# Logical Analysis of Iran's Historical Buildings in order to Read the Effective Components in the Architecture of Collective-Ritual Spaces based on the Wisdom of Art and Architecture

## Rezvaneh Mansouri

*Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran*

## Farah Habib

*Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran*

## Azadeh Shahcheraghi

*Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran*

**Abstract**: The culture of each society affects its architecture. Today, despite the advanced technology and information, attention to national and religious culture and rituals has faded and many of these cultures that have their roots in history are being forgotten, so there is a lack of collective cultural-ritual spaces based on the correct principles of Islamic architectural wisdom, which is derived from One of the effective factors is to promote social interactions and in that culture and culture of each region to be conveyed and reminded to the audience, it is considered as a problem in today's world of speed and technology. The objectives of the current research are to improve sociability through the logical analysis of Iran's historical buildings in order to read the effective components in the architecture of collective-ritual spaces based on the wisdom of Islamic art and architecture. The research method is in the form of case studies and logical reasoning and content analysis of the fundamental principles and concepts of the subject in case examples of Islamic social arenas from the perspective of Islamic architectural wisdom teachings; in which national and religious ceremonies are held, and a comparative study of the factors of each was done in the form of tables; In the following, by matching the obtained arguments with the communication analysis of the subject's basics with anthropological and epistemological discussions, the obtained results and solutions were presented together. And the results of the research showed that the fundamental principles and concepts in the wisdom of architecture and Islamic art are the result of focusing on rules and precise theorizing, and according to the beliefs, the

\* Corresponding Author
 *Email Address*: *f.habib@srbiau.ac.ir* *(Dr. Farah Habib)*

culture of the people is formed and based on the basic needs assessment of the discussion. It reduces the duality and difference of opinion in the Islamic field. and linking its components with the criteria of anthropology and transcendental Islamic wisdom in epistemology with the aim of promoting sociability in the case study of collective-ritual examples with logical reasoning, analyzing its comparative content is efficient; The functional flexibility in matching the uses in order to maintain in the collective space, in addition to the semantic dimensions, he extracted components with physical-spatial aspects in a way understandable for the users, whose strategy and solutions to improve the sociability of collective-ritual spaces are fruitful and be a breakthrough.

**Keywords**: *Logical Analysis, Architecture of Historical Buildings, Collective-Ritual Space, Wisdom of Art and Architecture, Sociability*.

### *Introduction*

With the expansion of human societies and the promotion of human social needs for a better life and the limitations of residential spaces to perform some of them, the necessity of being in collective spaces to perform some human activities has become very important (Proshansky, 1978). Providing the human need to establish a relationship with others and to be together requires the existence of certain collective spaces, and public spaces have various capabilities in this field (Ranjabr, 2010). In the urban spaces that are introduced as public buildings and have certain cultural, commercial, and service uses, the lack of such spaces that provide a measure of people's social needs and desires is seen. Such spaces should, in addition to having the characteristics of a desirable public space to provide a suitable platform for collective and social activities. Such spaces, if they exist, often lack appropriate and predetermined design for this purpose, and they are not cultural spaces that provide a suitable platform for collective and social activities, so that in addition to being able to attend Different people in the building create a collective memory and encourage the preservation of the rituals and traditions of the past in these cultural places. Cultural buildings should be able to accommodate a wide range of people with different social characteristics, especially age, gender, social, etc. groups in themselves. to be In this regard, the non-realization of many cultural projects proposed by urban design caused experts to investigate the causes of this problem and in general to investigate the feasibility of design interventions in the field of cultural spaces. Considering this issue, the direction of the present research was to identify the effective components of the realization of the cultural complex in the process of implementation and to determine the importance of each one. In order to achieve this goal, firstly, a review of the related theoretical foundation of how to realize collective-ritual arenas in Iran was argued and analyzed based on anthropology and epistemology. Then, in continuation of the method of logical reasoning, to the comparative comparison of fundamental principles and concepts based on the teachings of Islamic architectural wisdom in Islamic case examples in which national and religious rituals are held (Amir Chakhmaq Community Support and Square, Yazd, communal-ritual space Tehran Government Reliance, Naqsh Jahan Social Square of Isfahan) was discussed and its content analysis was presented in the form of tables. In the following, by adapting the topics of anthropology and epistemology in the Islamic architecture of collective-ritual spaces with a comparative comparison of the fundamental principles and concepts of Islamic architectural wisdom in the mentioned examples, the effective components were extracted, then the results and solutions were presented based on that became.

## *Research Questions*

1- What are the effective components in Islamic architecture of collective-ritual spaces based on the teachings of Islamic wisdom?

2- What are the solutions and design principles of collective-ritual spaces to promote sociability through research examples?

## *Research Method*

The method of the present research has been to investigate and analyze the cases and examples of collective-ritual spaces from the perspective of the fundamental principles and concepts of the wisdom of Islamic art, using the method of case study, and then analyzed the content of the mentioned topics with the method of logical reasoning; Logical reasoning is (qualitative method), in this research, with logical reasoning, a comparative comparison of case examples of collective open space in Islamic architecture of Iran was done, and after examining and comparing the effective components extracted from the application of fundamental principles in the examples based on the teachings of The wisdom of Islamic architecture, and its compatibility with the issues of sociability of collective-ritual spaces from the perspective of anthropology and the transcendental wisdom of epistemology, the effective components of the subject were achieved, since Linda Grote believes that the inclusion of "logical reasoning" in the form of a strategic approach for It is research, and basically, logic and logical reasoning are the universal model of correctness testing, and the spirit of logic must be present in the components of all forms of research and not only in one type of it; In this research, an attempt was made to take into account the points extracted from the analyzes obtained in the collection of human knowledge, to produce components in which the promotion of sociability relies on the use of logic and logical reasoning in examining case examples. The issue is with logical and conceptual systems.

