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### BRIDGES OVER THE NILE Transportation Corridors Transformed into Public Spaces

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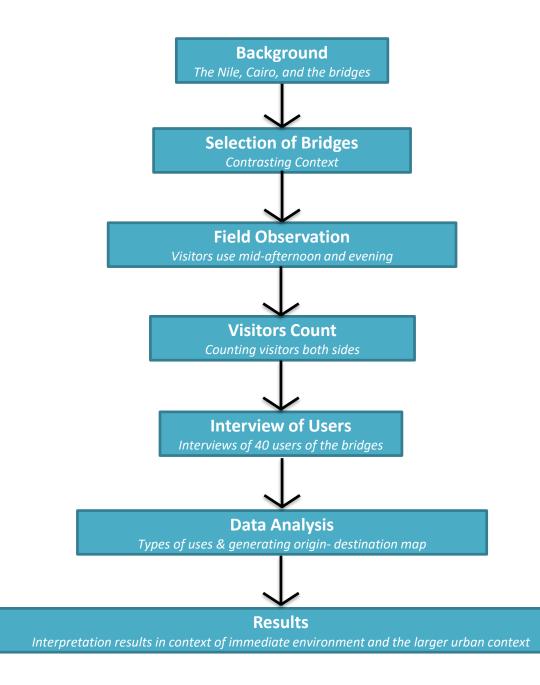
23 May 2023

#### The 12<sup>th</sup> Sustainable Cities Conference, Amman, Jordan



### Outline



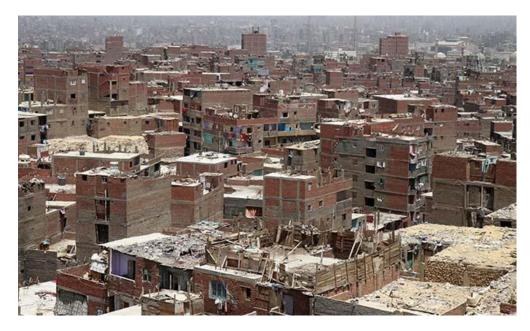






## Background

- With Cairo's rapid growth since the mid-20th century had been accommodated by extensive areas of informal housing poorly served by utilities and public transport, resulting in highly congested traffic routes and nearly constant traffic jams
- Poor enforcement of zoning and building codes have resulted in a vast urban area with few open spaces for ordinary residents
- The recently constructed Al-Azhar Park on a former garbage dump near the Citadel now provides much-needed open space, but is exceptional in the city and certainly not enough.
- Cairo has one of the lowest rates of parkland per capita of any major city, at 0.33m2/inhabitant.







## River Banks Before & After The Dam

### **Before The Dam**

Historically, the banks of the Nile in Cairo were heavily used by local residents for:

- fishing
- felluca moorings
- washing clothes
- fetching water

With free access to a seasonally-inundated zone of river-bank



### River Banks Before & After The Dam

Since the closure of the Aswan High Dam, seasonal fluctuations have been muted and floods essentially eliminated







## River Banks Before & After The Dam

16

29

%

55

%

### After The Dam

By the end of the 20th century, the formerly seasonally inundated zone of bank was occupied by uses such as:

- nurseries
- private clubs
- restaurants
- military & police stations, and
- tourist boats





All of which block access to the banks for ordinary Cairenes



## The Nile in Cairo

Parks along the river-banks are rare in Cairo, and in the absence of riverbank access, and of sites with explicitly designated, programmed uses along the river, ordinary people have begun using bridges over the Nile as informal public spaces



