



# **Fragments, corridors and connections.**

AN ALTERNATIVE APPROACH TO THE REUSE OF THE  
DECOMMISSIONED ATATÜRK AIRPORT OF ISTANBUL







**POLITECNICO  
DI TORINO**

Department of  
Architecture and Design

Master Degree Course  
in Architecture Construction City

# **FRAGMENTS, CORRIDORS AND CONNECTIONS.**

AN ALTERNATIVE APPROACH TO THE REUSE OF THE  
DECOMMISSIONED ATATÜRK AIRPORT OF ISTANBUL

Master Degree Thesis  
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# INTRODUCTION TO THE THESIS

As cities change, unused assets like the Istanbul Atatürk Airport become visible. The purpose of this Master's thesis is to discuss the difficulties Istanbul has encountered since the Atatürk Airport was shut down. Strategically situated within the metropolis, this vast airport district ran the risk of turning from a bustling transport center to a silent monument, neglected, and detached from the city's changing fabric, or worse, being subjected to creation of more concrete urban blocks, for short term economic gains, provoking even further damage of the city's ecological downfall. Such trajectory is nothing new in the history of the city İstanbul. In this thesis it is suggested an innovative makeover for the former Atatürk Airport space. While utilising some parts of the area for production through urban farming technologies, the main focus is on sharing, a framework that encourages the connection of humans and the environment (Harvey, 2019), taking into account the contemporary urban needs of Istanbul. From this perspective, the idea of "sharing" is given top priority as an urban agenda, and spatially includes spaces open to wildlife in the urban space, parks and forests for environmental restoration, urban agriculture

for stimulating community interaction, recreational spaces, and shared routes as the palimpsest for the urban future. The proposals include public and recreational areas to accommodate Istanbul's diverse population needs. By emphasizing the symbiotic relationship between urban ecosystems and bird species, the airport's placement within Istanbul's ecological corridor further aligns the redevelopment with ecological imperatives (Wolch, 1998). The overarching theme of the design principles is a shared urban realm accommodating both human and non-human inhabitants, countering prevalent neoliberal ideologies that frequently prioritize transient economic benefits over sustained community and ecological prosperity (Brenner, 2009; Harvey, 2019). This research promotes a redefined urban strategy that stresses sharing, sustainability, and inclusivity (Fainstein, 2011), underlining the need for cities that actually serve all residents by merging principles from urban planning, urban and architecture design, and ecological studies.

Amin, Ash, Nigel Thrift, and Katarina Nitsch. *Seeing like a city*. Cambridge, UK: Polity Press, 2017.  
Berger, Alan. *Drosscape: Wasting land in urban america*. New York: Princeton Architectural, 2007.  
Brenner, Neil. "What Is Critical Urban Theory?" *City* 13, no. 2-3 (2009): 198-207. <https://doi.org/10.1080/13604810902996466>.  
Fainstein, Susan S. *The just city*. Ithaca, NY: Cornell University Press, 2011.  
Harvey, David. *A brief history of neoliberalism*. Johannesburg: MTM, 2019.  
Harvey, David. *Rebel cities: From the right to the city to the Urban Revolution*. London: Verso, 2019.  
Wolch, Jennifer R., and Jody Emel. *Animal Geographies: Place, politics, and identity in the nature-culture borderlands*. London: Verso, 1998.

## Thesis proposal

The purpose of this Master's thesis is to discuss the difficulties Istanbul has encountered since the Atatürk Airport was shut down. Strategically situated within the metropolis, this vast airport region ran the risk of turning from a bustling transport center to a silent monument, neglected, and detached from the city's changing fabric, or worse, being subjected to creation of more concrete blocks, for short term economic gains, creeping to even further damage of the city's ecological downfall. Which is not a novel agenda in the history of the city Istanbul.

From this perspective, the idea of "sharing" is given a priority as an urban agenda, and the development is envisioned to include urban agriculture, recreational spaces, and shared routes. By implementing sustainable re-purposing techniques and incorporating forward-looking urban planning, it is wanted to address the space's untapped potential. The goal is to revitalize this urban area while also creating a model for how cities can reclaim and re-imagine similar areas with a focus on community and environmental values that could have been prioritized during the initial planning stage but were overshadowed by other factors.

For the goal of the project and its context, numerous projects have been highly influential and enlightening: The regeneration project of Berlin's Tempelhof Airport that opened in 2010 for its idea of reusing the airfield as a public park and inviting citizens to participate in its transformation, the transformation of Maurice Rose Airfield in Frankfurt in 2004 with its original site design through recycling the abundant asphalt material, Ny Østergade station in Denmark designed by Karres en Brands between 2015-2019 with the idea of "The station is the city and the city is the station". Upon the shoulders of these projects and their designers, imagining what could be done in the Istanbul Atatürk Airport has been clearer.

# **PART ONE: AN OVERVIEW OF THE STATE OF ISTANBUL**



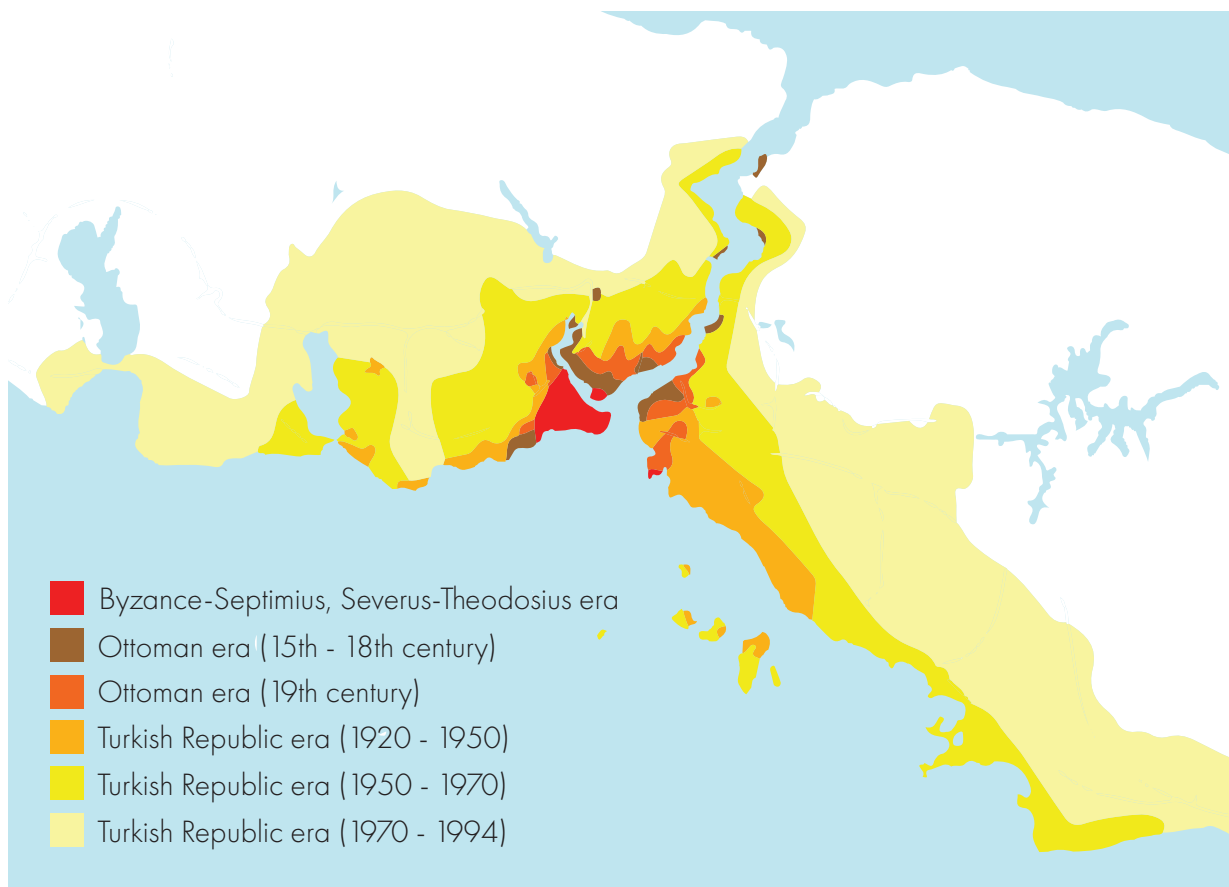


*Photographer: Uğurhan Betin*

Istanbul's location in relation to its geography has a considerable impact on its macroform. It is clear from looking at this geography's characteristics that the city has primarily developed along an east-west axis. Forests, water basins, and locations with ecological and biological significance are the main characteristics of the northern portions. (Figure 2) On the other hand, the settlements' life-support systems are located in the southern part, which runs along the coast (Figure 3 and 4). Residential neighborhoods, which extend along the southern coastline and Bosphorus, are often south-facing and have greatly developed wind protection. This developed area has a linear growth pattern that is sporadically broken up by both natural and man-made barriers.

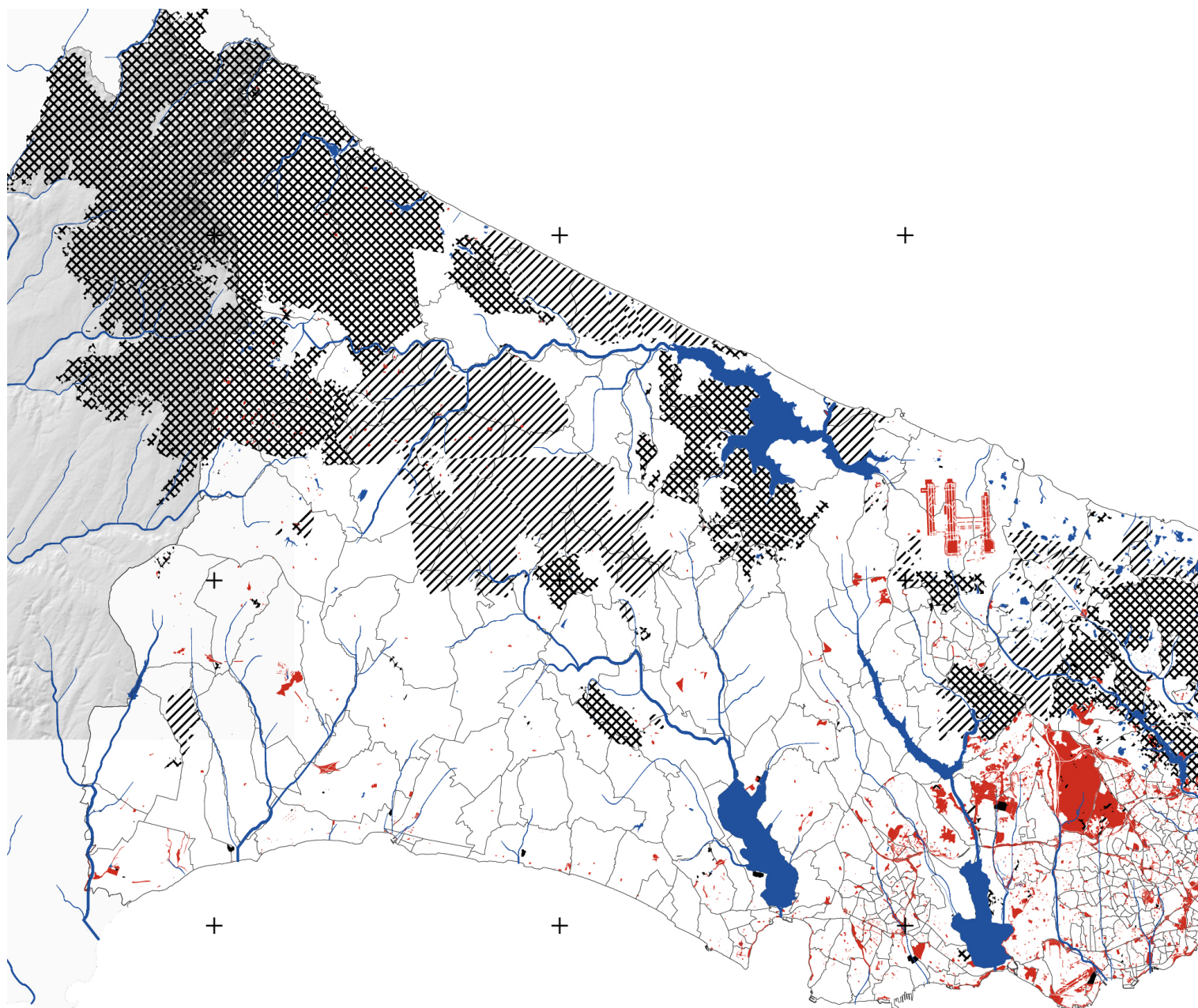
The Bosphorus strait stands out among the mentioned barriers because it divides the population into two major sub-regions and is characterized by powerful water currents that aid in its self-purification. Although occasionally planned, Istanbul's explosive growth during the 1950s has been largely influenced by unlicensed and ad hoc buildings. (Figure 1)

The protection of water resources and the preservation of agricultural and forestry regions are the two most important issues inside the city, particularly those resulting from its macroform. In this situation, the city's unregulated growth toward its life-support systems is seen as a significant barrier to its sustainable development.



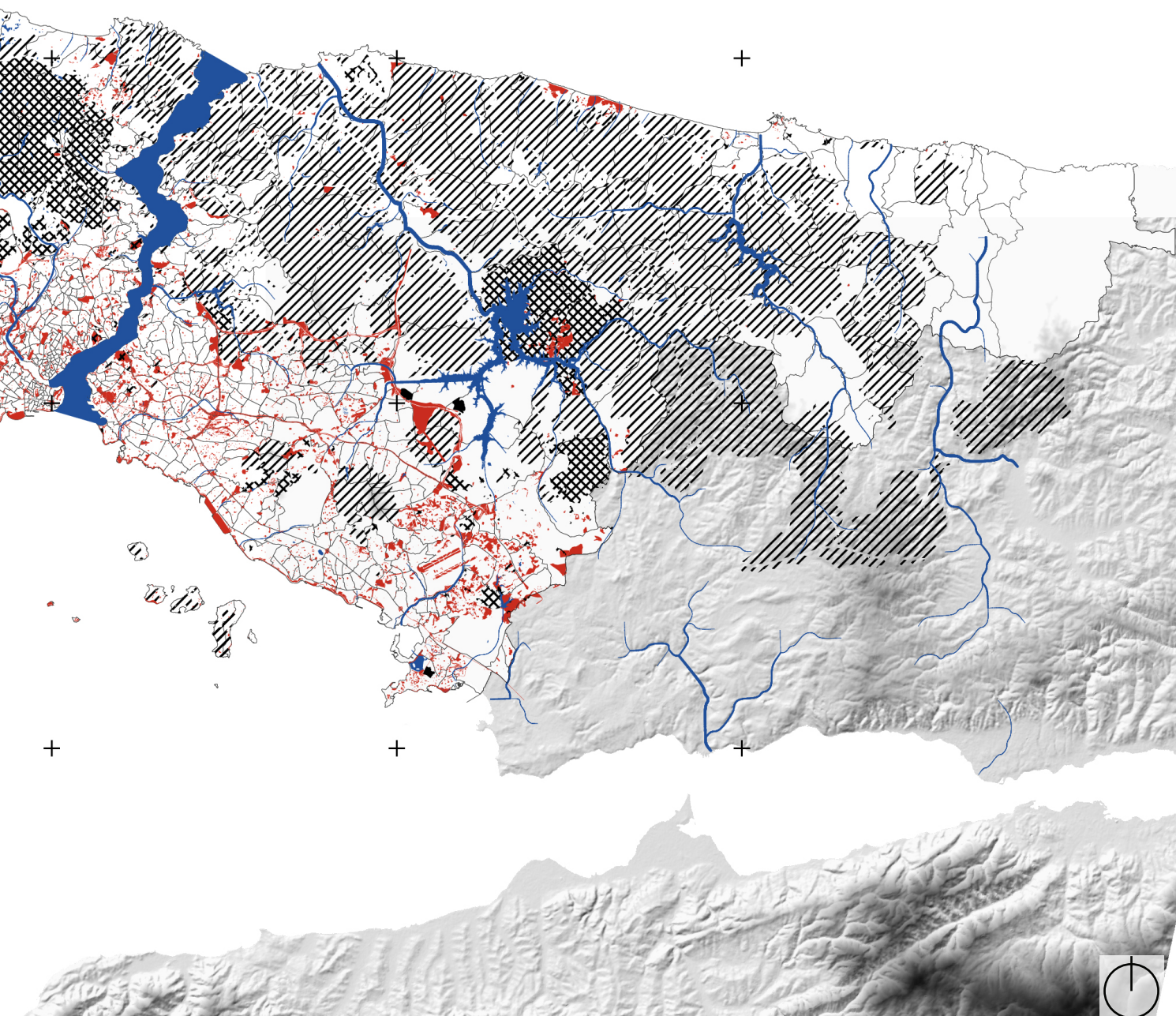
**Figure 1** *Chronological evolution of Istanbul city's macroform, created by the author*





