



Assessing the user's needs in urban open space of Addis Ababa, Ethiopia



Feven Hailu Tadesse, Çilen Erçin *

Department of Architecture, Faculty of Architecture, Near East University, Nicosia, Cyprus

ARTICLE INFO

Article history:

Received 22 January 2021

Received in revised form

16 April 2021

Accepted 18 April 2021

Keywords:

Addis Ababa

Meskel square

Urban open space

Users' need

ABSTRACT

Public open spaces are standard chosen stations, where individuals can come together and partake in shared activities. Also, the overall purposes of open spaces are cultural and social involvement, integration of nature into a city, and promoters of a healthy lifestyle. However, Addis Ababa as the capital city of Ethiopia has been giving little contemplation to open space from government and private division. Which has led to the obliteration of the remaining open spaces leaving them to disappear. Meskel Square was taken as a case area for further investigation to specify the major cause of isolation, it has been a historical landmark and is located in the center of the city. The site was an eminent meet point for economic, social, and political use during the emperor Hailese period but over the years it has remarkably reduced in numbers of users, and yet only a few discussions have been made in regards to the context of public open space and its relation to well beings of society in Ethiopia as a whole. Through studying related literature reviews, carrying out cross-sectional studies, physical observations, and analysis of the selected square the paper was able to identify the principal issues. The findings of the research showed the lack of awareness given to the subject, therefore accompanying the deficiency of up-to-date remodeling of the public space and inadequacy of proper physical features.

© 2021 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Urban open spaces (UOS) have been defined as plainly as 'lungs of the city' where the harmful poisonous gases emitted from within the city can be remarkably decreased through the conservation and providing of natural landscapes, primarily trees, which function as significant filters (Nicol and Blake, 2000). They have existed for many years, and have been described in various ways, the technical interpretation is, any inner-city space without the need of any form of architectural shade structure on top of the space while having complete access. Also, they have been serving as a support area in terms of the daily needs of the public as these places influenced a critical part of peoples' day-to-day life (Nikšić and Watson, 2018; Stanley et al., 2012).

Furthermore, it is significant to identify public open spaces as standard chosen destinations, where individuals can come together, participate in communal activities. Even though public open spaces

are usually drafted by the government, they also deliver important sites for people with restricted and limited private space as an optional area to have gathering events (Nikšić and Watson, 2018; Stanley et al., 2012). It is persistently planned and contributes to the communal well-being of city inhabitants (Stanley et al., 2012).

It is engaged through many varying activities and it engenders the concept of amalgamation and perception of mental ease in being present. These spaces have been in existence for many years and have been serving in economic, political, and social aspects all over ancient cities and countries, where they have been beneficial also, they became part of the culture. Even with the convenience, they have been deprived of their values in several developed and developing cities.

Addis Ababa as a capital city has been a home for diverse cultures from all over the country, it has been invariably a highly socially interactive city with numerous unique heritages proceeding as one ménage while cherishing each other traditions. However, the city is currently fronting with the lack of pertinent design and planned urban open spaces, it is alleged that these fundamentals are not given crucial attention and the specific open spaces offered are the unintentional excess spaces.

* Corresponding Author.

Email Address: cilen.ercin@neu.edu.tr (Ç. Erçin)

<https://doi.org/10.21833/ijaas.2021.07.013>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0002-9799-1810>

2313-626X/© 2021 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

There is minute contemplation offered to open space in metropolitan from the government sector which partakes in obliterating the remaining open spaces also leaving them to vanish. Because of the inadequate and unmaintained open spaces existing throughout the city, communities are now protesting against the presence of such an area due to the harm it has brought up and the crimes that escalated.

By unraveling the issue, the city can benefit in countless ways in an economic, cultural, educational, and social aspect, also the image it can cast on the world, in the sense of advertising its rich values and most importantly satisfying the user's necessity.

