

Emirates Journal for Engineering Research

Volume 24 | Issue 3

Article 2

9-15-2018

Landscape Architecture and The Saudi Arabia Quality of Life Program

Abdullah N. Addas

King Abdulaziz University, aaddas@kau.edu.sa

Follow this and additional works at: <https://scholarworks.uaeu.ac.ae/ejer>



Part of the [Landscape Architecture Commons](#)

Recommended Citation

Addas, Abdullah N. (2018) "Landscape Architecture and The Saudi Arabia Quality of Life Program," *Emirates Journal for Engineering Research*: Vol. 24 : Iss. 3 , Article 2.

Available at: <https://scholarworks.uaeu.ac.ae/ejer/vol24/iss3/2>

This Article is brought to you for free and open access by Scholarworks@UAEU. It has been accepted for inclusion in Emirates Journal for Engineering Research by an authorized editor of Scholarworks@UAEU. For more information, please contact fadl.musa@uaeu.ac.ae.

LANDSCAPE ARCHITECTURE AND THE SAUDI ARABIA QUALITY OF LIFE PROGRAM

Abdullah N. Addas

Assistant Professor - Department of Landscape Architecture - Faculty of Environmental Design –
King Abdulaziz University – Saudi Arabia
aaddas@kau.edu.sa

(Received 13 July and Accepted 15 September 2018)

مهنة عمارة البيئة وبرنامج جودة الحياة بالمملكة العربية السعودية

الخلاصة

لعمد من الزمن كان هناك تدهور في البيئة الطبيعية و الإجماعية والحضرية بالمملكة العربية السعودية. لهذا السبب وضعت الحكومة رؤية طويلة الأجل لمعالجة هذه القضايا من خلال ١٢ برنامجاً رئيسياً ، أحدها هو برنامج جودة الحياة ٢٠٢٠. يرتكز البرنامج بشكل أساسي على جعل المملكة العربية السعودية وجهة مميّنة عالمية من خلال تحسين أنماط حياة الأفراد وتعزيز قدراتهم. تتناول هذه الورقة أهمية و دور مهنة عمارة البيئة في برنامج جودة الحياة ٢٠٢٠ من خلال مراجعة الأدبيات لتوضيح دور مهنة عمارة البيئة وتحليل المشروعات التي يرتكز عليها البرنامج لإبراز إمكانات المهنة للمساهمة في المشاريع التي من شأنها أن تحقق لإهداف البرنامج.

كلمات البحث: عمارة البيئة – المملكة العربية السعودية – رؤية ٢٠٣٠ – جودة الحياة

ABSTRACT

Saudi Arabia has for decades felt the effects of the declining condition of its urban, social and natural environments. The government has set out a long-term vision to address these issues through 12 major programs, one of which is the Quality of Life Program 2020. The Program mainly focuses on making Saudi Arabia a top living destination by improving individuals' lifestyles and enhancing their quality of life. This paper considers the importance of landscape architecture to the Program by way of a literature review to clarify the role of the landscape architecture profession and an analysis of the projects that underlie the Program to highlight the profession's potential to contribute to these projects.

Keywords: Landscape Architecture – Saudi Arabia – Vision 2030 – Quality of life

1 INTRODUCTION

Saudi Arabia has suffered over decades from the worsening condition of its social and natural environments, with disintegration of social ties, a lack of public transportation, and inadequate city management and design. The Quality of Life Program 2020 was launched in 2018 as one of the government's 12 Vision 2030 initiatives [1]. The Program aims to improve quality of life by providing a supportive environment that is designed to enhance the lives of all citizens, facilitating their participation in various cultural, recreational and sporting activities. The Program has many objectives, such as improving the urban landscape in cities, developing the tourism sector, improving the quality of services provided, and offering new jobs in terms of both quantity and quality.

This research aims to examine the relationships between the Quality of Life Program and the landscape architecture profession with a view to establishing the contribution that the profession could make to the Program.

2 METHODOLOGY

This research was conducted by examining the objectives and implications of the Quality of Life Program 2020 in Saudi Arabia against the background of a review of the literature concerning the landscape architecture profession and its history. This review provided the basis for a proposed definition of the role and responsibilities of the landscape architect. In addition, the project types that underlie the Program were analysed to allow the potential contribution of landscape architecture to the Program to be identified and explicated.