25 km

**Figure 2** *Mapping the nature of Istanbul city, created by the author*

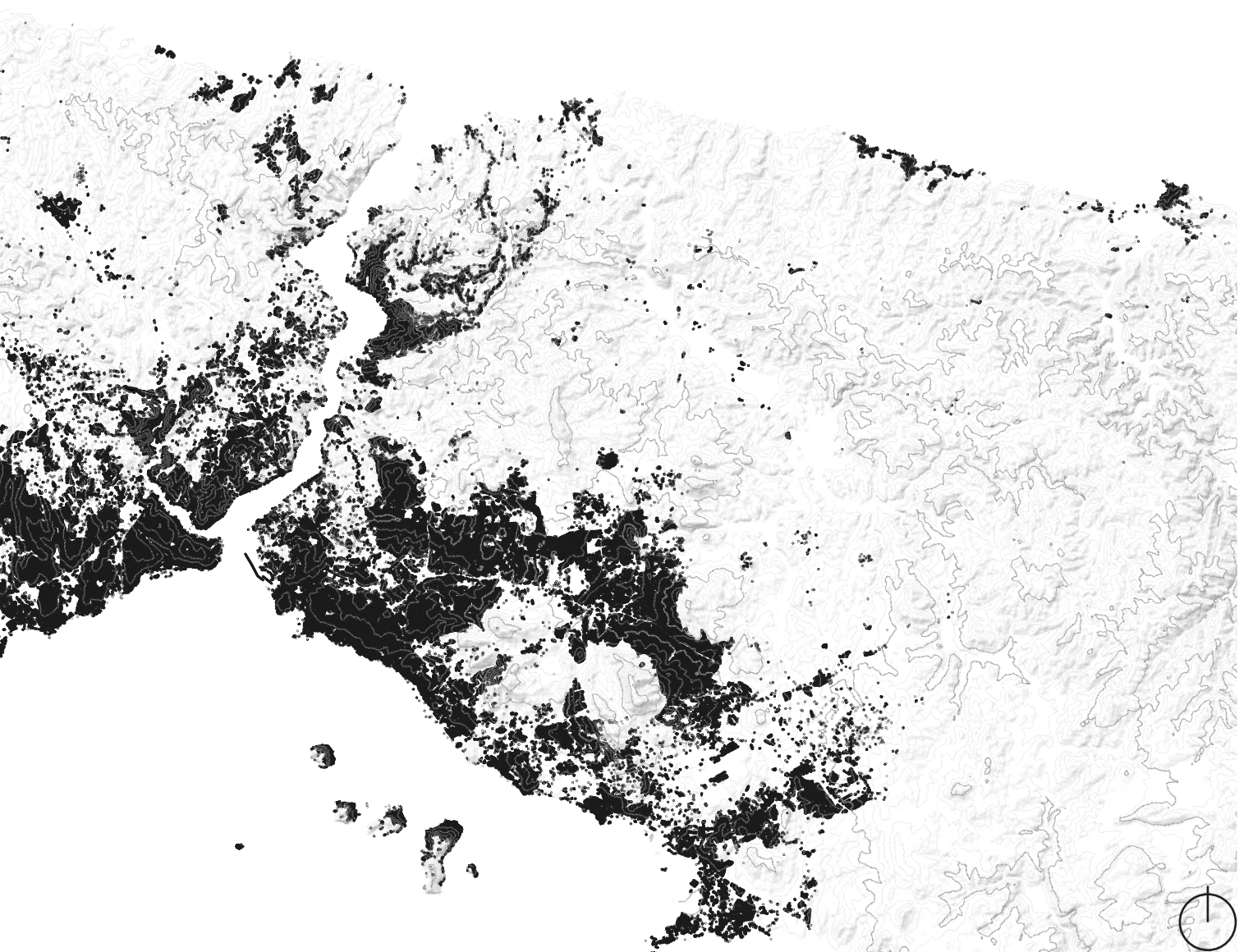






**Figure 3** *Urban fabric, created by the author*

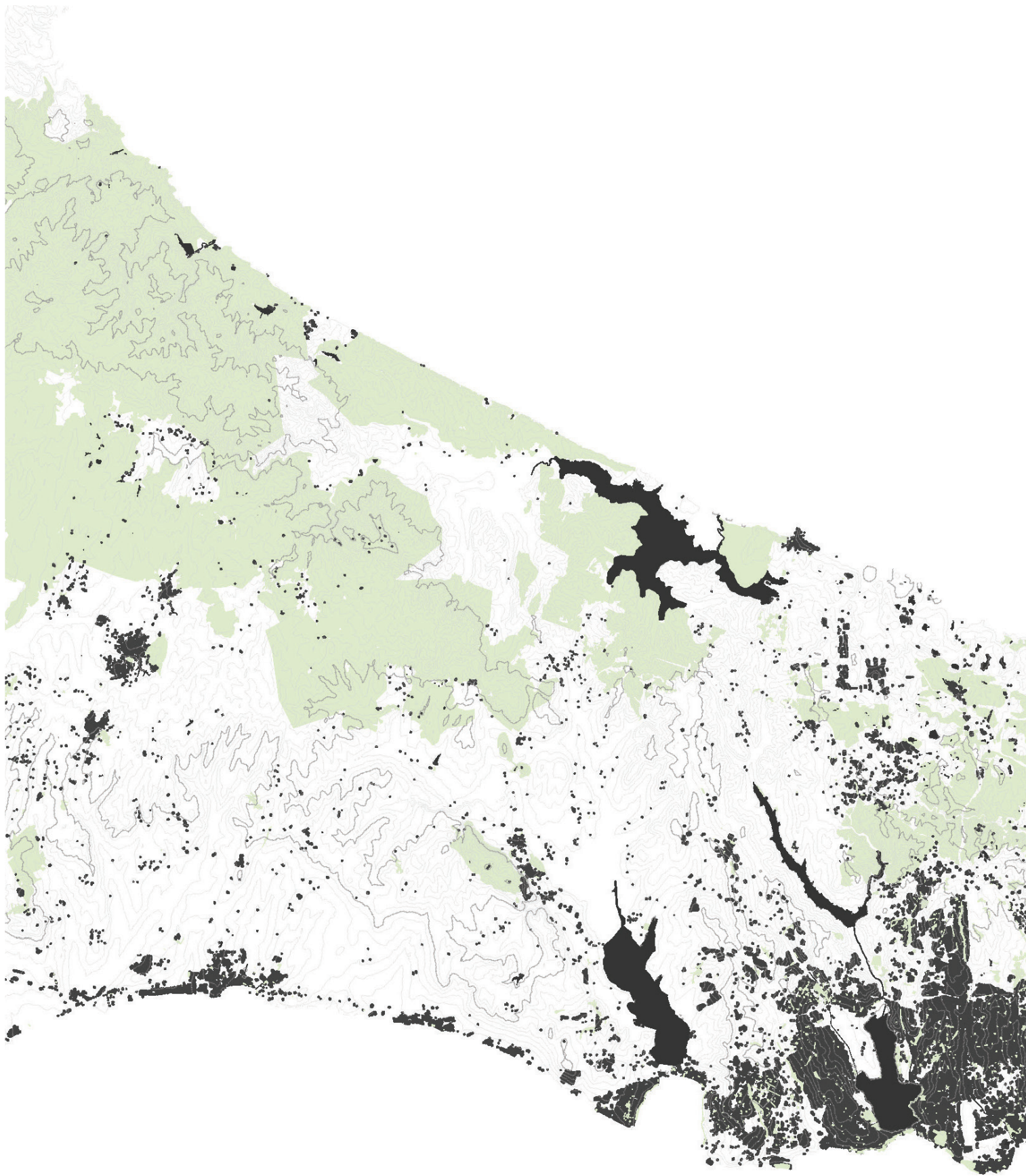




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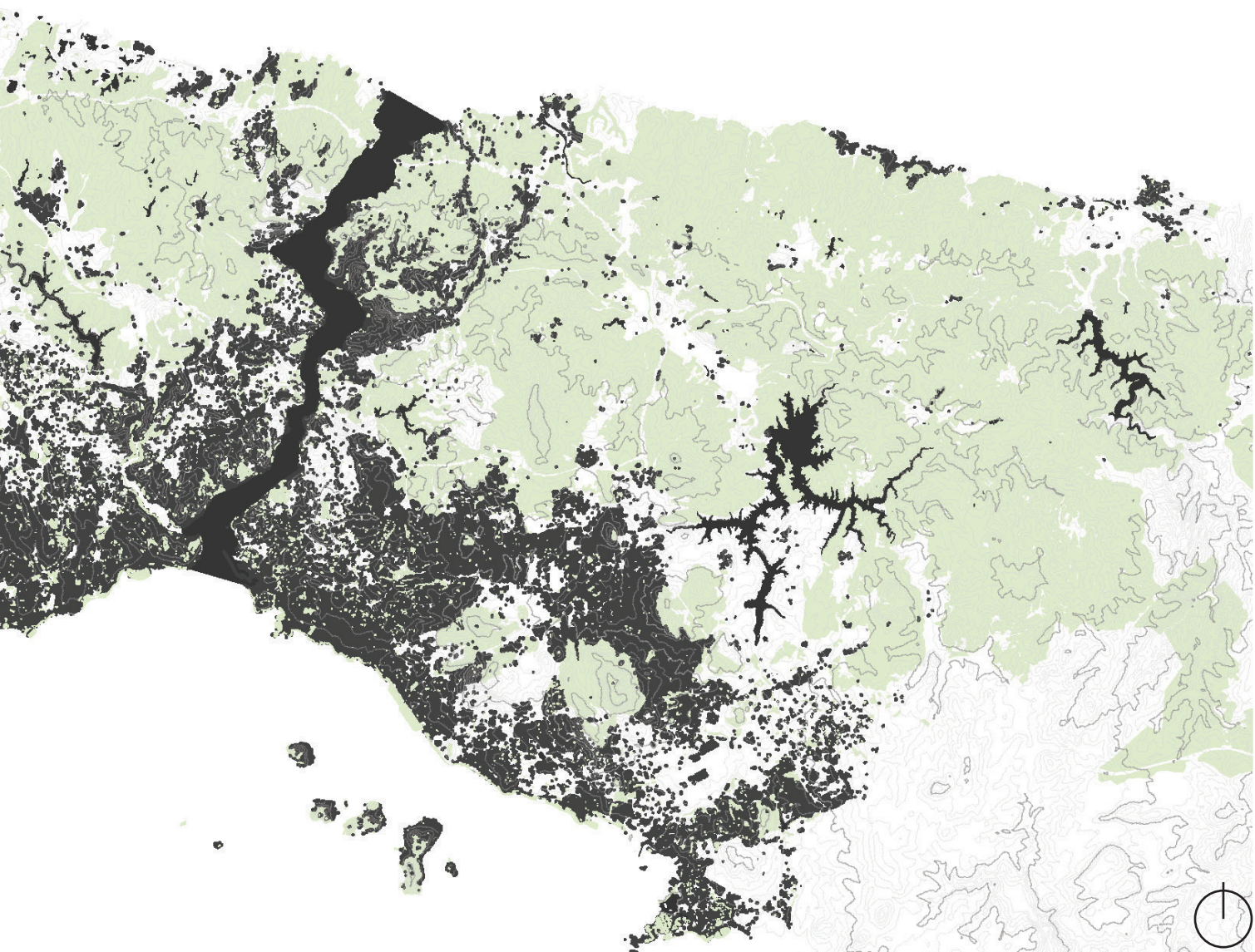






**Figure 4** *Nature and constructed, created by the author*





0 2 4 km

## Green Spaces

Similar to other amenity areas, Istanbul has a serious lack of green spaces and differences in the distribution of these areas per capita among districts. According to estimates, Istanbul has 1.65 m<sup>2</sup> of urban green space per person, which is much less than the 10 m<sup>2</sup>/person minimum need stated in the “Regulation on Principles for Urban Planning and Amendments.” In order to reach a green area of 10 m<sup>2</sup> per person in Istanbul, 8,899 hectares must be added to the currently existing urban green spaces, bringing the total green area to 10,653 hectares.<sup>1</sup>

Sultanbeyli and Esenler have the least amount of green space per resident (0.07 ha and 0.1 ha, respectively). Additionally, Bahçelievler, Güngören, Baclar, Tuzla, Gaziosmanpaşa, Küçükçekmece, Kathane, and Ümraniye districts all have urban green space per capita values of less than 1 m<sup>2</sup>,<sup>2</sup> which is quite insufficient.

## The Fragmentation And Diminishing Size Of Its Urban Green Spaces

The spatial inconsistency and lack of connectivity among the green areas not only interrupt the visual coherence of the city but also have implications on its ecological health and the well-being of its residents.

The disjuncture between Istanbul’s green spaces is of course a reflection of the city’s rapid and unplanned urban expansion. As districts developed and grew, parks and green areas were often seen as secondary priorities, occasionally added as afterthoughts rather than integral parts of the urban fabric. The result is a mosaic of isolated green patches that, despite their individual beauty, fail to form a cohesive and connected network.

Such fragmentation is concerning for a variety of reasons. Firstly, these disconnected patches do not adequately provide for healthy ecological corridors, essential for the movement of wildlife and the propagation of indigenous plant species. As a result, the biodiversity within these spaces is under constant threat. Furthermore, these fragmented spaces are typically small in diameter, appearing accidental in a way, which makes the majority of them insufficient in accommodating the recreational needs of the dense urban population. It hampers the potential for community-building and shared experiences, as these spaces can only cater to a limited number of people at a given time.

As observed, Istanbul’s urban and greenery relationship creates a vertical gradient, from south to north as urban to green, respectively. The urban areas have a serious scarcity of sufficient green areas, when a portion of the urban tissue is taken into account it is evident that majority of the green spaces are more or less the same sized, and highly fragmented. The portion around the Atatürk Airport has been selected for a comparison of their areas in square meters (Figure 3), the area is selected including also a little portion from the northern side of the city, to show the existing gradient on the vertical axis and to contrast the results.



**Figure 3** *Subject area for the green areas comparison analysis.*

**1, 2.** *İstanbul Büyükşehir Belediyesi İmar ve Şehircilik Daire Başkanlığı Şehir Planlama Müdürlüğü. "1/100.000 Ölçekli İstanbul Çevre Düzeni Planı Raporu," 2009.*

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762	764	768	779	782	785	787	791	792	793	794	795	797	798	799	800
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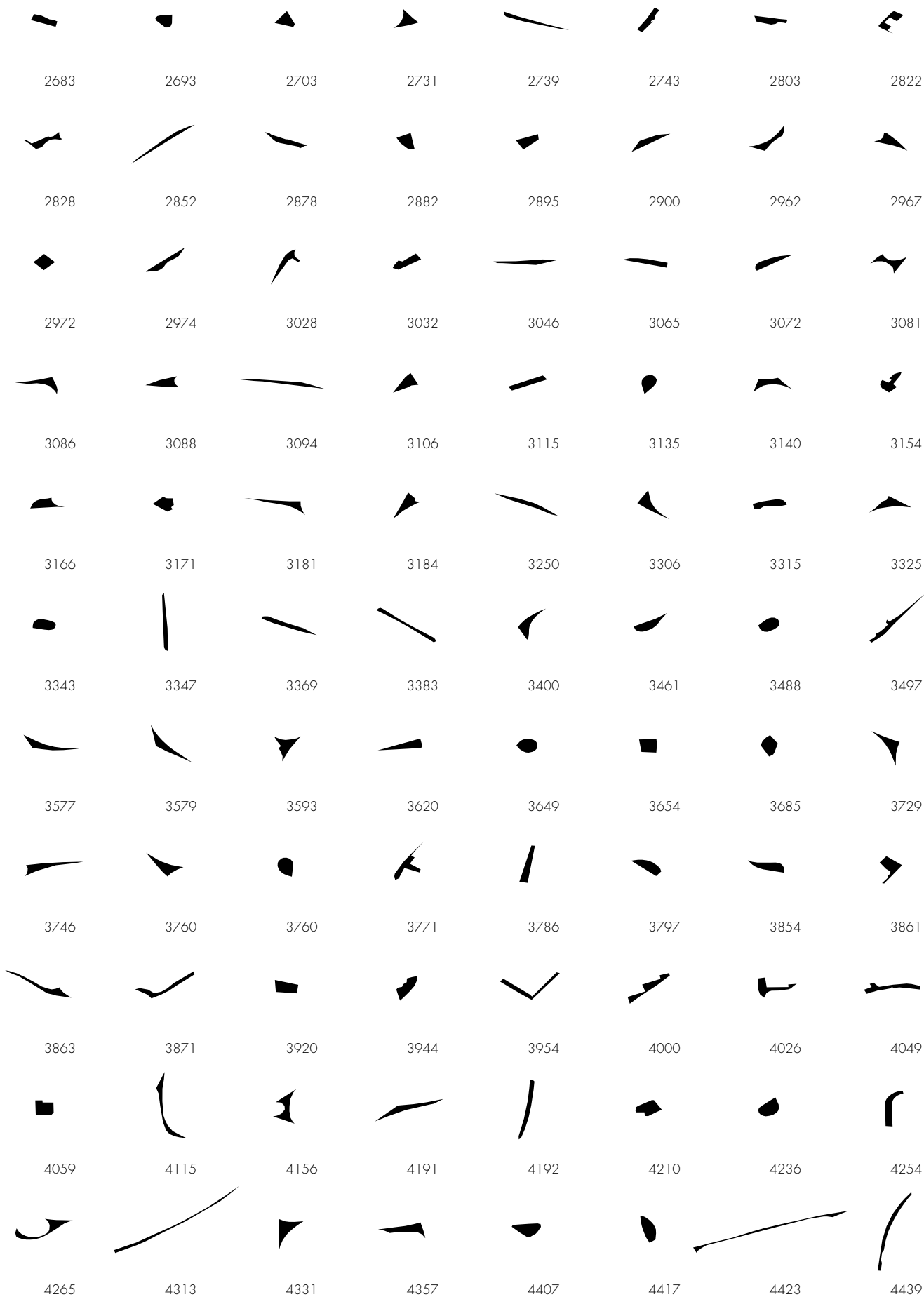


