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Urban landscape: A review of key concepts and main purposes

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Abstract

Since the advent and birth of the urban landscape as an academic discipline, various attitudes have emerged in this field, and different disciplines and sciences have treated differently in this regard. The purpose of this research is to determine the scope of the urban landscape as an important branch of the landscape by introducing and explaining purposes and approaches. In this paper, collecting and classifying findings has been done using logical reasoning and library studies. Therefore, by focusing on the evolution of the concept of urban landscape in recent decades, the approaches and the main purposes in this field, are recognized and presented. Based on studies, in general, four approaches can be considered for urban landscape: Artistic approach, Functional approach, Perceptual / Contextual approach, and Sustainable approach. According to the proposed approaches, it was found that four factors of aesthetics, function, identity and ecology are the main purposes of the urban landscape in designs and researches. In other words, it can be said that all the designs and researches in the urban landscape are focused on these four main purposes. Consideration of this issue is so important that the proposed purposes have extensive meanings, and each approach interprets them differently.

Keywords: Urban Landscape; Aesthetics; Identity; Function; Ecology

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1. Introduction

The city, as the greatest achievement of mankind, has been studied in the past and present times, and the entrance of new sciences into the city has created new theories associated with it. Landscape science is one of the newest environmental science disciplines that offers new ideas in relation to humans and the environment with a philosophical base and scientific theory. Study of the city from the viewpoint of the landscape requires a coherent theoretical framework, and this article is trying to do some small part of this target. In landscape literature, one of the challenges faced by experts, and especially theorists of this field, is the lack of absolute stabilization of the position of vocabulary and concepts, which has led to the creation of different perceptions among individuals. These differences are seen in a large number of studies as well as designs and sometimes have created significant contradictions. One of these contradictions is related to the urban landscape term. In recent decades, the concept of urban landscape has been widely used in theoretical foundations, conversations and specialized texts such as urban design, landscape architecture, urban planning, geography, geology etc. On the one hand, due to the wide scope of the concept of the landscape, and especially the spread of it to the theoretical foundations of different disciplines, and on the other hand, the existence of common research fields in the above areas, it is necessary to explain and formulate theoretical frameworks of the urban landscape. Of course, this point is important which prevalence of the concept of urban landscape in the scientific and professional community and decision-making, indicates its necessity and importance, more than defining precisely this term. This article by descriptive-analytic method seeks to review the thoughts of theorists and to identify theoretical aspects of the landscape, as well as to formulate ideas about the city to depict the urban landscape framework and its purposes.

2. Landscape

2.1. Landscape vision

The concept of landscape was born in Europe in the 15th century and at the same time as Renaissance and modernity began (Berque, 2013). Historically, it is the result of modern's distinction between the world of physique and the world of phenomena (Berque, 1995). In fact, cogito Cartesian, which is known as the basis of the ontology of modernity and proposes an unlimited modern subject, is the first action in the advent of the landscape. At this time, modern humans, by breaking the unity between man and nature, are attempting to individualize the landscape and create a landscape in nature (Berque, 1995; Simmel, 2007). Actually, the landscape is the exact sample of the duality between the universe and human, nature and culture, object and subject which were set up by modern absolute reason (Alehashemi et al., 2017).

Landscape study with one of the objective or subjective approaches by researchers is rooted in Cartesian dualism. Therefore, several efforts have been made to fill this gap. Some recent philosophers such as Hegel Husserl and Heidegger have broken the bipolar structure of phenomena into objective or subjective by introducing existentialism and phenomenology.

"Heidegger proposes a topological model for thinking about the relationship between people and the landscape as a matter of the 'thereness' of the self-disclosure of Being in and of the world" (Tilley, 1994). It is the same time that the duality to define a landscape and place is replaced by a middle approach affected by the object and mind. This is the result of the interaction between the human mind and the environment which is made a new unit structure that is inseparable (Mahan and Mansouri, 2017).

2.2. Landscape definition

The scope of landscape meaning and the complexity of its concept on the one hand, and the interaction of the human with the environment in this vast area, on the other hand, have led the researchers to use different approaches in their researches. But as previously stated, researchers are trying to reduce the gap between objectivity and subjectivity and study a paradigm with a holistic approach, which is evident in their definitions. In fact, The concept of “landscape” has various meanings, depending on the person who views or discusses it (Swaffield, 1991). which some of them are mentioned below: Jay Appleton has defined landscape "a kind of backcloth to the whole stage of human activity" (Appleton, 1975). Opdam et al. (2018) defined landscape as a “geographical unit characterized by a specific pattern of ecosystem types, formed by the interaction of geographical, ecological and human-induced forces.” Or "Landscape refers to a common perceivable part of the Earth’s surface" (Isaak Samuel Zonneveld, 1995).

Mander and Antrop (2003) express: the landscape is the main issue of regional geography. It is seen as an Inseparable combination of the natural and cultural specifications of a region. Yu (1997) mentions "Landscape is a kind of objective existence. A scene, whether natural or human, shall not be taken as a landscape if it cannot be or will not be understood by people". The European Landscape Convention (ELC) defines landscape as “an area, as perceived by People, which character is the result of the action and interaction of natural and/or Human Factors” (Council of Europe, 2000). Some researchers also believe that understanding and analysing the term of landscape chiefly refer to national or cultural units (e.g. Eisel et al., 2009; Kühne, 2006; Schenk, 2008; as an exception: Drexler, 2010). Simpson et al. (2001) points out that landscapes are cultural assets for all of the people or "Landscape is shaped by mental attitudes and that a proper understanding of landscapes must rest upon the historical recovery of ideologies" (Baker and Biger, 2006).

Hokema (2015) in his research to investigating common understanding of landscape explains which major image of people from the landscape is related to some terms which included nature, beauty, country, city and garden. He also adds "The outcomes indicate a positive connotation of landscape and its high relevance for individuals". Figure1 demonstrates the semantic field in people imagination from the landscape. Lowenthal (2007) also adds The "landscape is everyone’s fundamental heritage. It is all-embracing and unavoidable. It inspires and shapes much of what we learn and do."