3 DEFINING LANDSCAPE ARCHITECTURE

Understanding of landscape architecture is expanding today because of the importance and the need for this field. This understanding is reflected in definitions put forward by practitioners and scholars which help explain the direct link between the profession and programs that seek to improve quality of life. Explaining the meaning of landscape architecture and the nature of this link is particularly valuable in connection with the Quality of Life Program, given that there is no equivalent term in Arabic and that the translation (which equates to ‘architecture environment’) can be misleading.

The word ‘landscape’ is diverse in meaning, with definition usually depending on context. According to Makhzoumi and Pungetti [2], there are four broad meanings: landscape as scenery, as a specific place, as an expression of culture, and as a holistic entity. Other studies highlight the diversity of the use of the word in art and culture [3], [4], [5], [6].

The landscape architecture profession has roots dating back to 1804 when Jean-Marie Morel coined the term ‘*architecte-paysagiste*’, which translates to ‘landscape architect’ [7]. The modern profession emerged in America with the work of Frederick Law Olmsted, who is regarded as the ‘father of landscape architecture’ [8]. Olmsted is believed to have referred to himself as a ‘landscape architect’ for the first time in 1858 [9] and gave a rather poetic definition of the role, reflecting the period in which it was written:

‘What artist so noble...as he who, with far-reaching conception of beauty, in designing power, sketches the outlines, writes the colors, and directs the shadows of a picture so great that Nature shall be employed upon it for generations, before the work he arranged for her shall realize his intentions.’

The Olmsted definition provides a valuable insight into the relationship between the designer’s concept and nature, and the intended harmony between the two. This harmony was clear in the work of Olmsted in Central Park; for example; rocks were left in place to link visitors with the city’s origin in the wilderness.

Recognition of the profession of landscape architecture in the United States is associated with the convening in 1899 of its national organization, the American Society of Landscape Architects (ASLA). The Society defined landscape architecture in its Handbook of Professional Practice [10] as:

A science and art [which] embrace those professional activities relating to the systematic planning of land areas, the design of outdoor places and spaces, the conservation of our natural resources and the creation of a more useful, safe and pleasant living environment.

This definition seeks to identify the scope of work for the landscape architect and the responsibilities placed upon them. In addition, the definition highlights the importance of the relationship between landscape architects’ work and the impact they have on the community.

In his publication *Design of the Land*, Newton took a similar view, describing landscape architecture as ‘the art or the science, if preferred, of arranging land, together with the space and objects upon it, for safe, efficient, healthful, pleasant human use.’ [8, p. xxi]

In 1983, ASLA enhanced its definition of the landscape architecture profession, emphasizing its role in applying ‘artistic and scientific principles to the research, planning, design and management of both natural and built environments.’ [11] The definition also highlights the profession’s ‘creative and technical skills and scientific, cultural and political knowledge’ and the benefits the profession delivers in terms of ‘resulting environments [that] shall serve useful, aesthetic, safe and enjoyable purposes.’ This combination of skills has direct relevance to the Quality of Life Program, which aims to create environments that achieve similar purposes.

The International Federation of Landscape Architects (IFLA) is another key governing body for the profession, and in its Yearbook [12] it defined the scope of the work of a landscape architect:

Plans and designs the aesthetic layout of land area for such project as parks and other recreational facilities, roads, commercial, industrial and residential sites and public buildings: consults

with clients, engineers and architects on the overall program.

Landscape architecture is concerned with protecting and enhancing the natural environment as, for example, Makhzoumi and Pungetti [2] explain in connection with achieving long-term ecological stability and environmental sustainability in the Mediterranean. Furthermore, landscape architecture focuses on the public realm and emphasizes its beauty, making it safe and accessible for all citizens and supporting support mental, physical and social wellbeing. For example, Addas [13] and Addas and Rishbeth [14] used case studies of different landscape typologies to show the cultural and social value of public open spaces to a wide range of resident groups in Jeddah, Saudi Arabia.