2. Aim and scope

This paper aims to corroborate the user's satisfaction with a prominent square situated in Addis Ababa; Ethiopia named Meskel square. Apprehending the issue related to isolation and the imperative requirement within the spaces and demand of responsible city planners in prioritizing standards for development and encouraging the youth to have hands-on involvement for a sustainable future.

The scope of the study focuses on users' demand in urban open spaces within Addis Ababa, in the area of Meskel square. With the limited time of one semester, this research tried to analyze the reasons for the desertion of such spaces and the necessary standards to obtain sustainable urban open spaces for communities. By revising researches, the study will be able to look at the general characteristics and benefits of the mental and physical health of society.

3. Methodology

The data source for this research is established on affiliated literature reviews, case studies, and observation of the case area. The information collected through this topic is important in understanding the urban open space and better perception of the user's comfort.

The methodology used for this paper is the Qualitative method to examine the case area, the below notes explain how this paper will carry out the study:

1. Site analyzing-evaluation of the study area.
2. Cross section studies summarization of participant observation at the given time.
3. Graphics-photographic evidence of the area showing the overall shape, condition, activities that are engaged, location within the city, and dimensions.

The city Addis Ababa was chosen as a research area for the following reasons: Sufficient size for the existence of a diversity of culture, the economy of the city, the status of the capital city in terms of growth, and mandatory position in the African Union.

4. General information of contextual background Ethiopia

4.1. Study area

Ethiopia is non-coastal situated in the horn of Africa having a multilingual nation, with more than 80 ethnolinguistic groups. The country partakes the maximum UNESCO World Heritage Sites in Africa. The culture of the country is various and mostly organized along with ethnolinguistic positions. Fig. 1 shows Ethiopia and Addis Ababa.

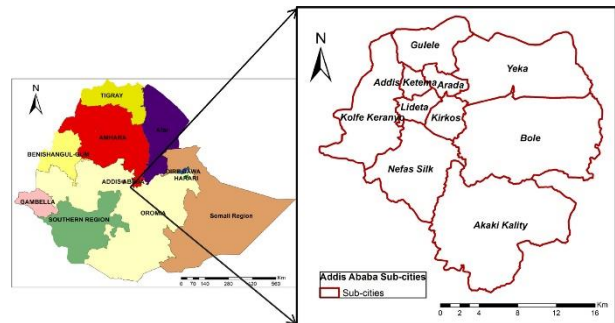


Fig. 1: Map of Ethiopia and Addis Ababa (Seifu and Stellmacher, 2021)

Addis Ababa lay at an elevation of 2,355 meters (7,726ft), sited at 9°1'48"N 38°44'24"E. The city is placed at the end of Mountain Entoto and is a portion of an area of land that separates water flowing to different rivers for the Awash. Beginning at the bottom place, about Ethiopian International Airport, at 2,326 meters (7,631ft) overhead sea level in the southern border, Addis Ababa increases to 3,000 meters (9,800ft) or more in the Entoto Mountain to the north. Addis Ababa is a subtropical highland with rainfall changing significantly by the month. The metropolitan has multiple combinations of upland climate regions, with temperature variances of up to 10°C (18°F), conditional on height and dominant wind forms. The high height varies temperatures all year, and the metropolis's location close to the equator explains the temperatures which are persistent from time to time. Not considering the height of an area in Addis Ababa is not above 22°C (72°F) in mean temperatures.

From the 2007 inhabitants census led by the Ethiopian national statistics authorities, Addis Ababa has 2,739,551 individuals. For the capital city, 662,728 homes were counted living in 628,984 housing units.

5. Literature review

5.1. Urban open space (UOS)

Urban open spaces offer a communal facility to diverse social groups specifically where people and sets of various communal, traditional, and financial forms, from diverse gender, ages, and degree of education, cultures, and experiences. There exist various aspects that are environmental, communal,

and figurative (Şatir and Korkmaz, 2005; Stanley et al., 2012).

