Making Waves:

The Past Futures of Azerbaijan's Islands

by

Garine Boghossian

Bachelor of Architecture (B.Arch.)
American University of Beirut, 2013

Submitted to the Department of Architecture in Partial Fulfillment of the Requirements for the Degree of Masters of Science in Architecture Studies at the Massachusetts Institute of Technology

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Abstract

This thesis is a collection of design speculations meant to question the frenzy around capitalist urban development in emerging "world-class" cities. It particularly studies how post-extraction economies are restructuring the industrial city to promote it as a site of leisure, tourism and real-estate. This transition often uses architecture and urban design that relies on a jargon of superlatives, the signature of starchitects, and the power of mass media image circulation to project a utopic vision.

The thesis uses the island as a site for investigation and experimentation. Both a geographical entity and a widely-used metaphor, the island is often defined through dualisms: utopic and dystopic; insular and yet connected. The notion of territoriality is crucial here, where the island with its seemingly defined geographical boundaries is in fact part of a larger geological, socio-economic and political territory. Thus, it often becomes a physical testing ground to realize different social and spatial propositions, such as urban segregation, the development of elite enclaves, exotic tourist attractions, and heightened securitization.

Focusing on Azerbaijan's Caspian Seawaters, this thesis studies Baku's offshore urbanization on its natural and artificial islands. Initially significant for their strategic role in protecting the mainland, Azerbaijan's islands have been heavily involved in natural resource extraction and energy production for the past half century. As oil and gas resources deplete and revenues fall, the state is considering alternative ways to diversify its economy. Hence, various post-extraction futures are currently being projected onto these sites: the islands of the Baku archipelago, Pirallahi island as well as Neft Dashlari, the first off-shore drilling facility in the world. The dependence of capital on territory is evident here, whereby investment in Azerbaijan's post fossil-fuel economy is manifested spatially through the proposed redevelopment plans.

Two major forces currently shape these islands. First, economic force, which includes both the continued extraction of capital in the form of oil and gas from one field and a transition towards accumulation in the form of real-estate in another. Secondly, ecological force, which encompasses both the manufacturing of artificial landscapes into the Caspian Sea and the destruction of land due to a degraded ecosystem and sea-level rise.

In addition to constructing an urban historiography of the islands, this thesis articulates a possible future for each island and presents an urban-spatial, socio-political critique of how the state has been exploiting these forces in the past and will possibly do so in the future. The thesis argues that the most effective medium for engagement in the transformation of Baku is through the circulation of counter-images that challenge the false sense of utopia.

Supervisor: Rania Ghosn, D.Des.
Assistant Professor, Department of Architecture,
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A shot from the documentary "Oil Rocks: City Above the Sea", 2009.

"Neft Dashlari is the 8th Wonder of the World."

In 2009, Swiss film director Marc Wolfensberger received access to the world's first and largest offshore oil-platform, a city in the middle of the Caspian Sea built during Stalin's days.

Combining archival recording from the Soviet era and exclusive new footage, the film tells the story of this timeless place, still operational after 60 years, with 200 kilometers of bridges, hundreds of platforms, and thousands of oil workers.

The self-proclaimed 8th wonder of the world is the oil city **Neft Dashlari**.

Tim Franco, Crude Gentrification

Azerbaijan: Oil and Urbanism

As the world's first centre for oil and natural gas extraction, Azerbaijan has had a long history of reflecting its economic prosperity in built form.

Throughout the 19th Century, oil barons constructed much of the new architecture and built up the country's largest city and capital, Baku, with ceremonial boulevards and elaborate neo-classical buildings.

Following Soviet independence, the ruling government of President Heydar Aliyev again took to developing the country and establishing a new image for the nation through architectural form. (Valiyev; Koch, 2016)

Tim Franco, Crude Gentrification

Urban Boosterim Vs Industrial Legacies

These projects, in attempting to improve public perception, propagate a selective narrative of urban prosperity, political stability and civilian contentment that ignores the legacies of 20th century industrial production and the problems associated with it. (Koch; Valiyev, 2016)

Tim Franco, Crude Gentrification

From Industry to Services

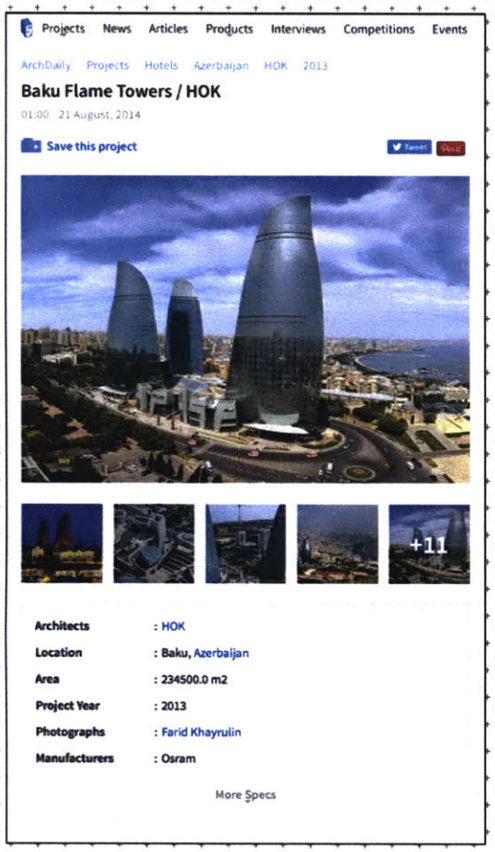
Global shifts in capital production since the mid 20th Century have dramatically changed the landscapes of cities and generated new demands for forms of urbanism based upon experience economies and mass spectacle rather than industrial production.(Lloyd; Clark, 2001)

"World-Class" City Making

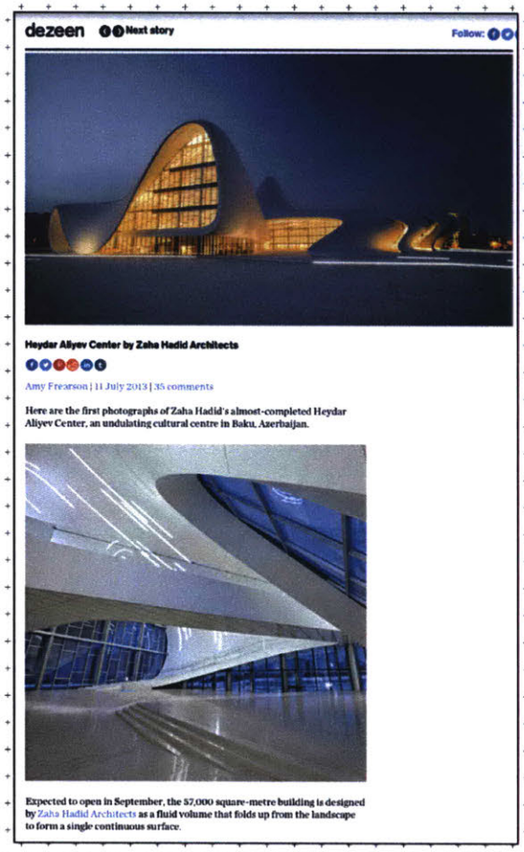
This thesis questions urban development in emerging "world-class" cities such as Baku.

It studies the restructuring and promotion of the industrial city as a site of leisure, tourism and real-estate:

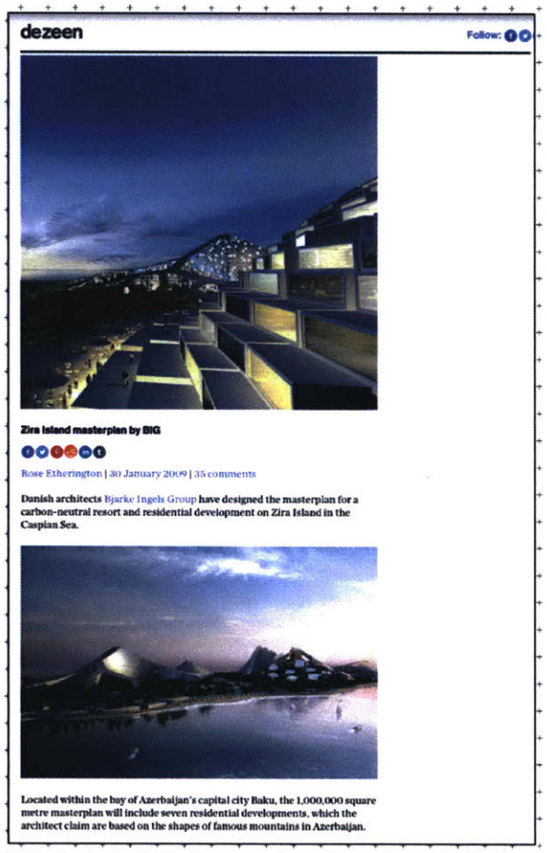
a transition which uses an architecture and urban design that is reliant on the **jargon of superlatives**, the **signature of starchitects**, and the power of **mass media image circulation** to project a utopic vision.



Baku Flame Towers by HOK - Archdaily



Heydar Aliyev Center by Zaha Hadid - Dezeen



Zira Island Masterplan by BIG Group - Dezeen

The Island

The thesis uses the island as a site for investigation and experimentation.

Both a geographical entity and a widely-used metaphor, the island is often defined through dualisms: utopic and dystopic; insular and yet connected.

The notion of territoriality is crucial here, where the island with its seemingly defined geographical boundaries is in fact part of a larger geological, socio-economic and political territory.

Thus, it often becomes a physical testing ground to realize different social and spatial propositions, such as urban segregation, the development of elite enclaves, exotic tourist attractions, and heightened securitization. (Baldacchino, 2006)

Azerbaijan

Baku, the capital of Azerbaijan is located on the Caspian Sea, the largest inland saline body of water in the world.

By the end of the nineteenth century, oil extraction in Azerbaijan became commercialized, instigated by two events. (Blau, 2012)

The first was the release of the Tsarist administration in St. Petersburg of oil land in Baku for sale in 1872.
New regulations abolished the contract system that was practiced until then and allowed private ownership of oil rich land.
The second event was the arrival of Swedish-Russian arms manufacturers and engineers Nobel brothers to Baku. By the turn of the 20th century, Baku was the center of international oil industry. (Blau, 2012)

By 1941, Azerbaijan was producing a record 23.5 million tons of oil, and the Baku region supplied nearly 72% of all oil extracted in the entire USSR. (Yusifzade, 1996)

Today, Azerbaijan's crude petrolium export accounts for 82% of its total GDP. (The World Bank- GDP ranking)


Azerbaijan

The Caspian Sea/Lake

The debate about how to delineate the Caspian Sea has continued for more than 25 years.

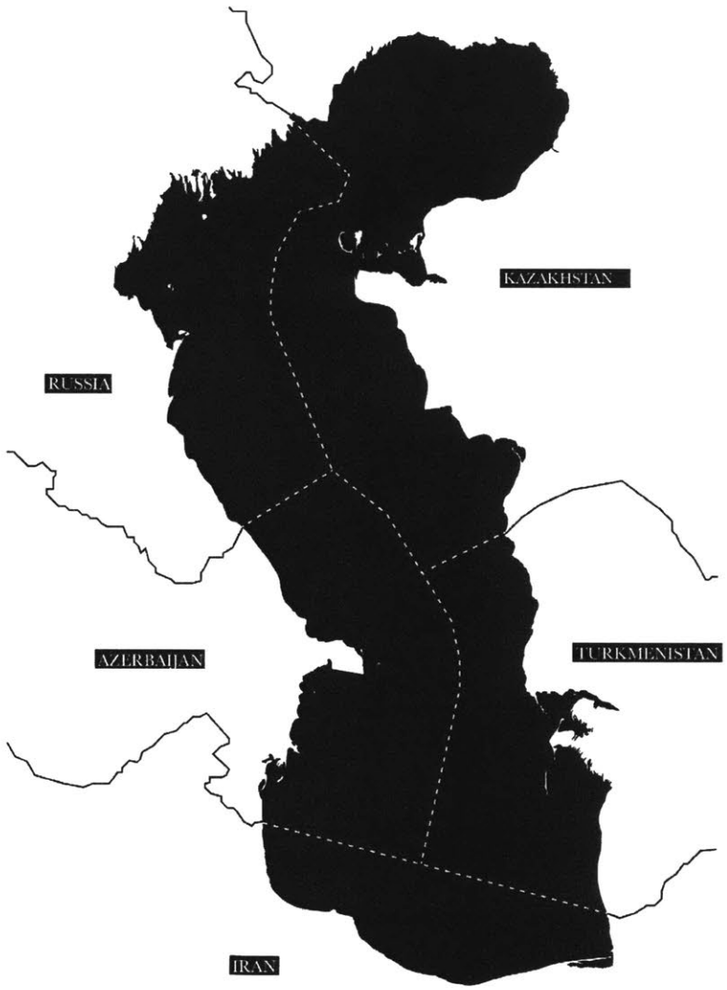
The unsettled question is whether the Caspian is a lake or a sea and which of two sets of public international law apply to the Caspian: the law of the sea if it is a sea or customary international law governing border lakes if it is a lake.

If the law of the sea is applied, the coastline and equidistance measurements from it are used to determine each country's economic exclusive zone.

If the Caspian is considered a lake, then each country would control 15 nautical miles from its shore for mineral exploration and then another 10 nautical miles for fishing. Everything else would be shared jointly between all the littoral countries. Furthermore, any major decision affecting the Caspian, such as the construction of a pipeline, would first need to be approved by all littoral countries. (Zimnitskaya; Geldern, 2010)

Islands become crucial here, as they define the baseline of the state.