"A landscape is where we all make our homes, do our work, live our lives, dream our dreams" (Lowenthal, 2007). Pierre Donadieu also believes landscape is a common asset for all people and encompasses both geographical aspect and human inhabitants. Actually "landscape is a place whose residents deliberate (perceive) in it and regard it as a habitat" (Donadieu, 2013).

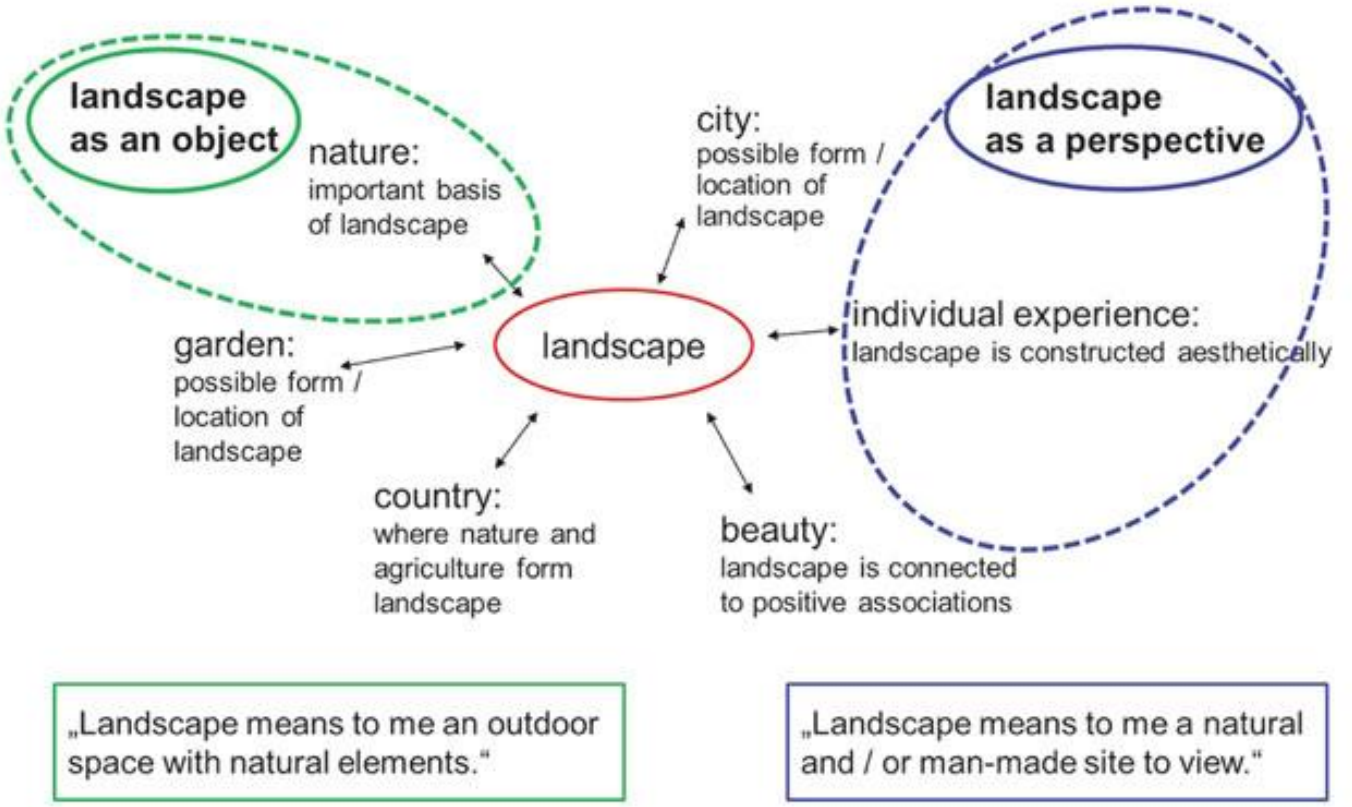

Figure 1. Landscape and its semantic field (Hokema, 2015)

Therefore, it can be said the concept of the landscape can't only be limited to a collaborative effort between different disciplines such as geography, architecture, sociology, and ecology. Because the landscape not only has a physical reality, it also has other dimensions, such as Social, Mental, and cultural. Hence, some researchers by suggesting to break borders of different disciplines and applying integrative approaches, from the human and natural sciences to arts, try to gain a comprehensive insight into the landscape (Arnaiz-Schmitz et al., 2018; De Groot et al., 2010; Huu et al., 2018; A. Kaplan, 2009; Klug, 2012; J. Nassauer, 1997; Naveh and Lieberman, 1994; Oteros-Rozas et al., 2014; P. G. Risser, 1999; Sack, 2013; Tress et al., 2005; Wylie, 2007; Zoderer et al., 2016).

In fact, Landscape is a term which tends to accumulate meanings, from different disciplines with wide insights (Doevendans et al., 2007; A. Kaplan, 2009). In the other words, landscape is a subject of interest in the natural sciences, social sciences, humanities, and the arts. According to these definitions, legislators, Communities, businesses, industries, public and local stakeholders, users etc. are the involving groups in landscapes which while requesting various needs from landscapes, simultaneously contribute to landscapes (Tress et al., 2001).

As seen in the above definitions, the landscape is a broad multi-layered phenomenon included various subjective, objective, individual and collective issues (Antrop, 2000; Crow et al., 2006; Hunziker et al., 2007; J. I. Nassauer, 2011; Naveh, 2000, 2007). In this regard, Lörzing (2001) proposes four layers of relationship

between man and environment: "intervention – the landscape is what we make"," knowledge – landscape as associated with facts we know", "perception – the landscape is what we see (visual landscape)", and "interpretation – the landscape which we believe". This complexity is due to the extensive meaning of landscape which is obvious on numerous researches (Anděl et al., 2010; Andreychouk, 2015; Antrop and Van Eetvelde, 2017; Ingold, 2002; Jones, 2003; Olwig, 2002; Peano, 2011; Rose, 2002; Widgren, 2004; Winchester et al., 2013; Wylie, 2009).

