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# Urban Inclusion and Environmentally Responsive Architecture: Creating a Women-Friendly Space in Izbat al-Burg, Damietta

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## **URBAN INCLUSION AND ENVIRONMENTALLY RESPONSIVE ARCHITECTURE: CREATING A WOMEN-FRIENDLY SPACE IN IZBAT AL-BURG, DAMIETTA**

### **INTRODUCTION**

As the urban population continues to grow, understanding ecosystems in the city has become increasingly important and is now a rallying cry for action to respond to and mitigate the repercussions of growing urban sprawl. Urban areas echo a rather harsh image of concrete jungles with impoverished ecosystems and a disconnection between the built and natural environments. Although the current trend towards urbanization repeatedly manifests this visual image – putting the viability of our cities into question – it is imperative to challenge this narrative by tackling what is native and non-native, green and concrete, and also addressing urban areas as major contributors to climate change. This narrative frames a discourse on the ‘quality of space’, which includes biodiversity protection, health and well-being in the city, urban inclusion and resilience as crucial factors in the dramatic transitions taking place.

To address this discourse and its value, this paper focuses on a localized public space intervention based in the coastal city of Izbet al-Burg, Damietta Governorate. Located along the Nile River and the Mediterranean Sea, the city of Izbet al-Burg demonstrates layers of complexity: it was shaped by landscape and architecture, influenced

by historical events and industrial activities and coloured by what has become endangered biodiversity. Despite inevitable changes in the urban population and city fabric, the city's conglomeration of layers provides ample testimony to its rich story. Harnessing an inclusive and community-driven approach, the intervention focuses on the implementation of micro-scale acupuncture to mobilize the immediate context and capture the potential and power of the ripple effects of a widespread urban transformation.

Through a process of place-making, Takween Integrated Community Development (TICD)<sup>1</sup> conducted a multidisciplinary study to map and express the context's hybridity in order to conscientiously develop an environmentally and gender-sensitive design.

## AREA PROFILE

Izbat al-Burg is a city located 15 kilometres north-east of Damietta Governorate and 210 kilometres from Cairo Governorate. Izbat al-Burg covers an area of 2.65 square kilometres with an approximate population of 50,000 inhabitants, based on data from the Central Agency for Public Mobilisation and Statistics (CAPMAS 2017). Administratively, it falls under the auspices of the Damietta Administrative Centre or *markâz*; one of five administrative centres in Damietta Governorate. Ras al-Bar is a resort city on a peninsula on the coast of the Mediterranean Sea. It is located opposite Izbat al-Burg and bordered to the west by the Nile; it also falls under the auspices of Damietta Administrative Centre. The landmark known as the Lissan in the northern part of Ras al-Bar is where the Nile and the sea meet. Ras al-Bar covers an area of 3.76 square kilometres with an approximate population of 10,000 inhabitants, based on CAPMAS (2017). Its population increases tenfold in the summertime due to local tourism.

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1. Takween Integrated Community Development (TICD) is an urban development company established in 2009 in response to a foreseen growing demand for innovative urban solutions in a world where it is predicted that by 2030, 60 per cent of inhabitants will be living in urban centres. Takween specializes in the development of integrated packages in urban development services and solutions to support and complement efforts to tackle urban challenges.

Izbat al-Burg is the region's major fish production centre. Up to 63.7 per cent of its labour force works in agriculture and fisheries (see EEAA 2005a, 2005b, studies conducted for the Support for Environmental Assessment and Management [SEAM] Programme).<sup>2</sup> A large part of the city's area is covered by Lake Manzala, with scattered settlements surrounding its periphery. This leaves the picturesque city with very little room for urban expansion.

### HISTORICAL AND SOCIO-ECONOMIC BACKGROUND

The city of Izbat al-Burg was named after a defensive tower, *burg*, that historically safeguarded the city from invasions that it was susceptible to due to its strategic location. In the eighteenth century, a military fortress was built (now known as Ahmad Urabi Fort, or Tabiyyet Urabi). Its remnants lie in a dilapidated condition today. The land surrounding the fortress covers a large area of Izbat al-Burg and was recently fenced in by the Ministry of Tourism and Antiquities, due to its importance as a cultural heritage site. In 1869, a famous, fifty-five-metre-high lighthouse was built in the city to guide ships in the Mediterranean Sea. Izbat al-Burg is known for having the largest shipyards in Egypt and is the main industrial city for boats and ships. The craftsmanship of manufacturing and maintaining them has been passed down for generations (Teller Report 2018). The city's location shaped its history and economic activities, where the majority of the city's male residents are fishermen.

