Research Paper

Integrated Strategic Sustainable City Planning: The Quality of Life as a Value of Natural Environment Cultural Heritage

Narges Soltani [1,2*], Parvin Partovi [2], Daryoush Moradi Chadegani [3]

[1] *Department of Architecture and Urban Planning, Faculty of Engineering and Technology, Shahid Ashrafi Esfahani University, Isfahan, Iran*

[2] *Department of Urban Planning, Faculty of Architecture and Urban Planning, University of Arts (UOA), Tehran, Iran*

[3] *Department of Urban Planning, Faculty of Architecture and Urban Planning, Art University of Isfahan (AUI), Isfahan, Iran*

Abstract
Preserving the Natural Environmental Cultural Heritage (NECH) and improving the urban Quality of Life (QOL) are crucial urban planning issues that play critical roles in cities. The modernization and expansion of cities due to population growth, lifestyle changes, and improved quality of life are inevitable movements in developing and developed countries. Although the new progression has brought many opportunities concerning socio-economic aspects, it has also caused some challenges for urban planning, particularly in conserving cultural heritage. It reaches a point where it is possible to visualize the link between heritage conservation and sustainability, which will enhance the development of future cities. The present study investigates how the NECH and QOL have evolved to be implemented in urban strategic planning to upgrade the NECH and QOL values. The research time scope covers 1920, when the first use of "standard of living" (before QOL) was proposed, until 2023. By reviewing and analyzing texts and documents of historical transformation of the NECH and QOL, tracing and overlying common fields of the NECH and QOL concepts (historical-structural analysis and comparative analysis), and organizing sequential cause and effect relations between milestones and evidence of NECH and QOL historical transformations (timeline diagram), the authors explained the strategic planning approach to support the (NECH and QOL) using the adaptive analysis method and extracting both substantive and procedural components for urban spatial, strategic planning process. The research results presented an urban spatial strategic planning model according to the NECH and QOL components (substantial and procedural). Due to the nature of urban spatial strategic planning (focus on uncertainty in planning; probability of planning process; need to expand the scope of planning in the broader political, social, economic, and environmental fields; focus on paying attention to diverse shareholders; and ability to support urban planning models based on description, analysis, and prescription); a cyclical-continual steps (1) assessing the current situation, (2) problem finding, (3) cause and effect problem analysis, (4) producing a final statement of significant issues and goals, (5) presenting decision options and suggestions (problem-solving), and (6) sharing strategic planning related to cultural and natural heritage among key shareholders and residents, with special content in each step, configured. The achievement of this spatial strategic planning model is bridging between the quality of life and the natural environment cultural heritage concepts and applying its principles of substance and procedure adapted to local conditions in such a way that the capacities of the natural environment heritage of the cities are coextensive with upgrading the resident's quality of life.

Keywords: Natural Environmental Cultural Heritage (NECH), Quality of Life (QOL), Strategic Urban Spatial Planning.

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* *Corresponding author: n.soltani@ashrafi.ac.ir*

INTRODUCTION

The Natural Environmental Cultural Heritage (NECH) expresses each country's historical background, civilization, culture, and natural attractions. The rapid growth of urbanization in the contemporary era and the emergence of metropolises have exposed natural and human-made hazards. Besides, the emergence of new needs in urban life has weakened cities' NECH, reducing the citizens' sense of belonging and satisfaction with the NECH and creating a profound challenge for city officials. The NECH is an integral part of a city's body, spirit, and identity. Thus, there is a correlation between the NECH as an element of the urban system. Therefore, any interference in the urban system affects its other components.

Heritage constitutes a critical asset when striving to implement sustainability strategies. The existing research and literature demonstrate that the historic built environment can play an essential role in all basic dimensions of sustainability: sociocultural (for example, community cohesion, and local identity development), socioeconomic (creating jobs in the heritage preservation sector, development of sustainable cultural tourism, providing other market and non-market economic values, environmental (reuse of existing buildings instead of demolition and wasting of embodied energy. However, the heritage benefits for contemporary and future generations are possible only if the heritage objects are treated sustainably (Seduikyte et al., 2018, pp. 66-67). Urban heritage is the valuable historical, cultural, scientific, and artistic remnants in cities, including historic buildings, areas, and environments, as well as intangible elements, such as customs and beliefs (Wang et al., 2023. p. 1).

The awareness of analogies between the NECH developed gradually throughout the 20th century. Perhaps the best known and most direct parallel between them is drawn in the "Convention Concerning the Protection of the World Cultural and Natural Heritage" adopted by UNESCO in 1972, considering both natural and cultural resources the universal heritage of humankind. In the Convention, both types of heritage, i.e., cultural and natural, are defined similarly as individual structures, their groups, or entire sites. The reasons for their preservation are also much alike (i.e., considering historical, aesthetic, or scientific considerations). The obligations of signatories of the Convention consist of ensuring the identification, protection, conservation, presentation, and transmission to future generations (UNESCO, 1972). Considering the legacy of nature and previous generations of humankind as natural and cultural heritage, critical practical parallels between them are becoming obvious (Murzyn-Kupisz, 2010; p. 380). Cultural heritage is intrinsic to the concept of QoL and contributes to the three pillars of sustainability. While heritage was long absent from the mainstream sustainable development debate, which originated from environmental protection, its potential to contribute to social, economic, and environmental dimensions is widely acknowledged. There are even claims for adding a 4th cultural pillar to the concept of sustainability (Tweed and Sutherland, 2007; Battis-Schinker et al., 2021). Heritage constitutes a critical asset when striving to implement sustainability strategies. The existing research and literature demonstrate that the historic built environment can play an essential role in all basic dimensions of sustainability: sociocultural (for example, community cohesion, local identity development), socioeconomic (creating jobs in the heritage preservation sector, development of sustainable cultural tourism, providing other market and non-market economic values, environmental (reuse of existing buildings instead of demolition and wasting of embodied energy. However, the heritage benefits for contemporary and future generations are possible only if the heritage objects are treated sustainably (Seduikyte et al., 2018, pp. 66-67).

In the last twenty years, the role of the NECH in urban management has evolved from the institutionalization of conservation measures to the placement of heritage at the center of strategic planning (Guzmán et al., 2018). Since urban strategic planning became a global practice, urban historical areas have been the focus of planning strategies, and the management of cultural and spiritual assets has become as important as the physical capital management of a city. As a result, special planning is needed to preserve and promote tangible and intangible cultural heritage in cities, including sustainable development measures that identify and manage natural and cultural heritage values (Guzmán et al., 2014; p. 3). There is a need to develop systematic evaluation methods bridge the gap between natural environmental, cultural heritage and quality of Life. Given that urban heritage is an essential subject area in urban planning and improving the urban Quality of Life (QOL) is a goal for urban planning, both issues have critical roles in the sustainability of cities. There are also numerous sources on the QOL in scientific and operational reports and documents on cultural heritage preservation. Improving the QOL is beneficial for heritage preservation; however, the relationship between the QOL and NECH has not been stated clearly (Mohamad Mostafa, 2012; p. 255).

There is a gap in expressing the substantive values of urban planning with the natural heritage values[1]. Failures to pay attention to the NECH values from the view of key stakeholders (residents and specialists of organizations involved in urban planning) as a factor that is effective in changing the inhabitants' QOL are other challenges in urban planning. Therefore, the urban planning of the NECH requires an approach that reduces these damages and improves conditions. Urban planning can reduce the gap between the NECH and QOL, which are fundamental issues in urban planning content. In an institutional, unitary, and centralized urban management system, the NECH and QOL are grounded on holistic and integrated basics. Urban planning embraces incompleteness and uncertainty, multiple possible alternative futures, and people's desires that are likely to change over a strategic spatial plane's life, so many decisions must be flexible. Strategic spatial plans have always been prepared and implemented in the shadow of uncertainty, whether practitioners admit it or not. Plans developed for the longer term have traditionally dealt with uncertainty by reducing its dimensions to those that could be managed by ignoring or deflecting other elements. However, rapid changes in contemporary economic, environmental, and social conditions make policymakers and politicians increasingly aware of the limitations of prescriptive, longer-range plans that specify precise targets (Balducci et al., 2011; p. 481).

Strategic planning is based on strategic choice due to the features based on the uncertainty principle of strategic planning and strategic planning, and decision processes are probably more suited to cope with problems than traditional practices.

Strategic planning is a systematic approach to deciding and implementing activities related to forming and managing a system and its functions. Urban strategic spatial planning emphasizes selectivity, choice of strategic issues, and identification of the planning environment with an analytical-critical perspective. In addition, it emphasizes flexibility and the simultaneous presence of long-term and short-term attitudes. These features are briefly introduced below (Alberchts, 2004, p. 747 Healey, 1997, p. 30):

1. Relativity and flexibility of goals, methods, and implementation;

2. Comprehensive and sustainable development and justice;

3. Public interest, social equality, citizenship rights, and indigenous identity;

4. Integrated and cyclical process;

5. Democracy, public participation, social cohesion, and local governance;

6. Reflection of community values;

7. Focus on the main goals, problems, and priorities of planning and limited vital issues;

8. Strategic knowledge and analysis of environmental planning and attention to the driving forces of spatial change; and

9. Emphasis on the process and the substance.

In this paper, urban strategic spatial planning was employed due to the emphasis on the principle of uncertainty in planning, the probability of the planning process, the need to expand the scope of planning in broader political, social, economic, and environmental fields; emphasis on paying attention to the role of various actors (stakeholders); and the ability to support urban planning models based on dual or multiple integrated basic concepts. In addition, efforts were made to achieve a strategic spatial planning model based on the two concepts of NECH and QOL. Besides using the two concepts in a strategic spatial planning process, the research aims to achieve an urban planning model supporting the two basic concepts, via which the NECH and QOL values can be integrated into strategic planning for developing and preserving the NECH as part of the urban heritage. The questions raised in this study are as follows:

1. What are the characteristics of the NECH and QOL based on historical-structural analysis transformation?

2. How can these Characteristics be integrated into the process and substance of urban strategic spatial planning?

The main objective of this study was to fill the research gap and achieve an urban planning model supporting the two basic concepts. This model would integrate the NECH and QOL values into strategic planning for developing and preserving the NECH as part of the urban heritage.