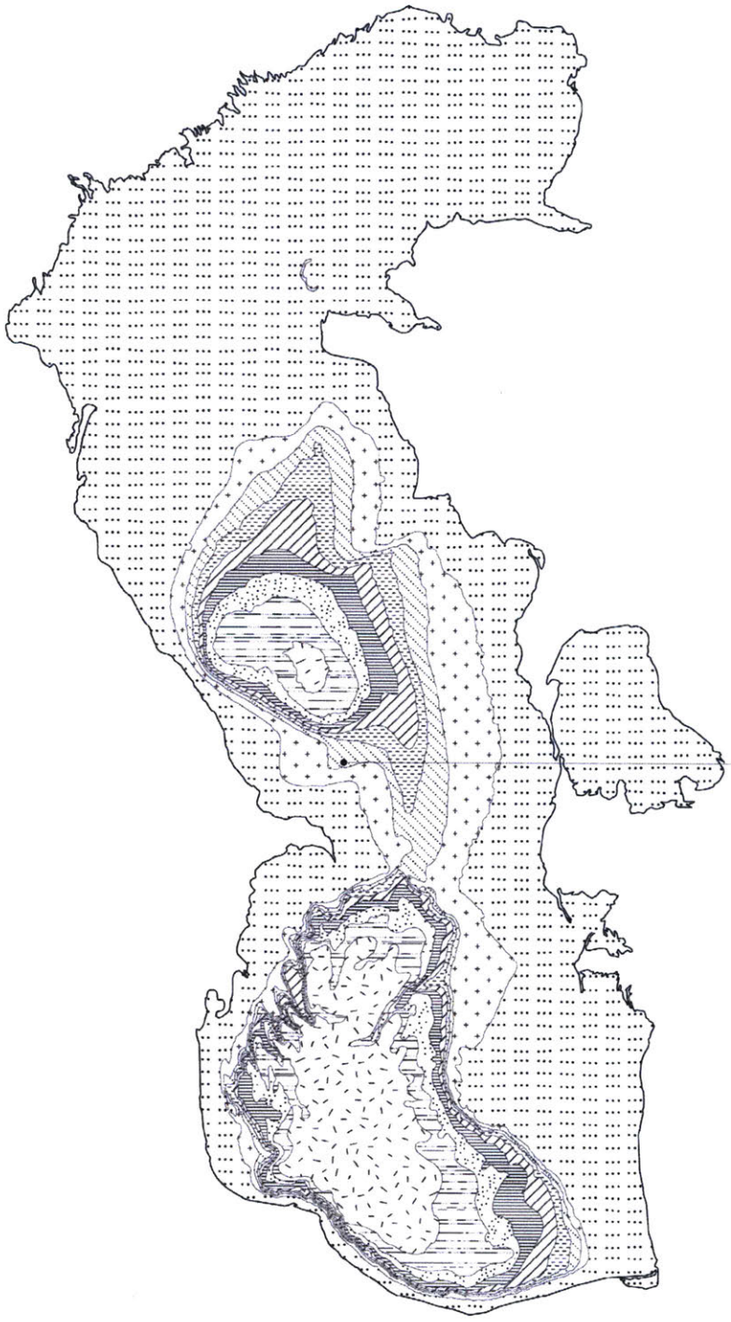
SEA *The law of the Sea uses the coastline and equidistant measurements to determine each country's exclusive economic zone.*



LAKE *Each country would control 15 nautical miles from its shore for mineral exploration and another 10 nautical miles for fishing. Everything else would be shared jointly among all of the littoral countries.*

The Ecosystem

Rich in Oil and Gas fields -$12 trillion worth of petroleum assets – it has been involved in energy production for the past century. The magnitude of fossil fuel extraction and transport activity in the Caspian has resulted in irreparable environmental damage.



Caucasian Grouse

Larus Cachinnans

Caspian Seal

Sturgeon

Oil Rigs

Oil Refinery

Oil Field

Gaz Field

Type: Endorheic, Saline
Area: 371,000 km2
Elevation: - 28 m
Islands: 26
Inflows: Volga, Ural, Kura, Terek Rivers

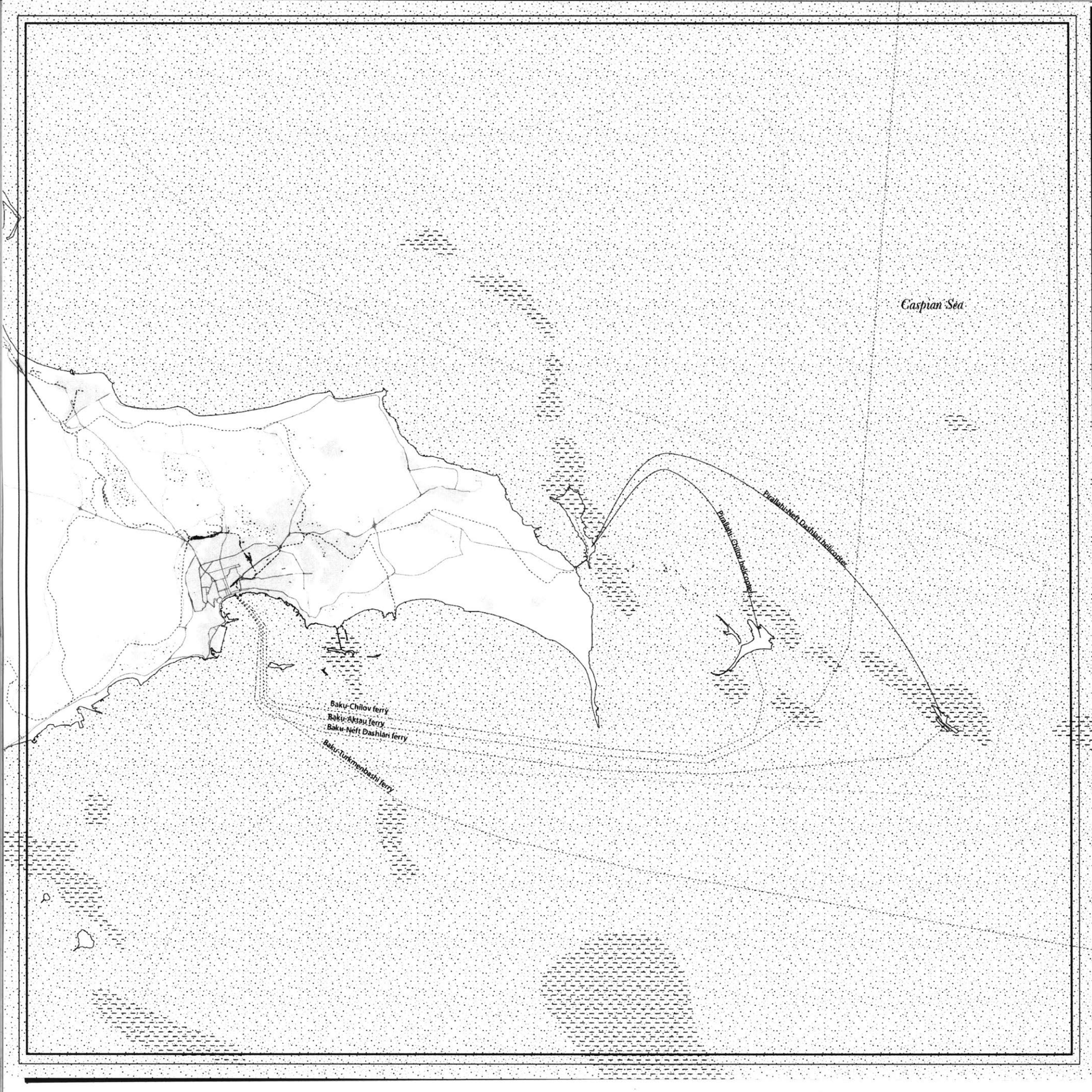
0 *250* *500 Km*

The Network

The natural and artificial islands off the coast of Baku were initially significant for their strategic role in protecting the mainland, but have been heavily involved in natural resource extraction and energy production for the past half century.

As oil and gas resources deplete and revenues fall, the state is considering alternative ways to diversify its economy. (Grant, 2014)

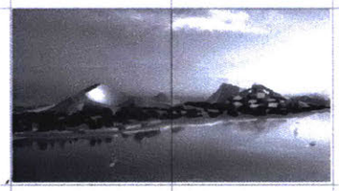
Hence, various post-extraction futures are currently being projected onto these sites, which are at varying stages of de-industrialization.


Caspian Sea
Pirallahi-Neft Dashlari helicopter
Pirallahi-Chilov helicopter
Baku-Chilov ferry
Baku-Aktau ferry
Baku-Neft Dashlari ferry
Baku-Turkmenbashi ferry

The Forces

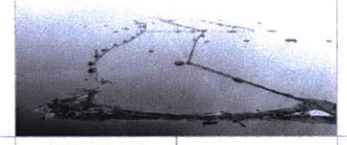
Two major forces currently shape these islands. First, economic force, which includes both the continued extraction of capital in the form of oil and gas from one field and a transition towards accumulation in the form of real-estate in another.

Secondly, ecological force, which encompasses both the manufacturing of artificial landscapes into the Caspian Sea and the destruction of land due to a degraded ecosystem and sea-level rise.



BOYUK ZIRA ISLAND

PIRALLAHI ISLAND



QUM ISLAND

CAPITAL ACCUMULATION

TAVA / DASH ZIRA ISLAND

CHILOV ISLAND

NEFT DASHLARI

CAPITAL EXTRACTION

BAHAR

SOCAR

SOCAR

SOCAR

SOCAR

OIL FIELD

GAS FIELD

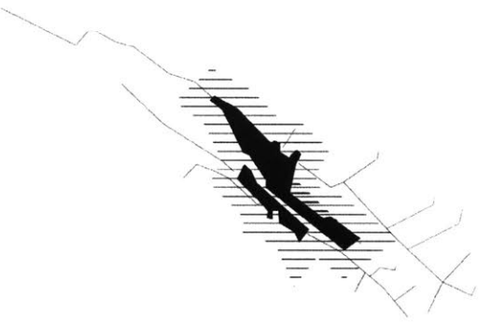
The Project

In addition to constructing an urban historiography of the islands, this thesis articulates a possible future for each island and presents an urban-spatial, socio-political critique of how the state has been exploiting these forces in the past and will possibly do so in the future.

The thesis presents a series of counter images that directly respond to the state's exploitation and challenges the prevailing paradigm of leisurely living.

