: Dabbagh, 2011)

Text and Elements of Architectural Design	Design's Mimesis and Narrative of the Imaginal Origin
Charbagh Garden in Isfahan	the four promised gardens in the heaven
The veranda (*Iwan*) of mosques	The location of the revelation of Islam (an allegory of Hira Cave)
Tiled dome	A tree with a crown of leaves and stems (*Tuba* Tree)
The tiles of the façade of mosque	The imaginal garden in the heaven
Altar	The gate facing the heaven
The yard of mosque and its central pound	The garden of the kingdom of heaven and the mirror reflecting the kingdom of heaven
The central yard in the buildings with four verandas	The four directions of the world, in which the sky is considered as a pivot in four directions
Pythagorean proportions (width 3, length 4)	Diameter (the symbol of the Holy Five)

Based on the above-mentioned issues, the system layers of the contemporary mosques of the city of Tehran (including the mosques of Tehran University, Tarbiat Modarres University, and al-Ghadir Mosque) are read in the following from a semiotic perspective.

The process layers of architectural text relate the system layers that form the architectural shape, and encourage the addressee to read the architectural text in an explicit or implicit manner. In the contemporary mosques of Tehran, the process layers (including the layers of similar projects, architect's personal attitudes, and project environment) are almost fixed and firm, and therefore have no significant effect on the design and its reading. In contrast, the system layers are to be studied.

The sub-layers of project's time narrate special stories. The diachronic approach, the relation to traditional mosques, effort to connect to the history, attention to the current conditions of the society, and the attitude towards global projects can be observed in the reading of the design of these mosques. For example, although the mosque of Tehran University has a modern language, it is not far from the architectural literature of the old mosques. However, the mosque of Trabiat Modarres University has employed a diachronic attitude towards the Iranian traditional architecture. The shape of the dome and skyline of al-Ghadir mosque remind us of the ziggurats of Mesopotamia and ancient Iran, as if they are reproduced by modern materials and expressions.

The metaphoric and figurative concepts as well as the intertextual relations direct our attention to the denotative and connotative significations, semantization, and the semantization of the hermeneutic layer of the design. For instance, the dome and minaret of the mosque of Tehran University reminds us that the building is a mosque. In the mosque of Tarbiat Modarres University, the main elements of the architecture of the mosque including *iwan* (veranda), the dome, traditional materials, tile work, and the yard semiotizing by direct reference. Al-Ghadir mosque implies ziggurats and uses a modern language to present figuratively the addressee with a place for prayer and worshiping God. The elements forming these buildings refer to each other in an intertextual manner and complete themselves to form the nature of these architectural designs as mosques.

The concepts such a form, volume, proportions, space, and location form the aesthetic sub-layers of an architectural design. In the mosque of Tehran University, the form, volume, and proportions refer to the traditional mosques, but rather the space and language of the architecture are modern considering the time

Research Article

of the project. In addition, the architectural body (including the dome, minaret, and interior design) is constructed in historicist postmodern form.

Table 2: The Semiotic Reading of the Contemporary Mosques

System Layers	Sub-layers	Referents		
		Mosque of Tehran University	Mosque of Tarbiat Modarres University	Al-Ghadir Mosque of Mirdamad
Hermeneutic Layer	Semantization	Remembering the meaning of mosque	Remembering the meaning of mosque	An oblique remark to a place for worshiping
	Play of signifiers	Explicit play of signifiers	Explicit play of signifiers	Implicit play of signifiers
	Rhetorical tricks	Direct, figurative	Direct, figurative	Implicit, indexical, and inferential
	Denotations	Being a mosque at first glance	Being a mosque at first glance	Reminding us of a place for worship by deduction
	Connotations	Acting as a simile	Acting as a simile	Acting figuratively
	Intertextual relations	Intertextual relation with traditional mosques	Intertextual relation with traditional mosques	Intertextual relation with ziggurat
Diachronic layer	Diachronic view	Historical relation to traditional mosques	The anatomical repetition of the history	Modern expression by referring to ziggurat temples
	Daily conditions of the society	Modern expression in a modern context	The transfer of tradition in the academic society	A modern expression in modern urban texture
	Global view	The global thinking of local expression	Local approach	Historical approach, and a language different from the subject of mosque
	A look at the simultaneous projects	Impressed by the simultaneous projects	Impressed by history	Impressed by the simultaneous projects
	A look at the international projects	No attention to the international projects	No attention to the international projects	No attention to the international projects
Socio-cultural layer	Relation with the texture	Harmonious relation, and modern expression, in accord with modern texture	Antonymous relation, traditional expression in a modern context	Harmonious relation and modern expression, in accord with modern urban texture
	Intercultural relations	paying attention to social conventions	Direct attention to social conventions	Modern expression and extra-conventional
	Attention to the diversity of ideas	Paying attention to the dominant ideas in the design of mosques	Paying attention to the dominant ideas in the design of mosques	Paying to attention to the dominant ideas in the design of mosques
	Environmental	Compatible	Compatible	Compatible
	Climate and region	Paying attention to the locality of Iranian mosque	Paying attention to the locality of Iranian mosque	Paying attention to the locality of the old Iranian civilization
Economic Layer	Executive costs and expenses	Appropriate	Appropriate	Appropriate
	System with economic approach	Appropriate	Appropriate	Appropriate
	Materials with economic approach	Appropriate	Appropriate	Appropriate
	Maintenance costs and expenses	Public and academic	Public and academic	For people's use
Aesthetic layer	Volume	Historicist postmodern	Traditional	Historicist postmodern
	Form	Historicist postmodern	Traditional	Historicist postmodern
	Space	Paying attention to tradition with a modern approach	Traditional	Modern
	Proportions	Modern	Traditional	Modern
	Spirit of location	Traditional with a new language	Traditional	Modern
	Ornaments	Referring to traditional ornaments using a new language	Traditional with innovations	Old ornaments with a new language
Functional layer	The function of building	A place for prayer, gathering, resting, and academic activities	A place for prayer, gathering, resting, and academic activities	A hall for funeral ceremonies
	the function of parts	Traditional function using modern language	Traditional function	Modern function
	The functional relations between parts	postmodern	Traditional	Modern