## *Research Background*

Based on the investigations, due to the importance of the issue of collective spaces and its dealing with cultural issues, researches have been conducted in this field that study these matters from various aspects. In the past, architecture was in the form of the center of the neighborhood and the squares and gathering centers. Nowadays, the revival of these centers seems necessary (Mir Mohammad Rezaei and Taftoti, 2015). The structure of the Islamic city, beyond the organic form, has lasting meanings and principles, in the city of the Islamic era with the influence of the religious utopia, one can observe the effects of allegory, but the visual similarity of the Islamic city is different from the allegory of cities in other societies (Labibzadeh and Hamzenejad, 2017). Dealing with the issue of recognizing the elements of semantic architecture in the design of the Iranian-Islamic art cultural center, in order to deeply understand Iranian concepts and patterns in an art cultural center, can be effective so that in addition to reviving the meaning in it, it can be achieved (Baluchi and Karimi, 1395). Also, the trend towards machine life and the widespread presence of vehicles and the separation of people from public spaces, as well as ignoring the social and cultural values hidden in public spaces, have caused some public spaces to lose their importance and role by presenting and defining activities. appropriate audiences, it becomes possible to explain the functions of sociability; which is collective spaces and social connections that are formed through it (Waziri and Mamar 2016). The emergence of mystical themes, purity, transparency, self-evolution away from individual egos through the use of natural elements in the space, as well as the creation of abstract and refined arrays in the geometric and mathematical proportions of the presentations and the use of Islamic motifs with facing lines. The height and the combination of volumes with golden proportions and hierarchy while preserving and respecting the human scale adds to

the authority and grandeur of its architectural space (Mansouri & Labibzadeh, 2020). In order to emphasize the importance of cultural centers based on the shared cultural foundations of Iran and Japan, he has discussed the reasons for the mutual desire to expand cultural exchanges between the two countries, and by thinking deeply about the culture of the two countries, he has achieved architectural foundations, which by addressing this issue emphasizes the importance Cultural communities in various geographical areas emphasize the commonalities of Japan and Iran (Nematipour et al., 2015). The concepts of Islamic wisdom consist of three fundamental and basic concepts, which consist of multiplicity to unity, appearance to interiority, and the course of transcendental goals of life (Noghrehkar, 2018). In the wisdom of Islamic art, the tools of knowledge and its methods and their epistemological results are not unique. Rather, all the tools and methods, along with each other, can bring man from the level of existence to its superior depth, and from the material dimensions of human existence to his intellectual and spiritual dimensions (Noghrehkar, 2018). In the wisdom of Islamic art, the topic of anthropology is important, because it is the most complete manifestation of God and His absolute caliph in all existence. His relationship with all horizons is like his relationship with his body (Noghrehkar, 2018). Examining what is possible in achieving the identity and sense of Islamic-Iranian place in the contemporary urban design of Iran in the urban body by examining the way of life and culture of its people (Sadeghi, 2012). The effective components in the visual perceptions of the audience in communicating and interacting with urban landscapes and citizens are made possible by knowing how the psychological behavioral patterns and mental reactions of the citizens are possible (Naqibi-Rad and Heydarnetaj, 2013). Identifying the architectural patterns of Iran and how to use modern technologies in the construction of new buildings with original patterns of Iranian architecture makes a significant contribution to contemporary Islamic architecture, which has led some Iranian architects to use past architectural patterns along with styles and New technologies are emerging in today's world of architecture (Abbaspour and Zarin, 2016). As it was said, the issues of collective space as well as the improvement and promotion of social interactions based on cultural principles have been addressed from various angles in various researches; But what is considered are the effective components in promoting social interactions based on the cultural values and Islamic religion of the people of Iran, which are important in holding social activities from the perspective of the wisdom of Islamic architecture, which has not been addressed in any research. and in this research, by comparing the effective components in the Islamic architecture of the communal ritual examples of Iran based on the fundamental principles and concepts in the wisdom of Islamic architecture, the effective components in promoting the social interactions of the collective spaces in the cultural-ritual ceremonies of the people have been extracted and To find out how to design architecture based on the teachings of Islamic architectural wisdom, collective-ritual spaces, a comparative comparison of anthropological topics and transcendental wisdom, the topic of epistemology from the wisdom of Islamic architecture and art through a case study in Iran, in order to achieve the goals to be effectively applied, why this issue has not been studied as a strategic issue in any research. Due to the nature of the research, the major part of the literature on the subject has been discussed during the research and continued discussion.

### The Theoretical Foundation of the Research

*Definition of culture, national and religious culture*

There are many definitions of culture, including two general (Taylor's definition) and specific (Boas's definition) notions of culture, which Taylor considers "culture to be an expression of the whole human life and acquired" (Faruzandeh and Talabi, 2010). Boas believed in cultural relativism. In his opinion, "every culture has a special style that shows itself through language, beliefs, cus-

toms, as well as art and...", and Durkheim believed in a kind of "cultural region" (Danshpour and Chahrchchian, 2006). The destruction of the concept of culture that existed in the first applications of this concept and was accompanied by a kind of fundamentalism and the "myth of roots" that was assumed for every pure culture, was a necessary stage, and made semantic progress possible. In this way, they were able to reveal the communication aspect of all cultures (Kalantari, 2009). Among the various cultural resources that influence the human mind or its content, i.e. human culture, urban cultural spaces are very important (Altman, 2012). In case of unpleasant or abnormal behaviors, the best and easiest way to change such social behaviors of people are urban cultural spaces such as theaters, parks, cultural centers (Akbari, 2017).