### PROJECT BACKGROUND

The Safe Cities programme is a UN Women's Global Flagship Initiative (UN Women 2018). Its full name is 'Safe Cities and Safe Public Spaces for Women and Girls'. It aims to promote an integrated, community-based approach to addressing issues and forms of violence against women and girls in public spaces. The programme works through members of the community to empower women and girls, raise awareness and provide technical support to make public spaces

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2. Support for Environmental Assessment and Management (SEAM) is a regional programme geared towards strengthening decentralized environmental management and improving environmental planning and services for the poor.

safer and improve quality of life. UN Women Egypt works in partnership with the government and civil-society organizations. Its scope of work falls within the National Strategy for the Empowerment of Egyptian Women 2030, which puts forward a road map for the implementation of the Sustainable Development Goals (SDGs) 2030, especially Goal 5 – concerned with gender equality – and Goal 11, concerned with sustainable cities and communities. The ‘Creating a Women-Friendly Space’ project in Izbet al-Burg, Damietta, is implemented through a partnership between the National Council for Women, the Damietta Governorate and UN Women Egypt, with the support of the Kingdom of the Netherlands.

### PROJECT AREA

Tucked away in the heart of Izbet al-Burg, with a panoramic view of the Nile, is a 2,000-square-metre public open space in the vicinity of the Egypt Public Library, adjacent to the city council (*maglis al-madina*) and within a walking distance from the city’s central hospital. The site is located opposite two primary schools, one for girls and the other for boys. Facing Ras al-Bar city, the project site can be accessed by two ferries, and it was found that both cities serve one another regarding public services, recreational areas and commercial activities.

The library’s construction work was suspended in 2011, and it was not until 2019 that the construction activities resumed. Abandoned for several years, the project site was left to deteriorate, becoming an unsafe territory in proximity to a vulnerable community. The resumption of the library’s construction work rekindled a glimmer of hope for its long-awaited grand opening and its catalytic importance to the city. The public library is part of the Egypt Public Library Initiative and Fund, which intends to provide a space for students at all levels of education to enhance their skills, build the capacities of its residents and support art, cultural and social activities. The library’s construction and public space upgrading focus particularly on women and children and are part of the Damietta Governorate’s strategy to develop informal and unsafe areas into accessible and empowering public spaces that facilitate equal access to opportunities. The Egypt Public Library is recognizable in Izbet al-Burg’s coastal skyline and forms an anchor point that not only attracts visitors from its immediate context but

also from the surrounding villages. To support and complement the library's activities, the surrounding public open space presented an opportunity to create a women-friendly space that caters to the needs of the local community.

## **STEPPING STONES TO A TRANSFORMATIVE INTERVENTION**

### **MULTIDISCIPLINARY STUDY AND FINDINGS**

To develop an in-depth understanding of the targeted area, Takween conducted a multidisciplinary study at the meso- and micro-levels of the urban context in early 2020. Our studies defined an appropriate catchment area and included the documentation of land uses, accessibility, transportation and mobility, public space activities, environmental studies and a safety audit. Takween carried out a participatory needs assessment by engaging stakeholders to identify the major issues regarding public services, with a specific focus on educational and recreational services, utilities and the safety and security of women and children. Focusing on Egypt Public Library's target users, women and children from different geographic locations between the ages of 25 and 60 and 6 and 18, respectively, were selected to participate in the study and inform the analysis and design programme. The process encouraged community involvement, especially for groups that are often underrepresented.

The findings provided a clearer insight into the immediate context. The studies identified low levels of safety in the surrounding area due to the library's construction and widespread illegal activities. Other challenges present were the physical deterioration of the built environment, including inadequate lighting, deteriorated paving etc., as well as high groundwater levels due to the site's proximity to the Nile.

Students enrolled in nearby schools commuted with their mothers or alone, and most women were interested in acquiring additional skills to increase their family's income, as their husbands often worked abroad. Indeed, Izbah al-Burg's fishing industry has been facing challenges due to the activity's dependency on a seasonal calendar in addition to the recent surge in prices for fuel and ship maintenance. As a result, many fishermen were put out of work and struggled to carry the financial burden to sustain their livelihoods. Other

male-dominated economic activities include the production and manufacturing of wood as well as agriculture and raising livestock. After multiple participatory meetings, it became clear that there was a lack of economic and recreational activities for women and youth.

### **AN INTERACTIVE SAFE SPACE: TACKLING URBAN INCLUSION AND ENVIRONMENTALLY RESPONSIVE ARCHITECTURE**

After obtaining a thorough understanding of the library's intended use and the multidisciplinary study, the design vision focused on providing an interactive and safe public open space for women and girls. The space responds to the local community's needs and the surrounding environment and was designed with a gender-sensitive approach to accommodate cultural, educational and recreational activities.