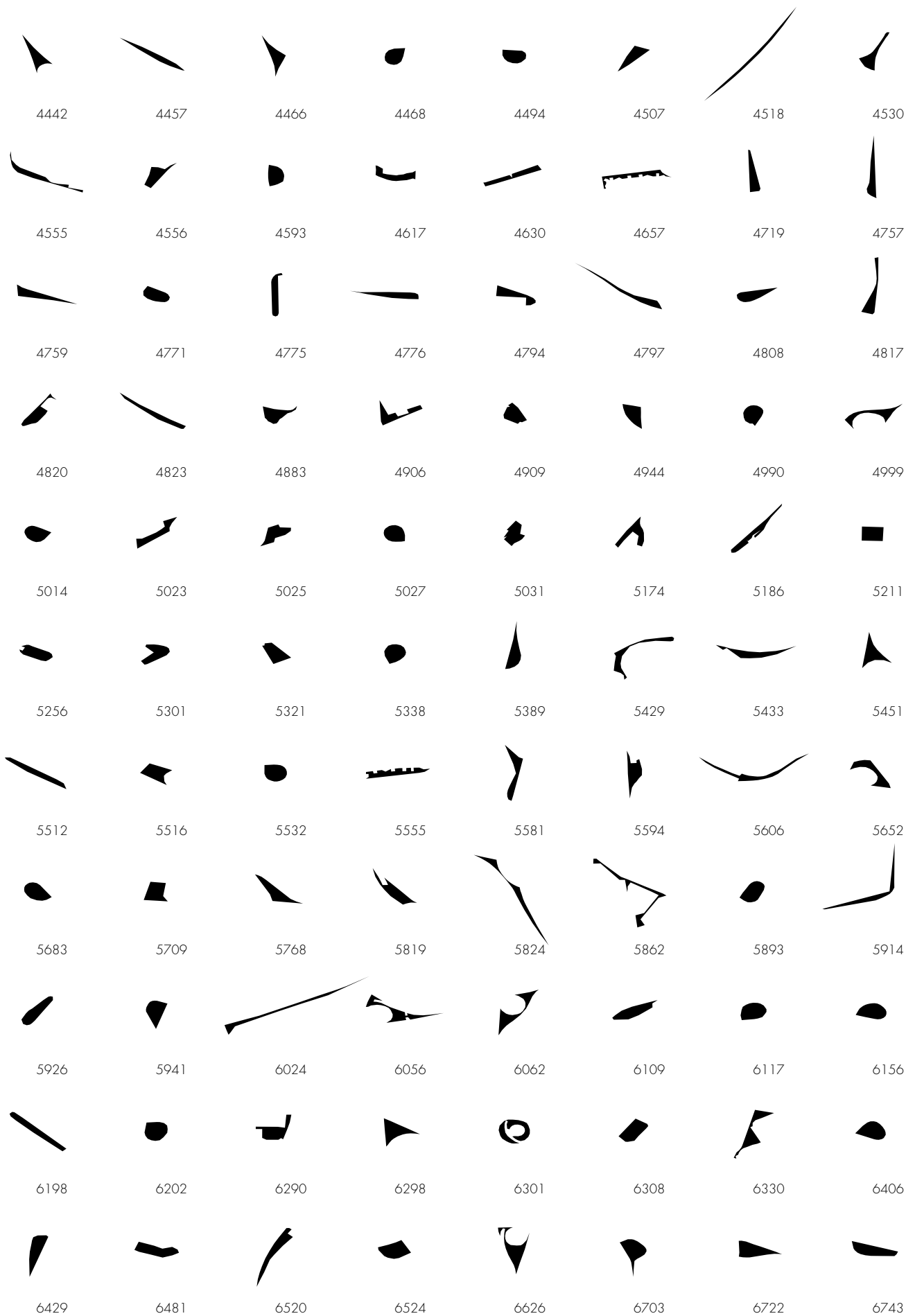
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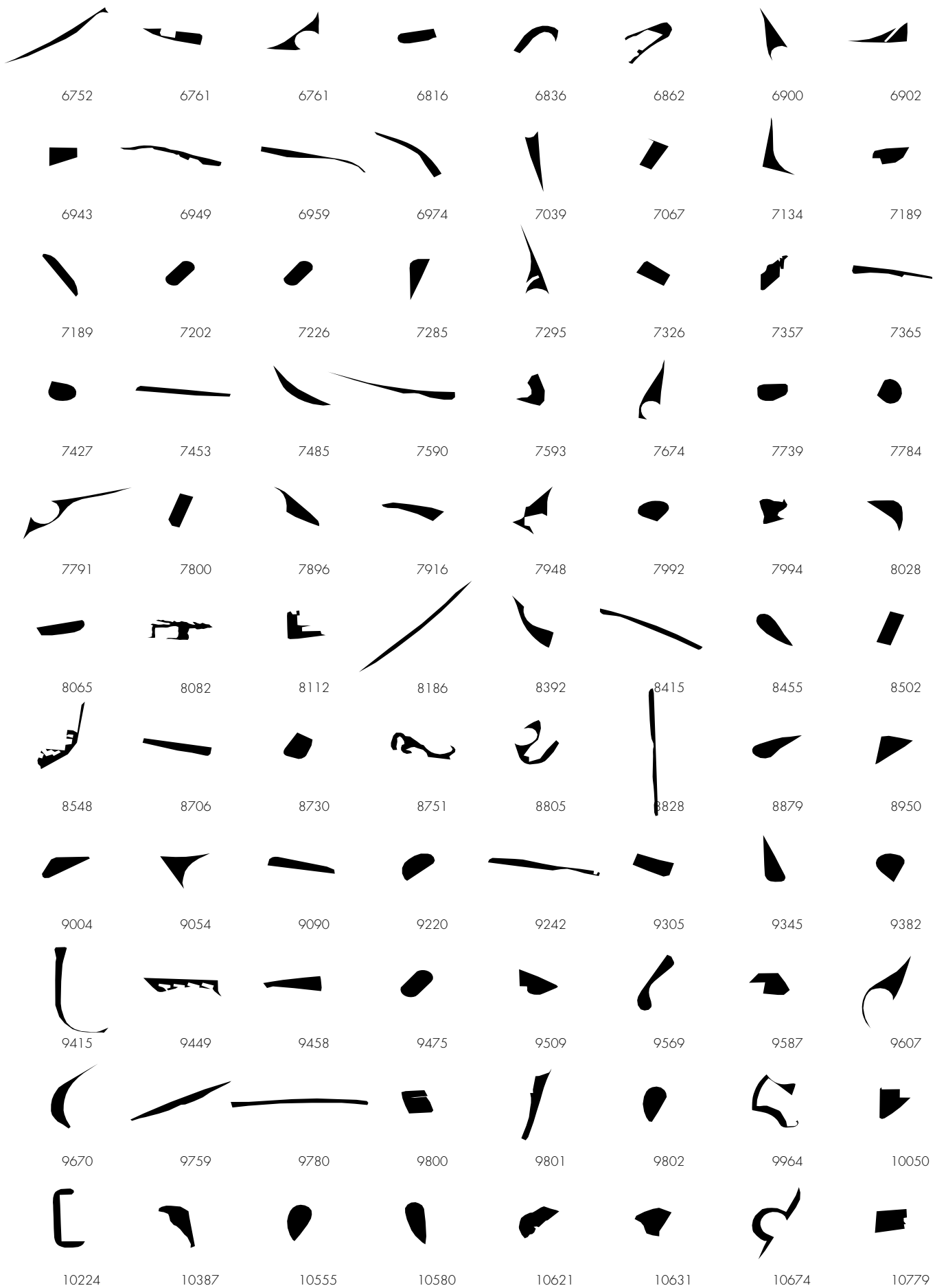


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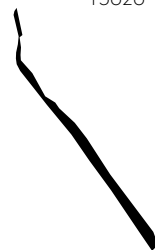
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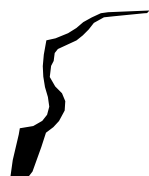
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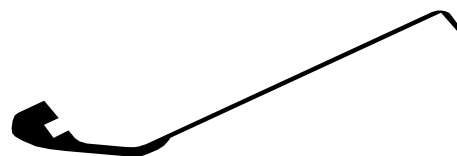
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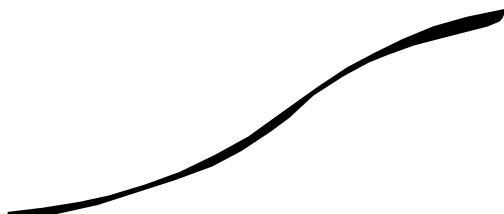
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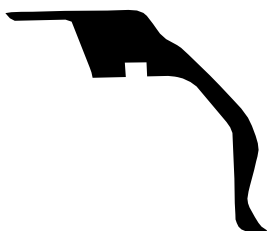
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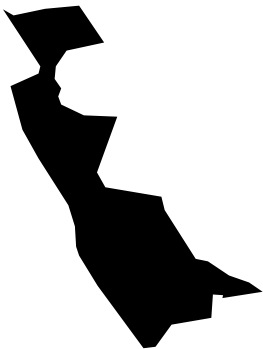
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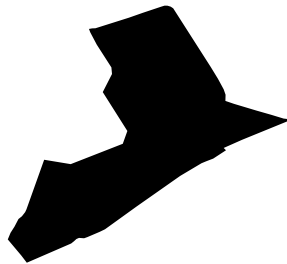
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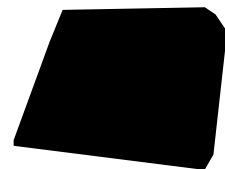
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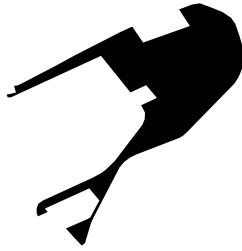
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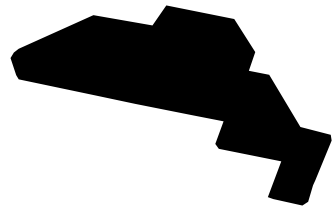
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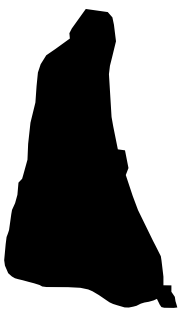
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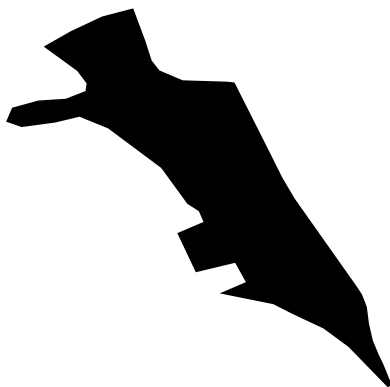
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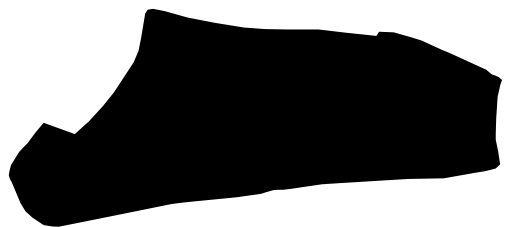
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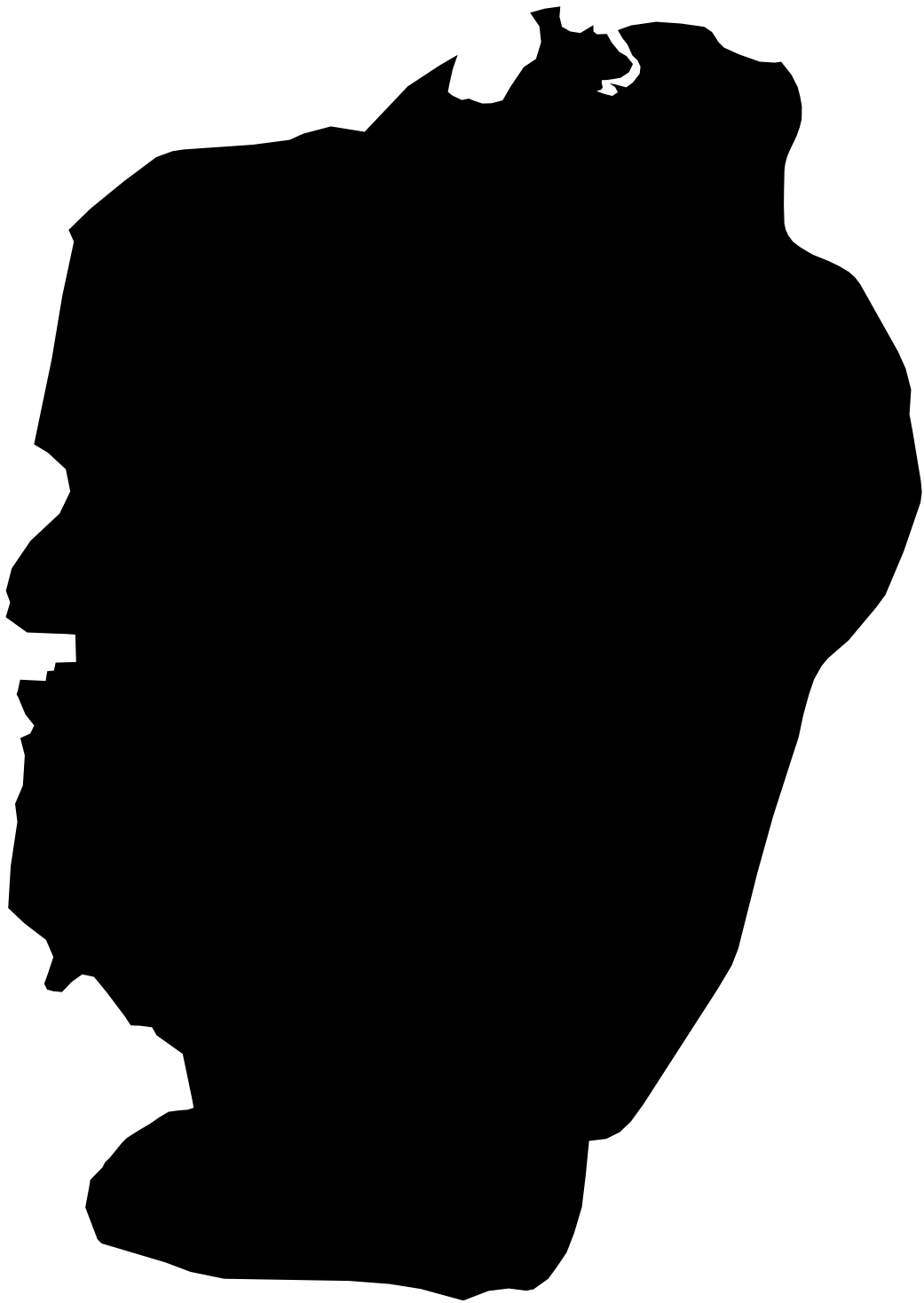


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## Ecological Corridors

The foundational elements of vital ecological belts and corridors for Istanbul's sustainable development are drinking water basins and forests. However, the challenges faced by the entire city, such as migration, poor infrastructure, zoning implementation delays, agricultural land transfers, fragmentation of farming soils, the rise of secondary residences, and the deterioration of rural characteristics, endanger the sustainability of these areas.

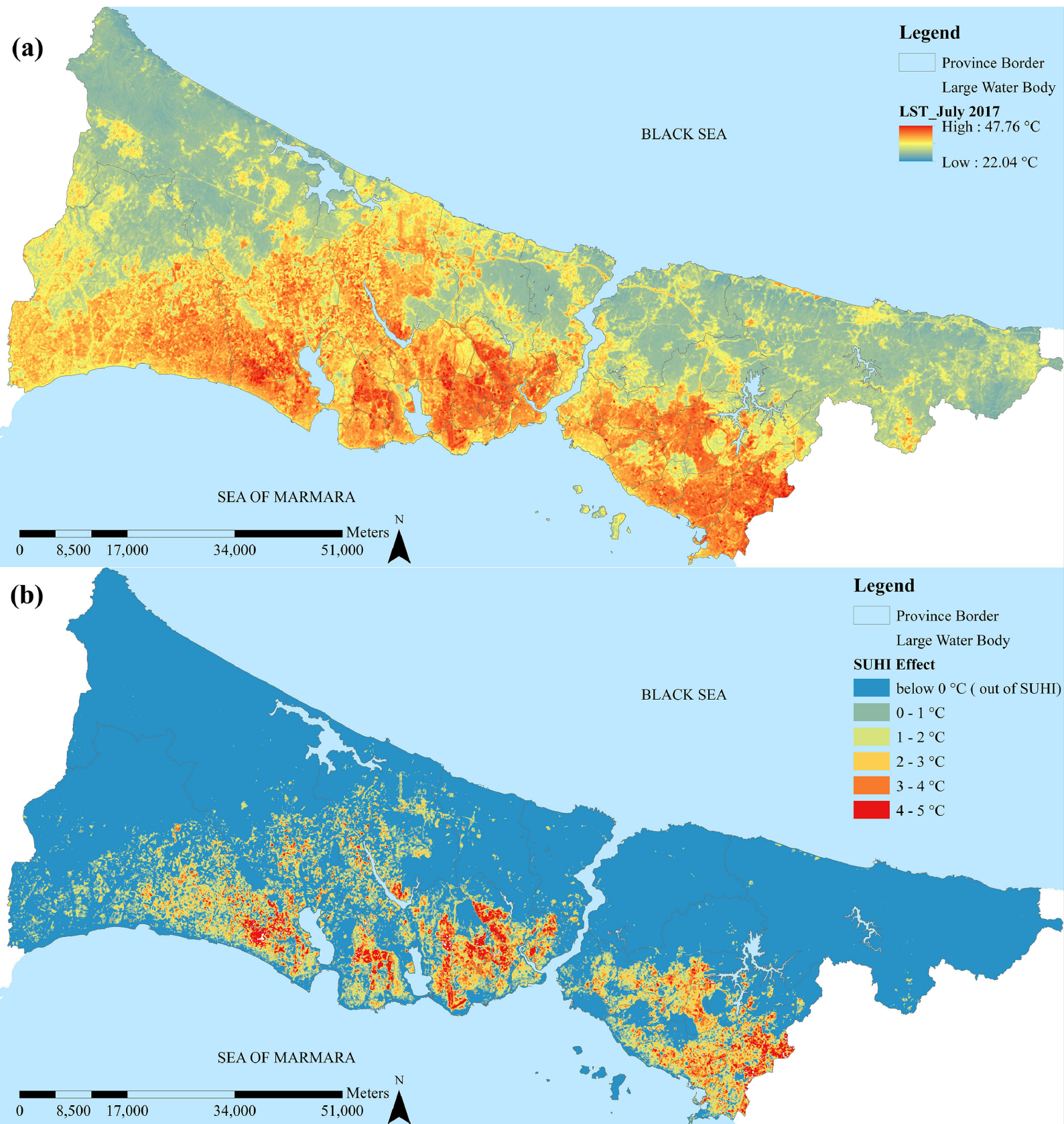
A corridor connecting the Black Sea and the Sea of Marmara is formed by the regions between Büyükçekmece-Terkos, Küçükçekmece-Terkos, Golden Horn (Haliç)-Terkos, and the merli Dam-Riva Delta, preserving Istanbul's climatic structure (Figure 4). Istanbul's urban fabric today only breathes through these natural corridors, which are flanked by forested areas, water basins, and agricultural plains. In order to extend the reach of biodiversity into the city, it is crucial to maintain functional links between green spaces and forest regions via ecological corridors. The urban usage on these lands should be cleaned up while the natural and agricultural aspects of these places, as well as the movement of wildlife, should be safeguarded. Where these corridors intersect with urban areas, the density of urban construction should be minimized.

Urban air circulation must be made sure of using specified open and green places and applying urban design approaches. In this regard, creating a network of green spaces that primarily takes use of stream protection belts and geologically challenging locations is crucial for safeguarding the basins. Thus, maintaining the basin structure of the Küçükçekmece Lake Basin is essential. Through surface temperature analysis' it is clear that these corridors are already at risk (Figure 5).