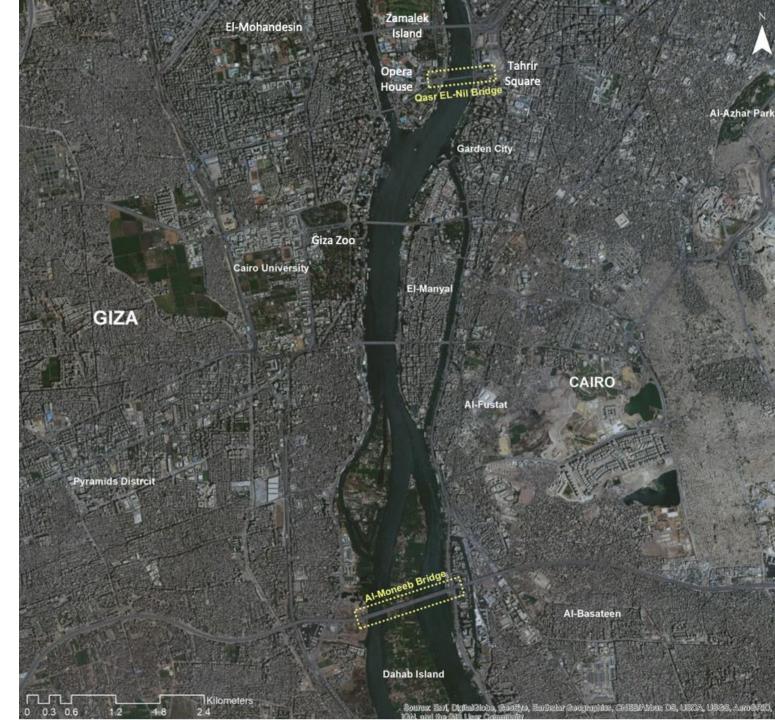
This study documents how Cairenes used the bridges, and to understand how users travel to the bridges, their distance travelled, their preferred activities, and what alternatives they had for such outings

### The Bridges 1. Qasr El-Nil Bridge

The 1st is Qasr El Nil Bridge, which is a historic structure dating from 1931 and replaced the first bridge to span the Nile River in central Cairo, Egypt. It connects Tahrir Square in downtown Cairo to the modern Cairo Opera complex toward the southern end of Gezira Island.

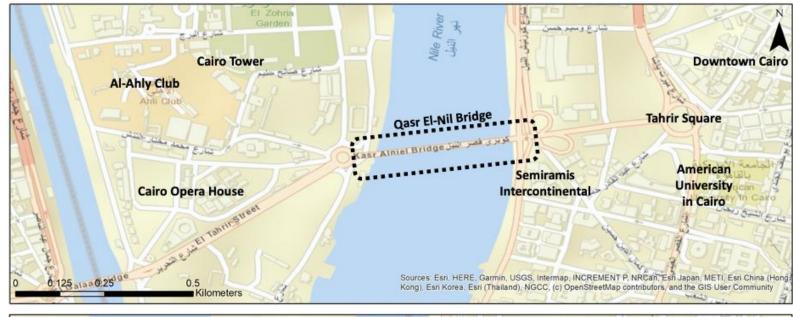
#### 2. El-Moneeb Bridge

The 2nd is El-Moneeb Bridge, which connect Cairo with Giza over the Dahab Island. It constitutes an important segment of Cairo's ring road and connects East Cairo to the Giza area including the Pyramids area as well as the regional road going south to upper Egypt





### The Bridges





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### Qasr El-Nil Bridge Daytime

In the morning, not much of use as recreational space because of the high temperature during the summer. On the North side there are 6 people walking and no stationed or paused users on the bridge recorded at 3:45pm. One the South side only 4 people are recorded to be walking. Where the temperature is recorded to be 37.5 Celsius.



#### **Evening**



In the evening, and by the time the sun is down the breeze is cool and people start to use the bridge as public space A very interesting dance between cars parking along sidewalk and police tow truck with its flashing blue lights. On a cycle of appx each 10-15 minutes first car would stop and then another 4-5 cars would collect, until the tow truck arrived behind the last car, flashed its light and blew its siren so cars clear out.

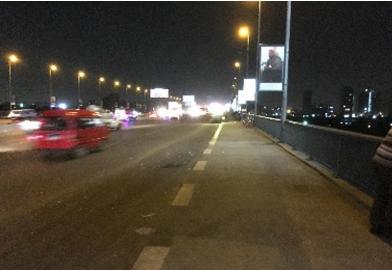
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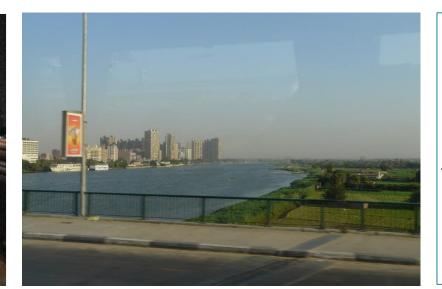
### El-Moneeb Bridge Daytime

During the daytime, not much of use as recreational space because of the high temperature during the summer. There are no stationed or paused users on the bridge recorded at 2pm. Where the temperature is recorded to be 37.5 Celsius.