These definitions and examples demonstrate how the profession of landscape architecture is linked to improvements in quality of life. The profession has at times struggled to be accepted by related disciplines and by the public, as Baird and Szczygiel [15] point out. However, the profession has played a significant role globally in countries that have suffered from war and the effects of the industrial revolution, enhancing city environments and quality of life. As will be shown, the same skills and capabilities would add significant value to the Quality of Life Program in Saudi Arabia.

4 ROLE OF THE LANDSCAPE ARCHITECT

Many argue that there are other professions that deal with outdoor spaces, such as architect, planner, urban designer, site planner, city planner and others. However, the need for landscape architects remains critical as they analyze, plan, design and manage areas in the natural and built environments and deal with specific challenges such as urban design, green belt planning, landscape planning, housing layout and design, flood protection and land reclamation [16]. Practitioners are uniquely aware of how these challenges can be addressed successfully.

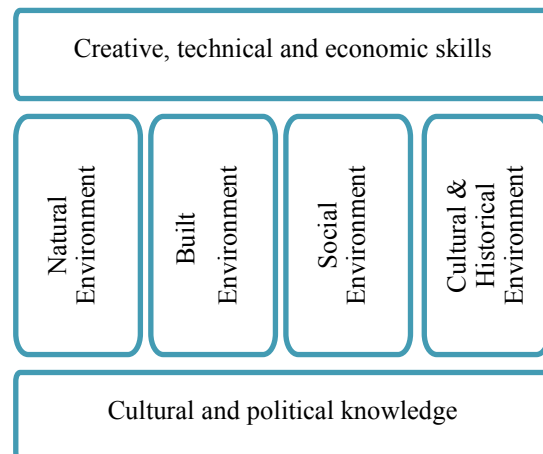
That said, the review of the literature revealed that there is limited material available on the role and responsibility of the landscape architect and there does not appear to be a single, accepted role description. However, the definitions and examples outlined above provide the basis for the synthesis of a proposal

for the principal roles of landscape architects that align with the needs of the Quality of Life Program. It should be noted that there is an opportunity for further research to set out roles and responsibilities for the landscape architecture in more detail.

The role of landscape architects lies in maintaining a balance between improving our natural, urban and social environments so as to achieve the best social and healthy life for those living in cities while avoiding adverse impacts. It is possible to divide the role of landscape architects in line with four environments, namely natural environment, built environment, social environment, cultural and historical environment as shown in Figure 1 and described in more detail below.

In considering these four environments, it is important to emphasize that, in professional practice, different disciplines with complementary skills work with landscape architects to deliver outcomes.

Figure 1 : Landscape Architect Roles (Source: Author)



4.1 NATURAL ENVIRONMENT

Sustainability and environmental preservation are considered to be the basis of landscape architecture field work when dealing with natural areas. Numerous studies have shown that economic factors and activities depend entirely on the natural and ecological environment of our cities [17], [18]. Thus, the role of the landscape architect is to supervise and preserve the Earth's natural resources; in turn, this preservation will lead to the promotion of civilization, as well as environmental, social and economic factors [19].

4.2 BUILT ENVIRONMENT

Enhancing the urban environment can be found in the work of many landscape architects. City urban projects often need the involvement of landscape architects to provide access to public open spaces within city sectors. The responsibility of the landscape architect towards the provision of the open space network is one of the most important issues in the city [20]. In addition, landscape architects can understand the actual needs of city residents and the type of projects that are required, such as recreational, cultural or commercial initiatives, working with other professions including city planners.

4.3 SOCIAL ENVIRONMENT

Landscape architects' work can have a direct influence on our social and personal lives. There is a range of studies that specify the importance of open spaces in terms of improving social ties and wellbeing [13], [21]. Addas and Rishbeth [14] show that open spaces have a restorative influence on cognition and emotions, as well as on an individual's ability to achieve a sense of belonging. The garden or natural environment could aid an individual's healing process by improving mental and physical health.

4.4 CULTURAL AND HISTORICAL ENVIRONMENT

Landscape architect's responsibilities encompass historical and cultural landscape preservation. The role includes understanding the historical context, developing sensitive and eloquent preservation and rehabilitation strategies, and performing exacting primary historical research [22], [23].

