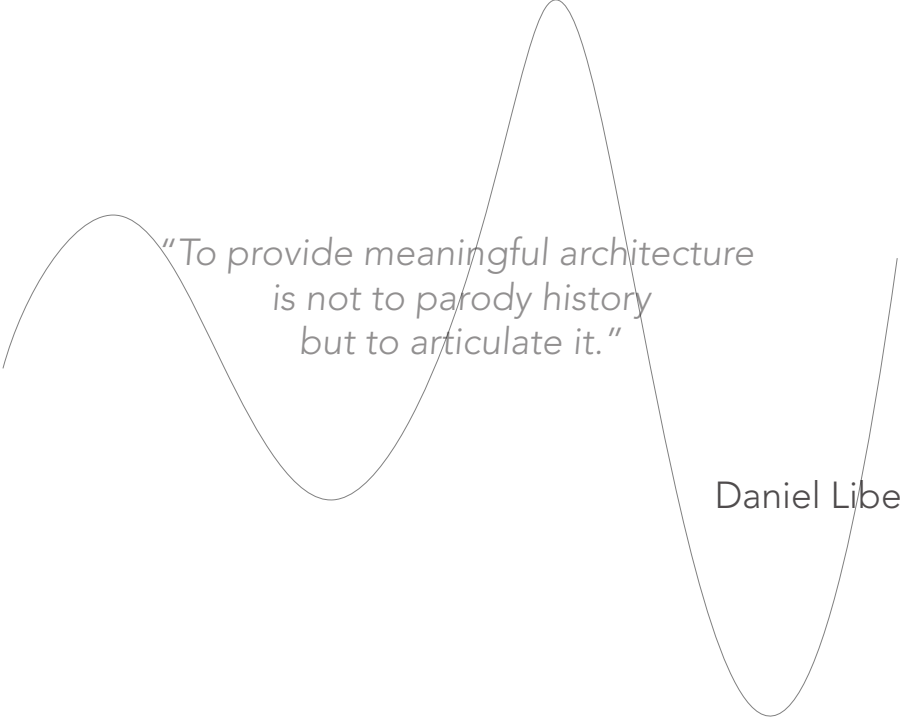


Project team:

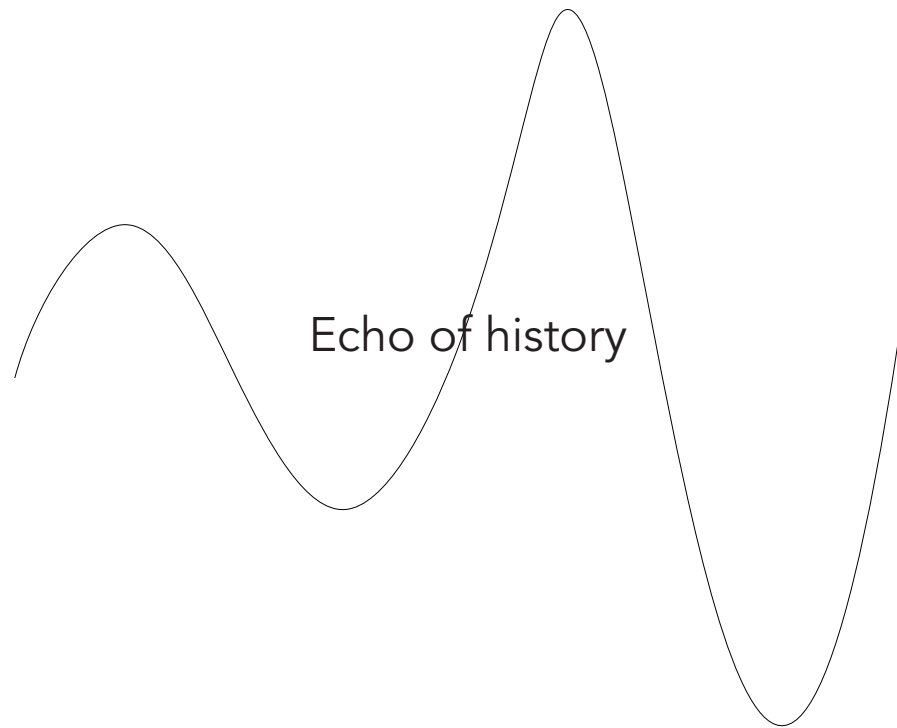
Judith Korpershoek - mentor
Daryl Mulvihill - committee member
Charles Hueber - committee member

Graduation Project by
Nedyalko Balev



"To provide meaningful architecture
is not to parody history
but to articulate it."

Daniel Libeskind





"Do you remember back in the day when?"

A common line amongst many Bulgarians who long for the past when "things used to be better". In Bulgaria "the past" refers to the Socialist regime when everything was more strict and there was less freedom. However, some things did work better.



Traditional folklore dancing as part of the PE lessons in school in the past



“Здрав дух в здраво тяло”
[zdrav dugh v zdravo tyalo] is Bulgarian for *Mens sana in corpore sano*

Mentality

Echo of History

Bulgaria's past holds many world recognized achievements, discoveries, contributions etc. in many different fields, most of which happened under Socialist rule. One of those fields is sports.

Sports was an integral part of everyone's life, almost like a daily routine. It was present and visible everywhere and good health was a must for people. During those times Bulgarian athletes were peaking in a variety of disciplines and competitions, bringing back medals and setting new records some of which still unbeaten.

For many people those achievements brought a sense of belonging, national pride as well as a shared motivation to perform better themselves in sport disciplines.



*Bulgarian Women Basketball Team, 1980
Silver Medal, Olympic Games - Moscow*



*Yordanka Donkova,
Gold Medal, Women's 100m Hurdles
Olympic Games Seoul, 1988*



*Stefka Kostadinova,
World record for Women's high jump, 1987*

Sports and physical education was the window front of Socialism and our tiny country was achieving great success on a daily basis. Champions, world records and victories were something common at the time.

Peak times were reached at the 1988 Olympics in Seoul when Bulgaria was ranked 6th in the world by number of medals and honors received – 10 gold, 12 silver and 13 bronze medals over a variety of disciplines.

Achievements

Echo of History



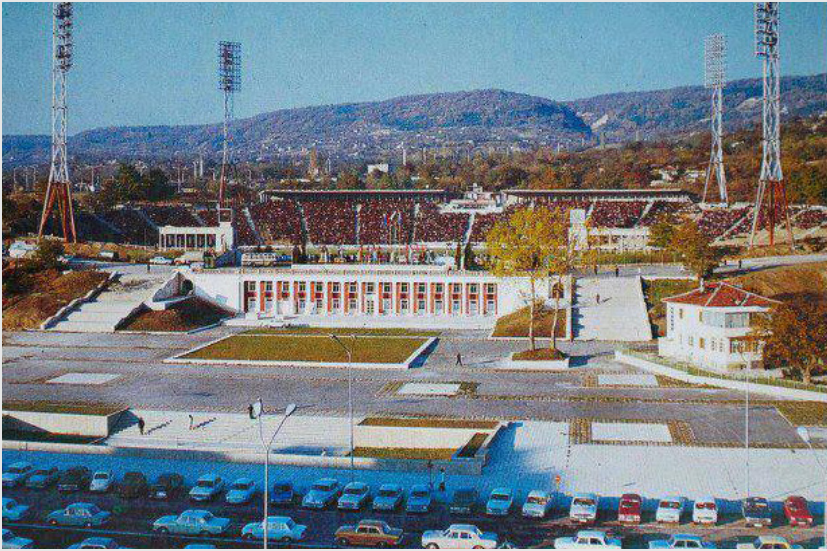
Bulgarian statesman Todor Zhivkov celebrating together with athletes

During the Socialist regime sporting events were used as a means of political bonding as well. Participation in international events were very important especially after WWII for every country. Of course this brings up much excitement not only for the participants but for their fellow country men and women too.

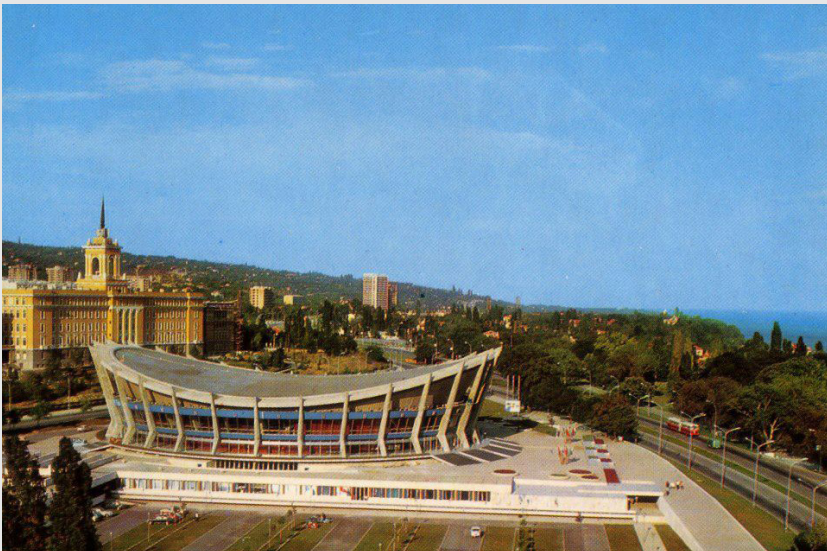
Between 1962 and 1988 Bulgaria had a curve of going only up on both Global and Local international events: ranging from friendly "Border football" games between neighbouring cities on each side of the border to the golden medals of the Olympics.

Pride

Echo of History



Yuri Gagarin Stadium, Varna



Palace of Culture and Sports, Varna



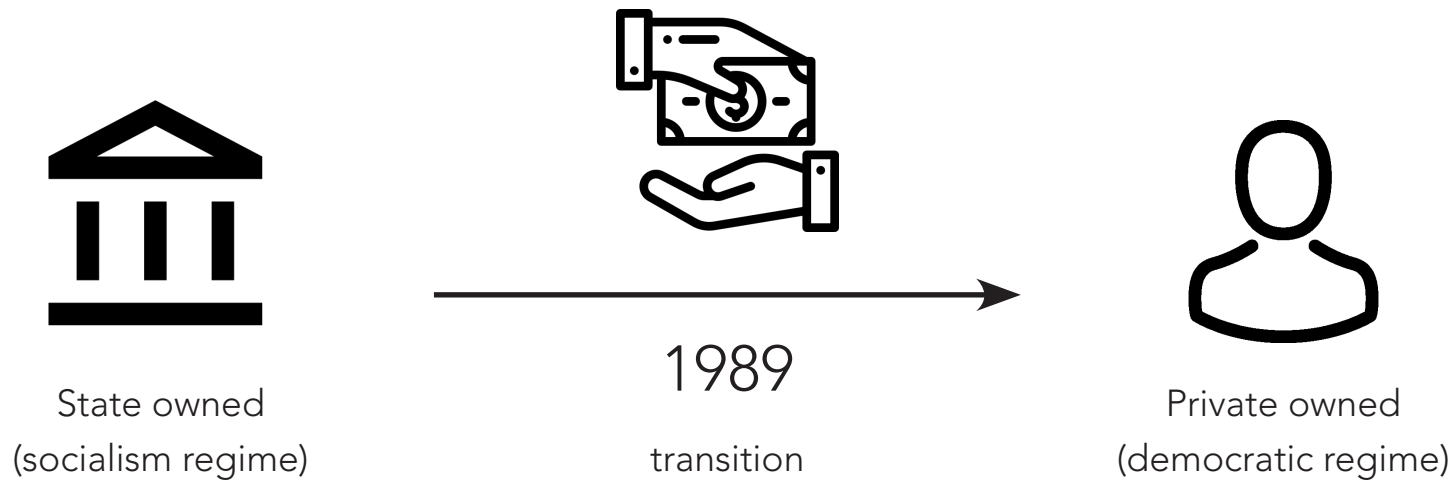
Chaika swimmin pool, Varna

Of course, to stimulate such passion amongst the citizens, in an era before the mass communication, architecture was one of the tools used to create the grandeur and status of sports.

Unique and distinguishable architecture was on display in the city in the most prime locations to celebrate the importance of sports.

Architecture

Echo of History



Change

During the change of regime between Socialsit and Democratic many different establishments were sold by the state to private owners and investors: factories, certain businesses or establishments, and sport facilities were handed out on auctions.

People`s prime interest of course was to obtain potentially succesful investments, and unfortunately, the sports facilities were not amongst the first to be selected, nor did they hold the financial potential at the time.

Echo of History



abandoned Tennis hall at Pochivka, Varna



"Chaika" Swimming pool, Varna



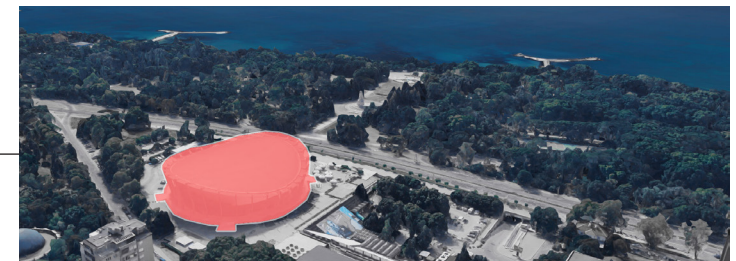
*The new Yuri Gagarin Stadium,
under construction for 15+ years*

This resulted in many acquired assets, but no actual interest in continuing their function and use. Many of the buildings have been left to chance with possible future intentions but no actual work done on them.

This creates a sad image of buildings that used to be monuments of glory and places where people would share passions and emotions to sports together, now decaying and becoming ruins of a past era.

Leftovers

Echo of History



*Inspiration
Location*

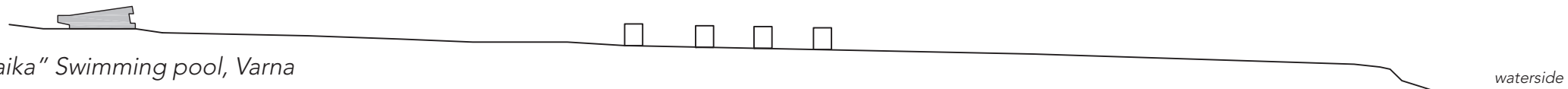
Echo of History

However, these buildings would still provide an interesting point of view to look into the subject of developing sports in the city.

In the time when sports was more emphasised these buildings would often receive a well connected and easy to reach location along a main route, mostly in the developing parts of the city along the coast and the newly developing neighbourhoods and around the Sea Garden park.



abandoned Tennis hall at Pochivka, Varna



"Chaika" Swimming pool, Varna



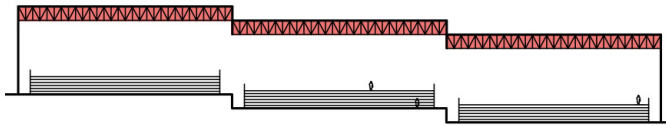
Palace of Culture and Sports, Varna

Not only were they easy to reach, but all of them had an emphasised direct relation to the sea. Most of them would be put on a pedestal to overlook the water or in some cases the city and then the water.

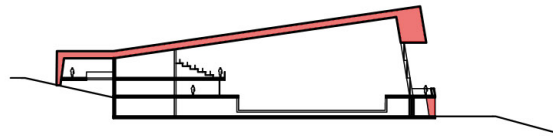
This gives the buildings a certain status of importance and would make the experience pleasant for both athletes and visiting audience.

*Inspiration
Relation to Sea*

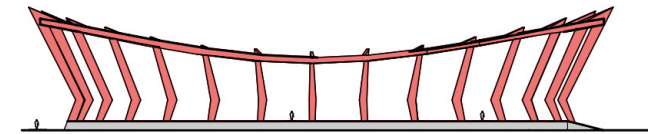
Echo of Culture



abandoned Tennis hall at Pochivka, Varna



"Chaika" Swimming pool, Varna



Palace of Culture and Sports, Varna

*Inspiration
Structure*

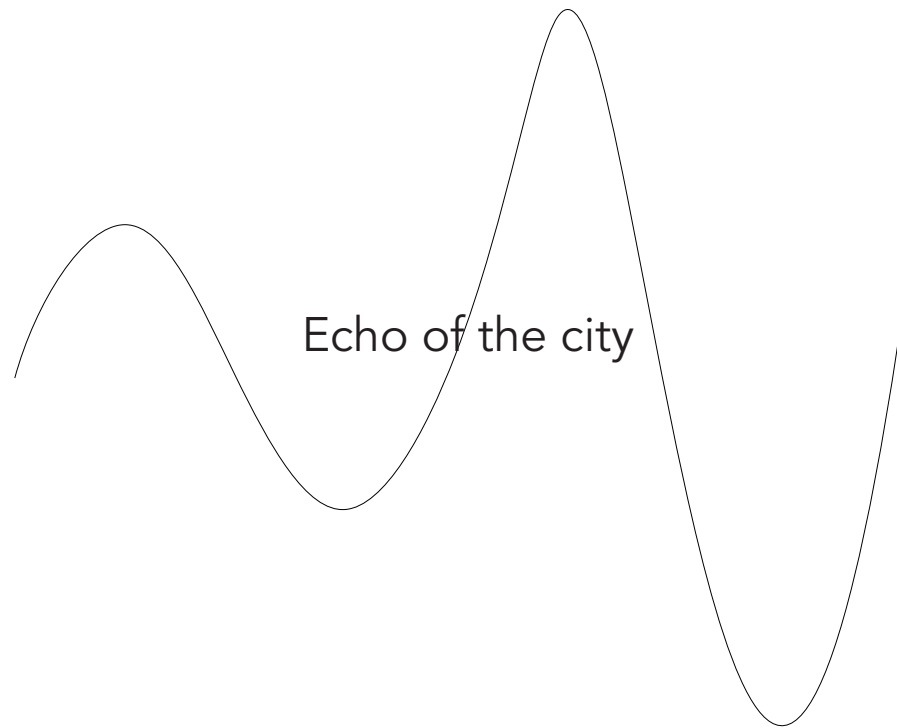
Echo of History

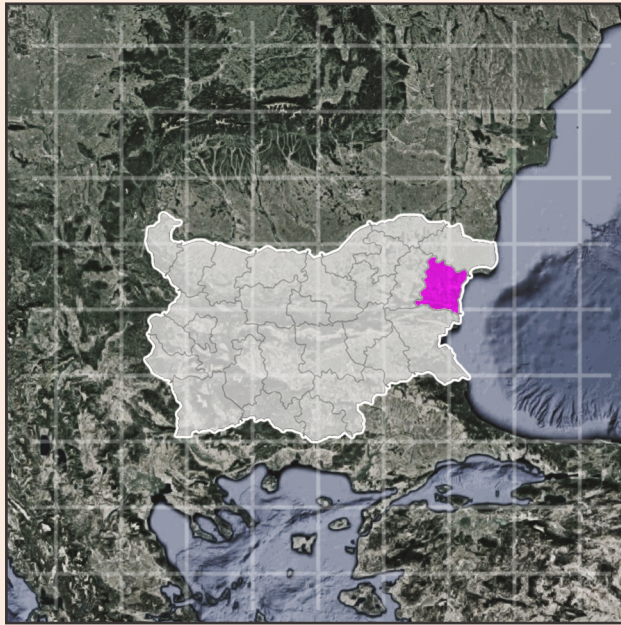
Last but not least, all these buildings would have very expressive structure which gave them character and distinguishable silhouettes.

This aesthetic also comes from the fact that having the structure on the outside which would mean that the space inside would be unobstructed and free for sports and other cultural events.

So can this former appreciation of sports be restored through architecture?

With recent developments in the city a new opportunity rises...





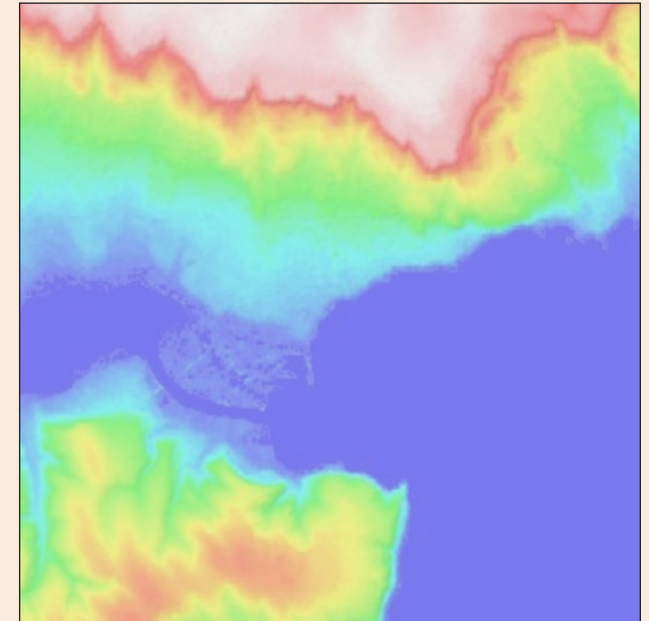
Varna municipality

100km



Varna city limits

2km



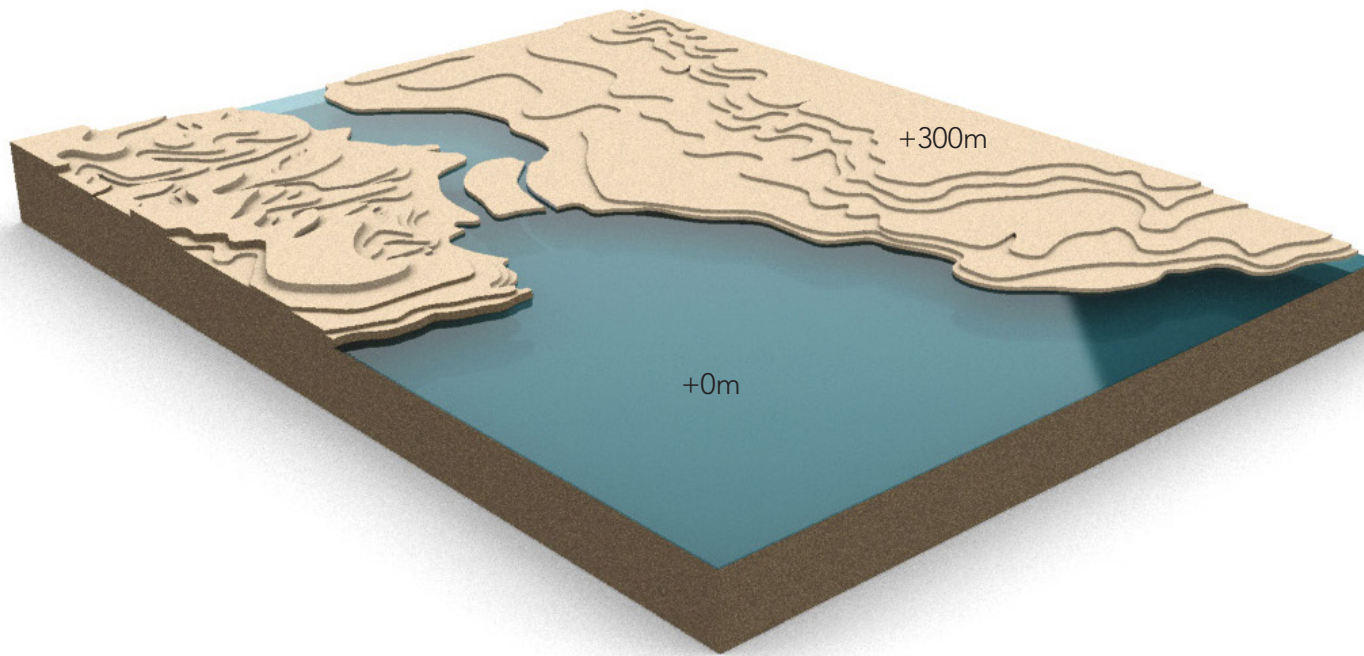
Varna gulf Topography

Location
Geography

Echo of The City

The city of Varna is located on the Black Sea and it is the biggest city on the coastline. It is a famous summer holiday destination for Bulgarians and foreigners alike. The city is one of the oldest on the Balkans, making it a cultural center, that holds a lot of history adjacent to the contemporary feel and look we experience in the newer parts.

Varna is located on two opposing hills that slope down to a natural gulf and an inland lake. In the lowest part near the sea you can find the City centre and the industrial harbour which the city was developed around



Interesting about the city of Varna is the theatrical layout created by the the canal waters in the center.

Varna is located in a region full of plateaus cut by rivers that flow into the sea. Both sides of the plateau are approximately 300m above sea level in their highest. The lowest point is the harbour and the site location.