The study was based on the assumption that the current measurement of urban QoL does not sufficiently account for specific location factors of NECH significantly contributing to urban quality of

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[1] The term 'heritage values' refers to the meanings and values that individuals or groups of people bestow on heritage (including collections, buildings, archaeological sites, landscapes, and intangible expressions of culture, such as traditions). These values have been a key factor in the legitimation of heritage protection and management, although the understanding of what they are has varied over time and there are nuances between one country and another (Díaz-Andreu, 2017, p. 2).

life. So far, this has received too little attention in QoL research.

The following sections discuss the research methodology. Then, the primary fields are analyzed and discussed in the discussion section based on historical-structural analysis. After that, the research findings section presents the integration of primary areas in urban strategic spatial planning; finally, the conclusion section presents a strategic planning process to promote the NECH values, emphasizing QOL.

METHODOLOGY

This paper is based on descriptive-analytical research (as qualitative research) by using historical structural analysis and is organized into six stages to achieve research aims (Figure 1):

1. reviewing and rewriting texts and documents related to theoretical, technical, and experimental frameworks of the NECH and QOL concepts;

2. accomplishing documentary analysis to extract milestones and evidence of the NECH and QOL historical transformation;

3. tracing and overlying standard fields of NECH and QOL concepts using both historical-structural analysis and comparative analysis methods;

4. organizing sequential cause and effect relations between milestones and evidence of NECH and QOL historical transformations based on the timeline diagram technique;

5. making an integrated analysis of two historical timelines (NECH and QOL) using adaptive analysis method and extracting both substantive and procedural components for urban spatial, strategic planning process;

6. Using the adaptive analysis method to explain the strategic planning approach to support NECH and QOL promotion in the urban planning system.

Data was historical evidence and substantive and procedural components collected from primary and secondary documents (books, articles, credible reports, and manuscripts) related to NECH and QOL theoretical and experimental underpins. The Data was collected via multiple document reviews, document analysis, and document rewriting methods. The time frame of this research is from 1920, when the first use of "standard of living" (before QOL) was proposed, until 2021 –the year of this research.

RESULTS SECTION

The research aims to answer the question of how to integrate the NECH and QOL concepts in substantive and procedural components for urban spatial and strategic planning, which requires a historical and comparative analysis of the historical course of these two basic concepts. For this purpose, texts and documents related to theoretical, technical, and experimental frameworks of the NECH and QOL concepts were analyzed, offering relations between milestones and evidence of NECH and QOL historical transformations based on the timeline diagram technique. This section analyzes the evolution of the NECH and QOL concepts via historic-structural analysis and comparative and integrated analysis:

Exploration of the evolution of the NECH concept based on historical-structural analysis

Texts and documents related to theoretical frameworks were reviewed to study and analyze how the NECH concept has evolved (see the introduction section and historical-structural analysis of the two basic concepts). Then, document analysis and historical-structural analysis were employed. After that, the issues raised around these dual concepts were organized in a Timeline based on cause-and-effect analysis, and historical documents were used as research materials in response to the cause of each effect.
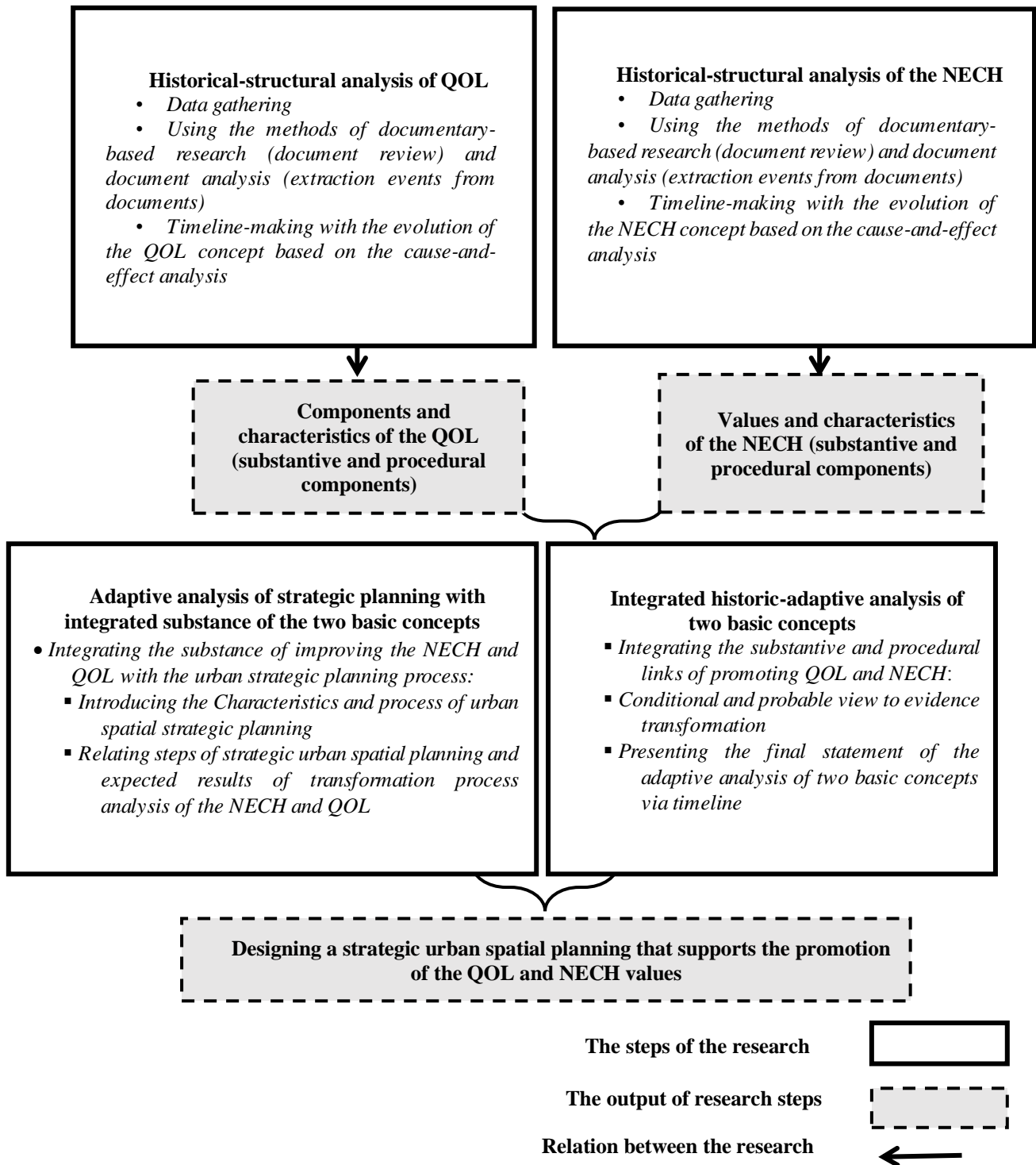
Historical-structural analysis of QOL
• *Data gathering*
• *Using the methods of documentary-based research (document review) and document analysis (extraction events from documents)*
• *Timeline-making with the evolution of the QOL concept based on the cause-and-effect analysis*

Historical-structural analysis of the NECH
• *Data gathering*
• *Using the methods of documentary-based research (document review) and document analysis (extraction events from documents)*
• *Timeline-making with the evolution of the NECH concept based on the cause-and-effect analysis*

Components and characteristics of the QOL (substantive and procedural components)

Values and characteristics of the NECH (substantive and procedural components)

Adaptive analysis of strategic planning with integrated substance of the two basic concepts
• *Integrating the substance of improving the NECH and QOL with the urban strategic planning process:*
▪ *Introducing the Characteristics and process of urban spatial strategic planning*
▪ *Relating steps of strategic urban spatial planning and expected results of transformation process analysis of the NECH and QOL*

Integrated historic-adaptive analysis of two basic concepts
▪ *Integrating the substantive and procedural links of promoting QOL and NECH:*
▪ *Conditional and probable view to evidence transformation*
▪ *Presenting the final statement of the adaptive analysis of two basic concepts via timeline*

Designing a strategic urban spatial planning that supports the promotion of the QOL and NECH values

The steps of the research

The output of research steps

Relation between the research

Fig 1. The adaptive analysis trend of the NECH and QOL based on the strategic planning approach
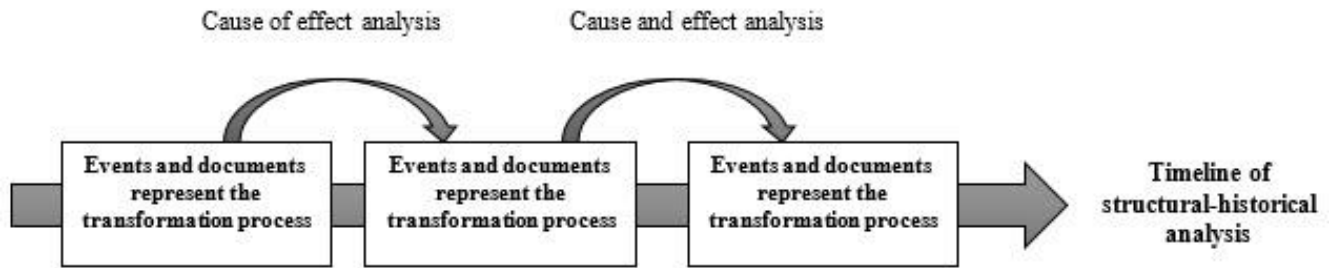
Fig 2. Historical-structural analysis based on cause and effect analysis

Before 1960: The beginning of the history of the NECH management can be traced to an international concern with the destruction of cultural heritage and monuments on a large scale caused by World Wars (1914-1919 and 1939-1945) and the significant presence of the modernist movement in urban planning and architecture at 1931. The need to rebuild cities and not imitate the past led to considering the physical and aesthetic values (Robwell, 2008). From the mid-1940s to the late 1960s, with the formation of urban planning, special attention was paid to management and planning to address the problems of historical areas and protect cultural heritage in cities and the presence of a welfare state and prosperity after the war. The publication of the Athens Charter -1931 emphasized the need to restore historic monuments (https://www.icomos.org/en/167-the-athens-charter-for-the-restoration-of-historic-monuments).