*Ritual and tradition and its relationship with the collective atmosphere of cultural-ritual ceremonies*

In one of the important classifications, rituals are divided into two main categories: "ritu-  als of ceremony" and "reinforcement rituals", the second type of rituals are usually aimed at nature or the whole society. The purpose of this group of rituals is to strengthen or consoli- date processes that are necessary for the survival of the society or act to reaffirm the society's adherence to certain values and beliefs (Marcus, 1992). Some rituals are based only on myths and legendary ideas, and others can be said to be based on historical events (Mitchell, 1996). Rituals based on myths are a representation of the ideas of the primitive mind, while rituals based on historical events are behaviors that occurred outside of the mind and in the historical social life of society and were witnessed by people (Sabri et al., 2010). Contrary to logical time, mythological time takes on a special and mysterious quality at every moment of time due to the occurrence of a special ritual incident or religious event, which distinguishes that partic- ular moment from other moments (Kamal, 2010). In performing each of these ceremonies, the human body and objects are used with special skill and mastery, such as: breaststroke, palm rotation, chainsaw. During the ceremony, people have "interaction" or mutual influence, and such ceremonies often intensify these interactions, and sometimes the whole ceremony re- volves around the same symbolic element, such as: the cross, the flag, and the palm, because a ritual ceremony is often a special place of communication and It has links, such as Muharram, which are common examples of rituals (Taylor, 1985).

*Public open space and social environment*

In some examples, the device used to highlight the building in the urban space is the same, and the surrounding environment is leveled to a large extent, and no other building attracts attention other than the one in question (Helenbrand, 2013). The main goal in the architectural design of collective and cultural spaces is to achieve its social and psychological effects in bringing humans and nature closer to each other (Kirimi Azar and Yazdi, 2013). In fact, the urban landscape in today's world is considered to be a living and dynamic entity that is influenced by humans and their way of life, on the other hand, it is subject to its shape and the association of memories (Mansouri, 2010). Sustainable communities are places where people want to live -now and in the future- which meet the diverse needs of current and future residents, are sensitive to the environment, and contribute to creating a high quality of life (Colantonio & Dixon, 2011).

*Social interactions and collective memory*

Collective spaces are places to meet different human needs, social communication and inter- actions, exchange of ideas and information, and as a result the emergence of social networks, these spaces have different dimensions with criteria for evaluation, which include: sociability, ac- tivity and use, access and communication, mental image, and comfort (Danshpour and Chaharchian, 2008). In order to create an effective connection between the urban environment and the user, the

urban space must respond to a wide network of human needs, and the more comprehensive and complete this response is, the more the citizens' sense of belonging to collective spaces increases, and these spaces become places. are places that have special meaning and value for people (Latafati and Ansari, 2018). As we know, the meaning depends on the spatial form and quality, but at the same time, it also depends on the culture, character, position, experience and destination of the observer (Lynch, 2016). Its physical spatial structure is also more specific to things that happen in connection with a place full of memories; Such as preserving and revitalizing historical monuments, forming and developing places with collective use by strengthening collective memories and preserving their names (Mir Moqtadai, 2018).

*Anthropological discussion in Islamic architecture of collective space*

Man has two potential (forced) and actual (optional) fields. which, from the perspective of theorists and architects of transcendental and Islamic wisdom, is potential human creation with two natural and instinctive dimensions (sublime and animal), and the actual emergence in the natural or instinctive field at every moment (Noghrehkar, 2018); And the classification of the human soul is the layers of the human realm from Imam Ali's (AS) point of view into four categories: the plant-name soul, the animal-sensory soul, the holy speaking soul, and the divine soul (Noghrehkar, 2018). Human beings are always accompanied by their four souls in any environment they are placed in, and it is natural to seek to respond to them depending on the nature and meanings of each of their souls; Considering that the Islamic architecture of the collective space is planned and proposed as an open space in order to promote social interactions for humans, then the knowledge of humans and their layers of existence is very important in this matter, because this knowledge of the human soul and investigation How to respond to his needs is what can open the way for research in order to better adapt existing problems and solutions. For this purpose, in this research, the response of the human population was investigated in this area:

