

Landscape Perception Indicators Based on Islamic Aesthetics; Case Study: Qazvin, Iran

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Abstract

The importance of aesthetics in perceiving urban landscape seems to be essential. Usually, the subject of aesthetics holds a position in ideas and viewpoints of philosophers. In Islamic perspective all the creatures are beautiful due to their connection to the creator of all the beauties. In this research, the subjects such as landscape perception, landscape aesthetics, perception in viewpoints of Iranian Islamic philosophers, and aesthetics in both Holly Quran and ideas of Iranian Islamic philosophers are surveyed and analyzed.

The purpose of this paper is to obtain some answers for these two questions: what are aesthetics indicators in Islamic view? How is landscape perception explained by these indicators? This is descriptive-analytic research. The findings are that Islamic philosophers consider absolute beauty, God, as origin of all the beauties. On the other hand, Islamic philosophers are believed to be holistic, using atomistic approaches. In addition, consideration to both subjective and objective axes in landscape aesthetics is thought to be necessary. Finally, indicators and components of Islamic aesthetics are introduced and landscape perception is provided based on these indicators in two fields of sensory-visual and social perceptions according to three perceptual fields of sensory, imaginary, and rational.

Keywords: Landscape perception, Aesthetics indicators, Islamic aesthetics, Iran, Qazvin

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1. Introduction

Landscape is a complicated subject. Thus, perception in landscape is related to several issues. Nowadays, in different societies, urban landscape problems have been emerged in various ways. Land and landscape are viewed as a whole in valuable works; as it is emphasized in European Landscape Convention [1] and ELC guidelines. Loss of effective and beautiful landscape quality could be related to the factors including lack of subjects such as variety, naturalness, regional identity, and landscape quality [2]. Beauty is a significant issue in urban landscape. Discussion on Islamic aesthetics requires perception of Holy Quran and Islamic philosophers' viewpoints. Philosophical thoughts after appearance of Islam in Iran could be surveyed in four eras of Masha, Eshragh, Hekmat-e Mota'aliyeh and Contemporary. Categorization of viewpoints into holistic and atomistic seems to be useful in the subject and its conclusion. Islamic architecture considers the conflicts between internal and external spaces and hierarchy. Each internal space is a privacy place for attention to spirit while each external space is an exposure place for attention to appearance and form. By this criterion, in general meaning, art and artistry in Islamic civilization is worship and servitude and spiritual journeying from appearance and worldly matters toward spirit and inward affairs [3]. Islamic art in some ways displays divine beauty and perfection.

In Islamic view, the universe is in presence of God and there is no barrier for making him separated from his supplicant. Worshiper could raise his hand for praying whenever and wherever he wants [4]. Now it should be answered that what is position of aesthetics in urban landscape? As an ultimate reason for construction of appropriate landscape for human, it could be said that this action is a response to beauty seeking of human being while its fulfillment could lead to his mental and spiritual peace, reducing his worldly and earthen anxieties and as mentioned by philosophers it could pave the road for tolerating earthen life and separation from his essence [5]. What is perceived from divine orders is that universe beautiful picture is on loan in human hands. Empirical professions and crafts should be oriented toward prosperity and health of all human [6].

2. Methods

Consideration to epistemology helps proposal of key and fundamental questions. Thus, questions with contents of ontology, epistemology, and methodology could be posed. The purpose of this paper is to achieve answers for these two questions: 1- What are aesthetics indicators in Islamic view? 2- How would be landscape perception provided by these indicators?

The hypothesis in this paper is that aesthetics indicators in perception of Iranian-Islamic urban landscape are related to each other in all three fields of sensory, imaginary, and rational perceptions, while provide landscape perception by perfectionism and unificationism toward absolute beauty with being categorized in fields of sensory-visual and social perceptions. Finally, these indicators could be proposed applying to perception of Iranian-Islamic urban landscape. Generally, in aspect of anticipated results this is applied research. In terms of procedure, it is qualitative study using descriptive and analytic strategies.

3. Results

3.1. Landscape perception

Studies on landscape has had more volume and been academically more organized since 1970s. Having their own reasons, there are yet different tastes and styles on landscape perception. As an example, various tastes and styles in England, USA, Australia, and British Columbia could be addressed.