The founding of UNESCO in 1950 as an international organization to protect cultural heritage is also a significant step. In this regard, drafting the Hague Convention for the Protection of Cultural Property in the Event of War (UNESCO 1954) reflects the success of UNESCO's concerted efforts on a series of international heritage conservation projects dating back to the 1950s. The early globalization of cultural heritage preservation shows that "heritage at risk" plays a crucial role in defining UNESCO's mission so that at any time, this heritage as a cultural resource can play a role in rebuilding and building post-war cultural peace (Rico, 2014; p. 158).

1960-1970: In 1961, landscape values were recognized. An article on preserving the beauty and character of landscapes and places was compiled at the UNESCO meeting. This article also referred to the cultural value of natural landscapes (Recommendation concerning the Safeguarding of Beauty, 1962). The Second Congress of Architects and Historians in Venice in 1964 also adopted 13 resolutions, one of which was the International Charter for Restoration, known as the Venice Charter, where the human values of heritage were specially considered. The second case approved by UNESCO is the International Council on Monuments and Sites (ICOMOS) (https://www.icomos.org/en/about-icomos/), responsible for the World Heritage Site. The expansion of knowledge and the departure of purely physical planning and heritage led to the expansion of urban planning to the historical and identity areas of cultural heritage, changing the view of strictly physical and conservation to urban renewal.

1970-1980: In 1972, due to the energy crisis and the environment and the recognition of nature and the natural environment as cultural heritage, the UNESCO General Conference approved the Convention Concerning the Protection of the World Cultural and Natural Heritage (also known as the World Heritage Convention). The rationale for the Convention was that places of outstanding global value are part of all human heritage. Therefore, protecting them is a shared responsibility. The most significant result is identifying cultural and natural factors and statements about them as World Heritage Sites (WHS) (Pendlebury et al., 2009; p. 349). According to this statement, cultural heritage considers the environment and nature an integral part of the heritage that human beings are a part of this nature and societies.

In 1972, UNESCO defined heritage as what we live in the past, what we live in today, and what we pass on to future generations. Such a definition involves a temporal and cumulative conceptualization that must be consistent in various forms; thus, heritage is broader than cultural domains and/or processes; it is an "economic capital and social practice" and "a constantly changing dynamic product and process" (UNESCO Convention Text., 1972). The theoretical foundations of the statements and programs of this period refer to the principle of "cultural and environmental connection" and "integrated protection" in intervention plans for the environment and historic centers of cities in the form of urban development programs (Amsterdam Congress, European Architecture 1975). Emphasis on "the principle of heritage transformation and dynamism" co-occurred with forming the structural-strategic

urban plans, emphasizing "the principle of process-oriented urban planning".

1980-1990: In the 1980s, globalization and its effects on the economy and culture caused the issues of culture and cultural cohesion to attract special attention. The 1987 ICOMOS Resolution in Brazil also emphasized the care and rehabilitation of historical centers for cities' cultural resources, with their social origin and identity, diverse functions, and the need for the participation of decision-makers and urban planners. The 1987 ICOMOS Charter of Washington called for the protection of historic cities to be included in economic and social development policies and urban and regional planning (Bonyadi, 2012; p. 74). Also, with the beginning of sustainable development thinking, special attention was paid to the need for urban planning in coordination with the NECH, which in urban heritage planning, the view of "urban regeneration" was formed. This view was not anticipated due to the attention to environmental issues, and the sustainability of communities to respond to the "uncertainty" principle during disasters was closely linked to urban planning approaches. Also, one of the concepts in this period was the "cultural landscape" in heritage studies due to the attention to the dynamic and continuous trend of the NECH in urban planning goals (the Brazilian ICOMOS Seminar, 1987).

1990-1990: The 1990s is the decade of value-based approaches to the NECH (1994 The Nara Document on Authenticity and the 1999 Burra Charter), emphasizing the need to recognize and interpret heritage values. According to these charters and recommendations, the role of actors and the interpretive nature of heritage in decisions affecting heritage is significant. Critical thinking is emerging in theories in the decade of transition from modernism to postmodernism. As a result, in this period, the discussion of participation in high levels of urban planning was given special attention. It emphasized the role of officials and stakeholders in planning.

2000-2010: In the early 21st century, in 2002, the UNESCO World Heritage Committee reaffirmed the universality of the 1972 agreement and the need to use cultural heritage as a tool for the sustainable development of all societies in a statement to its members in Budapest (Bonyadi, 2012; pp. 74-76). In 2003, preserving the NECH intangible values was emphasized in the sustainable development of cities and human societies. It paid particular attention to the intrinsic and external features of the NECH. Due to the global economic crisis and the effect of the globalization process on the historical continuity in urban heritage environments and the value of living

traditions, residents' priority over tourists in heritage planning plans and projects was raised.

2010-2021: In the second decade of the 21st century, the UNESCO Recommendation on Historic Urban Landscape (2011) introduces a strategy to balance urban development and sustainable QOL. In this document, "urban heritage, including tangible and intangible values, is considered a major source in promoting the vitality of urban areas and promoting economic development and social cohesion in a changing global environment" (UNESCO, 2014, Art.3). Besides, in cities and historic urban areas, they are living beings that are constantly changing. These changes affect all urban elements, including natural, human, tangible, and intangible. Proper management of these changes can provide a good opportunity to improve the quality of cities and historic urban areas (ICOMOS, 2011; p. 4). The formation of the urban regions results from long processes created in response to changes over time. Changes and all interventions in historic cities and urban areas must respect their tangible and intangible cultural values and improve the QOL of local people and the quality of the environment (ICOMOS, 2011; p. 7). According to the ICOMOS 2014 Florence Declaration, the emphasis is on the value of traditional knowledge to improve the QOL. Improving the QOL emphasizes the need for a multidisciplinary and interdisciplinary approach and the city's cultural landscape in heritage planning.

The Global Sustainable Development Agenda affirms the link between the sustainability of urban areas and cultural heritage. Among the 17 Sustainable Development Goals (SDGs), Goal 11 aims to "create cities and human settlements that must be safe, flexible and sustainable" through "strengthening efforts to protect and preserve the world's cultural and natural heritage." Since adopting the 2015 United Nations Sustainable Development Agenda in the new Habitat III Urban Plan in October 2016, ICOMOS's mission has been implementing the 2030 Agenda regarding cultural and natural heritage and working with strategic organizations. It aims to protect, preserve, function, and promote cultural heritage sites and knowledge through sustainable development (https://www.icomos.org/en). Thus, the significance of natural-cultural heritage at the local level in forming cultures, welfare, and human identity was highlighted based on the emphasis on public participation in the definition and implementation of heritage policies and the contribution of local knowledge in various concepts of heritage. However, natural and cultural heritage definitions are unclear and constantly evolving (Jenkins, 2018; p. 75). The contribution of heritage to the quality of life is associated both with

superordinate processes of peripheralization and their local interpretation, as well as with socio-spatial specificities at the local level (Knoop et al., 2023; p. 4781).

In 2020, with the COVID-19 outbreak, ICOMOS declared the theme of 2020 "a common culture, a common heritage, a common responsibility." Many people chanted this slogan because COVID-19 spread worldwide, and all were responsible for preventing it. This issue acknowledges that the heritage of sites, landscapes, customs, and collections is often associated with and valued by numerous and diverse groups and communities. Paying attention to the relationships between cultures or cultural groups and their collective responsibility for caring for and preserving the characteristics, meanings, and deep values of cultural heritage is at the heart of this core issue (https://www.iranicomos.org/wp-content/uploads/2020/03/2020-ICOMOS-18th_April-Sharedcultures_EN.pdf). Thus, the late 20th century emphasized the multidisciplinary nature of heritage and the interactions of human beings and the nature, a deeper understanding of heritage formation, a complex interaction of human history and associated environmental changes in expressing the interpretive nature of heritage values, and the role of actors in the program process (Avrami et al., 2000; De la Torre, 2002; Jokilehto, 2005; ICOMOS, 2003). In the 21st century, with new approaches such as heritage urbanism, heritage is recognized as an integral part of sustainable development. The survival and future of heritage are linked to urban and spatial planning. It also considers the integrity of the space and the cultural heritage in it and considers heritage as an essential factor in the quality of the landscape and QOL (Zeayter & Mansour, 2017, p. 6; Tweed & Sutherland, 2007, p. 64; Wantzen et al., 2016, pp. 7-8, Šćitaroc, 2015; Šćitaroc "HERU", 2018; Šćitaroc, 2019). This insight points to the superordinate effects of peripheralization, which superimpose the endogenous potentials of heritage to contribute to a high quality of life (Knoop et al., 2023, p. 4781).

According to the definitions of natural heritage from 1902 to 2020, natural heritage values are related to the human perceiver and decision-maker. Heritage is interpretive (from society's point of view); it depends on its context, values, and perception of heritage for promoting values, and programs to preserve and develop this heritage are needed (Wallace et al., 2020; p. 144). Given that individuals' participation in and perception of heritage and resource management have a fundamental role, research on the underlying values of motivation is needed to select and preserve heritage. Before any decision in management, understanding the social context is necessary and puts it in the future of heritage preservation.

A planning framework that does not interfere with social contexts should address values and seek to integrate values with different stakeholder perspectives (Marmion, 2012; p. 53).