| Table 1: Responsiveness of Islamic architecture of collective open space and social interactions to four populations in anthropology (source: authors) | | | |
|---|---|---|---|
| Social interactions and collective memory in collective open space | Culture and rituals in Islamic architecture | The dual properties of the human soul | human population |
| The possibility of creating a collective memory and belonging to a sense of place by establishing social interactions and transferring diverse cultural experiences in order to take advantage of the existing capacities in each geographical region. (various food raw materials and different geographical capacities) | The opportunity to get to know, recognize and learn the various methods of culture and rituals of other cities in responding to Nabati's soul (Cooking a variety of offerings in each geographical region) | Increase and decrease in growth (stimulation versus environmental events) | botanical name ego |
| Meeting with people of the same religion and religion, the possibility of creating a connection and forming a collective memory and belonging to a place from the coordinated ceremony in a communal space. | Seeing traditions in rituals and hearing sounds (drums and cymbals in Ashurai culture), smelling (perfumes or pewter) and sometimes touching in religious environments (shrine in the shrine) | Self-pleasure and discomfort (stimulation versus environmental events) | Animal sensual ego |
| Transfer of science and knowledge and personal experiences in social interactions, the opportunity to adopt and revise collective behaviors with collective thinking and needs assessment, creating a spirit of tolerance and tolerance among fellow human beings, mentioning and reminding the impact of social interactions on the personality development of community members. | The opportunity to wake up and learn by participating in religious ceremonies, the possibility of thinking and improving knowledge and culture in cultural ceremonies, creating a spirit of tolerance and tolerance (Islamic culture), mentioning human values and reminding moral virtues. | Wisdom and decency (judgment and understanding of good and bad, beauty and ugliness and tendency towards goodness and beauty) | Holy speaking ego |
| Solidarity and unity in the social relationship between the same species and creating motivation in the direction of patience in the face of hardship and the possibility of mutual thinking in order to know efficient solutions in various problems or conditions in order to create satisfaction with oneself and the world. | The possibility of getting to know and familiar with the religious culture mixed with the solutions of patience in the face of difficulties and enjoyment in hardship and survival in death (Islam: Patience and submission to God's will in Ashura culture) | Satisfaction and submission (satisfaction with one's existence and the world and submission to the laws of existence) | The divine ego |

### *Comparative Study of Case Examples Based on Fundamental Principles and Concepts in Islamic Architectural Wisdom*

It seems that among the Islamic concepts, three fundamental concepts are considered as a foundation. that art and architecture use different ways to express those concepts physically, which include concepts: the process of multiplicity to unity, the process from the exterior to the interior, the process to the transcendental goals of life (Noghrehkar, 2018); For this purpose, in the study of case examples: "Amir Chakhmaq Takiya Social Square of Yazd" which was chosen because of the existence of a collective open space in front of Takiya with the purpose of holding religious-Islamic gatherings, "Tikieh Dolat" due to its focus on circular open space and Focusing on the community and emphasizing social interactions in the Ashura religious ceremony, "Naqsh Jahan Social Square of Isfahan" was chosen and logically analyzed due to the open space of collective and cultural interactions and the place of holding national and religious rituals in cultural and religious events. Then, a comparative study of a case study was conducted based on the fundamental principles and concepts that were presented in the book Master of Silver Work from the perspective of Islamic architectural wisdom; In the following, firstly, the study table of the case samples is briefly presented, and then the comparative examination table of the samples with basic principles and concepts is given:

| Table 2: Findings of the study of case studies and examples of the topic (source: authors) | |
|---|---|
| Components | case study |
| + It connects people's communication in the urban space.<br>+ Placement has been made in the main square of the city and the focus point.<br>+ Takiye includes closed space (Tekiye building) and open space (Roo-Rooi Square and the venue for Ashura palm turning ceremony and Tazia).<br>+ The facade of the building has Iranian-Islamic tiling decorations.<br>+ It has a purposeful structure, placement of spaces around the core or the main center, integrity and fluidity<br>+ Balance and symmetry are evident in the physical structure of support.<br>+ Geometric and golden proportions can be seen in length and width measurements and heights.<br>+ It has unityism at the same time as there is plurality. (the completeness of the part and the completeness of the whole) Completeness and certainty can be seen in its orderliness and beauty.<br>+ It is the main center of public gathering to hold national and religious ceremonies of the people of Yazd.<br>+ It has been used as a government field in the past.<br>+ It has defined hierarchies and appropriate and diverse uses in the square walls<br>+ It is possible to connect with the surrounding open spaces.<br>+ Clarity and visibility and the ability to identify the field from a distance due to proper orientation<br>+ Participatory use of urban space: Audiences come to the square to visit, shop, have fun, hold religious ceremonies, etc.<br>+ There is the possibility of sociability and the ability to control the population in it<br>+ The space, while being meaningful, has the following characteristics: evocative, sense of excitement, life and movement. (Friendly and pleasant environment)<br>+ The functions and applications around the square (such as six windbreaks, traditional bazaar, etc.) have turned the square into a lively and dynamic space. | Takiye and Amir Chakhmaq Square, Yazd   |
| + It has an architectural similarity to the largest theater and royal theater in England named Royal Albert<br>+ It is used as a center for holding religious ceremonies, reciting prayers, and offering prayers.<br>+ Its wide space caused the reciting ceremony of Abbas Abad's Takiye to be moved to Daulat's Tekiye.<br>+ The structure of the roof is curved and rotating<br>+ The use of light and white color is visible through bricks<br>+ The general shape of the building is an octagonal prism from the outside and a complete cylinder with a middle diameter of 60 meters from the inside.<br>+ It has an open central courtyard and a central altar for the purpose of holding tazee ceremonies in the open air<br>+ It has three separate active entrances from different directions in order to control the crowd and organize entry and exit<br>+ Buildings and walls around the central space are covered with Iranian-Islamic bricks and tiles. | The communal-ritual space of Tekeh Dolat, Tehran  |
| + Creating a point of gravity in the southern part of the square in order to emphasize the religious dimension of mosques and the government use of Aali Qapu<br>+ Separation of the economic aspect of the square from other religious and government uses by creating a spatial distance<br>+ The sociability capacity of the social square according to ritual needs in different days, in order to form group gatherings and hold national and religious rituals<br>+ Emphasis on centralization with intersecting axes and the creation of a water basin and paths leading to the center of the social square<br>+ Organization of the spatial movement of pedestrians and passengers based on defined pivots and nested and separate bifurcations<br>+ Arrangement of perspectives based on emphasizing the importance of the four main buildings of Sheikh Lotfollah Mosque, Isfahan Jame Mosque, Aali Qapu Palace (the state of the blessed house of Naqsh Jahan), Bazaar and Qaysarieh Square on the four sides around the square<br>+ Defined motion circulation of the audience and passers-by in order to move regularly while responding to various aspects of social needs<br>+ The independence of the defined uses of the square while its unity through the creation of a social square<br>+ Compliance with the principle of geometric and mathematical proportion in the dimensions of the square as well as in the views of the portico of the market<br>+ Creating the second floor portico in order to create spatial proportions in order to emphasize the physical unity of the surrounding walls<br>+ The importance of spatial hierarchy and displaying the hierarchy of the entrance of Jame Mosque with the south side of Naqsh Jahan square | Naqsh Jahan Social Square, Isfahan   |