## Features of Fauna

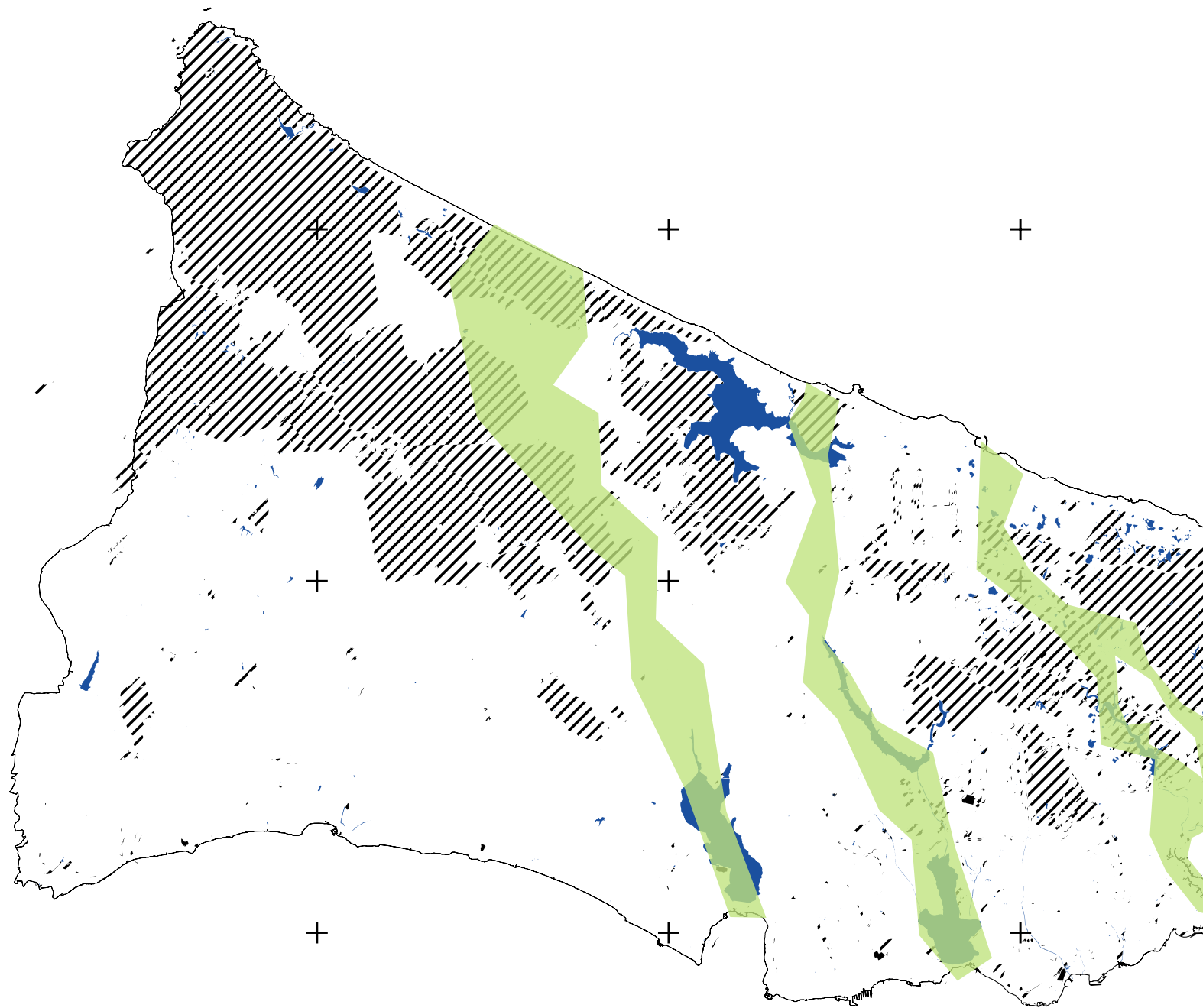
In faunal research, particular animal groupings that have substantial significance as bio-indicators or in terms of nature conservation and biological variety have been identified rather than the entire identification and mapping of all animal species. Birds, tiny mammals, rodents, bats, reptiles, amphibians, and butterflies are some of these groupings.

Despite having the greatest biological richness of any ecosystem, wetlands are also the ones that are most vulnerable to deterioration and environmental changes. Bodies of water including Küçükçekmece Lake, Elmalı Reservoir, and Tuzla Lake within Istanbul's boundaries have recently lost a lot of species as a result of habitation and pollution. Because they supply water to a city like Istanbul, other wetlands are better safeguarded as a result of the lessons gained from earlier errors. Settlement should never be permitted within these protected regions' basins, and it must be absolutely prohibited for home or industrial trash to pollute their rivers.



**Figure 5** Analysis that shows the risk on the ecological corridors of İstanbul, from “Deniz Erdem Okumus, Fatih Terzi, Evaluating the role of urban fabric on surface urban heat island: The case of Istanbul, Sustainable Cities and Society, 2021 (<https://www.sciencedirect.com/science/article/pii/S2210670721004108>)”





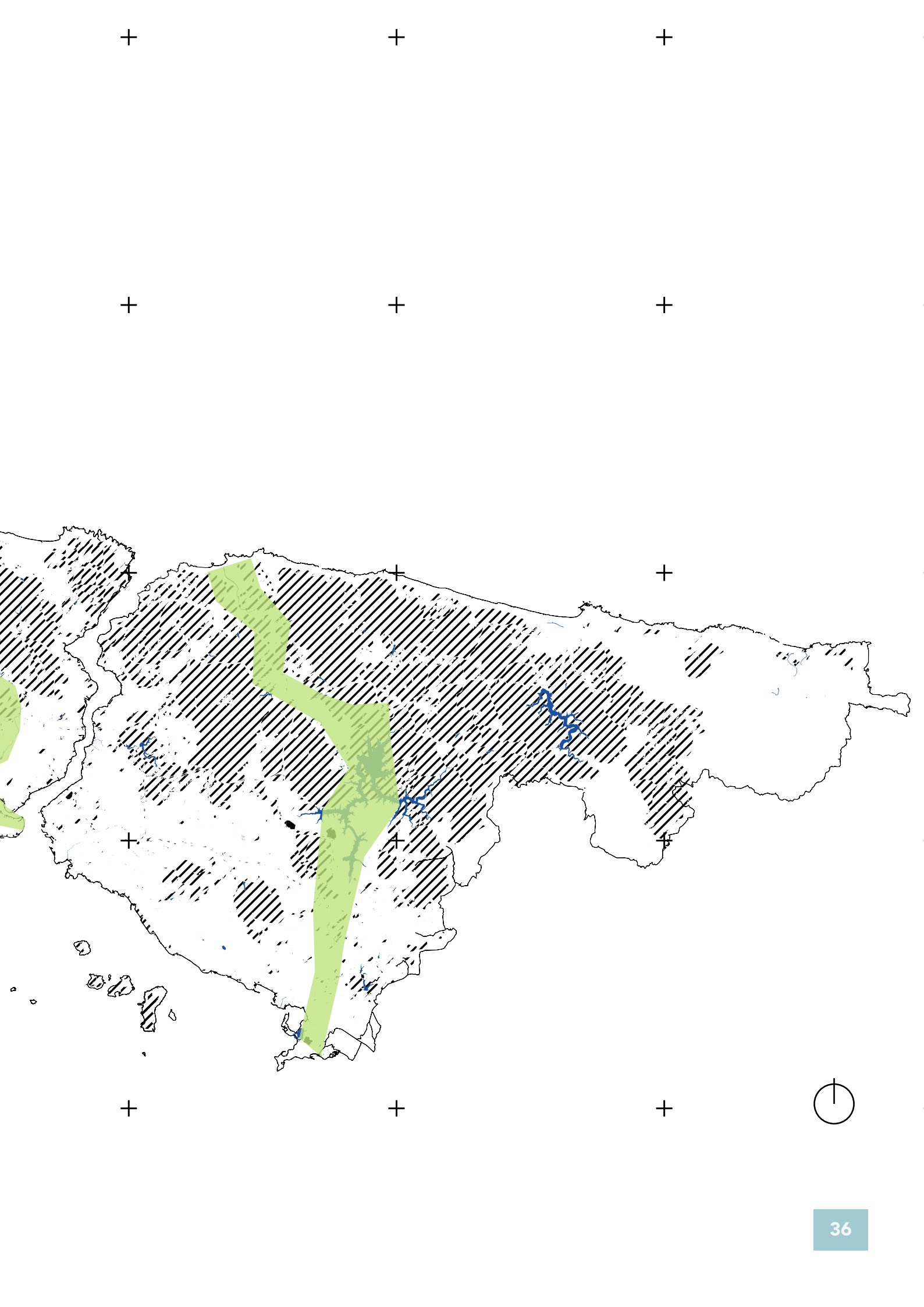
 Istanbul's natural water resources

 green zone

 ecological corridors

 25 km

**Figure 4** *The ecological corridors of İstanbul, created by the author*



## Expansion to the North

The northern parts of the city are where you'll find most of the areas that are important for environmental sustainability. Significant vegetation zones, drinking water basins, forested areas, and agricultural fields are all included in these areas. Istanbul is at serious risk because recent observations show that the macroform has been gradually creeping north in several sites.

The new İstanbul Airport is a great catalyst for this expansion, not only being a major reason of deforestation itself for the Northern coast and one of the few ecological corridors of İstanbul, also attracting many real estate development towards itself. This development is a big devastation for İstanbul city's fresh water resources and climatic state. For it is catalyzing the dismembering of a big ecological corridor of the city. (Figure 8)

Despite in the 2009 municipal plans "1/100.000 Ölçekli İstanbul Çevre Düzeni Planı Raporu" it was strictly suggested not to reinforce the development towards the northern side of the city, this situation is becoming a real threat to future sustainability of the city. In fact in the same report, a new airport was suggested to be located to the western border of the city, specifically to Silivri-Gazitepe (Figure 6), to reinforce the linear development of the city, in order to protect the balance of the ecological corridors and fresh water basins of İstanbul.

At this point, any construction and preservation projects must be calculated and thought thoroughly, since the city's evergrowing population and its finite resources were not even close to satisfactory, but there are also fading away.

As the 2023 IPCC reports, the sea level rise is estimated to be around 1 meter by 2100, and 2 meters by 2150 (Figure 7). The Küçükçekmece Lake being already salty in low percentages, the damages are incalculable in for the future of a city this big in population, in case of a scenario where these alerts are misheard, or not taken into account.

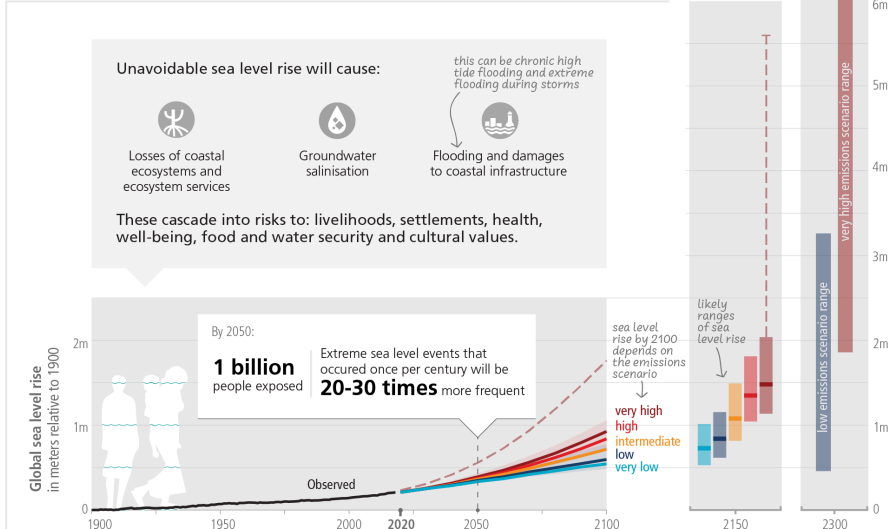
The analysis shows the scenario in case of a 2 meter sea level rise the fauna of the Küçükçekmece Lake would be completely and irreversably destroyed, getting it totally in contact to open sea. Not to mention the high damage to infrastructure, it is observable that one of the main highways of the city getting sunk (Figure 9).

**Figure 6** Locations of existing airports and suggested location for a new airport for İstanbul, from "1/100.000 Ölçekli İstanbul Çevre Düzeni Planı Raporu, 2009"



## Sea level rise will continue for millennia, but how fast and how much depends on future emissions

a) Sea level rise: observations and projections 2020-2100, 2150, 2300 (relative to 1900)



**Figure 7** IPCC 2023 Sea level rise estimation.

Figure AR6 WG2. Accessed August 29, 2023. <https://www.ipcc.ch/report/ar6/syr/figures/figure-3-4>.



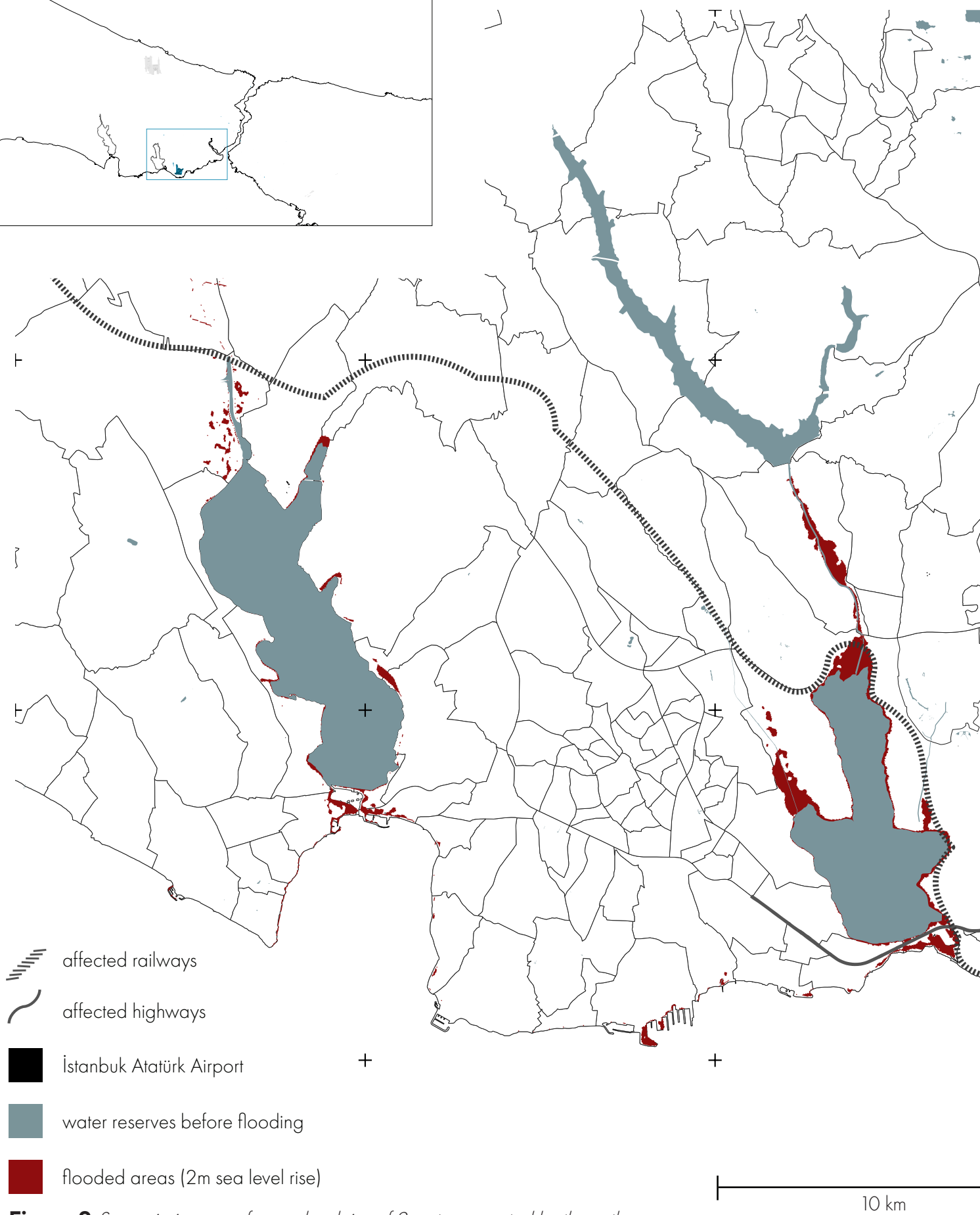
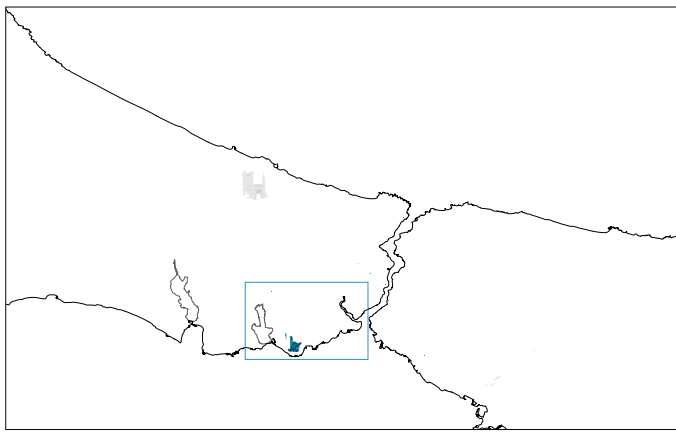
**Figure 8** Locations of the three airports of İstanbul and their vicinities to surrounding nature, created by the author

ort

ort

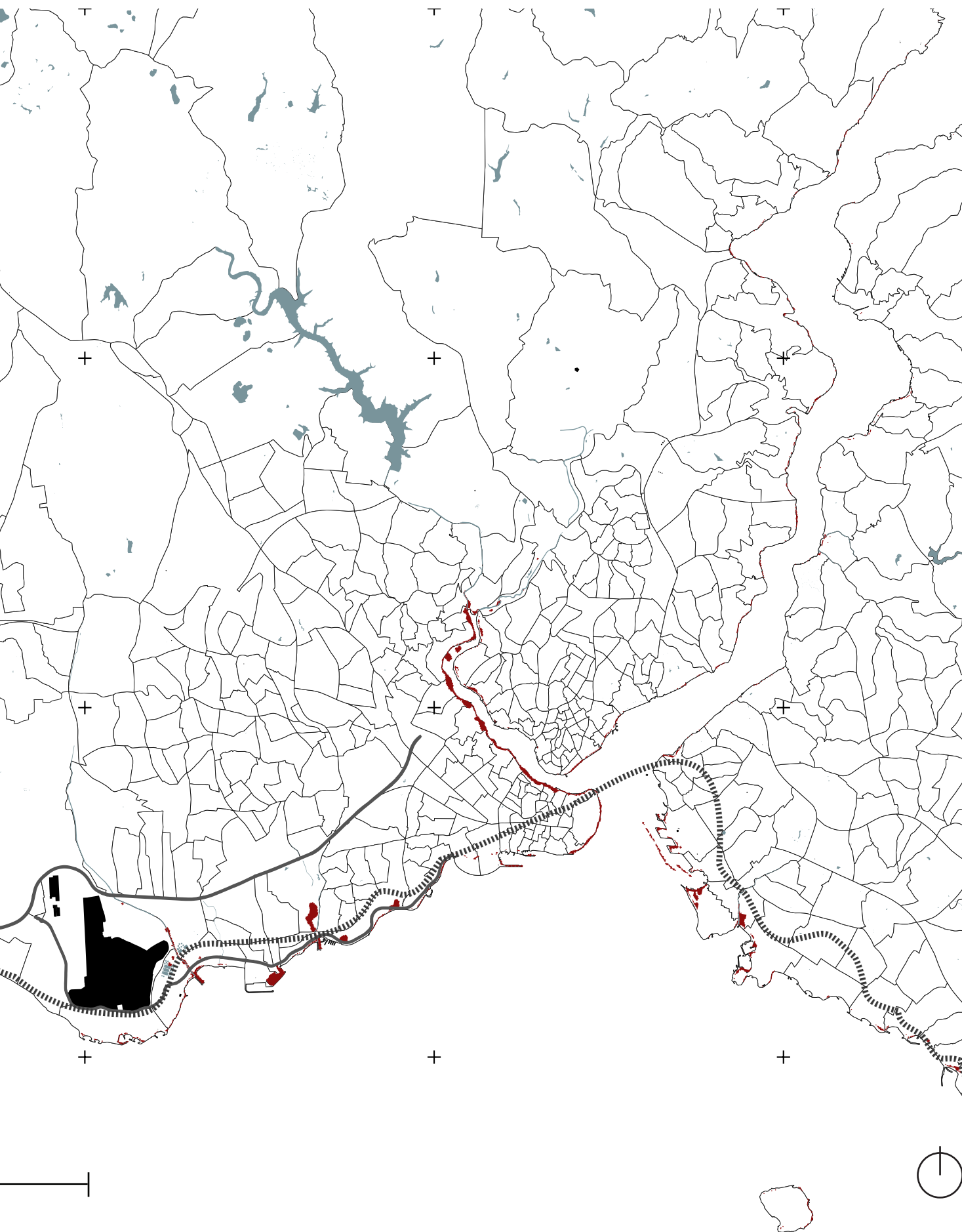


0 2 4 km  
| | |



**Figure 9** Scenario in case of a sea level rise of 2 meters, created by the author







## The Avian Inertia

The closure of an area's use as an airport may close a chapter in its history, but it doesn't mean that its connection to avian life and ecological importance are over. An exceptional case study of this unintentional 'avian inertia' can be seen in the area surrounding the abandoned airport.

ebird.org, a big archive of bird observations from all around the world, is where a significant portion of the citizen science data used in research on global bird observation comes from.