Exploration of the evolution of QOL based on historical-structural analysis

QOL is not a new concept rooted in Greek philosophy: Aristotle referred to it in his discussion of happiness. Observed as a coherent thought of the twentieth century in the modern era, the concept of QOL has attracted the attention of philosophers such as Kierkegaard and Jean-Paul Sartre (Ghaffari & Omidi, 2009; Sameh & Akrami, 2016; p. 28).

Before 1960: Pigou first used QOL in 1920 in *the Economy of Welfare*. In this book, Pigou discusses government support for low-income groups and its impact on them and the national budget. It has been a popular subject with social, economic, and psychological researchers since the 1930s (Wood, 1999). Due to the post-World War II period, the need for rapid reconstruction, and the formation of the welfare state, QOL was introduced as a "standard of living" to achieve greater efficiency for a minimum standard, such as the need for housing. During this period, the goal of welfare states was to reach the minimum standard of living; according to the physical view of comprehensive rational urban planning, the objective components of the standard of living can be observed (Fischler, 2000; pp. 142-144).

1960-1970: Quality of life is used in various academic fields such as psychology, sociology, medicine, philosophy, and geography. The development of modern research on QoL started in the 1970s (Książek et al., 2022; p. 2). A change in the concept of "standard" to "quality" indicates an improvement in the material conditions of life in industrialized countries in the 1960s, according to Schuessler and Fisher, "QOL" was first used in the 1960 US Presidential Commission's report on national goals (Wood, 1999). These developments were due to dissatisfaction with the social and environmental consequences of modernization, economic transformation, and the formation of protest movements against the inefficiency of comprehensive rational and quantitative planning in urban planning. Oppositions to rational urban development (comprehensive plan and construction of social movements, including those of Jane Jacobs and Alexandra) and efforts to preserve the historical fabric and revitalize worn-out textures were discussed in urban planning. Social activists and urban planners

also showed that cities have residents' identities and cultural needs. Since the 1930s, researchers have studied QOL through various methods and approaches. They have tried to determine the components and elements of QOL and compare geographical areas such as cities, states, and countries by QOL indicators (Clergy et al., 2014; p. 6). However, academically, the concept of urban QOL has been a field of research since the early 1960s (Schuessler & Fisher, 1985; p. 130).

1970-1980: The 1970s marked a turning point in the study of QOL, with most emphasizing the "definition of QOL". From this date onwards, discussions on QOL focused more on the three areas of scientific discipline: medicine, psychology, and social sciences. QOL in individuals' inner and mental states was also discussed, and attention was paid to the concept of QOL and social welfare in development programs. The concept of "standard of living" lost its legitimacy, and another idea was formed under the concept of "QOL" related to individuals' inner states in dealing with their needs and desires.

1980-1990: In the 1980s, special attention was paid to explaining the concept of QOL. The public introduced individual issues to the public. Simultaneously with the spread of the idea of "sustainable development" (the World Commission on Environment and Development (WCED), Brantland, 1987) and the introduction of urban planning approaches (strategic and participatory planning), the significant attention to "urban quality" in the study of QOL and urban planning found a special place that the emphasis of the third view brought simultaneous attention to the objective and subjective components. Therefore, planners in this period emphasized providing a conceptual model for QOL, which expressed the "principle of uncertainty" in defining this concept.

1990-2000: In the 1990s, with the first International Conference on QOL in Cities, Singapore, in March 1998, researchers consistently presented indicators to measure perceptions of QOL and residential satisfaction to analyze QOL. During this period, the discussion of participation and discourse in urban planning was raised to its highest levels. Many efforts were made to express "democracy" and "participation" as indicators of QOL and to measure QOL, social and environmental considerations, and marketing tools in economics. QOL was also mentioned as a "goal" in sustainable development based on improving the QOL between the dimensions of sustainability, relationship, and overlap.
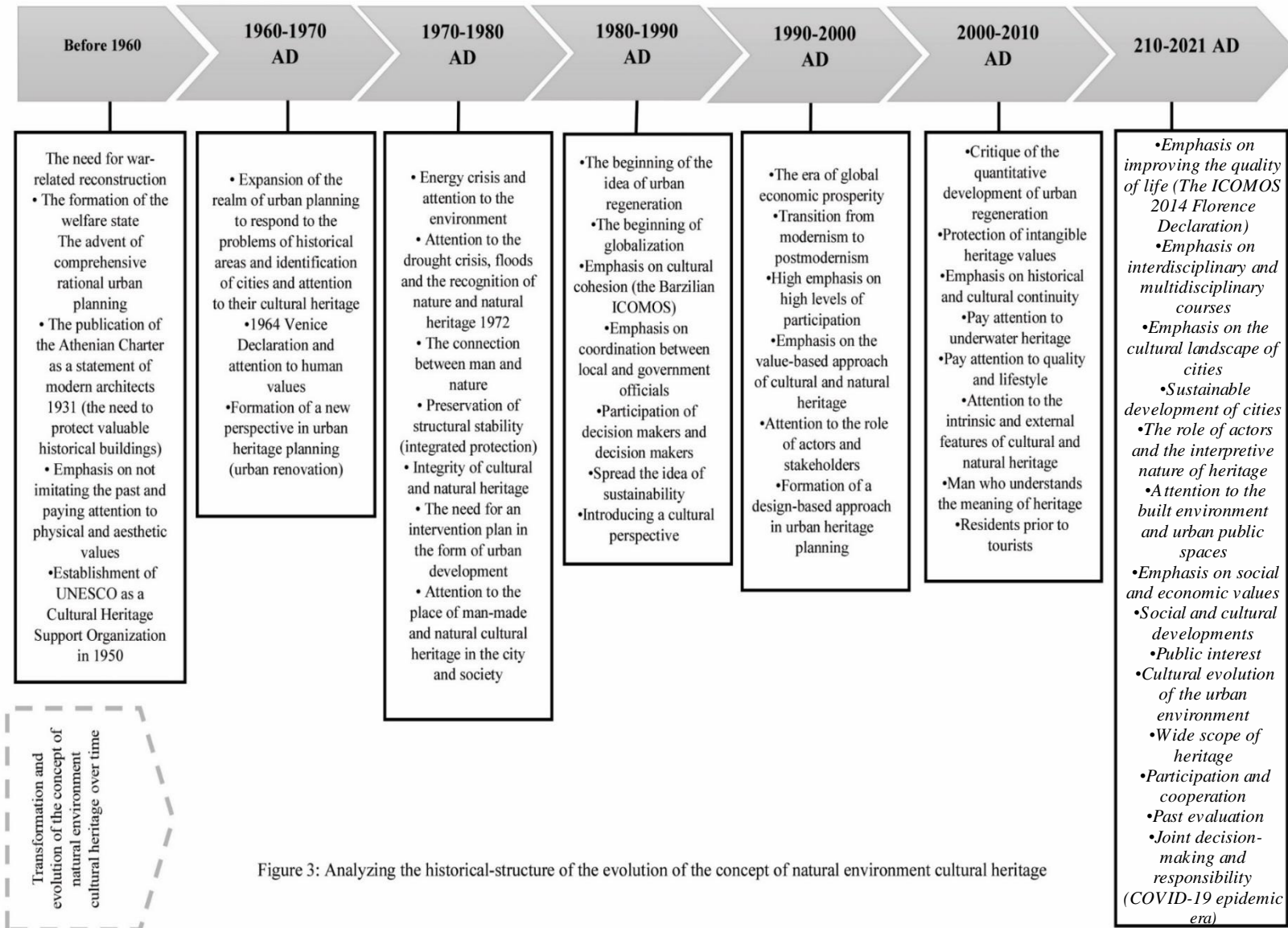
Before 1960	1960-1970 AD	1970-1980 AD	1980-1990 AD	1990-2000 AD	2000-2010 AD	210-2021 AD

The need for war-related reconstruction
• The formation of the welfare state
The advent of comprehensive rational urban planning
• The publication of the Athenian Charter as a statement of modern architects 1931 (the need to protect valuable historical buildings)
• Emphasis on not imitating the past and paying attention to physical and aesthetic values
•Establishment of UNESCO as a Cultural Heritage Support Organization in 1950

• Expansion of the realm of urban planning to respond to the problems of historical areas and identification of cities and attention to their cultural heritage
•1964 Venice Declaration and attention to human values
•Formation of a new perspective in urban heritage planning (urban renovation)

• Energy crisis and attention to the environment
• Attention to the drought crisis, floods and the recognition of nature and natural heritage 1972
• The connection between man and nature
• Preservation of structural stability (integrated protection)
• Integrity of cultural and natural heritage
• The need for an intervention plan in the form of urban development
• Attention to the place of man-made and natural cultural heritage in the city and society

•The beginning of the idea of urban regeneration
•The beginning of globalization
•Emphasis on cultural cohesion (the Barzilian ICOMOS)
•Emphasis on coordination between local and government officials
•Participation of decision makers and decision makers
•Spread the idea of sustainability
•Introducing a cultural perspective

•The era of global economic prosperity
•Transition from modernism to postmodernism
•High emphasis on high levels of participation
•Emphasis on the value-based approach of cultural and natural heritage
•Attention to the role of actors and stakeholders
•Formation of a design-based approach in urban heritage planning

•Critique of the quantitative development of urban regeneration
•Protection of intangible heritage values
•Emphasis on historical and cultural continuity
•Pay attention to underwater heritage
•Pay attention to quality and lifestyle
•Attention to the intrinsic and external features of cultural and natural heritage
•Man who understands the meaning of heritage
•Residents prior to tourists

•Emphasis on improving the quality of life (The ICOMOS 2014 Florence Declaration)
•Emphasis on interdisciplinary and multidisciplinary courses
•Emphasis on the cultural landscape of cities
•Sustainable development of cities
•The role of actors and the interpretive nature of heritage
•Attention to the built environment and urban public spaces
•Emphasis on social and economic values
•Social and cultural developments
•Public interest
•Cultural evolution of the urban environment
•Wide scope of heritage
•Participation and cooperation
•Past evaluation
•Joint decision-making and responsibility (COVID-19 epidemic era)

Transformation and evolution of the concept of natural environment cultural heritage over time

Figure 3: Analyzing the historical-structure of the evolution of the concept of natural environment cultural heritage

2000-2010: Since 2000, studies on the QOL can be divided into various environmental and local perspectives, such as mental perceptions of urban spaces, residential and human-made environments, neighborhoods, housing, new cities, and informal settlements in achieving a sustainable environment. In this period, the effect of QOL in the academic field can be observed. Also seen was the increase in international conferences and specialized journals related to this idea. This issue was significant in the experimental field in developed countries, and its promotion was considered one of the projects' primary goals. Most studies on "life satisfaction" dimensions were considered (Sameh & Akrami, 2016; p. 34).

