SCIENTIFIC JOURNAL OF FACULTY OF FINE ARTS ALEXANDRIA UNIVERSITY
PRINT ISSN : 2356-8038 ONLINE ISSN : 2535-227X
DOI : 10.21608/SJFA.2025.369699.1109

# UTILIZING HYBRID GREENWAY NETWORK TO CONSIDER GENERATION Z'S PLACE IDENTITY FOR A SUSTAINABLE WATERFRONT OF THE HISTORIC CITY OF ALEXANDRIA, EGYPT

MOHAMED AHMED F. MAHDY[1]

## ABSTRACT

Place identity, a complex concept, describes the profound connections individuals and communities develop with specific locations through shared experiences, memories, and meanings. It includes both the visible and invisible qualities that make a place unique and foster belonging and distinctiveness. This research examines the crucial role of place identity for Generation Z within rapidly changing coastal cities, highlighting the alarming erosion of this identity due to rapid and unplanned urbanization, as noted by UN-Habitat. The International Union of Architects (UIA) further emphasizes a growing detachment between young urban residents and their environment, citing a lack of meaningful open spaces. This is particularly significant for digitally native Generation Z, whose formative experiences are often digitally mediated. This study investigates how Alexandria Corniche in Egypt perceives historical elements that support place identity. Employing a holistic approach, the research analyzes urban heat maps and space characteristics, culminating in a framework design that reconsiders greenway networks to accommodate urban populations. This framework aims to create environments that foster a strong sense of place identification and encourage long-term sustainable stewardship for future generations. Ultimately, this research contributes to achieving four UN Sustainable Development Goals 2030: health benefits (SDG 3), economic strength (SDG 8), urban sustainability (SDG 11), and climate resilience (SDG 13).

*KEYWORDS: Place Identity, Millennials Perception, Generation Z, Waterfront, Historical Site.*

[1] *Architecture Department, Faculty of Fine Arts, Alexandria University*
*Email: mohamed.mahdy@alexu.edu.eg*

## 1. INTRODUCTION

The rapid pace of urbanization and the consequent depletion of natural resources pose significant challenges to sustainable living. While urban landscapes can undoubtedly contribute to a high quality of life, the way cities are developed is crucial. The uncontrolled expansion of urban areas often leads to environmental degradation and social issues [1]. However, a well-planned urban environment, incorporating greenways and sustainable design principles, can mitigate these negative impacts and create more livable cities [2]. A prime example of that can be found in Alexandria, Egypt, where urban growth has increased throughout the year by increasing resident numbers in suburban and rural areas, as residents moved from suburban areas to live within the city, the number of people living inside the fabric of the city also increased. The urban Expansion of Alexandria was developed as a T-shaped peninsula and a strip of land dividing the Mediterranean from Lake Marriott [3]. **Figure 1** shows physical expansion of Alexandria during the 19th and 20th centuries and physical fabrics, while Alexandria's urban expansion is predicted to continue the boundaries of the current urban area, which can be seen in the western, southern, and south-eastern directions. It becomes the second largest urban governorate in Egypt [4].

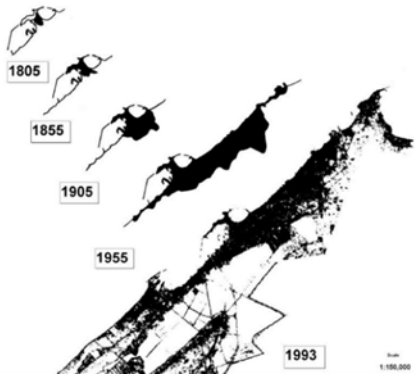



**Figure 1.** Physical Expansion of Alexandria during the 19th and 20th centuries.

Natural resources have a major role in societies, so historic waterfront sites are fundamental to a nation's cultural heritage, acting as physical connections to its past and preserving the community's identity and memories [5]. These areas are hubs of cultural activity, fostering community and tradition [6]. Historical waterfronts often contain valuable cultural and historical elements [7]. Despite successful trials from the government in Egypt to revive the cultural, economic and recreational aspects of waterfront such as the successful example Egyptian People's Walkway "Mamsha Ahl Misr", still in many major cities in Egypt, a lack of regulation in waterfront development has led to issues such as environmental degradation, crime, and flooding. These problems indicate that waterfront development needs to involve public participation to ensure its sustainability. Alexandria's Corniche: see **Figure 2**, has long been a prominent symbol for the millennial generation, intertwined with countless memories. However, due to poor planning and a lack of a clear vision for such vital urban spaces, this area has expanded and evolved haphazardly for unsuitable uses patterns. The Corniche holds immense economic and tourism potential, in addition to being a primary recreational outlet for residents of Alexandria and neighboring cities. The development gives Alexandria the potential to transform into an international landmark that will deliver substantial economic growth to Alexandria Governorate.

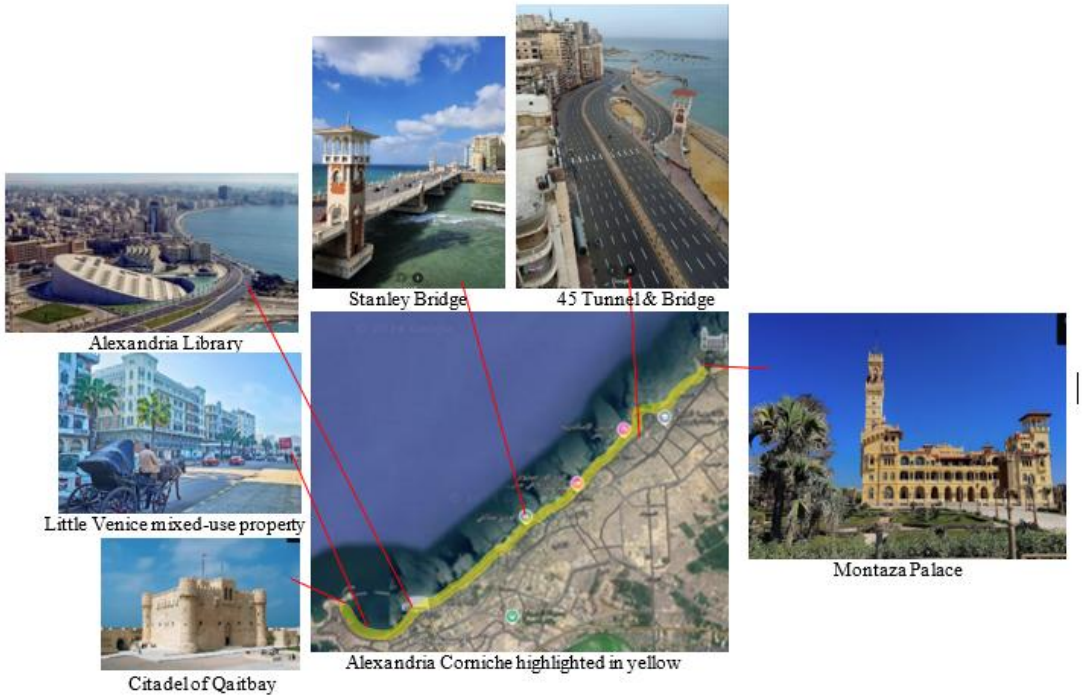



**Figure 2**. Alexandria Corniche map

## 1.1 Historical background of Corniche Alexandria

During 1921 King Fouad launched a major development project to create the Alexandria corniche which served as an all-encompassing transportation system between two royal palaces [8]. The construction of the corniche required six construction phases to connect Ras El Tin Palace to Montaza Palace during multiple years. Construction of the project lasted from 1934 and required an expense of 11,300 Egyptian pounds [9]. The development of the corniche led to residential construction of houses and villas and palaces that filled the empty land and turned it into a prime residential area as illustrated in **Figure 3.** The Alexandria Corniche boasts several notable palaces, including Hussein Pasha Seri's Palace and Princess Qadriye Hussein Kamel's Palace. The area has also become renowned for its numerous hotels, with the "Brive" Lorraine Hotel being particularly well known.

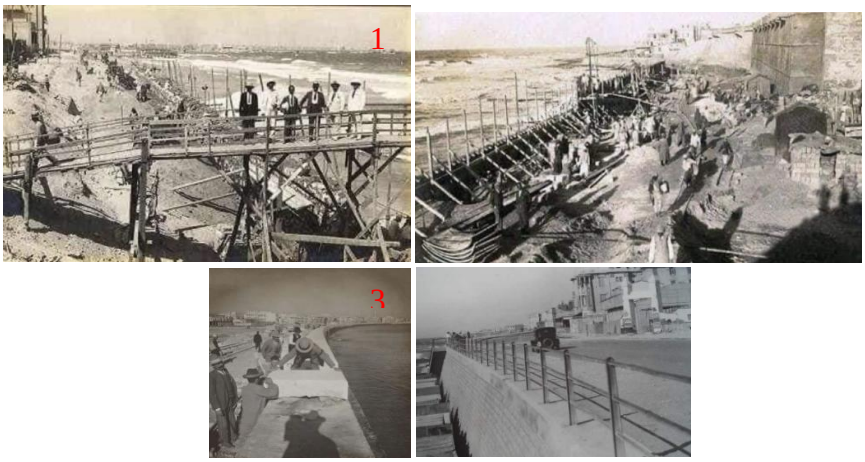



**Figure 3**. Stages of the construction of Alexandria Corniche,

## 1.2 Current Conditions affecting Alexandria Corniche

Alexandria's Corniche, once a beloved public space, has undergone significant transformation due to neglect and overdevelopment. The once-serene coastal promenade is now dominated by concrete structures, private beaches, and traffic congestion. This erosion of public space has alienated residents and visitors, who lament the loss of a cultural icon [10]. The city's history of neglect and mismanagement has contributed to the Corniche's decline. Government officials have created coastal erosion prevention methods together with waterfront protection measures yet critics maintain Alexandria lacks sufficient protection of its cultural and natural heritage [11]. **Figure 4** shows, one of the restaurants and cafes located on Alexandria Corniche caught fire because the building materials failed to match the Corniche's natural construction elements. An intense landslide affected the Corniche as a result of both winter flooding and rising sea levels **Figure 5**.