The resulting landscape creates a steep hill on the South and a more sloped hill to the North which are looking across at each other.



*Location
Topography*

Echo of The City



Tourism



Education



Work services

Location
Why Varna?

Echo of The City

The city is an attractor for many external people from all ages and origins. Varna is a famous summer destination that invites many westerners each summer season as well.

Technical University Varna, University of economics, the Medical university and the Varna Free university attract young people not only from the local smaller municipalities but also from all over the country as well as many internationals.

Growing work sector in IT provides more jobs so young people are willing to live in the city after they finish their studies.



With the growing interest towards the city there is new housing being built in the inner parts of the city, apart from the outwards grow. However putting more residents close together demands extra public space because it creates densification

No new public space is being created to provide more room for more inhabitants.

*Location
Problem*

Echo of The City



City centre public space



Square public space



redesigned a small street - car to pedestrian

Location
Opportunity

Echo of The City

In the last years many public spaces have received a fresh makeover making them very attractive and improving the overall appearance of the city centre.

However, not many new public spaces have been introduced to make up for the increasing number of residents in the city. During summer the extra amount of people that visit the city can peak to around 1.5 times the average population.



Varna Harbour and surroundings



Visibility



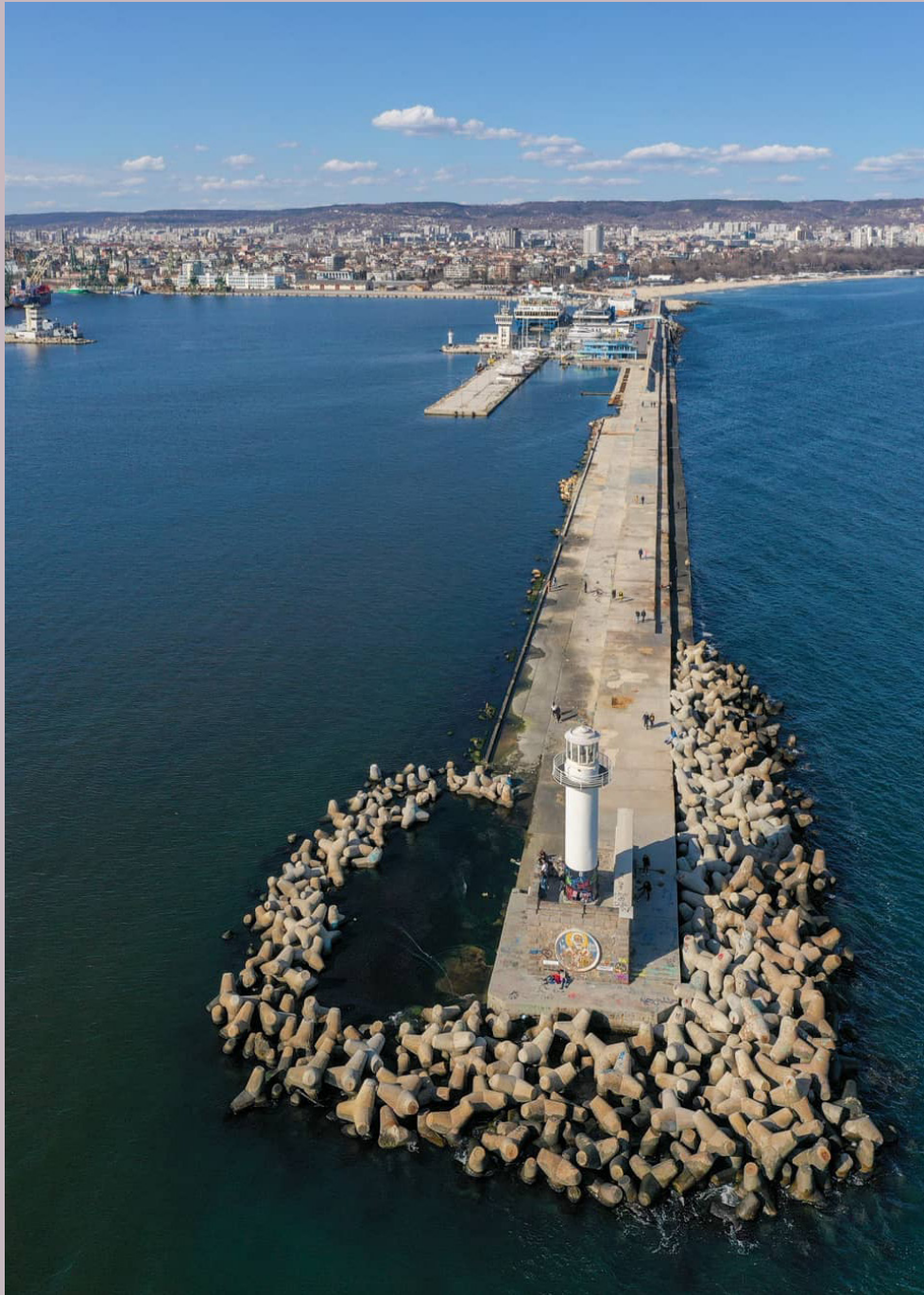
Easy to reach within city

For the first time since its construction, the industrial harbour is giving back space to be used as public space. This is a unique opportunity to transform a crucial piece of land into what could be the next most important public space in the city.

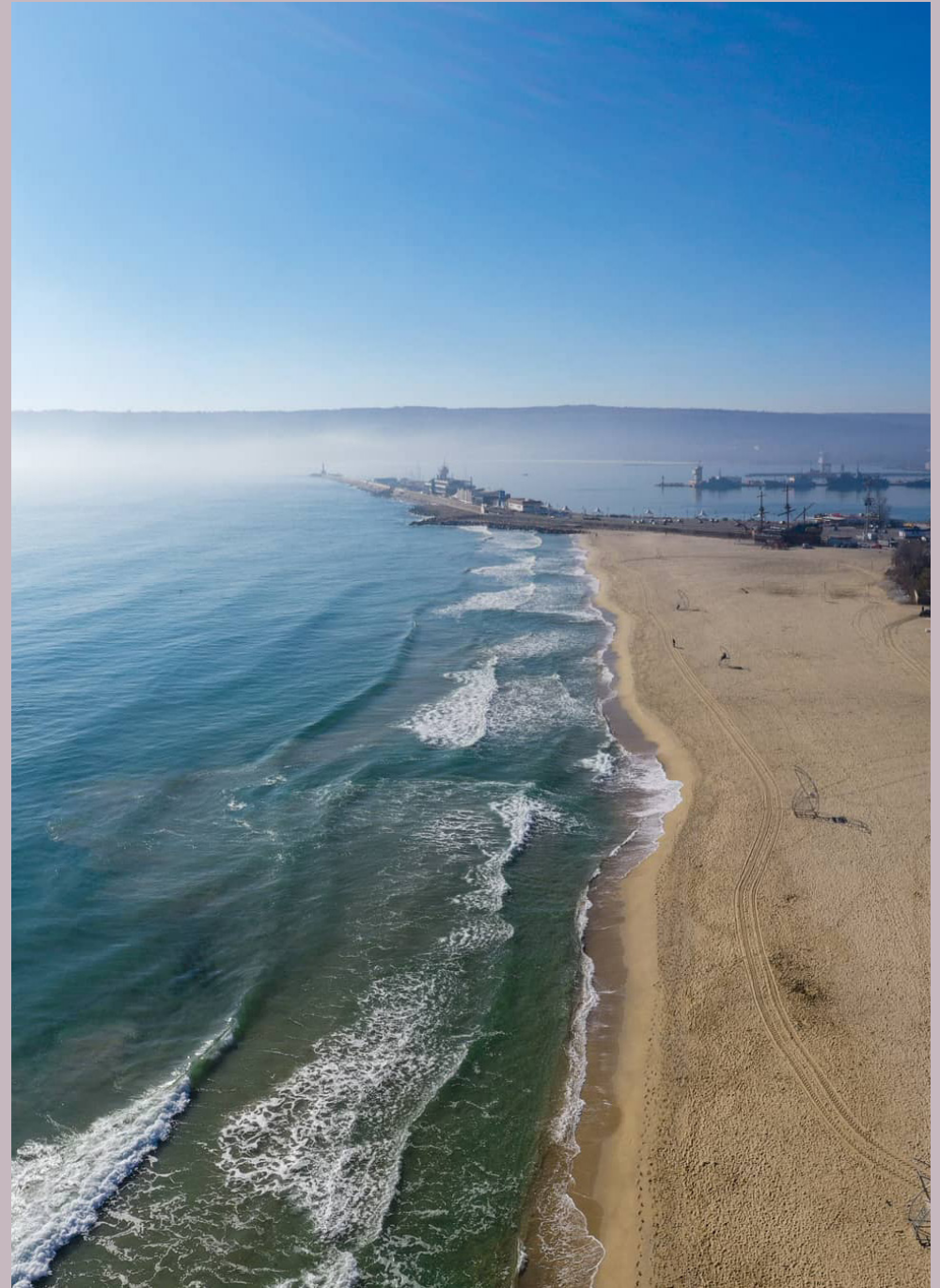
Its central location is not only visible and recognisable from almost any point in the city around the water, but also offers new access to the water right in the heart of the city. It is easy to reach, and home to the infamous jetty, the central beach and the pool, which all make it a valuable destination.

*Location
Opportunity*

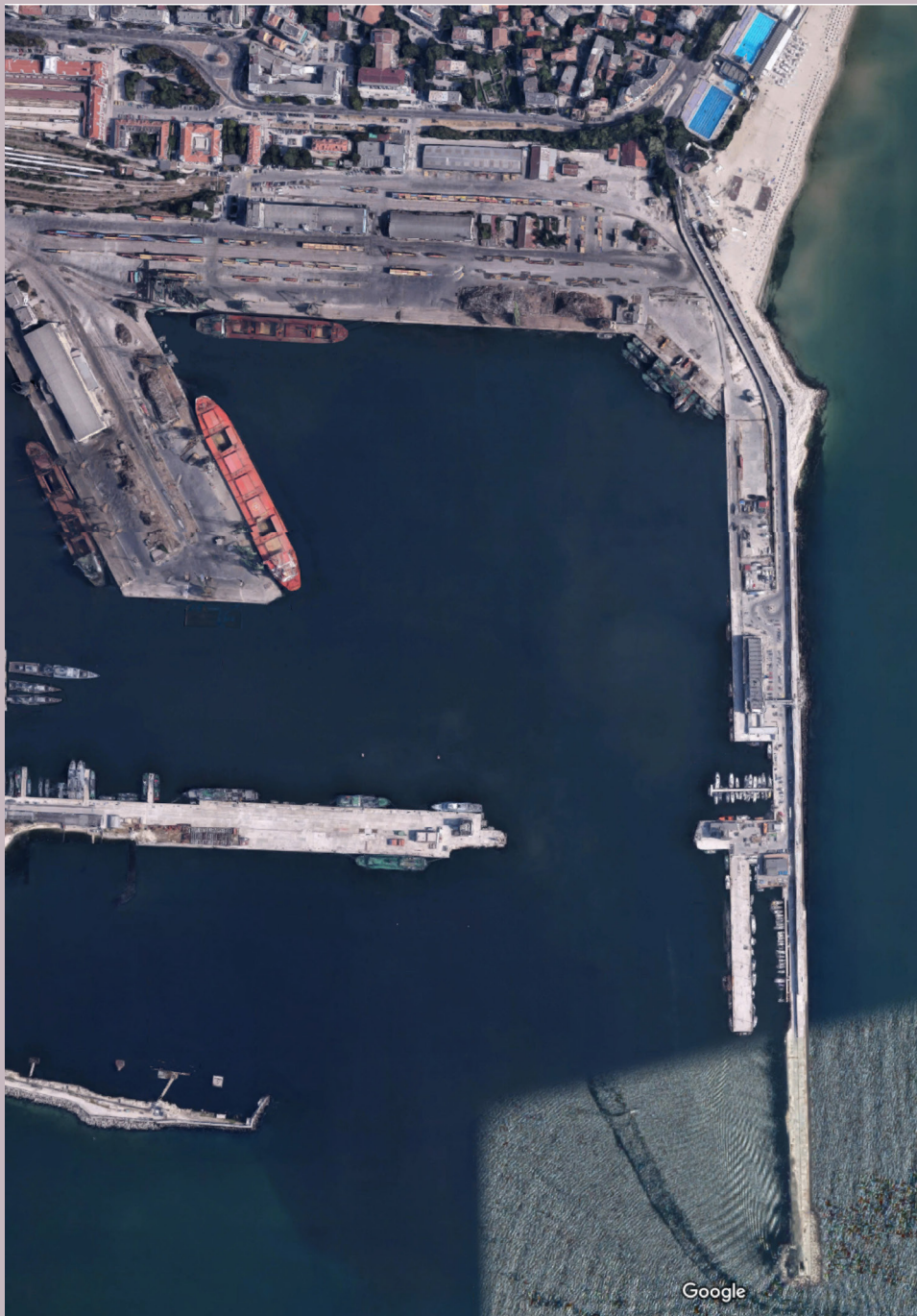
Echo of The City



The Lighthouse at the end of the jetty



*Varna central beach
Jetty in the background*



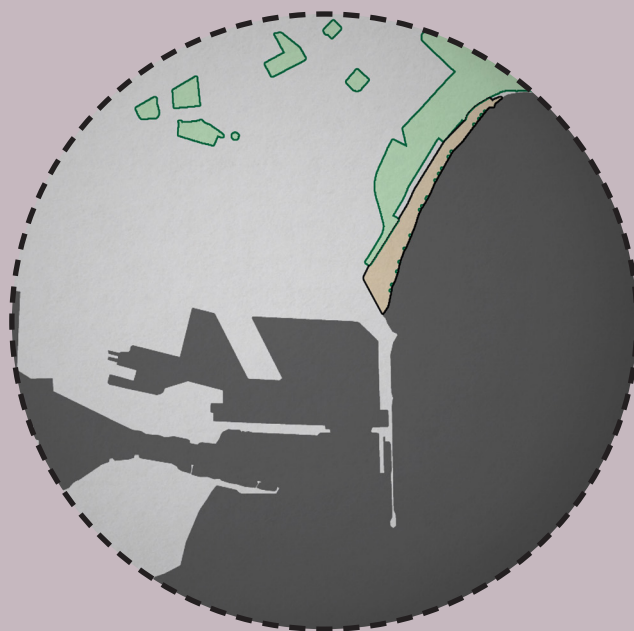
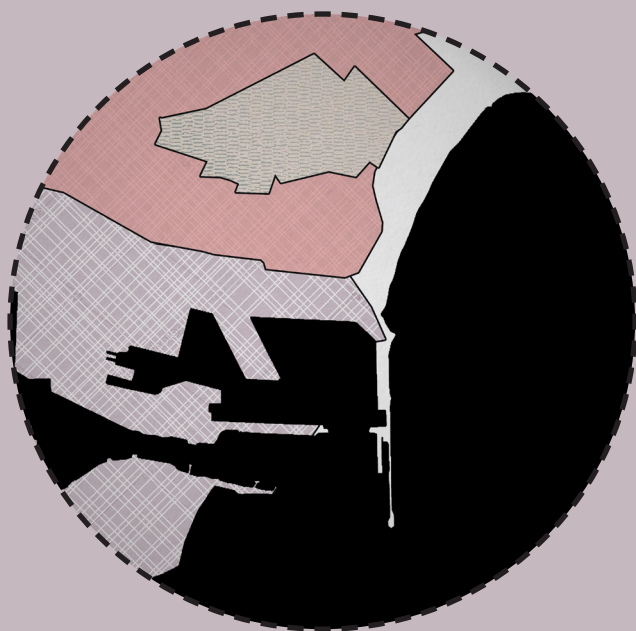
Varna harbour in the past



Varna harbour with the new public space being introduced








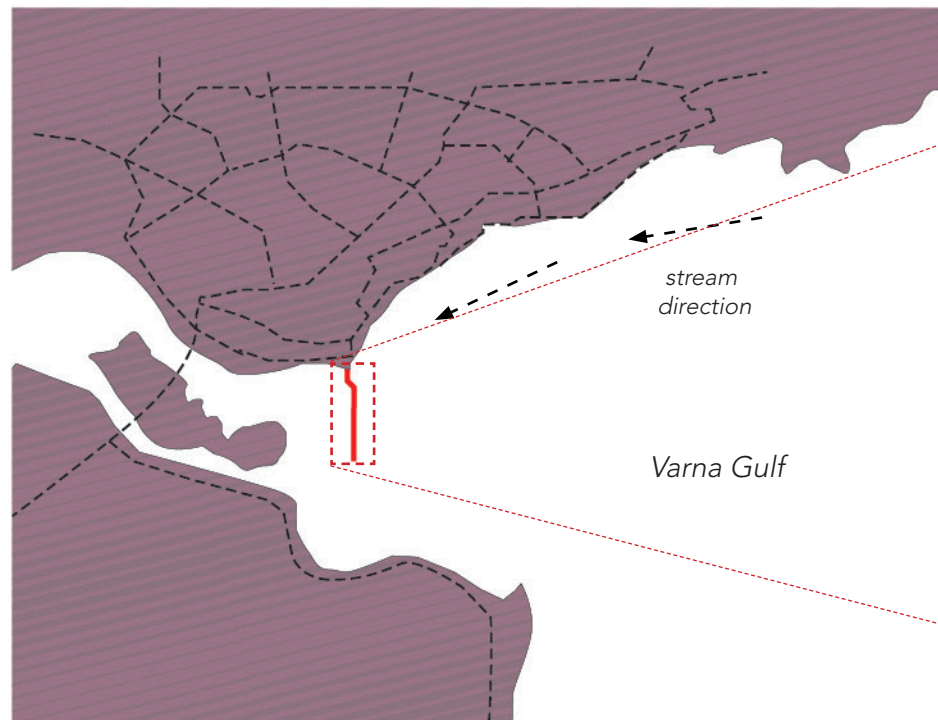
Varna Harbour and surroundings



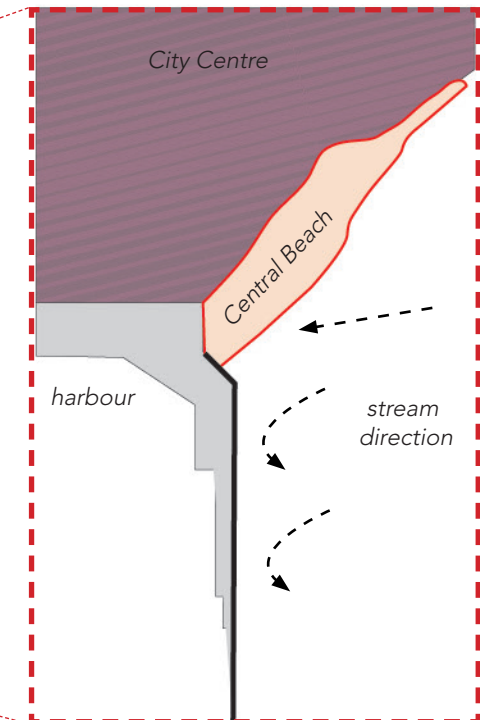
Since the city naturally evolved around the harbour at first, as a place of trade, travelling etc., the surroundings feature a well developed industrial part, a historic residential part, the city centre and the famous Sea Garden park.

Of course the harbour is well connected via all means of transport: road, train, by sea which means the same for the adjacent areas making it an easy to reach and central location.

Industrial		Site Urban zoning
Residential		
City Centre		
Beach		
Park (the Sea Garden)		Echo of The City



Construction of the jetty



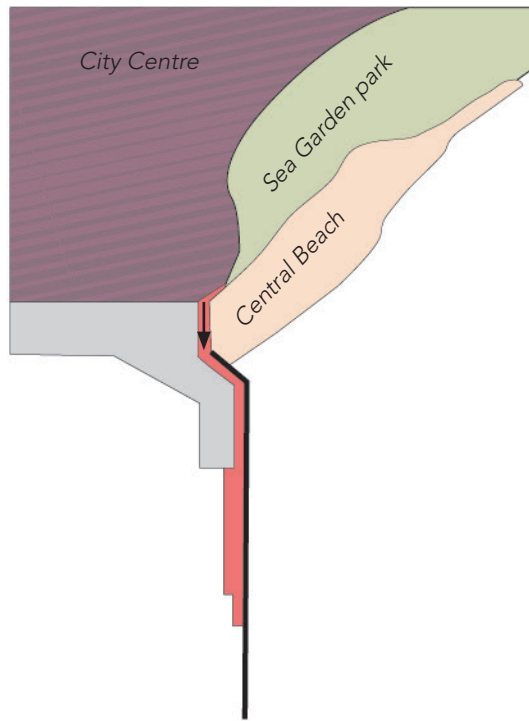
After construction of the jetty

Site
Jetty

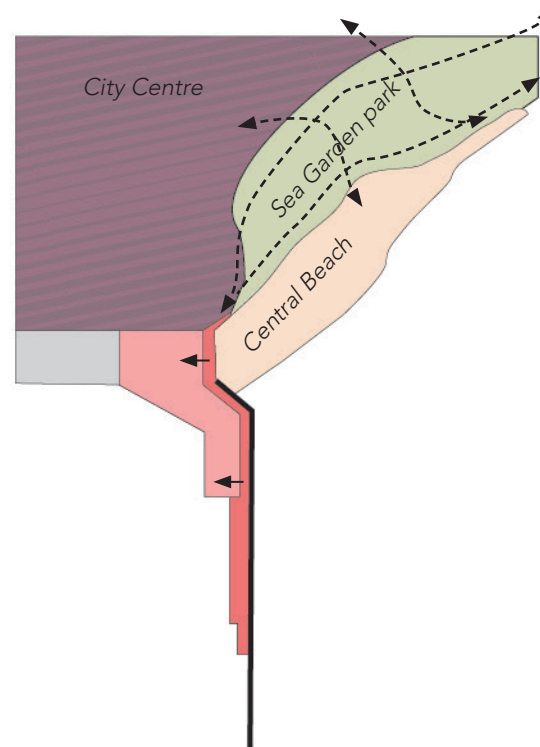
Echo of The City

The construction of the jetty was the first step to the harbour we know today which was constructed 120 years ago. The jetty created not only a protected space in which to position the harbour but also resulted in an unexpected occurrence which led to the creation of the Central beach, adjacent to the north.

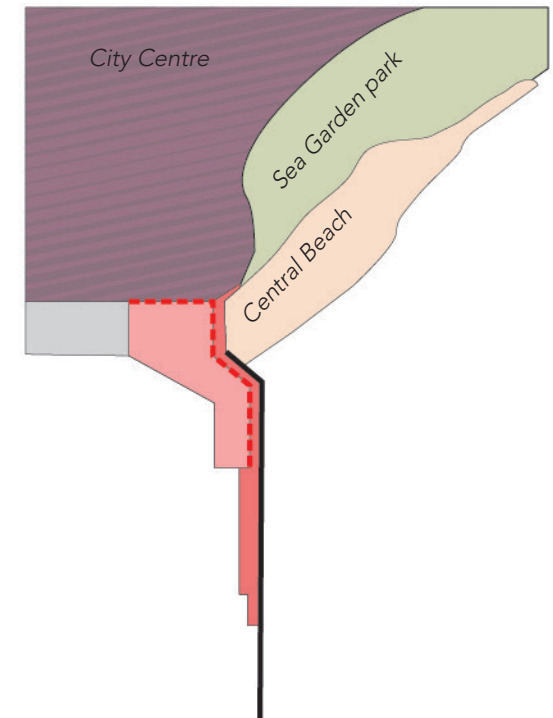
By blocking the water currents sand started to accumulate on the shore creating an opportunity for a public space and beach.



old public part of jetty



*new public part of jetty
3 entry points*



*no direct link to the rest of the city
and the Sea Garden*

This also led to the creation of the Sea Garden - the largest park on the Balkans adjacent to the waterside. A prime location for walks and a natural transition from the city to the beach. It offered many look out points, paths and various functions that added a lot to the city centre and beach area.

The newly claimed public space of the jetty is located simply on the other side. However, due to the original difference in functions the two areas are disconnected physically.