3. Urban landscape

The Urban Landscape term is an old concept that has always existed for many years with the origin and development of cities, but as a specialized term in the late nineteenth century, with the design and actions of Frederick Olmsted (1863), the father of landscape architecture in relation to American cities was raised. As can be seen, the urban landscape is composed of two controversial words with a wide range of meanings. Hence, to clarify the concept of urban landscape, it is better to first check some of the views on the concept of the city. Comillo sitte (1945) in his book, " City Planning According to Artistic Principles" describes the city as a great artistic exhibition .Generally, in this viewpoint, viewing at the city is an objective view and the main emphasis is on the ornament and some quality such as plurality and variety, proportion, naturalism and organic system in form and colour combinations (Keshtkaran et al., 2017). In fact, a city is a physical object and consideration of experts merely is on visual aspects of the city. Regarding this view, Gibberd (1970) as one of the followers of artistic view, introduces texture, colour, mass and lines as the most important elements of the urban landscape.

In another view, Le Corbusier (1920) defines four essential areas for the city included residential, industrial, commercial, and a transportation infrastructure. Therefore, the city of Le Corbusier is a functional city. Versus the artistic vision, He believed that simplicity in architecture is the best-known aesthetic answer to human needs.

Some scientist such as Lynch (1960), considered the city as more than individuals and social facilities. In their view, the city is more of a state of thought. The coherence of organized habits and traditions and attitudes. The city is not merely a physical mechanism but is involved in the social process of the people who formed it.

The more recent group of theorists consider the city as a product of nature and is considered and evaluated as part of an ecosystem with a powerful human presence (Council of Europe, 2000; Leopold, 1942; McHarg and Mumford, 1969; Steiner and Steiner, 2002; Wu et al., 2013).

As previously mentioned, the urban landscape has always existed as a fact related to the city, but it has not been conveyed as a scientific discipline or academic concept, hence, the evolutionary of the urban landscape concept is an issue that can be understood by investigation and study on urbanism, urban design, architecture and landscape.

Therefore, Depending on the various definitions and interpretations on two controversial concepts of "city" and "landscape", and whether the individual's view is objective or subjective, the urban landscape definitions

are different and sometimes contradictory. Some of these definitions are given below. According to Raskin (1974), the urban landscape encompasses many issues such as urban design, urban planning, urban management, as well as recognizing the goals and responsibilities of individuals (Golkar, 2003). Gordon Cullen by emphasizing on the combination of buildings next to each other and the concept of "serial vision" describes the urban landscape as the art of proportions (Cullen, 1961). Lingfeng and Xilong (2009) state the urban landscape is a kind of man-made environment on the natural environment which has own physical and spiritual aspects. Y. Zhang (2014) expresses the urban landscape as an image of the city's socio-cultural environment. A physical space consisting of materials and forms that leads to the creation of an integrated artistic space. In this space urban landscape as a comprehensive art is inherently related to other forms of art. Thus various forms of art play an important role in the formation of urban landscape. It can be said the contemporary urban landscape includes dynamic and flexible relationships; layering, congestion and the landscapes interpenetration make an unbounded and undefined spatial-temporal urban continuity which is difficult to distinguish (de Wit, 2016). In fact, the urban landscape includes all areas and functions such as residential, institutional, commercial, industrial, cultural land uses (Kalaiarasan, 2016).

3.1. Urban landscape evolution

According to the above, it can be seen that the concept of the urban landscape as a medium that provides the ability to read urban text is very controversial .In the meantime, by studying the history of the urban landscape, the development of this concept can be traced over the last decades.

Table 1. The Urban landscape evolution approaches

Approaches	Features and Specifications	Concepts	Theorists
Artistic approch	- Urban landscape as a two-dimensional view, the design of the walls - Creating a new urban landscape based on artistic principles and methods - Use of decorative elements and memorial spaces	Objective	Camillo Sitte Daniel Burnham
Functional approach	- Urban landscape as a three-dimensional spatial structure - Not paying attention to the aspects of urban beautification, - minimal beauty (avoiding decorations) - Emphasis on purity and standardization in the application of volumes, materials and colours - Attention to urban form and urban planning	Objective	Le Corbusier
Perceptual/	- Urban landscape as a social-spatial structure - Attention to historical and cultural references - Urban landscape, the reflection of the social diversity and ethnic differences - Liveability and public life	Subjective &	Lynch Appleyard

contextual approach		Objective	Jack L. Nesser Kaplan
Sustainable approach	- Sustainable social-spatial structure - Emphasis on aesthetic concepts, identity, sense of place, human scale - Emphasis on the environmental role of urban landscape and ecology, energy, climate change, water crisis,…	Objective – Subjective	Peter Calthorpe Ian L.Mc Harg