5 Landscape Architecture in Saudi Arabia

Landscape architecture, as a practice, is very old and can be dated back to prehistoric, ancient and medieval times, as well as ancient Egypt [24]. The garden design concept is considered an old tradition in the Middle East, such as in Persia and Egypt; however, in the Middle East, landscape architecture as a profession is new and has been influenced Western ideas [25].

Saudi Arabia was the first country in the Arab World to establish a landscape architecture program. King Abdulaziz University in Jeddah led with its undergraduate program, which was established in 1984. King Faisal University in

Dammam (which is now known as Imam Abdulrahman Bin Faisal University) started its postgraduate program in 1985, and this was followed in 1994 by an undergraduate program [26]. In addition, the landscape architecture department at King Abdulaziz University received approval to establish a postgraduate program in 2018. With 34 public universities and 20 private universities in Saudi Arabia, having only two that provide landscape architecture programs seems a small number in a country with a range of urban and environmental challenges.

Despite the establishment of these courses, the progress made in professional practice in Saudi Arabia is uncertain, with only limited contributions by landscape architects to projects in the country. There are at present few jobs and career opportunities, and there is also a lack of confidence in Saudi landscape architects and the quality of their work.

There is, nonetheless, a significant range of projects on a national scale that can be recognised as landscape works. However, as Al-Mohannadi and Furlan [27] and Aoun and Teller [28] explain, these projects were designed by international firms using their own consultants. For example, the Jeddah Waterfront, which opened to the public in 2018, was designed by KLA Kamphans GmbH, and Ayres Saint Gross/Tropman and Tropman were responsible for the development of the historical city Aldiriyah. These projects and many others do not involve Saudi landscape architects.

Some 15 years after the establishment of the academic department of landscape architecture, the Civil Service Bureau established a job title for landscape architecture graduates in 2001. Even with this job title in place, however, the involvement of Saudi landscape architects has remained limited; this could be related to many factors, such as a lack of understanding of the field, a lack of confidence in the quality of Saudi graduates, or the control of some specialists and their lack of recognition of the importance of landscape architecture [25], [26].

The Quality of Life Program provides an opportunity for a change of direction, where Saudi landscape architects can bring their cultural understanding and technical skills to bear in contributing to developments of national importance.

6 THE NEW KINGDOM

In the last five years, the Kingdom of Saudi Arabia has been marching towards its new vision to become one of the leading countries in the world. Vision 2030 will be delivered through 12 Vision Realization Programs (VRP), one of which is the Quality of Life Program, which was released by the Council of Economic Affairs and Development in 2018 [1].

The Program’s overall objective is to ‘deliver high quality of life to all KSA residents’ and it is based on an analysis of internationally-recognized quality of life measures which led to the identification of the two principal dimensions of the Program, namely livability and lifestyle:

- **Livability** – ‘establish world-class livability standards across FSA cities.’
- **Lifestyle** – ‘develop vibrant lifestyle options for KSA residents.’

Under these principal dimensions, the Program has identified ten categories for delivery, as shown in Table 1:

Table 1 Quality of Life Program categories

livability	Lifestyle
Infrastructure and transport	Entertainment
Housing, urban design and environment	Heritage, culture and arts
Healthcare	Sports
Economic and education opportunities	Recreation
Security and socio-environment	Social engagement

In addition, it was essential for each region in Saudi Arabia to understand and become aware of the natural, social and cultural context before implementing the Program. Before identifying the necessary major development in the 13 regions of Saudi Arabia, the Program therefore took into account five factors, which are size of the population, average household income, geography and climate, population preferences, and the key infrastructure required.

It is recognised that the Quality of Life Program itself has interdependencies with other VRPs. In particular, the National Transformation Program 2020 seeks to improve urban design and rehabilitate natural landscapes.

7 LANDSCAPE ARCHITECTURE AND THE QUALITY OF LIFE PROGRAM

There is a range of studies that demonstrate the relationship between quality of life and landscape architecture theory and practice work [29], [30], [31], [32], [33], [34]. Similarly, the objectives and goals of the Quality of Life Program relate to the landscape architect’s scope of work and roles and responsibilities, especially in the categories of infrastructure and transport; housing, urban design and the environment; and security and the socio-environment.