The public landscape is designed when the spaces are arranged where it results in creating smooth access and connection with the environment. Mirroring the Earth's scattered ecology landscapes consists of shattered form imaging mosaic-like arrangement. Forman explained the arrangement in patch-corridor-matrices pattern outline; patch are areas different from the background but similar to each other, the corridor is the connecting lines dissimilar to the environment on each border, and matrices are the contextual areas of the land (Thwaites et al., 2005).

Pathways, refreshment areas, sidewalks, squares, parks, green spaces, playgrounds, and none closed office boundaries are all considered to be open urban areas that are part of the urban (Şatir and Korkmaz, 2005). And it is thought that the most important perspective of city life is the use of inner-city open space between the city habitats and the interaction (Stanley et al., 2012). Also, different revisions elaborated that human beings' need for socializing, to join in unintentional and impulsive meetings was due to the interactions that used to occur years back in open spaces for economic trade. Imperative circumstances for urban open spaces to be traveled are the cultural and social involvement that is procured and in return, this gives these places recognizable attractiveness, character, and feel of belongingness (Nikšić and Watson, 2018).

5.2. Factors affecting urban open space

There are different ways the open spaces can influence the users' requirement of city dwellers in their day-to-day life and also their interaction (Nikšić and Watson, 2018). They include:

1. The site standard-open space and the road connection. Flow and relations uninterrupted walkways.
2. Security Insights and Clear boundary differentiation of communal and public areas.
3. Healthy and flexible functional space that helps users to spend time. A state of physical ease.
4. Being free from tension and nonviolent encounters.
5. Highly spirited activities such as jogging, eating, hanging out, bike riding. By creating pigmented sighting such as displaying the culture of the area attracts more people.
6. The feeling of fitting in, satisfaction, and friendliness.
7. Effectiveness and abundant entertainment zones.
8. All-encompassing connection and encouraging fitness.
9. Maintenance, responsibility, upkeep, and aesthetically pleasing diversity.

Urban open space has street furniture ensuring the comfort of its user and the usability of one public open area, this furniture's are permanently fixed to

ensure durability and security (Şatir and Korkmaz, 2005). They include:

1. The statue, obelisk, and meaningful sculptures
2. Pavements of the area
3. Playing ground equipment's in the space
4. Manmade pools
5. Booths assembled at the area
6. Water fountains
7. Bank ATMs
8. Chairs, spaces stand adjoining the floors
9. Public toilets
10. Fences
11. Plants

5.3. Types of activities in open spaces

As the word 'public' denotes peoples with a different background including different age groups, preferences, expectations, and needs. But many times, as given by government officials (including landscape architects and designers) when designing public space furniture's they used a method called the 'Rational approach' which means serving most of the citizens because designers cannot fulfill to individual needs of every citizen (Siu, 2005).

Throughout history, spiritually inspiring or motivating advantages to bodily and mental well-being are creating an outdoor setting that is mainly used to engender restorative benefits in people. Some of the physical actives are sitting, running, gardening, walking, game playing, bicycle riding, public gathering (concert, political announcement, and events), sports activities (yoga and aerobics), and also as café for refreshment. As historically written the use and representation of urban public open spaces was based on helping the people with the financial and communal needs of peoples because these spaces have a crucial role in people's everyday life (Nikšić and Watson, 2018; Thwaites et al., 2005).

5.4. Maintenance

In an urban environment, a good quality neighborhood as some pieces of evidence suggests the occurrence of a visually attractive, well-preserved communal space also established value of green and undeveloped spaces is significant. The valuable element in the urban value of life is the green and open spaces but in many cases, the development pressure of cities poses spaces as a potential threat to them, furthermore many residents identify green and open spaces as important features even if these residents have or lack these spaces on their neighborhood (Douglas et al., 2018). Pollution on the environment reduced social stability, and security, damaged economic activities; these are some of the things that can happen due to the absence of provision for communal areas (Aragaw, 2011).