#### **Evening**





By the time the sun is down the breeze is cool and people start to use the bridge as public space. Because it is a segment of the ring road, there are no friendly U-Turns or easy possibility to change direction Therefore it is likely for its southern edge to serve people coming from Faisal and Haram. And for its Northern Edge to serve people on the way back to Faisal

## **El-Moneeb Bridge**

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			Walking	Stationed	TOTAL	Male	Female
Qasr El-Nil	Midday	North	6	0	6	6	0
		South	4	0	4	4	0
Bridge	E	North	87	96	183	131	31
	Evening	South	32	44	76	58	18
	Midday	North	0	0	0	0	0
El-Moneeb		South	0	0	0	0	0
Bridge	Evening	North	13	55	68	54	14
		South	3	3	6	5	1

#### **El-Moneeb Bridge**





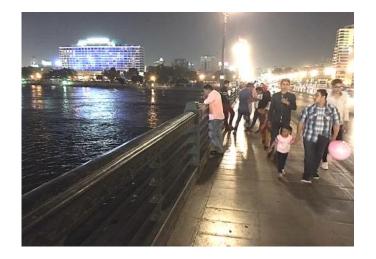
**Qasr El-Nil Bridge** 

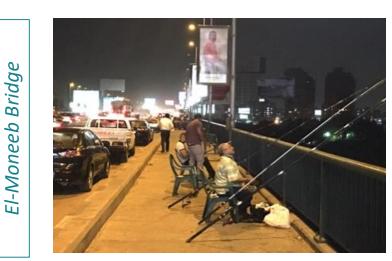
### Activities on the Bridge















## Activities on the Bridge



#### **Activities on the two bridges**

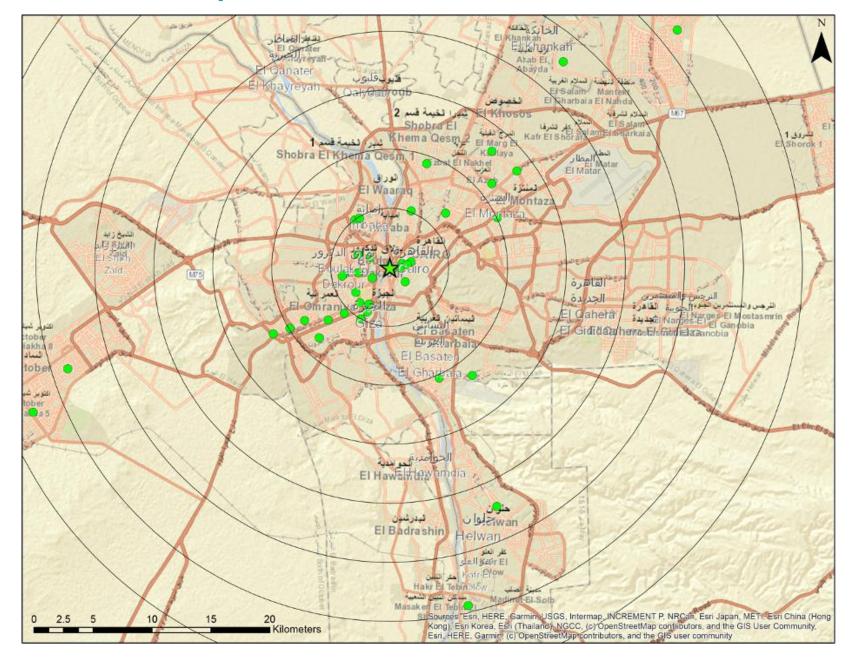
Bridge	Enjoying View	Enjoying Fresh Air	Fishing	Walking
Qasr El-Nil (40)	40	37	3	11
El-Moneeb (40)	31	30	10	8
Total (80)	71	67	13	19

#### Alternative activities (alternative to visiting the bridge)

Bridge	Cafe	Club	Cinema	Down-town	Mall	Home/ Family	Garden
Qasr El-Nil (40)	6	6	9	6	13	4	13
El-Moneeb (40)	11	4	7	1	2	6	9
Total (80)	17	10	16	7	15	10	22