Table 1. Landscape different tastes (extracted from [7])

Landscape tastes	Items
English	Circular trees with bushy peak Green hills with moderate slope Nature change and its emergence like an art Disordered and slight appearance Application of local materials with Long-term use very wide and unique
American	dominant thought: bigger is the better Undecided turbulence Disgust to present tense, tendency to ideal past time and glorious future Existence of appropriate times for observation
Australian	Before mid 19 th century: making landscape domestic; landscapes like those in England Mid 19 th century: aesthetics value of stone structure in Sydney Port, botanical responses Late 19 th century: garden cities like Adelaide with wide streets, ceremonious squares, and extensive green belts Domination of petty bourgeoisie mentality, acknowledgments toward workmen, humiliation toward academic men and poets, strong interest in huge projects like Americans Similar to Australia
British Columbian	Destruction of forests like Australians, English flowers and trees bringing up Omission of native elements and reconstruction of house building like as Australian Challenge of tendency to huge projects since 1960s by neuromantic supporters of virgin nature and environment protection organizations

General released indicators on landscape perception in recent decades could be categorized as the following:

A: Visual and multisensorial perception indicators including visibility, visual and perceptive detractors, relationship between new interventions and context, multisensoriality, characterization and parameters for the analysis of preferences.

B: Social perception indicators including general and holistic, cultural, symbolic, and identity value, fruition, recreational value, ratified value, and social sensitivity [8].

Table 2. Proposed indicators for landscape perception [8].

Indicator	Category	DPSIR*	Scale	Use
1- Variety (or visual diversity)	Visual perception (characterization)	S	Regional, local	Frequently Applied
2- Landscape significance	Visual perception (characterization)	S	Regional	One case of application
3- Imageability	Visual perception (characterization)	S	Local	One case of application
4- Obstruction of view from viewpoints	Visual perception	I	Regional, local	Applied, reworking
5- Visibility of the sky at night and silence (Absence of pollution from lighting and noise)	Multisensorial perception	S	Regional	Proposal for experimentation
6- Fame, variation in time	Social perception, cultural/ identity value	S/I	Regional, local	Proposal for experimentation
7- Tranquillity	Social perception, fruitive value	S	Local	Applied
8- Amenity	Social perception, fruitive value	S	Regional, local	Applied

9- Landscape protection	Social sensitivity	R	National, regional, local	Applied
10- Tree canopy coverage	Visual perception	D	Local	Applied in environmental report, to be adapted

DPSIR: a framework proposed by European Environment Agency (EEA) which is used for description of interaction between society and environment while its components include D (Driving Forces), P (Pressures), S (States), I (Impacts), and R (Responses).

3.2. Landscape aesthetics

Aesthetics has broad range which its main part is related to sign and semantic subjects [9]. Four approaches introduced by Proteus in the field of perception and landscape aesthetics include humanists, empiricists, pragmatists, and planners. On his viewpoint, beautiful, health, and attractive land could be achieved by more optimistic attitude, if professionals act more generalist, more conservative, more active, and more holistic [10]. It seems that movement toward holistic approach to issues of this field is obvious and observable.

Table 3. Comparison of humanists, empiricists, pragmatists, and planners approaches in aesthetics and landscape perception (source: authors, extracted from [10]).

Approaches	Features	Holistic (deductive) Atomistic (inductive)
Humanists	Thoughtful, deep, and precise Anti-positivist Interpretative Individualistic Tendency to past time Application of traditional scientific methods	Holistic
Empiricists	Application of psychological methods Discussion on preference Study of different environmental variables Analysis of reactions	Atomistic
Pragmatists	Emphasis on values Existence of cultural background Legal or illegal influencing Stimulation of different categories of people for evaluation of their surrounding environment	Holistic/ atomistic
planners	Application of quality assessment methods Qualitative and quantitative categorization Expansion of communication among public, researchers, and planners	Holistic/ atomistic

Proposed theories on landscape aesthetics are as follows:

3.2.1. Habitat Theory

Development of this theory represents movement toward flat landscape without tree. Trees were measured for images preferences and their comparison. In 1980s, Orians studied in this field. Appleton's Prospect and Refuge Theory in 1970s is definitely one of the most important theories mentioned in landscape literature. This theory was based on habitat, information process, and John Dewey's

philosophy. Tendency to landscape perception is created by mutual effects of human and landscape on each other, meaning that beauty is inherently neither within object nor within viewer's eyes; but it is observed within the relationship between viewer and landscape. This theory was formed based on biological studies and synergy between human and animals' behavior [11]. Pleasure of landscape aesthetics is resulted by viewer's experience of desirable landscape according to his biological requirements. According to Prospect and Refuge Theory, capability for viewing without being viewed is significant. In the middle stage, environment capacity for ensuring acquisition of this resource causes aesthetics satisfaction [12].