**Figure 4**. Restaurants and cafes located on Alexandria Corniche caught fire.

**Figure 5.** An intense landslide affected the Corniche

## 1.3 Aiming Alexandria's Corniche as a Regional Attraction Point

The Alexandria Corniche functions as the economic driving force that stimulates business growth throughout the city. The vision development of this universal urban space will maintain Alexandria's appeal to domestic and international tourists which will enhance tourism job opportunities and stimulate local economic growth. Property investment value appreciation will make the Corniche more desirable for developers who will construct hotels and apartments alongside commercial buildings [11]. The development process will establish a market need for retail shops alongside cafes and restaurants and bars thus enabling new business ventures for entrepreneurs. Resident access to the Corniche will create both spaces for leisure activities and social interaction and spaces for outdoor relaxation which will enhance community bonds. The development of the Corniche will generate a positive impact in the surrounding neighborhoods by advancing public services and infrastructure improvements and improving overall quality of life. The Alexandria Corniche functions as a key economic driver that brings

tourism while promoting real estate expansion and developing an active urban center. The project will enhance multiple business areas resulting in better citywide prosperity [12]. Sustainable heritage of historical waterfront areas derives its most robust advantage from community cohesiveness. The process of achieving sustainable heritage waterfront development depends critically on studying public experiences and their active participation in the design stage.

### 1.4 Aimed Users

The research centers on Generation Z individuals based on their birth years between 1997 to 2012 not just because of their population numbers but because of their distinct psychological makeup and socio-cultural traits and digital environment. The current generation faces a weakened relationship with their place because they experience global media while being continuously exposed to digital technology and urban fragmentation in Alexandria's Corniche which shows signs of visual deterioration. The psychological challenges that Generation Z faces are primarily caused by their distorted perceptions of their relationship with places. The negative effects of media and social media have resulted in Generation Z exposure to standardized Western and Far-Eastern cultural elements and lifestyle preferences. Through globalization local urban stories give way to foreign images thus causing Generation Z to lose their bond with their natural surroundings. The Alexandria Corniche suffers from poor urban development which includes irregular building structures and privatized beaches in addition to traffic congestion and absent public space vision that creates a hazy urban image. The curated and meaningful spaces that Generation Z prefers do not connect with the waterfront which ought to operate as their cultural foundation. The physiological traits of this generation lead them to have enhanced sensitivity toward environmental factors including air pollution and thermal discomfort alongside sensory overload from irregular urban layouts which affects their interaction with public spaces. Because of their heightened sensitivity they usually choose digital spaces or visit places which align both visually and functionally with how they imagine these spaces should be like and often seek these conditions in foreign locations. This research targets Generation Z to address an immediate requirement for establishing local identities through places which stimulate their cognitive as well as emotional responses.

The study determines to develop a hybrid greenway outline which centers on place identity needs of Generation Z for establishing sustainable waterfront systems in coastal cities. The Alexandria Corniche functions as the main study site yet the research findings along with the proposed framework should work across historic urban waterfronts. The research tackles the increasing separation between young people and urban identity caused by media effects and broken urban planning and environmental decline by providing a strategic approach to restore cultural and spatial unity.

## 2. RESEARCH HYPOTHESIS

The research demonstrates that urban revitalization of the essential urban space in Alexandria Corniche becomes possible through adoption of urban greenway topological principles. The approach proves suitable for appealing to Generation X users who represent the main population during this era. A greenway redesign of the Corniche allows for the creation of an area that fulfills user requirements while preserving its special character. A hybrid greenway system should be applied to the Alexandria Corniche because this urban area demands elements that integrate both ecology and history along with recreation facilities with comprehensive greenway systems. The hybrid solution will deliver a comprehensive sustainable answer to all space requirements.

## 3. RESEARCH METHOD

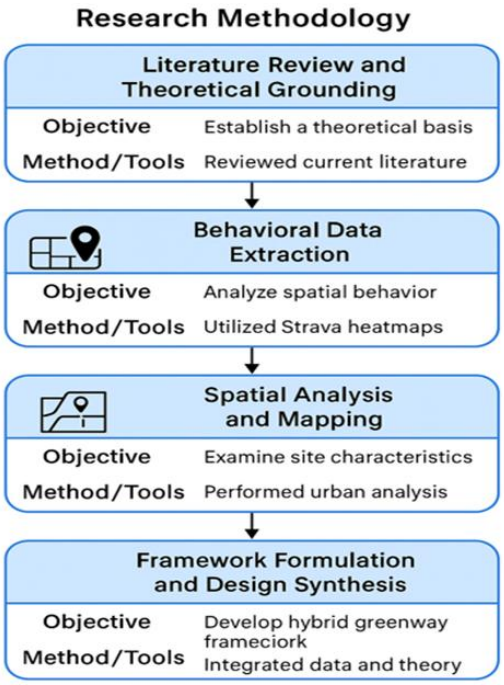



**Figure 6**. Research Methodology Diagram.

The study conducted quantitative and qualitative data collection through various methods for analysis. The existing literature review established a complete understanding of hybrid urban greenways. The research connected hybrid greenway characteristics to preferred spatial identity features of Generation Z then used Strava's Global Heatmap software to develop guidelines for the main spots and sections of the Alexandria Corniche. The redesign process of particular spots and sections will use generated heat maps to provide directional guidance. The research method should be applied across various urban sectors of Alexandria Corniche in future investigations. The research will identify popular Alexandria Corniche spots using urban heat maps by establishing connections between the spatial identity of Generation Z and their main characteristics. The analyzed data will merge with present academic research to create standard recommendations for areas of separation and spots in the Alexandria Corniche. Population estimate prsented in the **Table 1** by ages group (1 January 2015) and Population distribution by generation in Egypt in 2023 shown in **Figure 7**.

**Table. 1**. Population estimates by age group in Egypt in (1 January 2015)

| Age group | Male | Female | Total | % |
|---|---|---|---|---|
| 0–4 | 5 168 230 | 4 791 812 | 9 960 042 | 11,3 |
| 5–9 | 4 790 338 | 4 456 493 | 9 246 831 | 10,5 |
| 10–14 | 4 279 072 | 4 013 008 | 8 292 080 | 9,4 |
| 15–19 | 4 367 988 | 4 131 991 | 8 499 979 | 9,7 |
| 20–24 | 4 623 621 | 4 424 043 | 9 047 664 | 10,3 |
| 25–29 | 4 334 645 | 4 175 258 | 8 509 903 | 9,7 |
| 30–34 | 3 456 601 | 3 364 004 | 6 820 605 | 7,8 |
| 35–39 | 2 711 932 | 2 639 282 | 5 351 214 | 6,1 |
| 40–44 | 2 422 954 | 2 379 682 | 4 802 636 | 5,5 |
| 45–49 | 2 222 893 | 2 184 980 | 4 407 873 | 5,0 |
| 50–54 | 1 922 803 | 1 903 745 | 3 826 548 | 4,4 |
| 55–59 | 1 567 139 | 1 557 610 | 3 124 749 | 3,6 |
| 60–64 | 1 144 789 | 1 146 574 | 2 291 363 | 2,6 |
| 65–69 | 800 241 | 811 254 | 1 611 495 | 1,8 |
| 70–74 | 522 379 | 540 837 | 1 063 216 | 1,2 |
| 75+ | 544 608 | 562 470 | 1 107 078 | 1,3 |
| **Total** | **44 880 233** | **43 083 043** | **87 963 276** | **100** |