In 2006, the Journal of Applied Research in QOL was published to investigate QOL in scientific, social, and natural disciplines. (Marans, 2012: 9). However, until the twentieth century, the concept of "QOL" was not known in urban planning (Ebrahimzadeh et al., 2016; p. 1). After the Industrial Revolution, new societies tended to link the urban planning process to specific QOL standards; for example, Eckersley (2000), Rezvani et al. (2012), Spinney et al. (2009), Barton and Tsourou (2013), Preuss and Vemuri (2004), Marquez and Smith (1999), Seongyeon (2005), Grigsby and Rosenburg (2012), and Massam (2002) discussed the relationship between urban planning and the quality of urban life. In the first decades of the twentieth century, however, it was based mainly on a political outlook on maintaining productivity and health and improving the individuals' material living conditions. It also helped meet the needs of the growing middle class. However, in the last decades, it has focused on improving the QOL and creating better living conditions in the public sphere, serving as a tool for planning sustainable cities.

2010-2021: In the 21st century, planners in the social field of sustainable urban development management consider the subjective and objective indicators of QOL as essential for promoting citizens' social life and welfare. Therefore, the issue of QOL, which has recently been raised in the literature on sustainable development and social development planning and modern management and environmental issues, has a special place in urban studies. Governments at the national and local levels and various institutions work on measuring and indexing it (Qahramani & Sayadi, 2016; p. 58). The concept of sustainable development introduced a new perspective on the assessment of the quality of life (Książek et al., 2022: 3). The concept of QOL and its evaluation in recent years have attracted the attention not only of city officials but also of many groups and individuals on a global scale, including those interested in human development (e.g., the United Nations Human Development Index), or social development stakeholders (e.g., the Ontario Social Development Council (OSDC)), Sustainable development stakeholders (e.g., Hamilton-Wentworth, Seattle), healthy community stakeholders (e.g., Pasadena, Ontario Coalition of Healthy Communities) and those interested in running the city (e.g., Jackson Community Council, Canadian Municipal Federation). In other words, many people and organizations pay attention to QOL and evaluate it, which shows its significance (Mohamad Mostafa, 2012; p. 256). Also, the QOL was proposed due to attention to the dimensions and spatial standards (social, cultural, physical, economic, political, and managerial) as a goal and tool in urban planning (both process and product).

QOL as "standard of living" and concerning the self-sufficiency level until the 1960s was studied, assuming that material welfare increased satisfaction and emphasized the objective components of QOL. However, since the 1960s, instead of a "standard of living," the "social indicators" movement has led to changes in the general attitude towards QOL. They argued, however, that a more appropriate and balanced quality assessment should combine subjective and objective characteristics (standardization with an objective approach and satisfaction with life with a subjective approach). Indeed, an approach that combines objective and subjective indicators provides a better approach to QOL and allows them to address and complement another weakness (objective and subjective) (Muhammed & Abubakar, 2019; p. 5). Therefore, all three approaches emphasize the principle of "human-environment interaction" with a different perspective.

Thus, the concept of QOL is general, typically found in almost all disciplines, has many interpretations, and lacks a standard definition. This concept is widely used in many fields, including health, politics, public administration, urban planning, international development, and other social sciences and humanities (Muhammed & Abubakar, 2019; p. 2). QOL is an important concept that provides a basis for negotiating consensus on planning goals. In addition, it can help policymakers understand and prioritize the problems that societies face. Thus, QOL measures can be used to make decisions in resident communities (Zebardast & Nooraie, 2017; p. 2). In recent years, it has received rich examination in the scientific literature, and numerous indicator approaches have been developed. Research on sustainable development takes into account the aspects of the built environment, landscape, and cultural heritage more clearly and directly than research on the quality of life (Książek et al., 2022; p. 3)
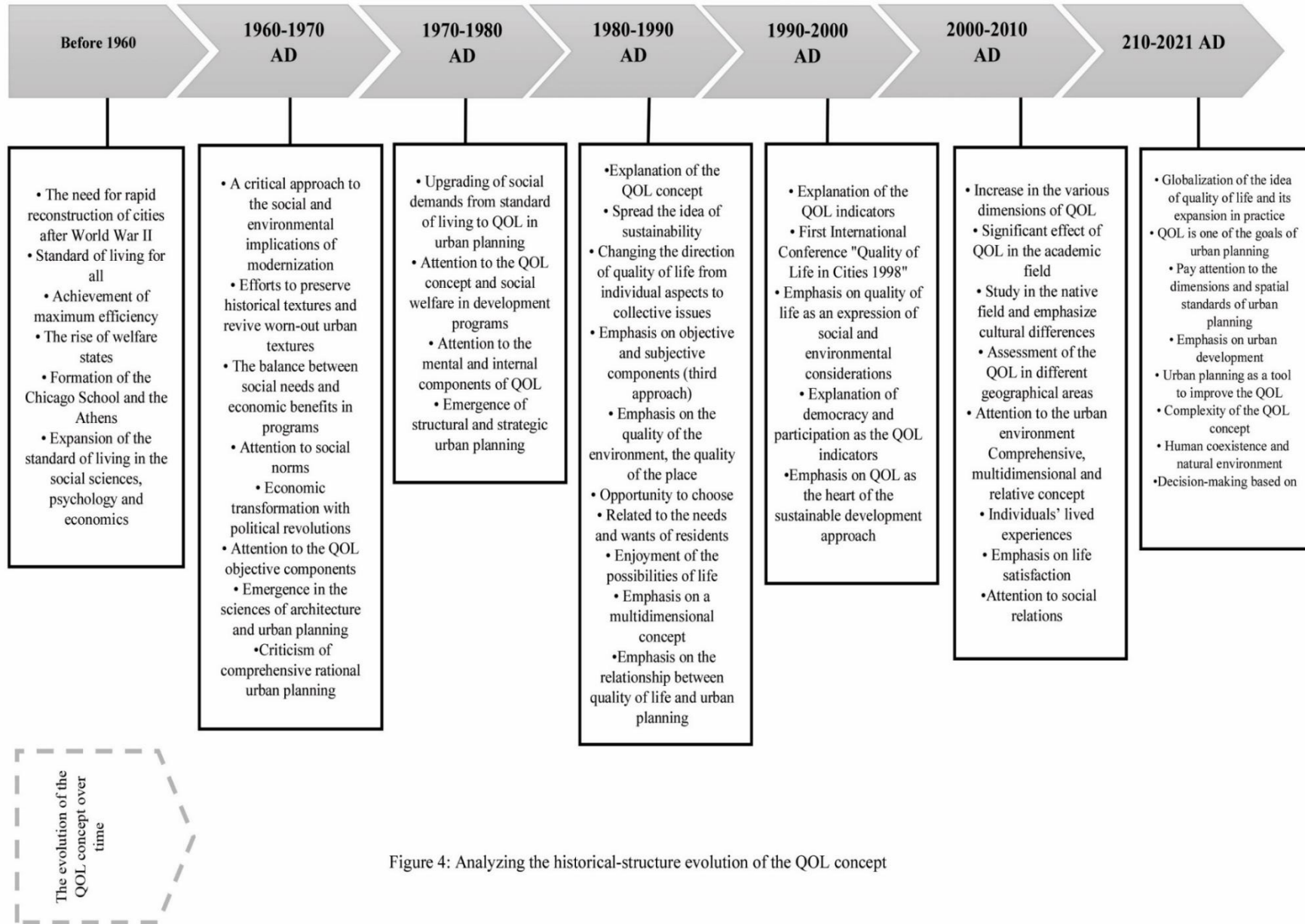
Before 1960	1960-1970 AD	1970-1980 AD	1980-1990 AD	1990-2000 AD	2000-2010 AD	210-2021 AD

Before 1960
- The need for rapid reconstruction of cities after World War II
- Standard of living for all
- Achievement of maximum efficiency
- The rise of welfare states
- Formation of the Chicago School and the Athens
- Expansion of the standard of living in the social sciences, psychology and economics

1960-1970 AD
- A critical approach to the social and environmental implications of modernization
- Efforts to preserve historical textures and revive worn-out urban textures
- The balance between social needs and economic benefits in programs
- Attention to social norms
- Economic transformation with political revolutions
- Attention to the QOL objective components
- Emergence in the sciences of architecture and urban planning
- Criticism of comprehensive rational urban planning

1970-1980 AD
- Upgrading of social demands from standard of living to QOL in urban planning
- Attention to the QOL concept and social welfare in development programs
- Attention to the mental and internal components of QOL
- Emergence of structural and strategic urban planning

1980-1990 AD
- Explanation of the QOL concept
- Spread the idea of sustainability
- Changing the direction of quality of life from individual aspects to collective issues
- Emphasis on objective and subjective components (third approach)
- Emphasis on the quality of the environment, the quality of the place
- Opportunity to choose
- Related to the needs and wants of residents
- Enjoyment of the possibilities of life
- Emphasis on a multidimensional concept
- Emphasis on the relationship between quality of life and urban planning

1990-2000 AD
- Explanation of the QOL indicators
- First International Conference "Quality of Life in Cities 1998"
- Emphasis on quality of life as an expression of social and environmental considerations
- Explanation of democracy and participation as the QOL indicators
- Emphasis on QOL as the heart of the sustainable development approach

2000-2010 AD
- Increase in the various dimensions of QOL
- Significant effect of QOL in the academic field
- Study in the native field and emphasize cultural differences
- Assessment of the QOL in different geographical areas
- Attention to the urban environment Comprehensive, multidimensional and relative concept
- Individuals' lived experiences
- Emphasis on life satisfaction
- Attention to social relations

210-2021 AD
- Globalization of the idea of quality of life and its expansion in practice
- QOL is one of the goals of urban planning
- Pay attention to the dimensions and spatial standards of urban planning
- Emphasis on urban development
- Urban planning as a tool to improve the QOL
- Complexity of the QOL concept
- Human coexistence and natural environment
- Decision-making based on

The evolution of the QOL concept over time

Figure 4: Analyzing the historical-structure evolution of the QOL concept

12

Exploration of the evolution of the NECH and QOL based on comparative and integrated analysis

For comparative and integrated analysis of the NECH and QOL, their common fields were organized based on a comprehensive and multidimensional process, and identical conditions and characteristics were explained as crucial points. Analysis of evidence via cause-and-effect analysis of each concept's evolution and combined explanations of the two basic concepts provides comparative and integrated analysis.