3.2.2. Affective Theory

This theory represented another concept in 1990s and was posed by Ulrich which was related to relationship between human and landscape. This was psychological process based on contradiction between "like-dislike"; it was similar to the next studies posing "beautiful-ugly" and "desirable quality" [13]. Survey of aesthetics and emotional reactions requires interaction between human and environment [14].

3.2.3. Information Processing Theory

In 1980s, Stephen & Rachel Kaplan have played a role in justification of evolutionary-biological perception development in landscape aesthetics. Human's performance depends on information. A major part of this information has been offered by medium-less environment. Meanwhile, there are also signs, both verbal (e.g. name of street) and nonverbal [15]. Kaplan Model which was revived by Dewey's school of thoughts considered the relationship between human's experiences and environment. This model suggested that in confrontation with environment, human collect processed information and integrated them into intellectual cognitive maps. These maps encourage preferential tendency for specific landscape scenes for current and future interpretations of landscape experiences. Factors of complexity, legibility, secrets, and relationship were considered in Kaplan studies (as cited in [16]).

3.2.4. Tripartite Paradigm of Aesthetics

Stephen Bourassa, in 1980s and 1990s, proposed three aspects of biological, cultural, and individual in landscape perception. He founded his study, relating to perception of human's mind and behavior, based on development approached by a Russian psychologist called Vygotsky. This triple case refers to biological, cultural, and individual aesthetics experiences [17].

3.3. Perception from Islamic Philosophers' Viewpoint

Human possesses powers and senses by which becomes conscious about creatures and objects surrounding him. Whatever human could finds out by his external senses is observation, whilst those found out by internal senses are called conscience [18]. Islamic philosophers such as Aristitus believe that infant's spirit is like a clean and pure nature in the early days which has no patterns and pictures and could be flexible to patterns inserted into it. Sensory and partial perceptions are prioritized to rational perceptions. If partial perceptions do not exist, intellect could not percept generals. Thus, perceptions of human are generals which external senses play critical role in their perception [19]. Kenedy divides self power into "Hasseh", "Motevasseteh", and "Aagheleh". Hasseh refers to the same five senses which perceive form of sensibles but could not combine them. Motevasseteh or Mosavvareh power creates slight forms in mind without existence of substance. Aagheleh is the power that perceives forms of subjects incorporeal of shape and substance. In addition, it perceives bases for knowledges [20]. Farabi considers power as Ghaziyeh, Hasseh, Motekhayeleh, and Nategheh. Motekhayeleh analyzez forms of sensibles in

their nonexistence. Finally, comprehension could be achieved by Nategheh power and the difference between beautiful and ugly could be determined by this power [21].

In viewpoint of Ibn Sina, comprehension by intellect is stronger than sensible perception by senses; because intellect perceives the affair which is remaining and general while the relation between sense and sensible is not such this [22]. In his view, perception includes understanding of subjects' forms by sensory system and their abstraction from physical subject which is done by sensory and intellectual perception. Sensory perception is penetration of sensible things' form in senses while intellectual perception relies on fulfilment of rational within intellect. Intellectual perception refers to reception of generals and incorporeal concepts of subject and does not require sensory receive system [23].

Mullah Sadra describes perception in four types of emotion, fantasy, illusion, and intellection but in continue expresses that perception has three types as the worlds are of three types and illusion is intellect when is aborted and deviated from its position [24]. He believes in perceived subject and perceiving person. Therefore, perception of objects is nothing but existence of perceptual form for perceiving creature [25].