5.5. Users' need in urban open space

Public spaces are backbones for urban settlement. This public space places where human beings establish some social interaction and relationships in cities. This public space is the mainstay of the city, streets, parks, plazas, playground represents the quality of the built environment in the city as well as the liveliness of civic life. The contribution of open spaces for an increase in gathering between city occupants, their interaction to open spaces, and their satisfaction in the city are emphasized. In the observation of the users, visually and physically connected, physically close to one another, and functionally supplementing each other are the perceptual micro-ambiances whereas the amount of use of the space plays a role too (Aragaw, 2011). In children's life, past experiences last through adulthood and urban open spaces are the main flavor that adds plenty of memories making them crucial for one's healthy social life (Woolley, 2006).

Open spaces tend towards being attractive by mixing up various functions, creating a connection to the sensor stimuli in an arrangement, unique planning which assists the current situation, and by being sustainable green space it leads to an elevated number of users and a sense of attachment (Nikšić and Watson, 2018). The access of a city should be equidistance where the access portrays a mental picture stimulating the attachment of the place through different topography structures, pigmentations, and the form can ease the mind of the users (Thwaites et al., 2005).

They are the critical element of city life-enhancing peace integrating with nature and fully functional space (Şatir and Korkmaz, 2005). Urban open spaces are categorized as Parks, gardens, urban woodland, Outdoor sports services, Green corridor, Natural and semi-natural green space, communal greens and city farms, Graveyards, abandoned and other funeral grounds (Woolley, 2006).

The magnitude of outdoor surroundings is to help individuals in establishing well. Samples of uplifting surroundings are found through olden times and are still sought today in medical amenities, like therapeutic or soothing greens for ill individuals, but their broader importance is in the urban public realm remainders inadequately discovered (Thwaites et al., 2005). Various research discussed the users' fulfillment and pointed out the key aspects as circulation of spaces in the cities, overcrowding levels, the variation of events presented, and their accessibility but there is a lack of further discourse on the awareness level of a community. Comparatively few papers focused on the layout, appearance, and physical content of urban open space (Wang and Stevens, 2020).

6. Urban open spaces in Addis Ababa

Addis Ababa is rapidly growing and is the center of the African Union. It is also partaking in an

international appearance, and it is stepping up to the universal standards in numerous features. One of these features is the urban atmosphere within the city where it is the compacted portion of the urban, main representative and general look symbolizing the metropolitan. The value of life within the city is much more highlighted and the standard growth of the city life is guaranteed through an appropriate development plan of open spaces. Presently the appearance of the city and the life standard is encountering abundant difficulties (Aragaw, 2011).

In Addis Ababa, there are seventeen parks which are the main places for recreation, for people in which these parks have their own defined spaces. These parks are used by the local people for weddings, graduation ceremonies, community meeting areas, reading spaces, and a place to relax, and these places are managed relatively poorly except for some spaces (Aragaw, 2011).

The other open space is 'Janmeda'. Janda is an Amharic word that means emperors' field for recreation, taking from the name this place was near the palace where the royal families engage in many activities like horse riding, etc. But the most significant purpose of the space was for a religious ceremony called 'Timket' where Ethiopian orthodox Christians celebrate the baptisms of Jesus Christ. At that time there was a settlement where higher administrators established on high locations also near such areas, relatives of the officials and their soldiers reside next then the peoples of the city settle around the city. About the entire establishment was exposed landscapes also with roads, it connects various establishments. These settlements were in the first period of the city emerging major part of natural zones near the urban area which was unaltered and the green open spaces were accessible on the establishment and they served the people for daily activity (Aragaw, 2011).

6.1. The neglecting of urban open space in Addis Ababa

For several years, open space within the city has no users and the meaning of open space turned into a field of interreligious contention and rivalry. In Addis Ababa introduction of urban public spaces was a very difficult task for the urban managers because the idea was ignored since the establishment of the city. So, the mainly found open spaces that are accessible for the public were the spontaneously left-over spaces that are saved for further infrastructure, street joints, avenues, and few squares which are insufficient to satisfy the number of populations in the urban area (Aragaw, 2011).