The former airport site is significant because of its advantageous position and topography. Diverse bird species, both migratory and resident, have always been drawn to wetlands and other bodies of water. There are big numbers of bird species that can be observed at this area, 280 bird species known to reside in the Kanal İstanbul project region which unfortunately includes this area next to the Atatürk Airport, Küçükçekmece lake. This comprises shorebirds, birds of the water, and songbirds that live in fields and forests. Surprisingly, 81 of these species have been discovered to even reproduce in the region.

International agreements and standards protect many of these species, highlighting their ecological significance. Within the Kanal İstanbul project area, 176 bird species are designated as "Species that must be strictly protected" and another 93 species are designated as "Species requiring protection" under the Bern Convention, particularly Annexes 2 and 3. The majority of these species are found in the Küçükçekmece Lake fauna. (figure 11)

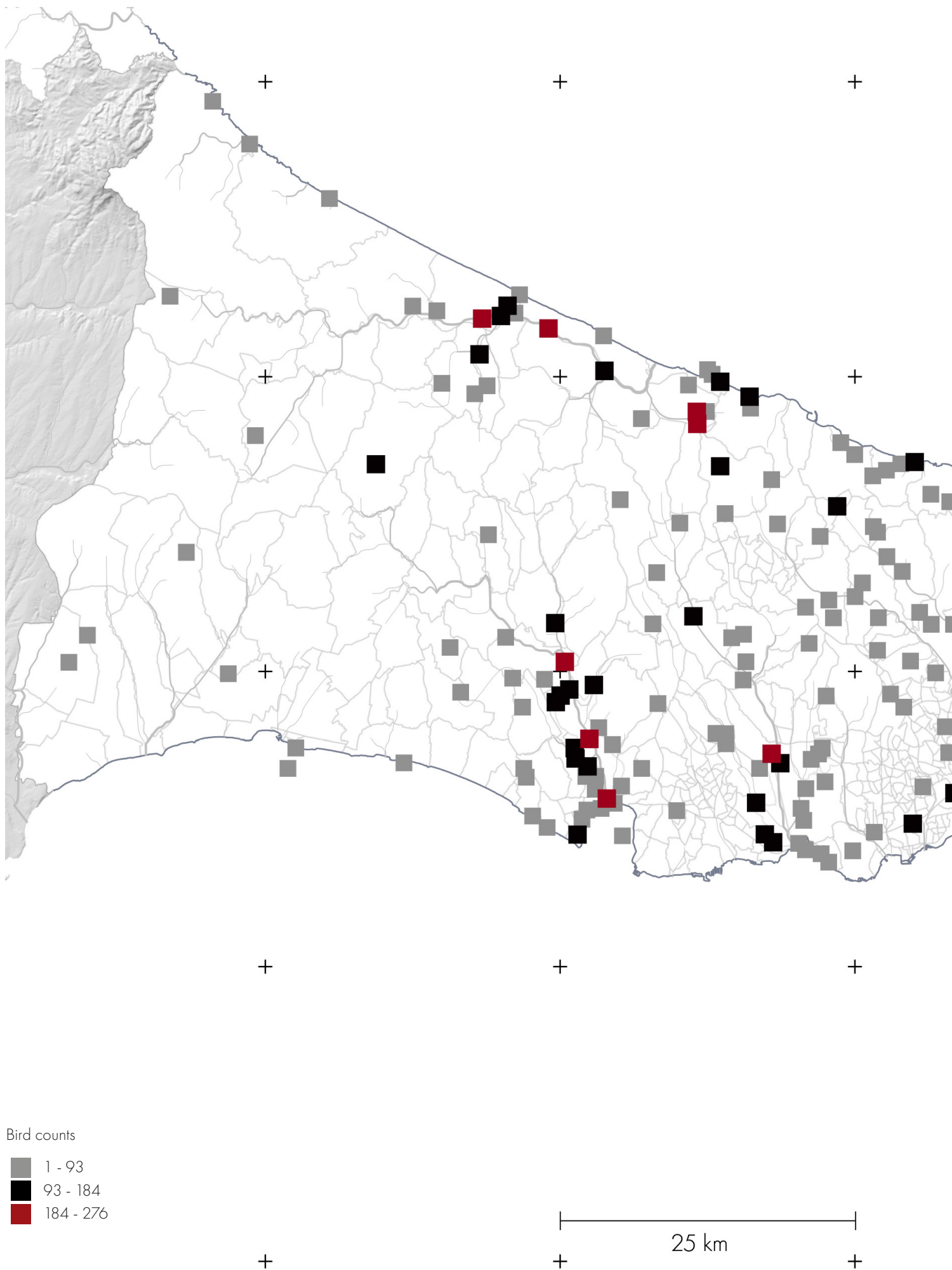
Furthermore, the IUCN, a globally recognized organization dedicated to nature conservation, has designated several species in the Kanal İstanbul project area as either VU (Vulnerable) or EN (Endangered). This includes the presence of raptors such as the Lesser Spotted Eagle, Steppe Eagle, and the vulture, as well as wetland species like the Ruddy Shelduck, which is considered endangered (IUCN Red List, 2021).

But this ecological abundance necessitates caution. Given its former use as an airport, there might be lingering effects or residues that could be hazardous to the thriving biodiversity. Given its newly discovered significance as a refuge for bird species, the utilization of this abandoned airfield must be done with extreme caution.

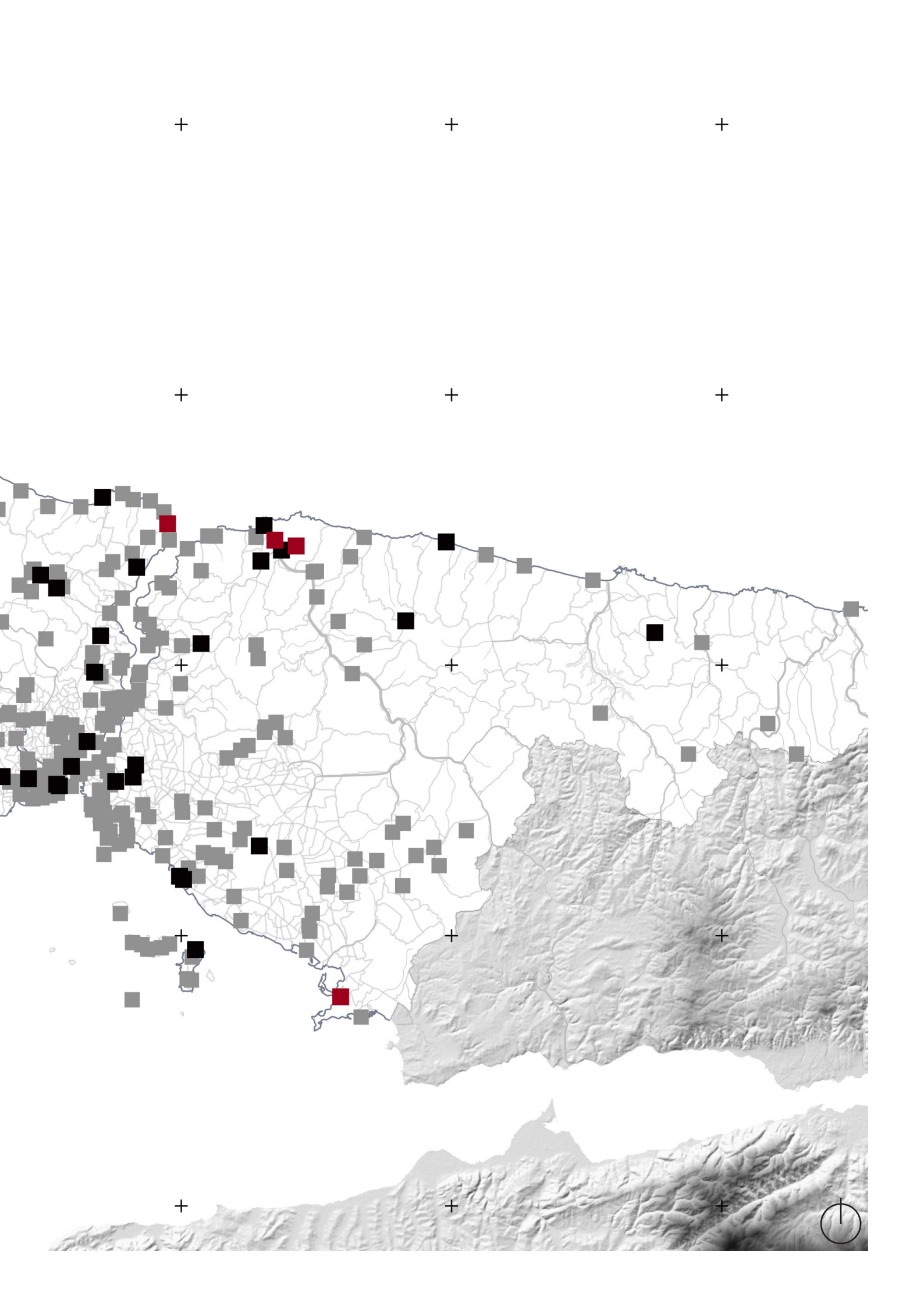
The location still reverberates to the symphony of another type of air traffic, where formerly it was filled with the buzz of engines. The abandoned airfield serves as both a reminder of the necessity for human involvement to be gentle and sensitive of nature's always changing tapestry and a monument to nature's adaptability.



**Figure 10** *Photographer: Uğurhan Betin*



**Figure 11** Bird hotspots of Istanbul, generated using ebird data, created by the author



## **PART TWO: CASE FOCUS**

Istanbul, the meeting place of continents and civilizations, has served the air traffic with three important airports, each of which is located in a distinctive geographic and physical location. The European side's Arnavutköy neighborhood is home to Istanbul Airport, which was officially opened in 2018. It is located between the southern end of Terkos Lake and the northern margin of the Black Sea, covering an area of 76.5 million square meters.

Second, Yeşilköy, southwest of the city center, is home to Istanbul Atatürk Airport, which has ceased passenger operations but is still operational for cargo and VIP flights. It merged with the city's urban fabric through a vast transportation network after serving as the principal aviation hub for the city. The Sea of Marmara serves as a lovely backdrop, defining the southern contours of the airport. This area is still notable for its subtle transition from metropolis to coastline.

And on the opposite edge of the city, Sabiha Gökçen Airport. It is located in the Pendik neighborhood on the Asian side. This airport is situated at the intersection of metropolitan and industrial areas, in proximity to the northern Marmara Sea.

These airports, which are active nodes in the urban network - although the Atatürk Airport has been closed - , still influence and are influenced by the city's cultural, economic, and geographic configurations in addition to facilitating the city's connectivity to the outside world.





- railway
- subway
- highways

## **Istanbul Atatürk Airport**

One of Istanbul's largest neighborhoods, Bakırköy, and its seaside neighbor, Yeşilköy, are where Istanbul Ataturk Airport is situated. The Marmara Sea to the south, Florya Atatürk Forest to the west, Ayamama Stream to the east, and D100 Highway trunk to the north encircle the site. In terms of size, Istanbul Atatürk Airport is an airport with 854 ha.

On the other hand, because of its position, this enormous property is also reachable from several locations. The D100 highway, which runs parallel to the Marmara Sea beach front, the O7 motorway, which connects the north and south of the city, the coastal road known as the "old airport street" (Eski Havaalan Caddesi), and the railway system network can all be used to get to Istanbul Atatürk Airport, which is located 24 kilometers from the city center.

The railway systems can be categorized in two; first is one of the main and busy direction of the Airport-Yenikapı Subway system, which is reaching to the site from the north, along with the D100 highway, and the second is the fast train and Marmaray railways. They are located to the south of the area following the seashore, later passing to the Asian side of İstanbul. Not only the Marmaray railway having accessible stops nearby the airport, the Airport-Yenikapı metro line was constructed especially for arriving to the airport, having its final destination directly under the airport terminals.

Istanbul Atatürk Airport has the ability to integrate with the marine traffic in addition to these transit networks due to its location on the Yeşilköy shore.



## HISTORY

### Early years

During the early 20th century, the Ottoman State recognized the potential of aviation and its military applications. The Aviation Commission's early research into building military airports and academies in 1911 is where Turkish aviation had its start (Kurt & Korkmaz, 2018). They determined the ideal area for such initiatives to be 4-5 decare of flat land, located several kilometers north of Ayastefanos (modern-day Yeşilköy) (Kline, 2002). The opening of the airport's training department coincided with the realization of the airport's completion in 1913.

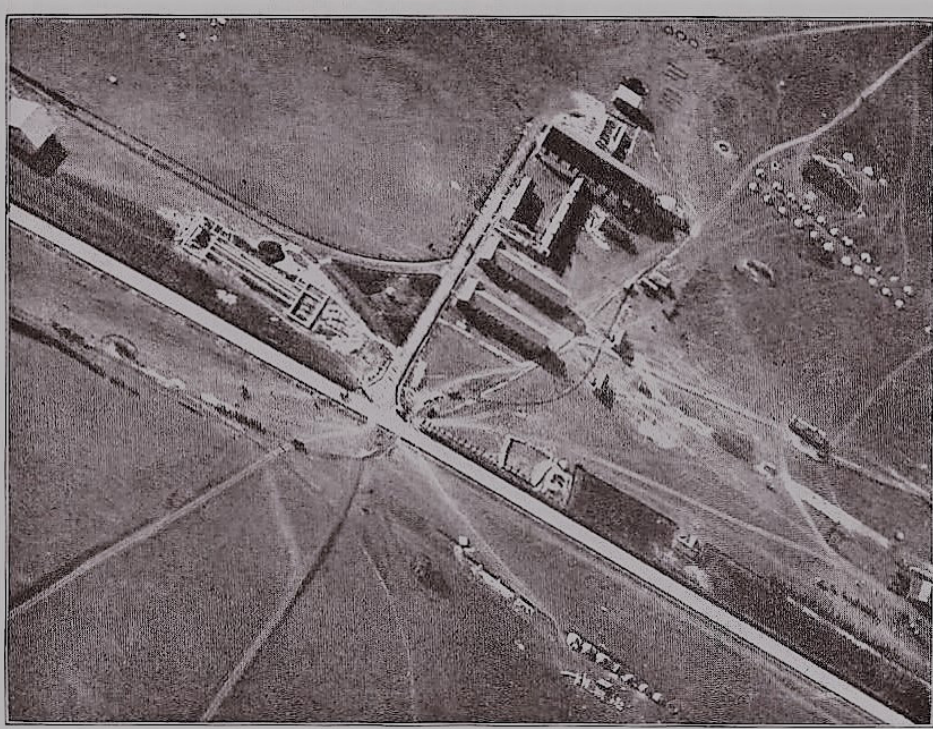
The modernizing Ottoman State was interested in the Italian use of airplanes during the Tripoli War in 1911 (Kline, 2002). As a result, the Yeşilköy Aircraft School/Station was built in 1912 to serve as a hub for military operations and aviation instruction. Due to its ideal geographic and meteorological characteristics, Yeşilköy was strategically chosen, and this decision was crucial in the growth of the aviation complex (Gülten, 2010).

### Expansion of the aviation capabilities

Foreign businesses became interested in setting up aircraft infrastructure for postal and transportation services within Turkey as this new era began. Notably, a 20-year agreement was established in 1926 by the CFRN (Compagnie Franco-Rouen Domaine de Navigation Aérienne), which later changed its name to Compagnie Internationale de Navigation Aérienne CIDNA, to establish Turkey's first "International Civilian" airport in Yeşilköy (Yusufoğlu, 2018; Kline, 2002).