Achieving the Program’s goals depends on the extent to which an interactive and integrated physical environment can be created for the individual and society. Such an environment should be recognised as having a positive impact on the behavior and psychology of individuals through the application of innovative and effective solutions that are embodied in urban development projects based on the residents’ needs and desires [13], [14]. Saudi landscape architects are important actors in shaping the decision to make, promote and enhance life and civilization in one way or another. Therefore, we need to acknowledge the importance of our urban decisions by allowing the best-equipped specialists to make these decisions, so the decisions meet the residents’ needs and, in turn, promote their sense of belonging and happiness and enhance the quality of life in the cities.

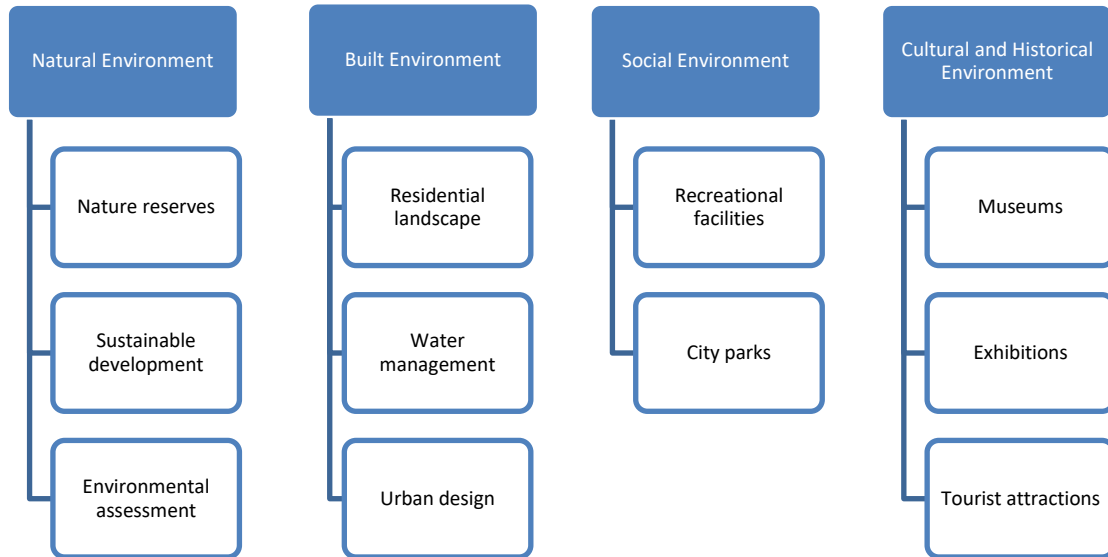
To establish where landscape architects could be most effective in making this contribution, the present study looked at the 220 initiatives through which the Quality of Life Program will deliver its outcomes; these initiatives are divided across the ten categories shown in Table 1. The project types that emerge from this analysis are shown in Figure 2.

Figure 1: Quality of Life Program 2020 proposed projects types (Source: Author)

The scope of work for landscape architecture in professional practice is wide-ranging because of the variety of issues and projects that can be conducted through landscape architecture. In regard to the natural environment, landscape

architecture work can include desertification, conservation and the development of forests, oases, pastures and all means of natural resources, as well as the provision of natural protection places (nature reserves) and land

infrastructure and the suitable provision of transportation and other services, where landscape architects are part of a team of engineers and experts, helping and assisting other disciplines to improve the quality of life



reclamation [35].

In work on the built environment, there is a range of projects for which the involvement of landscape architects is important, such as recreational projects, including parks and theme parks, waterfronts, museums and open exhibitions. Furthermore, the involvement of landscape architects is essential in those projects dealing with the urban context and community. Abusaada and Bdr [35] note that landscape architects play an important role in the design of education and health projects. Their role is also very important in those projects with historical and archaeological value, projects with political, ideological and religious significance, and projects involving the design of squares and public squares in cities. Furthermore, landscape architecture encompasses an artistic sense of the ways in which living elements, namely plants and water, can be managed [35], [36].

The review of the proposed projects types against the roles and responsibilities of the

landscape architect shows that many of the Quality of Life Program's proposed projects can be conducted by landscape architects in partnership with other professions. This work includes improvement of the country's

and achieving the Kingdom's vision.