Before 1960, due to the reconstruction of cities after World War II and the presence of the welfare state, the Athens Charter, as a guide for architects and planners in this period, put on the agenda "the need to protect historic buildings" and "achievement of maximum efficiency and compliance." Both concepts of the NECH and QOL (the concept of "standard of living") were put on a purely physical, aesthetic, and objective basis. Between 1960 and 1973, due to the critical attitude toward the social and environmental consequences of the modernization of comprehensive urban planning, both concepts paid particular attention to preserving the worn-out urban texture and identifying the historical sites. They also emphasized "human values" and "social norms".

Between 1970 and 1980, due to the environmental and energy crisis and the principle of "the link between human beings and nature," UNESCO "identified and defined NECH standards," making them inseparable. Due to the attention to internal and perceptual components, the "standard of living" concept was changed to QOL, and "subjective and internal components" attracted attention. The need to preserve culture and environment is another point added to the measures of this period. Also, the NECH expresses "integrated protection" and the "principle of heritage dynamics" as measures of intervention in the urban plans of the historic centers of cities.

In the 1980s, the QOL concept continued to focus on the principle of "uncertainty", "multidimensionality" and "multidisciplinarity" to find a conceptual definition and model. The significance of globalization and cultural cohesion, as well as the emergence of new approaches to participatory planning, necessitate "participation of decision-makers and decision-makers" and attention to the "needs and desires of residents" in assessing the quality of place and "human status and perception" from a cultural perspective (especially residents), the "objective and subjective components" (the third view of QOL) and the "interpretive nature" of natural environmental heritage. During 1990-2000, theorists extended scientific and practical experiences of "sustainable development".

Furthermore, with the holding of international conferences on "QOL in the City" and attention to cultural and environmental considerations, the "democracy" and "participation" indicators in the basic concepts received increasing attention: many researchers believe that sustainable urban form is a critical element in achieving sustainable development and QOL is an essential element in sustainable urban development (Mittal et al., 2020; p. 3) to balance human life, improve the QOL for society, and achieve sustainable development. Paying attention to preserving natural heritage and human beings' role in this issue is significant (Farrokhzadi & Nowruzi, 2009, p. 1). Also, in the Recommendation of Historic Urban Landscape (2011), urban heritage preservation is introduced as a strategy to achieve a balance between urban development and sustainable QOL (UNESCO, 2014, Art.3).

Planning aims to improve the urban QOL. For development to be sustainable in the long run, there must be a balance among the four economic, social, environmental, and cultural dimensions, and intergenerational solidarity is emphasized. In other words, the first step in sustainable development is identifying the natural environment and protecting what lies within it, namely NECH (Rezvani, 2000; pp. 9-10). Therefore, it is possible to understand the closeness of the concepts of QOL and NECH based on commonalities of the sustainable development approach.
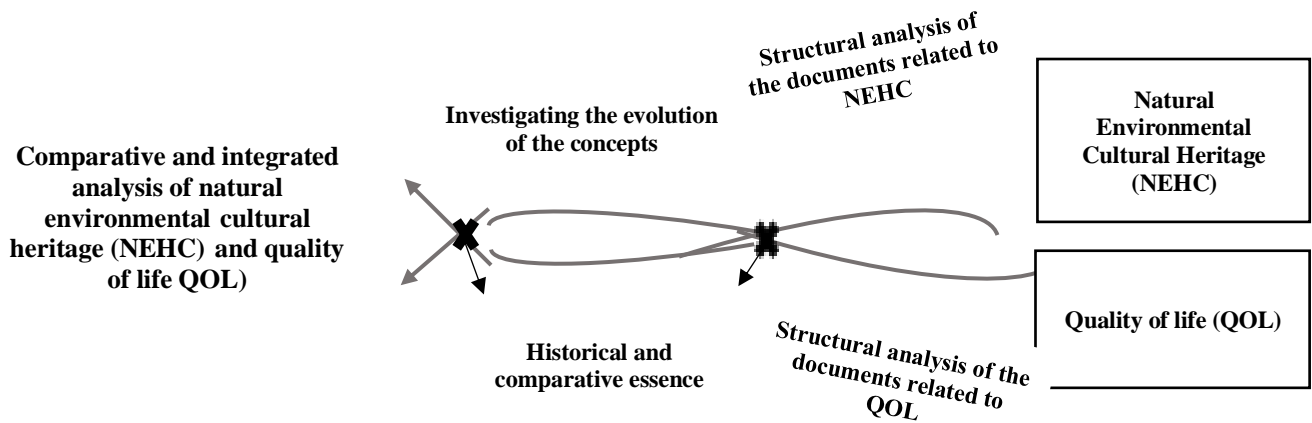
Fig 5. Comparative and integrated analysis of dual concepts of natural environmental cultural heritage (NEHC) and urban quality of life (QOL)

A significant leap from 2000 to 2010 significantly influenced the QOL in academic disciplines and various dimensions. "Attention to the urban environment", attention to "social relations", and emphasis on its "comprehensive, multidimensional and relative aspects" are the criteria and indicators added to the QOL. Also, the NECH introduced special attention to protecting intangible heritage values, improving the QOL, and preserving the traditional way of life in the NECH values. The relationship between the NECH and QOL was highlighted during this period. In the years after 2010, natural heritage theorists considered "the role of actors" and "decision-making and shared responsibility" as guarantors of heritage values and paid particular attention to urban public spaces and the cultural evolution of the urban environment in urban planning. The QOL theorists also made decisions based on social integration (especially during the COVID-19 pandemic) and the coexistence of humans and the natural environment. They described the improvement of QOL as both a tool and a goal of urban planning in urban issues and programs.

Thus, with the comparative analysis results of the NECH and QOL extracted from the first sources, the compatibility of these two concepts was determined and stated summarily:

1. The integrated emphasis on the NECH and the QOL on the "link between human beings and the environment";

2. "Multidimensionality" of analysis on the NECH and the QOL;

3. , the findings and analyses of the two concepts on a common dual (objective and subjective) classification;

4. The emphasis on the two concepts of the "sustainability" approach;

5. The need to study the "role of actors and interpretive nature" in the NECH with components such as "attention to social relations" and "participation of decision-makers and stakeholders" in urban planning in terms of QOL;

6. "Culture as an actor" in the concept of the natural-cultural heritage is also in compliance with the "emphasis on indigenous context and cultural differences" in the QOL concept and

7. The emphasis on the "uncertainty and complexity" of analysis in the basic concepts.
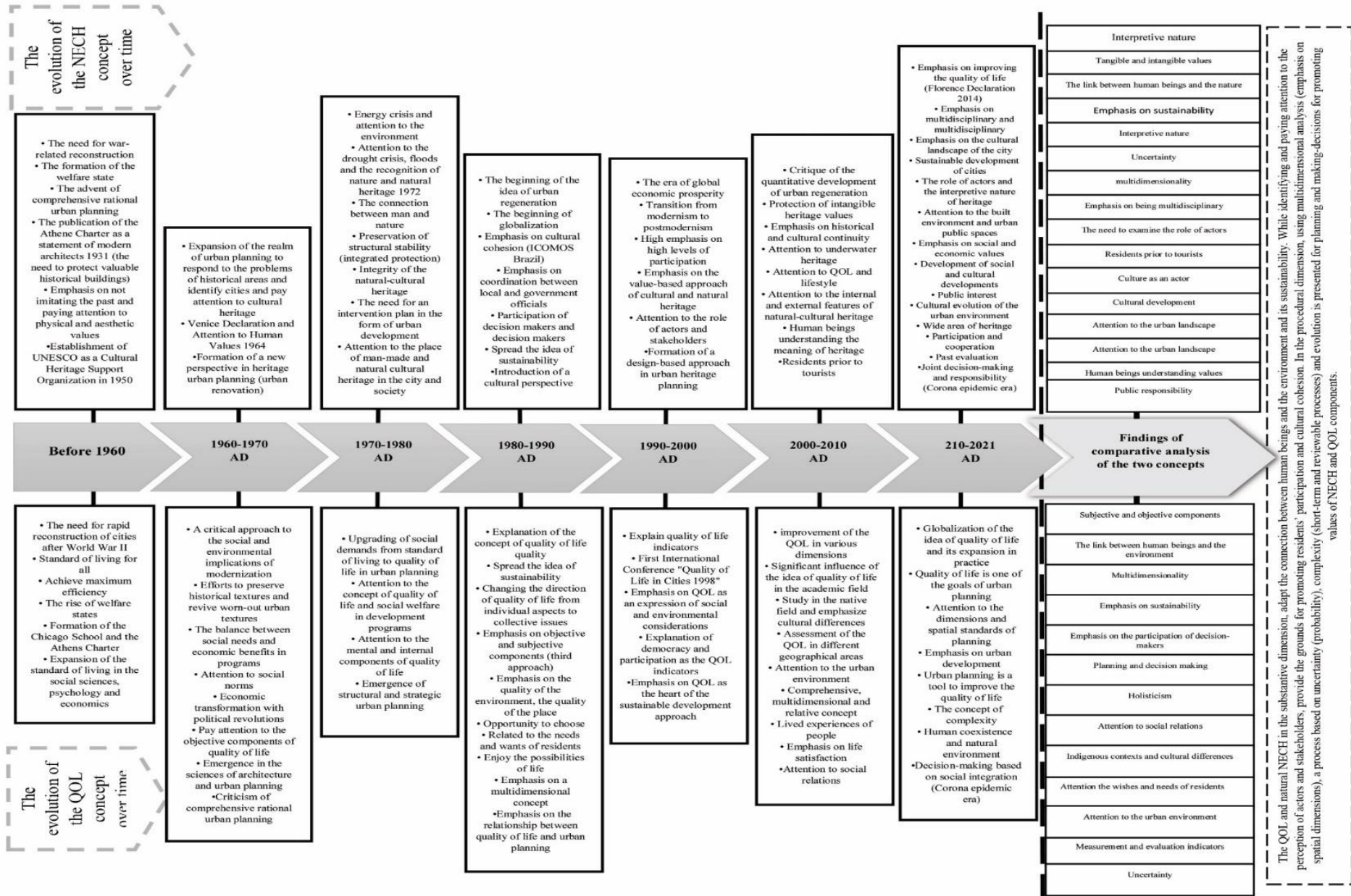
Figure 8: Comparative and integrated analysis of the historical evolution of natural environment cultural heritage and QOL