The world could be divided into three categories: 1- physical existence 2- imaginary existence 3- intellectual existence [26]. Levels of perception (for other than God) include sensory (by senses and through direct connection to external world), imaginary (remaining influence of sensory perception on mind), and intellectual (obtaining general meaning after perception of partial forms in mind).

In Mullah Sadra, levels of perception have conformity with levels of existence:

<u>Existence worlds</u>		<u>Levels of perception</u>
Glory (absolute incorporeality)	→	Intellectual perception
Heaven (imaginary incorporeality or imagination)	→	Imaginary perception
Earthly world (body and nature)	→	Sensory perception

(Adopted from [27])

Different degrees of perception and recognition of artistic creation can be expressed as the following:

Eshragh	→	inspiration, nature, intellect, and experience
Wisdom	→	nature, intellect, and experience
Knowledge	→	intellect and experience
Science	→	intellect [28]

Human's perception is not worldly and physical. Since our perceptual form does not have general features of material (division, nonconformity of big to small) so it is not worldly and physical [29]. Islamic philosophers consider some levels for perception: first, sensory which is obtained through senses and direct connection to external world; second, imaginary which is remaining of sensory perception influence on mind; and third, intellectual which means achievement to general meaning after perception of partial forms in mind [30].

3.4. Islamic aesthetics

Among terms related to aesthetics in Holly Quran the following could be mentioned: Jamal, Hosn, Zinat, Heliyeh, Bahjat, Zokhrof, Tasvil, Habbak, Tabraj, Nour, Laon, Ghadar with Hosn, Jamal, and Zinat having the most application. Hosan and Jamal in Holly Quran are always used in positive context while Zinat is applied in both positive and negative contexts (adoption from [31]). Aesthetics has hierarchy and it is addressed in Quran as a symbol and indication. Language of Quran in aesthetics atmosphere is language of typology and many aesthetics rules and hierarchies require semantic process [32]. Hosn is related to worldly and moral beauties, Jamal is about spiritual and non-physical issues, while Zinat is an added beauty which is effective on human perception of aesthetics. Factors and indications found in Quran for aesthetics include proportion and modification, orderly arrangement, variety and conflict, diversity of colors, and adornment from defects (adoption from [33]).

In addition, viewpoints of Islamic philosophers on aesthetics are categorized in the four following eras:

3.4.1. First era (Masha)

Farabi: In his viewpoint, Jamal, Baha, and Zinat in each creature is that the most superior possible existence is granted to him and achieve to existence possible perfections [34]. With thoughts related to utopia, he introduces beauty as perfection, addressing that beauty of every creature depends on quality of its superior and perfect existence. He believes that the more creature approaches to its end perfection, the more beautiful it is [35].

Ibn Sina: absolute Jamal and beauty belongs to God and everything's Jamal is originated by him. Everything's Jamal depends on its being in a way in which should be. Pleasure of each power is to achieve to its perfection [36]. He believes that animal soul of human, neighboring with rational soul, loves everything which has proper discipline, compilation and moderation. Love to beauty, in animal soul is instinctive while it is intellectual in rational soul, basing on perception of beloved revelation and having more worthy system and more pleasant moderation.

He recognizes interest to beautiful appearance specific to animal or rational soul or combination of them. He believes that if it is related to only animal power, it would be defect but if related to rational power it is a mean for honor [37].

Abu Hayan Tohidi: His idea on aesthetic is near to Plato's one. Both of them believe that real beauty does not exist in this world and should be sought in the other world. But Tohidi is impressed by religious thoughts and verbal issues. In his view, therefore, concept of God is more dominant in comparison to other two concepts (human and world). He divides aesthetic into two categories: first is absolute aesthetic and intellect is the only way to achieve it. Second is physical aesthetic which could be perceived by senses and is relative aesthetic which depends on nature, taste, habit, and social custom. Despite this, physical beauty is emerged as special features in objects which include perfection and proportion among components [38].

Ibn Heisam: his ideas on aesthetic perception (in his time) terminated restrictions to eye and considered a share for mind. He believed that vision is perception of objects' appearance. But, in addition to visual sense there is an affair beyond it which is perceived by human. Quality of this perception is understanding of partial meanings existing in body and perceived after visual sense. Partial meanings include 22 types: light, color, distance, situation (spatial orientation), imagination (depth), figure, magnitude, connection, dispersion, number, movement, inertia, roughness, softness, transparency, turbidity, shadow, darkness, beauty, ugliness, homology and analogy [39].