The Ottoman State decided to work with the Yeşilköy Aircraft School to develop a seaplane school (Deniz Teyyare Mektebi) in an effort to improve military capabilities

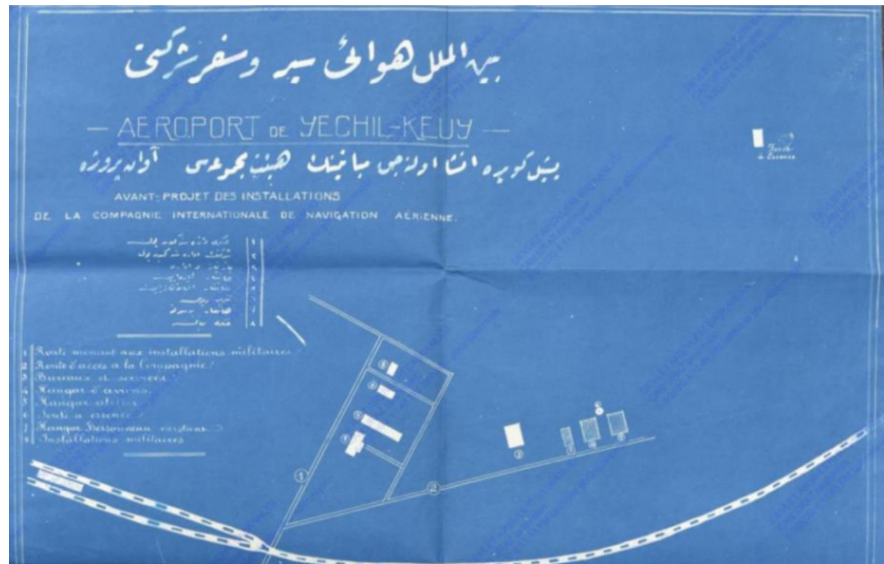
and secure sea lanes. However, the Seaplane School underwent metamorphosis in 1926 and became the Yeşilköy Aircraft Mechanic School due to initial constraints such a shortage of pilots and seaplanes (Gülten, 2010). Concurrently, international firms expressed interest in setting up aircraft facilities in Istanbul for commercial use, including Junkers Türkische Flugzeug Und Motoren AG, CFRNA, and Italian AEI. These actions prepared the way for Yeşilköy Aircraft School/Station's ultimate conversion into a commercial airport (Yusufoğlu, 2018).



**Figure 1** Aerial Photograph of Yeşilköy School/Station  
retrieved from:  
<https://pulveposta.com/2017/01/15/yesilkoy-ucus-okulu-ayastefanos-tayyare-mektebi/>

## Nuri Demirag and the advancement of Turkish aviation

The establishment of the Yeşilköy facilities and the expansion of Turkey's aviation sector were both greatly aided by notable businessman Nuri Demirağ. Demirağ was instrumental in constructing the Yeşilköy Facilities and Sky School in 1941, in addition to the Beşiktaş Aircraft Factory. Aiming to develop the aviation sector from Beşiktaş to Yeşilköy, this project involved building an airport, a sky school, a workshop for repairing aircraft, and storage facilities. But due to financial issues and sad events, aircraft orders were canceled, and the Yeşilköy airplane facility was subsequently taken over in 1944 (Gülten, 2010; Yusufoglu 2018).



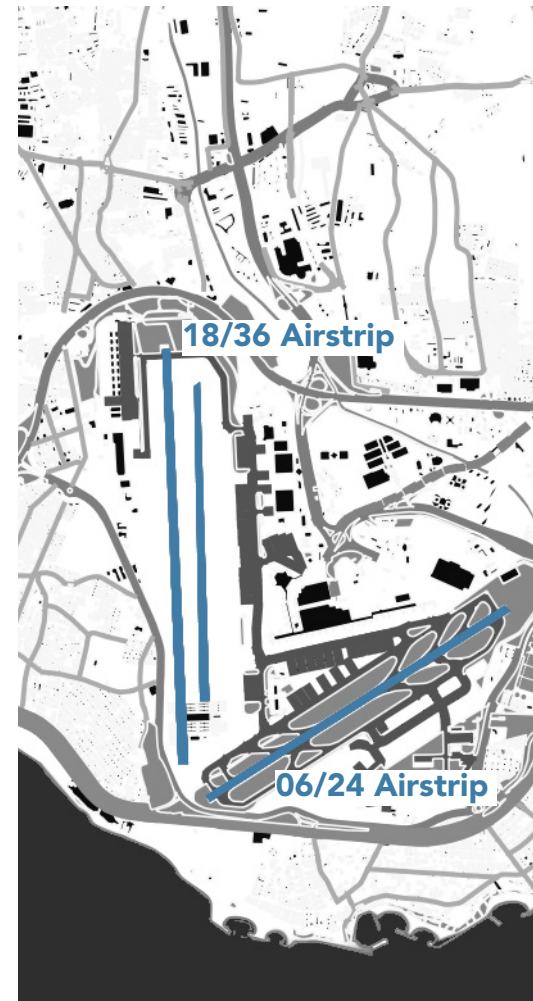
**Figure 2** Master plan of Yeşilköy Airport built by CIDNA, 1926  
retrieved from:  
Tuba Yusufoglu,  
2017, Türkiye’de Havacılık ve Uçak Sanayii  
Yapıları 1923-1940, Yıldız Technical University

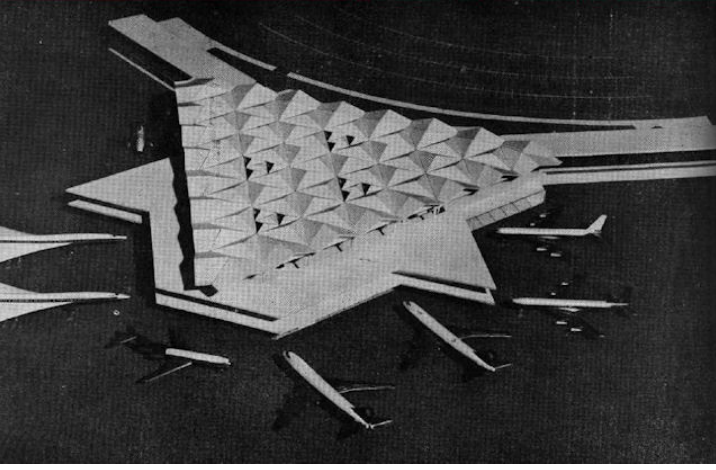
## Transition from military airfield to civil airport

Up until 1935, CIDNA operated the Bucharest-Istanbul route under the Air France umbrella. However, after asking Air France to void the contract, the Turkish government purchased the Yeşilköy Airport facilities from them in 1937 (Yusufolu, 2018). The Yeşilköy Airport facilities underwent changes following the takeover, and on June 3, 1938, they were formally called State Airlines (DHY), under the supervision of the State Administration of the Airlines (Hürtürk et al., 2009).

The Turkish government entered into an arrangement with Westinghouse Electric Corp. and J.G. White Corp. to expropriate the necessary property in 1948 in order to advance expansion and modernization (Yusufoğlu, 2018). During this time, Yeşilköy Airport added a fourth short landing runway to its existing three during the construction of a lengthy (2300 m) runway in compliance with ICAO rules. As a result, on August 1, 1953, the nation's biggest and first international airport opened (Kline, 2002).

The State Airports Authority thereafter took over management of ground operations, air traffic services, and aviation communications on February 26, 1956 (Kline, 2002). In order to meet the increasing demand, since the existing 06/24 airstrip was not sufficient enough, the new 18/36 airstrip measuring 3000 meters long and 45 meters wide was built; work on it began in 1968 and was finished in 1972 (Devlet Hava Meydanlar İşletmesi Genel Müdürlüğü, n.d.).





**Figure 3** Model of Istanbul Atatürk Airport by Hayati Tabanlıoğlu  
retrieved from:  
<https://www.arkitera.com/haber/gecmisin-modern-mimarisi-5-bakirkoy/>

The international terminal being opened on the 60th anniversary of the birth of Turkish Republic, the airport also had gained its still known name, İstanbul Atatürk Airport (Yusufoğlu, 2018).

With repercussions for Turkey's independent aviation industry, the end of World War II marked a turning point in the world of aviation. The Marshall Plan's implementation and the following purchase of American-made aircraft caused a paradigm shift in Turkey's aviation industry. State Airways took over management of Yeşilköy Airport after CIDNA withdrew in 1937, and the airline started upgrading projects to handle the rising demand for foreign flights. Istanbul Atatürk Airport became Turkey's first international airport in 1953 after a new terminal building was built there (Kline, 2002).

### **Continuous growth, expansion and modernization projects**

In 1971, a comprehensive master plan for Yeşilköy Airport was devised, calling for the construction of four terminal buildings and extensions, with a capacity for up to 5 million passengers each. On October 29, 1983, a section of the plan that was created by Hayati Tabanlıoğlu came to life and started operating (Devlet Hava Meydanlar İşletmesi Genel Müdürlüğü, n.d.).

With a modern facade and a new name, Atatürk Airport expanded State Airlines' operations to a variety of national locations in 1985 (Devlet Hava Meydanlar İşletmesi Genel Müdürlüğü, n.d.). The opening of a contemporary terminal building on January 10, 2000 was made possible by the identification of the necessity to create extra facilities to handle the growing passenger and aircraft traffic (Atatürk Havalimanı Mülki dare Amirliği, n.d.).

Istanbul Atatürk Airport experienced a number of remodeling initiatives throughout the years to handle the growing air traffic. These plans included building a multi-story parking structure and a new international passenger terminal. Additionally, a concourse was built to improve communication between the domestic and international terminals, the metro station, and the parking lot. These additions were made in an effort to improve connectivity and meet the rising demand for air travel. The airport's modernization initiatives were heavily influenced by architect Hayati Tabanlıoğlu, who used a modular linear shape to allow for future development (Yusufoğlu, 2017).

Due to the increase on international transportation since 1990s, the international passengers terminals capacity wasn't satisfactory anymore. Which led the design and construction of the new international passengers terminal started in 2002, designed by GMW architecture and Architect Ebru Kantaşı. Complimenting the



modular polygonal design of Hayati Tabanlıoğlu's building, the new international passengers terminal is designed in a familiar language, on a linear modularity this time. The location of this new terminal is decided to be next to the 06/24 airstrip (GMW Architecture, Istanbul Atatürk Airport (n.d.)).

This linear modularity was a continuous design in order to provide the potential of further expansion when needed. By the construction of the metro line superposed under the airport terminal in 2002, the Atatürk Airport had become ever more accessible.

Atatürk Airport, formerly Yeşilköy Airport, is run by the General Directorate of State Airports Authority (DHM), and served as a hub for both domestic and international travel. The airport, which was 24 kilometers from Istanbul's center, had a surface area of roughly 11.8 million square meters and 1.5 million square meters of concrete for its runways, aprons, and taxiways (Atatürk Havalimanı Mülki İdare Amirliği, n.d.).

The number of passengers and flight traffic have significantly increased recently, per data from the State Airports Authority ("İstanbul havalimanlarında, yolcu sayısı 6,5 milyon arttı," 2018). Due to the government's emphasis on the need for a new airport, the Istanbul Airport project was launched in May 2013 as a result. The future of Atatürk Airport was debated while the new Istanbul Airport was being developed.

Although official activities at Atatürk Airport were suspended on April 6, 2019, by the president's declaration that the airport would be transformed into a "Nation's Garden" in 2018 (Erdoğan: Atatürk Havalimanı millet bahçesi olacak, 2018).



**Figure 5** New International Passenger Terminal of Istanbul Atatürk Airport  
retrieved from:  
<https://divisare.com/projects/340092-gmw-mimarlik-istanbul-ataturk-airport-international-terminal#lg=1&slide=0>

## RECENT POLITICAL AND SOCIAL DISPUTES

### Significance of the Istanbul Atatürk Airport

Istanbul Atatürk Airport, a significant historical entity in Turkey's aviation industry, has undergone numerous transformations throughout its history. According to the Directorate General of State Airports Authority (DHMI) Annual Report in 2018, Atatürk Airport bore the brunt of international flights, becoming a crucial global connection point (DHMI, Annual Report 2018 (2019))

The airport's importance in the international aviation industry was further evidenced by the Airports Council International's (ACI) report in 2017, which identified Atatürk Airport as Europe's third busiest airport in 2016. The ACI's preliminary total passenger traffic report in 2018 also highlighted that the airport serviced over 68 million passengers (Airports Council International (ACI), Total Passenger Traffic 2018 (preliminary)(March 13, 2019)). The airport not only catered to the passengers' needs but also met aviation industry standards (Özlem Atalık, Voice of Turkish Customer: Importance of Expectations and Level of Satisfaction at Airport Facilities (Review of European Studies, 2009)).

### Airport as a place of collective trauma

Although these satisfactory numbers classifying the Istanbul Atatürk Airport as highly successful, the numbers are not the only things the airports or any public space carries on itself. A very tragic accident by a Turkish Airlines plane, resulting all the 41 passengers dying, has happened in this airport as well, in 1975. This is another function of the airport that it is carrying on its load bearing walls, the weight of memory. (Anadolu Agency, 1954'ten 2009'a Uçak Kazaları, 2009)

Another tragic event is the terrorism attack on 2016, by ISIS due to international airports huge impact on the global media and memory.

Architecture, spaces, and any kind of environment let it be physical or merely illusory, are juxtaposed with their memories within people. This can be an enough reason not to remove this place entirely. Because even though these places host also bad memories, they are the carrier of those memories. Forgetting them through demolishing and creating a "new" flooring on top of everything does not help to people nor to collective knowledge.



**Figure 6** Photograph by Murat Kaya  
retrieved from:  
<https://www.aa.com.tr/tr/gundem/ataturk-havalimanindaki-teror-saldirisinin-uzerinden-5-yil-gecti-saniklarin-dosyasi-yargitayda/2286718>

In response to the burgeoning demand in the aviation sector, the Turkish government disclosed plans for a new airport in Istanbul's northern European region in 2012 (Tuba Toru Delibaşı, Mega Istanbul Airport (Network Industries Quarterly | Vol. 21 | N°2, 2019)).



Concurrently, Atatürk Airport was subject to capacity expansion efforts. However, these endeavors were overshadowed by a hastily articulated master plan for a new public park ((CNNTurk, Cumhurbaşkanı Erdoğan: Millet Bahçesi, Central Park'ın 4 katı büyüklüğünde olacak (June 8, 2018)) (Arkitera, Atatürk Havalimanı Yerine Yapılacak "Millet Bahçesi"nin İlk Görüntüleri Yayınlandı (June 4, 2018)).

A subsequent version of the master plan surfaced a year later, revealing a more thorough plan for the park. The plan, which was conceived by the semi-private Real Estate Investment Company, allocated 60% of the 854 ha area to the public park, reserved 30% for general aviation activities, and dedicated 9% to a military field (Fatma Aksu, En 'hava'lı millet bahçesi, Hürriyet Newspaper (November 22, 2019)). Two novel features, the "accommodation" and "life center", were introduced in the updated plan, occupying a combined area of 410,000 m<sup>2</sup>. The ambiguous descriptions of these facilities hinted at a potential commercial exploitation of the site.

The transformation of such an extensive open space, devoid of a democratic planning process, was met with criticism. The lack of transparency in the planning process starkly contrasted with the inclusive methodologies employed in other airport transformations worldwide. In response to this, the Chamber of Architects (Ankara Department) boycotted the project, claiming that the government was using the public park projects to propagate neo-liberal policies and ideological interventions in urban areas (TMMOB Mimarlar Odası Ankara Şubesi, Kamusal Alanın İdeolojik ve Rantsal Dönüşüm Projeleri Karşısında Üyelerimizi ve Meslek Ortamımızı Yarışma Adı Altında Millet Bahçelerinin Meşrulaştırılmasının Aracı Olmamaya Davet Ediyoruz (June 21, 2021)).

In November 2019, after a prolonged period of silence, the transformation process finally began with the demolition of buildings on the site (Cumhuriyet Newspaper, Atatürk Havalimanı'nda yıkım başladı (November 18, 2019)). The narrative of Istanbul's Atatürk Airport thus pivots from being a bustling international hub to a contentious development site, sparking debates and anticipation regarding its future.

The Istanbul Atatürk Airport, given its significant statistical value and its relevance to historical events, has been a part of not only Istanbul's cultural memory but also on the broader global community. Its prominence makes the decision for its abandonment and subsequent re-use plans a matter of collective importance. The politics unfortunately seems to imply more influence than thorough and democratic planning procedures.

The current transformation project, characterized by top-down decision-making, overlooks the potential of the expansive, abandoned site. It is needed to fully realize the potential of Istanbul Atatürk Airport's transformation and to ensure it continues to contribute to the cultural and societal fabric of Turkey and the world at large.



**Figure 7** Initial Master Plan of the Community Garden  
retrieved from:  
<https://www.arkitera.com/haber/ataturk-havalimani-yerine-yapilacak-millet-bahcesinin-ilk-goruntuleri-yayinlandi/>

The concept of a “city without a past” raises questions about the definition of a city’s past and what actually constitutes a city. It incites a journey into understanding the notions of remembering and forgetting and their links to architecture. This discourse is inspired by the exploration of a specific type of residential buildings, prompting a foray into the concept of “memory” in architecture. This subject is comprehensively discussed by Adrian Forty in “Words and Buildings”. The question to ponder is how a city adapts and integrates foreign influences within its urban space.

This piece aims to investigate the phenomenon of remembering and its inherent correlation with architecture. This exploration touches on how societies handle cultural changes, manage cultural diversities, and rise from the ashes, using remnants of their past as stepping stones towards modernization. A contemplation by Adrian Forty underscores the importance of memory in architecture, arguing that “Memory may well yet prove a short-lived architectural category - and one inherently alien to architecture.” He also highlights the intriguing tension between memory and forgetting, asserting that it is not the memory alone that is interesting but rather the interplay between remembering and forgetting (Forty, A. (2019). Words and buildings (pg.219)).

The term “memory” has been meticulously examined in Adrian Forty’s “Words and Buildings”. His endeavor is to verify the appropriateness of this term in the language of architecture and trace its roots in architectural literature. He delves into the history of the term ‘memory’ in three stages, with the second and third stages being crucial to this discussion. In the mid-nineteenth century, John Ruskin developed his views on the importance of memory in architecture (Forty, A. (2019). Words and buildings (pg.207-211)).

Ruskin and Nietzsche held conflicting views on the role of memory. While Ruskin emphasized the importance of memory, Nietzsche, in his essay ‘On the Uses and Disadvantages of History’, posited the importance of forgetting (Forty, A. (2019). Words and buildings (pg.212)).

Modern architecture often overlooked the notion of memory. According to Adrian Forty, buildings have often been unreliable in perpetuating memory, “all too often the object has survived, but who or what it commemorated has been forgotten.” (Forty, A. (2019). Words and buildings (pg.212)).

As Aldo Rossi puts it in *The Architecture of the City*, “The city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the locus of the collective memory.” (Rossi, A. *The Architecture of the City* (1966) (pg.130)).

A specific architectural case study indicates how architects interacted with Western concepts and tailored them to their distinct lifestyle (Pompili, M. (2014).

Modern Multi-unit Housing in Japan and the Dōjunkai Apartments (1924–34). (pg.30-31)).

Hidenobu Jinnai describes in *Tokyo: A Spatial Anthropology*, “Tokyo is a great metropolis that seems to have lost the face of its own past.” The concept of memory, however, is often associated more with human activities than architectural artifacts (Jinnai, H. *Tokyo: A Spatial Anthropology*, 1995, p.1). As Adrian Forty suggests: “Yet it has to be said that buildings have been unreliable means of prolonging memory; all too often the object has survived, but who or what it commemorated has been forgotten.” (Forty, A. (2019). *Words and buildings* (pg.206)).