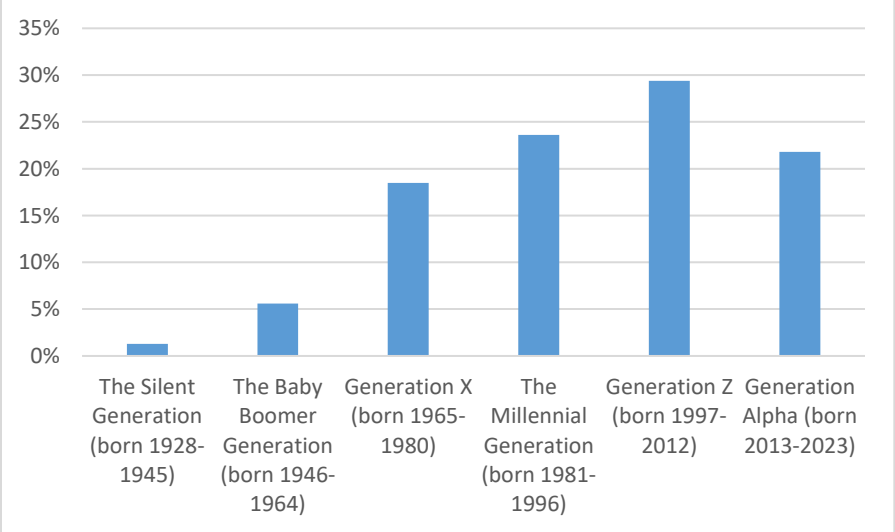



**Figure 7**. Population distribution in Egypt in 2023, by generation

## 4. LITERATURE REVIEW

### 4.1 Generation Z Place Identity

Place identity functions as a theoretical foundation which investigates human relationships with their actual habitats. The research implies that people establish a deep connection between their sense of self and certain locations [13]. Research on place identity conducts this phenomenon through an established theoretical system. People together with psychological mechanisms and physical place elements affect changes that occur to a particular area. The collection of beliefs which arise from cognitive perceptions about places develops self-awareness through place identity. Knowledge of Generation Z's heritage conservation views together with their cultural identity positions will guide the development of strategies that enhance historical sites' connection with young visitors. This includes the use of technology and interactive experiences. Additionally, understanding how Generation Z perceives historical sites can help planners strike a balance between preserving historical authenticity and incorporating modern amenities and conveniences. Therefore, this study shows how Generation Z perceives the historical aspects in facilitating place identity. As discussed, place identity triggers various emotions in most visitors, including Generation Z. The research identity is identifying the factors that contribute to the formulation of place identity in historical waterfront sites. **Figure 8** illustrates the vision for the factors that could be considered in waterfront spaces to shape the place identity for this demography. Integrating factors that could be considered in waterfront spaces to shape place identity and create harmonious, sustainable waterfront developments with greenways is essential.

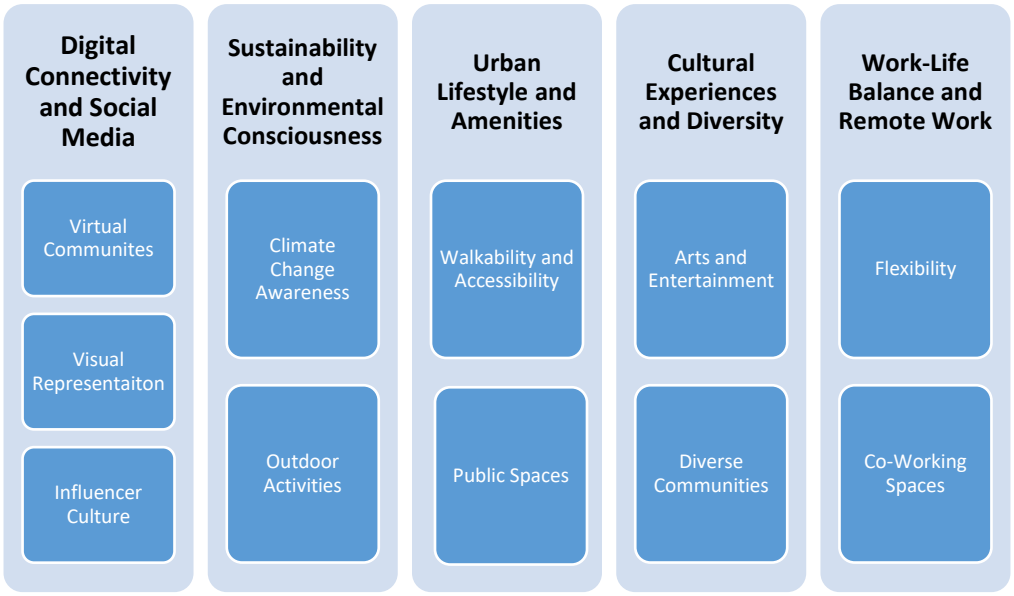



**Figure 8**. Factors Influencing Place Identity for Generation Z in Waterfront Spaces (Source: Author`s Representation)

### 4.2 Greenways: Medium of Application

Greenways play a vital role in urban sustainability, serving as essential corridors for nature and functioning as living networks. They provide accessible public spaces for residents and connect rural and urban areas. Charles Little [14] offered a broad range of definitions for greenways, but one particularly relevant description is: 'A continuous, linear open space created along a natural corridor, such as a waterfront, river valley, or hill, or along a former railroad, transformed into a recreational path, channel, scenic lane, or other route. Greenways, according to [15] and [16], "network of land containing linear elements that are formed, designed, and managed for a variety of purposes, including ecological, recreational, cultural, aesthetic, nature conservation, and social integration, because they connect various types of open spaces and parks with amenities, nature, and people that are compatible with the idea of property sustainable land use".

### 4.3 Greenways Integration with Waterfront

Greenways, dedicated corridors of land for conservation and recreation, offer numerous advantages when located along waterfront areas. They can serve as hybrid spaces that accommodate the factors to be considered in waterfront development to appeal to Generation Z. According to [17] and [18], one of the generation of greenways often developed from rail-to-trail movements, has evolved as a response to shifting modes of travel from trains to trucks. These pedestrian and bicycle paths frequently follow waterways, such as rivers, streams, shorelines, canals, and abandoned railways, extending their reach. Platte River Greenway trail shown in the **Figure 10**. Greenways offer a variety of experiences, encompassing historical, scenic, ecological, and recreational aspects. The concept of urban non motorized trails, central to greenways, has been explored. The Alexandria Corniche, a linear urban space, exemplifies the greenway concept, aligning with the theoretical principles outlined in greenway literature; see **Figure 9.**


**Figure 9**. Greenways are considered as medium for achieving Generation Z place identity (Source: Author`s Representation)


**Figure 10**. Platte River Greenway trail, Denver, Colorado, USA.

### *4.3.1 Successful Similar Examples*

*a. Mamsha Ahl Misr - Egypt*

Also known as the People of Egypt Promenade; **see Figure 11 and Table 2,** this significant Cairo project offers a multitude of benefits that enhance the city's quality of life, economic vitality, and cultural richness. Mamsha Ahl Misr, also known as the Walkway of Egypt's People, is a modern public walkway along the Nile Corniche in Cairo, Egypt. The facility seeks to create an area that lets both residents and visitors enjoy The River Nile scenery together with recreational pursuits while experiencing Egyptian cultural activities. Two promenades operate independently at the walkway which creates separate spaces for exercising and running on the top level while shopping and dining take place on the ground floor. Throughout the day visitors can admire beautiful views of The River Nile that flourish at sunset time. People who visit can discover Egyptian culture through their time at traditional shops alongside art galleries and participation in cultural shows. Walkway patrons can enjoy cycling and skating while their children play in designated areas between the recreational options. The pathway combines natural green areas and land-based arrangements to generate a serene setting. The new pathway meets accessibility needs of disabled users because of its implemented ramps alongside elevators [19]. The length of Mamsha Ahl Misr spans 4.7 kilometers of Nile Corniche in Cairo while its promenades extend from 6 to 10 meters wide. The design assimilates various combinations of hard and soft landscape components to establish an environment that gives users sensory satisfaction and physical ease. The soft landscape integration at Mamsha Ahl Misr project includes date palms (Phoenix dactylifera) and royal poinciana (Delonix regia) and Bougainvillea and Nerium oleander together with native date palms (Phoenix dactylifera) that grow inside seating areas which are covered in Bermuda grass (Cynodon dactylon). Both granite pathways and patterned concrete pavers enable the site plan to support metal bench seating areas under tensile fabric and pergola structures which display Egyptian art heritage. Every entry point of the site can be reached through the accessible steps on concrete ramps.

**Figure 11**. Details of the 'Egyptian People's Walkway' from Imbaba to the North Coast before its opening.

**Table 2**. Outlines the benefits and advantages of this project

| Urban Revitalization [19] | Social and Cultural Benefit [38] | Environmental Impact |
|---|---|---|
| • **Revitalizes the Nile Corniche**: The promenade breathes new life into the historic Nile Corniche, enhancing its aesthetic appeal and creating a vibrant public space. | • **Public Gathering Space:** The promenade provides a welcoming space for people to gather, socialize, and relax, fostering a sense of community. | • **Improved Air Quality:** By providing a green space and reducing reliance on cars, Mamsha Ahl Misr contributes to better air quality. |
| • **Stimulates Economic Activity:** The presence of restaurants, cafes, and shops along the promenade boosts local businesses and contributes to economic growth. | • **Cultural Hub:** The integration of cultural amenities like theaters and art installations enriches the cultural landscape of Cairo. | • **Sustainable Development:** The project incorporates sustainable design principles, minimizing its environmental impact. |
| • **Attracts Tourism:** The scenic beauty and recreational opportunities offered by Mamsha Ahl Misr draw tourists, contributing to the city's tourism industry. | • **Health and Wellness:** The pedestrian-friendly environment encourages physical activity and promotes a healthier lifestyle | |

*b. Corniche de LUANDA - Angola*

The Corniche de Luanda, also known as Avenida Marginal or 4 de Fevereiro, is a waterfront avenue stretching along the coastline of Luanda, Angola. It's a popular destination for both locals and tourists, offering a beautiful mix of colonial architecture, modern high-rise buildings, and stunning views of the Atlantic Ocean. See **Figure 12 and Table 3**. The Luanda Waterfront in Angola extends 3.5 kilometers through a space which varies between 8 and 12 meters wide. The urban corridor now exhibits a lush tropical environment featuring Roystonea regia (royal palms) together with Delonix regia (flame trees) and Hibiscus and Bougainvillea softscape elements. The recreational areas with grass surfaces use Zoysia grass as their durable planting option. Security features at this location use concrete pavers in inspired patterns along with accessible wooden benches within metal frames and non-slip ramps throughout. The corridor provides shade through both natural tree lines and contemporary overhead structures. The waterfront's civic identity receives reinforcement by means of public sculptures which celebrate Angolan culture throughout the path.