Aesthetic is such that could be perceived by visual sense. But he recognizes all partial meanings existing in visual perception (except Hosn) as interfering in perception of elegance (Hosn) and aesthetic; therefore neither he considers aesthetic a 100 percent subjective matter nor a 100 percent objective issue. He describes different types of aesthetic perceived from observable subjects by eyes as the following:

- A) Sometimes human perceives aesthetic from presence of one of partial meanings in object's appearance.
- B) Sometimes perception of this aesthetic is available through perception of some of partial meanings in object's appearance.
- C) Sometimes perception of aesthetic is achieved by placing some meanings together within mind (not only by single meaning) [39]. His concluding idea on aesthetic could be proportion in visions)

3.4.2. Second era (Eshragh)

Imam Mohammad Ghazali: on his viewpoint, principle of Hosn and Jamal is proportion and everything which is appropriate represents Jamal of its world. Each Jamal, Hosn and proportion tangible in this world, is result of Jamal, Hosn and proportion of that world [40].

Sohrevardi: The first thing which Holly God created was shining diamond called intellect and granted this diamond three properties: recognition of God, recognition of self, and recognition of whom was absent so then became present. Hosn was developed from that property belonging to recognition of God, calling it “goodness”. The property belonging to recognition of self, created love which was called “affection”. And finally sadness which is also called “grief” from the property which belongs to whom was absent so then became present [41]. Jamal and Kamal are two of Hosn names. All the creatures spiritually and physically seek perfection and there is no creature which does not have tendency to Jamal and it is difficult to reach end Hosn which is everything’s desire because achieving Hosn is impossible unless through love [41]. Since Hosn is resulted by recognition of God by intellect and love is achieved by recognition of self by intellect, so Hosn is prior to love and love follows Hosn everywhere [42]. Similar to Plato, Sohrevardi explores principle of worldly aesthetic somewhere else.

3.4.3. Third era (Hekmat-e Mota’aliyeh)

Mullah Sadra: he knows God as source of absolute Jamal. For definition of true love, he states that achievement to absolute subject and most complete Jamal is the same absolute Jamal [43]. He recognizes originality for aesthetic. Mullah Sadra links aesthetics in virtual love to artistic aesthetics. In this aspect, he should be considered as the first philosopher in Islam or even in human history. He regards virtual love (love affairs) as result of affection to whom having pleasant appearance, appropriate parts, and beautiful feature [44]. In his viewpoint, human obtains aesthetics experience through observation or aesthetic situation. Then, he tries to enrich this experience so that more enjoy it. Artistic aesthetics provides grounds for sensual, virtual love (slight and tender love) and this love becomes fundamental to true love. Artistic achievements could absorb addressed person and internally indicate him truth and true beauties [44].

3.4.4. Fourth era (contemporary)

Tabatabaie: in his view, compatibility and compliance of desirable object with goal and target from which is expected [45]. So, natural beauties have roots in harmony and proportion. Hosn is existential affair while Ghobh (nastiness) is related to inexistence. Goodness and evil are two relative and additional properties which are in some cases constant and in other cases variable; like charity of wealth to deserving people which is Hosn and its dedication to non-deserving people which is Ghabih (nasty) [45]. The origin of aesthetic is Almighty God and his superior properties. Aesthetic is a gift to objects from God. Aesthetic is absolutely constant; although in practice, aesthetic finds relative meanings based on different conditions, customs, and societies but participles of beauty is constant and unchangeable. Therefore, according to aesthetic constant principles, output based on questionnaire and answer scale based on aesthetic constant principles could be reached having relative meaning and answers with different interpretations.

Allameh Jafari: in his view, relationship between truth and beauty is that between human life principle and its pleasuring quality. He describes four basic types of aesthetic including tangible, natural intangible, value rational (like justice), and absolute aesthetic [46]. Only value rational and absolute aesthetics are constant. According to his viewpoint, it should not be stopped in beautiful truth and be considered as final goal. Quad categorization for recognition of aesthetic within self existence includes rational aesthetic, tangible aesthetic, tangible aesthetic based on rational aesthetic, and rational aesthetic based on tangible aesthetic. First and second types are self existence aesthetic but third and fourth types are more obvious and comprehensible. It is this type of aesthetic in which we know old meaning of “why is this beautiful?” Allameh considers this quad categorization essential for recognition of self existence aesthetic and believes that there is no criterion for aesthetic and its definition without this categorization [46].