The public space in the city is uncomfortable, inaccessible, unattractive, and poor quality infrastructure. It is found that inhabitants are not aware of the meaning of public spaces, types, and information on the existing public spaces. People use the parks for illegal activities so very few numbers of peoples use the parks and kept others away. The users prevent themselves from engaging due to

some illegal activities done within the area, the absence of facilities (siting spaces, toilets, and water taps), and congestion was among the problems. But other facilities arranged by dwellers around the park are restaurants and cafeterias which are common spaces for entertainment within the urban. Another state of the public open space is the roads, which are designed well and are profited as market spaces, meeting areas, and for passage purposes (Aragaw, 2011).

7. Case of Meskel square, Addis Ababa

7.1. Historical background

In Fig. 2 Meskel Square is shown and is its location at the center of the crowded city Addis Ababa having a square meter of 41,245 and a perimeter of 934 meters. In the city, St. George church was a religious place that has a big open space of its own outside the church where peoples gather to worship. In the Christian faith, the founding of the true cross was one of the main religious 4 holidays celebrated in the open space and the name of the holiday is “Meskel”. The Meskel square is

alongside St. George church where the open urban area needs improvement (Aragaw, 2011).



Fig. 2: Meskel square

It is developed at three diverse centers and the function of the spaces varied as well where spaces overlapped used by the peoples. The square is an enormous exposed space located at the center of the metropolitan. Recognized as a huge exposed space and was utilized as a shop in the history of Addis Ababa and was the only public space at that time because other spaces were taken by the government officers and religious places, all the land had an owner so public activities mainly took place on the market (Aragaw, 2011). Fig. 3 shows the usability of the Square.



Fig. 3: Usability of the square

7.2. Functions of the square

The square has a spacious area consisting of some activities categorized into cultural, political, religious, everyday activities. As shown in Fig. 4 the first activity is the political activities on Meskel square which has a long history where political ceremonies were hosted on the square according to the ruling parties of the country. The yearly political

ceremonies on Meskel square are “Genbot 20” which means May 28 where the ruling party celebrates the taking power from the dictator regime of Derg. And the other political activities are the different political parties use this place as a major gathering place for meeting on election period and government officials also use the open space as a communication place (Aragaw, 2011).



Fig. 4: Political support and announcement

Fig. 5 is an image of religious activity, second activity on Meskel square and is the most important usage of the space taking the square was even primarily originated for a religious ceremony called

“Meskel” the title Meskel square is even derived from it. The open space is filled with peoples from all over Ethiopia and the world on September 27th as peoples gather on the open space to celebrate the Meskel

holiday which is also the main tourist attractions every year because the celebration is recorded by

UNESCO as a heritage and also the square is at the center of the city (Aragaw, 2011).



Fig. 5: Religious cross celebration

Fig. 6 is the third activity is cultural activities and ceremonies that show people gathering and celebrating the tradition of Erech and the public gathering prepared for the concert. These functions are exhibition (the biggest exhibition is found beside the square), concerts (up to 120000 peoples gather

for concerts), and other gatherings. There are also very big sports occasions called the great Ethiopian run which is prepared by the famous athlete Haile Gebrselassie who broke 27 records, and other activities like car races (Aragaw, 2011).



Fig. 6: Cultural events

There are various functions added to the existing three which are facilities offering. These are public and private facilities; the public is facilities for transportation purposes and the second one which is private facilities are cross country buses and taxis

that are the main destination for departure and arrival. Also, at the square, there is a sonic screen where it can broadcast football games, announcements, and advertisements. Fig. 7 shows the parking area of the square.



Fig. 7: Parking area of the square

In Fig. 8 the image shows the plan of Meskel Square and its unique architectural features in the urban city; the square consists of steps that are spaciouly placed where the users can have sitting

options, the open plan makes it the breathing element if the condensed city and the view of the surrounding.