**Figure 12**. Corniche de LUANDA – Angola,

**Table 3.** Outlines the benefits and advantages of this Corniche de LUANDA

| Urban Revitalization | Social and Cultural Benefits | Environmental Impact |
|---|---|---|
| • **Beautiful waterfront:** The corniche boasts well-maintained public spaces, wide pedestrian pathways, and green areas, perfect for leisurely strolls or relaxing by the water. | • **Colonial architecture:** Admire the historic buildings from the Portuguese colonial era, many of which have been beautifully restored. | • **Improving urban infrastructure and connectivity**<br>• **Reduced reliance on cars:** encouraging people to walk or cycle instead of driving.<br>• **Enhanced public transport:**<br>• **Improved road safety:** The new road network will have safer pedestrian crossing. |
| • **Modern skyline:** The corniche also showcases Luanda's modern side with impressive skyscrapers and contemporary architecture. | • **Cultural sites:** Several government buildings, hotels, and cultural sites are located along the waterfront. | • **Promoting sustainable development:** providing opportunities for outdoor activities.<br>• **Climate resilience:** resilient to climate change, with measures to protect against flooding and rising sea levels. |

| | | |
|---|---|---|
| • **Stimulating economic growth and social development**<br>• **Tourism and leisure:** attract tourists and locals, boosting the local economy.<br>• **Job creation** | • **Recreational activities:** Enjoy various recreational activities like jogging, cycling, or simply people-watching.<br>• **Social inclusion:** access to the waterfront, promoting social inclusion. | |

*c. Htree Waterfront Llandudno promenade, Wales*

People recognize Llandudno as a beautiful coastal town of North Wales because of its Victorian buildings and breathtaking ocean views. The promenade running along the coastline attracts visitors as well as residents of Llandudno. Visitors can admire panoramic views of the Irish Sea together with the Great Orme and distant mountain peaks from this location. One can find shops and restaurants and cafes that line up along the promenade where people can spend their time while enjoying the coastal environment. The pier extends into the sea with its panoramic coastline views available to visitors who wish to walk on it according to **Figure 13** and **Table 4**. The Llandudno Promenade stretches 2.4 kilometers across North Wales' Irish Sea coastline while its width fluctuates between 5 to 8 meters. The site features traditional smooth concrete paving as its main construction method to serve pedestrians. The site features restricted soft landscape elements that include maintained lawns and coastal shrubs such as Escallonia and Hebes. The hardscape features in this facility include cast-iron benches with wooden slats and stone steps and handrails as well as minimalistic sculptures which honor the town's historic heritage. Formal shading structures at this location exist only sparingly because users mostly depend on buildings or temporary sun shelters nearby.

**Figure 13**. Htree Waterfront Llandudno Promenade**.**

**Table 4.** Outlines the benefits and advantages of this Corniche de LUANDA

| Urban Revitalization | Social and Cultural Benefits | Environmental Impact |
|---|---|---|
| • **Scenic Beauty**<br>• **Panoramic Views:** The promenade boasts stunning views of the Irish Sea, the Great Orme, and the surrounding coastline. | • **Recreational Opportunities**<br>• **Walking and Cycling:** The promenade provides a safe and scenic route for walking, jogging, and cycling. | • **Flood Defense:** acts as a barrier, protecting the town from coastal |
| • **Picturesque Setting:** The Victorian architecture, charming shops, and vibrant atmosphere | • **Beach Activities:** The promenade offers easy access to the beach | • **Air Quality Improvement:** encourages walking and cycling, reducing reliance on cars and improving air quality. |

| | | |
|---|---|---|
| create a picturesque setting for leisurely walks and relaxation. | | |
| | • **Pier Entertainment:** Llandudno Pier, located on the promenade, offers a variety of entertainment options, including amusement arcades, shops, and restaurants. | • **Habitat Creation:** incorporates elements like seawalls and groynes that create new habitats for marine life, enhancing biodiversity. |
| | | • **Educational Opportunity:** used for educational purposes, teaching visitors about coastal ecosystems |

Htree Waterfront Llandudno Promenade, Corniche de Luanda, and Mamsha Ahl Masr are the three exapmles that offer valuable insights into contemporary waterfront design and its integration with sustainability principles. Different methods of urban planning display distinct characteristics from their regional building traditions and local heritage elements at each water-facing location. The Htree Waterfront Llandudno Promenade features modern architectural construction by matching basic structure to the surrounding environment while Corniche de Luanda merges Angolan cultural elements together with contemporary design. Mamsha Ahl Masr combines contemporary architectural features together with Islamic background elements to establish a calm and hospitable urban environment throughout its entire development project. All waterfront areas focus on making walking and biking accessible through specific paths which connect to recreational zones. The active transportation priority leads individuals to maintain active lifestyles as well as decrease their reliance on personal transportation methods. The waterfronts promote air quality improvement through their public transportation facilitation and support for alternative travel methods thus lowering carbon emission figures. The correct combination of native plants and green spaces leads to more biodiverse urban areas that build resistance against disturbances. The three evaluation examples show that waterfront projects enable the establishment of energetic sustainable cities with cultural value. The waterfronts function as reference designs for future projects which unite accessible walkways with environmentally friendly zones to create total health advantages for communities.

### 4.4 Hybrid Greenways Integration with Waterfront

As per [20] described Greenways as: "Land systems, including linear components, developed, planned, and managed for diverse purposes: ecological, recreational, cultural, and aesthetic, supporting multiple functions compatible with property land use". Greenways are landscaped networks designed for various purposes, such as ecological restoration, recreation, education, and transportation while respecting land use regulations. Greenways serve two primary purposes: providing accessible outdoor spaces for recreation and conserving natural resources. Their multipurpose design emphasizes spatial and functional efficiency, aligning with sustainable growth principles. Greenways can be used on a range of strategies and plans for urban natural landscape. There is a consensus that there were benefits of greenway networks, characteristics and typologies of greenways which are classified according to their locations so greenways are considered as a planning strategy and designing of sustainable urban landscape. According to [17, 21] define that there are five typologies of greenways, see **Figure 13**. These five typologies come in line with the direction of the factors influencing place identity for Generation Z in Waterfront Spaces that presented and outcome in **Figure 8. Table 5** illustrates the link between the methods of hybridizing greenways, which could serve efficiently for the comprehensive integration of various characteristics that represent the Alexandria Corniche Urban Waterfront: recreational, ecological, scientific, and historic characteristics. This aligns with the spatial identity of Gen X.

**Table 5**. Linking Greenways typologies to Factors Influencing Place Identity for Gen X

| Greenways Typologies | | | Factors Influencing Place Identity for Generation Z in Waterfront Spaces | |
|---|---|---|---|---|
| | **1** | Urban Riverside/Waterfront | • Take photos at tourist attractions<br>• Memorial experiences | Digital Connectivity and social media |
| | **2** | Recreational Greenways | • Watching marine sport races<br>• Watching marine life | Sustainability and Environmental Consciousness |
| | **3** | Ecology Significant | • Relax and sit at edge of the waterfront<br>• Playing in the yard | Urban Lifestyle and Amenities |
| | **4** | Scenic History | • Visting historical sites<br>• Culinary Experience | Cultural Experiences and Diversity |
| | **5** | Comprehensive Greenways | • Interactive Activity | Work-Life Balance and Remote Work |

### 4.5 Comparative Literature Insights

Modern urban greenway design focuses on operational behavioral integration and space optimization and environmental approaches to achieve sustainable urban development. The researchers **Li, Ji and Bai** combined multiscale geographically weighted regression and entropy weight methods to evaluate greenway suitability in Xiamen China [22]. The researchers discovered essential elements linking tourist attraction frequency with road maze characteristics to design greenways that comply with city travel activities. The assessment framework in Beijing bases its planning process on user behavior to create multifunctional greenway systems that link parks through high exposure areas. The planning strategy balanced accessibility and adaptability to provide recreational and mobility services to users [23]**.**

Scientists from Lhasa China developed modern methods for spatial planning of interconnecting urban greenways through their research study. The proposed model created connections between public transport stations and tourist attractions to improve population accessibility while enhancing greenway usefulness [24]. The assessment of urban greenway literature through bibliometric methods emphasized the requirement for combined academic fields to study both environmental equality and green construction framework development. According to S. McCarragher (2024) greenway planning requires social political and economic elements to achieve full urban sustainability [25]. Recent studies demonstrate why designers should include linear and looped and branching patterns as fundamental elements in their greenway design approach. Strategic greenway planning linked to user conduct and spatial patterns and multitechnical knowledge development enables Alexandria Corniche to establish ecological and region-specific greenway frameworks.