Site
Jetty

Echo of The City



Sea Garden Design



Direct path to the seaside and the mudbaths



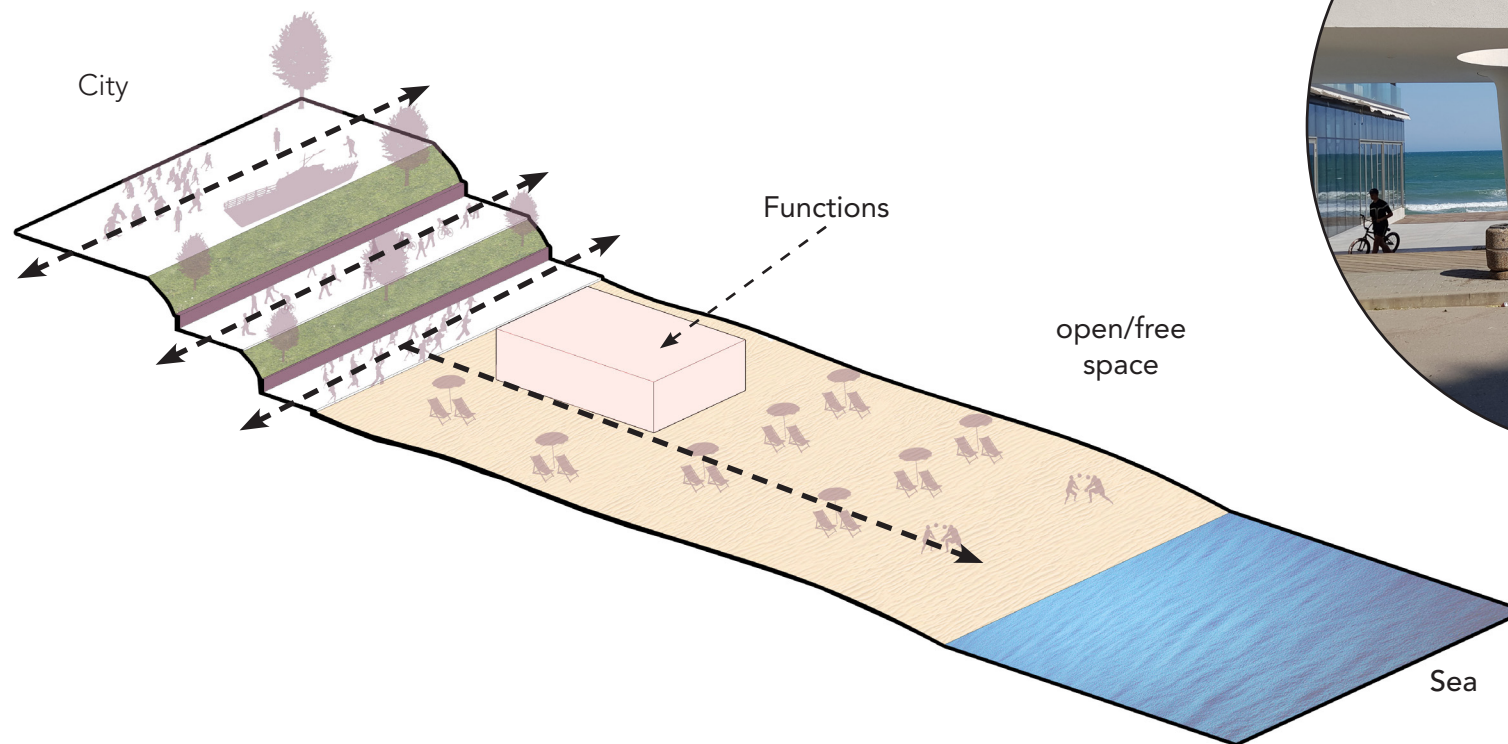
The double concrete bobsled racing track

Sea Garden Analysis

Echo of The City

The Sea Garden was created between the city centre and the beach. Its purpose was not only to provide a park area and new public space, but it also creates a soft transition between the city and the seaside. With the new public beach being constructed, the Sea Garden's importance grows further.

Program is introduced in the park such as concert and performance stages, the zoo, the infamous bobsled ride which took advantage of the height difference in the landscape and other such attractions.



The stepped landscape of the Sea Garden allows for multiple interaction opportunities within itself, with the program inside of it, but also with the beach and the sea. This happens by creating numerous opportunities and angles for views towards the water, overlooking the beach and looking at the opposite shore of the Varna gulf where the rest of the city is located on a hill.

*Sea Garden
Analysis*

Echo of The City

City
Center

Functions

open/free
space

Sea

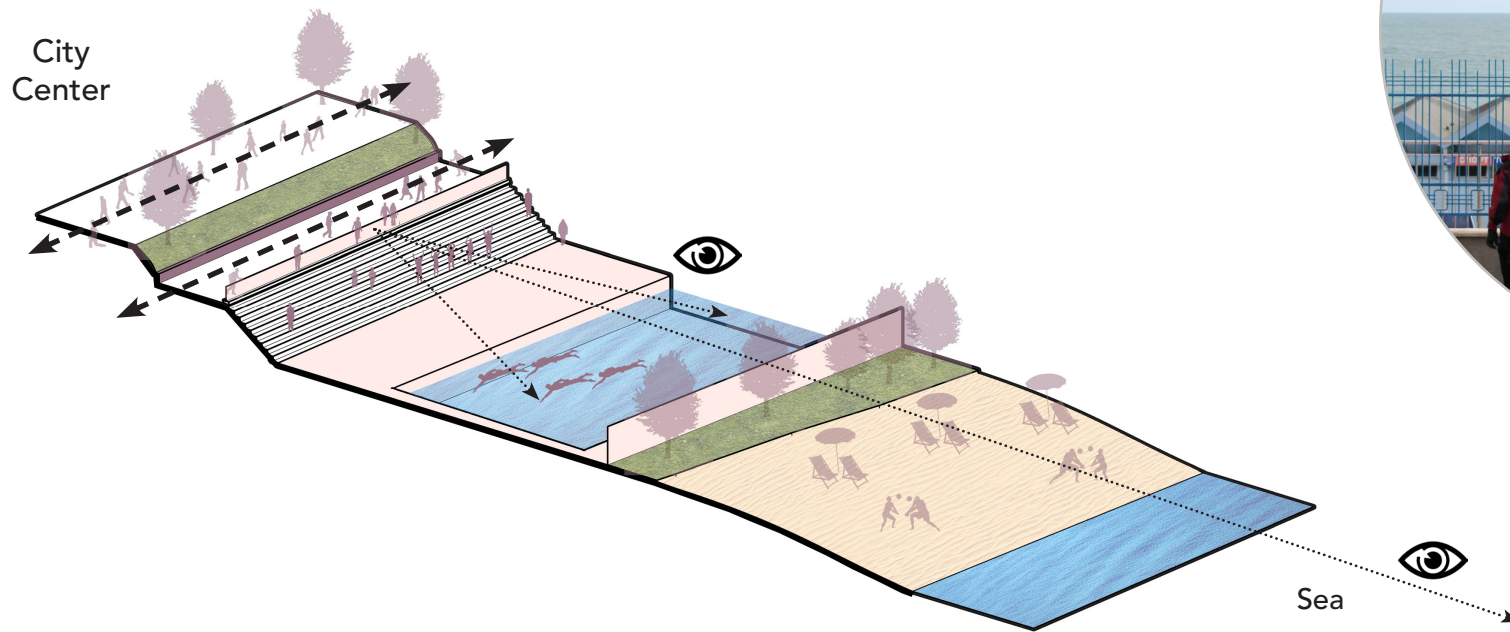


Sea Garden
Analysis

Echo of The City

The Sea garden also creates various transitions in the landscape and some of them through the functions, eventually leading to the beach.

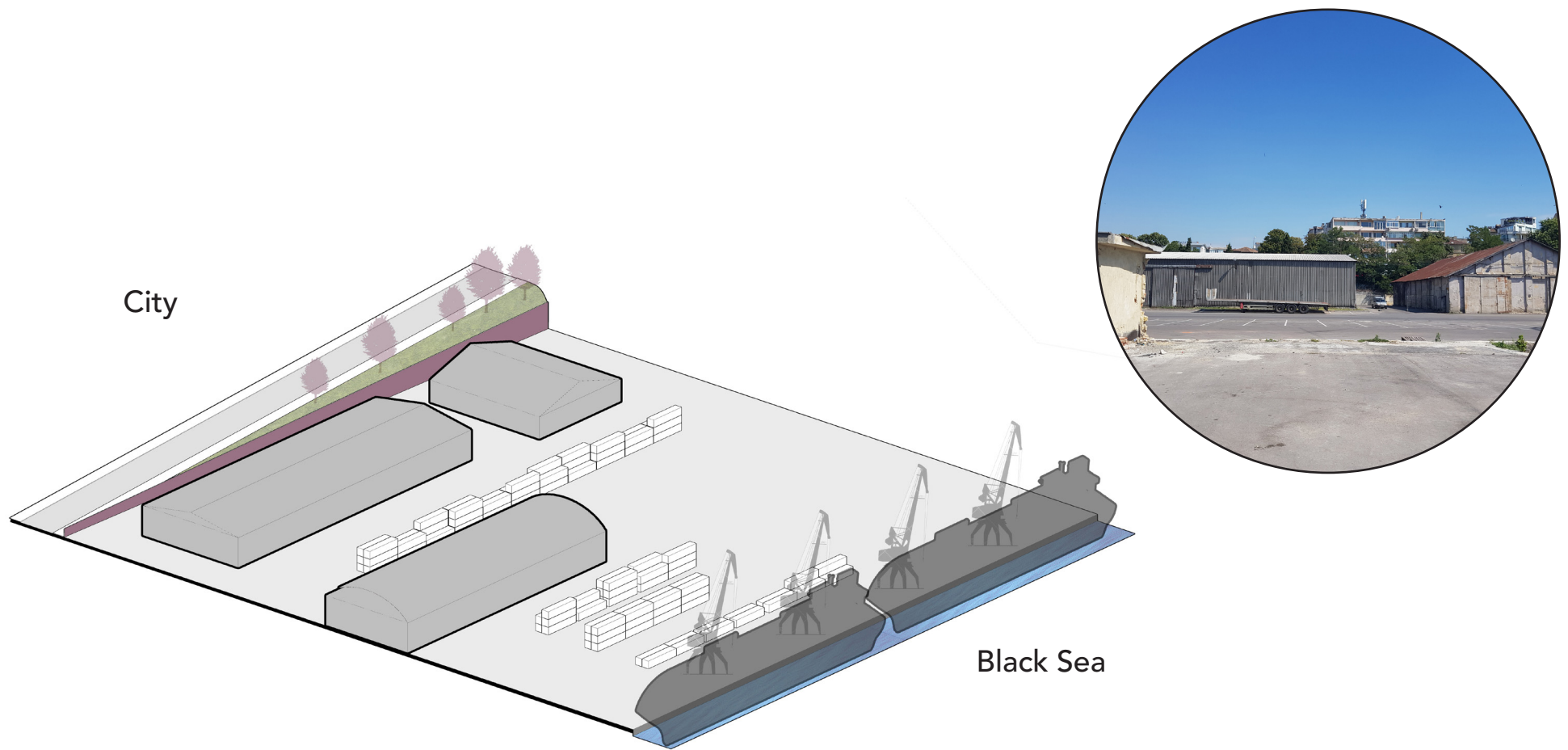
Sometimes it is a gradual slope following a parallel line to the shore, and sometimes it is a direct cut with an expressive walkway or stairs which take you directly to the water.



A lot of moments in the Sea Garden park also create opportunities to observe the functions on the beach without interacting. People stop for a few minutes and then continue on their journey, jog, biking, dogwalking etc. The various routes offer a look into the famous Primorski Swimming pool for example. But also in some places you can look over the mudbaths structure directly into the bars, or the people visiting the beach.

*Sea Garden
Analysis*

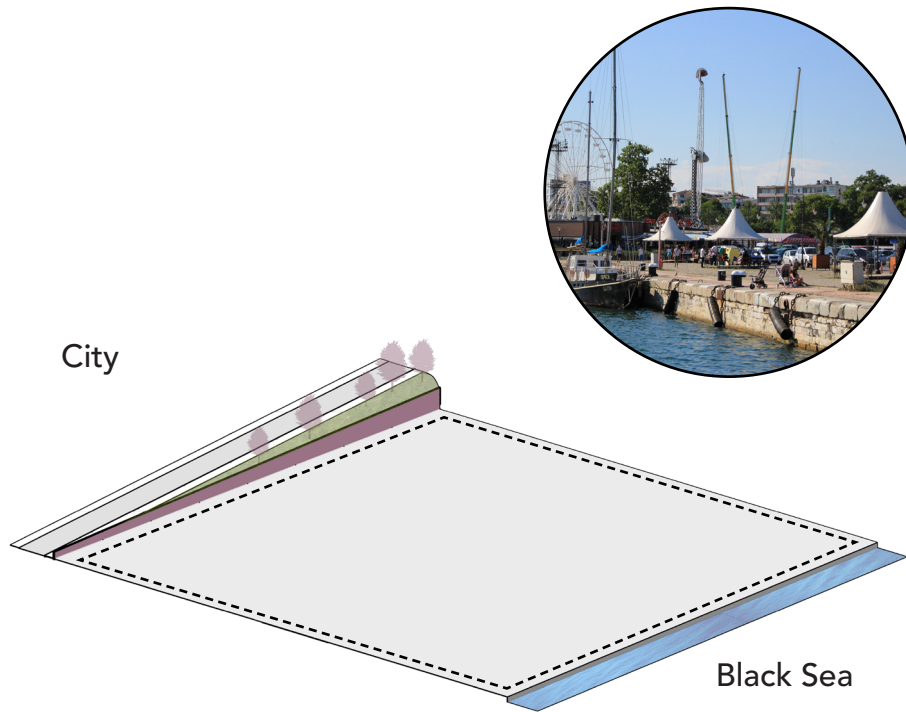
Echo of The City



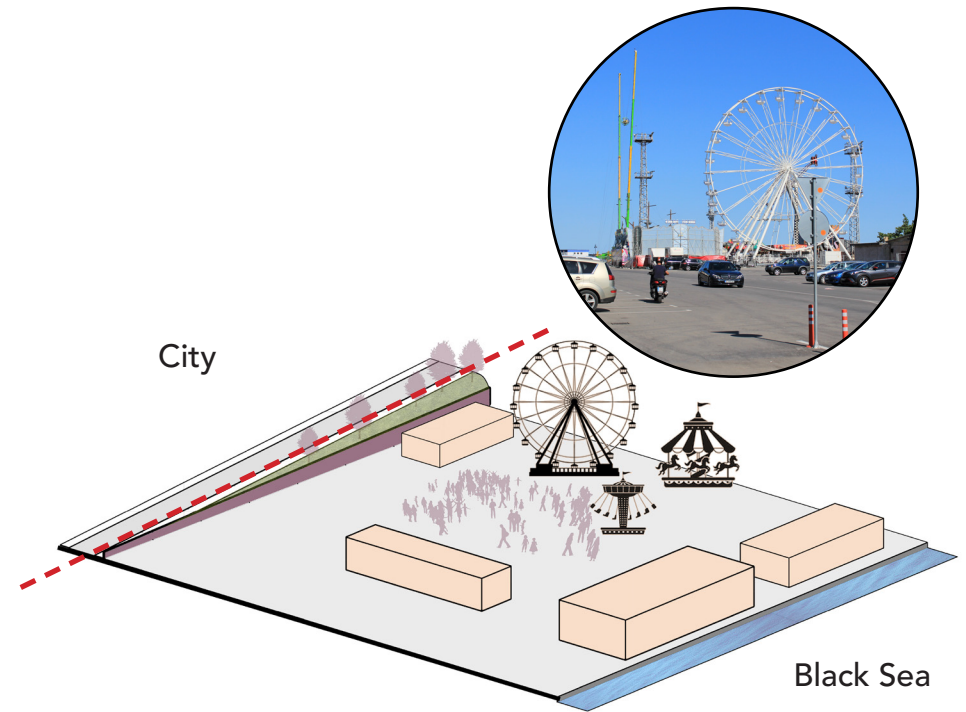
*Harbour
Analysis*

Echo of The City

The industrial Harbour, however, is intentionally designed to be at the level of the water, making it necessary to create a 10m height difference with the close city context. This is also used as a natural barrier between the residential part and the industry. The harbour could be entered via 2 controlled access points. Until recently it was full of shipping containers and cranes unloading them from transport ships.



empty industrial site



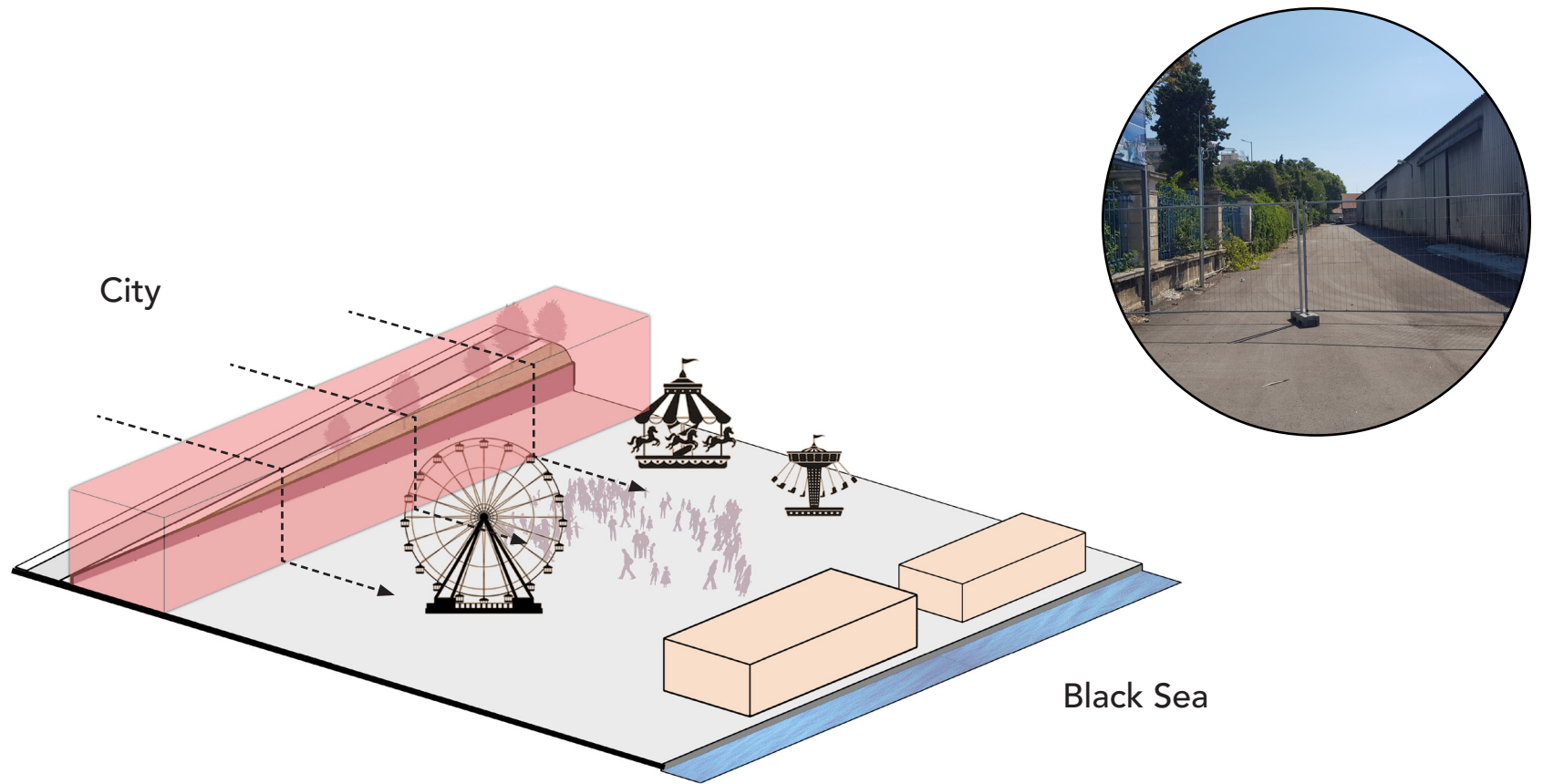
populated with various leisure functions

Now the site of the harbour has been emptied and new public functions have been introduced around the water. Restaurants at the water edge and other types of entertainment behind them now populate the empty industrial site, making it an attractive and new place for everyone in the city.

However, it is still very much disconnected by the huge height difference and does not feel a part of the city centre. Added to that the functions being introduced have no cohesive or overall strategy, but are more filling up empty space wherever possible.

*Harbour
Analysis*

Echo of The City



*Harbour
Intention*

Echo of The City

My desire is to create an inclusive design that makes the transition between city and industrial harbour via architecture. A building that only populates the empty site but opens it up to the city centre and the Sea Garden and invites inhabitants and visitors alike to the newly opened up public space at the harbour.



Car intersection at end of
Sea Garden

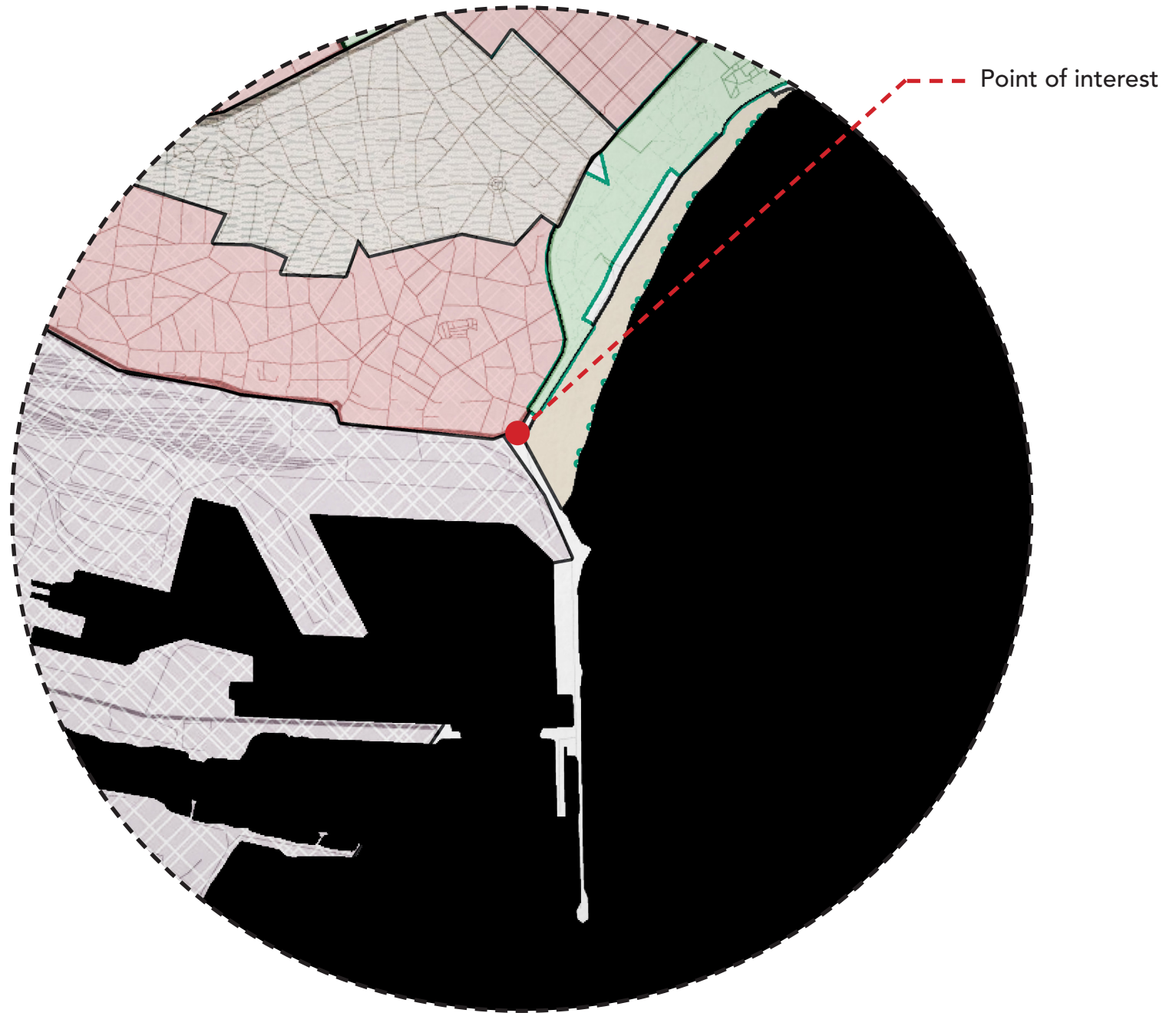


no direct pedestrian link to
the rest of the city and the
Sea Garden

The Sea Garden arrives at an old intersection for cars which leads to the old public part of the Jetty and the Sea Terminal at the end. The road has always been an obstruction and does not feel like a natural ending of a park. Now with the new public space located just 100m from the end of the park, this connection becomes much more important for the pedestrians than the car. Furthermore a new route has been opened for the cars, making this one even more obsolete.