| Table 3: Comparative study of the case examples of the subject based on the fundamental principles and concepts of the master of silver work in the wisdom of Islamic architecture (source: authors) | | | | |
|---|---|---|---|---|
| Naqsh Jahan Social Square, Isfahan | The collective-ritual space of the government's support, Tehran | Tekeh Amir Chakhmakh Social Square, Yazd | Basic principles | Concepts of Islamic architectural wisdom |
| Cross axes centered on the field  | Central revolving courtyard and centripetal porticoes  | Establishment and concentration in the center of the city square  | + The principle of centralism | The concept of progress from multiplicity to unity (the important slogan of monotheism and godliness) |
| Organization of motion circulation with spatially determining axes  | Main entrance axis with emphasis on invitation  | Being indicative of the longitudinal axis and emphasizing the movement towards leaning  | + The principle of spatial orientation | |
| Step-by-step entry of the audience to the Grand Mosque with a defined hierarchy  | Moving into the space from the portico path based on the movement circulation of ritual ceremonies  | The movement of the audience from the open space arena to the interior is based on the organization of the spatial hierarchy  | + Principle of classification (spatial hierarchy) | |
| The independence of each of the 4 buildings around the square in the same unity through the square  | Organizing independent spaces around the main center and establishing communication through porticoes  | The independence of support and the spaces around the square in the same unity through the social square  | + The principle of independence of spaces while their unity | |
| Separation of the movement path of man and the tree with specific axes and two belts nested all around the field  | Rotational motion circulation according to the tradition of holding rituals  | Centrism and circular motion circulation of ritual categories  | + The principle of organization of movement in space | |
| Emergence of the concepts of authority and greatness inside the urban porches of the social center  | Emergence of internal concepts of centralism and independence while external unity  | The simplicity of the inner space despite the decorations on the exterior  | + The principle of the outside, the manifestation of the inside | |
| Compatibility and flexibility of the spatial body of the design in line with the defined environmental uses  | The revolving body of the building fits the concepts and traditions of holding religious rituals  | Defining the spatial body according to the ritual use for placing the handles in front of the support  | + The principle of the body of the building, the manifestation of the concept and function | |
| The presence of horizontal elements in the view of the buildings around the square  | The unity of the surrounding revolving wall at the same time as the plurality of porticoes and the unity of the dome roof  | Manifesting the concepts of order and emphasis on unity with centripetal regular geometric shapes  | + The principle of moving from spatial geometry in transit spaces of the city to inner geometry in presence spaces | |

| Naqsh Jahan Social Square, Isfahan | The collective-ritual space of the government's support, Tehran | Tekeh Amir Chakhmakh Social Square, Yazd | Basic principles | Concepts of Islamic architectural wisdom |
|---|---|---|---|---|
| Table 3: Comparative study of the case examples of the subject based on the fundamental principles and concepts of the master of silver work in the wisdom of Islamic architecture (source: authors) | | | | |
| Simple and elegant illustration with slim designs in the front of the market and the facades of the buildings around the square  | The singleness of the material elements in the arrays at the same time conveys the concept of unity and monotheism from the outside to the inside according to the plurality of arches in the same unity.  | me use of geometry and abstract arrays in the facade and arches abstracts the audience's mental concepts.  | + The principle of truncated abstraction in arrays | The concept of going from the outside to the inside (an important slogan of resurrection in Islam) |
| The development of the facade of the Naqsh Jahan House of the Noble House (Al Qapu Palace) in order to emphasize the concept of the building's importance and index.  | Associating the concept of sociability with the creation of rotating forms  | Inducing the concepts of authority and greatness with golden proportions in the facade  | + The principle of conceptualism in views | |
| The formation of the Jame Mosque based on the direction of Qibla and the creation of an angle between the entrance of the Jame Mosque and the south side of Naqsh Jahan Square | The rotating formation of interior spaces based on the use of porticoes and the central courtyard | Organization of the plan based on the use and needs of support and the formation of the facade based on the internal relations of the spaces | + The principle of the importance of interior space on the mass of the building | |
| Arrangement of perspectives based on emphasizing the importance of 4 main buildings around the square  | The suitability of the view and the sequence of the view of the porticoes are in accordance with the invitation and sociability of the audience of the environment  | Unitarianism at the same time as there is plurality in the proportions of the urban facade  | + The principle of organization | |
| Arrangement of movement axes with natural elements of water and green space in the square  | Manifesting the concepts of natural elements such as the design of trees and natural flowers and the concepts of horizons in the arrays of the exterior  | Arrangement of the central open space with natural elements and trees in addition to emphasizing the element of water and reflecting clarity and purity in religious concepts | + The principle of complementary interaction Between architecture and nature | |