## 5. APPLYING 'GREENWAY NETWORK APPROACHES' ON THE CASE STUDY OF ALEXANDRIA CORNICHE

This shows that Alexandria Corniche is an efficient active urban area where occupation is extremely intensive and has different activities such as walking, jogging, cycling, and gathering. This place is visited by all groups of people: families, sports lovers, and tourists, which makes it one of the centers of

life in Alexandria [26]. As evident by Strava's Global Heatmaps below, different parts have been swept across to show the level of activity. It was possible to single out zones that experience heavy traffic and sections that are least frequented all along the Corniche using this tool. After the data extraction and heat mapping, some specific information about the times which are busiest for pedestrians and cyclers was then used to identify places that need improvements including wider walkways, better lighting, especially at night and amusement places. These perspectives serve to create essential guidelines for effective management of the efficiency and utilization of the spatial resources within the city by paying consideration to the real actions of target clientele in development strategies. The analysis is prioritized to the main temple strand zones, and hence everything observed can be generalized for the entire strip. In May 01, presented in **Figure 14** below, foot sports activities such as running and walking within Corniche are presented. Its length is from Qaitbay Castle to Montaza Palace, and its usage is the same from one end to the other [27]. This underscores the need to address and develop what is now referred to as safe and quality Pedestrian ways that people of all ages and with some form of Disability can readily access, which must address issues of lighting more especially at night as well as barriers to traffic among others. Also, this course categorizes them as fixed or portable features like water fountains, benches and first aid stations as some of the structures that need to be placed along the pathway to add value to the quality of the user and the overall quality of their health [11].

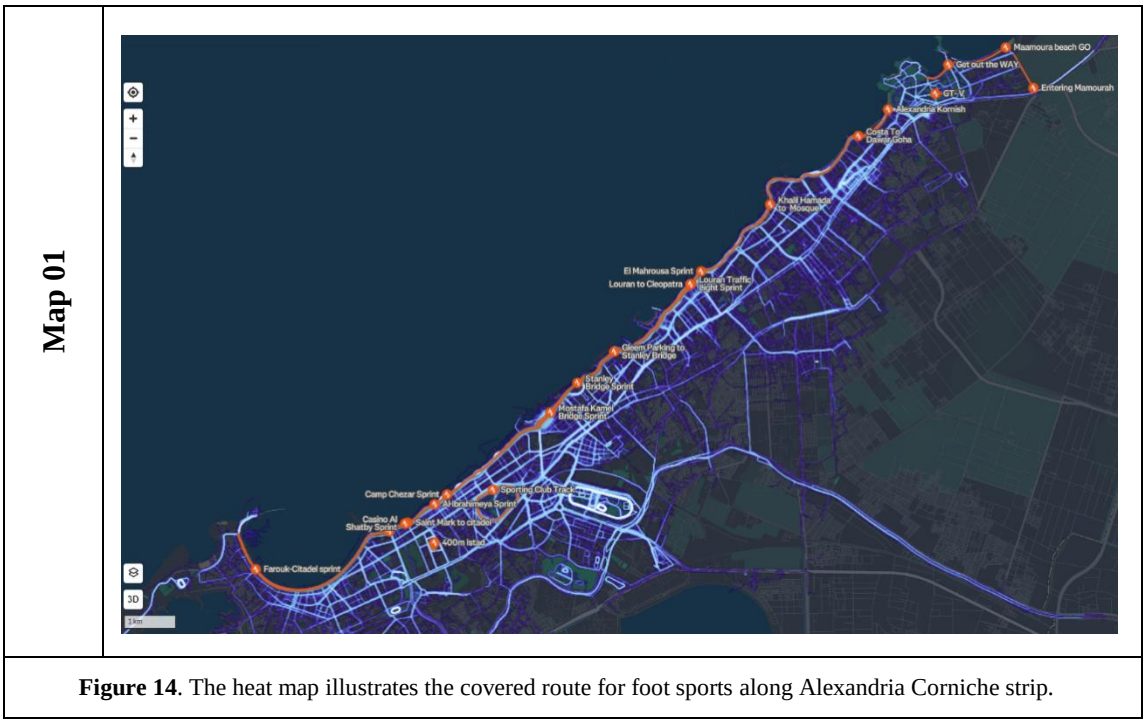



**Figure 14**. The heat map illustrates the covered route for foot sports along Alexandria Corniche strip.

**Map 02**


**Figure 15.** The heat map illustrates the covered route for pedestrian walking patterns along the Alexandria Corniche strip.