The mosque of Tarbiat Modarres University is considered modern in terms of the method of construction, but the form, geometry, proportions, volume, location, and ornaments reminds us of the traditional architecture of Iran. The designer of al-Ghadir Mosque has used a historicist postmodern language. Although the form, volume, space, proportions, and ornaments remind us of traditional forms, the language is modern.

The function of the building, the architectural activity levels of the project, the elements forming the architectural design, as well as the relation between them form the function layer of the architecture. The mosques of Tehran University and Tarbiat Modarres University have a function that is different from that of the urban mosques, and that is because of their academic environment. In addition to the religious rituals and prayers, different academic meetings, gatherings, lectures and ceremonies are held in these

Research Article

mosques. Many students of the universities use the space of the mosques for studying, academic discussions, team works, and even resting before or after daily prayers. In contrast, al-Ghadir mosque is used mainly for funeral services and other functions even practicing religious rituals are dominated by this major function.

The discourse of the design, environmental context, the sociological relation of the design with similar projects, attention to the diversity of ideas in the society, attention to the cultural concepts, as well as the relation with ecological, climatic, and environmental issues form the socio-cultural layer of the design. In anatomical and extra-anatomical (social-cultural) terms, the mosques of Tehran University and Tarbiat Modarres University are related to academic environment and this is due to the status of these mosques. Because of the relation with the buildings with modern architecture (designed by Maxime Siroux and Mohsen Foroughi), the mosque of Tehran University has used a modern language and a discourse in harmony with the related context. However, traditional elements applied in the mosque due to the traditional nature of mosque have provided this building a postmodern language. Considering the period of construction and spread of semanticism in the education of architecture, a discourse directly related to the old architecture is formed. Because of the location of al-Ghadir mosque in the modernist and avant-garde urban texture, this mosque has used a modern language for having dialogue with its environment. All these projects use a convincing language for communicating with their surroundings, in such a way that the nature of these buildings as a mosque is understood completely by the audience. In the above table (table 2), the above issues used for the reading of the three mosques have been provided:

Conclusion

The reading of the architecture of Iranian contemporary mosques shows that the epistemic and spiritual layers have buried in ignorance (In other words, lack of attention to metaphysical and sacred issues in designing the contemporary mosques can be clearly observed. Paying attention to the spiritualities and symbolic aspects of the elements of mosques as well as today's requirements can solve the problems of designing contemporary mosques (see: Bemanian *et al.,* 2010)) and there is no balance between the system and process layers of architecture. In traditional approach, architecture was the reflection of the divine teachings that were considered beyond time and location, and it was adopted by complying with the cultural and climatic patterns as well as the needs of the addressees (Noghrehkar *et al.,* 2009). The identity and spirituality of traditional mosques were formed due to the human values reflected in their architectural realm. Therefore, it is not enough to repeat the anatomy and element of the traditional architecture in the construction of contemporary mosques.

Considering the above-mentioned projects, it is inferred that architecture is formed from diverse and interrelated layers. Syntactical and merely linguistic approach to architecture may deteriorate its fluid meaning. In contrast, paying attention to the existence of architectural layers leads to semantization and hermeneutic understanding of projects. Architectural design is not merely a system of linguistic signs that are exclusively responsible for the transfer of a message, but rather architecture provides a space for human being to live. Therefore, the experience of living in a space has priority over architectural meaning and message. However, architecture contains some concepts and ideas in addition to its functional aspect, and the emergence of significant content architecture is the result of the semanticist and symbolic attitude towards architecture.

The hermeneutic layer of architecture makes the meaning of a design by the codes existing in the design and based on the addressee's impression depth. The hermeneutic layer of architecture is composed of the codes of the design, the interpretation of the addressee, semantization for the design, the play of signifiers, paying attention to the metaphoric and figurative concepts of the design, as well as the denotative and connotative signification form.

The hermeneutic layer consists of several sub-layers and meaning streams from a sub-layer to another sub-layer in a fluid and unfixed manner. Thus, the reading of an architectural text requires to pay attention to the layers forming the design and to semanticize the design based on the collocated layers. In the construction of contemporary mosques, no attention is paid to the layers of the architectural body and the balance between these layers, and only the functional and anatomical aspects are of significance.

Research Article

Considering the crisis of spirituality in postmodern societies of today, it is suitable to pay special attention to the symbols and concepts that are beyond the anatomy and semanticist approach to the design of today's mosques. A moderate attention paid to all system and process layer, as it was paid to the traditional mosques, helps to get rid of mere imitation and of paying attention to functional aspects. This leads to the building of a spiritual space for peoples of today's world. The simultaneous attention to the layers involved in designing contemporary mosques enables us to develop mosques that have appropriate functions, reflect Islamic aesthetics, have an Islamic-Iranian approach, and meeting the needs of today's human. In such a case, there will be no need to repeat the history and merely imitate the historical elements of mosques, but rather, the broad Islamic concepts are reproduced based on today's approach.

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Research Article

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