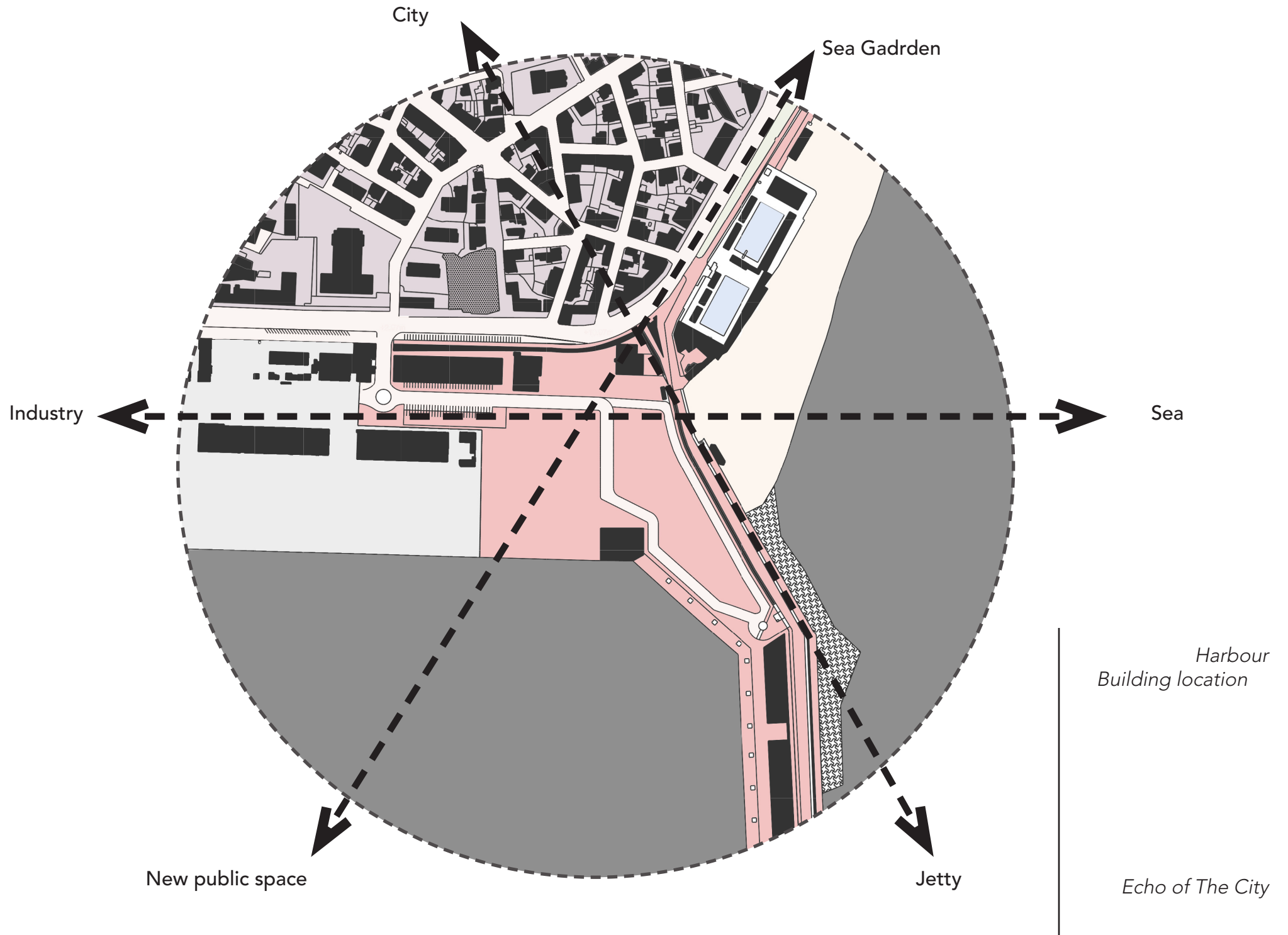
Harbour
Building location

Echo of The City



Harbour
Building location

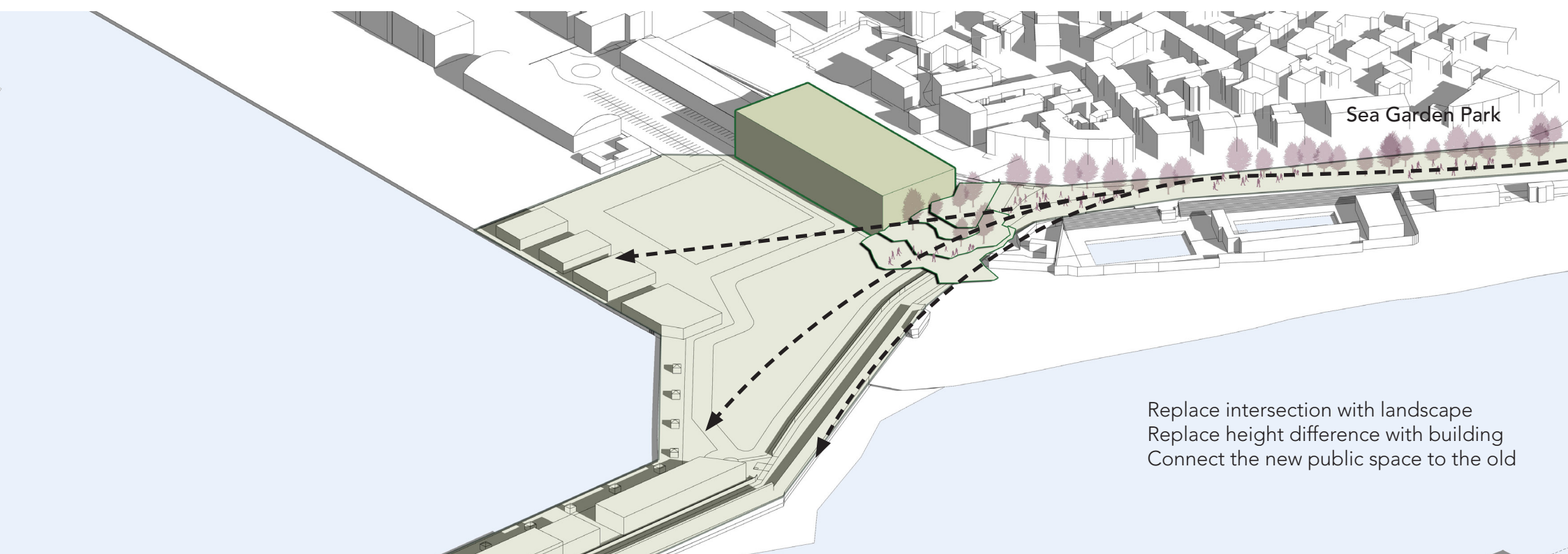
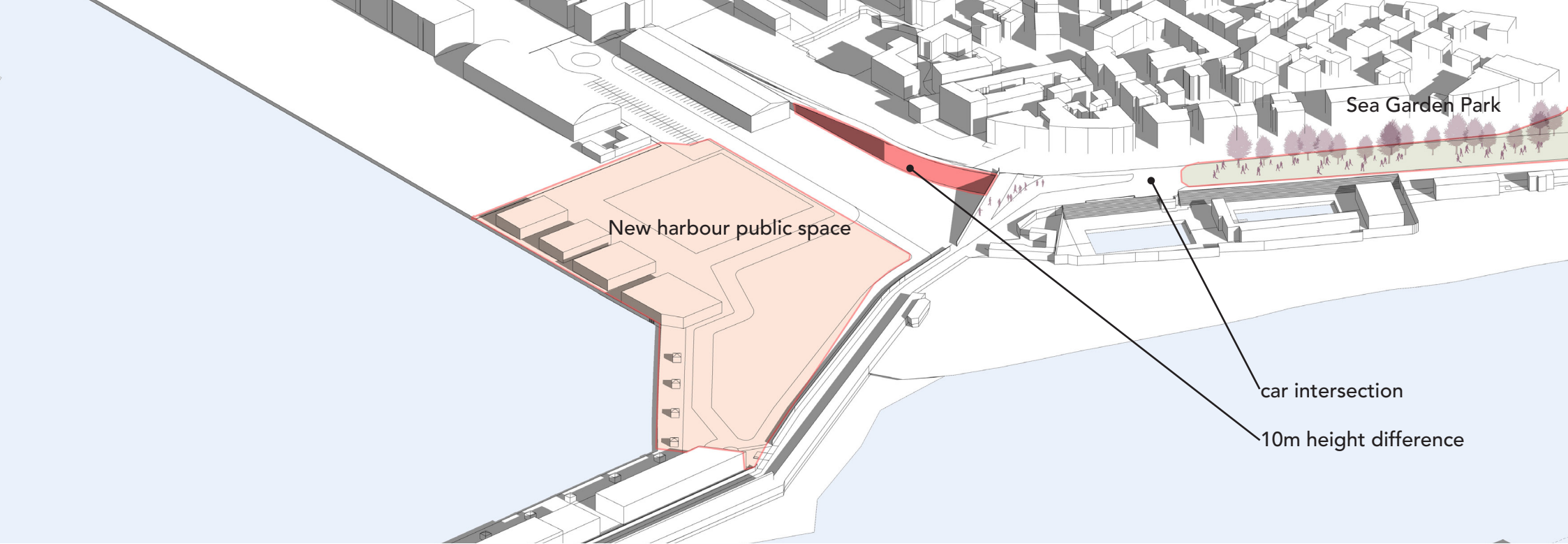
Echo of The City

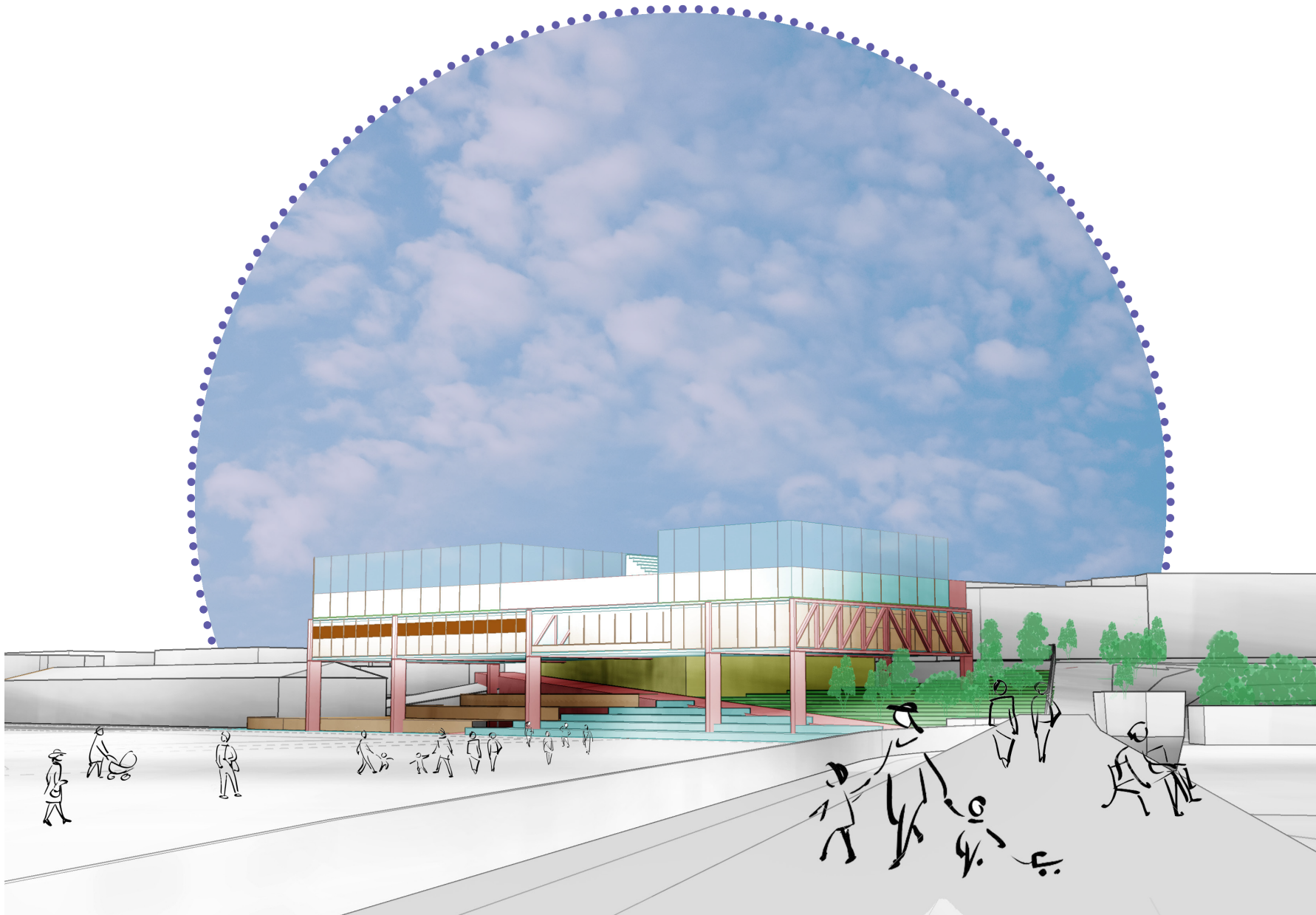




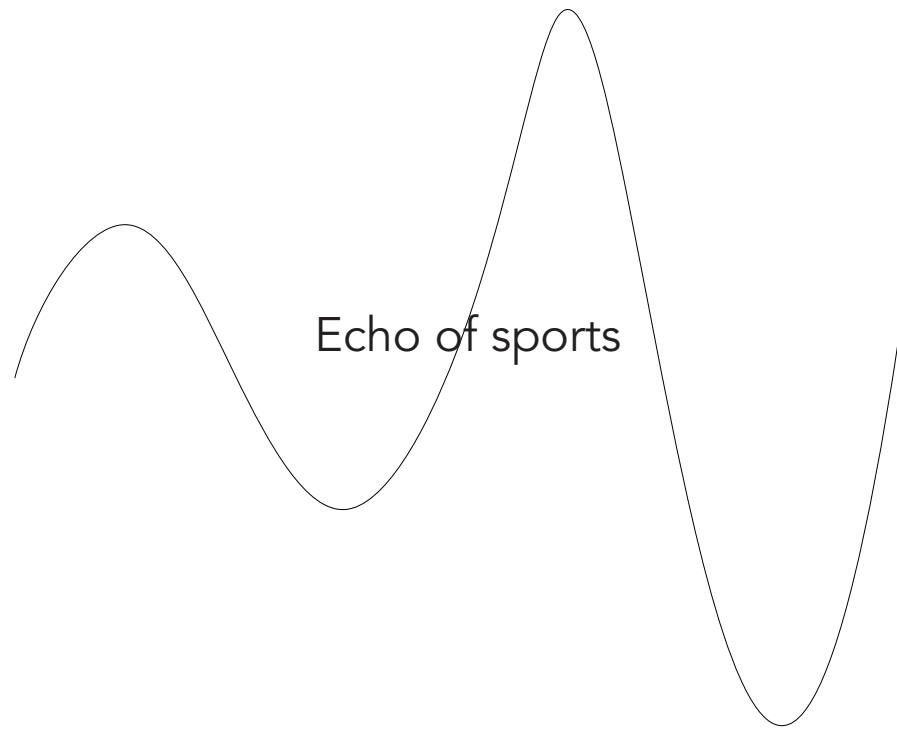
Harbour
Building location

Echo of The City

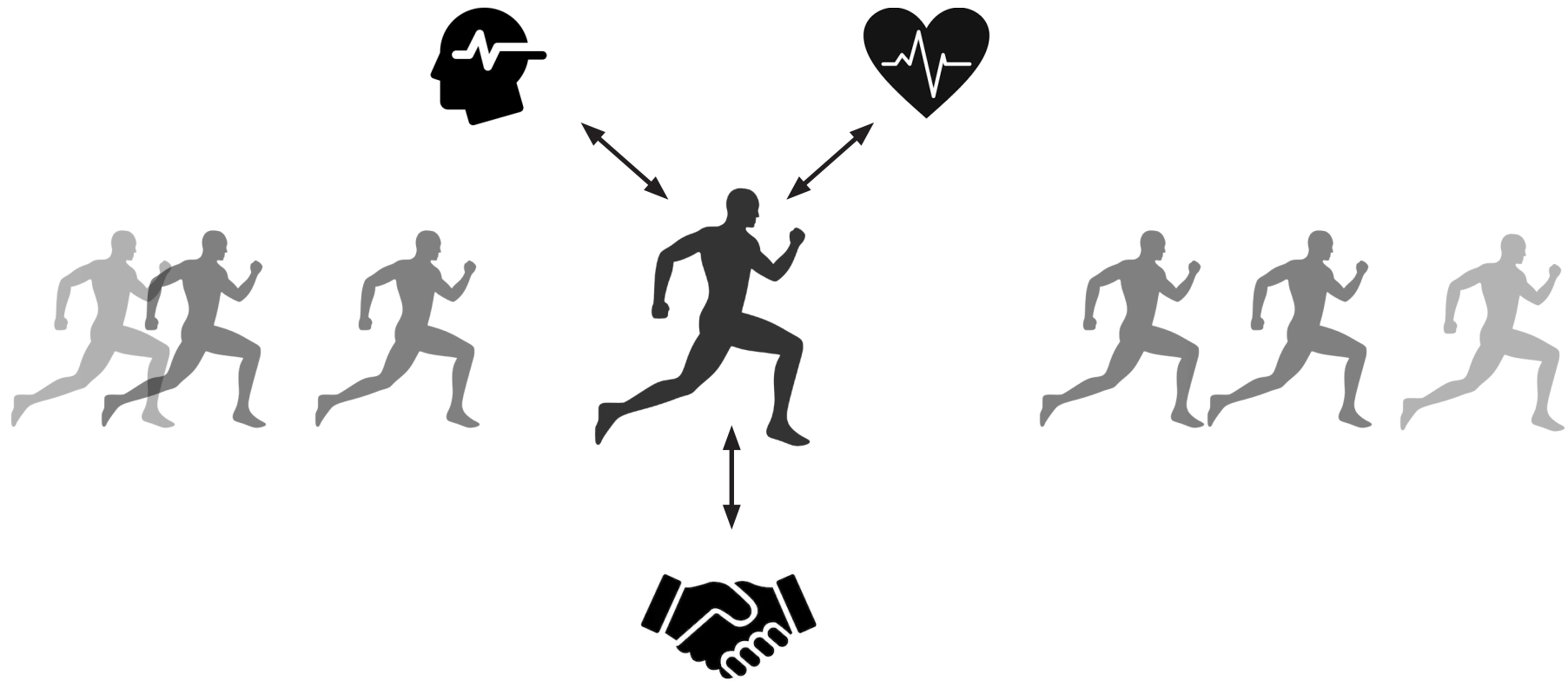




Concept image



Echo of sports



Mental

Echo of Sport

Practicing sports is not only important for the physical benefits and physical conditioning of one's body. It also greatly affects the mental state, the overall perception. But practicing sports is not only about excelling in a specific discipline. It promotes pro-social behavior and cooperation. It creates a situation of teamwork or rivalry under specific conditions, at the same time it creates awareness of one's self.

Being better at sports means to always overcome yourself in the end. This is a positive mental construct which in general leads to a more positive social interaction – one more prone to acceptance, learning and respect.

An intensive study by the "International Journal of Behavioural and Nutrition and Physical Activity" on sports' positive effects on children looks at publications from the 1990 until 2012 and reveals many results that show undeniable benefits of practicing sports. These are measured in different ways, criteria and provide different insight based on the specific tests, target group and research.

"It is recommended that community sport participation is advocated as a form of leisure time PA for children and adolescents, in an effort to not only improve physical health in relation to such matters as the obesity crisis, but also to enhance psychological and social health outcomes."

article: A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport , (2012)

"Exercise offers physical benefits that extend over multiple body systems. It reduces the risk of multiple disorders, including cancer, and is therapeutic for physical disorders ranging from cardiovascular diseases to diabetes to prostate cancer."

(Khaw et al., 2008; Ornish et al., 2008)

Exercise has been defined as

"a healthful, inexpensive,
and insufficiently used treatment for a variety of psychiatric disorders."

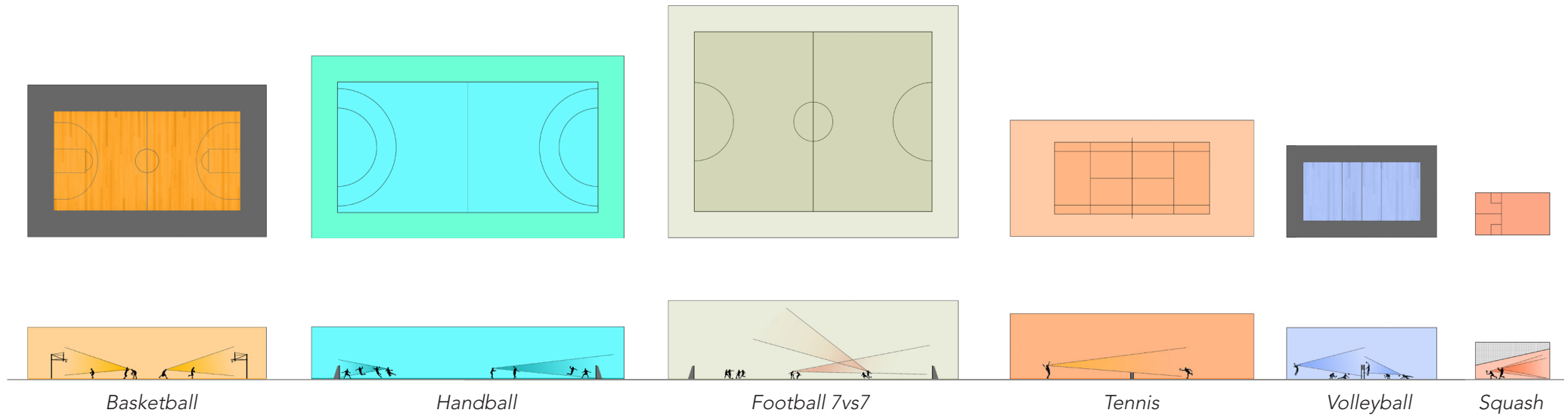
by the Harvard Mental Health Letter ("Therapeutic Effects," 2000, p. 5)

An extensive research funded from the Culture and Sport Evidence programme in England studies the effects of sports on numerous social factors such as:

Health, Welbeing, Crime, Capital, Education and sub-social groups - age, gender, multicultural etc.

A review of the Social Impacts of Culture and Sport (March 2015)

.... and more



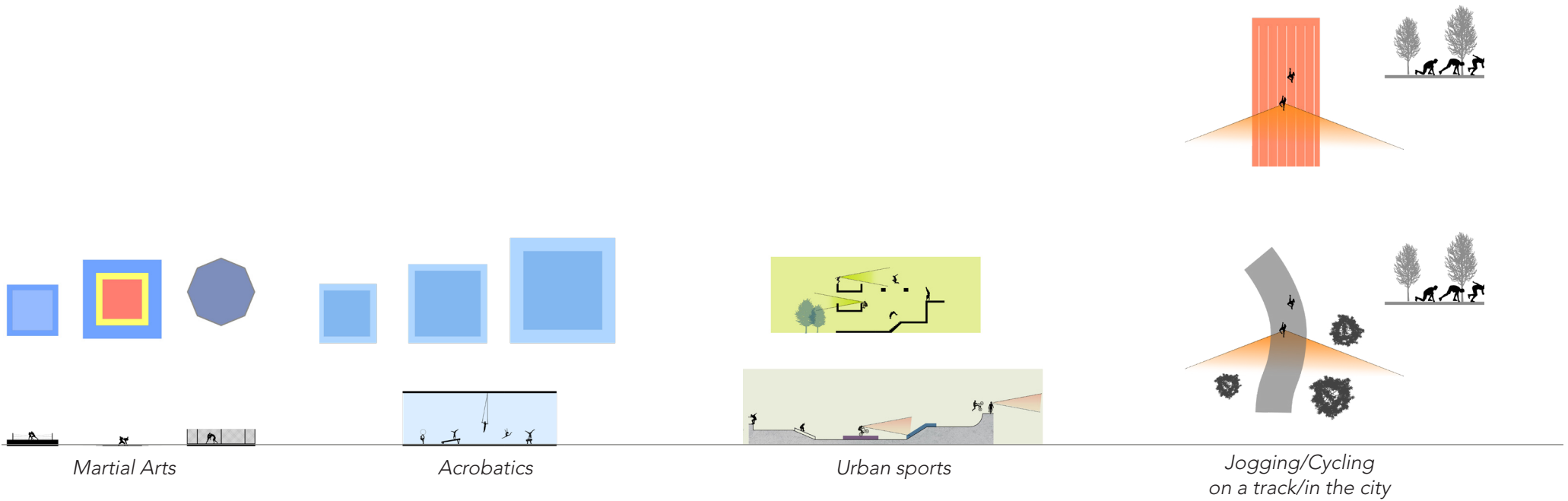
Zooming into sports Typologies

football
basketball
volleyball
handball
tennis
squash

Echo of Sport

In order to understand sports better I zoomed into a variety of contemporary and more widespread or common sports. Most of them come in a fixed size, fixed time limit and other constant factors that spatially define how that sport will be placed. These are also mainly the sports that have teams in them.