**Map 03**


**Figure 16.** The heat map illustrates the covered route for cycling patterns along the Alexandria Corniche strip.

**Map 04**

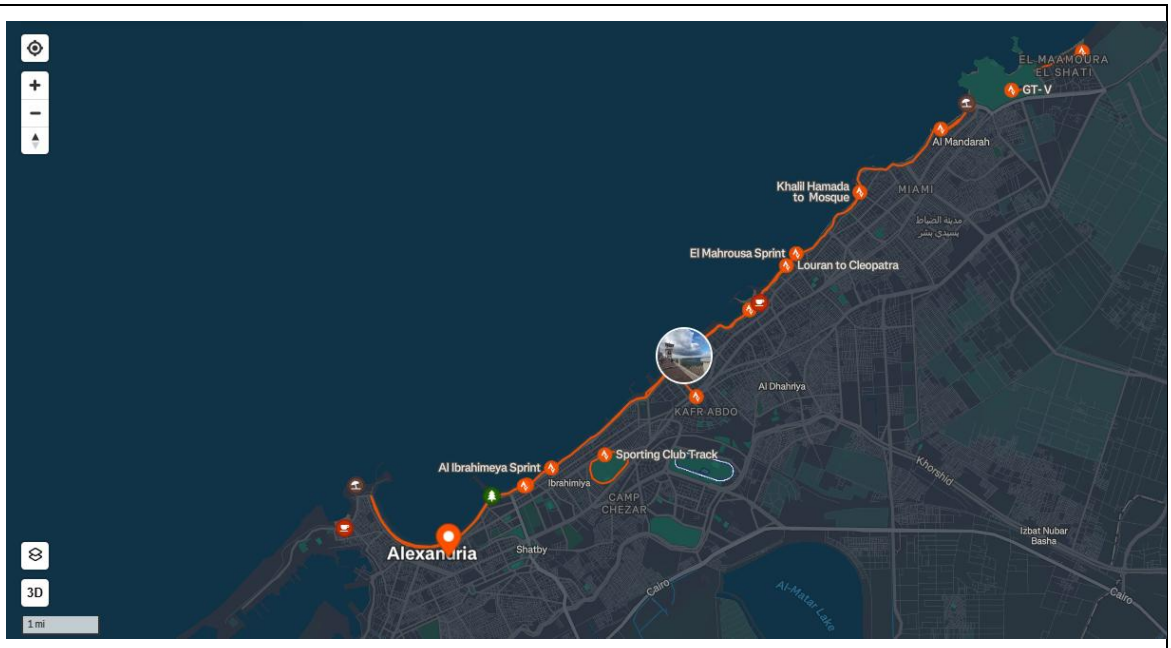



**Figure 17.** The heat map illustrates the covered route for trail run along the Alexandria Corniche strip.

**Map 05**

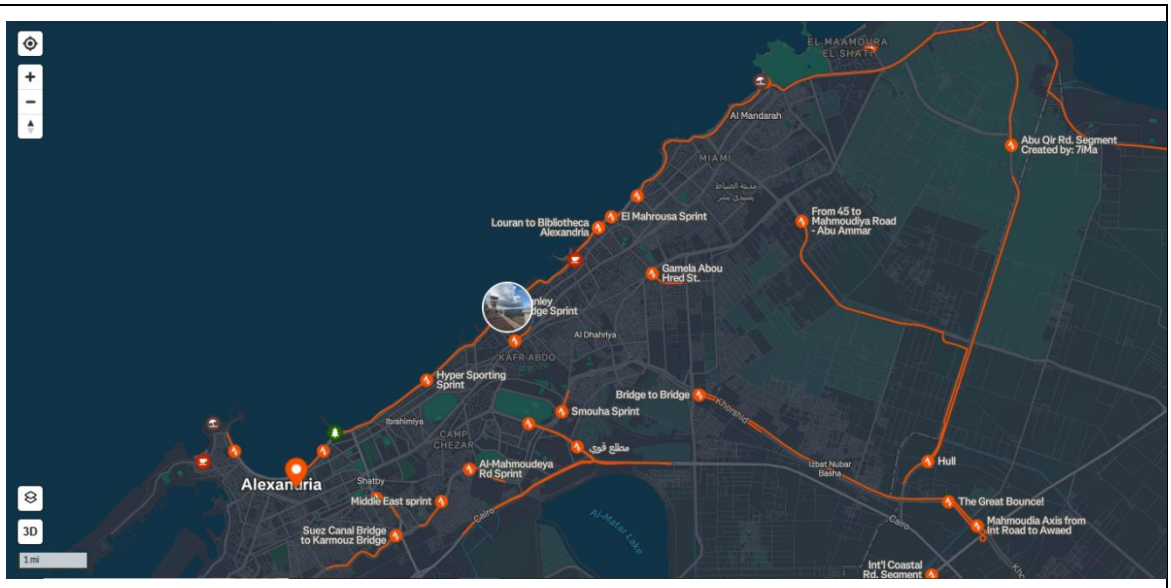



**Figure 18.** The heat map illustrates the covered route for mountain bike rides along Alexandria Corniche strip.

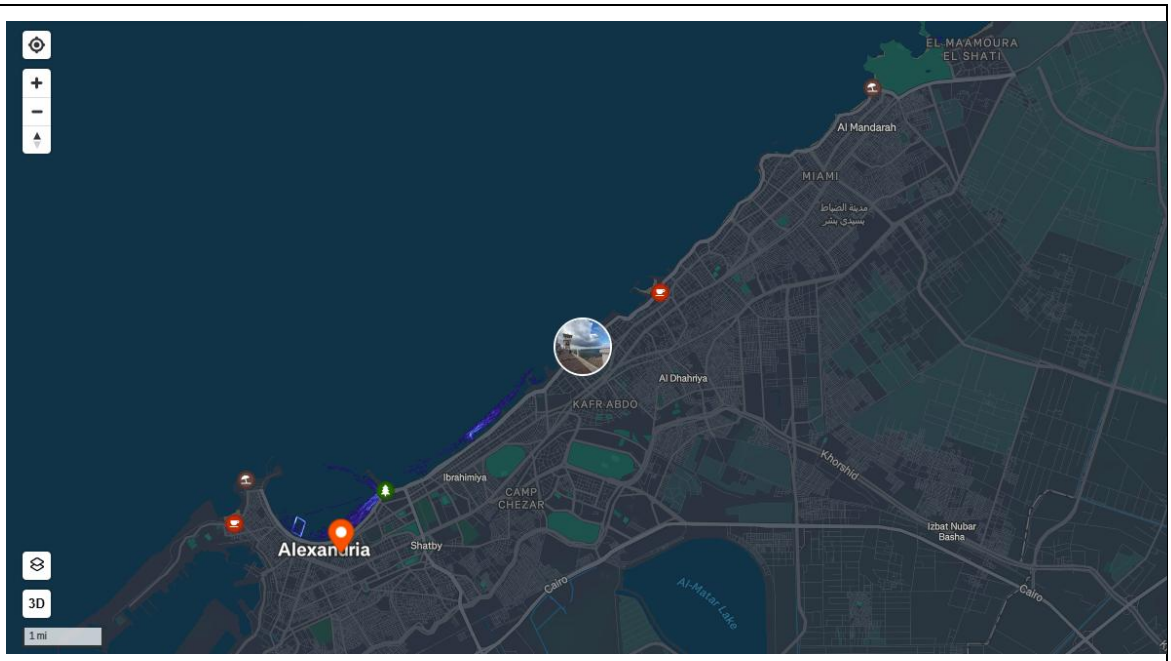
| | |
|---|---|
| **Map 06** |  |



**Figure 19.** The heat map illustrates the covered route for swimming along Alexandria Corniche strip.

**Figure 20.** Visualization of how the Alexandria Corniche could look based on Generation Z's place identity

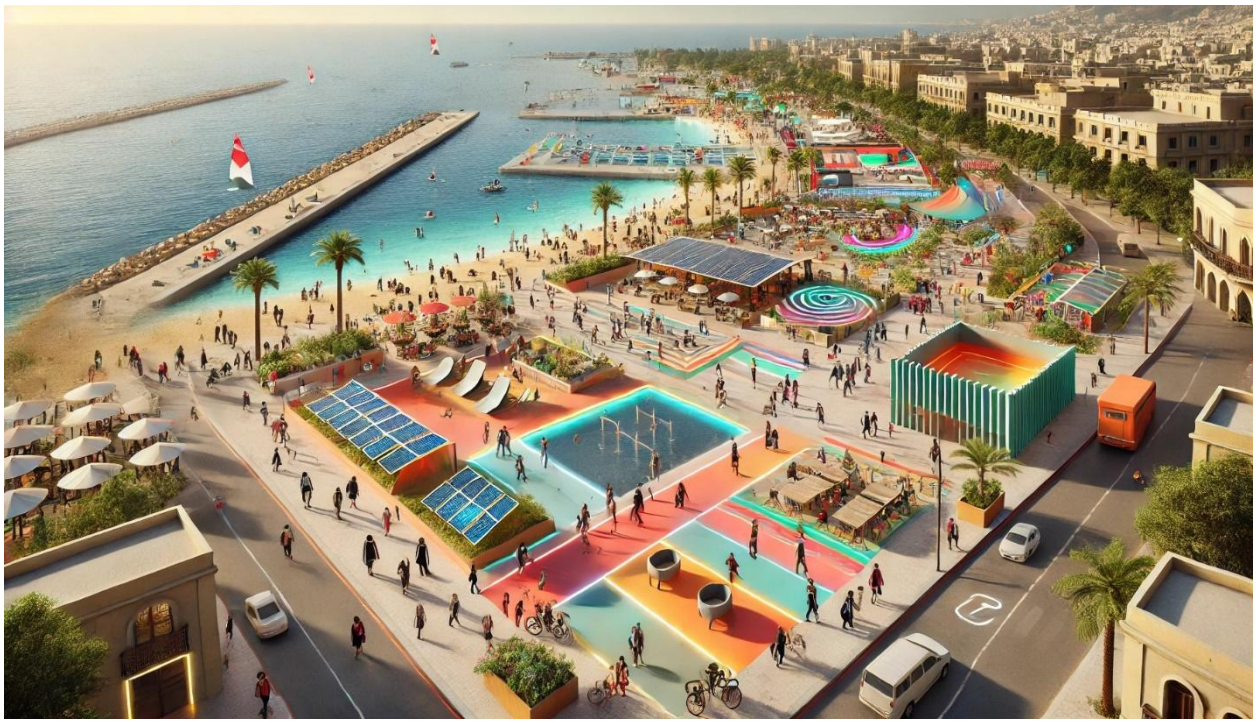


**Figure 21.** Visualization of how the Alexandria Corniche could look based on Generation Z's place identity

Figure 14 above shows Map 02 – distribution of pedestrian walking behaviour – excluding the main strip of the Corniche. This affects the general usability of the Corniche where there are signs of pedestrians' frequentation like widening. Existential structures like broad pavements and shades. These improvements can help to make the space more favorable for pedestrians especially when the activities are on peak. In general, the results of this study should guide future urban planning to avoid the overcrowding of amenities or their location in areas that would force pedestrians to cross the street to continue in the opposite direction. This ensures that there is enough and more extended foot pathways and shades to be provided for the comfort of the pedestrians especially in the busiest time of the day in the morning [28]. Also, the arrangement of planting and seats according to this line is helpful for their design distribution, not only aesthetic but also recreational [29]. Better-designed pedestrian priority bridges and well-articulated pedestrian and other public transport systems can also enhance usage especially where the footage interacting with its adjacent urban centers is on the increase [30]. The cycling activities, as an example from Map 03, exist along the parts of the Corniche. This implies that there is a need for provisions of exclusive lanes for cycling and not for paths that are common with pedestrians, calling for green transport by embracing cycling [20]. Along the same vein, areas such as repair shops bicycles, bicycle rental services, and showing how lanes for all types of bikes bicycle would be pertinent to professional racers as well as more casual cyclers touring. Awareness created through cycling events and competitions may also drive people's interest, hence their use [31]. Also, in Map 04 shown in figure 16, the strenuous nature of trail running has been depicted in places out of sight from the Corniche crowds. This forms a good opportunity to create trails running exclusive zones with proper terrains that are not as destructive on the joints thus the rates of infections [32]. Other features like trees

and water bodies along these trails should be insignificant extras to make the site enjoyable for cardiovascular exercise lovers and lovers of nature [33].

Map 05 as depicted in figure 17 shows the sort of mountain bikes or tracks that are mostly located close to natural terrains and rough terrains. This, therefore, raises the issue of the richness of available biking options. To increase the cycling option, one should create bike trails that will cover less improved areas of the Corniche recreational use will attract adventure people as well as increase physical activities [34]. This area should comprise distinct signs on trails, obstacles and barriers, especially at inclined areas and benches as well as emergency response boxes. In the same regard, the education that is posted occasionally on local flora and fauna could be of help to the bikers. Likewise, Map 06 depicted in **Figure 18** reveals swimming near points of first contact with the Corniche. This establishes the possibility of developing professional seashore protection for swimming with lifeguards and changing facilities along with water quality analysis services for the inhabitants and tourists [35]. Accommodation of new-life buoys defining new portions of the sea to swim in as a means of separating the facilities for swimmers and divers equally placing new Water sports equipment in the renting services might also expand the range of the leisure services and bring about more people with different tastes [36]. Further, **Figure 19** indicates a revived Corniche inferred based on the requirements and aspirations of Generation Z regarding technology, recreation, and culture. These priorities were established by using research questionnaires and other investigations that show that Generation Z prefers the use of technology, active engagement, and environmentally friendly behaviours. While examining the demographics of the group, it must be noted that Generation Z tasks technical elements with higher importance and supports environmental friendliness more actively than previous generations. Such knowledge helps urban planners create infrastructures and landscapes that also incorporate the demands for leisure and people's willingness to contribute to the sustainable development of neighborhoods [15]. Such characteristics include interacting installations, augmented reality historical walking tours, and eco-friendly products that are suitable for such a population. New co working spaces and digital hubs around the Corniche will adapt to Young Gen-Z members who work from home and seek trendy places for work and leisure [37]. Additionally, **Figure 20** outlines the prospect of a sustainable city of the Corniche, with ecological connection webs, cultural components and combined purpose recreational facilities. These features play a critical role in the sustenance of the Corniche in as much as they provide for the country's need for biological diversification, lower carbon emission rates, and the need to create urban ecosystems that can withstand prevailing environmental conditions. Ecological connecting networks improve green infrastructure to provide better air quality and manage natural water. Common place architectural characteristics serve cultural purposes and develop tourism, while multi-purpose recreation buildings are functional for leisure, business and social purposes. The intended benefits from these implementations are the conservation of the environment, economic gains from tourism, and enhanced general well-being for people and tourists [38]. This vision is significant because it is compliant with sustainable urban design where users can enjoy the results boosting conservation of the environment [2]. Hence, the promotion of renewable energy, especially solar energy in the least gravity social amenities like lighting and charging services conform to global sustainable standards [3]. Positive changes in waste segregation and enhancement of recycling stations of the Corniche can enhance the environmental consciousness of the public [27]. Considering the above-mentioned statistics, it is incontrovertible this structure has the possible ability to be one of the most multifaceted public facilities within urban cities. According to these considerations, it can turn into a worldwide centre for cultural, environmental, and recreational tourism [39].