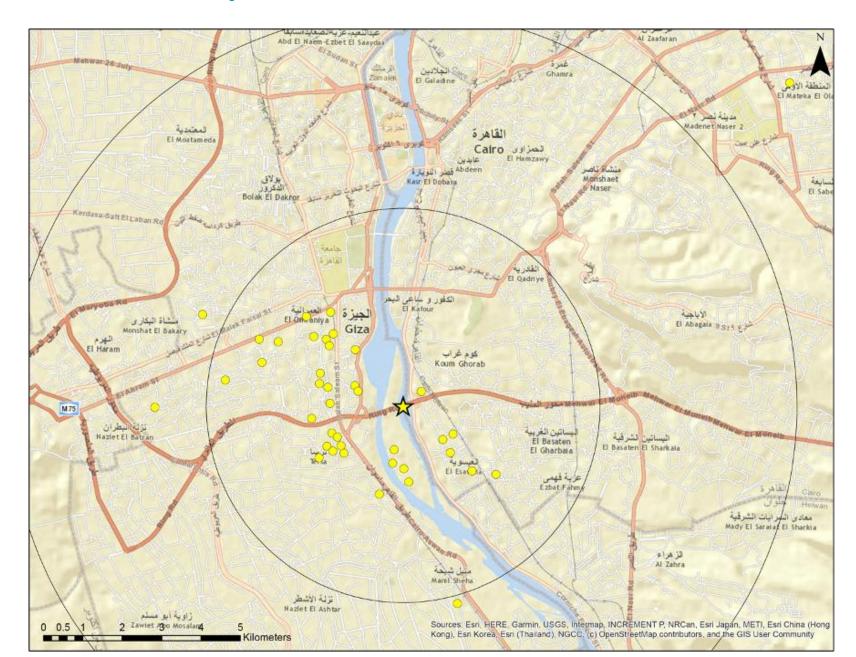
### Serving as Public Space – Qasr EL-Nil





### Serving as Public Space – El-Moneeb





## Findings

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1- Bridges offer a distinctly cooler experience compared to other microclimate in hot months in Cairo. When exposed to full sun of the afternoon, the bridges are empty of all except those rapidly crossing, but with the evening breeze, the bridges provide a delightful respite from the heat of the city. This suggests the importance of assessing microclimates along riverfronts and bridges elsewhere in the city.

2- Usage patterns will be influenced by access options, and sites that are accessible from public transit will attract a wider range of visitors from a wider range of origins than bridges that are accessible primarily by car.

3- The **existence of attractions** at either end of the bridge and directly under or adjacent to the bridges **encourages public use**.





## Conclusion

- Unlike examples of bridges as public space documented in many other cities, the bridges of Cairo were not intended as public spaces.
- The intensive use of the bridges by the local population is a reminder of the serious lack of open space to serve the population of Cairo, and an indication of the potential to provide open space elsewhere along the river if some of the existing land uses along the banks can be changed to allow public access in the future.



- The Nile remains the **geographical and cultural focal point** of the city.
- Making the river banks more accessible to average Cairenes could greatly improve their daily lives by providing badly needed open space.



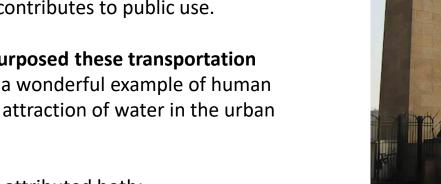
### Conclusion

- Having sufficiently wide sidewalks to accommodate multiple uses (walking, leaning on the railing contemplating the view, fishing, and enjoying snacks from the hummus merchants) is essential, and being located near transit and en route between popular destinations contributes to public use.
- The fact that average **Cairenes have repurposed these transportation infrastructures** as public space provides a wonderful example of human resourcefulness, as well as the enduring attraction of water in the urban environment.
- The **popularity of Cairo's bridges** can be attributed both:
  - to <u>the attractions of the bridges (pleasant evening breezes</u>, panoramic views of the city) and
  - to <u>the severe lack of alternative open spaces</u> suitable for outings (commercial centres being among the most often cited).



#### List of Parks in Cairo:

- AL-AZHAR PARK. AQUARIUM GROTTO GARDEN. ...
- AL HORREYA GARDEN. ...
- ORMAN GARDEN. ...
- THE JAPANESE BOTANICAL GARDEN. ...
- AL-ANDALUS GARDEN
- GIZA ZOO











Funded by the University of California at Berkeley Co-Contributor: Prof G. Mathias Kondolf, LAEP Dep. Chair



# **Thank You**

# Open For Discussions, Questions, Comments, Reflections, ..... and Feedback

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