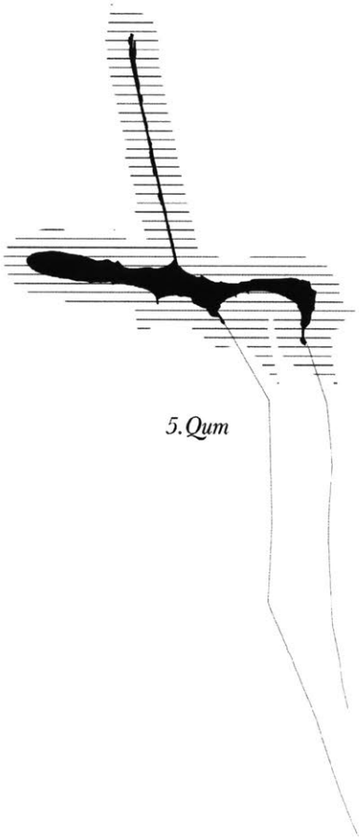
1.Pirallahi

2.Chilov



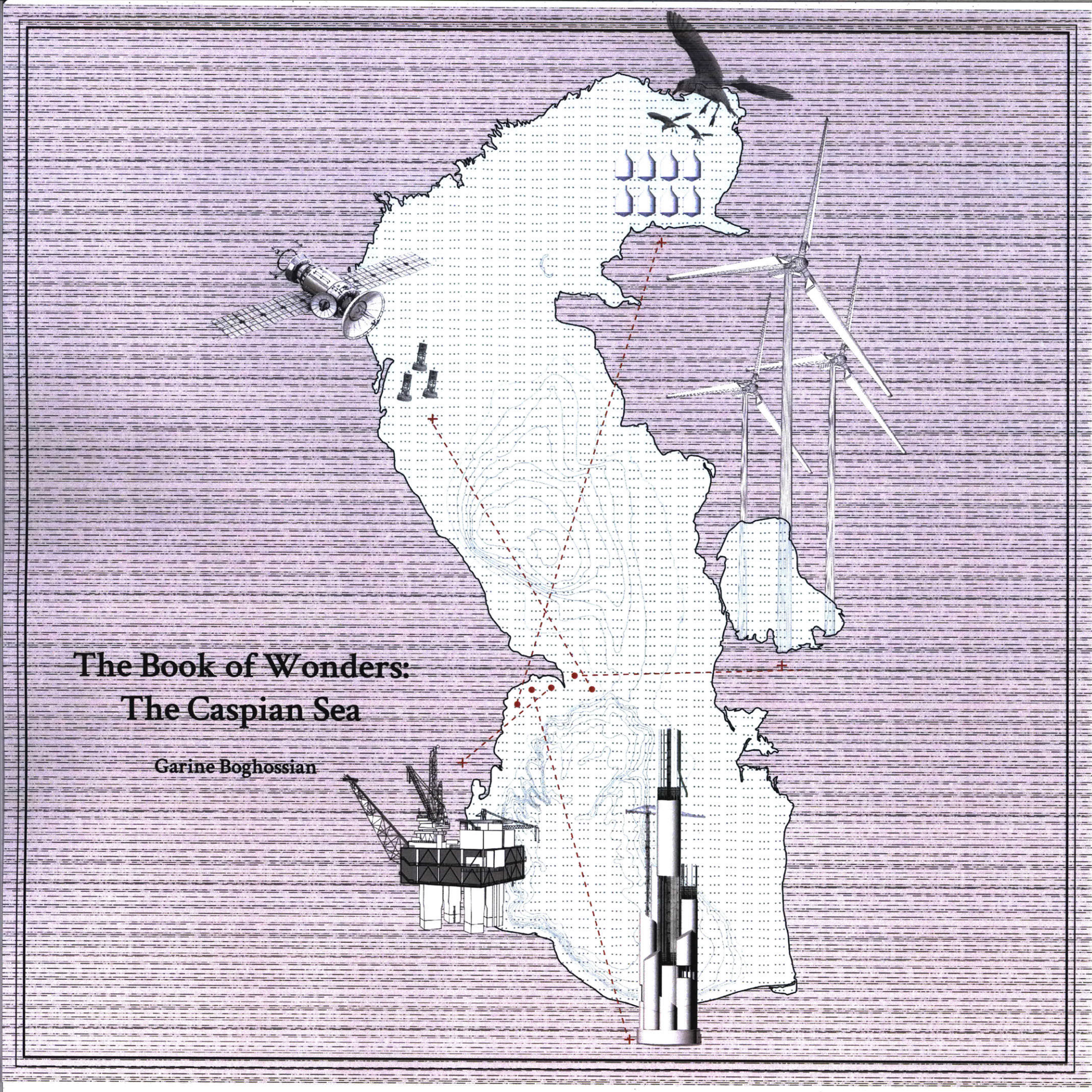
3.Neft Dashlari

4.Buyuk Zira



5.Qum

6.Dash



The Book of Wonders: The Caspian Sea

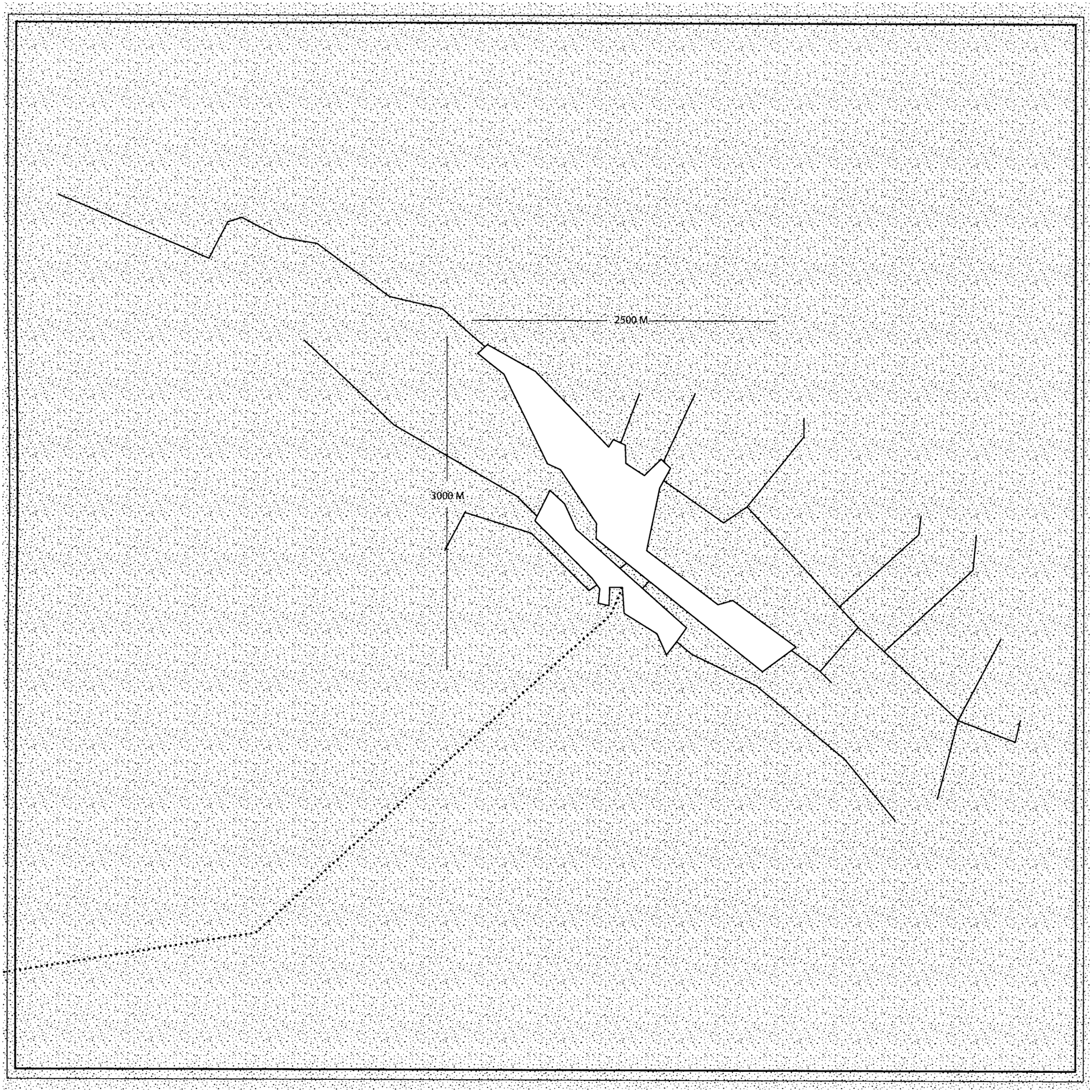
Garine Boghossian

Neft Dashlari

A Layer of Steel and Timber

Data Gathered:

Area: 2,500,000 sqm
Population: 1,500 bi-weekly residents
Economy: 170 million tons of oil and 15 billion m3 of associated natural gas over 60 years
Facilities: SOCAR Oil facilities, housing and related amenities
Past condition: 1949 field came online
Current condition: industrial settlement
Future condition: Abandonment
Ecology: Contaminated water


2500 M
3000 M

Historic image of Neft Dashlari's foundations

Historic image of Neft Dashlari's foundations

The backdrop of the floating city James Bond battled his way out of in the 1999 movie "The World Is Not Enough" was built in Britain's Pinewood Studios -- but it was inspired by the oil city: Neft Dashlari, far out in the Caspian Sea.

After the war with the Nazi Germany, Soviet engineers took a close look at a reef that mariners called the "Black Rock." In 1949, they struck top-quality oil at a depth of 1,100 meters below the seabed and shortly thereafter, the world's first offshore oil platform was built at the spot. (Architecture of the USSR, 1961)

A shot from the documentary Oily Rocks

A shot from the documentary Oily Rocks

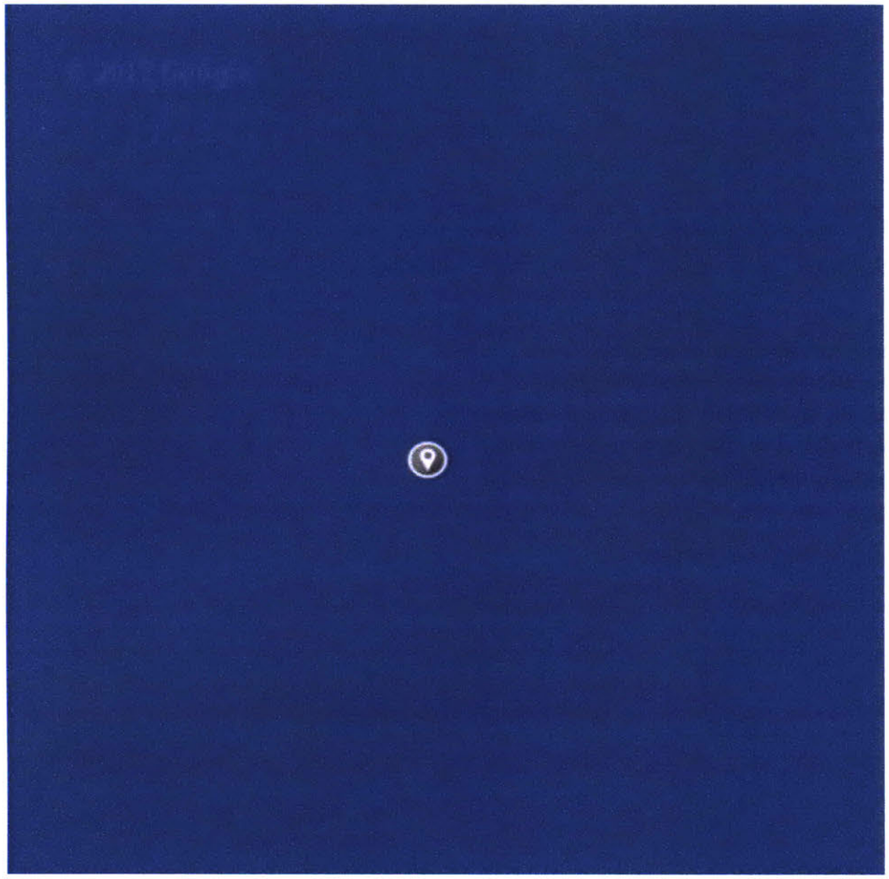
This many-armed monster of steel and timber gradually spread across the waves of the sea, with some 2,000 drilling platforms joined by bridges.

Eight-story apartment blocks were built for the 5,000 workers, along with a soccer pitch, library, 300-seat cinema, bathhouse, and even a tree-lined park for which the soil was brought from the mainland. (Architecture of the USSR, 1961)

It was a Stalinist utopia for the working class.

Mission Photographs, 1981.

Soviet Stamp, 1971.



Location of Neft Dashlari on Google Maps, 2017.

Visualization of Neft Dashlari through imaging has been integral to its identity.
Several attempts have been carried out to photograph the island from space.
The image on the left is from the mission photographs taken during the US space shuttle program in 1981.

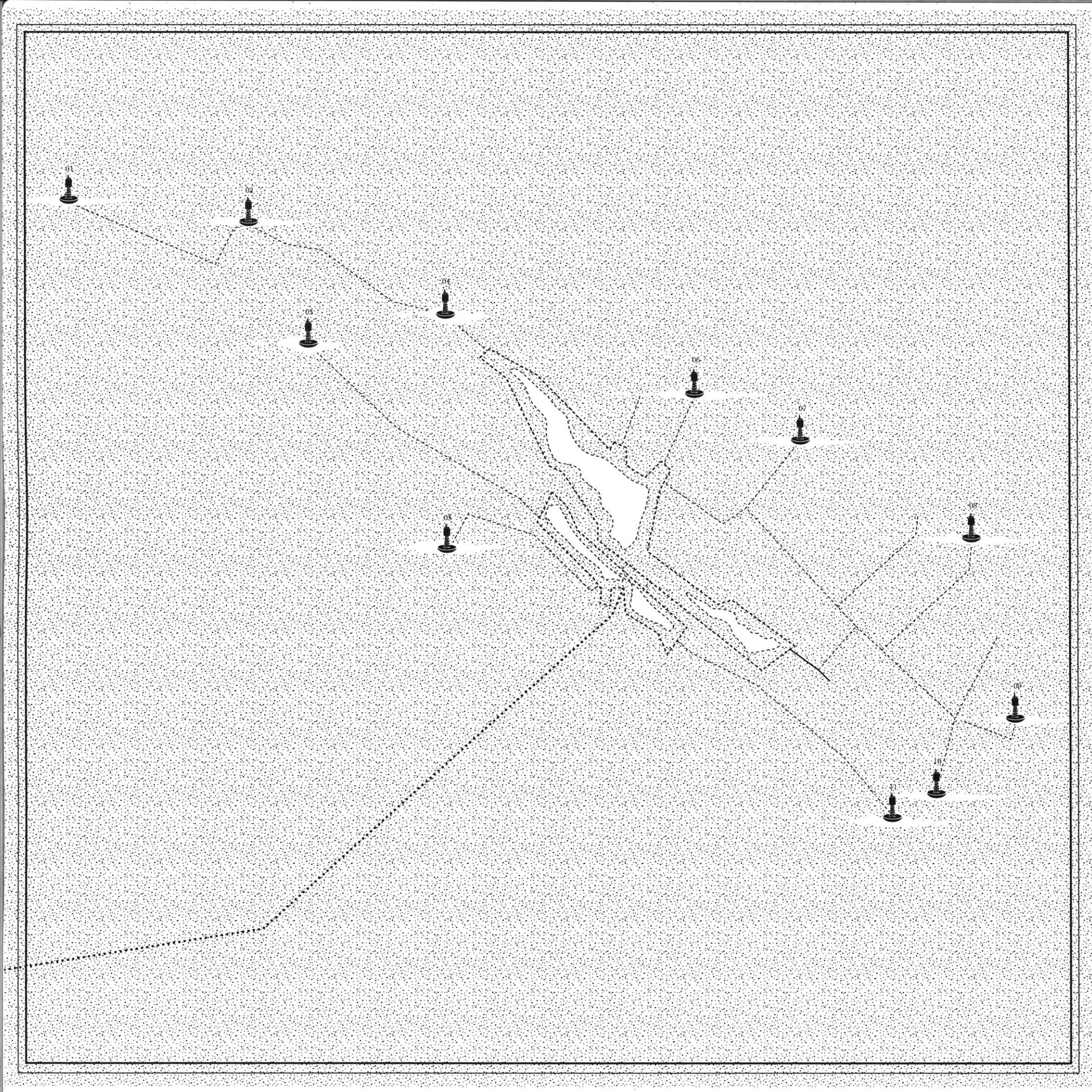
A Soviet stamp from 1971 condenses the island's gigantic hopes into a tiny image: against the black outline of a drilling rig, a road of bridges snakes its way across the deep blue sea towards the horizon through an endless series of oil rigs.

But there are few things as precarious as a world built on water and oil. The collapse of the Soviet Union ushered in the decline of this floating city as new oilfields were discovered elsewhere and the price of oil began to fluctuate.

The workforce has halved to 2,500, and most of the rigs are now out of use. Many of the old apartment buildings are now flooded and access to the city is now restricted to oil workers only.

The image of the utopic Soviet Neft Dashlari has since dissipated and the island is not even visible on Google Maps.