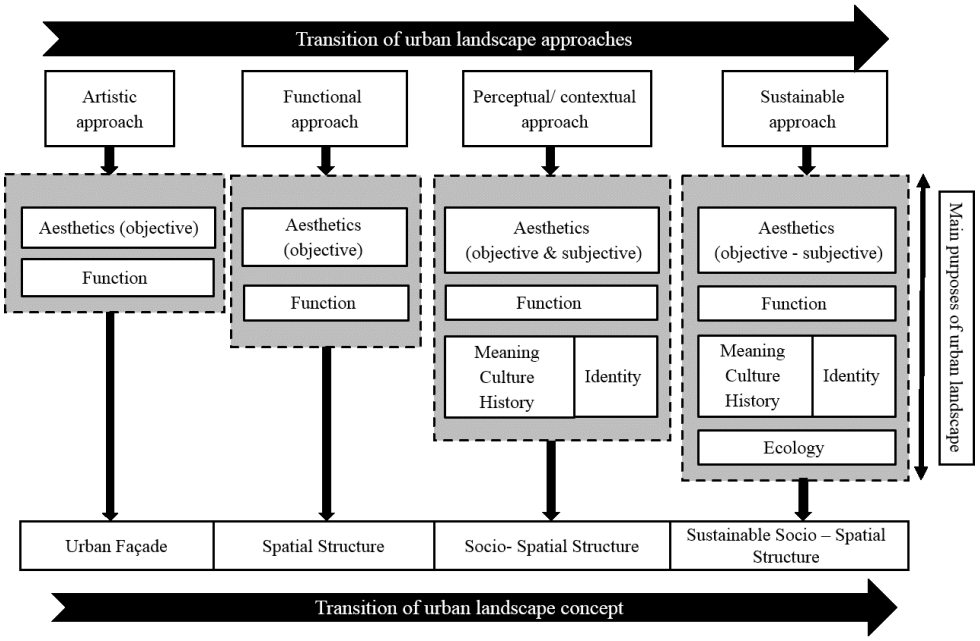

Figure 2. urban landscape approaches and purposes

In fact, the urban landscape can be considered as a paradigm, which has a set of concepts, theories, rules, patterns, measurement tools, and executive practices. By investigating the history of urban change and study of the different viewpoint of theorists in urban studies and related major such as architecture, urban design and urbanism, four main approaches (Golkar, 2008) can be proposed for the urban landscape: Artistic approach, Functional approach, Perceptual/ contextual approach, Sustainable approach.

It is true that the urban landscape has undergone an evolutionary process and has a wider dimension, but it should be considered that some governments and designers continue to use their past approaches and designs and by neglecting the new approaches, continue to follow the path that has led to project failures and urban problems. According to Table 1, each of the design approaches has set some criteria as their primary goal and put them at the head designs and researches. Basis on table 1, generally, it can be stated that the factors of "aesthetics", "function", "identity" and "ecology" are the four main goals of the urban landscape which are obvious in the work of designers and theorists from past decades until now and as it is seen, due to these

goals, different movement and style have been created. These goals have been extracted after studying the evolution of urban landscape approaches, which include four approaches; Artistic approach, Functional approach, Perceptual/ contextual approach, Sustainable approach (Table1).

Figure 2 Indicates approaches, main purposes and transition of urban landscape concept from a two-dimensional view to sustainable socio-spatial view. It should be noted that the purposes mentioned above have several subsets, which are referred to in more detail below.

4. Urban landscape purposes

4.1. Aesthetics

For the first time, the term of aesthetics in the Aristotle era was used to some extent to its current meaning. In this period, the term of aesthetics was used as aesthesis. This term implies sensation and sensory perception and generally makes perception through senses. In fact, there is a special sensory perception that was at that time against rational perception (Hanfling, 1993).

But the concept of aesthetics as an independent concept was introduced for the first time by Alexander Baumgarten, the 17th-century German rationalist philosopher. He describes that the domain of AESTHETICA word as a Latin root of aesthetics is related to «sensory perception» and knowledge of cognitive sense. In Greek also the etymology of the term of aesthetics refers to feeling, sensitivity and sensory perception (aisthèsis) (Sauvanet, 2014).

Today's conception of aesthetics is the result of the successive meanings of philosophers like Kant and Hegel. But the discussion of the meanings of aesthetics in our time continues and, from the view of many philosophers, in particular, analytic philosophers, should not confuse aesthetics with the philosophy of art. Aesthetics, more than anything, relates to sensory experience, in the general sense; for example, it can be an experience of beautiful artistic or natural beauty.

4.1.1. Urban landscape aesthetics

The cities with their powerful context which can create an opportunity to stimulate our imagination are important sources for an active aesthetic life. Urban Landscape aesthetics and people's daily life are closely related to each other and a large number of researches has been done to comprehend the public's landscape preferences (Chen et al., 2016). In fact, people's perception of their everyday environment is affected by Landscape patterns (Ode et al., 2009) and to understand landscape preferences, landscape aesthetic theories suggest applying the landscape patterns (Tveit et al., 2006). Hence, the landscape aesthetics value has converted to one of the most significant socio-ecological research issues and also has gained important regard in public perception (Howley, 2011).

Nassauer (1995) states that human landscape perception, cognition, and values are closely related processes, all of which act in human aesthetic experience. Study and research on landscape aesthetics and

specifically landscape preference have been started since the 1960s (Purcell et al., 2001) and currently, there have been proposed various approaches for studying urban landscape aesthetics.

4.1.2. Aesthetic approaches in urban landscape

Among the existing approaches related to the nature of aesthetics, the two general objective and subjective approaches have been more attending than other approaches .In relation to these two approaches in the urban landscape, at first, the objective approach and then the subjective approaches have been proposed.

Picturesque is a good sample of objective aesthetics by the emphasis on visual-artistic quality of urban landscape such as plurality and variety, proportion, naturalism and an organic system in form and colour combinations. This view has been promoted by some theorists such as Sitte (1945), Halprin (1966) and Gibberd (1970). However, urban aesthetics concepts have gradually been transferred from the objective/emotional approach and emphasis on visual qualities to the subjective/perceptual studies of the urban environment (Keshtkaran et al., 2017). Kaplan studies show that aesthetic preferences cannot be separated from the examination of the mental concepts of individuals relative to the place. Because the perception of beauty is related to personal emotions and the person's mental background (Kaplan and Kaplan, 1989).

In this regard, Nohl believes that the aesthetics perception is a cognitive process and introduces four levels of aesthetic cognition included, perceptual level, expressive level, symptomatic level, symbolic level (Nohl, 2001).

"Lothian" has conducted a comprehensive study of the philosophical background and the history of competition in the models of objective and subjective aesthetics. According to the objective explanation of aesthetic quality, beauty must be found in the features of that thing and, based on the mental explanation, is the focal point of aesthetics in the human mind (observer's sight) (Lothian, 1999). The following is a brief overview of these approaches.

4.1.2.1. Objective aesthetics approach

As mentioned, in this approach, beauty is the intrinsic quality of the landscape. This approach is often used for management purposes and is looking for physical features. Evaluations in this approach are done by trained experts or observers. Ecological and formal, are two main approaches of objective view to study urban landscape aesthetics (Lothian, 1999).

Ecological approach: The basis for this approach is based on naturalness. In fact, this approach tends to define the quality of aesthetics based on biological conditions such as ground topography, hydrology, vegetation and animal life .Measurement of aesthetic values is done by considering the amount of disruption and incompatibility that management and development of areas with natural environment have created (Daniel, 2001; Gobster et al., 2007; Lee, 2017; Sargolini, 2013).