### 5.1 Insights from from the successful previous examples

Mamsha Ahl Misr, Cairo: This project combines green space as a landscape and social design with culture and accessibility for all types of users, providing Alexandria with a blueprint project. Intentional and shared, both public assembly spaces and integrated sustainability promote collectivity and city vibrancy. Corniche de Luanda, Angola: This project shows how one can construct structures in the urban setting and protect vegetation as well as wildlife while aiming at establishing income-generating investments. Llandudno Promenade, Wales: With specific reference to how history has been incorporated into African cities, this development is a representation of how cultural history can be incorporated with present functionalities.

### 5.2 Proposed Framework

The study presents a Hybrid Greenway Framework which restores historical waterfronts by incorporating Generation Z alignment regarding their preferences and behavioral patterns and their values. The framework unites several dimensions of ecological and cultural elements and recreational activities and technological capabilities to form one unified approach. The framework addresses multiple spatial and environmental issues yet it adjusts to contemporary social trends making it applicable to waterfronts in various cities beyond Alexandria.

The proposed framework contains five essential elements which function together as an interconnected structure to fulfill their specific purposes during assessment:

1. **Waterfront Greenways**: These areas include pedestrian paths and route which have augmented and the virtual reality stories to be viewed, pause area and the observatory area to the beach. Through this typology, memory, historical-urban visibility and aesthetic value are formed to enhance the urbansation of the story of the city.
2. **Economically Significant Greenways**: Greenways dedicated to biological value involve native plantings with bioswales, green protective fences, niche habitats for species, all of which achieve biodiversity enhancement as well as reduction in heat island effect and floodwater control. This is True since individuals acquire enhanced knowledge of the conservation of the environment from educational productions done through signs and displays.
3. **Recreational Greenways**: Facilities provided in recreational greenways system are Jogging tracks including cycling tracks and the green areas includes gym, jogging tracks, skate parks and water front recreation facilities. The elements within the implementation relate to the nature of group recreation, health-oriented activities enhance in the context of the identified design elements as well as these are the primary characteristics of the Generation Z.
4. **Historic Greenways**: The Scenic-Historic Greenways is comprised of design which includes historical architecture components tied-in with the use of food exploration site and cultural sites. Such areas are detrimental to the development of heritage as they apply heritage signs in scene exposure for place identification.
5. **Comprehensive Greenways**: The Comprehensive Greenways function as multi-functional corridors uniting working facilities with relaxation areas and social meeting spaces.

The digital way of life and hybrid work practices of younger users find convenience through amenities like Wi-Fi hotspot areas and shade-covered social gathering spots and work pavilions.

City planners can change individual typologies of this framework according to local spatial conditions and statistical data together with cultural heritage features of different waterfront regions.

Behavioral analysis with Strava heatmaps assists designers to base their interventions on actual usage patterns of the space.

Through its Hybrid Greenway Framework the place identity for Generation Z improves by turning abandoned waterfront areas into sustainable public domains which welcome all members of society. This framework suits multiple cities because it transforms areas with historical priorities and ecological needs and generational involvement in mind.

**Table 6.** Hybrid Greenway Typologies and Their Role in Supporting Generation Z's Place Identity.

| Greenway Typology | Primary Function | Design Features / Strategies | Gen Z Identity Factors | Applicability to Other Cities |
|---|---|---|---|---|
| **Urban Riverside/Waterfront** | Heritage linkage, scenic continuity | AR/VR heritage tours, interactive signage, view decks, storytelling zones | Memory-making, cultural rootedness, digital engagement | Cities with historical waterfronts or colonial legacies |
| **Recreational Greenways** | Physical activity, social bonding | Bike lanes, jogging paths, skate parks, fitness zones, amphitheaters | Group interaction, fitness-oriented lifestyle | Urban centers with youth-oriented demographics |
| **Scenic-Historic Greenways** | Cultural immersion, culinary engagement | Open-air galleries, historical plaques, traditional food kiosks | Heritage exploration, local pride, experiential learning | Culturally rich or tourism-focused regions |
| **Ecologically Significant** | Environmental resilience, education | Native plant buffers, bioswales, rain gardens, eco-learning signage | Climate awareness, nature affinity, sustainability values | Cities vulnerable to climate change or lacking green infrastructure |
| **Comprehensive Greenways** | Mixed-use functionality (leisure + work) | Wi-Fi zones, co-working decks, shaded pavilions, social hubs, pop-up cafés | Remote work, digital nomadism, multitasking lifestyle | Tech-savvy cities or urban hubs adapting to hybrid work culture |

### 5.3 Limitations

The study faced limitations, including:

- Resource Constraints: The lack of extensive datasets as well as the general IQR affected a detailed evaluation of all Corniche zones.
- Public Resistance: Resistance that might be expected from society about historical and/or cultural principles could stall implementation.
- Environmental Challenges: Adapting to such climatic challenges as the advent of sea level and patterns of coastal erosion takes immense effort and resources.

## 6. CONCLUSION

This study suggests using a primary greenway for Alexandria's Corniche and a secondary one to meet the ecological, cultural and recreation requirements thus providing Alexandria Corniche a model

greenway for the development of the new world waterfronts. The Corniche has a landscape design which can be worked over to increase greenery, historical structures, and recreational grounds to provide the Corniche with its unique identity of a lively and dynamic urban street. By doing this, the architectural design integrates a merger of the modern city requirements and the respect to the legacy of Alexandar the Great.

The proposed hybrid greenway framework achieves two-fold benefits because it strengthens Generation Z place recognition and follows international sustainability objectives. The framework supports achievement of SDG 3 because it develops spaces that promote physical and mental well-being through active recreation and environmental quality. Through waterfront revitalization the proposed framework contributes to SDG 8 because it creates active economic zones which attract visitors and stimulate tourism and cultural events together with small business growth. SDG 11 guides the framework's commitment to developing urban settings that welcome all people and provide accessibility and resistance to change. The ecological framework elements support the achievement of SDG 13 because they enhance biodiversity conservation and help reduce urban heat while delivering adaptive solutions for coastal climate challenges. This investigation presents a complete waterfront development strategy that follows the economic indicators of the 2030 Agenda.

### 6.1 Recommendations

Based on the discussion and findings, this Paper offers questions which can be implemented to make the Corniche zones sustainable, eco-friendly, and based on Z-generation place identity.

- Community Engagement: Develop public participation through demonstration of models and Public hearings and design meetings to increase the adoption of the designs.
- Technological Integration: Mention mobile pop-up historical storytelling based on AR/VR technologies and the concept of smart infrastructure to improve an app's performance.
- Ecological Enhancements: Create green strips with native plant populations to enhance green infrastructure and climate-wise environment.
- Safety and Accessibility: Create separate corridors that are specifically designed for pedestrians and cyclists obeying principles of age and disability.
- Economic Development: Develop appropriate strategies that would help capture Corniche destinations for touring through cultural festivals, waterfront kiosks and markets among others.

### Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the author on request.

### Conflicts of Interest

Authors declare no conflict of interest.