As navigation in these waters becomes extremely precarious and threatening to sea time travelers, a network of buoys mark the extremities of this island helping navigators traverse this landscape. In doing so, they create a representation for the site and mark its the territory on the world map.


01
02
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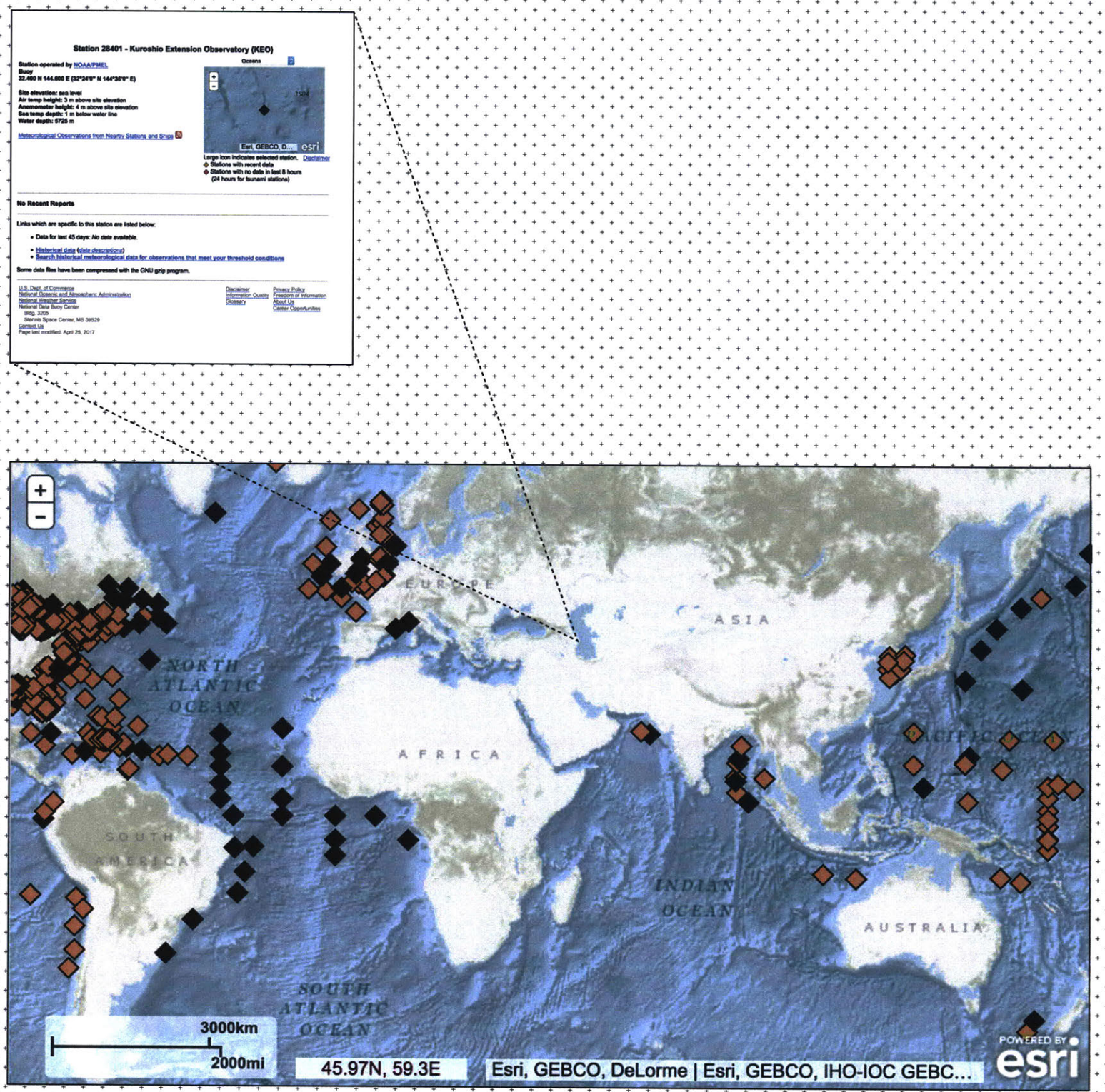
10
11

While the island itself and its infrastructure cannot be seen on maps, its industrial relics have deep implications for maritime activities.

The map to the right shows the marking of buoys that help sea travelers safe navigation across all 7 continents.


Station 28401 - Kuroshio Extension Observatory (KEO)
Station operated by NOAA/PMEL
Buoy
32.400 N 144.600 E (32°24'0" N 144°36'0" E)
Site elevation: sea level
Air temp height: 3 m above site elevation
Anemometer height: 4 m above site elevation
Sea temp depth: 1 m below water line
Water depth: 5725 m
Meteorological Observations from Nearby Stations and Ships
Oceans
TSM
Esri, GEBCO, D...
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Large icon indicates selected station.
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Stations with recent data
Stations with no data in last 8 hours
(24 hours for tsunami stations)
No Recent Reports
Links which are specific to this station are listed below:
Data for last 45 days: No data available.
Historical data (data descriptions)
Search historical meteorological data for observations that meet your threshold conditions
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Career Opportunities
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ASIA
NORTH ATLANTIC OCEAN
AFRICA
SOUTH AMERICA
INDIAN OCEAN
AUSTRALIA
SOUTH ATLANTIC OCEAN
3000km
2000mi
45.97N, 59.3E
Esri, GEBCO, DeLorme | Esri, GEBCO, IHO-IOC GEBC...
POWERED BY esri

The buoys delineate not only the configuration of the island, but also its industrial ruins that changed the nature of the sea forever. The steel and timber that supported the extraction of resources become part of the seabed adding a new topographic layer to the Caspian Sea.

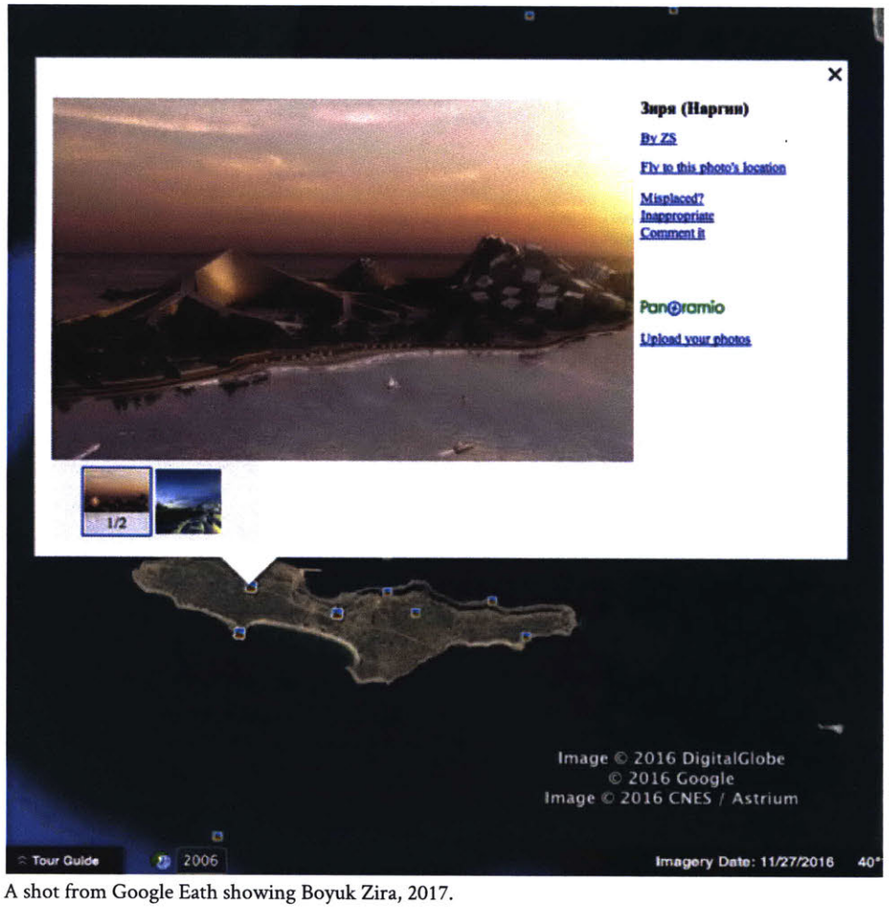
Kazar Islands

Pillars of the Future

Data Gathered:

Area: 3,000 hectares
Population: 1 million residents
Economy: 100 billion dollar city project
Facilities: 150 schools, 50 hospitals, parks, shopping malls, cultural centers, university campuses, a Formula-1 quality racetrack, and the Azerbaijan Tower
Past condition: Unclaimed seawaters
Current condition: Land reclamation completed, project on hold
Future condition: Undefined
Ecology: Contaminated water

Rendering of Kazar Islands, 2016.



A shot from Google Eath showing Boyuk Zira, 2017.

As Azerbaijan attempts to shift away from its fossil-fuel economy, it invokes a certain strategy to escape the past and to compete for global capital investment.

This transition is visible first along the changing skyline of Baku, but is also evident in widely circulating images and renderings of future projects, posted online and plastered on billboards across the city. (Grant, 2014)

A rendering by BIG architects, posted on an island's Google Earth location, blurs the boundary between image and reality and suggests that the project is in place. In fact, the island is currently used for natural gas extraction.

In Baku, the surplus of oil revenue, is translated into a surplus of images of promised futures. This embrace of fantastic drawings and videos suggests that architecture is being used to "opiate the masses" before implementation of these projects, and even without the necessity for any implementation. (Grant, 2014)

Dying Palm trees on Kazar Islands, Amanada Rivkin, 2012.

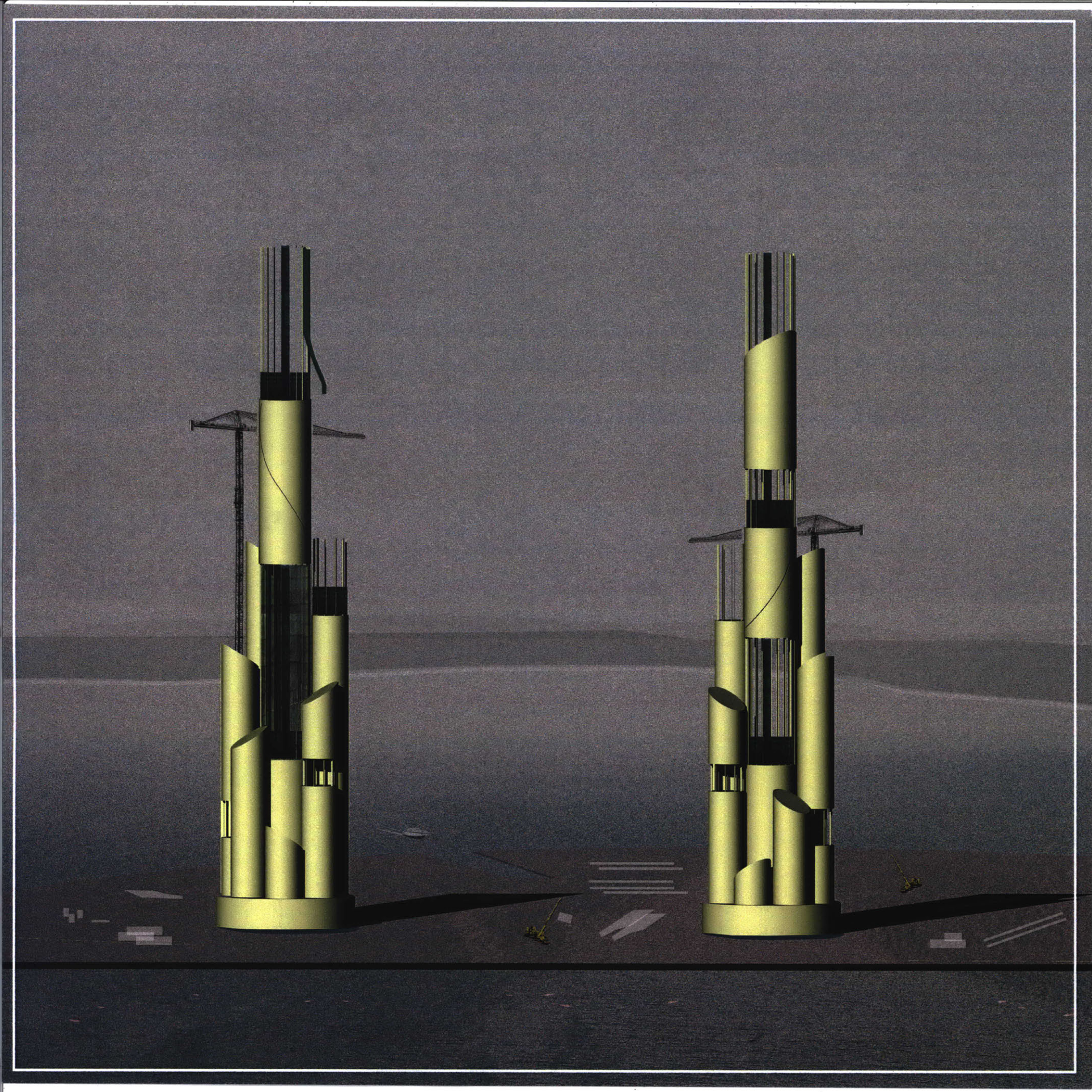
A shot from Google Earth, 2017

Here, land reclamation is used to create new sites for the "technological sublime".
Kazar island project was initially proposed as a creation of 41 artificial islands called a "New Venice for the Caspian".

Accumulation by dispossession takes on another form here, where a fluid and abstract resource for future public good is transformed into a solid and static elite private asset (Grydehøj, 2015)

"The new buildings were early signs of that turn for the better, a future of fulfilled dreams. That the buildings were empty was perhaps even a pre-condition for the maintenance of that dream, because as long as they were empty they belonged to the realm of the future and therefore remained potentially accessible to everyone. Empty buildings—emptiness itself—would leave the unevenness of 'progress' unseen".

