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Developing a Landscape Assessment Model
(A review study of current methods and approaches to landscape assessment)

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Abstract
In landscape architecture, the concept of landscape has always been linked to two facets namely objectivity and subjectivity, and it has shown an inseparable bond between humanand the environment. The tight-knit and intertwined relationship of the qualitative and quantitative issues makes it difficult to understand and, consequently, to evaluate the landscape conceptt. During the history of landscape, and especially in recent years, many efforts have been made to assess the landscape and its various aspects. Most research has attempted to separate objective aspects from the subjective ones and numerically evaluate each one separately in a landscape assessment. Previous studies have evaluated the physique of environment , and human perceptions of the environment, some strands of studies have assessed the landscape assessed from the environmental aspect and investigated it ecologically , Some researchers have considered it objectively regardless of humans and their minds while , some have s-viewed it as merely subjective issue . ITo assess the concept of landscape, it is necessary to simultaneously evaluate the objective and subjective process and discover the relations between them. Therefore, this research is an attempt to collect and organize library documents, including different methods of landscape evaluation in various objective and subjective fields, and to analyze them deductively and, and to study the existing methods, and suggest a model for landscape assessment

Keywords
Landscape, Landscape assessment, Assessment systems, Objective assessment, Subjective assessment, Introduction.

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Introduction

The landscape as a phenomenon is sometimes considered as a separate part of mankind while sometimes the relationship between human and landscape is considered to be indivisible . Nowadays, the landscape is a complex and multidimensional phenomenon shaped by the interactions between human mind and external natural phenomena, and in the interaction between the two, the perceptual and aesthetic process has always received a wide attention . Interestingly, the subjective dimension of the landscape makes it a phenomenon which cannot be assessed by objective methods. In other words, , objective-oriented criteria and objective components are not suitable to evaluate the landscape as a whole unit . However, theoreticians have always attempted to simplify the subject and analyze different aspects of the landscape in isolation. They have occasionally reduced the landscape to a quantitative dimension, and sometimes have examined the qualitative aspect of the landscape instead of the landscape itself. Therefore, it can be said that they have divided the landscape into qualitative and quantitative aspects and examined it from their point of views. The focus of this study is to understand to what extent the differentiation and evaluation of the aspects of the landscape makes it possible to assess the landscape as a general phenomenon inseparable from the objective and subjective aspects accurately, . This issue as the major concern of the scholars of this field have remained unanswered

Research questions

How can the landscape be assessed with respect to its inseparable objective and subjective aspects?

Which methods have scholars used to assess the landscape

Hypothesis

In spite of the inseparability of objective and subjective facets of the landscape, it seems that, the landscape is evaluated abstractly and separately as an objective or subjective phenomenon a.. Sustainability assessment is also focused on environmental issues in a close relationship with ecological issues. However, each of them focuses on one aspect of the landscape, and for the assessment of the landscape as a holistic phenomenon, all aspects of it must simultaneously be evaluated and evaluated.

Methodology

The research design of the present study is qualitative The data were gathered through analytical-descriptive and documentary research . To this purpose, using a library research method, authentic and internet sources , a wide range of sources pertinent to landscape assessment was reviewed . By a comparative study, deductive and inferential methods were used to analyze case studies documented on the evaluation of the landscape and its aspects

The landscape

Today, in holistic approaches to landscape that has received the attention of professional experts in scientific and professional assemblies as a standard approach, a human-landscape relationship is a complex and inseparable relationship, and the landscape is considered as a whole in the sense that the landscape comprised both physique and meaning. In addition,, it includes both objectivity and the subjectivity and these two aspects are inseparable, in other words, the landscape is an objective-subjective phenomenon, dependent on human mind as interpreter and body as the center of interpretation.

“Pierre Donadieu” says that the landscape is, in fact, a place whose inhabitants think about it and perceive it as a habitat (Donadieu, 2013: 36), and Simon Bell considers the landscape as part of the environment in which we live and understand it through our perceptions (Bell, 2003: 91).