8 CONCLUSION

This paper identifies the importance of the landscape architect profession to the Quality of Life Program 2020. Making this link is important because the profession has been neglected in Saudi Arabia as a result of misunderstanding and a belief that landscape architecture is part of other professions and does not warrant separation [35]. This view is compounded by a general lack of knowledge about the field of landscape architecture [13].

To move forward, landscape architects must immediately identify their contribution to the Program, mainly by examining Program objectives and translating them into a professional language that will enable landscape architecture tasks to be described. The first step would be to outline the reasons for achieving a satisfactory quality of life by establishing systems that support and contribute to the creation of new and effective projects in Saudi cities. The second step would be to explain how attractive and stimulating environments can be created by participating in the development of various activities and ensuring they enhance the quality of life of the individual and society.

The desired outcomes will stem from landscape architectural designs being provided as solutions for projects. It is important to emphasize the importance of the collaboration between the related disciplines involved in the design of these projects, including architecture, planning, urban design and all other associated disciplines.

In the future, it seems likely that the number of projects emanating from Vision 2030 will drive demand for the involvement of Saudi landscape architects. However, because there are a limited number of academic institutions providing the Kingdom with graduates in this field, there could well be a need to establish new landscape architecture departments in Saudi universities.

It is essential for decision-makers to understand the importance of the landscape architecture profession, not only to achieve the objectives of the Quality of Life Program 2020 but also to assist the country in achieving the major changes implicit in Vision 2030. In addition, the involvement of young Saudi landscape architects will strengthen the country's ability to realize the vision by providing an understanding of the challenges from a youth perspective, using their knowledge and experience.

The country is facing a huge transformation and so it is essential that individual decisions within the urban landscape industry support public decisions based on the priority of quality of community life and development. This approach will help when it comes to improving and enhancing communities from various perspectives, such as social cohesion, personal and community physical and mental wellbeing, and the provision of sufficient public services.

Landscape architects must respond to the development movement in the Kingdom and contribute to achieving the vision and programs established by the government to enhance residents' lives. Through research, experimentation and learning, landscape architects will help the country and other disciplines to create liveable spaces and projects that will assist cities to become amongst the best in the world. Landscape architects believe that the effect and changes made on the city communicate a particular message and language that everyone can read and understand—that of art.

9 REFERENCES

1. "Quality of Life program 2020," 2018. [Online]. Available: <http://vision2030.gov.sa/en/qol>. [Accessed 30 June 2018].
2. Makhzoumi J. and Pungetti G., *Ecological Landscape Design and Planning, the Mediterranean Context*, London: E & FP Spon, 1999.
3. Andrews M., *Landscape and Western Art*, Oxford: Oxford University Press, 1999.
4. Olwig K., "Nation and landscape at the conceptual interstices of Nature and Culture; or, what does landscape really mean?," in *Landscape, Politics and Perspectives*, Oxford, Berg, 1993, pp. 307-343.
5. Appleton J., *The Experience of Landscape*, Chichester: John Wiley, 1986.
6. Jackson J., *Discovering the Vernacular Landscape*, New Haven, CT: Yale University Press, 1984.
7. Turner, "Did Morel, Meason or Olmsted Invent the Term 'Landscape Architecture'?", 2008. [Online]. Available: <http://www.gardenvisit.com/blog/did-morel-meason-or-olmsted-invent-the-term-landscape-architecture/>. [Accessed 18 June 2018].
8. Newton N., *Design of the Land: The Development of Landscape Architecture*, Cambridge, MA: Belknap Press, 1971.
9. Vernon, "Toward Defining the Profession: The Development of the Code of Ethics and Standards of Professional Practice of the American Society of Landscape Architects, 1899-1927," *Landscape Journal*, vol. 6, no. 2, p. 13, 1987.
10. ASLA, "Handbook of Professional Practice," 1981, p. 19.
11. ASLA, "Members' Handbook 1990-1991," 1990, p. 1.
12. IFLA, "Yearbook," 1989, p. 26.
13. Addas A., *Motivation and Attachment in the Use of Public Open Space in Jeddah, Saudi Arabia*, Unpublished PhD Dissertation, Landscape Department: University of Sheffield, 2015.
14. Addas A. and Rishbeth C., "The Transnational Gulf City: Saudi and migrant values of public open spaces in Jeddah," *Landscape Research*, vol. 43, no. 7, pp. 939-951, 2018.