## REFERENCES


1. George IN, Sakirudeen AO, Sunday AH. Effective classroom management and students' academic performance in secondary schools in Uyo local government area of Akwa Ibom state. Research in Pedagogy. 2017 Jun;7(1):43-56.
2. Kowarik I. Novel urban ecosystems, biodiversity, and conservation. Environmental pollution. 2011 Aug 1;159(8-9):1974-83.
3. Aly SS, Amer MS. Green Corridors as a response for nature: greening Alexandria city by creating a green infrastructure network. WIT Transactions on Ecology and the Environment. 2010 Jun 3; 138:101-17.
4. Abdou A. Analysis and assessment of land use change in Alexandria, Egypt using satellite images, gis, and modelling techniques. Egyptian Journal of Remote Sensing and Space Sciences. 2008; 11:17-26.
5. Sepe M. Urban history and cultural resources in urban regeneration: a case of creative waterfront renewal. Planning Perspectives. 2013 Oct 1;28(4):595-613.
6. Hashemnezhad H, Heidari AA, Mohammad Hoseini P. Sense of place" and "place attachment. International Journal of Architecture and Urban Development. 2013 Mar 1;3(1):5-12.
7. Marzbali MH. Influencing Factors on Place Attachment in Riverbanks: A Case Study of Malaysia. European Proceedings of Multidisciplinary Sciences.
8. Giannini S. Places of Memory and Struggles for Identities: Ernesto Verrucci's 1938 Monument to Khedive Ismail in Alexandria, Egypt. Italian American Review. 2022 Jan 1;12(1):61-85.
9. Pallini C, Scaccabarozzi AR. British planning schemes for Alexandria and its region, 1834–1958. InUrban Planning in North Africa 2016 Jul 7 (pp. 187-204). Routledge.
10. Mohamed AF. A Study of Strategic Plans of Sustainable Urban Development for Alexandria, Egypt to Mitigate the Climate Change Phenomena. Future Cities & Environment. 2023 Jan 4.
11. Abouelazm NH. How Smart Cities Can Be Leveraged to Create Sustainable Tourism Destinations: A Case of New Alamein City. Minia Journal of Tourism and Hospitality Research MJTHR. 2024 Jun 1;17(2):1-23.
12. Ragheb R, Ehab M, Mohamed H, Fahmy R, Sami M, Bassily M, et al. Waterfront development through a lens of sustainable smart agenda: Breathing life into El-Anfoushy touristic promenade. 2024;3(1):43-73
13. Belanche D, Casaló LV, Rubio MÁJJoRS. Local place identity: A comparison between residents of rural and urban communities. 2021; 82:242-52.
14. Hassan RJWToE, Environment t. Coastal protection and development of Alexandria. 2002;58.
15. Zaręba A, Widawski K, Krzemińska AE. Greenways Systems in Metropolitan Regions as the Alternative for Sustainable Transport Development. Logistics and Transport. 2017;33.
16. Ahern J. Greenways as a planning strategy. Landscape and urban planning. 1995 Oct 1;33(1-3):131-55.
17. Shafer CS, Lee BK, Turner SJL, planning u. A tale of three greenway trails: user perceptions related to quality of life. 2000;49(3-4):163-78.

18. Imam KZEAJL, Planning U. Role of urban greenway systems in planning residential communities: a case study from Egypt. 2006;76(1-4):192-209.
19. Okacha LM, Saadallah D, Elhaggla K. A Framework for an Effective Public Participation Process in the Urban Development of City Centers–the Case of Alexandria, Egypt. InCITIES 20.50–Creating Habitats for the 3rd Millennium: Smart–Sustainable–Climate Neutral. Proceedings of REAL CORP 2021, 26th International Conference on Urban Development, Regional Planning and Information Society 2021 Sep 7 (pp. 367-377). CORP–Competence Center of Urban and Regional Planning.
20. Akpinar A. How is high school greenness related to students' restoration and health? Urban forestry & urban greening. 2016 Jan 1; 16:1-8.
21. Fabos JGJL, planning u. Introduction and overview: the greenway movement, uses and potentials of greenways. Elsevier; 1995. p. 1-13.
22. Li W, Ji X, Bai HJAS. Urban Greenway Planning and Designing Based on MGWR and the Entropy Weight Method. 2024;14(24).
23. Liu T, Yu L, Chen X, Chen Y, Li X, Liu X, Cao Y, Zhang F, Zhang C, Gong P. Identifying Potential Urban Greenways by Considering Green Space Exposure Levels and Maximizing Recreational Flows: A Case Study in Beijing's Built-Up Areas. Land. 2024 Oct 31;13(11):1793.
24. Mu W, Wang G. Connective Urban Greenway Route Planning: A Spatial Optimization Perspective. Land. 2024 Nov 4;13(11):1833.
25. McCarragher S, Acuff C, Cowden C, Beasley DE. A bibliometric analysis of urban greenway literature: imply cations for interdisciplinary research on urban systems. Discover Cities. 2024 Nov 13;1(1):25.
26. Nayer A, Farag D. Towards Enhancement of Alexandria City Waterfront: Quality of Life Assessment Model. InLET IT GROW, LET US PLAN, LET IT GROW. Nature-based Solutions for Sustainable Resilient Smart Green and Blue Cities. Proceedings of REAL CORP 2023, 28th International Conference on Urban Development, Regional Planning and Information Society 2023 Sep 20 (pp. 857-868). CORP–Competence Center of Urban and Regional Planning.
27. Hussein R, Abd El-Aziz M, Arafa A, El-Sebaie OJJoHIoPH. Impact of Alexandria corniche road widening on Mediterranean Sea water quality, Egypt. 2013;43(2):175-84.
28. Štrbac S, Kašanin-Grubin M, Pezo L, Stojić N, Lončar B, Ćurčić L, et al. Green infrastructure designed through nature-based solutions for sustainable urban development. 2023;20(2):1102.
29. Nady R. Towards effective and sustainable urban parks in Alexandria. Procedia Environmental Sciences. 2016 Jan 1;34:474-89.
30. Jiang G, Zuo L, Asutosh AT, Zhang J. Environmental Sustainability Study of Urban Waterfront Landscapes Based on the LCA–Emergy–Carbon Footprint and Artificial Neural Network Method. Buildings. 2024 Feb 1;14(2):386.
31. Soliman AM, Soliman YAJIJoUSD. Exposing urban sustainability transitions: urban expansion in Alexandria, Egypt. 2022;14(1):33-55.
32. Pallini C, editor Staging the Past and the Future along Alexandria's Corniche. Proceedings of the International Conference on" Changing Cities" Spatial, morphological, formal & socio-economic dimensions; 2013: Grafima Publications.

33. Abou El-Ela M, Soliman M, Amin M, editors. Urban waterfronts between cultural and physical influences (The case of Jeddah and Alexandria). International sociaty of city and Regional Planning Conference-43rd Isocarp Congress; 2007.
34. Furlan R, Grosvald M, Azad A. A social-ecological perspective for emerging cities: The case of Corniche promenade,"urban majlis" of Doha. 2022.
35. El Menshawy A, Omar W, El Adawy SJF. Preservation of heritage buildings in Alexandria, Egypt: an application of heritage digitisation process phases and new documentation methods. 2023;11:1044.
36. Abdelhamid MM, El Hakeh AH, Elfakharany MMJJoCHM, Development S. Heritage-led urban regeneration: the case of "El-Shalalat District", Alexandria. 2023;13(4):703-27.
37. Elseragy A, Elnokaly A, Sabbagh M, editors. Revitalizing Alexandria through its symbolic significance of heritage; urban form; and the distinctive spirit of place. Proceedings of the International Conference on Changing Cities III Spatial, Design, Landscape & Socio-economic Dimensions; 2017.
38. Elsorady D. Community Involvement Framework for Sustainable Urban Conservation: Case of Caliph Street-Historic Cairo: SSRN; 2018.

المجلة العلمية لكلية الفنون الجميلة - جامعة الإسكندرية
SCIENTIFIC JOURNAL OF FACULTY OF FINE ARTS ALEXANDRIA UNIVERSITY
PRINT ISSN : 2356-8038 ONLINE ISSN : 2535-227X
DOI : 10.21608/SJFA.2025.369699.1109

# استخدام شبكة الممرات الخضراء الهجينة لدراسة الهوية المكانية لجيل زد من أجل واجهة بحرية مستدامة لمدينة الإسكندرية التاريخية في مصر

محمد أحمد فؤاد حسن مهدي[2]

**الملخص**

**تمثل هوية المكان، وهي مفهوم مُعقد، الروابط العميقة التي يطورها الأفراد والمجتمعات مع مواقع محددة من خلال التجارب المشتركة والذكريات والمعاني. وهي تشمل كلاً من الصفات المرئية وغير المرئية التي تجعل المكان فريدًا وتعزز الشعور بالانتماء والتميز. يبحث هذا البحث الدور الحاسم لهوية المكان بالنسبة لجيل الألفية Z داخل المدن الساحلية سريعة التغير، مُسلطًا الضوء على التآكل المُقلق لهذه الهوية بسبب التوسع الحضري السريع وغير المخطط له، كما أشارت إليه الأمم المتحدة للمستوطنات البشرية .(UN-Habitat) ويؤكد الاتحاد الدولي للمعماريين (UIA) كذلك على وجود انفصال متزايد بين سكان المدن الشباب وبيئتهم، مشيرًا إلى نقص المساحات المفتوحة ذات المغزى. وهذا ذو أهمية خاصة لجيل الألفية Z المولود في العصر الرقمي، والذين غالبًا ما تكون تجاربهم التكوينية مُدارة رقميًا. تدرس هذه الدراسة كيف يرى كورنيش الإسكندرية في مصر العناصر التاريخية التي تدعم هوية المكان. وباستخدام نهج شمولي، يحلل البحث الخرائط الحرارية الحضرية وخصائص الفضاء، ويبلغ ذروته في تصميم إطار عمل يعيد النظر في شبكات الممرات الخضراء لاستيعاب السكان الحضريين. يهدف هذا الإطار إلى خلق بيئات تعزز شعورًا قويًا بالانتماء للمكان وتشجع على الإدارة المستدامة طويلة الأجل للأجيال القادمة. في نهاية المطاف، يساهم هذا البحث في تحقيق أربعة من أهداف الأمم المتحدة للتنمية المستدامة لعام 2030: الفوائد الصحية(SDG 3) ، والقوة الاقتصادية (SDG 8)، والاستدامة الحضرية(SDG 11) ، والقدرة على التكيف مع المناخ( SDG 13)**

*الكلمات الدالة: الهوية المكانية ، تصورات جيل الألفية ، جيل زد ، واجهة مائية ، موقع تاريخي*

[2] مدرس بقسم العمارة، كليه الفنون الجميله – جامعه الاسكندرية