## **PART THREE: THE PROJECT**



## **Project Framework From the Municipality of Istanbul**

In the 2009 dated *1/100,000 Scale Istanbul Environmental Plan Report* of the Istanbul Municipality, there has been done extensive analysis' about the Istanbul city, these analysis' allowed them to create many frameworks for guiding possible future projects in the city. Some parts of these analysis are highlighted, and some are illustrated to create a framework for the reuse project in the airport site.

## **Education, Information Technology, And Technological Fields**

There is an indicated anticipation of burgeoning innovations in fields that are at the core of knowledge economies in the report examining the future direction of the education, information technology, and technology sectors. These achievements specifically cover the establishment of technoparks, companies utilizing cutting-edge technology, R&D facilities, institutions for advanced technology, and universities in Silivri, Küçükçekmece, İşli, and Pendik.

Importantly, the paper emphasizes a few rules of thumb and limitations for these suggested technology zones. In particular, they should avoid developing into structures that resemble factories. Advanced technology-driven production is not explicitly prohibited, but it should be restricted to prototypes and stay away from more general production techniques like flexible or serial production. These centers should carefully steer clear of any activities that can sharply expand the population or cause environmental harm.

The research emphasizes that, in accordance with international best practices, the built-up area in these technological parks should be limited to 10% of the overall land area. This requirement emphasizes that a sizeable amount of the land should be set aside for green spaces, especially tree plantings, and is in line with the more general environmental focus.

Beyond the technology features, the imagined locations are meant to constitute comprehensive ecosystems on their own. The idea includes not just R&D hubs, educational institutions, and professional organizations but also integrates living quarters, recreation areas, businesses, and sporting venues. According to the source, the goal is to create extensive information technology-focused zones that can accommodate a wide range of requirements and functionalities.

## **Decentralization in production**

There is a definite emphasis on decentralization for several corporate sectors, according to a comprehensive analysis on production techniques in Istanbul. According to the report, small businesses, notably those employing 1 to 49 people, are permitted to continue operating in Istanbul's designated zones as long as they meet certain criteria for diversification.

These sectors have been identified according to well-defined criteria. The level of pollution produced by the business, its size, the amount of support needed for business and service functions, the need to meet Istanbul residents' daily consumption demands, particularly with regard to local market production, and the inclusion of goods essential for daily consumption, with a clear emphasis on the food industry, are all important factors.

The report also cites four urgent issues that must be resolved in areas designated for revitalization:

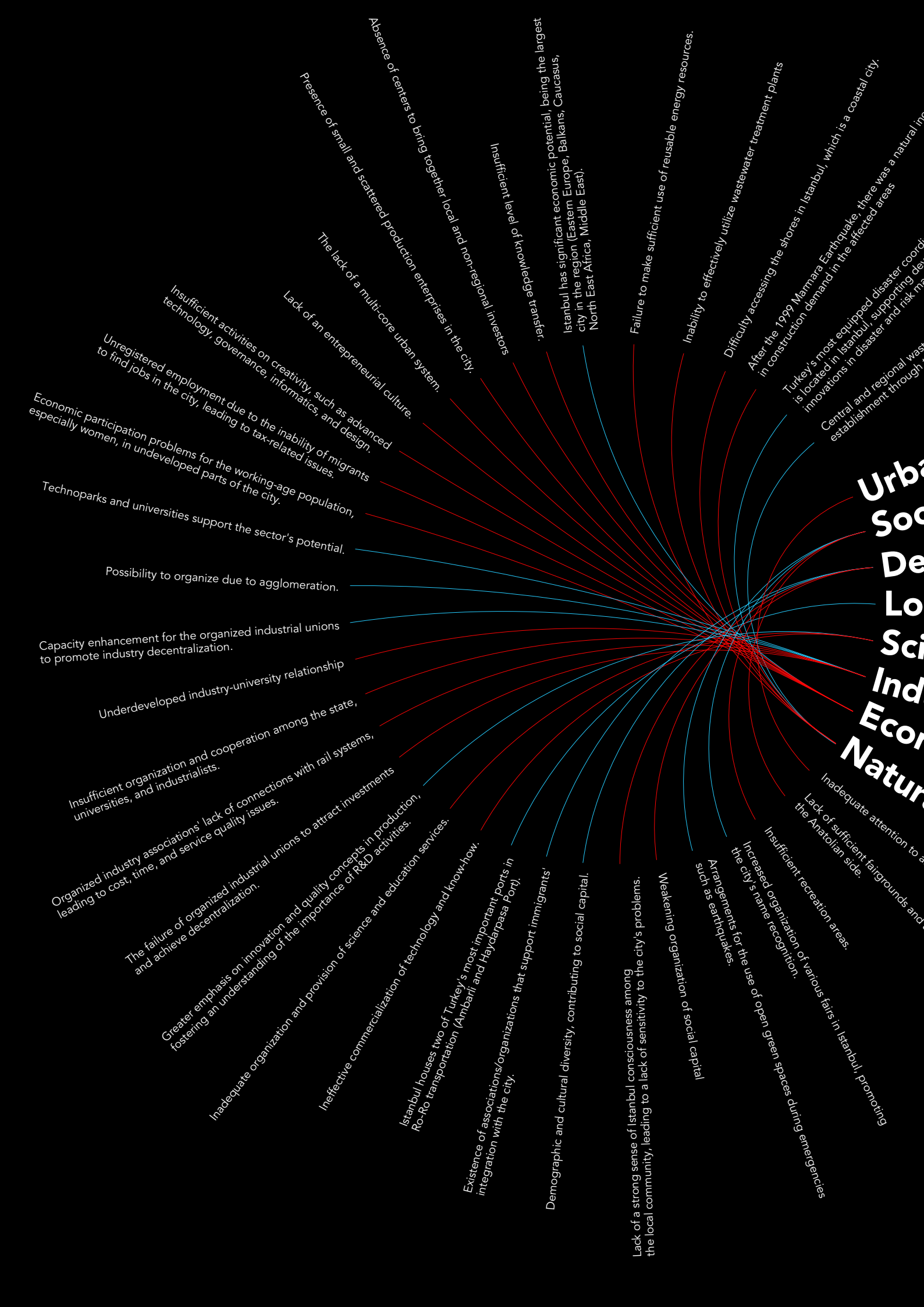
- Stopping the basin's industrial growth.
- Encouraging the transition to industrial methods that are more environmentally friendly.
- Providing potential industrial zones with a chance to grow in line with Istanbul's overall goals.
- Encouraging the use of cutting-edge technologies in the manufacturing process.

A whole chapter is dedicated for a thorough SWOT analysis to be a framework for future development projects. Some points from the analysis are collected, particularly the points which are highly relevant to a project that can be hosted in the Atatürk Airport area, to be put into a diagram that makes them readable and comparable in only one page (Figure 20).

Another important data derived from the municipality is the solar energy potential map, that can be found directly at municipal website (Figure 21).

Consideration of these frameworks has been very beneficial to understand the needs of the city and to approach efficiently to the site.

# Urban Socio-Economic Development Local Science, Industry, Economy, Nature



crease

Information Headquarters (AKOM)  
developments and technological  
management

sewage treatment  
treatment plants.

an Life Quality

cial Infrastructure

demographic and Social Structure

gistics

ence and Technological Development

ustry Sector

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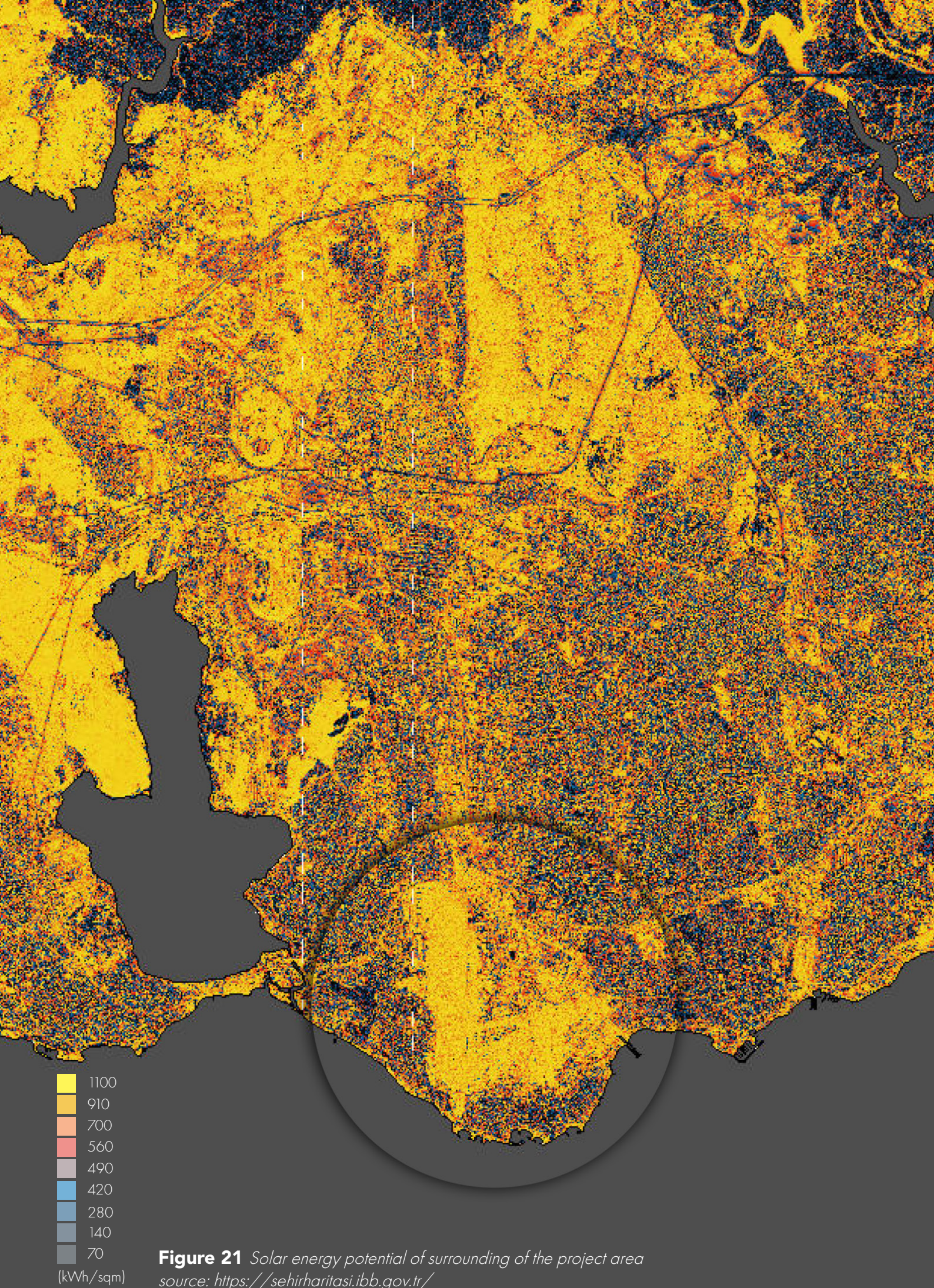
al Structure

and neglect of green areas.

absence of a fairground on

**Figure 20** *Strenghts and Weaknesses of the city according to the report, created by the author*







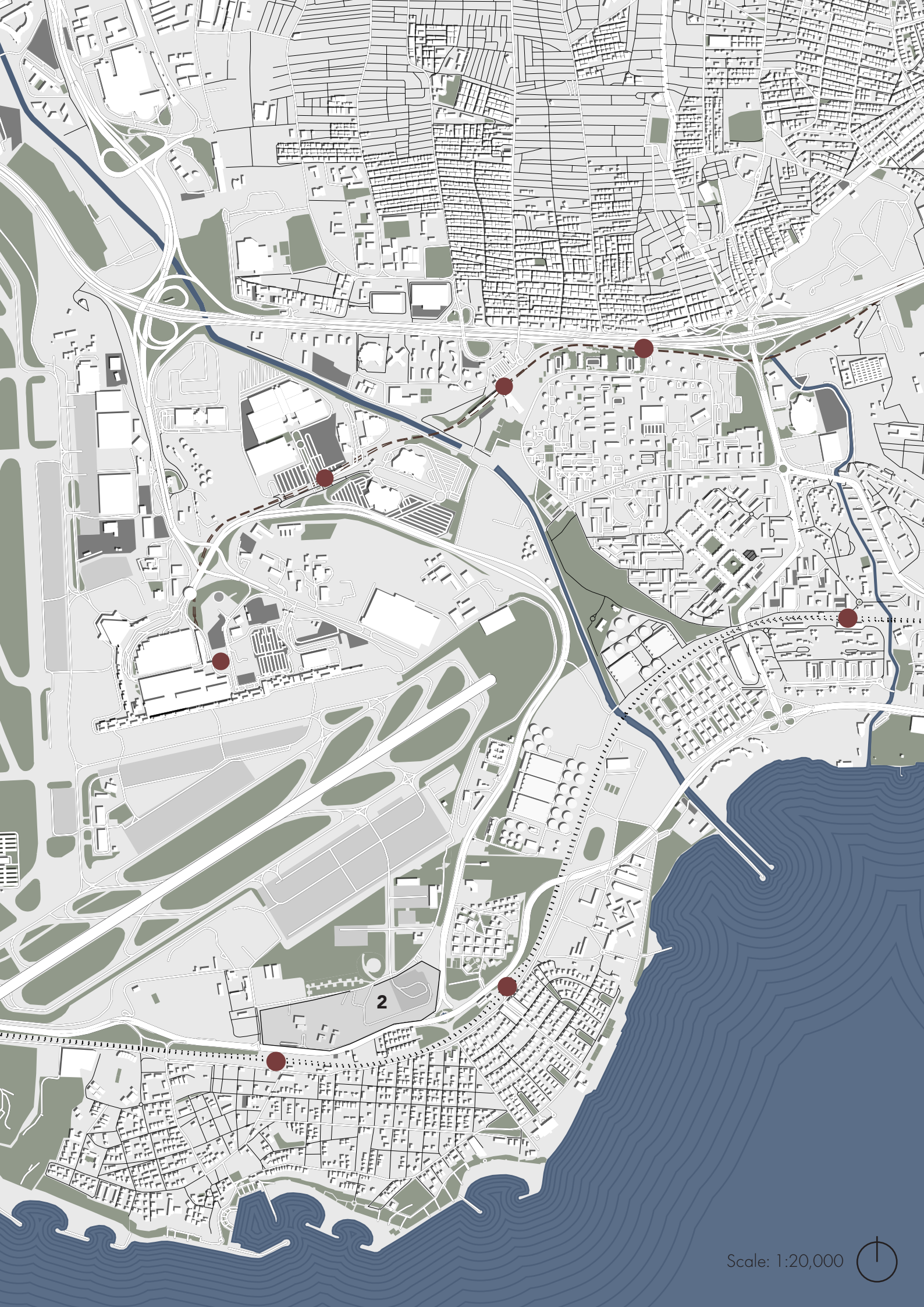






- Public Transportation Stops
- 1 Universities
- 2 İstanbul Aviation Museum
- Aprons
- Parking
- Current green spots





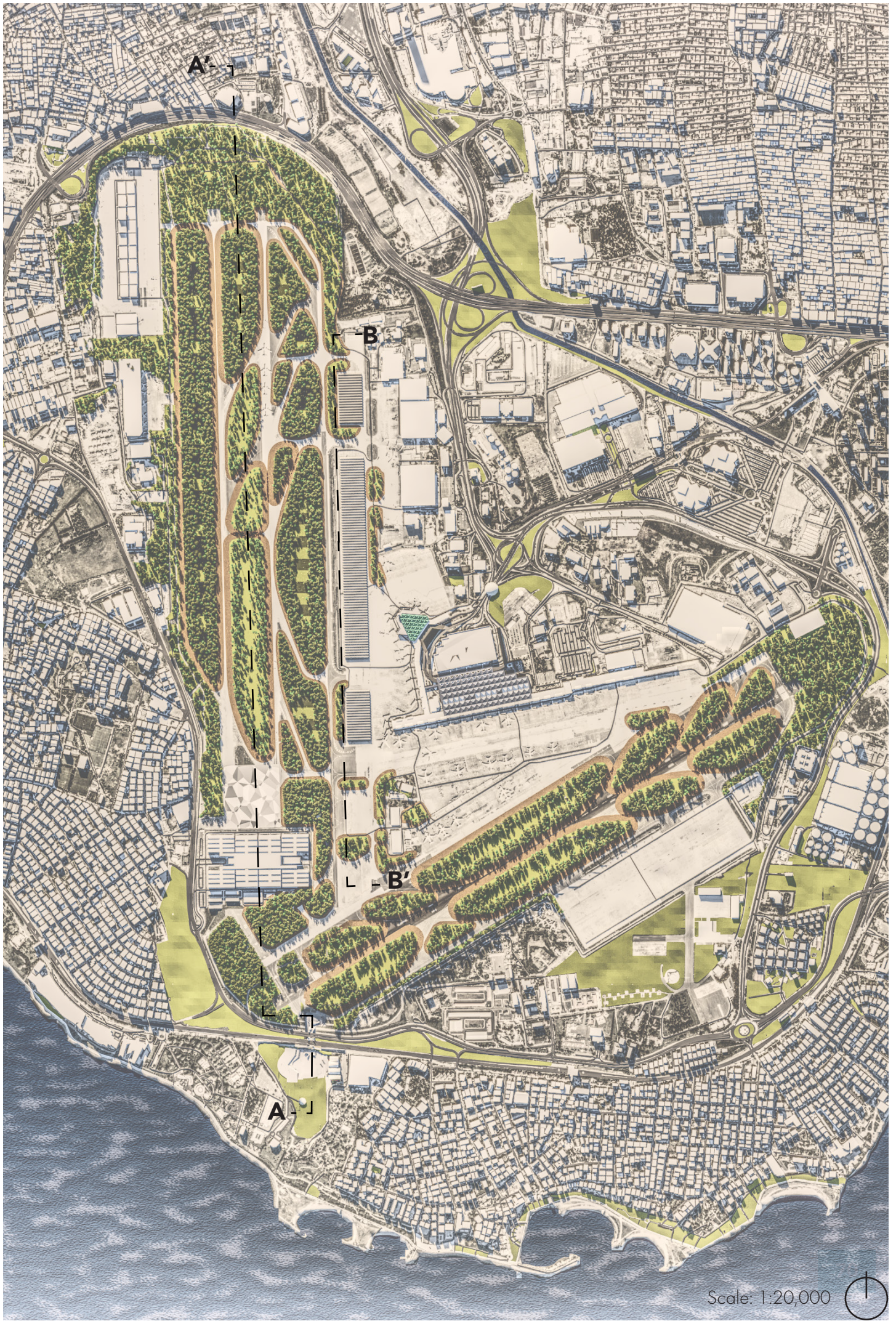
Scale: 1:20,000









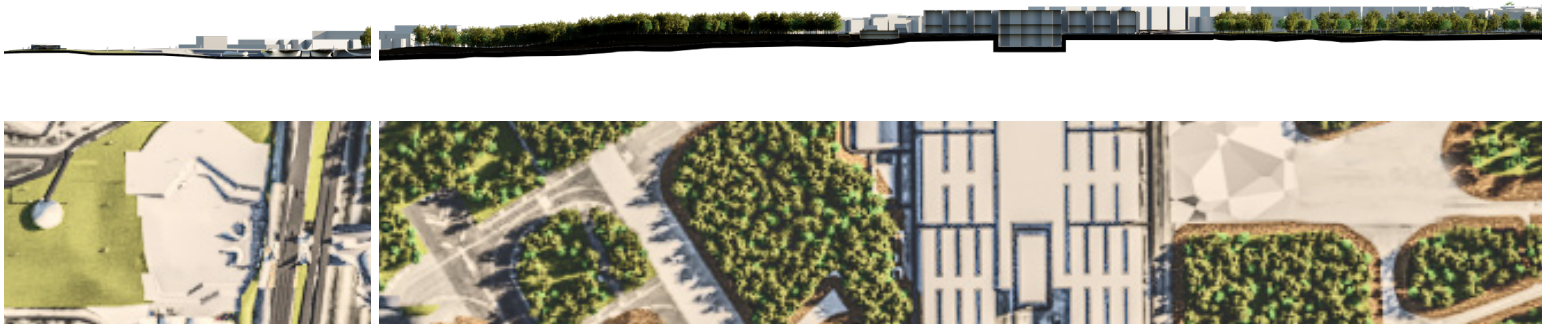


Scale: 1:20,000





SECTION A-A'