Other sports, more individual ones, tend to have less restrictions in terms of rules, time limit and space. Such sports are all urban extreme sports for example.

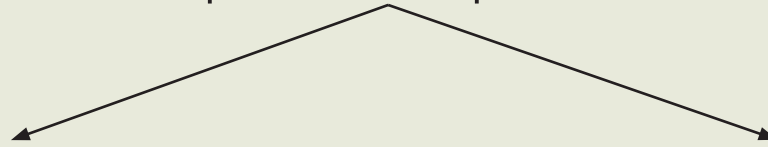


Zooming into sports
Typologies

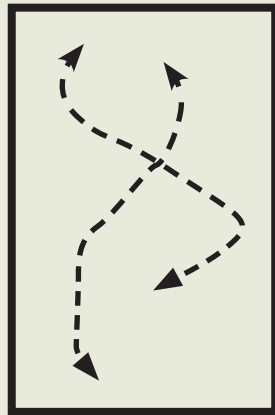
jogging
rollerblading
skateboarding
bmx/scooter
athletics/acrobatics
climbing
martial arts

Echo of Sport

Sports to space



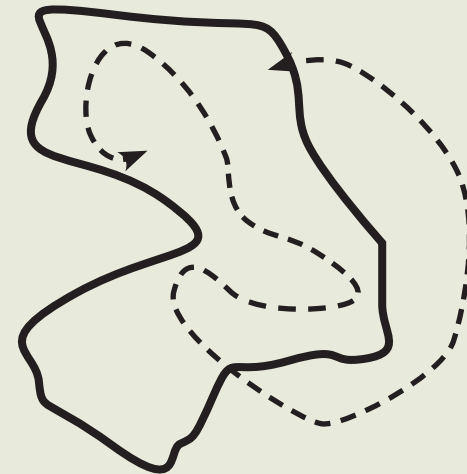
Court bound



Fixed space
Fixed number of people
Fixed time
Fixed goal
Fixed orientation
Minimum height

STRICT

Freefrom



freely arranged space
varying number of people
no time
no specific goal

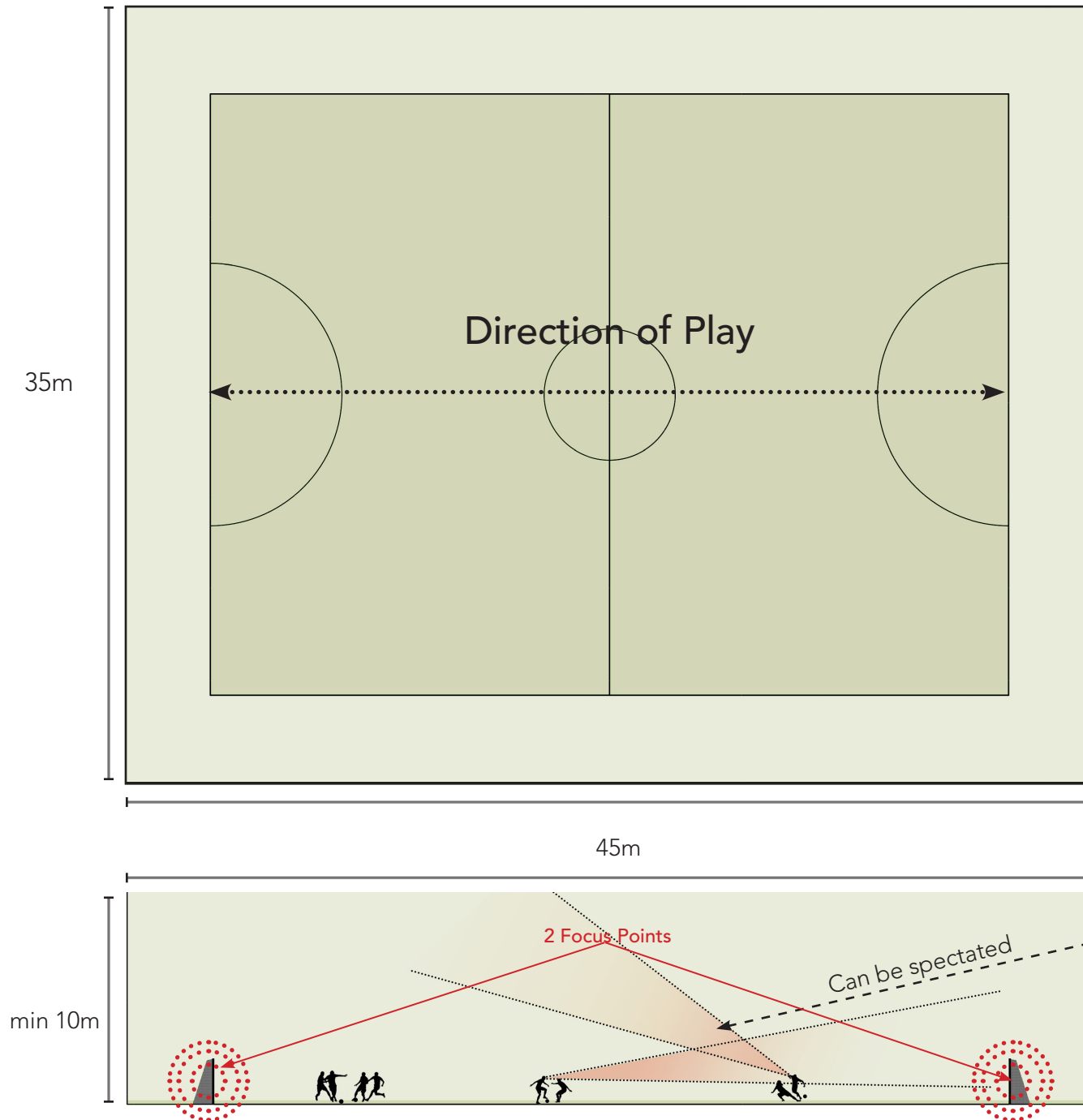
NOT STRICT

Courtbound sports Minifootball 7v7

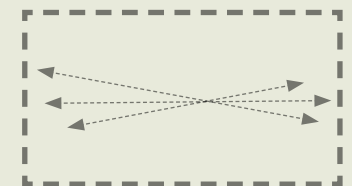
Minifootball is a very common urbanized version of the classic sport, where the field has been shrunk to fit more easily as well as provide a smaller playable version for non professional players.

Again, as the other court based sports, with a fixed time and goal, the football pitch can be scheduled for its use, by certain numbers of people, for certain periods of time. This puts the focus inside the field entirely for the duration of the game.

*minifootball
pitch plan*



Zooming into sports Courtbound sports



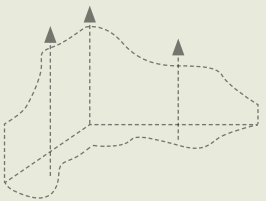
Echo of Sport

Vertical sports Climbing

Bouldering or climbing is quite an individual sport both in practice and in self development. Climbing halls are usually open for visiting with no timeslots and are personal to everyone.

Bouldering has no time limit or fixed size. The course is meant to be diverse and challenging and can even be altered over time to create new obstacles. It requires a lot more vertical space than other sports and can be a place of social interaction both for climbers and visitors.

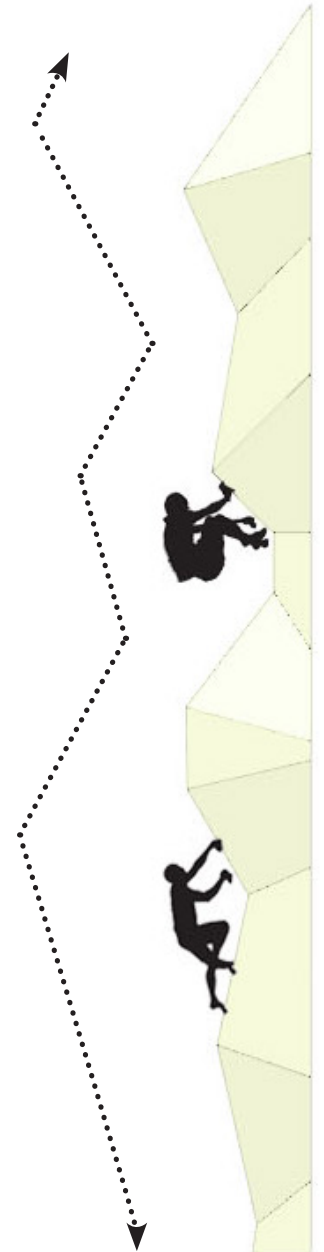
Zooming into sports
Vertical sports



Echo of Sport



no fixed area dimensions, or shape



requires substantial
vertical space



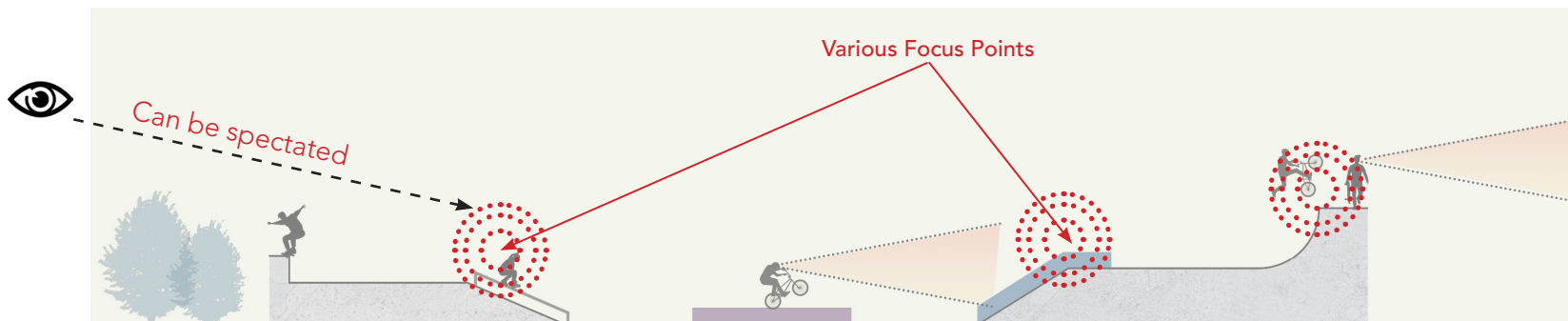
Venice Beach Skatepark

no fixed dimensions, or shape of skatepark

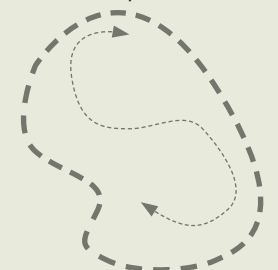
Freeform sports Urban(street) sports

This group of urban sports originated from using the city as a playground. Originally overcoming various urban elements such as edges, stairs, walls etc. means there is no fixed course or even goal. No boundaries are needed and quite often skateparks flow into urban space or just sit in the urban landscape.

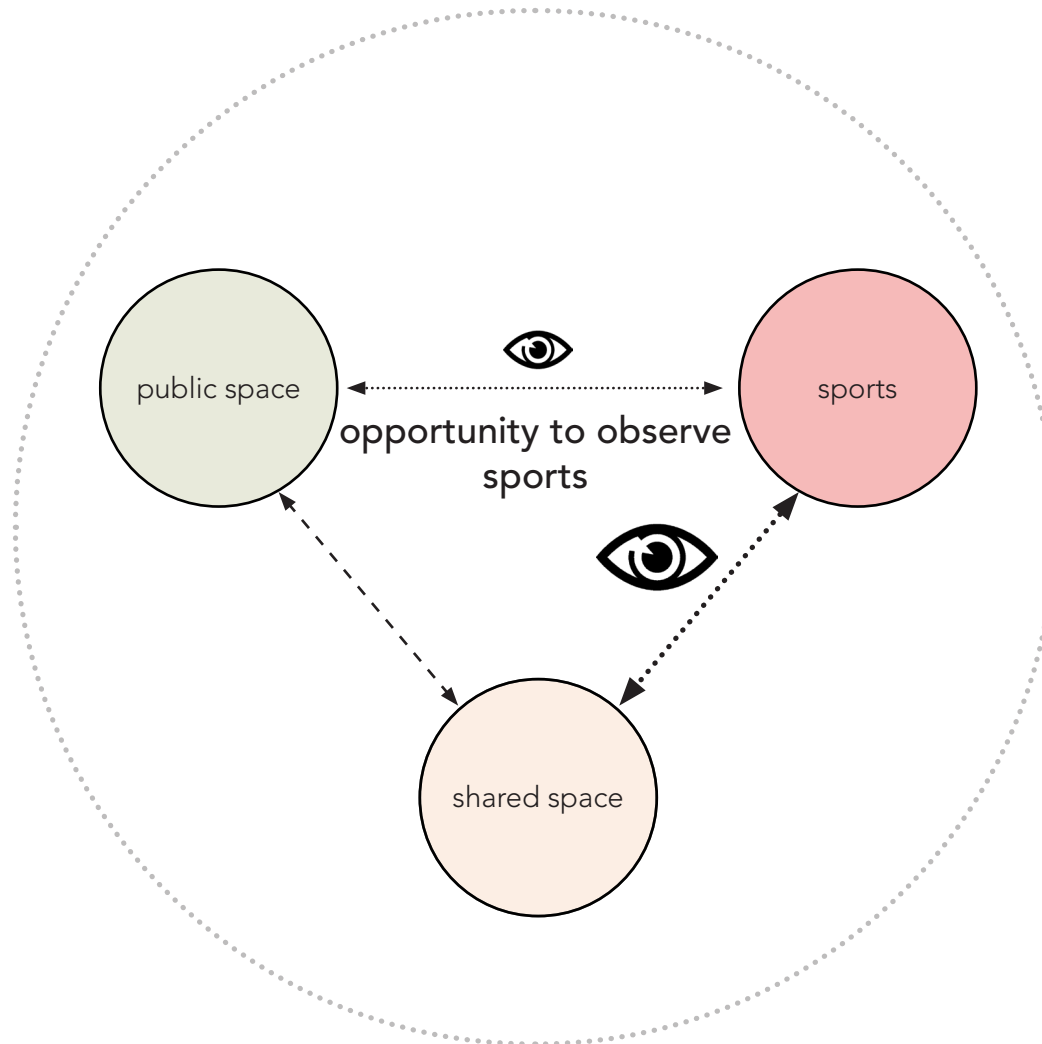
Using the course also comes in turns, so participants have time to look around, take a breath and enjoy the view. Skateparks use change in level to their advantage