Formal aesthetics: This approach is based on the belief that aesthetic values exist in abstract aspects of the landscape .These properties are based on formal properties that incorporate base components such as lines, forms, colours, and shapes. Experts' judgments about diversity, harmony, unity and contrast are among the

basic elements of the fundamentals of aesthetic values in this approach (Bell, 2004; Dramstad et al., 2006; Golchin and Irani, 2013).

4.1.2.2. Subjective aesthetics approach

Beauty is a quality in the eyes of the viewer. This approach usually has a theoretical framework and aims to assess the preference of humans in facing or participating in a landscape (Lothian, 1999). In assessing the preferences of people who have a mental trend, approaches such as phenomenology, psychology, psycho-physical, cognitive, and empirical have been introduced.

Psychophysical approach: In this way, people's opinions about landscape beauty or landscape properties are being examined by visual questionnaire by landscape architects or environmental psychologists. The dominant methodology in this study is widely used in behavioural approaches (Appleton, 1975; Howley et al., 2012).

Psychological approach: This approach looks for human meanings related to the landscape and its creatures, which is done by environmental psychologists. Behavioural approaches to this study are considered as a main aspect of the study. In fact, data from observers is gathered in relation to past experiences or future expectations or socio-cultural conditions (M. Jacobs, 2011; Zube et al., 1982). regarding this, geographer Natalie Blanc emphasizes on shared sensibility as a fundamental factor of aesthetics of nature (Blanc, 2010).

Phenomenological approach: The purpose of this research approach is to explore on mental experiences with interpreting paintings, pictures and poetry and expressing their stories by phenomenologists and psychologists, In fact, such studies have taken the human approach with a landscape phenomenon (Berleant, 2005; Keating, 2012; Olwig, 2002).

Experiential approach: This approach is the result of the interaction between human and landscape, and the shaping of the landscape is created in an interactive process. Indeed, the active participation of observers in the environment leading to landscape assessment is described in a way that is due to the development of a person's personal sense of interaction with the environment (Zube et al., 1982).

In general, in the twentieth century, the objective approach was widely used in urban management and versus, major research projects were conducted with a subjective approach based on public judgments.

4.2. Function

Urban Landscape function is changed to the significant concept in policymaking. One of the most important challenges at the landscape is deciding on the optimal allotment and management of different land use alternatives and services which encounter different groups of experts such as policymakers, urban planner, urban manager and landscape architect to the complex problem.

Land use management and adopting the best decision and applying the maximum potential of urban spaces is one of the main challenges facing the different groups of experts such as policymakers, urban planners, urban managers and landscape architects (Bills and Gross, 2005; De Groot et al., 2010; Hein et al., 2006; Hollander, 2004; Wilson, 2004).

Generally, different and sometimes conflicting criteria and selecting a suitable alternative, convert the urban landscape policy to the kind of Multi-Criteria decision making (MCDM) problem (Hakimi-Asl et al., 2018). The correct and proper understanding of the concept of urban landscape function requires a series of preparations, which are referred to below.

4.2.1. Types of activities

Quality and quantity of Activities in an urban environment can influence the people to stop and interact in these spaces. Public spaces provide the situation for the widest range of daily activities to periodic celebrations, individual or collective, active and passive (Gehl, 1987).

Based on the classification of Jan Gehl (1987) Activities can be divided into three categories, depending on whether they are compulsory or optional: Necessary activities (such as shopping, going to school or work, etc.). Optional activities (such as going to the park or cinema, swimming, etc.) And social activities (such as watching others, talking, catching attention, etc.) (Gehl, 1987). Necessary activities are carried out without being related to the physical environment, while the Optional activities depend on qualities which have been provided by space for the people and also activities which they are persuaded to do. To the extent that space is more desirable, more optional activities are carried out and the duration of the necessary activities increases. Social activities that involve children's play, listening, talking, Communicating and seeing and hearing other people are the result of the quality and duration of other types of activities because they occur when people meet each other in special circumstances (Figure 3).

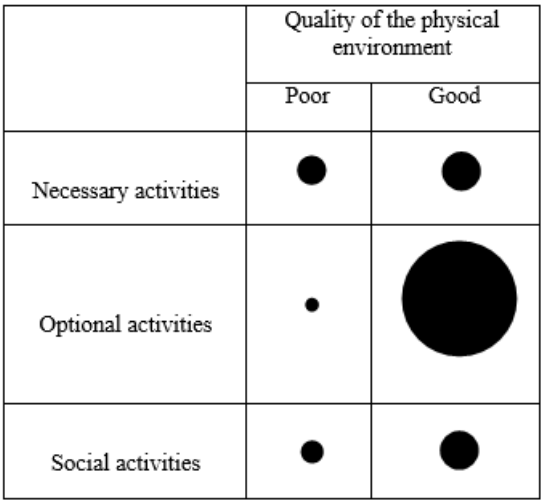

Figure 3. Three types of outdoor activities at the different quality of the environment (Gehl, 1987)

When all types of activities take place together and complete each other, the collective spaces of cities become meaningful and attractive.

In this regard, Carr et al (1992) argue that urban spaces in addition to being meaningful and democratic must meet the needs of "comfort, relaxation, passive engagement with the environment, active engagement with the environment and discovery". Good places mostly consider more than one purposes (Carr et al., 1992).

Matsuoka and Kaplan (2008) by investigation on the wide spectrum of articles proposed two main groups included nature needs and human interaction needs. Nature needs which directly related to physical features of the environment are "contact with nature", "aesthetic preference", and "recreation and play". Human interaction needs also include the issues of "social interaction and privacy", "citizen participation in the design process", and "sense of community identity". He adds that well-being and behaviour of users intensely are affected by urban landscape design.

4.2.2. Response to human needs

According to the last mentions, it can be said human needs in the environment can be divided into the two groups of mental and behavioural needs. Therefore, responding to these needs is the main duty of the urban landscape in the concept of function and can help to reach good quality of the environment. Based on Figure 4, Consideration of function as one of the key purposes of the urban landscape and paying attention to the correct role of that, can make the environment as responsive space and also increases optional activities in the Environment.