Motahhari: he believes that quiddity and nature of aesthetic is not recognized to anyone like quiddity of art. Therefore, it could not be defined as it is perceived but not described [47]. Art is a kind of aesthetic

and is a tendency in human spirit; a definition which observes aestheticism in human spiritual aspects and is placed alongside creativity, technicality, moral behaviors, and love [48]. In critics of Plato’s idea on definition of aesthetic which had stated “aesthetic is compatibility and harmony of components with the whole and if the whole and collection has appropriate components so it is aesthetic”, he wrote: “if this definition is right, the same proportion is supposed to be specific proportion which is not definable in aesthetic” [49]. In his view, it is not necessary to investigate whether aesthetic is absolute truth or relative one but there is definitely something called aesthetic in external world; if human perceive it or not. Types of aesthetic in Motahhari’s viewpoint include tangible, spiritual, and rational aesthetic.

Nasr: he considers aesthetic closely related to God and believes it is sacred affair which leads human to sacred areas. Aesthetic in order and harmony reflects absoluteness and aesthetic in spirituality and mysteriousness represents limitlessness and seeks perfection [50]. Harmony and order available in this world reflects aesthetic and original source of perfection, and aesthetic which is expressed in this world. Aesthetic is nothing but expression of Almighty God’s essence. In his idea, wisdom which is a tool for observing perception is integral to aesthetic. Wisdom which is originated by divine intellect represents order, mystery, and aesthetic of God. Therefore, beauty satisfies human wisdom and makes it full of believe, purifies his spirit, and grants unity to human which is result of theosophy. Nasr considers aesthetic both moral and intellectual.

Generally, doctrines could be divided into holistic and atomistic. Atomists consider recognition of phenomena as completed when they are decomposed.

Table 4. Islamic philosophers ideas about beauty (source: authors)

Philosophers	Era	Aesthetic equivalent	Aesthetic categorization	Points	Holistic	Atomistic
Farabi	9 th -10 th AD centuries	Perfection		The more creature approaches to its final perfection, the more beautiful it will be.	✓	
Ibn Sina	10 th -11 th AD centuries	Arrangement, formulation, and modification	Love to aesthetic, rational and instinctive	Animal and rational souls	✓	
Abu Hayan Tohidi	10 th -11 th AD centuries	Perfection and proportion of components	Physical, absolute	Intellect is the access to absolute aesthetic and sense is the way to achieve to physical (relative) aesthetic	✓	✓
Ibn Heisam	10 th -11 th AD centuries	proportion in visions	A combination of subjective and objective aesthetic	Partial factors including 22 factors	✓	✓
Ghazali	11 th -12 th AD centuries	proportion		Everything which is appropriate, represents Jamal of that world	✓	
Sohrevrdi	12 th AD century	Hosn		With belonging to perception of God,	✓	

Mullah Sadra	16 th -17 th AD centuries	The most perfect Jamal is God	Love and perception of Jamal, having hierarchy	Hosn is created Aesthetic originality/ connection of virtual love aesthetics to artistic aesthetics	✓
Tabatabaie	20 th AD century	Grant of God's benignity for objects/ Hosn: compatibility and compliance of object with goals expected from it	Categorization of possibility aesthetics to: Physical aesthetic, Imaginary aesthetic, Intellectual aesthetic	Hosn is existence-related affair and Ghobh (nastiness) is absence-related one/ aesthetic is completely constant but gets relative meaning in different conditions.	✓
Jafari	20 th AD century	Each useful art and fact as well as human following rational life and sublime perfection	- tangible - natural intangible Value -rational Absolute -aesthetic - tangible aesthetic - spiritual aesthetic - rational aesthetic	Value rational aesthetic (e.g. justice) and absolute aesthetic are stable	✓
Motahhari	20 th AD century			Spiritual aesthetic is the highest type of aesthetic/ aesthetic could not be defined as it is perceived but not described.	✓
Nasr	20 th -21 th AD centuries	Representation of Holly God	Both moral and rational aesthetic	Aesthetic is a sacred affair	✓