“Bernard Lassus” and his colleagues at the University of La Ville de Paris, including “yves luginbühl”, “yann nussaume”, and especially Augustin Berque, emphasize the continuity and inseparability of

objective and subjective aspects of the landscape.
"John L. Motloch" and "Anne Whiston Sprin" also emphasized the linkages between people and place in "Introduction to landscape design" and "The language of landscape" respectively, referring to the cognitive and symbolic aspects of the landscape . Many theorists and landscape experts also point to the permanent relationship between the human mind and the physical environment and the constant interaction between these two aspects .
Therefore, the landscape in definitions has always been dependent on the two main elements by eliminating each o, the understanding of the landscape becomes problematic; the first is an environment that involves the human as an objective body, and the second is the human being seeking to perceive and understand the environment and, through its time, imagines it in its mind and forms its own mentality from that body. Hence, it can be said that the landscape is a vital and dynamic phenomenon influenced on the one hand by man and his connection with the environment, and on theother hand, by the association of the minds that affects the relationship of man with his surroundings. However, the landscape can not be summarized only in the physical environment and its objective structure, because it also assumes the quality and meaning, and on the other hand, it can not be considered merely an abstract concept, because it is understandable through the body and the senses. Therefore, in the transcendental conception, the landscape is a phenomenon that is brought about by our perception from the environment and the interpretation of the mind1.

Landscape assessment

With reference what has been discussed about the definition of landscape, it seems that for assessing the landscape correctly , its objective and subjective aspects should be evaluated as parts of a whole. However, despite the fact that researchers have always sought to a quality landscape, in most casesthey have tried to make a distinction between the two aspects of the landscape, namely objective and subjective, and sometimes even used a class-based and self-evaluation approach. Accordingly, in extensive landscape studies conducted, the separation of landscape features are observed, some of which evaluate the visual aspects for landscape assessment and seek the visual landscape in nature and relationships in natural elements and believe in the principles of classical aesthetics. Among these are researchers such as Aldo Leopold, Iverson W.D, Burton Litton, as well as institutions such as the "UK Countryside Commission " and "Bureau of Land Management (BLM) " who base their studies on objective aspects and search for quality in environment physiques to gradate landscapes.
, some experts have considered environmental issues as an equivalent to landscape assessment. Among them, geographers, ecologists, planners, and experts from other fields related to the physical structure of the environment, have tried to separate and classify the constructive elements of the landscape, and using such information, they have produced a map and statistical tables. In this area, issues such as geological issues (such as soil, landform), botany, zoology, ecology, hydrology, and other environmental sciences are taken into consideration. These evaluation methods have also focused on the objective and quantitative view of the landscape and reduced the landscape to its physical and quantitative aspects. To assess the environment, these aspects can be rated on a scale and graded physically. , In his book "Design with Nature","Ian L. Mc Harg" who, was able to provide various layers of natural elements in the environment, based on their matching and overlapping, and laid the foundations for computer software such as GIS2 known to be the pioneer in this field. Today, environmental assessment systems are being evaluated by different countries under different titles.
Although these methods are efficient and effective in dealing with environmental hazards, and help to inform the human about the elements of his surrounding environment and its importance, they are completely objective and employ the quantitative

approach to the landscape, and it is obvious that they neglect the subjective issues . (Lothian 1999: 178)
In addition, many people are interested in a place while seeing a photo of a region, or seeing nature, and become fascinated by its beauty. Therefore, it seems that the landscape has a subjective and visual quality to experience, see and enjoy. Therefore, many researchers, and especially perception psychologists have been trying to find the social preferences of the people by focusing on the principles of behavior and identification of perceptual behavior of humans by gathering the data through different methods such as questionnaires, interviews and statistical analysis.
This group examine the quality of the landscape ifrom of the audience's perspective and, as mentioned above, the most commonly used methods to find such preferences are the questionnaire and statistical analysis. A wide range of scholars and specialists have focused their studies on this area in recent years. Many scholars and researchers have made extensive efforts in this field and for example Zube,E.H. conducted several studies 3 from 1973 to 1983, G.J. Buhyoff and his associated Leuschner4, W.A, M. F.Riesenman5, and J. D. Wellman6 carried out studies between 1978 and 1980, or another example is the study conducted by G.J. Buhyoff entitled " Distance and scenic beauty: A nonmonotic relationship ", in collaboration with Hull, RB, between 1984 and 1987, . The above-mentioned methods, while seeking to find subjective criteria, applicable to the landscape, neglect the objective dimension of the landscape, and do not have a complete and holistic look at the landscape and its evaluation.
As can be seen, a wide range of scientific activities in the field of landscape has tried to understand the characteristics of the landscape and have evaluated it according to quantitative methods and based on the audience's preferences. To the above-mentioned approaches, we can add environmental considerations in the landscape to….? leading to the environmental sustainability approach. It seems that the landscape evaluation literature is nowadays limited to two distinct paradigms,objectivity and subjectivity. The question which now arises is how far each of these approaches can address the landscape complexity and be responsive to its objective-subjective aspect. Based on the necessity of recognizing the issue and the kind of views of the experts in these areas, a brief overview of some of the most significant studies carried out in three parts of the visual assessment, quantitative assessment and the qualitative assessment of the landscape will be mentioned.