| Table 3: Comparative study of the case examples of the subject based on the fundamental principles and concepts of the master of silver work in the wisdom of Islamic architecture (source: authors) | | | | |
|---|---|---|---|---|
| Naqsh Jahan Social Square, Isfahan | The collective-ritual space of the government's support, Tehran | Tekeh Amir Chakhmakh Social Square, Yazd | Basic principles | Concepts of Islamic architectural wisdom |
| Implementation of facades of square porticos in accordance with geometrical proportions and based on structural technical principles  | The appearance of the technical achievements of the structure in covering the dome-shaped roof of the central space in the design and implementation of the structure based on engineering principles in accordance with the progress of time  | Detailed and engineered execution of all facade elements based on structural and technical principles  | + structural goals: Compliance with the total technical and engineering achievements in the plan and building implementation | The concept of going to the sublime goals of life (The important motto of monotheism, godliness and resurrection) |
| The sociability of the social arena due to the capacity to respond to multiple cultural, religious, governmental, and economic demands  | The possibility of the effectiveness of the design in a variety of ways to hold different rituals and to emphasize the stability of the presence of the audience in the space with central proportions and to provide sociability for the users of the environment. | A flexible and sociable collective space with various goals of national and religious rituals  | + Practical goals Multiplicity in function (flexibility Operational) | |
| The use of abstract arrays in the appearance and upward Islamic motifs in the decorations, manifests mystical concepts and themes through the process of face to meaning. | Using the apparent plurality of arches in the same sense of unity and centrality in order to bring together valuable Islamic themes such as monotheism and holy unity. | The use of material attractions, proportion of sizes and unmarried body building, in order to convey aesthetic goals | + Aesthetic goals: Using positive decorations | |
| Preserving the principles and concepts of Islamic architecture in the many facades of the square without repeating or imitating each other  | Maintaining the principles and standards of Islamic architectural design, away from meaningless repetition, by creating innovation in facade proportions and arrays  | The sequence of the overall face of the support portico by creating diversity in the arrays of each face while maintaining geometric proportions  | + Objectives of identification: The principle of meritorious innovation by maintaining principles and avoiding blind imitation | |
| Preservation of the view of the building arrays at night with the reflection of the illumination of the facade of the square in the central pond of the square, the display and manifestation of the concepts of purity, transparency and honesty from the arrays of Tanzih and the continuity of its manifestation even in the darkness of the night, expressing mystical concepts in human values.  | Taking advantage of the principles and adhering to the original values of Islamic ethics in the formation of the functional program and the physical space of Takiya in the direction of the emergence of high and orderly strategies in the creation of a collective-ritual space with Islamic rules in order to manifest the practical wisdom of Islam and promote the audience. To hold rituals with the principles of faith and eloquent Islamic approaches | The formation and appropriation of communal-ritual space through physical messages from the symbols, signs and pillars of Islamic architecture, in order to invite and attend the audience and convey the values of Islamic scientific wisdom in holding religious rituals in the path of faith and refinement. A breath away from individual egos | + Perfectionist goals: the principle of the effect of refining the architect's ego in architecture (the architect's inspiration from the rational ego and negation of the inspirations of the animal ego) | |

### *Comparative Comparison of Case Examples Based on the School of Ttranscendental Islamic wisdom in the Discussion of Epistemology*

From the point of view of Islamic sages, the means of knowledge, its methods and their epistemic results are not unique and have a long structure. Rather, all the tools and methods, along with each other, can bring man from the level of existence to its superior depth, and from the material dimensions of human existence to the intellectual and spiritual dimension; In the same way, the beauties are not one-dimensional and unique in existence, but according to the level of existence, from the surface to the depth, there are different types, from material beauty to reasonable beauty, and divine beauty, and superior beauty, from the outer to the inner, and from the material. It can include the spiritual and the spiritual (Noghrehkar, 2018). For this purpose, the discussion of epistemology from the perspective of the school of transcendental Islamic wisdom plays a significant role in the Islamic architecture of spaces, and its epistemological result includes a close relationship with the audience of the collective space because it is the examination of the means of cognition and its methods that help the audience in understanding the subject and social interactions. he does. In the following, we will do a comparative analysis of case examples based on the transcendental wisdom school in the epistemology discussion:

| Table 4: Comparative study of case examples based on the doctrine of transcendental Islamic wisdom in epistemology (source: authors) | | | | | |
|---|---|---|---|---|---|
| Naqsh Jahan Social Square, Isfahan | The collective-ritual space of the government's support, Tehran | Tekeh Amir Chakhmaq Social Square, Yazd | Components | | Doctrine from the epistemological dimension |
| Collective open space and create opportunities for the audience to move and respond to the sense of curiosity in order to know the environment and the body around the support in different angles. | The movement of mourning bands of moving audience around the central space of the support, and the appearance of the archway and the outer body of the different aspects of the support in different places and angles of view. | Face-to-face science through mass presence and religious ceremonies, the ability to understand the manifestation of Islamic tradition in the form of concepts emerged through the body, relying on the senses of the audience. | * Moving human and moving point of view (sense recognition tool) | Architectural geometries | Islamic transcendental wisdom from the point of view of tools and ways of knowing |
| The movement of pedestrians and pedestrians from around the social square and the point of view of each building in a fixed position around the square | The fusion of reason and intuition of the audience towards monotheism and unity with an emphasis on centralism and rotating forms, and recognizing the tradition of the innocents by attending the atmosphere of the ceremony | The beauty of geometric proportions and the course of spatial geometry to the course of soul and reasoning and thinking when observing geometric proportions | * Fixed human and moving point of view * Moving human and fixed point of view (both tools of rational cognition) | | |
| A fixed point of view and a person focusing with a fixed view in the mosque of Imam and Sheikh Lotfollah for the purpose of prayer and prayer | The alternation of the surrounding porticoes in one point of human vision without the need to move the eye, emphasizing the longitudinal course of the structure of human knowledge and excellence, while focusing on the centrality and unity of purpose. | Focusing on the secret and need and the presence of the heart by placing in the atmosphere of reliance in order to offer prayers and perform religious-ritual ceremonies. | * Fixed man and fixed point of view (tool for recognizing the presence of the heart) | | |