Zooming into sports
Freeform sports

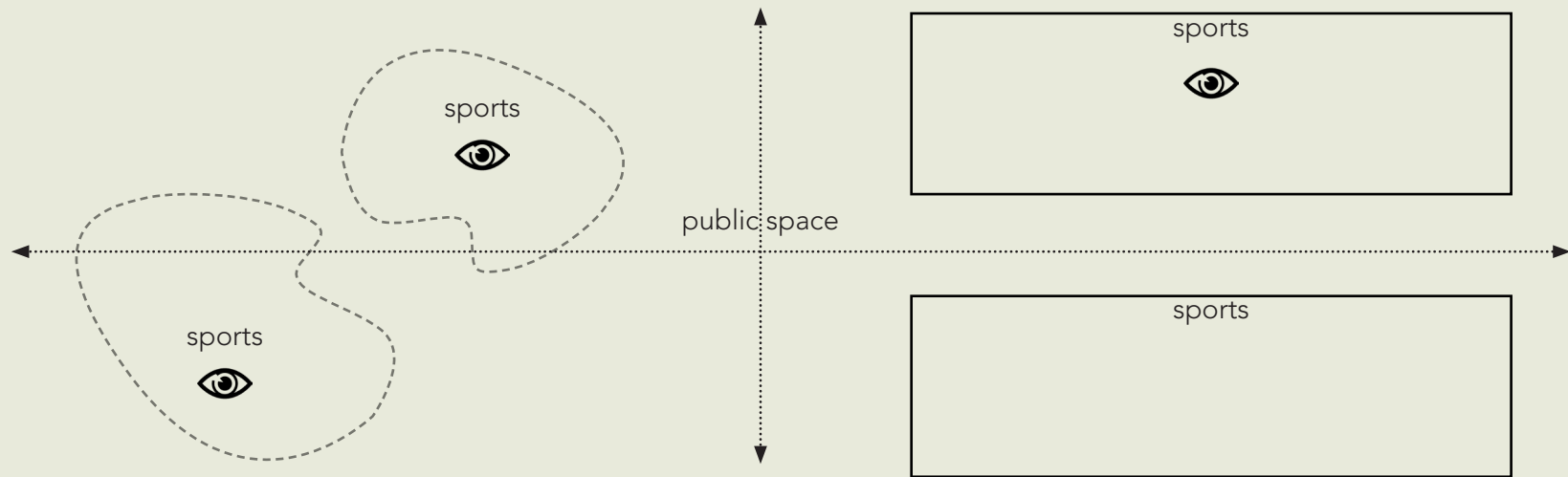


Echo of Sport

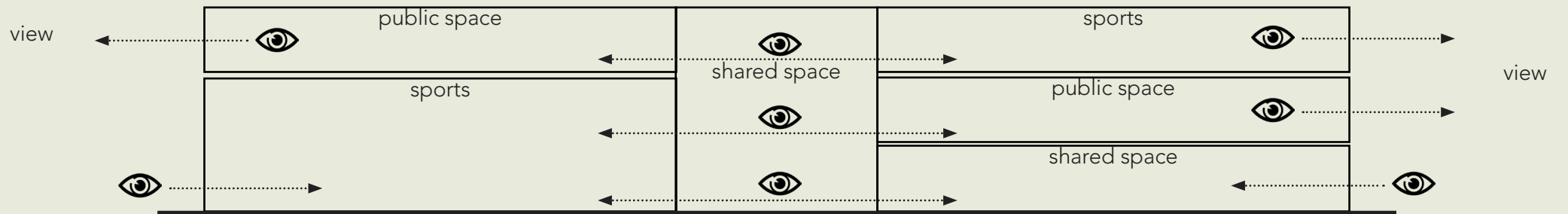


Programme
Distribution principle

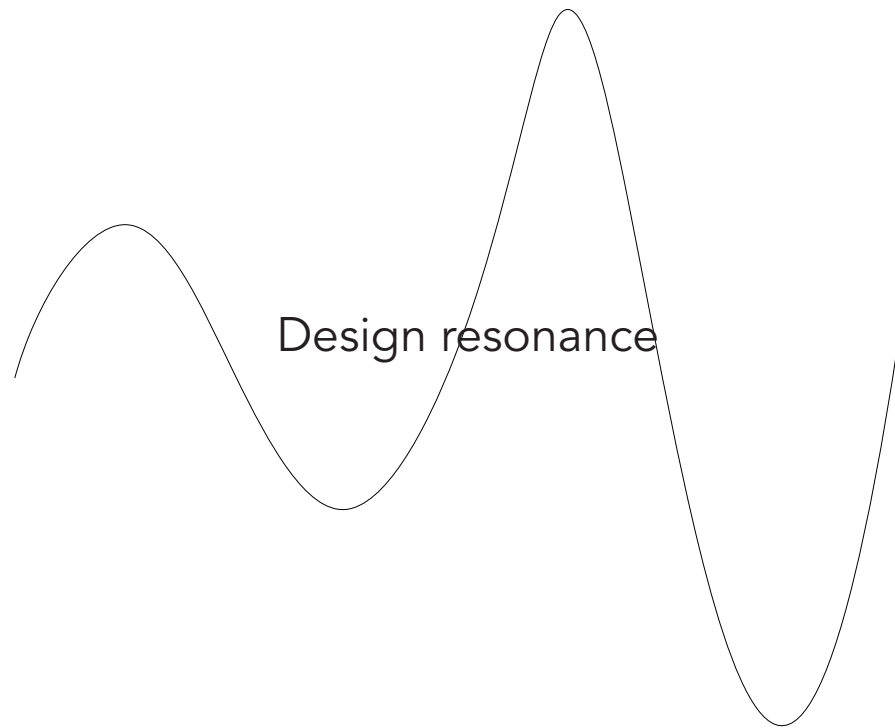
Echo of Sport



principle pans

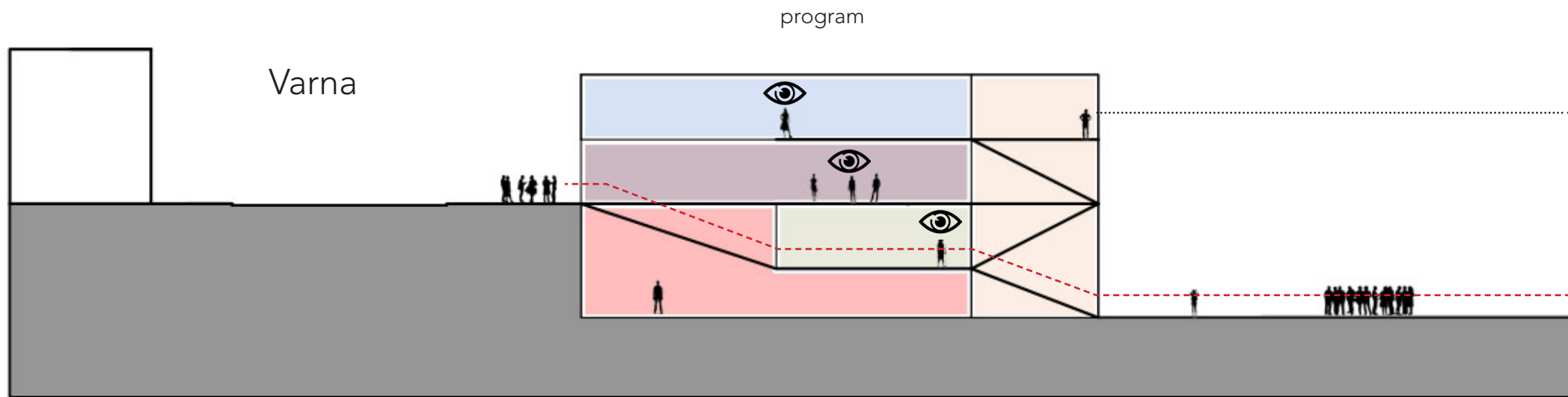


principle section

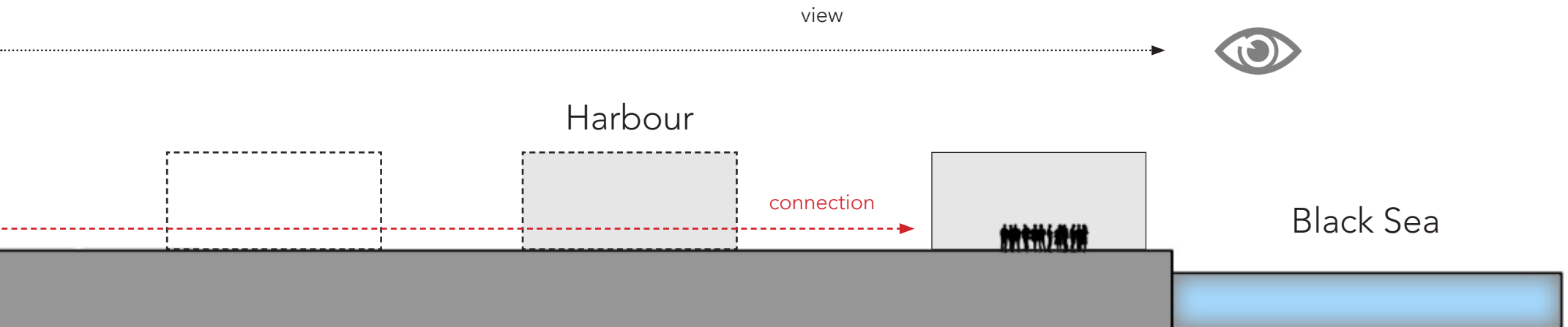


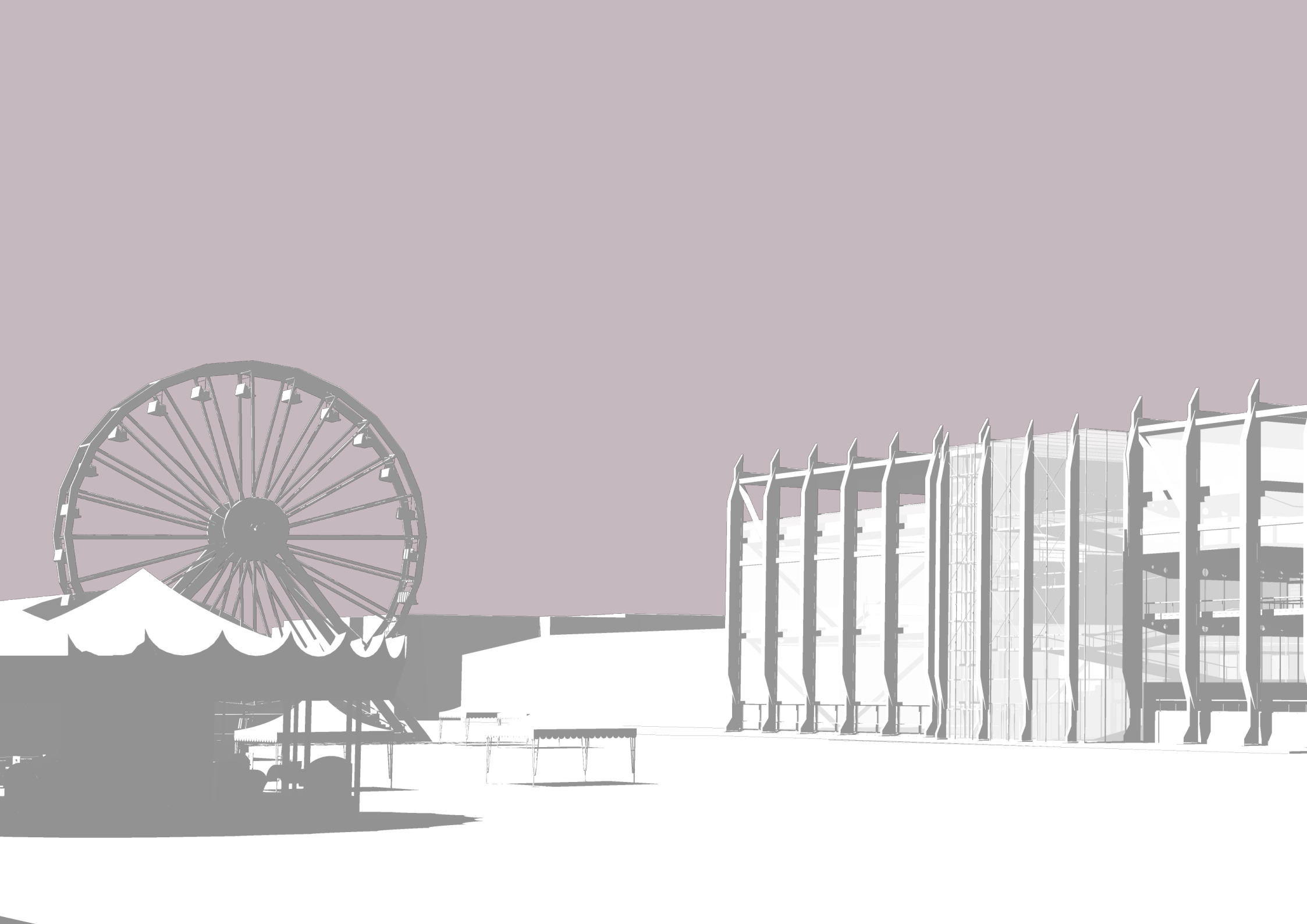
Design resonance

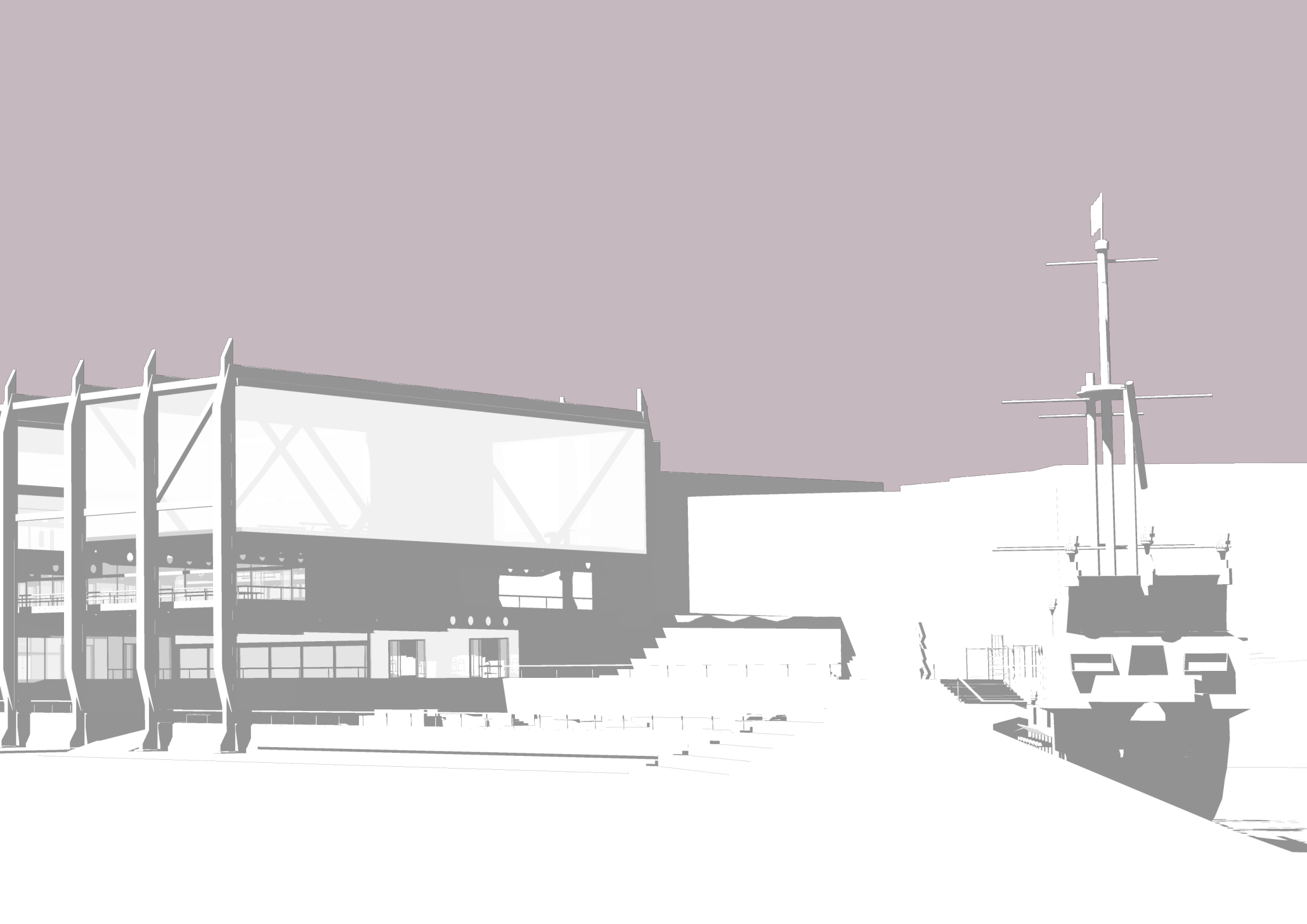
Conceptual Section

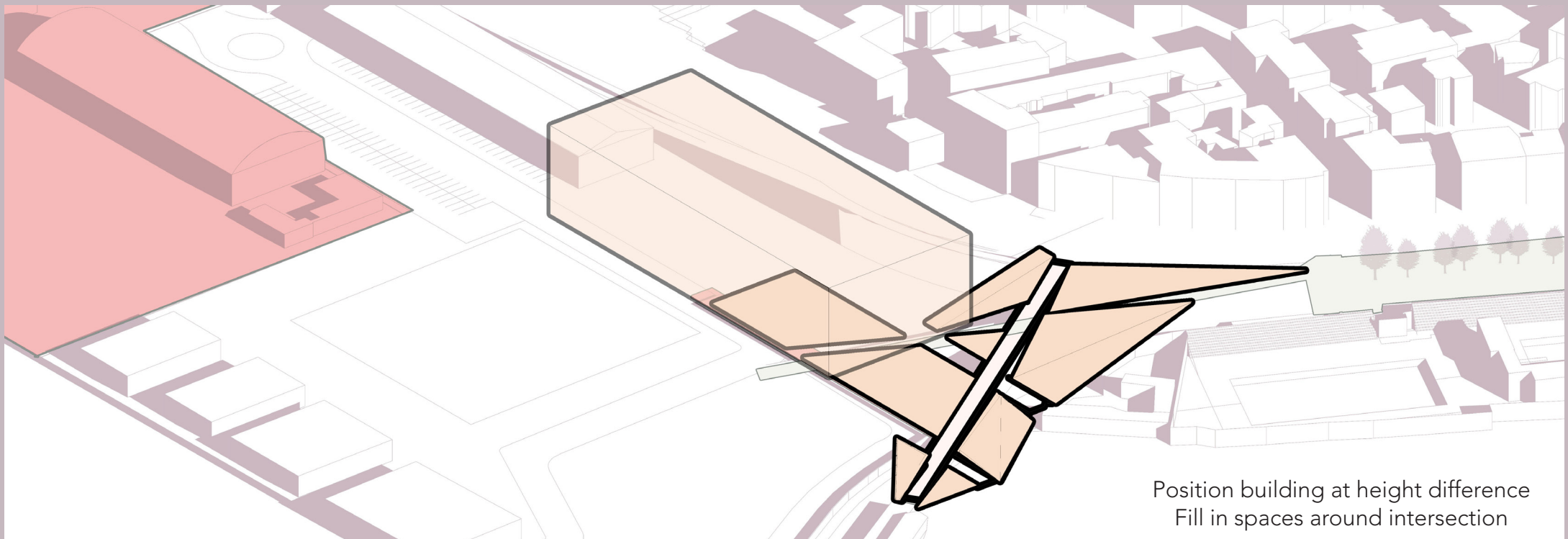
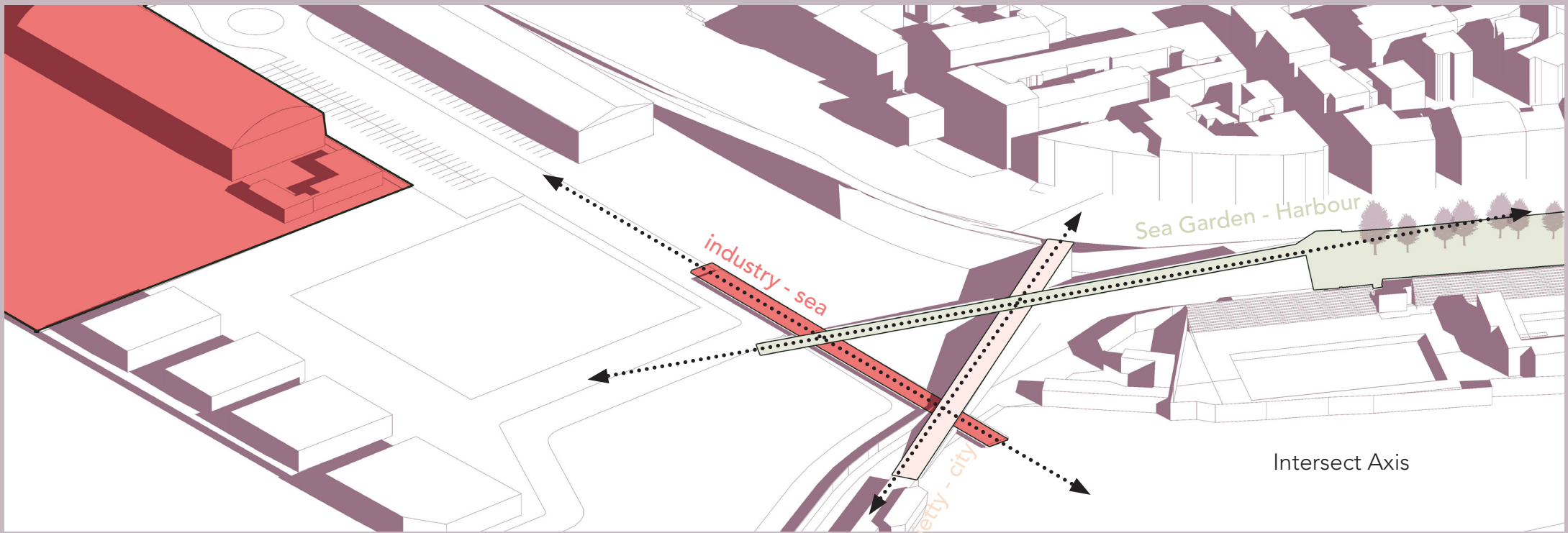


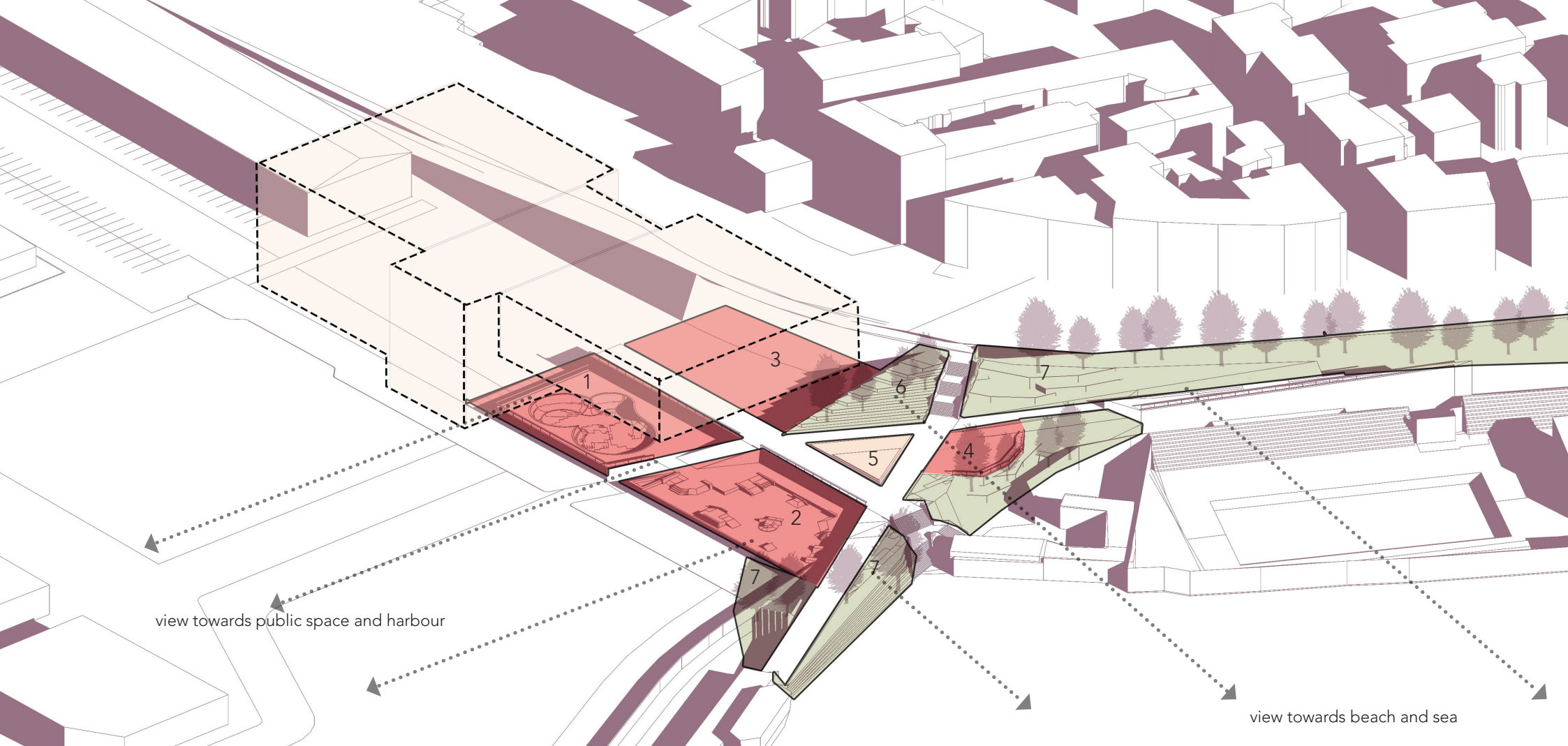
- Connect city to harbour
- Create opportunities for views
- Add functions and program in that connection









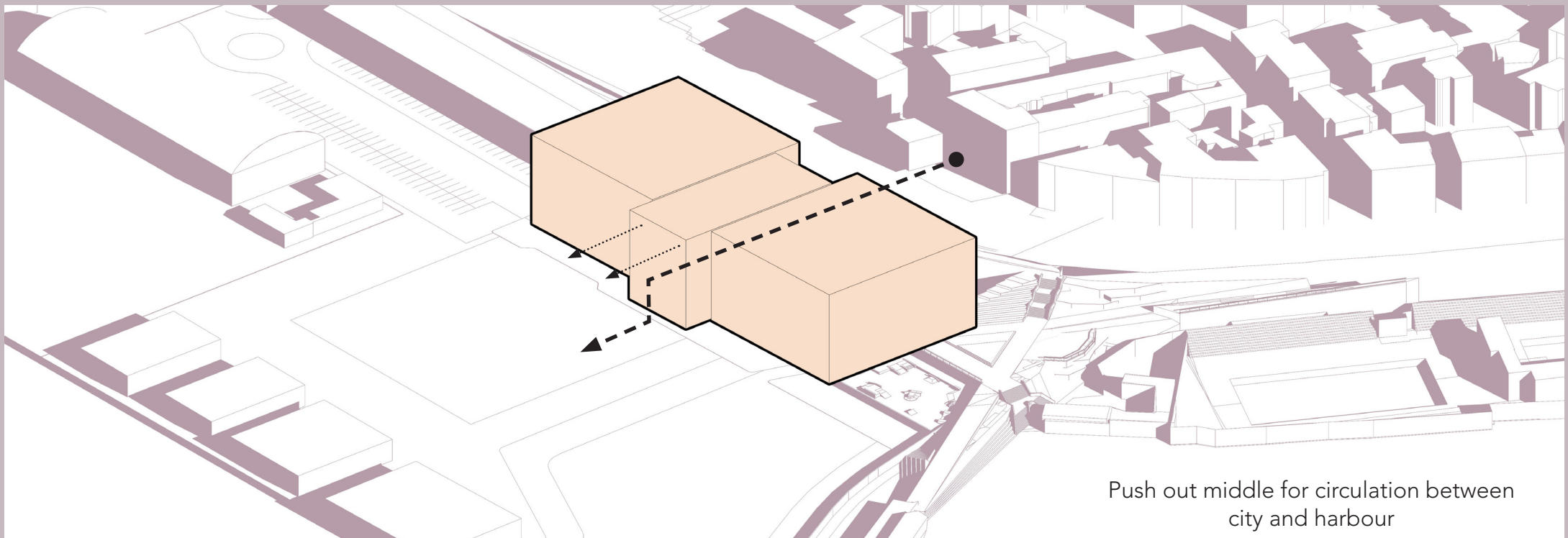
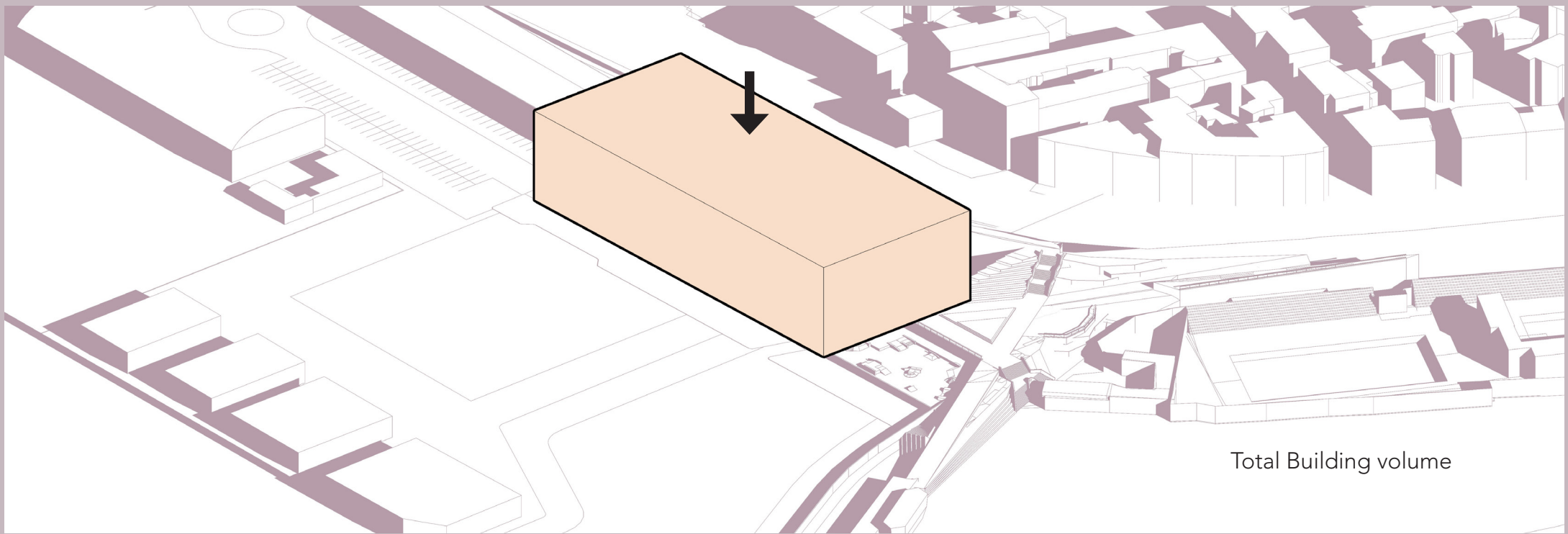


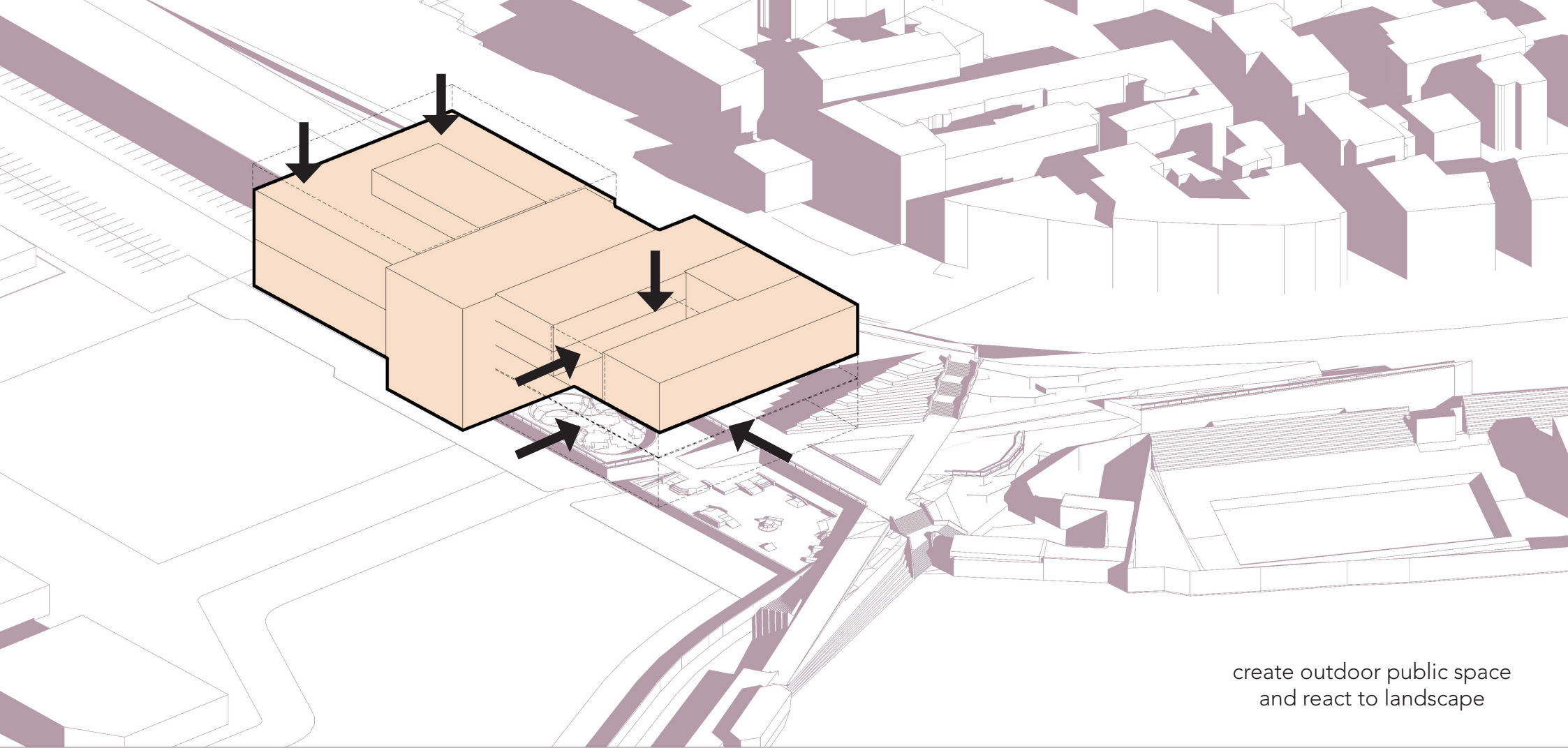
Now the site of the harbour has been emptied and new public functions have been introduced around the water. Restaurants at the water edge and other types of entertainment behind them now populate the empty industrial site, making it an attractive and new place for everyone in the city.