Fig. 8: Other activities of the square

8. The user's experience

Fig. 9 is an all-over plan of the open spaces, it has often stayed shaped to produce healing advantage for communities, through psychologically enriching or through motivating use to the body of an individual and spiritual strength. There is a rising indication to propose the requirement in modern city renewal designed for community urban open

areas facility to be contemplated in ways of systems of minor connected areas of numerous kinds. Nevertheless, the type of zone planning might be communally useful and might have the therapeutic possibility, arising chiefly from its ability to enable community communication and benefit in bringing reflective mental replies (Thwaites et al., 2005).



Fig. 9: Neighboring building function

But the users' need for urban open space is not balanced with what exists and the users have been facing difficulties with comfort, safety, cleanness, and maintenance through the cross-section studies found conducted on the site. Most users have complained about the square condition and outdated plan which has existed since the beginning.

The actual state of the open space indicates the small thought shown in the accounting system. The

existence of those spaces has been more of bringing danger to the community rather than a great potential use. Because of the reasons the society are led to believe the open spaces are damaging, insecure and are voicing their opinion in eliminating such places from the city. Fig. 10 shows users in Meskel square taken in Addis Ababa and Fig. 11 shows current zoning Meskel Square.



Fig. 10: Users in Meskel square taken in Addis Ababa (February 29, 2020)

The square is surrounded by cultural centers, schools, and museums. Fig. 10 shows the usability of the Square by various users and the material condition of the square, there are many more discomforts in the area in terms of:

- The urban flow access having no boundaries to the main street or landscape buffer from the busy street to the open space which puts safety in question,
- Unpaved walkways and running spots which result in being a dusty area and uncomfortable,

- Nonexistence shaders making the open space unusable during rainy seasons,
- Lack of activities for younger society,
- Lack of vegetation,
- Lack of lighting and safety,
- Lack of cleaning service,
- Lack of public toilet,
- Lack of sports equipment and
- Due to bad maintenance, the city image is not being properly represented.



Fig. 11: Current zoning Meskel square

- Meskel Square has been dangerous for any age playing in the football practicing area due to its functional zoning where there is a clear lack of urban buffer from the very crowded and busy street to the open space.
- The cross-country buses parked in the park also block the view of the activity going in the street and cast the feeling of a crowded area.
- The car parking zone can be too packed and aesthetically unpleasing to the users, view-blocking.
- The sitting space is further away from the busy movement of cars creating the necessary noise reduction but it's not fully equipped to sit comfortably.
- The exercising area is around the sitting area and car parking, ideal area for physical exercise in the morning and dawn but the unpaved ground is part of the obstacle.

9. Conclusion

The research intended in evaluating the obstacles of city open spaces in Addis Ababa, using photographic analysis of the square, the opinions stated by the community, and the reviews of the literature on the specific subject indicating the general standards of such spaces to ensure comfortable enjoyment. The study encourages more detailed researches to be conducted on open spaces in the city to help increase awareness in beneficial open spaces and to ensure community need and

comfort through the help of city planners and its society.

The objective of the study has been reached by identifying the discomfort involved, safety factors, long-term maintenance dysfunction within the space, and society growing concerned about the spaces. The research has been conducted by observing the case area Meskel square and assessing the general components lacking concerning user's satisfaction with urban open space. Also, the influence it has on the country's image and future sustainability.

9.1. Findings of the study

The users' requirement has not been met to the level of expectation and to the present time. Ethiopia being one of the fast-growing countries, the necessity of urban open space has not been given the appropriate attention to the value it offers to Users. In the case of Meskel square, the unkept condition has led to a loss of users and has been unsafe and uncomfortable ground. The square is a public space found in the middle of the capital city of Ethiopia with an area of 41,245m². The first thing one notices in the public space is that it is not properly designed for the activities made on the space, lacks consideration of the space, and proper treatment. Almost all the urban open spaces within the country are not properly planned to meet the requirement of the community and there also exists a lack of awareness.