According to mentioned issues, the following results are obtained:

- The origin of all the beauties is absolute beauty namely God and the highest beauty is achievement to divine revelation and perfection.
- Aesthetic in this world expresses another world and God's beauty.
- Aesthetic absolutely exists and gets relative meaning in different conditions.
- Aesthetic is linked to human life and has divine due to religious instructions.
- Factors and symbols of aesthetic in Quran include proportion and modification, orderly arrangement, variety and conflict, variety of colors, and being free of defect.
- Generally, physical aesthetic could be considered as perfection and proportion among components.
- Islamic philosophers in Iran are generally holistic. Of course, some of them have entered to atomistic field by focusing on appearance and visual features of objects.

From the mentioned points, it is concluded that aesthetic has subjective and objective dimensions which consideration to both aspects seems to be necessary according to studies in Quran and Islamic philosophers' viewpoints. In addition, Islamic philosopher recognizes aesthetic of this world as an expression of absolute aesthetic, God, and effort to achieve perfection is recommended.

The following points are provided in order to propose indicators of landscape perception based on Islamic aesthetics:

- According to global experiences, categorization of landscape perception indicators into visual-sensory and social categories seems to be appropriate.
- As a conclusion for study of perception in Islamic philosophers' view, all of perceptual areas could be placed within three areas of sensory, imaginary, and intellectual fields.
- ❖ According to studies on Quran, Islamic philosophers' viewpoint, and global experiences on aesthetic, some indicators are introduced in sensory, imaginary, and intellectual areas as follows:
- In sensory perception, indicators of vision, nonexistence of pollution (visual, vocal, optical, and sensory), orderly arrangement, centrality, emphasis on important components (signals and symbols), appropriate vegetation (attention to fruitful trees), variety of colors, visual variety, convenient visual communication with surrounding environment, proportion of components and



Model 1. Central-radius model: landscape perception indicators based on Islamic aesthetics [source: authors]

modification are introduced.

- In imaginary perception, indicators of growth and perfection, paying attention to God, unity and integration are defined.
- Indicators of appropriate access, legibility, symbol (rate of fame), compatibility with goal (functional proportion), amenity, and peace are introduced.
- Consideration to both subjective and objective poles in landscape aesthetic perception seems necessary. In addition, it is recommended that different dimensions including education of landscape designer, planning, and implementation is considered for application of aesthetic indicators in Islamic urban landscape.

3.5. Case study

3.5.1. Case 1: Sabze Meydan (Azadi) Square- Qazvin

Sabze Meydan (Azadi) Square is the main square in Qazvin. In northern side of the square there are shops and banks, in eastern and western sides, shops are located while in southern part there is Chehelsotoun (Kolah Ferangi) building, Safavid era palace and its surrounding buildings. One of the importance factors for this building is being located in historical and cultural area of the city and being as a place to pass leisure time.



Fig 2. Centerai area of Sabzeh Meydan



Fig 1. Sabzeh Meydan



Fig 3. Southern side of Sabzeh Medan



Fig 4. Northern side of Sabzeh Meydan



Fig 5. Southeast side of Sabzeh Meydan



Fig 6. Eastern side of Sabzeh Meydan

3.5.2. Case 2: Sepah (Shohada) Street- Qazvin

Sepah Street is the first street in Iran which has been constructed in Safavid era when Qazvin was the capital of Iran. This road starts from Alighapou façade and ends to Jame Mosque and its evolved plan could be observed in Chahrbagh after capital shift to Isfahan. In Shah Safi era, the street was continued from southern side to the cemetery of the city. At first, it was named Dolati Street and in Pahlavi Era it was called Sepah while currently has been recognized as Shohada Street. There has been variety of usage for this street including residential usage, bazar and commercial malls, Jame Mosque, cistern, and so on.



Fig 7. Northern side of Sepah Street



Fig 8. Western side of Sepah Street



Fig 9. Northern vision of Sepah Street

3.5.3. Case 3: Southern Khayam Street- Qazvin

Khayam Street has been garden alley in the past but currently it is considered as commercial axis in the city. Its southern part is used as a sidewalk. Different types of shops including clothing, bags and shoes, decorative furniture, jewelry, and so on are located alongside this path; the shops which are gradually getting newer designs and a become a modern place in public's mind.