Landscape visual assessment

Landscape visual assessment is in fact one type that evaluates the landscape using an objective approach. As noted earlier, experts in this area are looking for the visual features of landscape and existing relationships among their elements. Therefore, in this section, we have presented the study of "Visual Resource Management (1980)" by the "Bureau of Land Management " as one of the most important and outstanding studies conducted in this area , to become familiar with the type of approach and evaluation criteria.

The method of visual resource management[7]

The researchers have carried out these studies to develop a list of visual values and aspects of the landscape based on three factors: "landscape quality", "landscape sensitivity analysis" and "landscape description from the observer`s view".To this purpose, quantitative and numerical analysis have been carried out to rank the land at 4 visual aspects . In this ranking , the first and second- lands are of high visual values, and the 3rd and 4th lands exhibit the visual mean and low value of the landscapes, respectively.
In this method, the "landscape quality" is based on seven factors such as land shape, plants, water, color, adjacent landscapes, scarcity and cultural changes and the sensitivity analysis of landscapes is carried out according to six criteria which are related to users . The criteria includes the type of users, the rate of its use, general interest of the users , the use of

adjacent land, particular areas and other factors, and the data were gathered using the writing method and production of layered maps .

Ultimately, in reviewing the landscape distance from the observer, the landscapes a fall into 3 categories: the close , the middle and distant landscapes. In this regard, in order to study the sensitivity of the layers of the landscape, the method of mapping and description of the layers of the landscape and analyzing their sensitivity are used.

As can be seen, the evaluation criteria in this method are generally dependent on the physical and visual structure of the environment. Although the study uses text and manual maps and try to approach visual and subjective aspects of the landscape, it is not possible to examine the subjective aspect of the human landscape and preferences about the landscape. The reason is that the criteria are based on the visual features of the environment,

Quantitative Landscape Evaluation (Landscape Environmental Assessment)

Quantitative assessment methods focus on measuring the effective indicators in environmental protection and provide a tool for decision-makers to develop their policy based on these data . In fact, assessing environmental impacts as the most important quantitative assessment of the landscape is an attempt to reduce the harmful effects of human activities and projects on the environment, influenced by a set of frameworks and sustainable assessment methods and with a very quantitative look pay attention to the landscape objectivity. In these methods , the physical aspect of the environment and the tangible and quantitative effects on the environment are the main criteria for environmental study .The aforementioned methods comprise quantitative and numerically quantifiable indicators that usually provide key information about natural, social and economic systems, free of human mind and quality-centered attitude into the environment.

Some environmental assessment methods include: Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Impact Assessment (IA) and Integrated Sustainability Assessment (ISA).

Based on the abovementioned methods, Sustainability Assessment Systems in the field of architecture, urban planning, and landscape are among the most prominent patterns in this field of study. Hence, analyzing such patterns in the field of landscape can be be helpful in understanding the subject in quantitative evaluation approaches.

Landscape assessment systems

In the landscape theme , four versions have been presented in three systems in the United States, India and Singapore,two versions of “Greenmark for new parks” and “Greenmark for existing parks” were developed in Singapore and the Green Mark System, respectively stated operating from 2008 and 2010 under the auspices of the Singapore National

Table 1. Landscape Evaluation Criteria in the Visual Resource Management. Source: authors.

factor	number of criteria	name of the criteria for the assessment
Landscape Quality Valuation	7 Quality	Land shape,Plants - Water - Colors - Neighboring Landscapes - scarcity - Cultural Changes
Landscape sensitivity analysis	6 criterion	user types, use rate, their general interest, adjacent land use , specific areas and other factors.
Describing landscape distance from observer	3 sections	Close view ?,middle and distant landscape

Environmental Agency.