### Discussion and Analysis of Findings

After examining the topic and adapting the concepts and principles of Islamic art wisdom with case studies of research cases, and rereading its effective criteria and components through adaptive analysis in the topics of anthropology and epistemology of transcendental wisdom, and organizing the tools of cognition in levels Different in the case study of the subject, the effective components of the research were divided into three groups; First, the relationship of each topic with each other was determined in the table, and finally, it was presented with research examples. And the solutions resulting from the effect of the components of the subject by separating the results of each building were presented in a classified form in the form of strategic models. For this purpose, human existential layers were classified with the process of knowledge tools in transcendental wisdom through human beings, and during that, each of the fundamental principles and concepts in Islamic wisdom that was studied in each of the examples, Its classification was organized and how their topics were related to each other was determined. In the following, the solutions resulting from each component in each of the examples of the research were mentioned separately. Below is the related table:

| Table 5: Rereading and organizing the effective components based on the wisdom of Islamic architecture and art in the design of collective-ritual spaces and explaining the relationship of each of its groups with each other and the resulting solutions in case examples (source: authors) | | | | |
|---|---|---|---|---|
| layers of human existence | | | | Sentence components of group 1 (according to the human population |
| The divine ego | Holy speaking ego | Animal sensual ego | botanical name ego | Group criteria 1 |
| Islamic transcendental wisdom from the point of view of tools and ways of knowing | | | | Sentence components of group 2 (Based on the school of Islamic wisdom) |
| * Fixed man and fixed point of view (tool for recognizing the presence of the heart | * Fixed human and moving point of view * Moving human and fixed point of view (both tools of rational cognition) | | * Moving human and moving point of view (Sense recognition tool) | Group 2 criteria (separation based on human existential layers |
| Fundamental principles and concepts in the wisdom of Islamic art | | | | Sentence components of group 3 (Separated and organized based on human layers and Islamic school) 1 |
| + Principle of centrism (focus on unity) | + The principle of spatial orientation | + Principle of classification (spatial hierarchy) | | 1 |
| + The principle of independence of spaces while their unity (unity in multiplicity) | + The principle of truncated abstraction in arrays | + The principle of the body of the building, the manifestation of the concept and function | | 2 |
| + The principle of the outside, the manifestation of the inside | + The principle of conceptualism in views | + Aesthetic goals: using positive decorations | | 3 |
| + The principle of moving from the spatial geometry in the passing spaces of the city to the inner geometry in the presence spaces of architecture | + Structural goals: complying with the total technical and engineering achievements in the design and implementation of the building | + The principle of arranging perspectives | | 4 |
| + Identity goals: the principle of meritorious innovation by maintaining the principles and avoiding blind imitation | + The principle of organization of movement in space | + Principle of complementary interaction between architecture and nature | | 5 |
| + Perfectionist goals: the principle of the effect of refining the architect's ego in architecture (the architect's inspiration from the rational ego and negation of the inspirations of the animal ego) | + functional goals "multiplicity in function (functional flexibility) | + The principle of the importance of interior space on the mass of the building | | 6 |