In this situation, presence in the environment and having active engagement with the urban environment can improve the urban landscape perception.

4.2.3. Urban quality

Here's the question: How can respond to these mental and human needs in the urban environment ?As previously mentioned, a more favourable space, more human contact and more interaction .In this situation, human needs are answered and a good context for behavioural patterns is created. But what can be done to achieve this quality?

On the one hand, diversity in quality concept, on the other hand, the human hierarchical perception that perceives quality through both its objective and subjective perception, has led to a variety of qualities, including the "fact related qualities" and "ego-related qualities" which address objectivity and subjectivity (Golkar, 2000).

In this regard, many scientists try to achieve the desired quality and meet the needs of inhabitant in the urban environment by introducing various criteria. Some of these criteria include: Legibility, Proportions, Imageability, accessibility, Functional compatibility, liveability, continuity, flexibility, stewardship, diversity, naturalness, safety, enclosure, complexity, and visual aspect (Bell, 2004; Bentley, 1985; Carmona et al., 2012; Cullen, 1961; Hofmann et al., 2012; J. Jacobs, 1961; Lynch, 1981; Mumford, 1938; Peckham et al., 2013; Rapoport, 1990; Tveit et al., 2006; Whyte, 1980; H. Zhang et al., 2013). Therefore, urban landscape can apply its proper functional role by considering these criteria to reach a favourable quality.

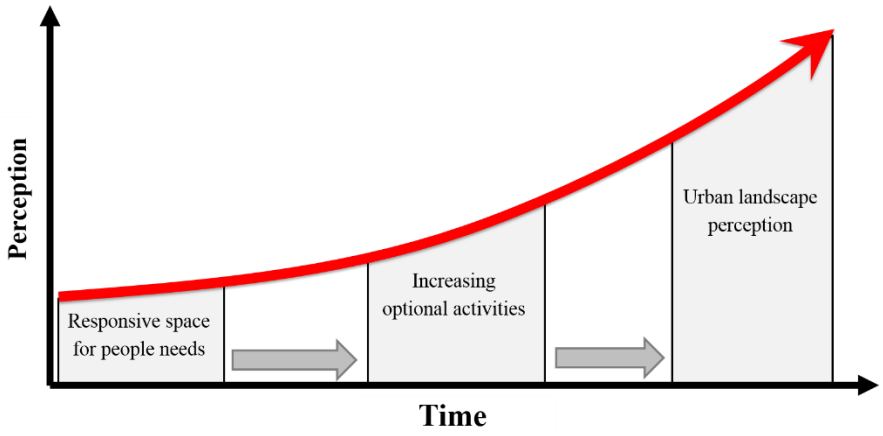

Figure 4. Relationship between responsive space for people needs and urban landscape perception

4.3. Identity

"Identitas" is the Latin root of "identity" which it means is "sameness" (Stobbelaar and Pedroli, 2011). Identity is "the distinguishing character or personality of an individual" according to Webster's Tenth Collegiate Dictionary, (2003).

In fact, the identity is the human beings interpretation from his association with history over the time, a history related to the various components of the life of "man of today". Human identity is a multi-dimensional narrative that embraces many of the subjective and objective arenas of its life; an interpretation of the interaction of these components (Atashinbar, 2009). In other definition, Erikson (1968) defines identity as "subjective feeling of self-sameness and continuity over time in different places and social situations" (Kroger, 2006). In general, it can be stated Identity is a set of material and spiritual attachments of a man whose principles have already been formed, so identity is the issue that can vary in different situations in different people and societies.

4.3.1. Identity concept in urban and landscape

The intrinsic desire of a human to discover his identity makes the man-made and artificial environments also valuable (Atashinbar, 2009). In the book of "Place and Placelessness" written by Relph (1976), need for place identity was highlighted as follows: " A deep human need exists for associations with significant places" Lynch (1981) also defines identity as " the extent to which a person can recognize or recall a place as being distinct from other places". Place identity can be boosted by memory and hope of communities (Kruger and Shannon, 2000).

Cities like humans and places have an identity; the dynamic and changing identity. The city's public identity is intertwined with our imagination of urban landscapes. The urban landscape indicates the lifestyle of the

residents, their interactions and their activities, the values and beliefs of the inhabitants, the affiliations of the city to the geographical location, time, climate, economy, society and politics (B. Aminzadeh, 2015).

About the urban identity, Carmona (2012) emphasize "People should feel that some part of the environment 'belongs' to them, individually and collectively, whether they own it or not" (Carmona et al., 2012).

As mentioned before the Urban landscape is a complicated paradigm which is a result of the action and reaction between human and environment. Hence in this interaction three dimensions of society, culture and economy are influenced (Kaymaz, 2013). Therefore, urban identity and urban landscape identity are a common concept and are of a common origin, called city. This subscription of meanings and concepts is clearly seen in various definitions which Some examples are as follows: The identity of the urban landscape leads to the unification of the people of a region and their differentiation from the others (Kruit et al., 2004). Based on the review of definitions of the different scientific disciplines, the urban landscape identity has defined as the "perceived uniqueness of a place". Egoz (2013) described landscape identity as the "spatial character of the landscape, it is an evaluation of the physical entity that can be analysed according to the set criteria."

Generally in different research resources the urban identity or urban landscape identity is defined as "place identity," "placeness," "character of a place," "image of a place," "sense of place," and "spirituality of place," which all relate to urban identity as the concept of "distinctiveness." The common feature of all these definitions is the ability to distinguish one place from another place (Cheshmehzangi, 2015; Crang and Thrift, 2000; Crysler, 2003; Csorba, 2010; Jorgensen et al., 2007; Lowenthal, 1994; Lynch, 1960; Ņitavska, 2011; Ramos et al., 2016; Stewart et al., 2004).

Nowadays, the urban landscape faces a phenomenon called unification and globalization. International brands, with the presence in different parts of the world, not only selling and offering their products but also by urban wide advertising on signboards, billboards etc. Make a new urban landscape pattern which expands new identity pattern (Kaymaz, 2013). The great similarity of modern cities to each other is a serious threat to urban landscapes, the most important aspect of the ancient cities is their unique identity.