In India, the IGBC (The Indian Green Building Council) System, a subsidiary of Confederation of Indian Industry (CII), launched in 2001 to evaluate and review the issues of sustainability, in March 2013, a version of "Green Landscape" was presented. The LEED system, which is itself covered by the Green Building Council of the United States, is one of the pioneers of this field, with the assistance of The American Society of Landscape Architects (ASLA), The Green Business Certification Inc and some other institutions and collections8, presented a system in order to evaluate and maintain the construction and design of the landscape, the final version of which was presented in 2014.

What first stands at the content of these systems is the use of words like the park and the green space, which outline their ecological and quantity-oriented view.

Almost all the criteria considered in systems are quantitative criteria that do not pay attention to subjective affairs and human perceptions of the environment. They are measurable criteria that share a great similarity with each other. In general, management criteria, designing how to use water, designing vegetation, how to use materials, optimize energy consumption repair and maintenance, and the criteria for creativity and innovation can be found in all evaluation versions. Some criteria, such as welfare and health, and site selection, are not common in all systems. As a result, the environmental dimension outweighs other dimensions, and the dominant view is quantitative which focuses on the physical aspects of the landscape.

Landscape qualitative assessment

As mentioned earlier , in the field of landscape quality, many experts from different intellectual fields, have tried to evaluate the qualitative aspects of the landscape a and by adopting a policy of separation of landscape features from each other . In addition to the aforementioned listin the field of architecture theorists such as Kevin Lynch, Gordon Cullen, Jon Lang, The Kaplans, Jack L Nasar, Simon Bell, etc., haveconducted a study in this field and referred to various aspects of the landscape, and individuals such as Carl Steinitz, Donald Appleyard, Peter Gould and Stanley Milgram have developed parts of their studies following them. They have emphasized the landscape and its impact on the human mind and by paying attention to subjective modeling, try to identify the components that influence the construction of the subjective landscape.

Kevin Lynch refers to the concept of "Image of the mind" for the subjective evaluation of the landscape and bases its formation on the five elements of the "path", "landmark","edge", "node", and "district". Based on these elements human mind seeks the image of space and records it. Therefore, elements of the mental image are objectivities that have been implicated in the mind of human. So, a stronger structure , is to create a stronger image in the mind .

Jack L Nasar, who is a follower of kevin Lynch's views, has also done extensive studies on the subjective assessment of the landscape and identified the characteristics associated with the likability of the landscape. On this basis, he considers three important factors in the conceptualization of "Distinctiveness ", "visibility" and "use," and notes that, for a landscape to be liked, only "imagination" is not enough and the landscape should have sensual meanings like excitation and memorability. (Nasar, 2014 ,p. 77). In his point of view, the terms likable, or exciting refer to the "naturalness", "Upkeep/Civilities", "Openness", "historical significance" and "order". (Nasar, 2014:78)

In their studies, Kaplan and his colleagues point out the extent landscape that people like the landscape depends on how the space is organized in that landscape. (Kaplan, Kaplan & Ryan, 2011: 15), and sum up four factors of environmental information almost identical with the factors affecting beauty in Kant's view, consisting of

two factors, “coherence” and “complexity”, in the two-dimensional space and two factors “legibility” and “secrecy” in the three-dimensional space introduced as factors in the desirability of the landscape in the mind of the observer.

Simon Bell, as the most recent theorist in this field who has focused his studies on the field of landscape, refers to the principles of aesthetics in the three-tier structure in the book “Elements of Visual Design in the Landscape” and in the book “ landscape: Pattern , Perception and process, “in the field of landscape quality assessment, while referring to the continuity of the environment and human with each other, which includes objective and subjective aspects of the landscape. Using the Alfred North Whitehead aesthetic theory and the Kaplan’s theories, they introduce the criteria for landscape utility as “coherence”, “complexity”, “secrecy”, “spirit of location,” “power,” and “multiple scales”

Most studies which are drawn upon psychological theories , –have mainly used the questionnaire for data gathering.Also, in some studies, the map and sketch, the mental concepts of the interviewees are drawn in a visual form with which the subjective landscape is evaluated.

Summary

With regard to what have been discussed , and the fieldwork for landscape assessment, the existing approaches and theories of scholars can fall into three general categories.

- Landscape visual assessment: It is objective assessment of the characteristics of natural structures and the value of the landscape i. Therefore, they take into account some of the criteria and regulations for their scoring.