DISCUSSION

This section integrates the characteristics of the NECH and QoL based on historic-structural analysis using strategic planning.

Extracting the substantive and procedural elements of strategic urban spatial planning

NECH of cities needs to be planned for passing it on to future generations; thus, all its values should be preserved. Urban strategic spatial planning can be consistent with the issue of sustainable development; it can deal with complex issues in natural heritage planning. A holistic view, attention to the values of NECH, and emphasis on the characteristics of cyclicality, probability, and complexity can be excellent approaches to topics such as the NECH. Considering the NECH characteristics and values with perceptual, problem-oriented, interpretive, multidimensional, and uncertain views, decision-making to direct and control intervention in this heritage can be strategic planning based on process-oriented features and the complexity of issues. Strategic planning sets a systematic model for generating possible intervention scenarios in the planned phenomenon, relying on continuous data gathering, description, and analysis.

A model can be proposed to link the substantive and procedural link of the NECH and QOL based on the strategic planning approach, considering the compatibility of the NECH and QOL concepts with the principles of the strategic planning approach. The strategic planning approach can be adapted to NECH's principles of intervention in urban planning and achieve the expected results of their analysis, significantly improving the QOL. The strategic planning approach prescribes a planning model for intervening in problematic phenomena (problem-solving method) based on the continuous processes of collecting, describing, and analyzing the data. The essential features of this approach can be introduced in the following order:

1. Emphasis on the relationship between man and the environment. Due to the flexibility of strategic planning, the stages and processes are different for each topic and phenomenon planned, and each provides a new option to respond to new conditions. Short-term measures establish the connection between human beings and the environment, and this relationship is periodically analyzed, and, if necessary, the program is reviewed.

2. Integrating values in the planning substance can make it possible to study phenomena with an interpretive nature and depend on society's subjective and objective measures and beliefs and the indigenous context to promote these values.
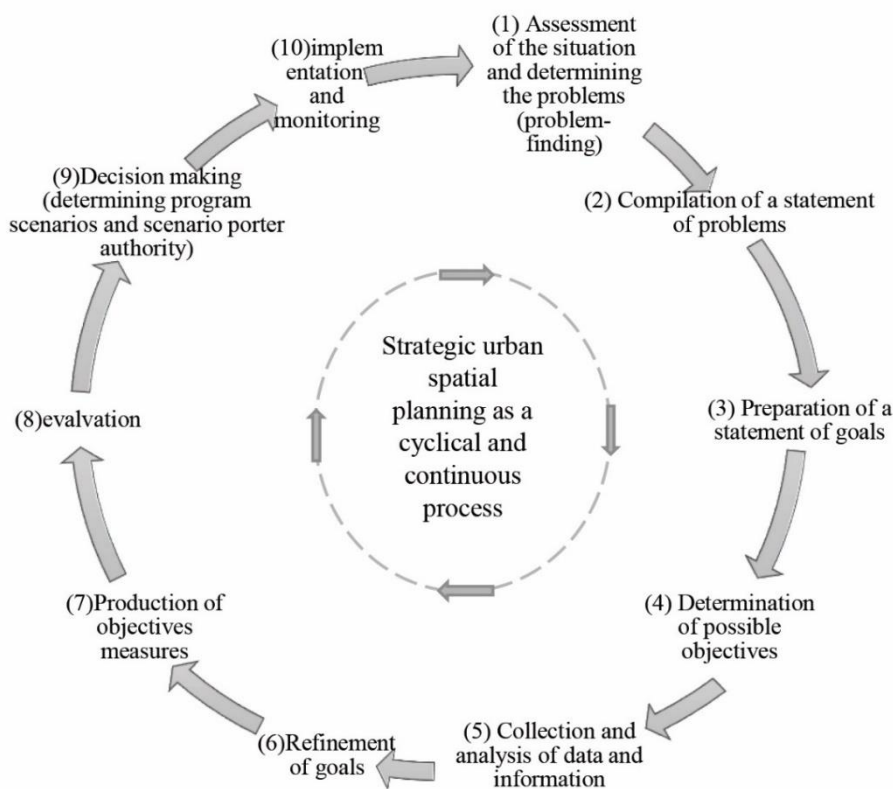
Fig 7. Cyclical Process of Strategic Urban Spatial Planning

3. Focusing on the study area's main and strategic problems allows for guiding the issue and promoting the phenomenon's values. Program priorities are considered by identifying and analyzing problems, and indicators to measure and evaluate program status can be identified.

4. The ability to add social and environmental dimensions and support sustainable development in the planning system has several dimensions of spatial planning (economic, social, physical, environmental, and managerial). With the multidimensional NECH and QOL concepts, it is possible to identify heritage values and QOL components and be considered in an integrated and coordinated manner in the policies and actions of the program.

5. Emphasis on public participation and interest in strategic planning allows stakeholders to intervene to preserve and develop the NECH and improve the QOL. It also provides the grounds for private sector participation and action on a human scale and places values through the public interest within the urban planning framework by identifying the demands and needs of residents.

6. The process of strategic planning and its cyclical nature allow for data collection and analysis in different stages of urban planning. It also provides a comprehensive and integrated vision of the NECH's fundamental problems and QOL upgrades.

7. Planning uncertainty in the NECH and QOL components with complex, interpretative, and multidimensional natures can propose an alternative for new situations and disasters to respond to new conditions by concentrating on evolutions and producing different strategies.

Based on the fundamental changes resulting from using the NECH and QOL in urban strategic planning, three preliminary plan descriptions, analysis, and prescription stages in the form of a hexagon, including six strategic NECH plans, were compiled to upgrade QOL. Each stage includes measures:

The first stage, i.e., status assessment, consists of three steps: (1) describing the human and NECH interactions over time; (2) identifying and describing the values of NECH; and (3) identifying and describing QOL components.

The second stage, i.e., problem identification (problem-finding), includes one step: analyzing the evolution of the NECH values and QOL components.

The third stage, problem identification, consists of two steps: (1) analyzing the reason for reducing the QOL of residents from value change NECH and (2) analyzing the role of residents' perceptions and recognition of cause-and-effect relationships in reducing NECH values.

The fourth stage, producing the final statement of problems and objectives, includes two steps: (1) presenting problems and goals based on the relationship of the NECH and QOL and (2) tracing the factors of cultural cohesion and the indigenous context in promoting the NECH values.