Bruce Grant, The Edifice Complex: Architecture and the Political Life of Surplus in the New Baku

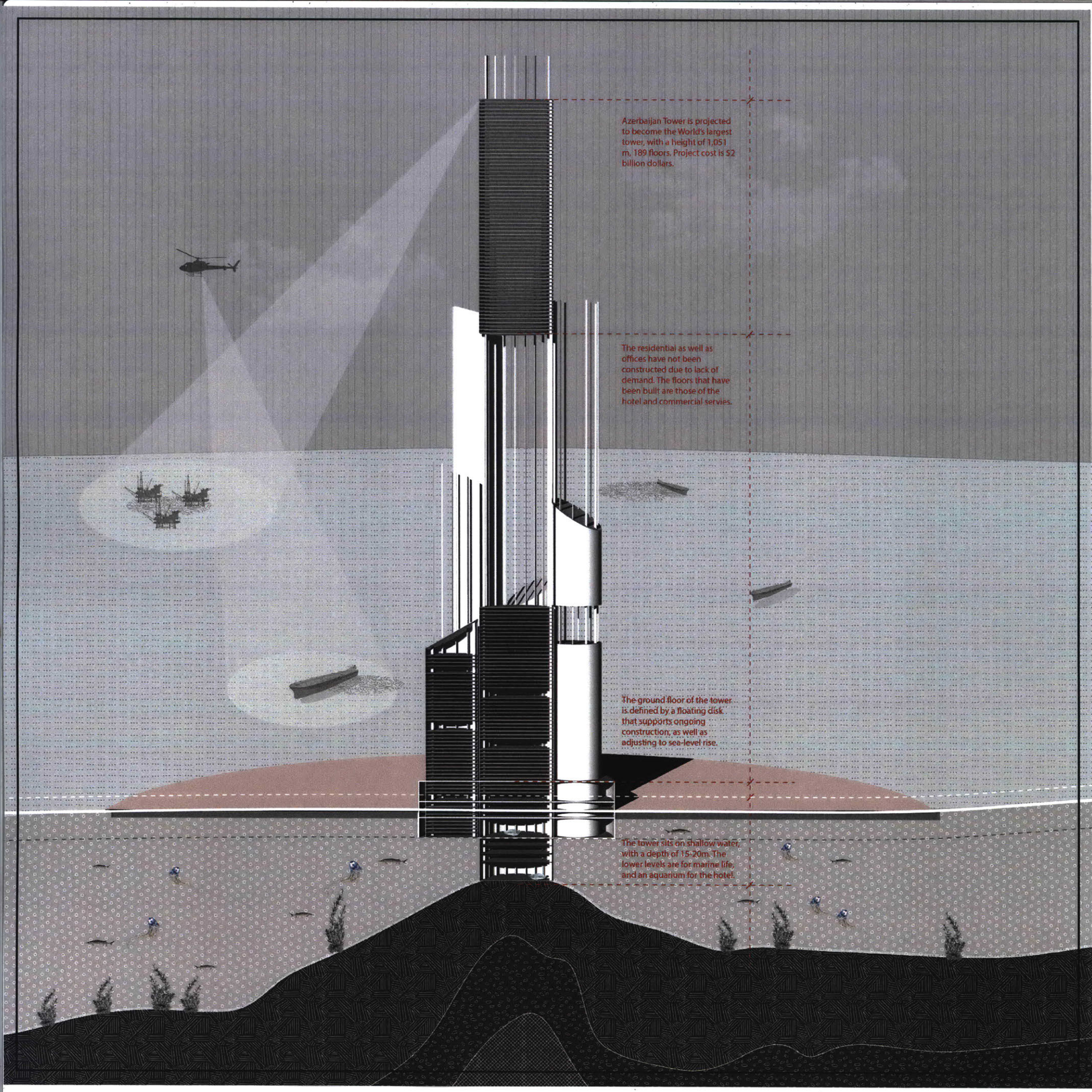


The pillars of the future embodied all the functions of the future promised but unrealized.

Tourists from all around the world come to the hotel and enjoy access to the 1,051m high observation deck and a view of the Caspian Sea, a full panorama of 21st century resource extraction and environmental degradation.

Next to oil rigs and tankers, oil spills and bad algae blooms color the sea a tone of green and black.

As sea level rises, the floating construction surface moves up and residential units on the lower floors are subsumed creating a new vista of marine wildlife fighting water pollution and debris.

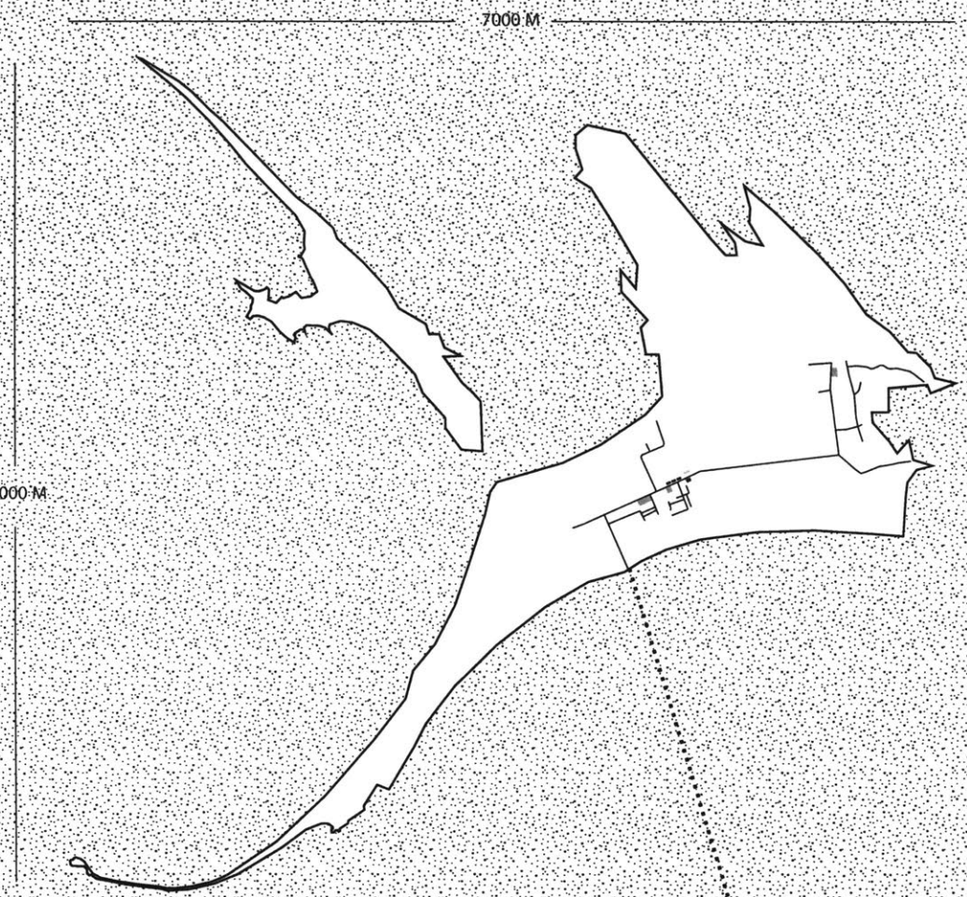

Azerbaijan Tower is projected to become the World's largest tower, with a height of 1,051 m, 189 floors. Project cost is $2 billion dollars.
The residential as well as offices have not been constructed due to lack of demand. The floors that have been built are those of the hotel and commercial servies.
The ground floor of the tower is defined by a floating disk that supports ongoing construction, as well as adjusting to sea-level rise.
The tower sits on shallow water, with a depth of 15-20m. The lower levels are for marine life, and an aquarium for the hotel.

Chilov Island

A grid of 180x180

Data Gathered:

Area: 9,700,000 sqm
Population: 1,700 residents
Economy: Oil extraction
Facilities: SOCAR oil facilities
Past condition: Field came online in 1948
Current condition: Oil extraction
Future condition: Wind energy harvesting site
Ecology: Contaminated soil and water
Connection to Mainland: 25 Km off Absheron peninsula, 100 km off city center of Baku


7000 M
7000 M

Chilov seen from a helicopter, Google Images

Issued stamp depicting Chilov lighthouse, 2013

Old houses in Chilov, Google Images

Chilov — is an industrial town with a population of around 1,700. Though 100 km from Baku's historic city center, French nautical maps of the caspian sea produced in early 1920s depict Chilov island "the inhabited island". The reasons behind a settlement on the island prior to the development of the oil industry is yet to be identified.

Chilov landscape, Google

Chilov sea-shore, Google

In 2013, the State Oil company expanded its operation near the site and installed new facilities to house the workers on the island. Access to the island is via ferry from Baku, or helicopter from Pirallahi Island.

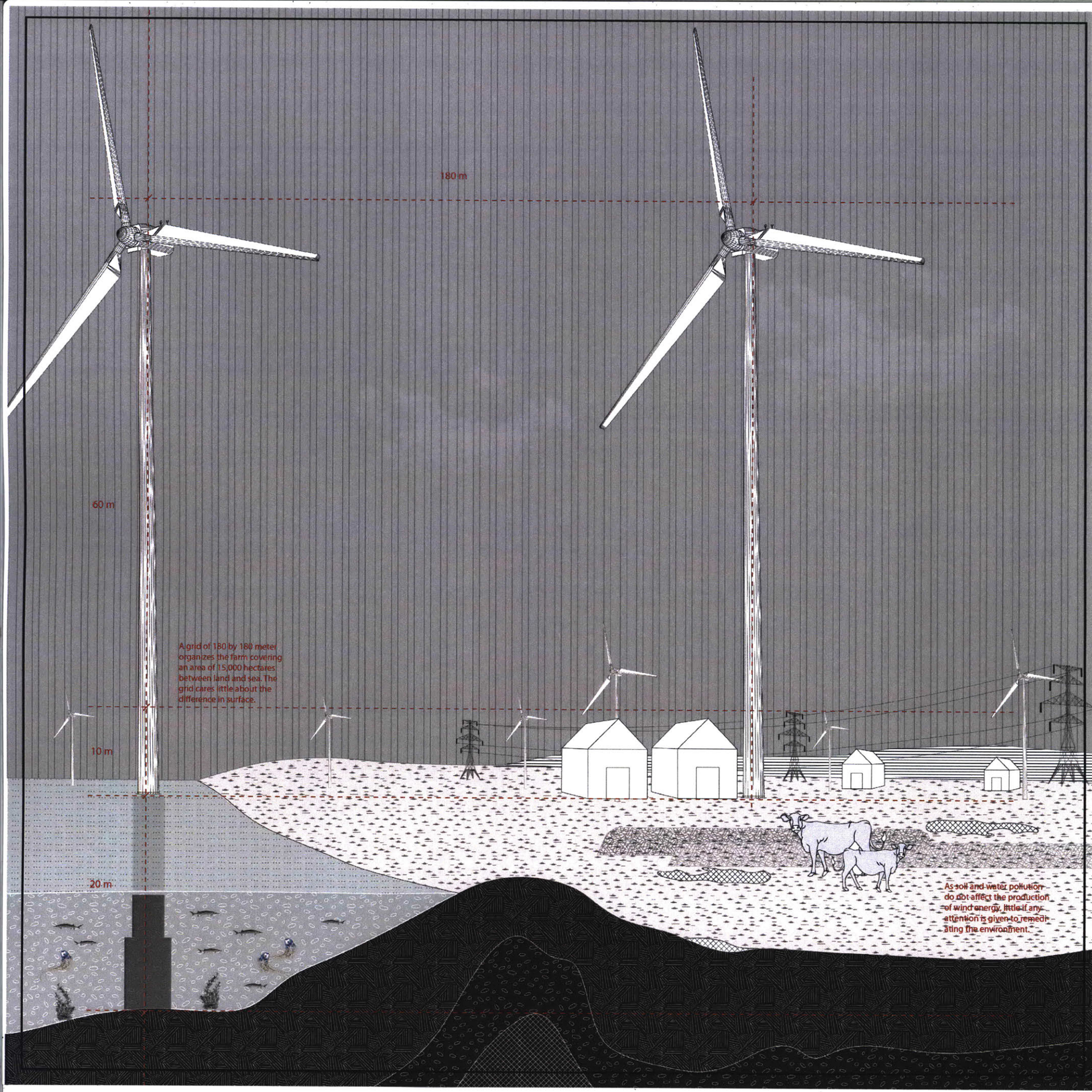
As an attempt to switch to post fossil-fuel energy system, Azerbaijan becomes a forerunner in wind energy production. Located in an area with high wind current, Chilov, an ex-oil company town receives a massive wind turbine farm that generates energy enough for all the capital city.

A grid of 180 by 180 meter organizes the farm covering an area of 15,000 hectares between island and sea. The grid is applied systematically and without regard to topographic diversity. A turbine is planted irrespective of the surface, both on water and on land.

Promoting a "green" and sustainable energy future, the company managing the wind farm is no other than the oil company responsible for oil and gas extraction for the past decades. As soil and water pollution do not affect the production of wind energy, little if any attention is given to remediating the environment.

Despite the difference between the height of the structure and the urban ground, the turbines overshadow the landscape and define the living units and agricultural lands.

Here, the promise of sustainable energy production is another form of exploitation as environmentalism is used as a smoke screen for classic resource extraction and capital accumulation.