However, it is still very much disconnected by the huge height difference and does not feel a part of the city centre.

Legend:

1. Skatebolw
2. Skatepark
3. Climbing hall (interior sport)
4. Outdoor training grounds
5. Podium (stage) for public performances
6. Seating space in green towards Podium
7. Green sitting spaces with view





create outdoor public space
and react to landscape

Now the site of the harbour has been emptied and new public functions have been introduced around the water. Restaurants at the water edge and other types of entertainment behind them now populate the empty industrial site, making it an attractive and new place for everyone in the city.

However, it is still very much disconnected by the huge height difference and does not feel a part of the city centre.



- Legend:
1. Harbour entrance
 2. Elevators
 3. Changing rooms
 4. Playing field 1
 5. Squash courts
 6. Climbing hall
 7. Storage room



A

B

C

D

A

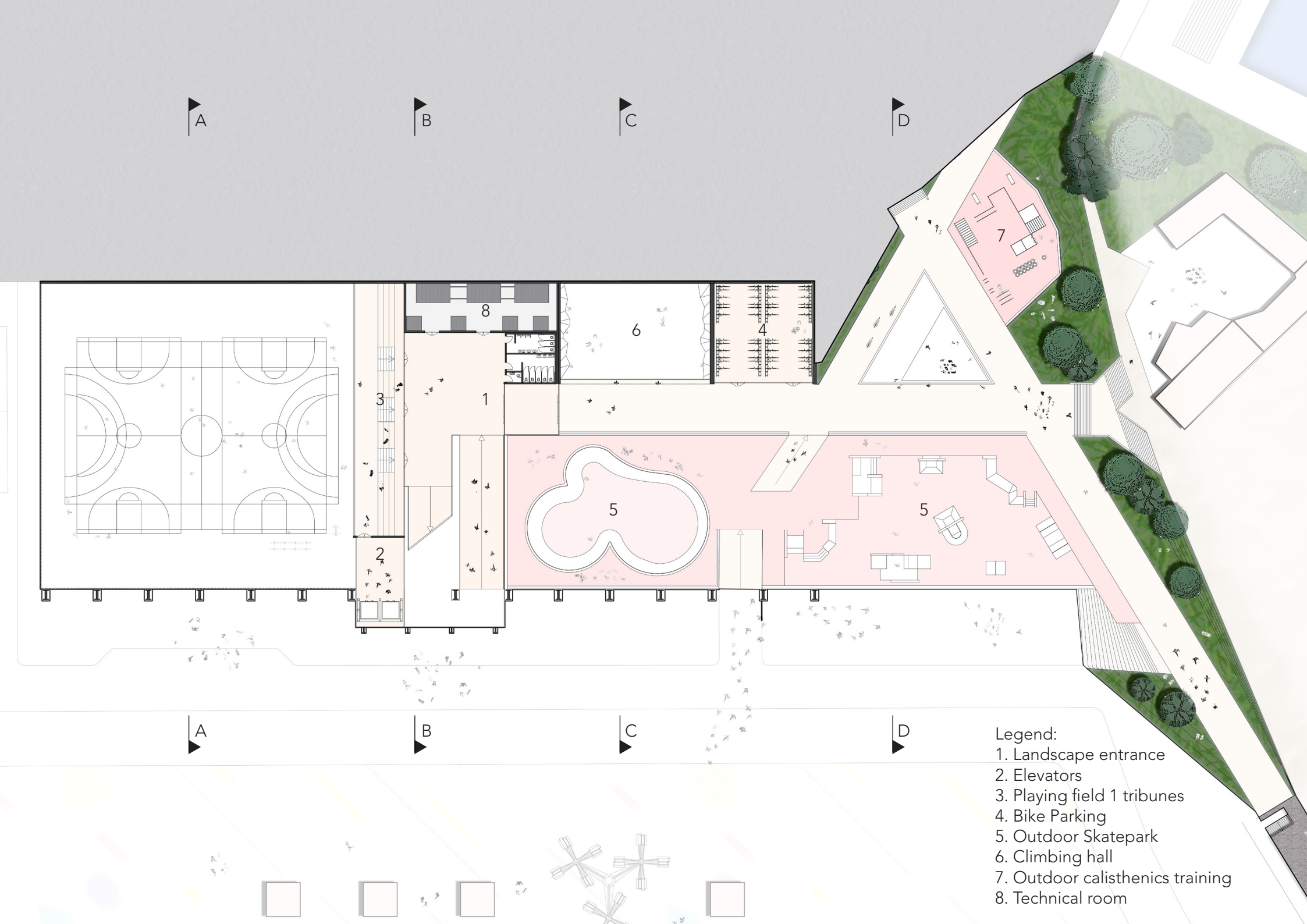
B

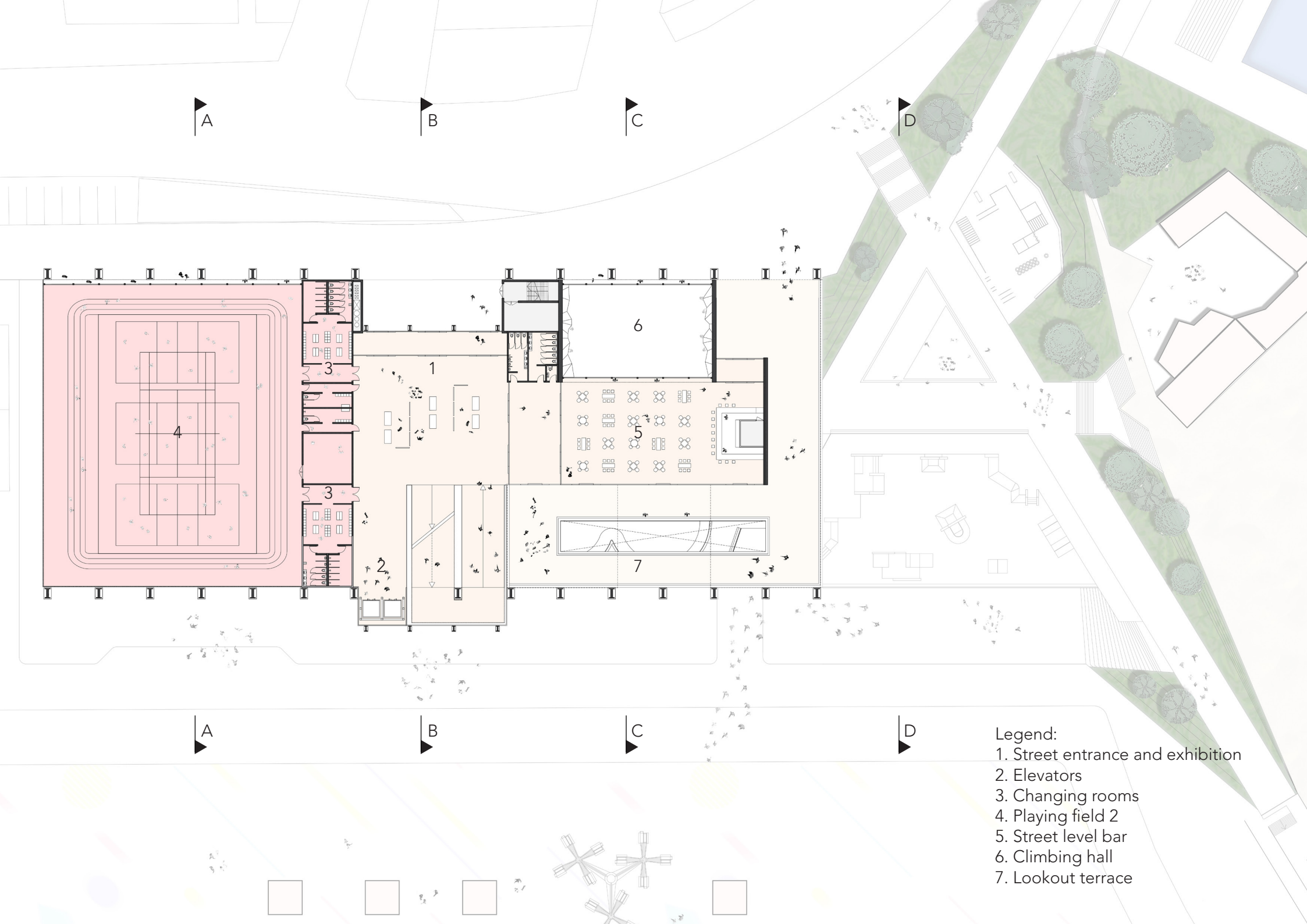
C

D

Legend:

1. Landscape entrance
2. Elevators
3. Playing field 1 tribunes
4. Bike Parking
5. Outdoor Skatepark
6. Climbing hall
7. Outdoor calisthenics training
8. Technical room





A

B

C

D

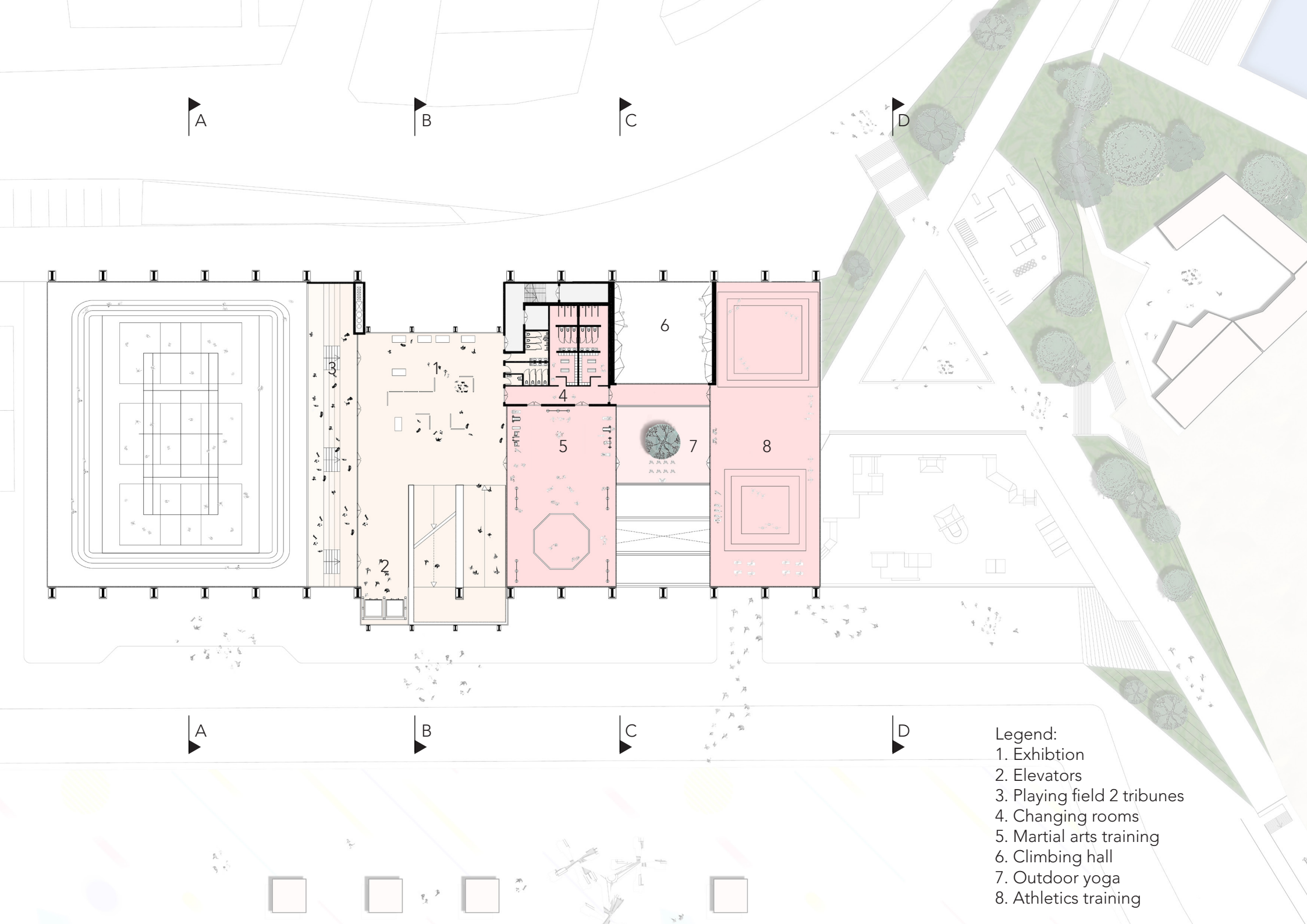
A

B

C

D

- Legend:
- 1. Street entrance and exhibition
 - 2. Elevators
 - 3. Changing rooms
 - 4. Playing field 2
 - 5. Street level bar
 - 6. Climbing hall
 - 7. Lookout terrace



A

B

C

D

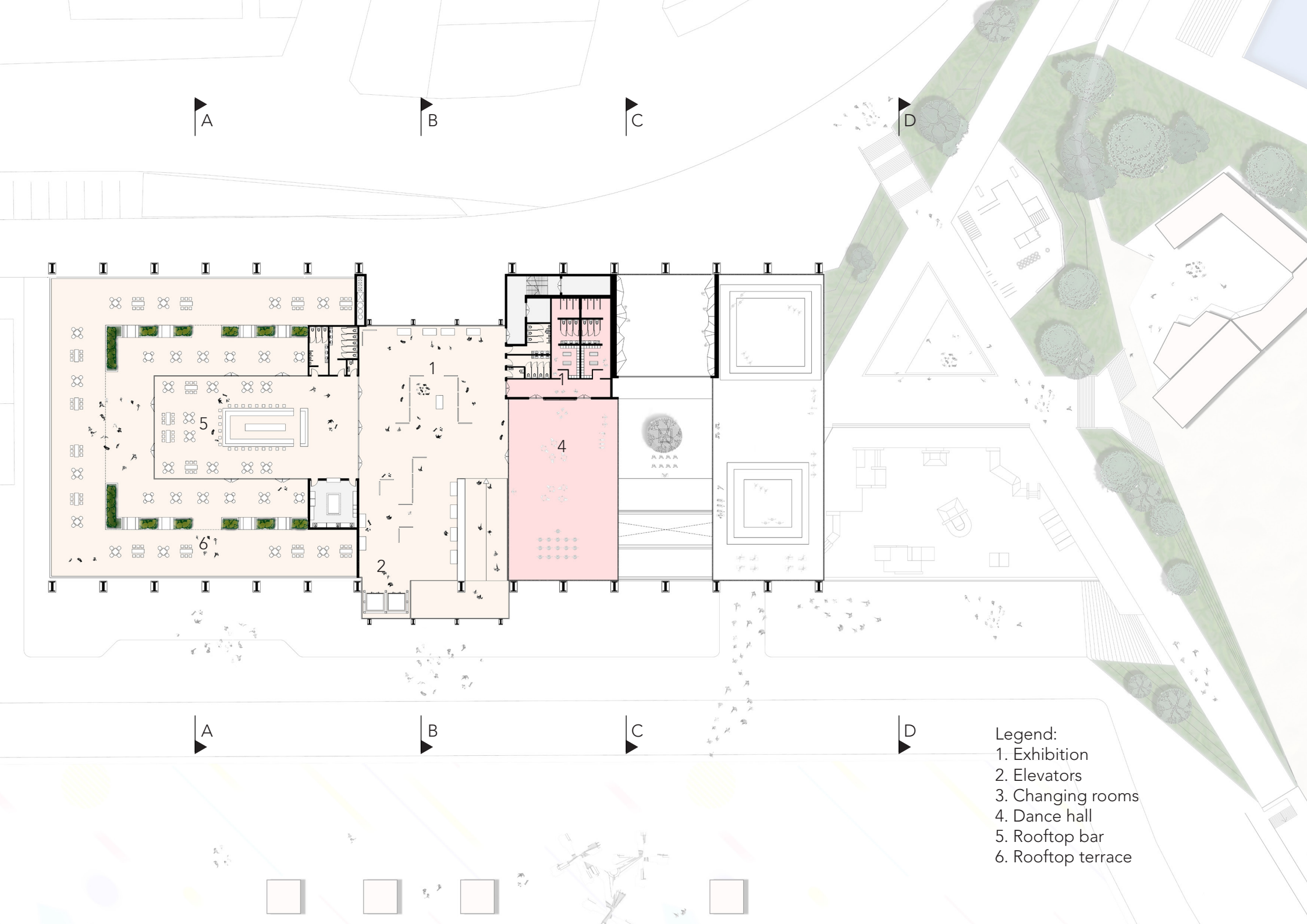
A

B

C

D

- Legend:
- 1. Exhibition
 - 2. Elevators
 - 3. Playing field 2 tribunes
 - 4. Changing rooms
 - 5. Martial arts training
 - 6. Climbing hall
 - 7. Outdoor yoga
 - 8. Athletics training



A

B

C

D

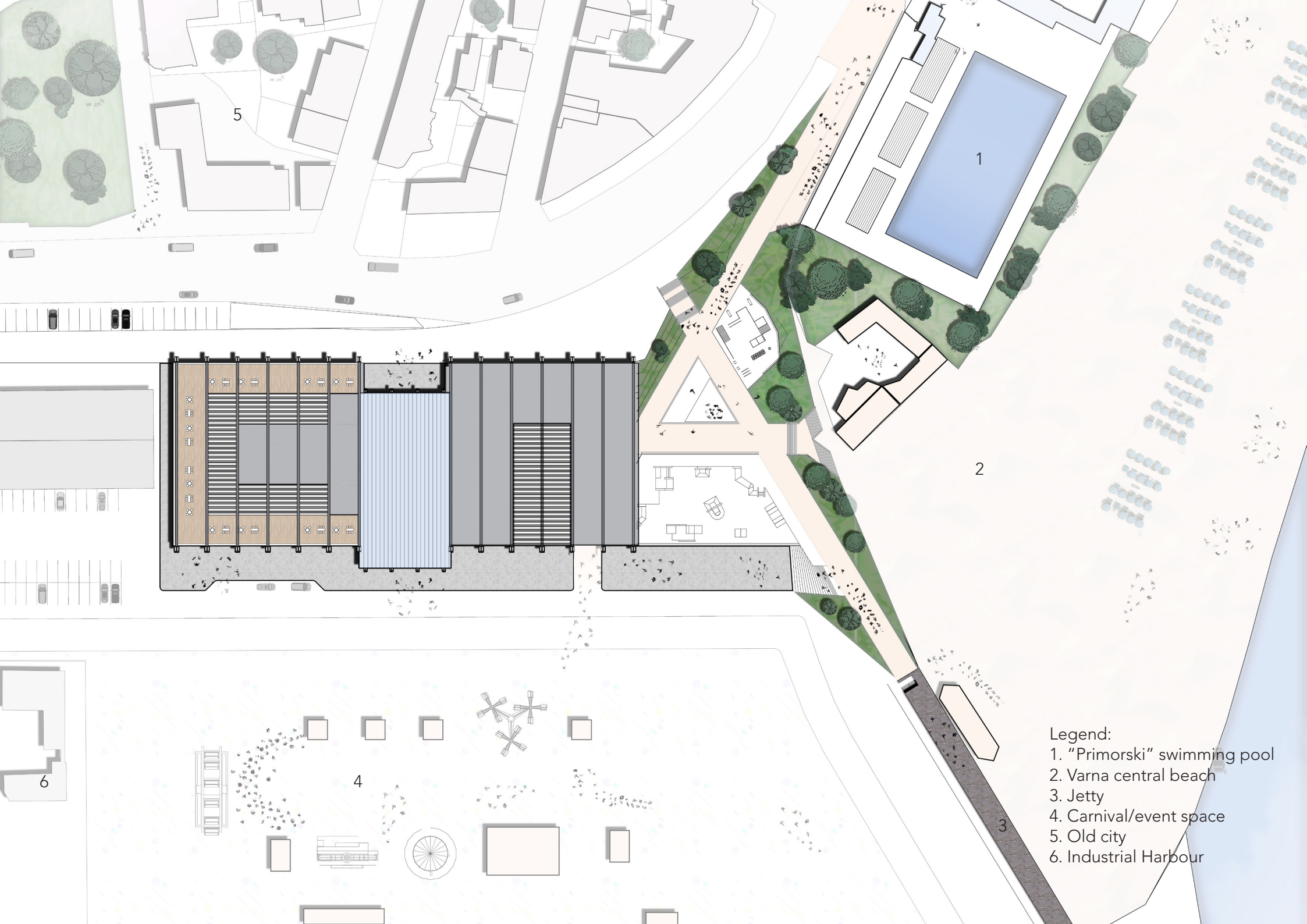
A

B

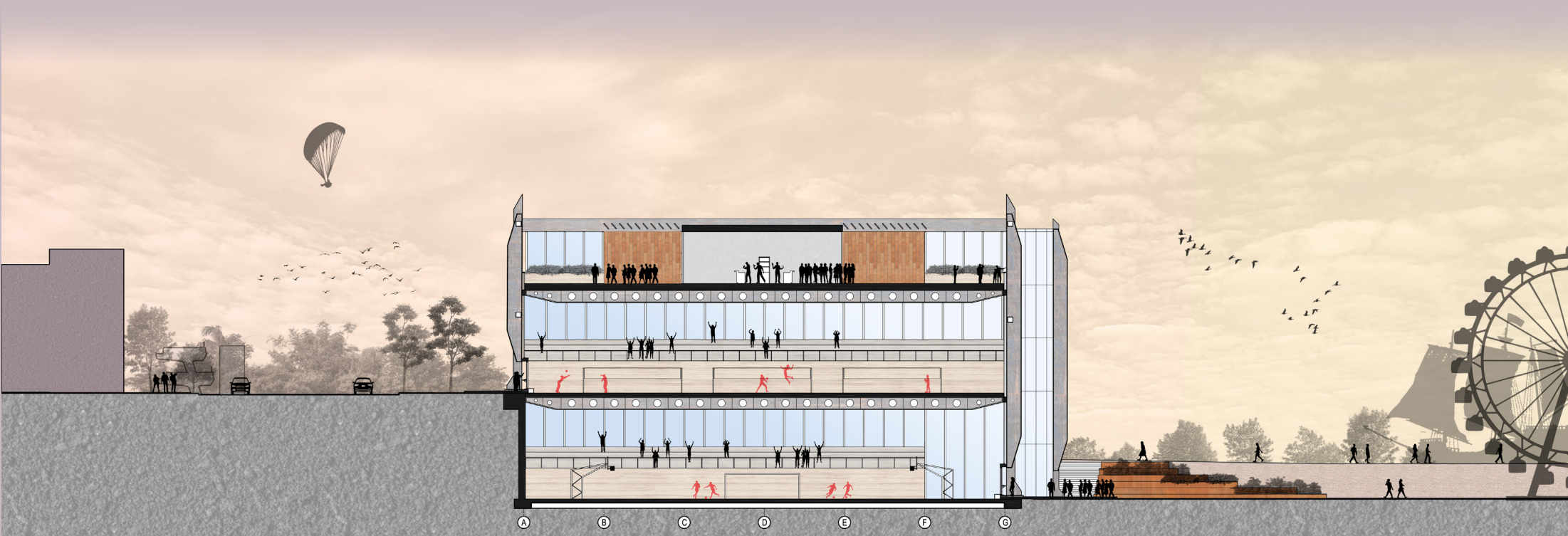
C

D

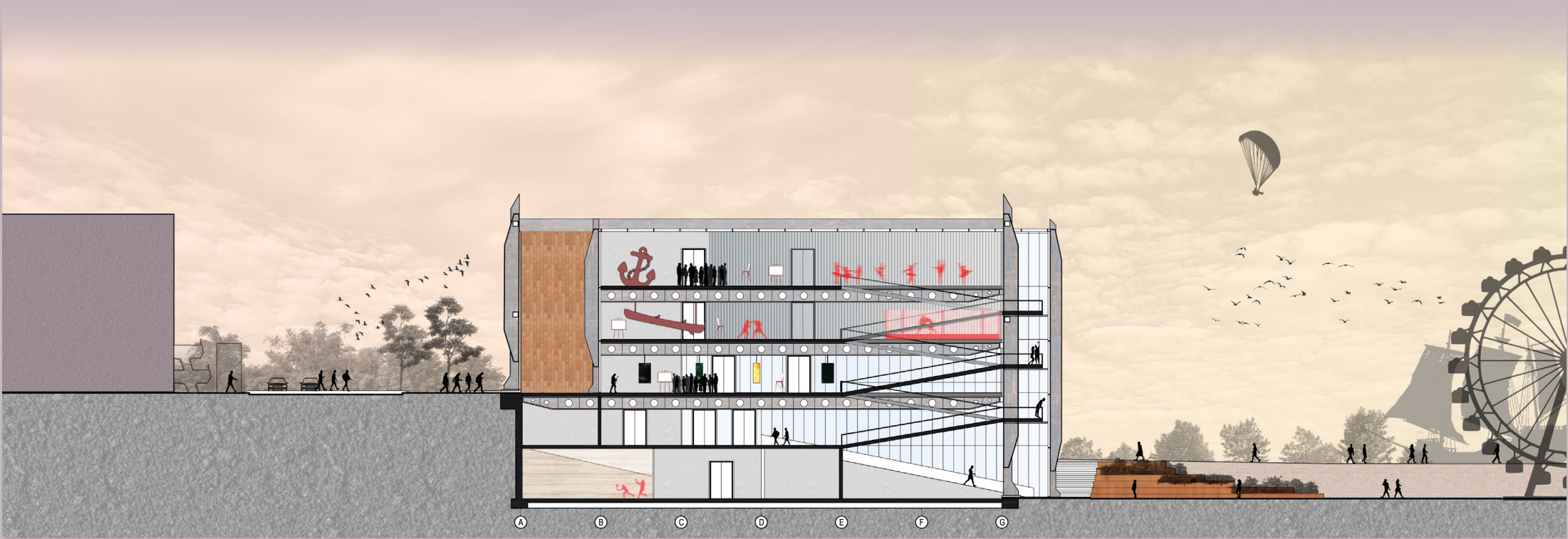
- Legend:
- 1. Exhibition
 - 2. Elevators
 - 3. Changing rooms
 - 4. Dance hall
 - 5. Rooftop bar
 - 6. Rooftop terrace