| Table 5: Rereading and organizing the effective components based on the wisdom of Islamic architecture and art in the design of collective-ritual spaces and explaining the relationship of each of its groups with each other and the resulting solutions in case examples (source: authors) | | | |
|---|---|---|---|
| Solutions resulting from three groups of effective components from the perspective of architectural wisdom and Islamic art in research examples to improve sociability | | | Examples and case studies |
| Establishment and focus on centrality<br>+Independence of spaces in unity<br>+ The physical simplicity of the interior space<br>Manifesting the concepts of order and emphasis on unity with regular geometric shapes<br>+ Creating variety and sequence in facade arrays with geometric proportions<br>+ The formation of space with symbols, signs and elements of Islamic architecture to invite and convey the values of self-refining wisdom away from individual egos | + Indicating a motion circuit or axis in order to emphasize the main function<br>Centrism and rotary motion circulation<br>+ Geometric representation of abstract arrays in the view to abstract the audience's mental concepts<br>+ Using the golden proportion in the facade to induce the concepts of authority and greatness<br>Façade elements based on the structural and technical principles of precise and engineered implementation<br>Flexible and sociable collective space with various purposes of national and religious rituals | + Definition of movement organization with spatial hierarchy<br>+ Creation of an open spatial body suitable for collective and ritual use<br>+ Organization of the plan based on the needs assessment of collective-ritual use and the formation of the facade based on the internal relations of the spaces<br>+Unitarianism while there is a plurality in the proportions of the city view<br>+ Decorating the central open space with natural elements and emphasizing the element of water (bright reflection and purity)<br>+Using aesthetic material attractions, proportions and unmarried body building | Tekeh Amirchakhmaq Social Square, Yazd |
| + Centralism<br>+Organizing independent spaces around the main center<br>+ Transmitting the concept of unity and monotheism with the emergence of the principle of space independence in the same overall unity<br>+Maintaining the principles and standards of Islamic architectural design, away from meaningless repetition, by creating innovation in facade proportions and arrays<br>+ Promoting the audience to perform rituals with the principles of faith and eloquent Islamic approaches with the formation of a functional program and an orderly physical environment | + Singleness of material elements in arrays<br>+ Associating the concept of sociability with the creation of rotating forms and rotating motion circulation<br>+Emergence of technical achievements in the implementation of structures based on engineering principles appropriate to technology<br>+ Emphasis on sociability with efficiency and functional flexibility of the design<br>+ Inviting with an emphasis on a main entrance axis | + Moving into the space based on the movement circulation of the ritual ceremony<br>+ The revolving body of the building is in accordance with the traditions of holding rituals<br>The formation of internal spaces according to the function of the original space<br>+ Landscape proportion and landscape sequence appropriate for inviting and sociability<br>Manifestation of elements and natural design and global concepts in facade arrays | The communal-ritual space of Tekeh Dolat, Tehran |
| + centripetal cross pivoting<br>+ The independence of each part at the same time as the overall unity of the plan<br>+ Authority and greatness in the form and shape of the body<br>The presence of horizontal elements in the view of the buildings around the square<br>+Maintaining the principles and concepts of Islamic architecture in multiple views of the square without repeating or imitating each other<br>+ Maintaining the view of building arrays at night with lighting and reflection in the water<br>+ Showing and manifesting the concepts of purity, transparency and honesty with the manifestation of fine arrays | + Organization of movement circulation with spatial determining axes and separation of human and other vehicles<br>Single and fine illustration with slim upward lines<br>+ Indexing and emphasizing the importance of the whole concept consisting of single components<br>+ Implementation of geometric proportions in the facade and based on structural technical principles<br>+ Sociability capacity by responding to multiple cultural, religious, and economic functions | Hierarchy defined with phase entry<br>+Creating compatibility of users with physical flexibility<br>+ Orientation of space towards Qibla<br>+Organization of surrounding landscapes<br>+ Arranging movement axes with natural elements of water and greenery<br>+ The manifestation of mystical concepts and themes through the course of the form in the meaning of abstract arrays | Naqsh Jahan Social Square, Isfahan |

### *Conclusion*

The fundamental principles and concepts in the wisdom of architecture and Islamic art provide the researchers of this field with features that have been achieved over time by focusing on the rules and precise theorizing of architects, because according to the beliefs, the culture of the people is shaped and estimating how to respond to related issues based on basic needs assessments reduces the issue of duality and difference of opinion in the Islamic field. As it was pointed out during the research, the relationship between anthropological topics in the centers and collective open spaces where the national and religious rituals of Iranians were formed was important from the point of view that in the field of case studies and comparative studies It was based on logical reasoning about the importance of the sociability of the audience that this research was formed with the aim of improving it; Therefore, the identification of effective strategies and components in presenting design principles from this point of view was possible by knowing the layers of human being and his needs and the evolution of his personality and internal organization. What happened next in order to create a connection between the assessed topics was the cognitive tools of the school of epistemology from the perspective of transcendental human wisdom, in which the process of identifying the mind of a human being through the senses, rationality and the presence of the heart in different fixed and moving angles in relation to the audience and The surrounding environment in each of the examples has been manifested in a hierarchical manner, that each of the fundamental principles and concepts in the wisdom of architecture and Islamic art can be classified in the shadow of the tools of knowledge, in such a way that the relationship of the subject in terms of criteria and components various can be deduced through comparative content analysis and logical reasoning and resulted in extracting the design principles and solutions of the research subject in order to manifest the ruling principles in the sociability of collective spaces through the points that are relied on in each of the examples including the social arena Amir Chakhmaq of Yazd, the community-ritual atmosphere of the government of Tehran, the Naqsh Jahan social arena of Isfahan existed. The organization of movement circulation with an emphasis on index orientation while inviting and promoting social functions, including the creation of index points and practical gathering space with an emphasis on the centrality of monotheistic values reflecting the concept of unity in the Islamic religion, is one of the points of effectiveness that if Through the association of the unity of parts and elements while maintaining spatial independence, it can be effective, as well as the emergence of mystical themes, purity, transparency, self-evolution away from individual egos through the use of natural elements in space and also creating Simple and refined arrays in the geometric and mathematical proportions of the presentations and the use of Islamic motifs with upward lines and the combination of volumes with golden and hierarchical proportions while preserving and respecting the human scale add to the authority and grandeur of its architectural space. As the harmony of uses is the result of functional flexibility in the whole consisting of components along with the organization of perspectives and paying attention to the tradition of rituals and its external and physical function for the advancement of people in order to maintain the collective space and the sustainability of the sociability of the place, it has become effective. It is derived from the proportional relationship between the concepts of anthropology, the epistemology of transcendental wisdom and the fundamental principles in the architecture of Islamic wisdom. For this purpose, the comparative studies extracted the criteria of the concepts presented in the characteristics in the case study of collective-ritual examples, in addition to the semantic dimensions of the components with physical-spatial aspects in a comprehensible way for the users, which through the use of its strategies in the form of The specific solutions presented can be fruitful and open the way for improving the sociability of collective-ritual spaces.

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