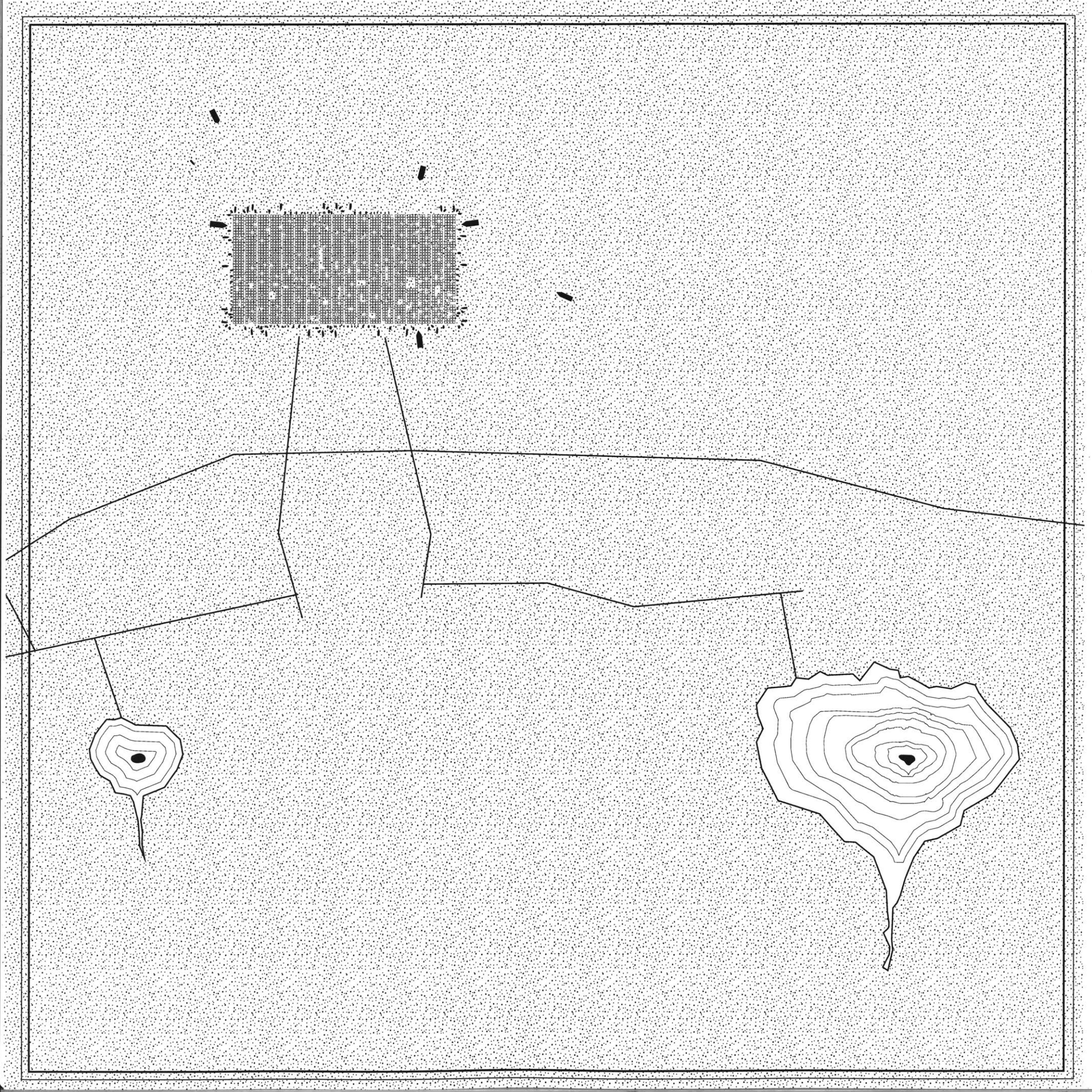

180 m
60 m
10 m
20 m
A grid of 180 by 180 meter organizes the farm covering an area of 15,000 hectares between land and sea. The grid cares little about the difference in surface.
As soil and water pollution do not affect the production of wind energy, little if any attention is given to remediating the environment.

Bulla, Zanbil Islands

Farming the Sea

Data Gathered:

Area: Bulla/3,500,000sqm, Zanbil/400,000 sqm
Population: no residents
Economy: Bulla/110 billion cubic metres of gas reserves
Facilities: Gas extraction facilities, water-level meter
Past condition: Bulla/Field came online in 1968
Current condition: gas extraction
Future condition: NA
Ecology: Contaminated soil and water
Connection to Mainland: 45 Km off city center of Baku, accessible by ferry



United Nations Law of the sea differentiates an island from a rock, the latter being those islands which cannot sustain human habitation or economic life of their own. Rocks have no exclusive economic zone where as islands do.
(UNCLOS, 1982)

While resources in the Caspian Sea deplete, some islands are faced with the threat of losing their status as islands.

As economic zones are important assets to states, Azerbaijan embarks on a mission to extend economic life of its islands. Such is the case for Bulla and Zanbil islands, both previously engaged in gas extraction in the area.

PART VIII

REGIME OF ISLANDS

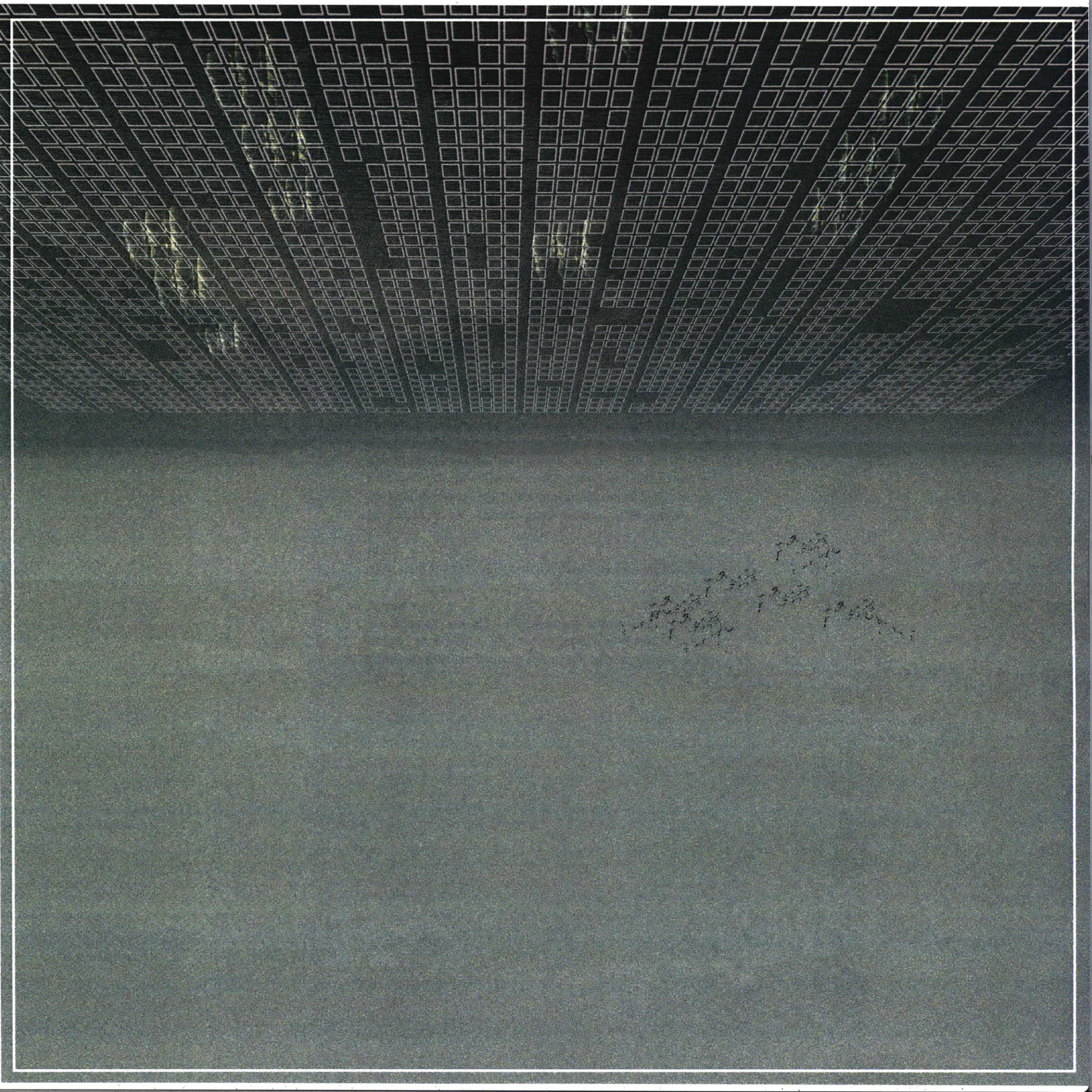
Article 121
Regime of Islands

1. An Island is a naturally formed area of land, surrounded by water, which is above water at high tide.

2. Except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory.

3. Rocks which cannot sustain human habitation or economic life of ther own shall have no exclusive economic zone or continental shelf.

As the most rare and expensive form of caviar comes from the critically endangered beluga sturgeon that swims in the Caspian Sea, the islands become involved in mass scale sturgeon farming that will cater enough caviar to all the poachers across the East and West.

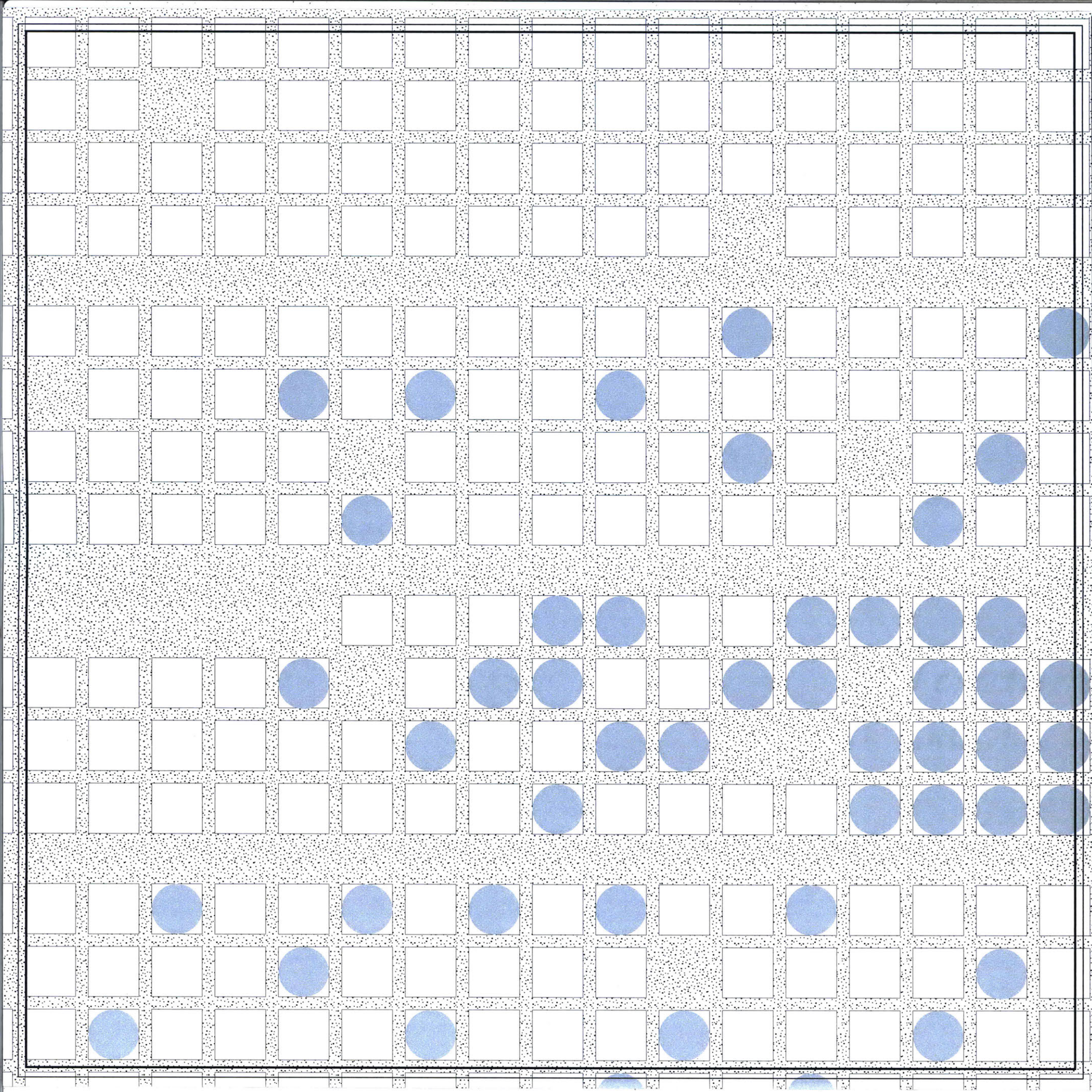


Inspired from the name of one of the islands, Zanbil, which means "a big basket" in Persian, a network of caviar "zanbils" are installed creating a matrix of fishtanks between the two islands.

Each tank is a plot of controlled habitat for caviar production.