15. Baird T. and Szczygiel B., "Sociology of Professions: The Evolution of Landscape Architecture in the United States," *Landscape Review*, vol. 12, no. 1, p. 3, 2006.
16. Jellicoe G. and Jellicoe S., *The Landscape of Man: Shaping the Environment from Prehistory to the Present Day*, New York: Thames and Hudson, 1995.
17. Cook R.E., "Do Landscapes Learn? Ecology's 'New Paradigm' and Design in Landscape Architecture," in *Environmentalism in Landscape Architecture*, ed Conan, M., Washington, D.C., Dumbarton Oaks Research Library Collection, 2000, pp. 115-132.
18. Cooper N.S., "How Natural is a Nature Reserve: An ideological study of British nature conservation landscapes," *Biodiversity and Conservation*, vol. 9, pp. 1131-1152, 2000.
19. Simonds J., *Landscape architecture: the shaping of man's natural environment*, New York: McGraw-Hill, 1971.
20. Starke B.W. and Simonds J.O., *Landscape Architecture: A manual of environmental planning and design*, New York: McGraw-Hill Education, 2013.
21. Esperson S., "The Framer as a Steward of the Cultural Landscape," in *Proceedings of the Permanent European Conference for the Study of the Rural Landscape*, 18th Session, Roros and Trondheim, 1999.
22. Fry L.A., Skar B., Jarpasen G., Bakkestuen V. and Erikstad L., "Locating archaeological sites in the landscape: a hierarchical approach based on landscape indicators," *Landscape and Urban Planning*, vol. 67, no. 1-4, pp. 97-107, 2004.
23. Graham B., Ashworth G.J. and Tunbridge J.E., *A Geography of Heritage. Power, Culture and Economy*, London: Arnold, 2000.
24. Mann W., *Landscape Architecture: An illustrated history in timelines, site plans, and biography.*, New York: John Wiley, 1993.
25. Makhzoumi J., "Landscape in the Middle East," *Landscape Research*, vol. 27, pp. 213-228, 2002.
26. Abusaada H., "The Role of Landscape Architecture in the Preparation of Open Spaces in Arab Countries," *The Emirates Journal of Engineering Research*, vol. 1, pp. 1-14, 2005.
27. AL-Mohannadi A.S. and Furlan R., "The Practice of City Planning and Design in the Gulf Region: The Case of Abu Dhabi, Doha and Manama," *International Journal of Architectural Research*, vol. 12, no. 2, p. 126, 2018.
28. Aoun O. and Teller J., "Planning urban megaprojects in the Gulf: The international consultancy firms in urban planning between global and contingent," *Frontiers of Architectural Research*, vol. 5, no. 2, pp. 254-264, 2016.
29. Grifioni R., Onofrio R. and Sargolini M., *Quality of Life in Urban Landscapes: in search of a decision support system*, Switzerland: Springer, 2018.
30. Chaudhury H., "Quality fo Life and Place-Therapy," *Journal of Housing for the Elderly*, vol. 17, no. 1-2, pp. 85-103, 2003.
31. Sirgy J., Rahtz D. and Coskun S.A., *Advances in Quality-of-Life Theory and Research*, Cham, Switzerland: Springer, 2003.
32. Romney D.M., Brown R.I. and Fry P.S., *Improving Quality of Life*, Cham, Switzerland: Springer, 1994.
33. Myers D., "Building Knowledge about Quality of Life for Urban Planning," *Journal of American Planning Association*, vol. 54, no. 3, pp. 347-358, 1988.
34. Helburn N., "Geography and the Quality of Life," *Annals of the Association of American Geographers*, vol. 72, no. 4, pp. 445-456, 1982.
35. Abusaada H. and Bdr B., *Landscape Architecture Profession*, Cairo: Dar Alalm Alarabia Press, 2002.
36. Laurie M., *An Introduction to Landscape Architecture*, Englewood Cliffs, NJ: Prentice Hall, 1986.