Leading it into the isolation of the urban open space and the social interaction of the community to decline over time and choice of not using the space. The community has fading awareness of the urban open areas. But some potentials can serve various age groups, gender, of the society. These ideas are leading the city's urban open spaces to disappear within a short period hence having an unsustainable metropolitan area with less integration of nature into the city.

9.2. Recommendations

The continuous necessity of remodeling the area for healthy communal gathering and healthy city, increase the income level in various ways and enhance Addis Ababa's image showing the multiple outstanding culture and tradition. Through the investigation of articles, it's preferred to plant trees on selected places which can provide shade, it can attract more peoples to come and properly designing some part of the place for exercise can attract even more people, adding more activities to be enjoyed, including sports facilities, lighting fixtures, installing public toilets, waste disposal bins, and introducing financially benefitting socializing such as book renting, plant growing, street art, book reading area and music playing that showcase to the public.

The site being in the middle of the city gives the site a big advantage for the people using it, through adding some more occupations like small coffee shops and a fast-food place it will raise the number of people and act as income for the society and when designed well the place have the potential change the image of the city by forming the satisfaction of its users. In doing so the iconic Urban Open Space can set an example to the regional and other countries to follow the footsteps for usable open space also inspiring people to meet, read, do exercise more in the space. Overall, urban open spaces have more sustainable community life and city.

Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Aragaw MT (2011). Urban open space use in Addis Ababa: The case of Meskel Square. Available online at: <https://stud.epsilon.slu.se/2829/>
- Douglas O, Russell P, and Scott M (2019). Positive perceptions of green and open space as predictors of neighborhood quality of life: Implications for urban planning across the city region. *Journal of Environmental Planning and Management*, 62(4): 626-646. <https://doi.org/10.1080/09640568.2018.1439573>
- Nicol C and Blake R (2000). Classification and use of open space in the context of increasing urban capacity. *Planning Practice and Research*, 15(3): 193-210. <https://doi.org/10.1080/713691902>
- Nikšić M and Watson GB (2018). Urban public open space in the mental image of users: The elements connecting urban public open spaces in a spatial network. *Journal of Urban Design*, 23(6): 859-882. <https://doi.org/10.1080/13574809.2017.1377066>
- ŞATIR S and Korkmaz E (2005). Urban open spaces with examples and the classification of urban furniture. *İTÜ AIZ Journal*, 2(1/2): 130-141.
- Seifu S and Stellmacher T (2021). Accessibility of public recreational parks in Addis Ababa, Ethiopia: A GIS based analysis at sub-city level. *Urban Forestry and Urban Greening*, 57: 126916. <https://doi.org/10.1016/j.ufug.2020.126916>
- Siu KWM (2005). Pleasurable products: Public space furniture with user fitness. *Journal of Engineering Design*, 16(6): 545-555. <https://doi.org/10.1080/09544820500273383>
- Stanley BW, Stark BL, Johnston KL, and Smith ME (2012). Urban open spaces in historical perspective: A transdisciplinary typology and analysis. *Urban Geography*, 33(8): 1089-1117. <https://doi.org/10.2747/0272-3638.33.8.1089>
- Thwaites K, Helleur E, and Simkins IM (2005). Restorative urban open space: Exploring the spatial configuration of human emotional fulfilment in urban open space. *Landscape Research*, 30(4): 525-547. <https://doi.org/10.1080/01426390500273346>
- Wang Z and Stevens Q (2020). How do open space characteristics influence open space use? A study of Melbourne's Southbank Promenade. *Urban Research and Practice*, 13(1): 22-44. <https://doi.org/10.1080/17535069.2018.1484152>
- Watson GB and Kessler L (2013). Small changes-big gains: Transforming the public and communal open spaces in Rindown neighborhoods. *Journal of Urban Design*, 18(4): 565-582. <https://doi.org/10.1080/13574809.2013.824368>
- Woolley H (2006). Freedom of the city: Contemporary issues and policy influences on children and young people's use of public open space in England. *Children's Geographies*, 4(1): 45-59. <https://doi.org/10.1080/14733280600577368>