The design strategy involved clustering the public open space into groupings of public-private activities. To make use of the unutilized area, a private yet visually connected pavilion was designed to house a multipurpose space for workshops and exhibitions, providing a safe space for knowledge exchange and socio-economic opportunities.



**Figure 1.** Existing conditions before implementation - Egypt Public Library and its vicinity. Source: © Takween Integrated Community Development 2021.



Adjacent to the library is a light wooden structure, designed to serve as a reading space/technology-friendly area. It constitutes an outdoor extension of the library with a panoramic view of the garden. Located in one corner is a theatre intended primarily for cultural activities and performances, and at the other end is a play area, providing a safe and interactive space for children.

Responding to the community's needs, the public open space facilitates the social and economic development of the area. Women and youth are provided with the opportunity to improve their skills by attending vocational training, which encourages female entrepreneurs to participate in local exhibitions, ultimately creating a space for innovation and growth. Addressing the need to enhance public safety, an integrated approach was implemented for the physical upgrading of the surrounding environment by providing adequate lighting, improving the site's accessibility and cleaning up the riverbank by eradicating activities such as solid waste dumping, illegal activities etc.).

Through low-impact development (LID)<sup>3</sup> principles, the public open space has several environmental and economic benefits. Permeable paving was installed to increase infiltration, mimicking a natural process; suitable surfaces were provided for pedestrian use while allowing rainwater to infiltrate the ground. The total coverage by impervious surfaces was vastly reduced by relying on permeable paving and natural landscaping, mitigating run-offs and heat absorption. The landscape was designed to suit the site's high levels of groundwater and salinity. *Cyperus papyrus* was chosen for its ancient symbolism and to capitalize on the discovery in 2000 that it was growing in the wild once again. Due to the site's exposure to the sun, horizontal spreading trees were selected to allow for shade without limiting visibility.

The Nile serves as a constant reminder of the importance of *water* as a resource and the exacerbating impacts of climate change on our cities. In any stage of development, implementing LID principles

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3. Low-impact development (LID) principles refer to the land-use management strategies that emphasize conservation, the use of on-site natural features and site planning to minimize impervious surfaces, native vegetation loss and stormwater run-off (DEC n.d.).

is possible, which implies managing water in a natural manner to improve water quality, reduce energy usage, increase recreational activities and improve urban health. Many case studies have shown that LID principles are a promising way of mitigating flood and erosion impacts. Given the concerns regarding the impacts and challenges of climate change, the project intervention embodied the value of shifting to and adopting some principles of LID as a stepping stone to a much larger framework.

Inspired by Damietta's local architecture, a careful selection of sensitive and non-invasive materials was made. The pavilion was designed with rope partitions – an aesthetic material that is locally sourced and an effective means of social control and maximizing visibility (to see and be seen at all times). To protect the structure from external environmental conditions, sandwich panels were installed at inclined angles to enable the flow of rainwater. The reading area was designed with operable wooden louvres, encouraging users to interact with the environmentally responsive structure. Other treatments involved the use of exposed brickwork, adding texture and a bold statement to the design while responding to a familiar architectural language in the city.

## **CONCLUSION**

The project's haven gave Izbat al-Burg's community a much-needed breathing space and gave a voice to those unheard. It provides a safe and communicative space for knowledge exchange and socio-economic opportunities. In a broader sense, safety represents an urban tool for not only physical protection but also the governance of educational, recreational and community capacity development while understanding the diverse needs of women, men, boys and girls. Safety should be regarded as a more inclusive tool for the development and security of communities by giving individuals the power to contribute to their community's resilience – the ability to withstand, adapt to and recover from disturbances. Quality of life becomes an important indicator, addressing concerns around urban health and community well-being. The power of such localized acupuncture lies essentially in the relief it provides to communities and the spreading of awareness of time-sensitive adversities, thus supporting better resilience and encouraging behavioural change. Given climate change, the rapid urban transformations



**Figure 2.** Pavilion rope partitions and surrounding permeable paving/pervious surfaces. Source: © Takween Integrated Community Development 2021.



**Figure 3.** Reading area designed with operable wooden louvres. Source: © Takween Integrated Community Development 2021.



**Figure 4.** Sunset view from Egypt Public Library. Source: © Takween Integrated Community Development 2021.

taking place and the increasing pressure on the livelihoods of communities, breathing spaces have become essential. By triggering a chain reaction, these spaces lead adjacent urban environments to adopt similar frameworks to regenerate neglected areas, deploying transformative strategies on an urban scale. Within this framework, a narrative is developed: the qualities of pocket spaces and interventions are an integral component of contributing to and propelling the profound discourse tackling public space, well-being and biodiversity protection.

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