- Quantitative evaluation of the landscape: The main concern of this type of assessment is to achieve the goals of sustainable development. The most important issues in this section are environmental sensitivities which look at the issue from a scientific viewable to make numerical analysis and convert criteria into quantitative parameters. Due to the nature of objective and quantitative nature, this type of investigation does not allow entering subjective and qualitative areas. The criteria in this approach are sizable, and there is even an attempt to measure the few quality features . Landscape assessment systems represent a numerical and quantitative approachas the most prominent tool for evaluation and assessment in this category. In addition,according to the studies, among the three aspects of sustainability, the focus of landscape assessment systems is on the most tangible and quantitative part of it, that is, the environmental aspect. Therefore, it seems that these systems can be called environmental assessment systems that, rather trying to assess landscape, provide a framework for comparing and scoring plans in facing environmental hazards.

- Qualitative assessment of the landscape: What was said indicates the efforts of scholars and landscape experts in the analysis of human mental aspects and its relation to the landscape. The fact that shows experts are trying to find a criterion for assessing and evaluating the human mind to make the landscape desirable. They have developed- the questionnaire and carried out statistical analysis , to quantify the qualitative characteristics of the human mind. . The gradual efforts made by recent scholars over time have contributed to step-by-step benchmarks of measurements. This course of development and progression of benchmarking can be endless and unremitting

t. In this regard, Simon Bell who holds a more comprehensive look at the subject that begins the process of perception by sensing and drawing (visual principles), and completes it using other factors, including descriptive (knowledge) and symbolic (content) expression . He introduces six criteria ,“secrecy”, “diversity”, “power,” “cohesion,” “the spirit of location,” and “scale”, as effective measures of the desirability of the landscape, which in some way includes the previous theories and the criteria set forth.

Conclusion

regarding the landscape definition, which refers to the interconnectedness of its objective and subjective aspects, as well as the examination of various types of landscape assessment methods, it seems that evaluations and studies in the field of landscape have not yet succeeded in making it comprehensible as a continuous whole , as they have always paid attention to the dimensions of single aspects of the landscape with the separation of the objectivity and subjectivity e . In the visual assessment, the form and geometric relationships between the elements forming the landscape is important. In quantitative evaluation, the quantitative features of the environment are paid attention to and the efforts made to evaluate the quality of the landscape have quantify the subjective aspects of the landscape and formulate its general principles . The point is that one can claim a landscape has been evaluated as a whole only if all of its parts are valuated.Whether these issues are tangible and quantitative , or the result of human mental processes and interactions between human being and the environment. It is quite clear that the pleasure evoked by a landscape is not limited to its environmental desirability or its formal relations., The holistic approach considers the landscape as an intersubjective-objective phenomenon, which is the result of the interaction of an external event (objective) and the human mind (subjectivity) and passing that objectivity through the filter of mind. It depends on the individuality of the human being and the existence of the space, and by changing each one, its quality or its credibility changes. Each person, regarding his perceptions, personal experiences and personality traits on the one hand, and the objects and relationships existing between them, on the other hand, receives a different mentality from space and, consequently, makes a different value from the landscape. Therefore, it should be noted that the landscape is not material and touchable, although it has material representation and is dependent on material affairs. However, the mere attention to the objective and material aspects of the landscape is misleading . Therefore, the landscape is a dual concept that is both material and immaterial, dependent on the object and on the observer's mind, and the needs of entry into the metaphysical domain. Therefore, a landscape is desirable when it is both responsive to its objective problems and satisfies the aesthetic demands of the human mind. Desirable landscape, in addition to being beautiful, is also sustainable. Therefore, landscape assessment requires its own method and quantitative and component-based methods can only be used for its functional dimensions and will not substitute for the overall view of the landscape,a whole that has always been separated and its tangible parts have been evaluated imperfectly. Understanding that the assessment of a landscape with quantitative component- based methods is not possible is compulsory and simultaneous consideration of objective and subjective inseparable aspects in the assessment are a new subject matter that has not been addressed so far.