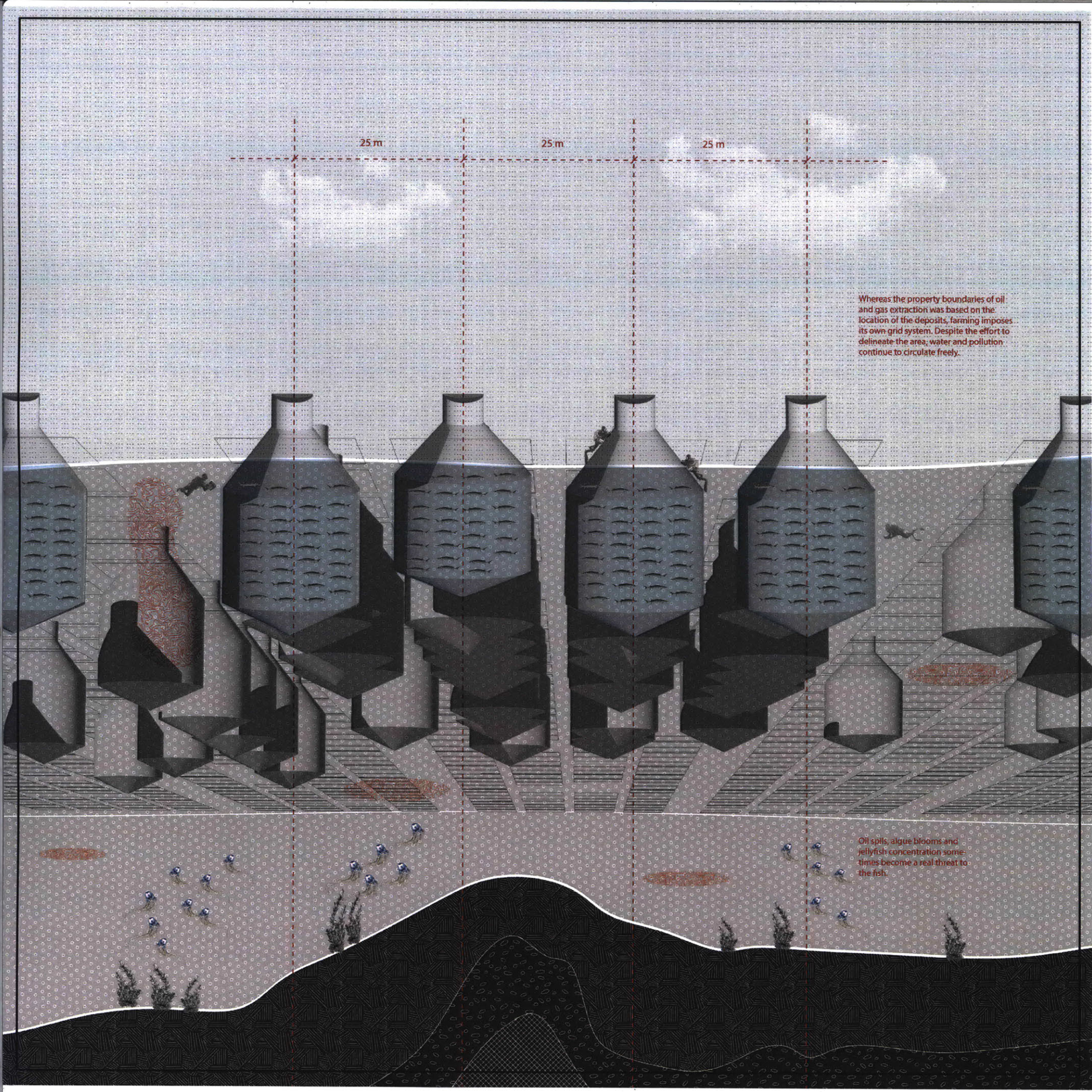
But, whereas the property boundaries of oil and gas extraction followed non-linear grid based on the location of deposits, farming imposes a regular grid as a way to delineate property boundaries.

Despite that effort, water and pollution continue to circulate freely.



The fish farm is regularly visited by farmers from the two islands, who are responsible for maintaining favorable conditions for the fish in place. Oil spills, algae blooms and jellyfish concentration often endanger the fish population.

While some argue that the Caspian caviar is the best in the world, others question the quality of water in which these sturgeons grow.

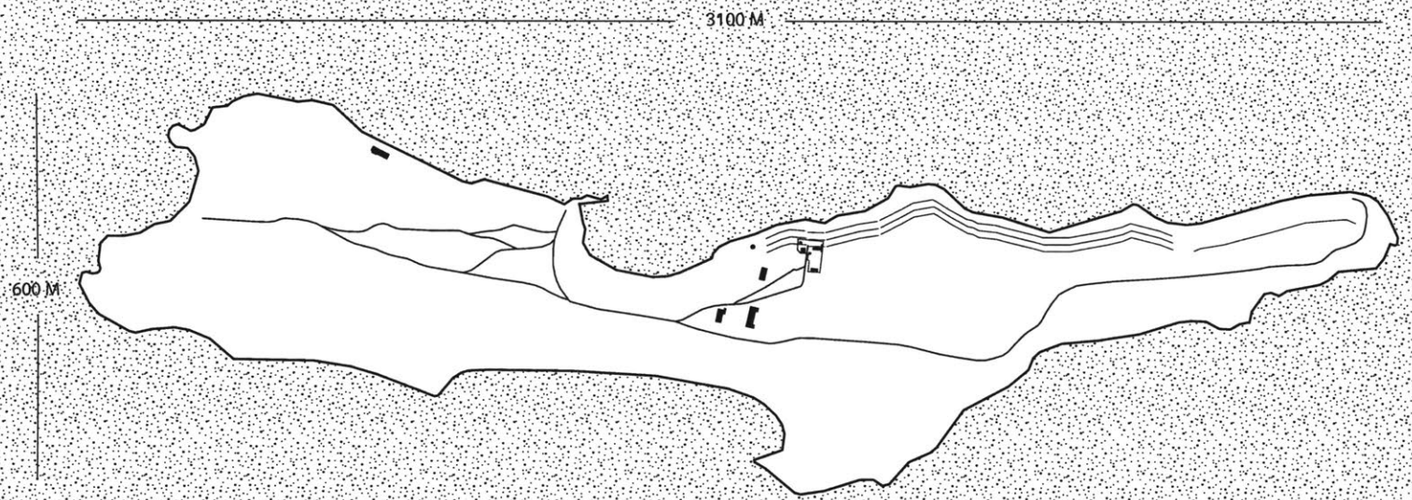

25 m
25 m
25 m
Whereas the property boundaries of oil and gas extraction was based on the location of the deposits, farming imposes its own grid system. Despite the effort to delineate the area, water and pollution continue to circulate freely.
Oil spills, algue blooms and jellyfish concentration sometimes become a real threat to the fish.

Boyuk Zira, Qum, Vulf Islands

Land of Refuse

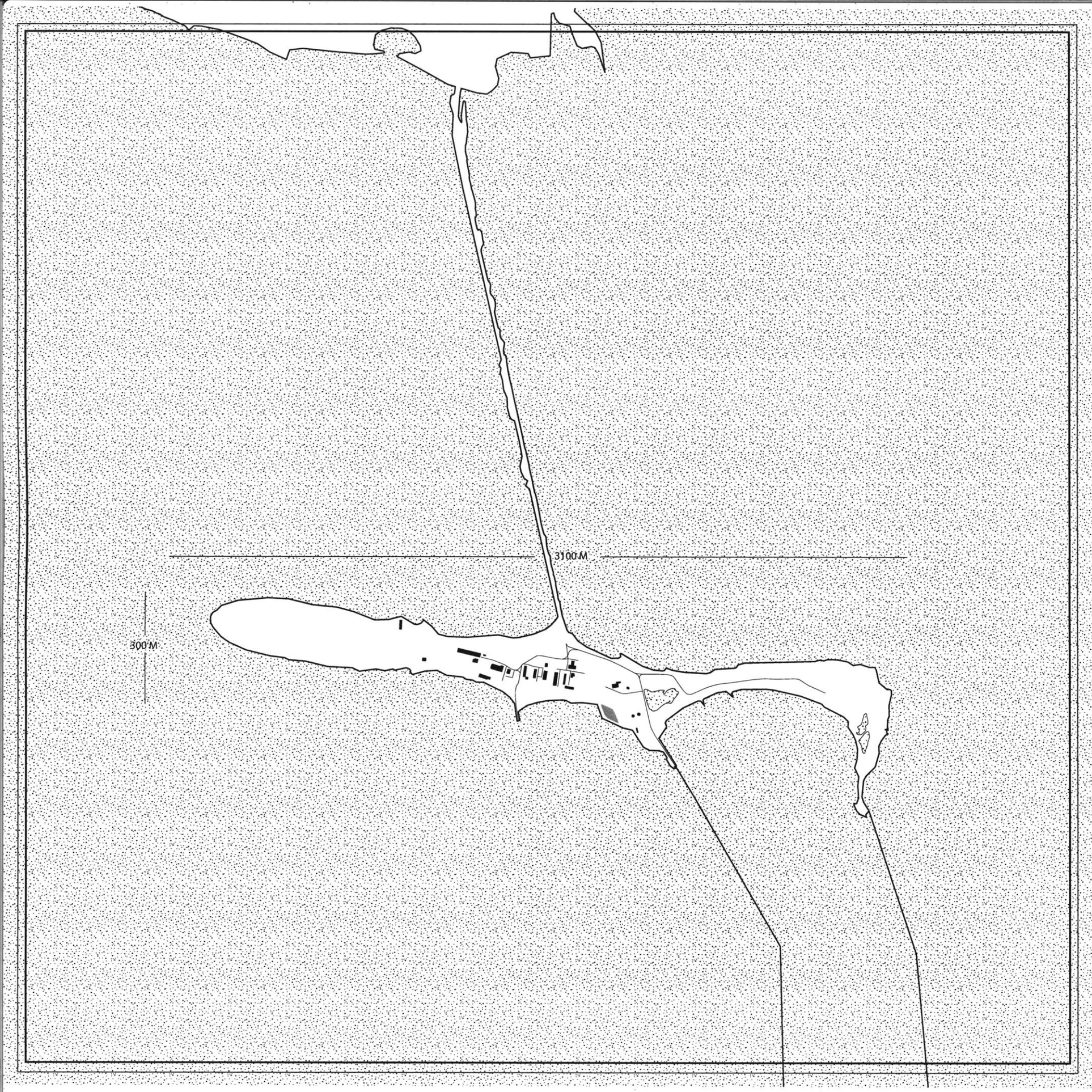
Data Gathered for Boyuk Zira island:

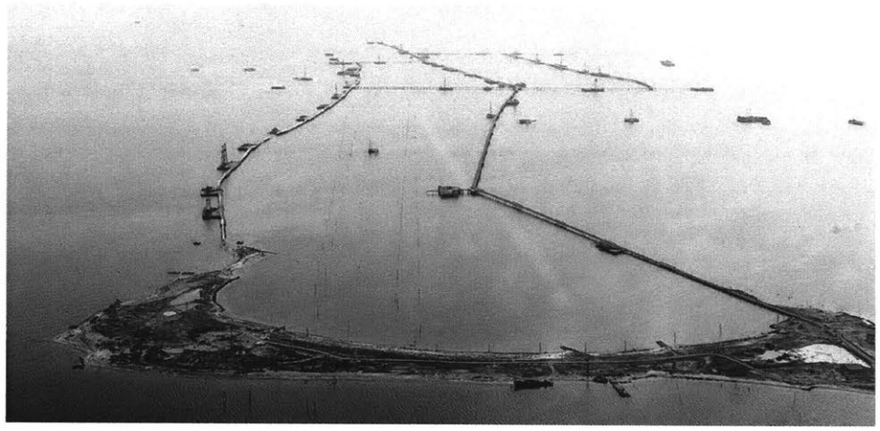
Area: 1,000,000 sqm
Population: 1,700 residents
Economy: 2 billion dollar projected city
Facilities: Gas extraction facilities, prison structures, a lighthouse
Past condition: Azeri Gulag of Soviet Union
Current condition: Gas extraction
Future condition: Zero energy leisure resort town
Ecology: Contaminated soil and water
Connection to Mainland: 20 minutes by ferry (46km/h)


3100 M
600 M

Data Gathered for Qum Island:

Area: 775,000 sqm
Population: Oil workers during the day
Economy: Gum Deniz oil fields (contains 2.7 million tonnes of oil)
Facilities: BAHAR oil facilities
Past condition: Field came online in 1953
Current condition: Oil and gas extraction
Future condition: Unknown
Ecology: Contaminated soil and water
Connection to Mainland: Gated 2.5 Km road to mainland


3100 M
300 M



Aerial view of Qum, Google Images

Gated entrance to the island

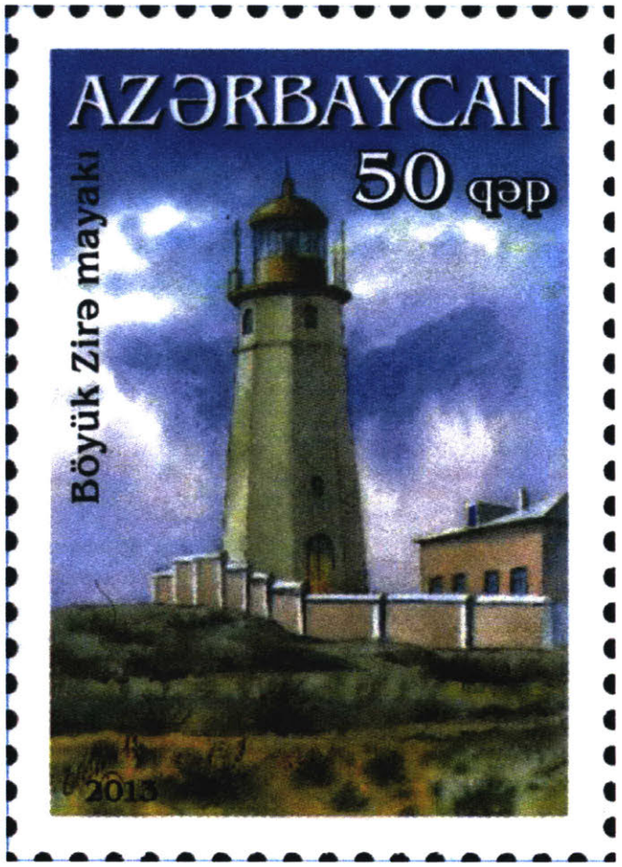
Road connecting the island to the mainland

Qum is an industrial settlement connected to Baku's mainland via a gated vehicular road accessible only to workers in the oil company managing the site. Its urban form hasn't changed since the installment of oil facilities on site. However, as new oil reserves are discovered, the island has been expanding its transportation networks towards the south where Qum Deniz oil fields are located.