In contemporary urbanization, the hard order has been replaced the past social diversity. Cities had their own personality. Today, this personality and existence have vanished, and all of them have become similar homogeneous masses (daneshpour, 2004; Marcel, 2008; Sassatelli, 2010).

In this regard, critics like Mumford, states that modern urbanism has a lack of personality in terms of spatial, physical and social characteristics. And believes the main problem of modern urbanization is urban identity. He says the cities in the past had a visual identity and, with gradually more complex forms, created a wealth of social life for societies (Mumford, 1961).

4.3.2. Phenomenological and linguistic approach

One of the issues that make sense of identity in a human-made environment is to look at these works as a means of recognizing and understanding the place in such a way that this understanding leads to the sense of attachment of man into a place. Phenomenological or linguistic approach can be the useful solution and ways to understand and study this subject. The phenomenological aspect has been adapted more than the methods

proposed by Heidegger and his followers, and linguistic aspect has been raised more often by Noam Chomsky (Abel, 2012). Landscape phenomenology aims to propose something different from other landscape studies such as linguistics and empirical (Wylie, 2007). The phenomenological approach examines the issues surrounding the essence of a phenomenon and the situations in which an individual engages with the being of phenomena that contain the world (Mikadze, 2015) and how a person subjectively interprets landscapes (Ohta, 2001). in fact, the landscape becomes a completely mental concept, an expression which shapes our interpretation of the world by passing the cultural, religious, and historical context (Alehashemi and Mansouri, 2018). While in the linguistic approach, the ideas used in the signified are discussed which have less complexity than the phenomenological approach .Linguistic landscape emphasizes ideological constructions and goes beyond the physical spaces (Leeman and Modan, 2009). Languages that are expressed in public signs display their origins and locations (Kasanga, 2012; Shohamy et al., 2010).

Landscape signs for example advertising, billboards, place names, street names, and public signs on government or commercial shop as a symbolic linguistic landscape describe a certain image of urban identity. The linguistic landscape is becoming a good way to understand the transformation of an urban landscape.

4.3.3. Identity components in the urban landscape

To make an identity in the urban landscape, there are many determinants, but the three components of "meaning, culture and history" are among the most important ones (Karimi Moshaver et al., 2010). In relation to the "meaning", the urban landscape seeks some questions such as, what concepts urban landscape has and how these concepts transmit through the signs, metaphors, and ciphers to the viewers? According to Charles Sanders Peirce's division (1900), the meaning has three types: index, icon and symbol)Faizi and Asadpour, 2013(which make different layers of perception at urban landscape. The purpose of culture in the urban landscape is attention to the customs, beliefs, and traditions of one society.

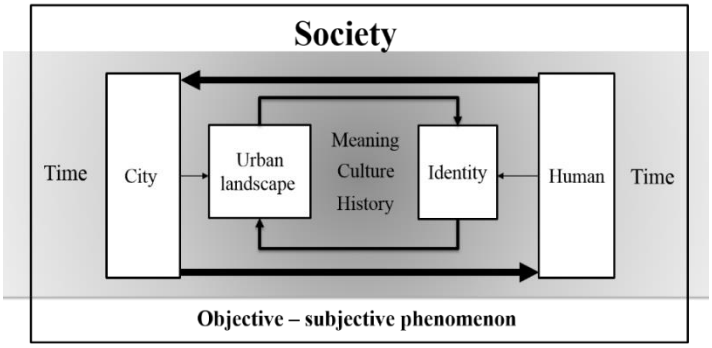

Figure 5. Identity, a social continuity in the city

And finally what understandable historical mentions are there in the urban landscape? And how much the urban landscape has attention to the history? (Abel, 2012; Capon, 1999; Lynch, 1981). Figure 5 shows the identity as an objective-subjective phenomenon in the social context which is dependent on the meaning, culture and history and affected by time.

4.4. Ecology

4.4.1. Landscape ecology

Landscape ecology is one of the youngest branches of ecology that has been developed in Europe since World War II and has been considered as a distinct science (Cook and van Lier, 1994; Wu and Hobbs, 2007). Although this term has been introduced since the 1930s, landscape ecology has become a specialized field since the 80's, when software and computers applied to help the ecologists and geographers. Today, landscape ecology is a well-known, specialized field of study by landscape architects, ecological scientist, geographers and researchers of the social sciences around the world (Habibi, 2015). Landscape ecology is a complex cross-sectional discipline that integrated urban ecology early on, first as a special section but later recognized it as science requiring a consolidated theory (Niemelä, 1999). In fact, visions in landscape ecology gradually have evolved and human as main part of studies is added, according to this, nowadays the landscape is recognized as a product of the complex relations between humans and nature (Opdam et al., 2018). Some of the definitions proposed by scientists and theorists in this area are shown in Table 2.

Wu (2013) in his research, proposes the last issues raised in the landscape ecology area which are as follows:

1- "Pattern–process–scale relationships of landscapes.
2- Landscape connectivity and fragmentation.
3- Scale and scaling.
4- Spatial analysis and landscape modelling.
5- Land use and land cover change.
6- Landscape history and legacy effects.
7- Landscape and climate change interactions.
8- Ecosystem services in changing landscapes.
9- Landscape sustainability
10- Accuracy assessment and uncertainty analysis."

4.4.2. Urban ecology

Urban Ecology as a subset of a larger and broader complex concept means landscape ecology become more and more important (Breuste and Qureshi, 2011). Actually, urban Ecology has been introduced as an interdisciplinary subject, which is the location of the intersection of different fields of social sciences and biophysical processes (Dow, 2000; Young, 2009). From the landscape ecology view, the city is a set of disrupted ecosystems and can be studied its structures, functions and processes from this point of view. "Patches", "corridors" and the "matrix" are the main elements of landscape ecology which Forman and Godron (1986) introduced to describe the spatial patterns in natural and rural landscapes (Behnaz Aminzadeh and Khansefid, 2010). But that was one of the early methods to study and evaluate urban ecology. Today, linking the different disciplines such as urban sociology with ecology, or moving on the boundaries of various sciences is the main idea of some studies (R. T. Forman, 2014, 2016; McDonnell and Niemelä, 2011; McPhearson et al., 2016; Pickett

et al., 2011). In fact "Urban ecology has emerged as a multidisciplinary field with many of the tools needed for advancing cities' sustainability and resilience." (McPhearson et al., 2016).