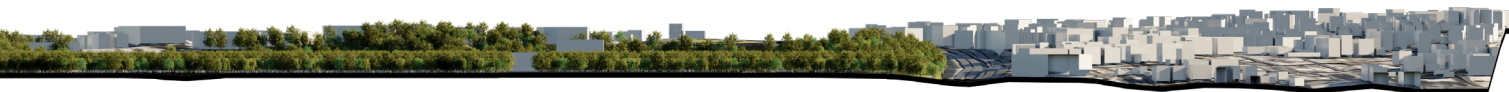


SECTION B-B'







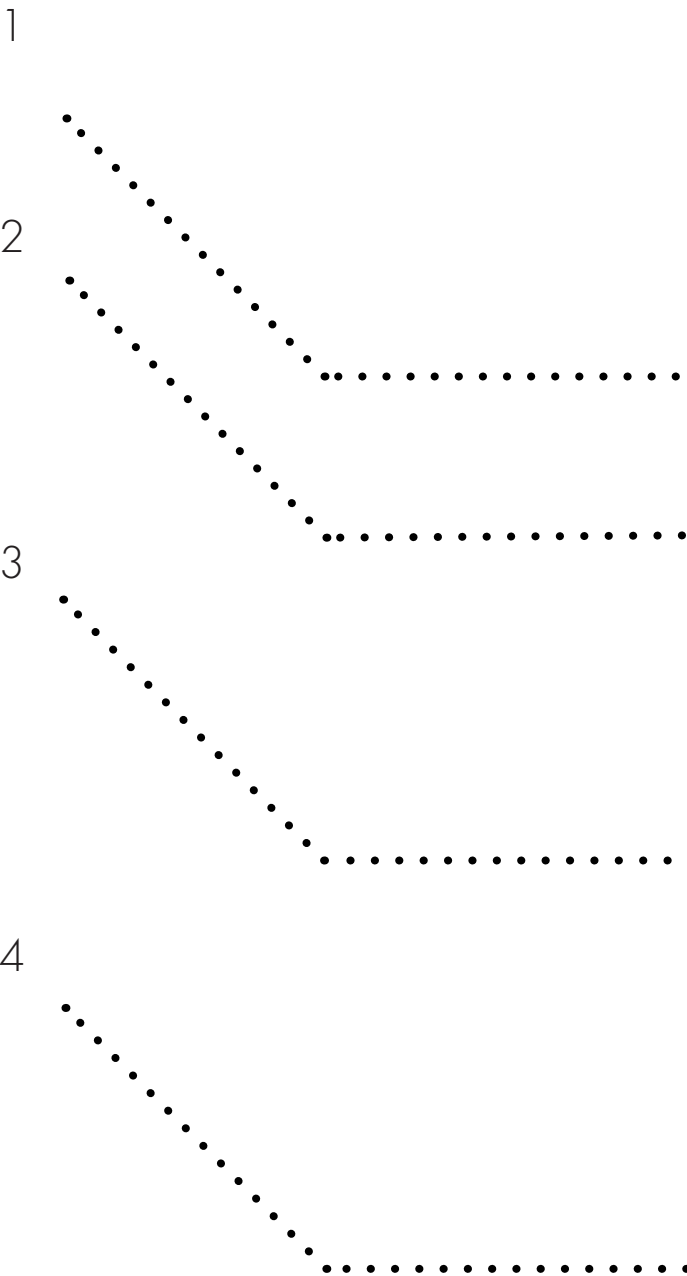


Dense Forestation, for soil phytoremediation and enhancing the wildlife ecosystems, scattered with bird watching huts

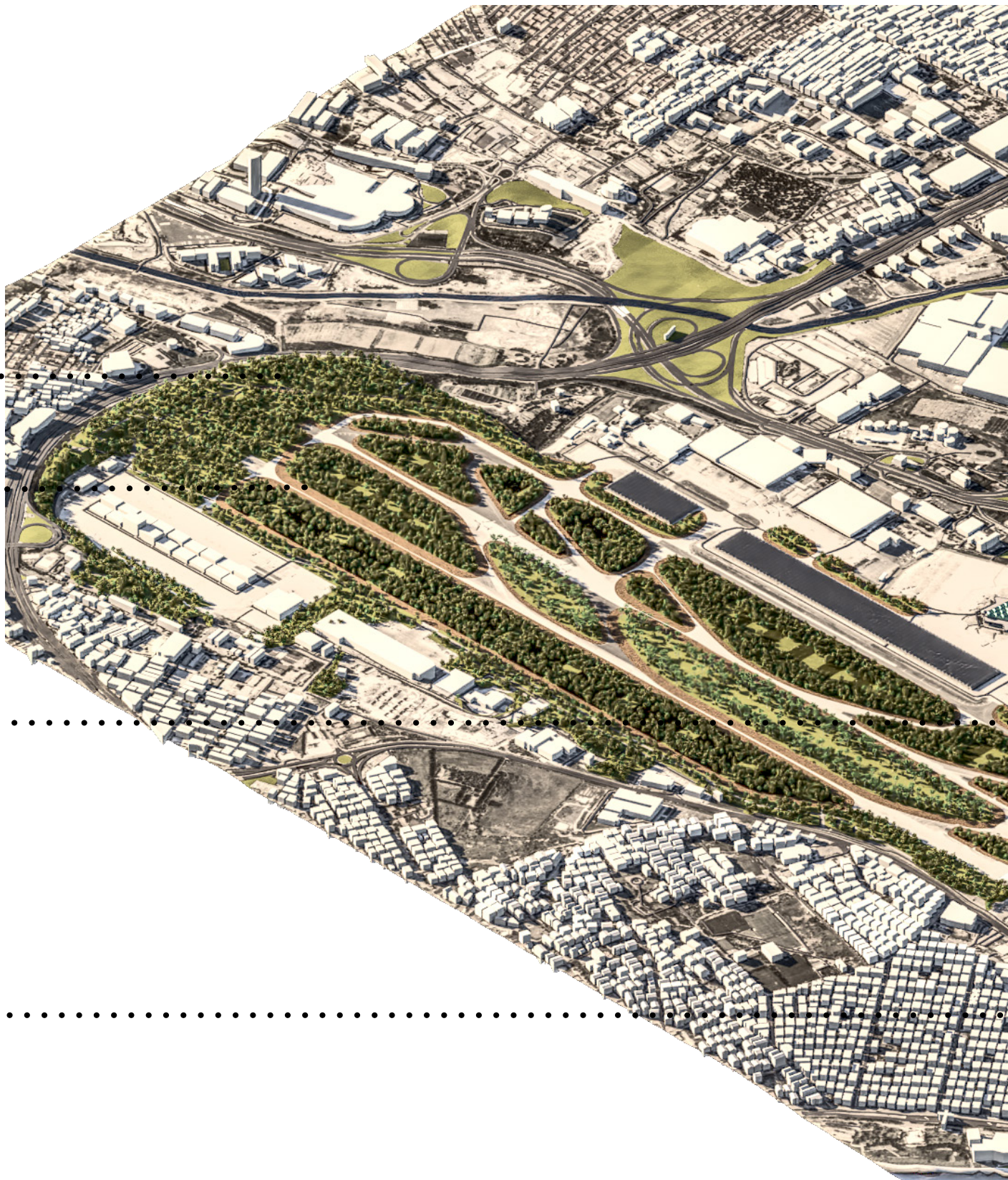
Recycling the abundant asphalt, breaking into debris to humanize the width of passages within the site.  
Creating a scece of "nature digesting the construction"

The remaining concrete floors which are too big in size, such as the airplane aprons, being used as a soild base for light construction such as community greenhouses.

The connections to the area have been reinforced, opening another point of entrance from the sea shore, located close to public transportation network.

















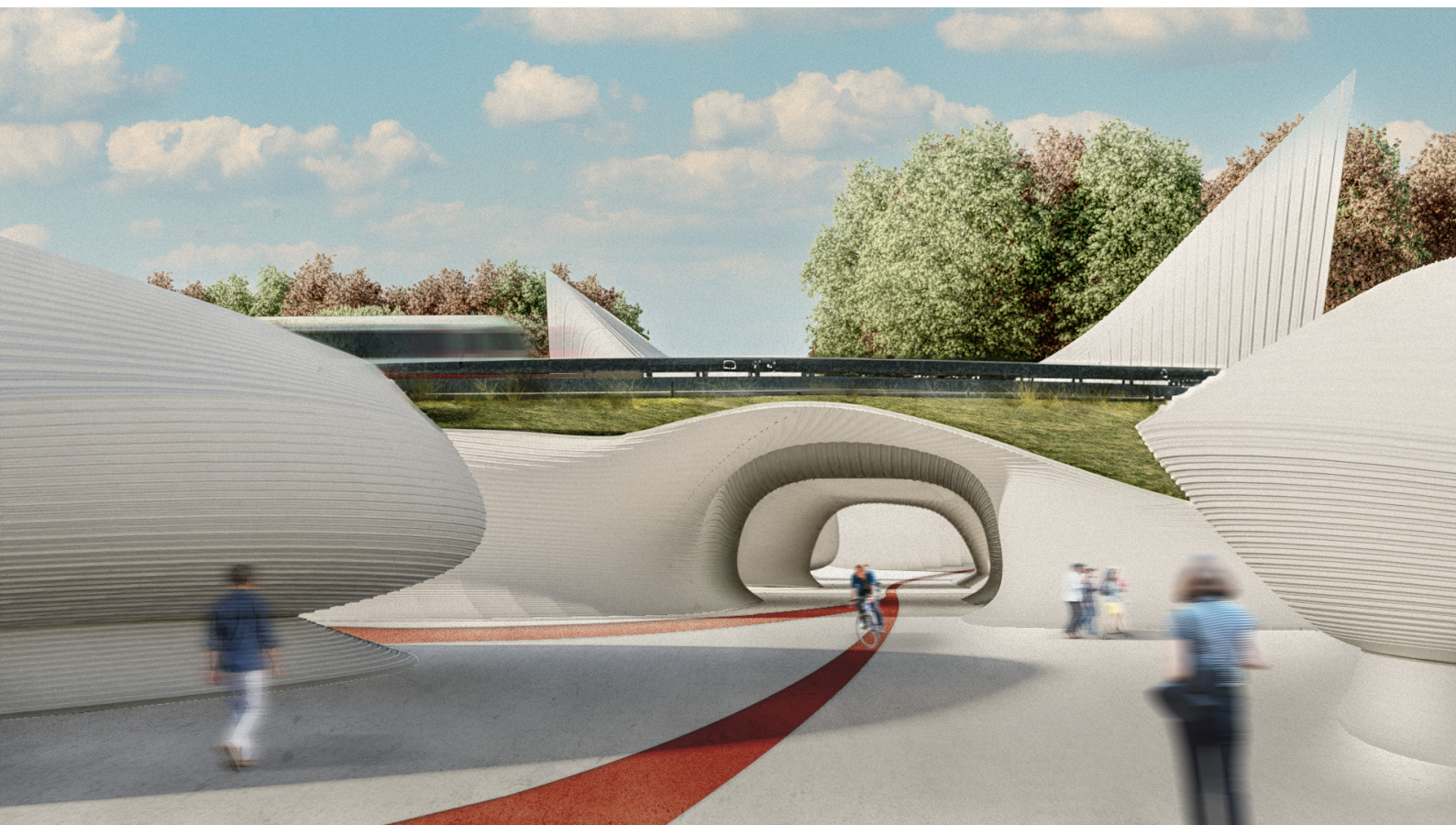


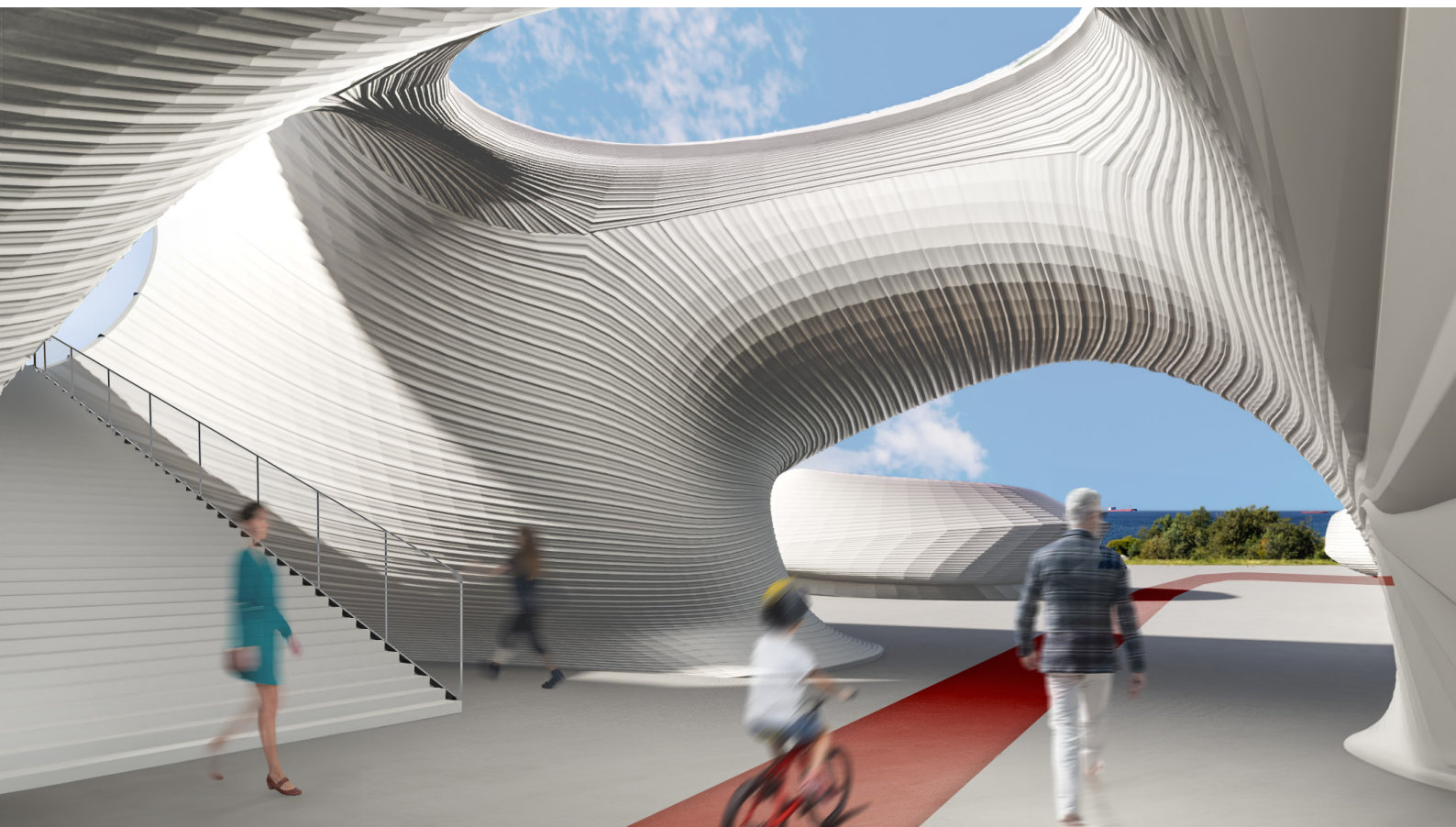












# CONCLUSION

The decommissioned Atatürk Airport in Istanbul served as the main point of the research as it tried to analyze the dynamic evolution of cities. The thesis was more than just academic work; it was a thorough exploration of the complex interactions between natural fragmentation, urban change, and the substantial effects these have on the structure of cities and ecological balance. My exploration of Istanbul's history revealed that the Airport, once a bustling hub of transportation, passing into oblivion, highlighting a persistent urban dilemma of an expanding metropolis, with its expansion also being a catalyst of its decommissioning.

The ambition to question the norm and reinvent the potential of vacant urban places was at the very heart of this endeavor. The thesis explored techniques for regenerating the soil, but it was also interested in creating urban oases for recreation, ensuring that areas that were once devoid of public spaces now have places to breathe, interact, and coexist.

The analysis also highlighted the Airport's challenging location, a major obstacle impeding connectivity across areas. Therefore, the suggested interventions were transformative in character as well as restorative, with the goal of removing these impediments. The design aims to reduce the feeling of seclusion while enhancing spatial connectedness by supporting unrestricted human movement at also considering the fragmentation of ecological corridors of the city.

The methods advocated by this thesis, which are rooted in the concepts of sharing, sustainability, and inclusivity, strike me as a siren call in retrospect. A request to urban stakeholders to see cities as healthy ecosystems where people and nature may coexist together rather than just as concrete jungles. The revitalized Atatürk Airport, as conceived in this work, stands testament to the boundless possibilities that beckon when one marries architectural foresight with ecological reverence.



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