Qum does not host any residential facilities, making it solely an industrial settlement. As a result, the area connecting the island to the mainland has developed into a residential neighborhood within the last decade, acting as a residential anchor to the industry.

Boyuk Zira from a short distance, Google images

Lighthouse, abandonned ships near island



Issued stamp depicting lighthouse on Boyuk Zira, 2013

Zira, is a natural uninhabited island within the Baku archipelago with a few decaying structures from the soviet era. Formerly important for its military role in protecting the Baku bay from southern invasions, it has been used as a prison, acting as the Azeri Gulag during the Soviet union. It is now under the control of the ministry of Defense.

A recent masterplan by BIG architects propose to transform the island to a carbon neutral resort and residential development.

As new oil reserves were discovered, the island expanded its transportation networks towards the south where a major oil field is located. With a suitable infrastructure, the island eventually turned into a private yacht club.

While the island housed the general and their families who guarded over the prison, it also became a dumping ground for ships and a graveyard for political prisoners. Unlike other islands, zira's raised elevation have made it a highly desirable place for large scale real estate investment including a new beach resort town.

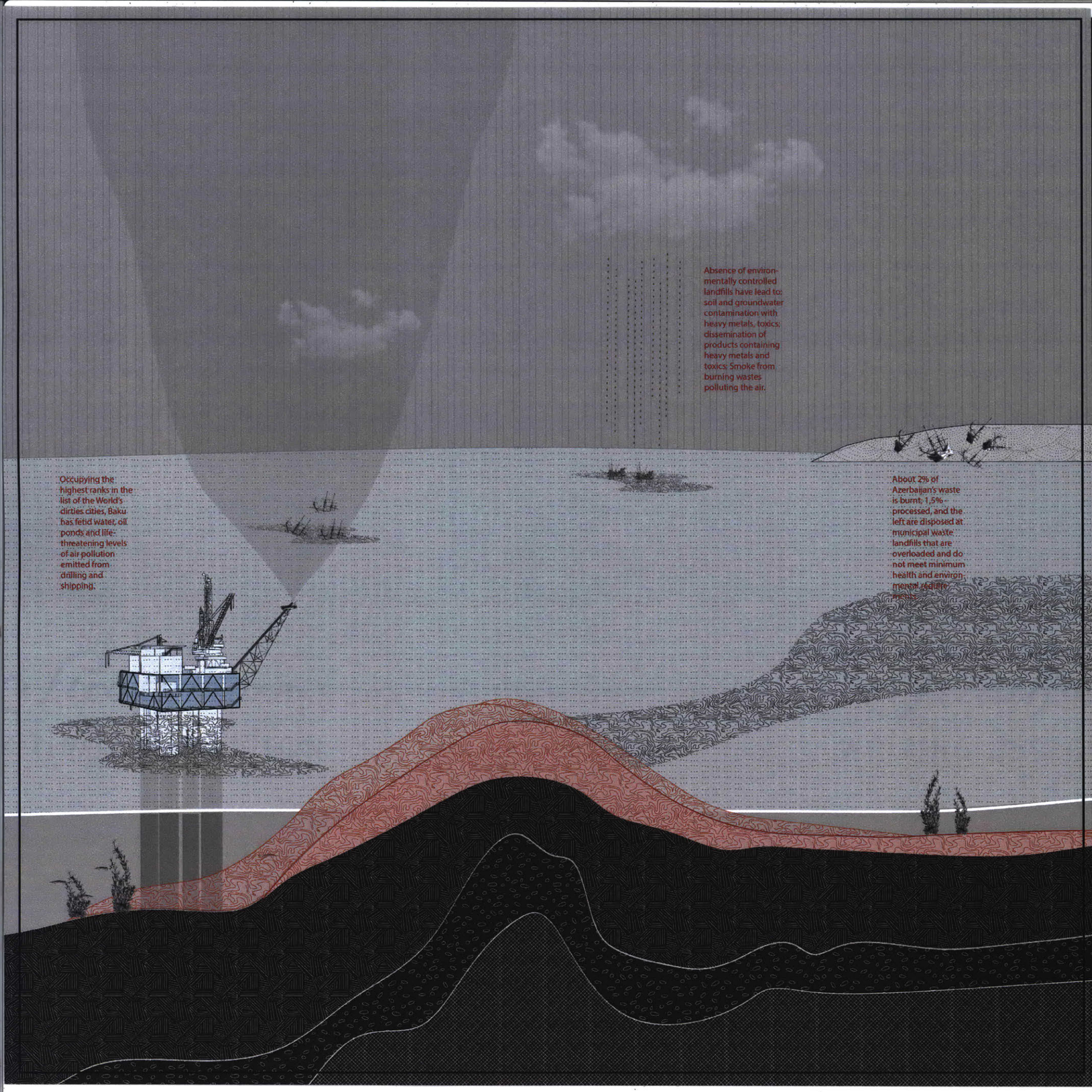
Ruins from the prison settlement, Google images.

The smallest island Vulf, between Qum and Buyuk Zira, was once a resting ground for Caspian seals. As the island got submerged into the sea, authorities fearing the loss of real estate, decided to turn the island it into a landfill with the promise of converting it to a park.

As the landfill expanded and the promise of a park faded, tension between the resort and the landfill grew.

Surrounded by Qum yacht club on the right, with its privatization and exclusivity and Boyuk resort town on the left with its morbid history of exile and militant inaccessibility, the land of refuse both alludes to the byproducts of industrial pollution and embodies the waste inherent to consumer culture.

Unlike oil and gas that circulated in the sea and polluted it before reaching the mainland as black gold ready to be sold, discarded matter from mainland found their final resting place in the sea, turning it once again to a dumping site.

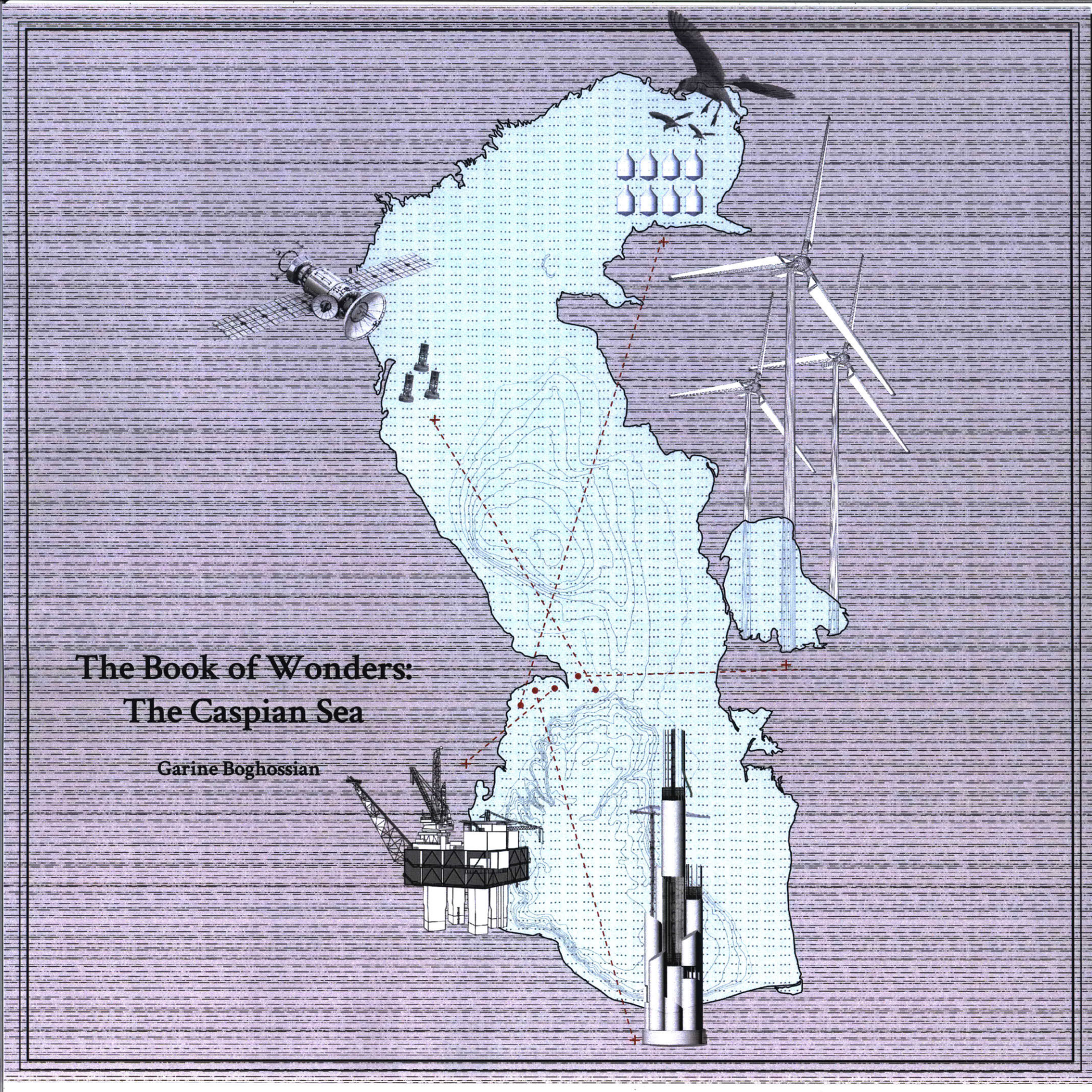

Absence of environmentally controlled landfills have lead to: soil and groundwater contamination with heavy metals, toxics; dissemination of products containing heavy metals and toxics; Smoke from burning wastes polluting the air.
Occupying the highest ranks in the list of the World's dirties cities, Baku has fetid water, oil ponds and life-threatening levels of air pollution emitted from drilling and shipping.
About 2% of Azerbaijan's waste is burnt, 1,5% - processed, and the left are disposed at municipal waste landfills that are overloaded and do not meet minimum health and environmental regulations

As Azerebaijan's government attempts to redefine its capital city's image as a **world-class city**, extreme social, environmental, economic and political realities of the islands, essential for the city's growth, are disregarded.

Here the project of "the island", as the site for investigation and experimentation, is not only descriptive of the **industrial economy's shift to that of leisure and real estate**, but also a metaphor of how livelihoods are made and unmade, and how belonging is constructed and contested.

As extraction of labor through service economy replaces that of extraction of natural resources, architectural renderings become crucial in not only attracting capital investment to rebrand the city but also in hiding the **politics of accumulation and dispossession** in place.

The thesis presents countervailing images to those typically circulated in such contexts.
In doing so, it attempts to open space for a new form of imaging and city making, grounded in the reality of the place to envision a better life for all.



The Book of Wonders: The Caspian Sea

Garine Boghossian

Bibliography

1) United Nations Convention of the Law of the Sea, 1982.
2) Islands' Sea-Areas: The Effects of Sea-Level Rise, Hayashi Moritaka
3) The Edifice Complex: Architecture and the Political Life of Surplus in the New Baku, Bruce Grant, 2014.
4) Cosmopolitan Baku, Bruce Grant
5) Is the Caspian Sea a sea; And why does it matter? Hanna Zimnitskaya, James von Geldern, 2010.
6) Urban boosterism in closed contexts: spectacular urbanization and second-tier mega-events in three Caspian capitals, Natalie Koch, Anar Valiyev, 2016
7) http://www.ziraisland.com/downloads/Mipim_brochure.pdf
8) The Society of the Spectacle, Guy Debord, 1994
9) http://www.nytimes.com/2013/02/10/magazine/azerbaijan-is-rich-now-it-wants-to-be-famous.html
10) Extrastatecraft: The Power of Infrastructure Space, Keller Easterling, 2014
11) Spaces of Capital: Towards a Critical Geography, David Harvey, 2001
12) http://www.big.dk/#projects-zir
13) Between fixity and motion: accumulation, territorial organization and the historical geography of spatial scales, Neil Brenner
http://sociology.as.nyu.edu/docs/IO/222/Brenner.EPd.1998.pdf
14) Making Ground, Losing Space: Land reclamation and Urban Public Space in Island Cities, Adam Grydehoj, 2015.
http://www.urbanislandstudies.org/UIS-1-Grydehoj-PublicSpace.pdf
15) Oil and Development in Post-Soviet Azerbaijan, David Hoffman
http://www.nbr.org/publications/analysis/pdf/vol10no3.pdf
16) http://www.oilru.com/or/44/925/
17) http://www.spiegel.de/international/world/exploring-the-crumbling-soviet-oil-platform-city-of-neft-dashlari-a-867055.html
18) Baku: Oil City in The New Europe, Eve Blau, In The Life of Cities: Parallel Narratives of the Urban (Lars Muller Publisher, 2012)
19) Cities and the Geographies of "Actually Existing Neoliberalism", Neil Brenner, Nik Theodore
20) http://www.hurriyetdailynews.com/the-post-oil-economic-environment-in-azerbaijan.aspx?pageID=238&nID=104506&NewsCatID=396
21) http://www.euronews.com/2010/11/26/azerbaijan-aims-for-hi-tech-state
22) http://www.macrotrends.net/1369/crude-oil-price-history-chart
23) http://www.timfranco.com/azerbaijan/gentrification/baku/
24) http://www.gc.noaa.gov/gcil_maritime.html#territorial
25) Managing the hinterland beyond: Two ideal-type strategies of economic development for small island territories, Godfrey Baldacchino, 2006.
26) Oily Rocks, Architecture of the USSR, 1961. (Text in Russian)
27) The city as an entertainment machine, Richard Lloyd, Terry Nichols Clar, In Reserach in Urban Sociology, 2001
28) Land, Terrain, Territory, Stuart Elden, 2010.