Table 2. Landscape ecology definitions

Theorists and Researchers	Landscape ecology definition
Troll (1968)	Study of the whole, in a certain landscape unit dominating complex interaction between biocoenoses and their environmental conditions. This interaction is expressed spatially in a certain spatial pattern or natural regional units at different scales.
P. Risser et al. (1983)	Landscape ecology focuses explicitly upon spatial pattern. Landscape ecology is not a distinct discipline or simply a branch of ecology, but rather is the synthetic intersection of many related disciplines.
R. Forman and Godron (1986)	The conceptual framework behind landscape ecology has traditionally been 'structure, function and change.
Turner (1989)	Landscape ecology emphasizes broad spatial scales and the ecological effects of the spatial patterning of ecosystems.
Wiens and Milne (1989)	Landscape ecology addresses how landscape elements or patches are configured in relation to one another in an overall mosaic and how such landscape structure influences a wide variety of ecological patterns and processes.
Isaak S Zonneveld (1990)	The subject of study in landscape ecology is the land or landscape, its form, function, and genesis (change)
Pickett and Cadenasso (1995)	Landscape ecology, which concerns spatial dynamics (including fluxes of organisms, materials, and energy) and the ways in which fluxes are controlled within heterogeneous matrices.
J. Nassauer (1997)	Landscape ecology investigates landscape structure and ecological function at a scale that encompasses the ordinary elements of human landscape experience: yards, forests, fields, streams, and streets. From.
Wu and Hobbs (2007)	Landscape ecology is the science and art of studying and influencing the relationship between spatial pattern and ecological processes across hierarchical levels of biological organization and different scales in space and time.
Pearson and McAlpine (2010)	Landscape ecological paradigm focuses on understanding and designing the space in which biophysical, socio-cultural and economic processes operate in order to ensure ecosystem goods and services valued by people are maintained.

4.4.3. Urban landscape ecology

It can be said the integration of landscape ecology and urban ecology lead to the new Proposition which is called urban landscape ecology. "Cities are spatially extended, complex adaptive systems—which we call landscapes." Undoubtedly, cities are the main place of the future of human life, so inevitably, most of the landscape ecological studies will be on the cities (Wu et al., 2013).

Wu et al. (2013) mention, in simple way, that the landscape ecology study of urban areas is identical with urban landscape ecology. "More specifically, it is the science of studying and improving the relationship between urban landscape pattern and Ecological processes for achieving urban sustainability." To specify the study areas in urban landscape ecology Wu et al. (2013) proposed three key components: urbanization patterns, urbanization impacts, urban sustainability (Figure 6). In this regard, Muderere et al. (2018) To clarify the focus of attention in the urban landscape studies, investigated the related Literature and researches between 1986 to 2016 and extracted the most frequently terms in the urban landscape ecology researches which included landscape ecology, landscape structure, landscape change, biodiversity, approaches, gradient, vegetation, GIS, and remote sensing.

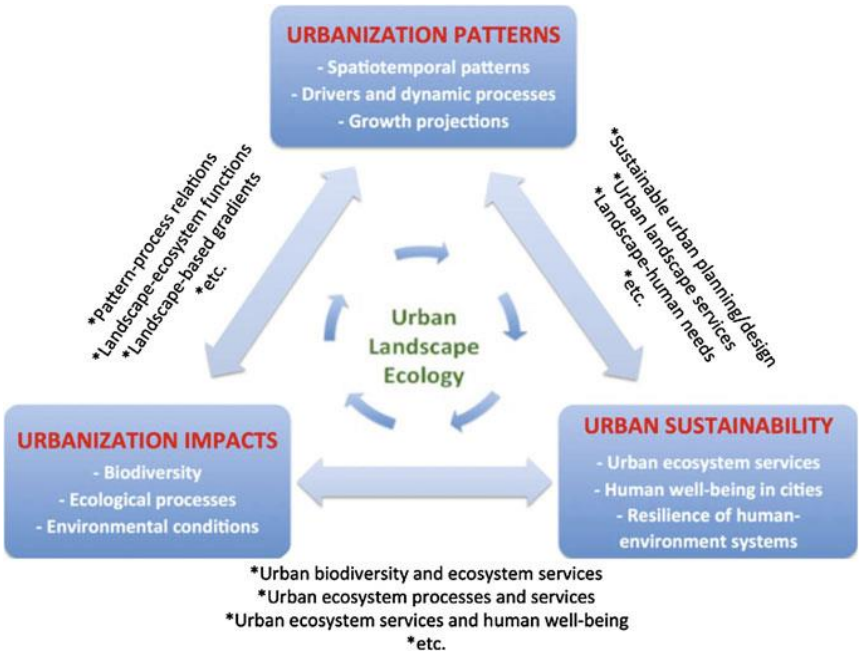

Figure 6. The scope of urban landscape ecology: three key components and their relationship (Wu et al., 2013)

5. Conclusion

Natural and man-made spaces as the physical and semantic context of cities, the human with a multiple and hierarchical perception and finally the interaction which occurs between human and environment, make the

urban landscape as the first manifestation of historical, socio-cultural, economic and natural of each city. As can be seen, the urban landscape is a multidisciplinary concept that covers various sciences and disciplines. Hence, the purpose of this study was to provide a comprehensive insight into the urban landscape framework through the study of historical roots of urban landscape. The existing study showed that the urban landscape is a dynamic concept that is still evolving. And according to this evolution, four approaches introduced which included Artistic approach, Functional approach, Perceptual / Contextual approach, and Sustainable approach. The most obvious finding of this study was clarifying the purposes of this concept; four general purposes of aesthetics, function, identity, ecology, which cover all related disciplines from humanities to engineering and arts. This study tried to determine a framework of urban landscape as a significant discipline and by introducing the purposes and explaining them, clarified the future pathway for researchers and designers. Also to research or work on the urban landscape, it prevents to entrance in the loop of ambiguous meanings.

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