Fig 10. Eastern side of Khayyam



Fig 11. Southern vision of Khayyam



Fig 12. Details



Fig 13. Western side of Khayyam



Fig 14. Northern vision of Khayyam



Fig 15. Southern side of Khayyam

Statistical population considered for measurement of indicators proposed in the thesis was in form of “intelligent sampling” including 25 experts and professionals in fields of architecture, urban design, urban planning and urban regeneration. According to designed questionnaire, twenty indicators titled “landscape perception based on Islamic aesthetics” were proposed. In addition, mentioned indicators on three case studies including “Sabze Meydan”, “Sepah”, and Southern Khayam” were described in order to be compared.

3.6. Outputs related to indicators

Table 5. Reliability Statistics

Chronbach Alpha	Chronbach alpha based on standardized items	Number of alternatives
.815	.818	20

Table 6. Item Statistics

	Mean	Standard deviation	Number
Vision	4.20	.816	25
Nonexistence of pollution (visual, vocal, optical, sensory)	4.32	.900	25
Orderly arrangement	3.92	.759	25
Centrality	3.80	.913	25
Emphasis on important components (indication)	4.28	.737	25
Appropriate vegetation (attention to fruitful trees)	3.68	1.030	25
Variety of color	3.24	1.091	25
Visual variety	3.80	.816	25
Appropriate visual communication with surrounding environment	4.36	.757	25
Proportion of components	4.32	.802	25
Modification	4.28	.678	25
Growth and perfection	4.24	1.012	25
Mention of God (paying attention to God)	4.40	.866	25
Unity and integration	4.72	.542	25
Appropriate access	3.96	.889	25
Legibility	3.92	.909	25
Indication (rate of fame)	3.80	1.041	25
Compatibility with goal (functional proportion)	4.08	.954	25
Amenity	3.56	.917	25

Table 7. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.064	3.240	4.720	1.480	1.457	.124	20

3.7. Outputs of three case studies

Table 8. Summary Item Statistics- Sepah

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.002	3.280	4.800	1.520	1.463	.132	20

Table 9. Summary Item Statistics- Southern Khayam

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.504	1.304	3.348	2.043	2.567	.235	20

4. Discussion

The first and most important result is related to indicators in field of “perception of aesthetic in Iranian-Islamic urban landscape”. Based on the output, cronbach alpha of 0.815 represents appropriate reliability for these indicators. In addition, mean of 4.64 for all indicators, minimum mean of 3.240 and maximum mean of 4.720 for each indicator indicates verification of statistical population for each indicator and all of them.

Mean of indicators for the first case (Sabze Meydan) was 3.436, while for the second one (Sepah Street) and the third one (Southern Khayam) were respectively equal to 4.002 and 2.504. Also, mean of aesthetic general question in three case studies were respectively 3.48, 4.32, 2.24 indicating that the second case (Sepah Street) has had the highest score for perception of aesthetic in Iranian-Islamic landscape followed by Sabze Meydan with Southern Khayam as the last one.

5. Conclusion

In order to achieve desirable result, it seems to be better to avoid monopole subjectivity and objectivity approaches in landscape aesthetics and consider the matter with dipole approach regarding both aspects. Initial questions were answered by extraction of aesthetics indicators in Islamic view and suggestion of its related model in the field of perception of landscape aesthetic. In addition, reliability was proved and the hypothesis was realized by suggestion of case studies and their testing through statistical population. According to the above-mentioned points, the following results are obtained:

- All the beauties are expressions of absolute beauty, God.
- Considering both subjective and objective poles in landscape aesthetic perception seems to be essential.
- Indicators posed in aesthetic perception of Islamic urban landscape were perfectionist and Unity-oriented in three areas of sensory, imaginary, and intellectual perceptions and none of them refuse the others.
- Considering the application of aesthetic indicators in Islamic urban landscape seems to be necessary in different dimensions including education of landscape designer, planning, and implementation.
- Islamic urban landscape expresses unity of all three areas of sensory, imaginary, and intellectual perceptions.

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