However, in spite of the complexity of the aspects of the landscape and its inseparability, abstractly, a separate assessment of the objective and subjective aspects of the landscape is discussed. It may be possible to use different assessment approaches the first step in the assessment of the landscape as an objective-subjective whole. For this matter, some issues, such as environmental problems, relationships between objects, environmental issues, etc., needto be evaluated objectively and quantitative relationships, and some other issues, with regard to subjective dependence on space and individual tendencies , the prioritization to the maximization tendency of statistical society in the form of qualitative analysis. Field studies and open and closed questionnaires and statistical surveys, to obtain visual features of the site and people's mental and aesthetic opinions and experiences are methods that need to be present and evaluated on the site, and facilitate quality assessment . Therefore, the following proposed diagram attempts to explain the process of landscape evaluation and has taken the first step in linking the objective and subjective aspects of the landscape and evaluating these two aspects simultaneously. Though still far from reaching a holistic approach to the landscape and its evaluation ,

simultaneous assessment of the objective and subjective aspects of the landscape is an attempt to enhance the scope of application.

Endnote

1. This part is a summery of another article of the authors under the title of "The study of Landscape concept with an emphasis on the views of authorities of various disciliplines"
2. Geographic information system
3. look at :
4. Zube, E.H. (1973).
5. Zube, E.H. (1974).
6. Zube, E.H.& Mills, L.V. (1976).
7. Zube, E.H, Pitt, D.G. (1981).
8. Estimating Psychological Disutility from Damaged Forest Stands.
9. Manipulation of dimensionality in landscape preference judgments: A quantitative validation.
10. The specification of a nonlinear psychophysical function for visual landscape dimensions.
11. Look at http://www.blm.gov/
12. "Lady Bird Johnson Wildflower Center at The University of Texas at Austin" and "the United States Botanic Garden"

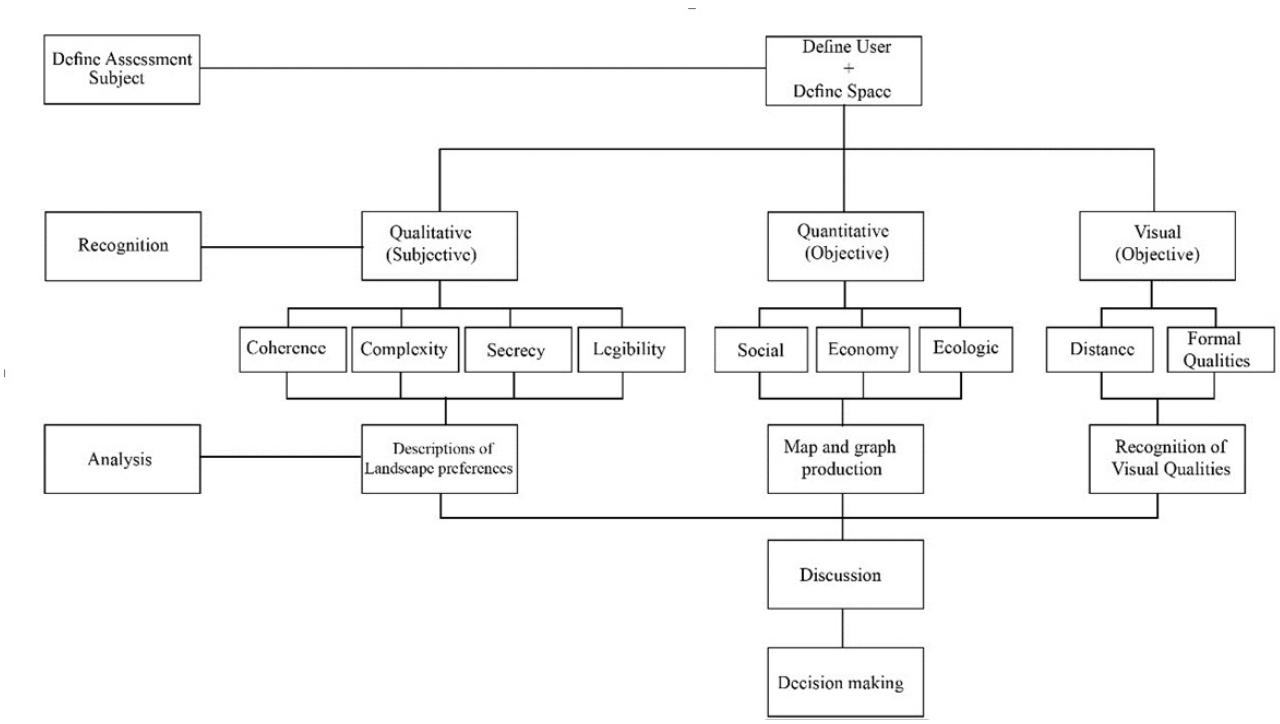

Diagram 1. The proposed process of landscape assessment. Source: authors.