The fifth stage, presenting decision-making alternatives and suggestions (problem-solving), includes two steps: (1) compiling a NECH planning (physical, social, economic, and managerial) document and (2) assessing planning alternatives based on the actors' role for promoting the natural-cultural heritage values. The sixth stage, sharing a strategic plan related to the NECH among critical stakeholders and residents, includes one step: developing a strategic planning model to promote the NECH values to help decision-making in the public and private sectors.
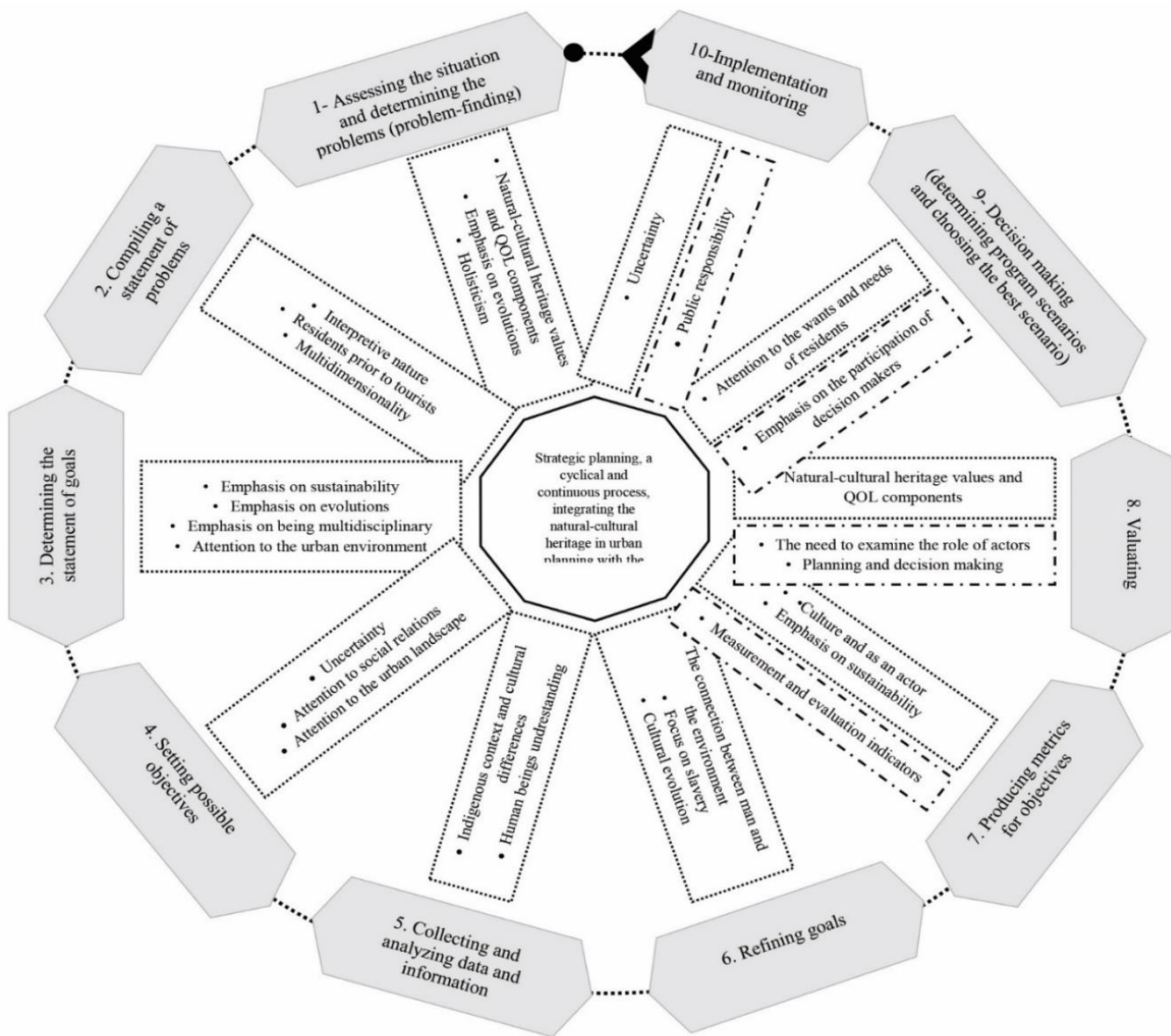
Figure 8: Integrating the analysis derived from the basic NECH and QOL in the procedural and substantive link of strategic urban spatial planning

- **Main steps in the strategic urban planning process**
- **The connection between the main steps**
- **Results from basic concepts for integration into strategic planning content**
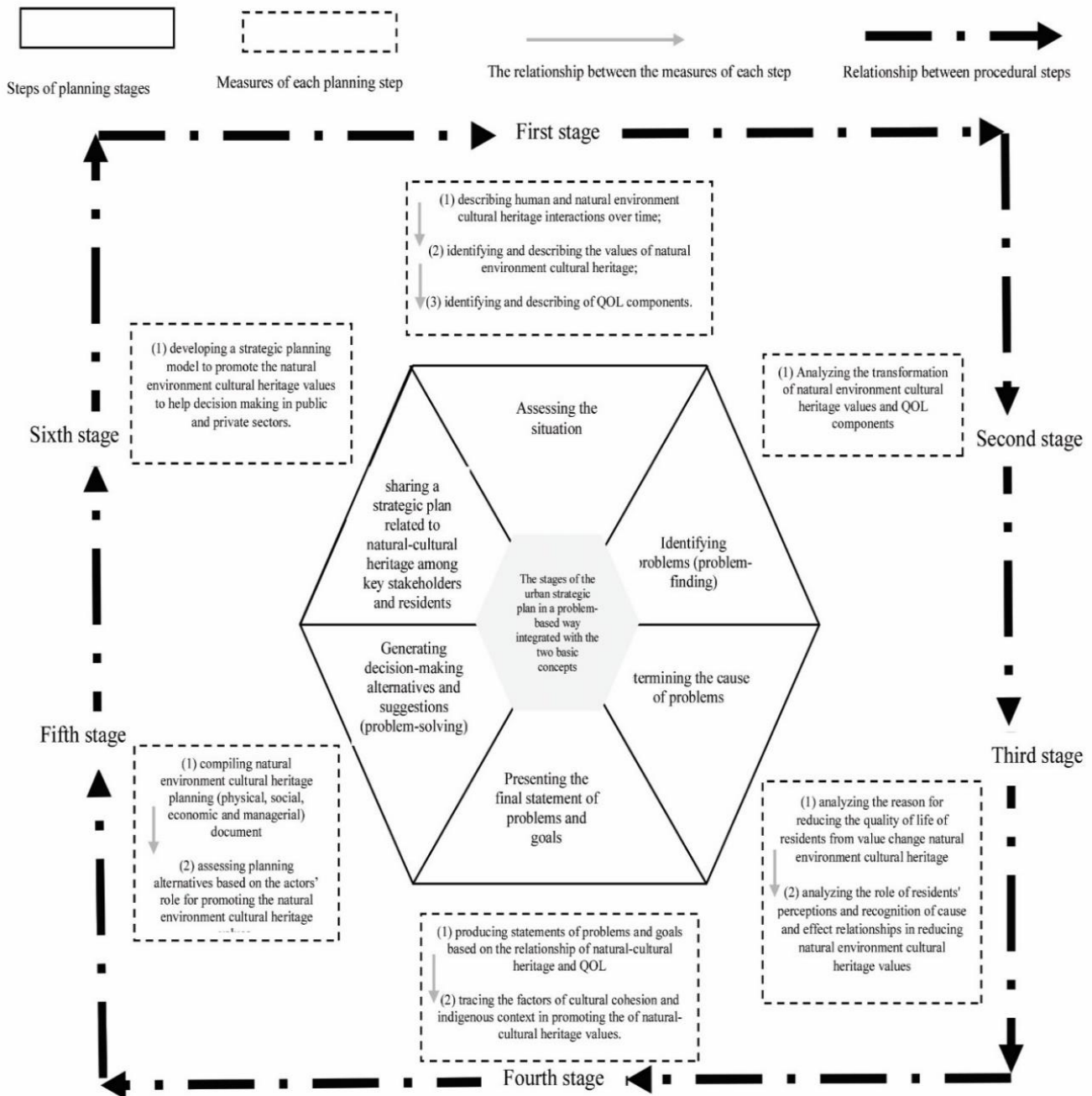- **Results from the basic concepts for integration into the strategic planning process**

Figure 9: Introducing strategic urban spatial planning of natural environment cultural heritage with emphasis on the quality of life

CONCLUSION

A six-stage model is proposed based on the substantive and procedural link between the NECH and QOL. It is based on the strategic planning approach model and the ten-step strategic planning process that can be used to intervene based on historical evidence in the NECH and QOL.

Given the significance of process-oriented planning and decision-making, attention to the need for stakeholders' participation and also the need for the principle of uncertainty, evolutions, the relationship between environment and humans, and emphasis on the principle of quality of life, holistic, and multidimensionality of the NECH and QOL, strategic planning approach can provide a substantive and procedural link between these two basic concepts. The essential features of strategic planning include the emphasis on the principle of uncertainty in planning, the probability of the planning process, the need to expand the scope of planning in the broader political, social, economic, and environmental fields, emphasizing the significance of paying attention to the role of various actors (stakeholders), and the connection between human beings and the environment. However, it differs from strategic planning principles. It analyzed the cultural coherence and diversity of the connection between human beings and the natural environment by emphasizing the urban cultural landscape, tangible and intangible values, and subjective and objective components. It then identified key stakeholders and residents and examined their roles. This model analyzes the planning of important NECH events and their effect on the QOL. Finally, a problem statement and the formulation of goals were presented. Then, by examining the causes of issues and refining the plans, a model for NECH planning for improving the residents' QOL was developed (resulting from using fundamental ideas in strategic planning).

This paper introduced a six-stage planning process with a problem-oriented approach based on historical evidence of the NECH and QOL. The achievement of this spatial, strategic planning model is to bridge between the quality of life and the natural environment cultural heritage concepts and to apply its principles of substance and procedure adapted to local conditions in such a way that the capacities of the natural environment heritage of the cities are coextensive with upgrading the resident's quality of life. It creates a new direction for urban planning to adapt to uncertainties in the future and be more flexible to make integrated historical continuity toward cultural heritage flourish in the urban environment for a better quality of life.

It must be mentioned as well that although we aspire to offer a universal tool for the measurement of quality of life and the natural environment cultural heritage relations, the relationship between quality of life and the natural environment cultural heritage must be more widely recognized and mainstreamed in research, both by improving and developing existing indicators used to assess the quality of life and well-being, but also by developing new ones.

This conceptual model achieves the achievement of bridging between the quality of life and the natural environment cultural heritage concepts and applying principles adapted to capacities of the natural environment heritage of the cities, which are coextensive with upgrading the residents' quality of life in urban planning and its agenda, improving the urban quality of life is significant in such a way that it will be of great help in determining the goals of planning and its strategies.

Also, improving the urban quality of life is significant in urban planning and its agenda because it will help determine the goals of planning and its strategies.

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AUTHOR (S) BIOSKETCHES

N. Soltani., *Department of Architecture and Urban Planning, Faculty of Engineering and Technology, Shahid Ashrafi Esfahani University, Isfahan, Iran - Department of Urban Planning, Faculty of Architecture and Urban Planning, University of Arts (UOA), Tehran, Iran*

Email: *n.soltani@ashrafi.ac.ir*

P. Partovi., *Department of Urban Planning, Faculty of Architecture and Urban Planning, University of Arts (UOA), Tehran, Iran*

Email: *p.partovi@art.ac.ir*

D. Moradi Chadegani., *Department of Urban Planning, Faculty of Architecture and Urban Planning, Art University of Isfahan (AUI), Isfahan, Iran*

Email: *d.moradi@aui.ac.ir*

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