Reference list

- Sprin, A.W. (2005). *The language of landscape,* Translation by Bahraini, B. & Aminzadeh, B. Tehran: University of Tehran.
- Berque, A. (2008). landscape, location, history, Translation by Mansouri, M. *Bagh- e Nazar*, (9):81-90.
- Berque, A. (2013). Is the Word "landscape" changing there?. *Manzar*, (23):25-27.
- Bell, S. (2003). *landscape: pattern, Perception, Process*, Translation by Aminzadeh, B. Tehran: University of Tehran.
- Bell, S. (2008). *Elements of Visual Design in the Landscape.* Translated by Masnavi, M. Tehran: University of Tehran.
- Pakzad, J. (2006). City form; What kevin Lynch Learned from it. *Abadi Magazine*, (53):20-25.
- Habibi, R. S. (2008). Mental Imagery and place Concept. *Honar- Ha- Ye- Ziba*, (35): 39-50.
- Donadieu, P. (2013). Le paysage comme bien commun, *Manzar*, (23):36-38.
- Kaplan, R., Kaplan, S. & Ryan, R. (2014). *With People in Mind: Design And Management Of Everyday Nature*. Translation by Sharghi, A. Tehran: Shahid Rajaee University Press.
- Cullen, T. G. (2003). *The Concise Townscape,* Translated by Tabibian, M. Tehran: University of tehran.
- Lassus, B. (2013). A Global Approach to Territory: Landscape, *Manzar,* (23):31-32.
- Lang, J. (2011). *Creating Architectural Theory: The Role of the Behavioral Sciences in Environmental Design,* Translated by Einifar, A. Tehran: University of Tehran.
- Lothian, A. (1999). Landscape and the philosophy of aesthetics: is landscape quality inherent in the landscape or in the eye of the beholder? *Landscape and Urban Planning*, (44): 177-198.
- Lynch, K. (2008). *A Theory of Good City Form.* Transleted by Bahreini, H. Tehran: University of tehran, Publishing & Printing Institute.
- Lynch, K. (1995). *The Image of the city,* Transleted by Mozayani, M. Tehran: University of Tehran.
- Luginbuhl, Y. (2013). The landscape: From common definition to the intellectual. *Manzar*, (23):39-41.
- Motloch , J. L. (2009). *Introduction to Landscape Design,* Transleted in Tehran Parks and green spaces organisation, Tehran: Tehran Parks and green spaces organisation.
- Mc Harg, I. L. (2007). *Design With Nature,* Transleted by Vahhabzade, A. Mashhad: Jahad Daneshgahi Press.
- Mansouri, S. A. (2010). What is the Urban Landscape? Historical survey on urban landscape conceptual development. *Manzar,* (9): 30-33.
- Mansouri, S.A.(2010). Urban Landscape: The control of the qualitative measures with quantitative components. *Manzar,* (11): 6-7.
- Mansouri, S.A.(2004). An introduction to Landscape architecture identification, *Bagh-e Nazar Magazine,* (2):69 - 77.
- Landscape Institute, I.E.M.A.(2006). *Guidelines For Landscape And Visual Impact Assessment,* Transleted by Tabibian, M. Tehran: University of Tehran.
- Nasar, J. L. (2014). *The Evaluative Image of the City,* Translated by Asadi mahalchali, M. Tehran: Armanshahr Press.
- Nussaume , Y. (2011).A Research on the developmpents of Urban Landscape concept, *Manzar,* (16): 16-21.
- Zube, E.H. (1973). rating everyday rural landscapes of the northeastern United States. *Landscape Architecture,* (63): 370-375.
- Zube, E.H. (1974). Cross-disciplinary and inter mode agreement on the description and evaluation of landscape resources. *Environment & Behavior*, (6): 69-89.
- Zube, E.H. & Mills, L.V. (1976). Cross-cultural explorations in landscape perception. In *E.H. Zube (Ed.), Studies in landscape perception.* University of Massachusetts: Institute for Management and environment.
- Zube,E.H,Pitt,D.G.(1981).Cross-culturalperceptionsofscenicandheritagelandscapes.*LandscapePlanning*,(8):69-87.