- Legend:
- 1. "Primorski" swimming pool
 - 2. Varna central beach
 - 3. Jetty
 - 4. Carnival/event space
 - 5. Old city
 - 6. Industrial Harbour



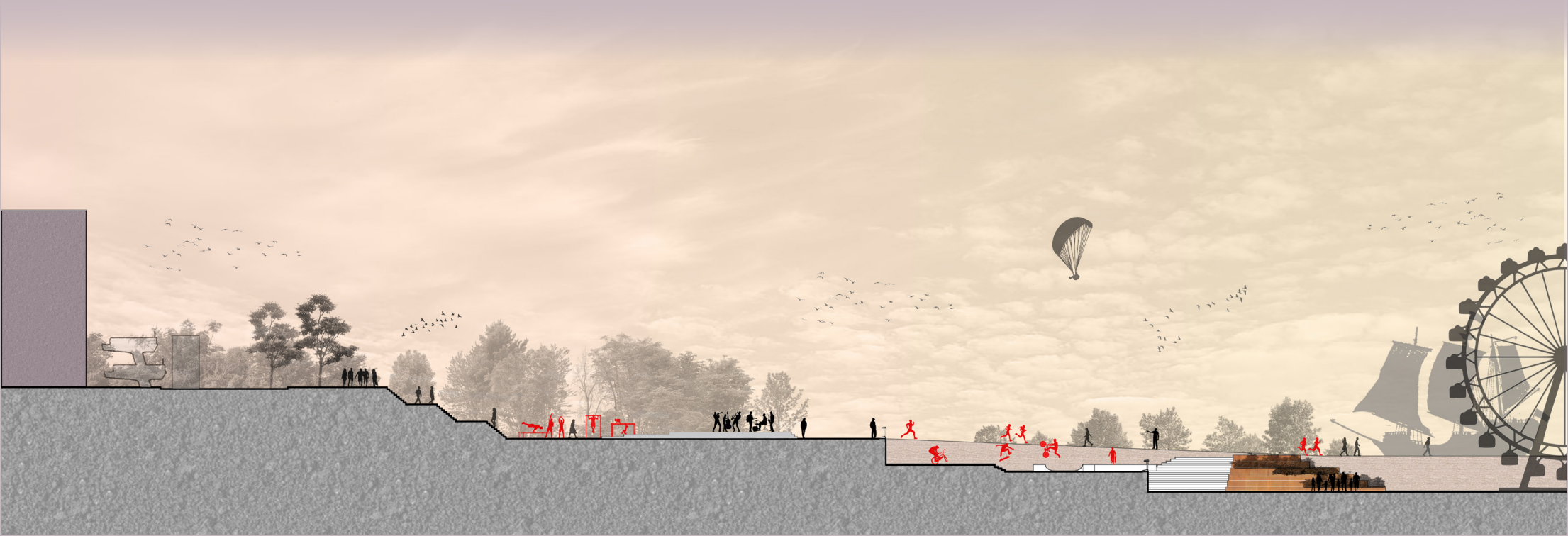
SECTION A-A



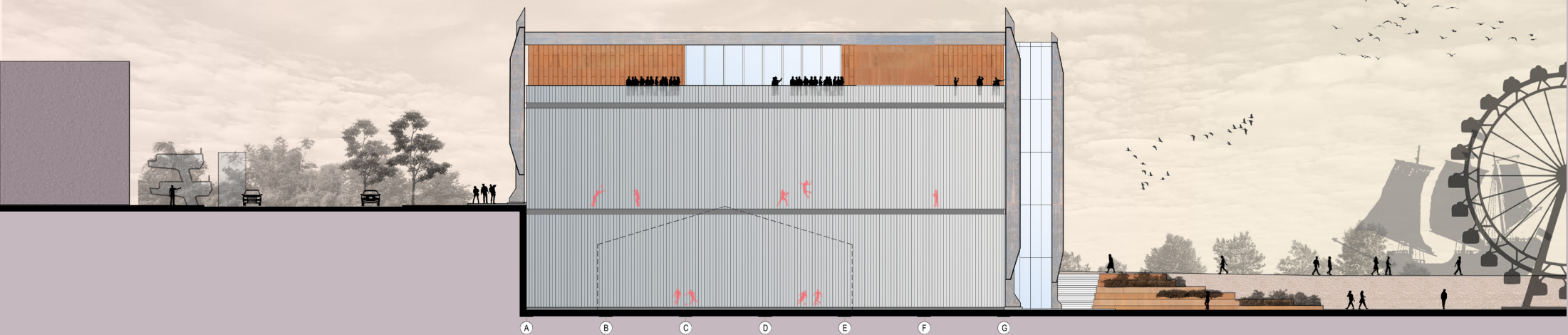
SECTION B-B



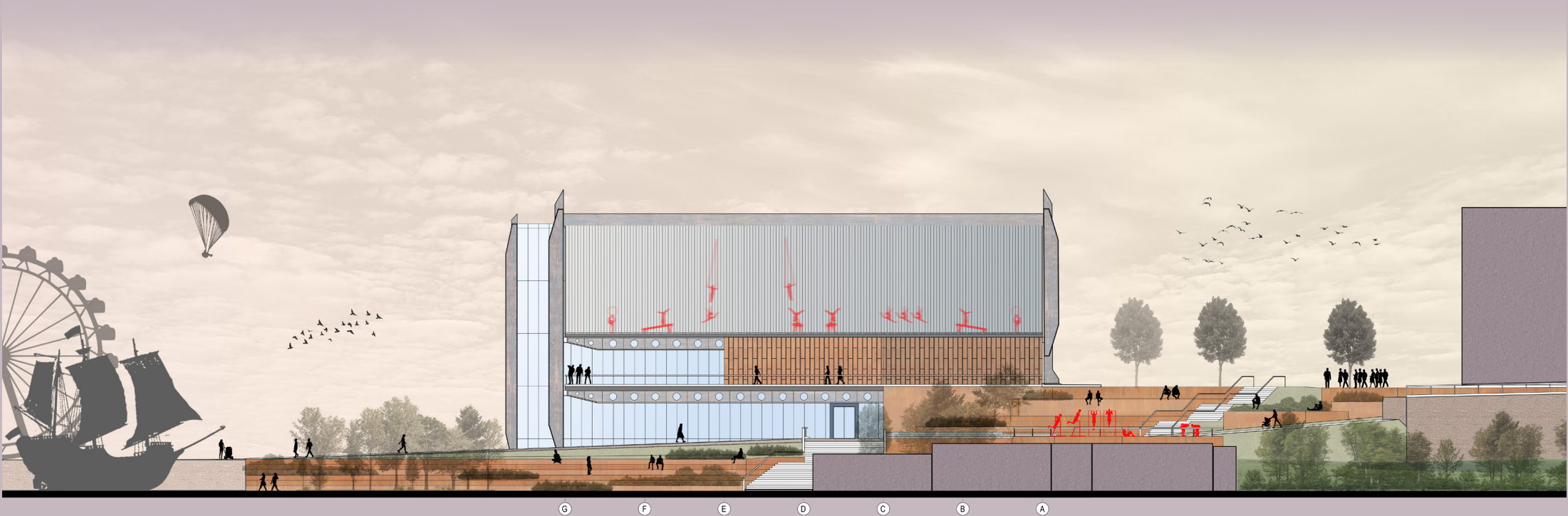
SECTION C-C



SECTION D-D



WEST ELEVATION



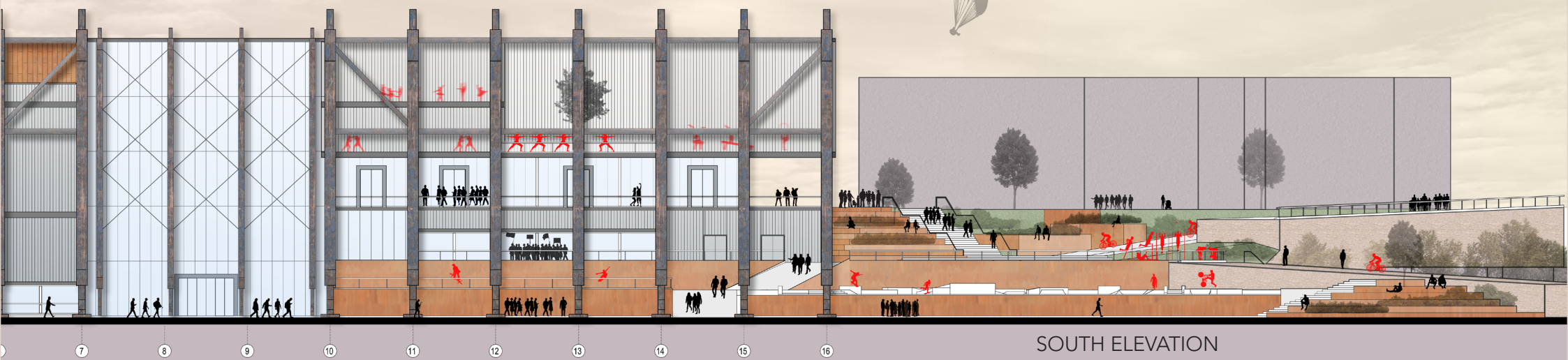
EAST ELEVATION

ELEVATIONS x4

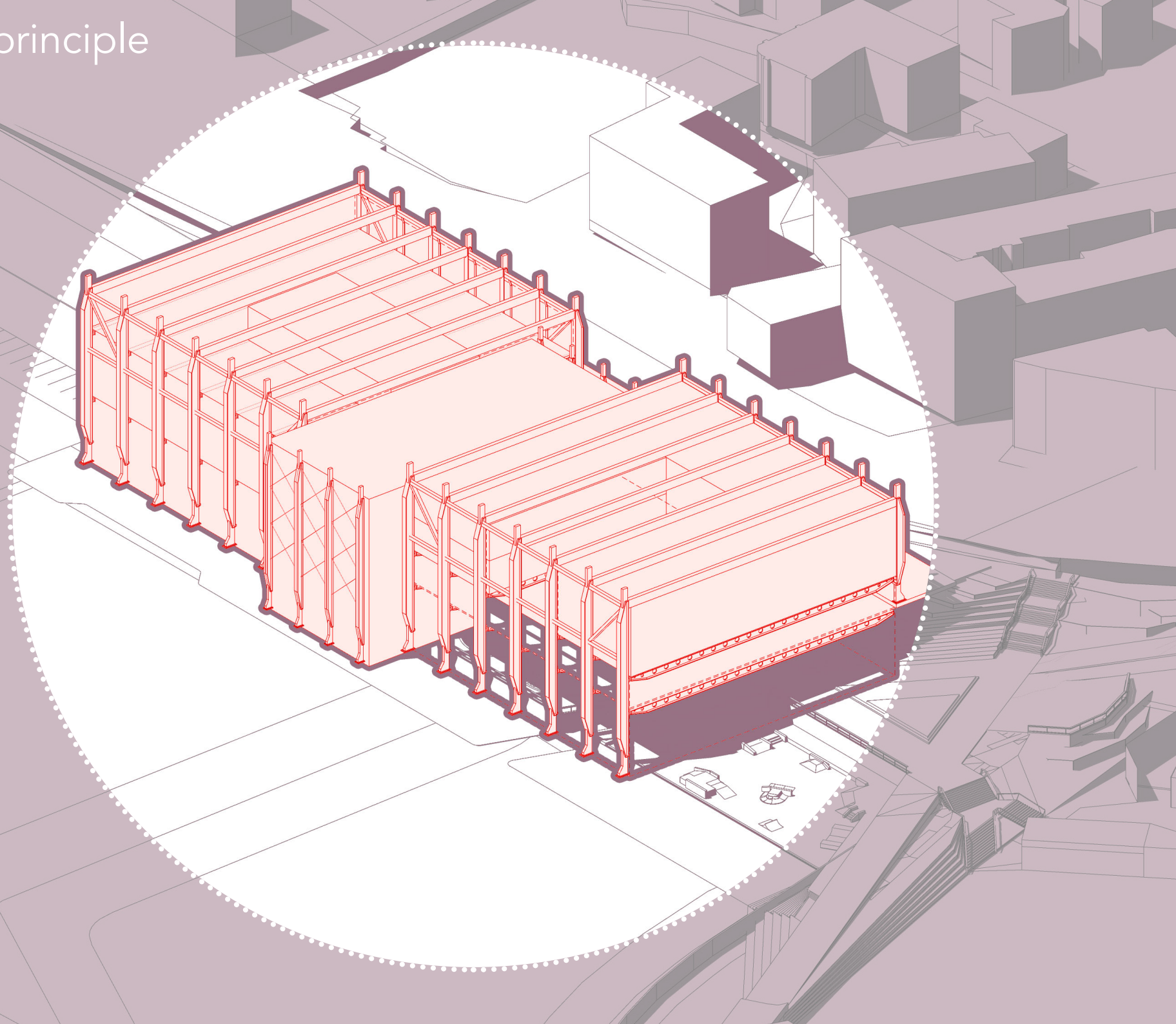


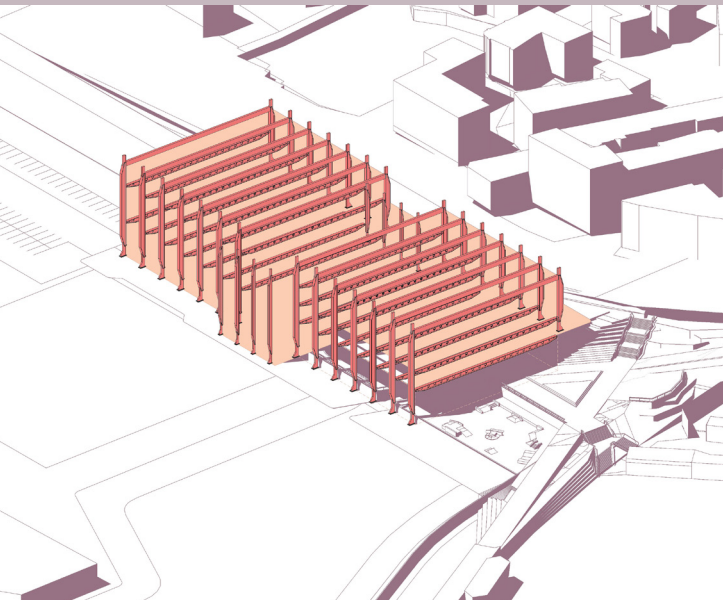
NORTH ELEVATION



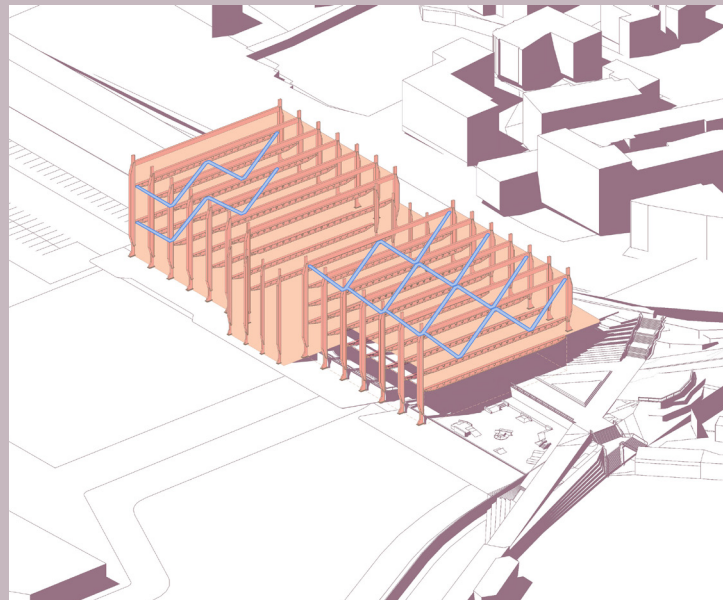


Structural principle

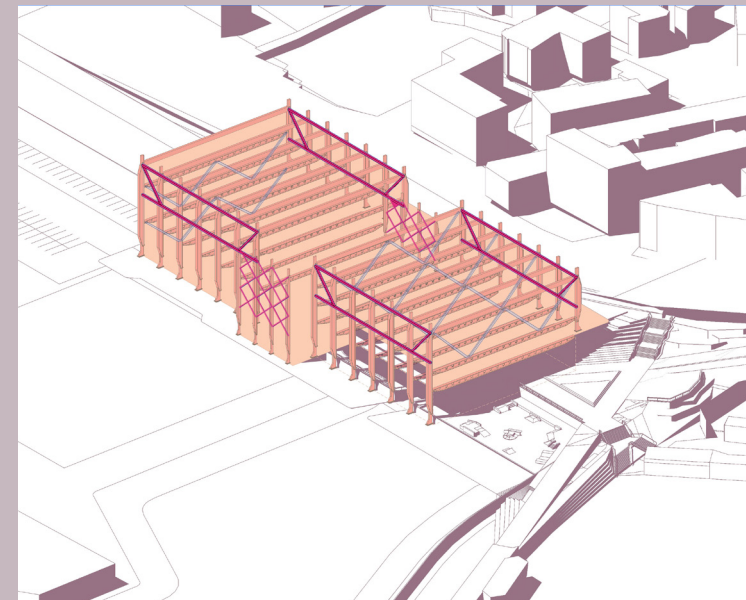




Main structure of Beams and Columns



Stabilisation trusses

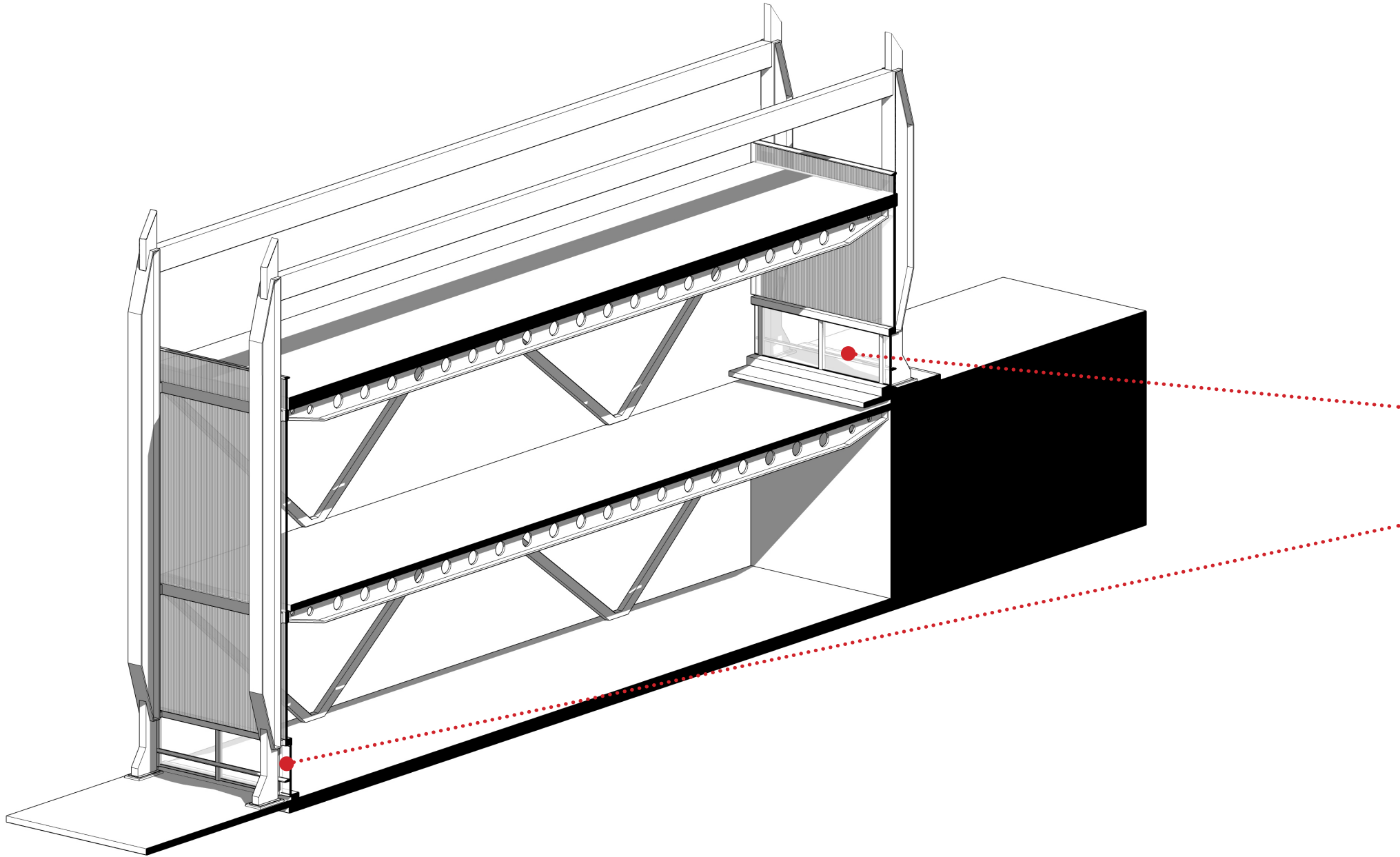


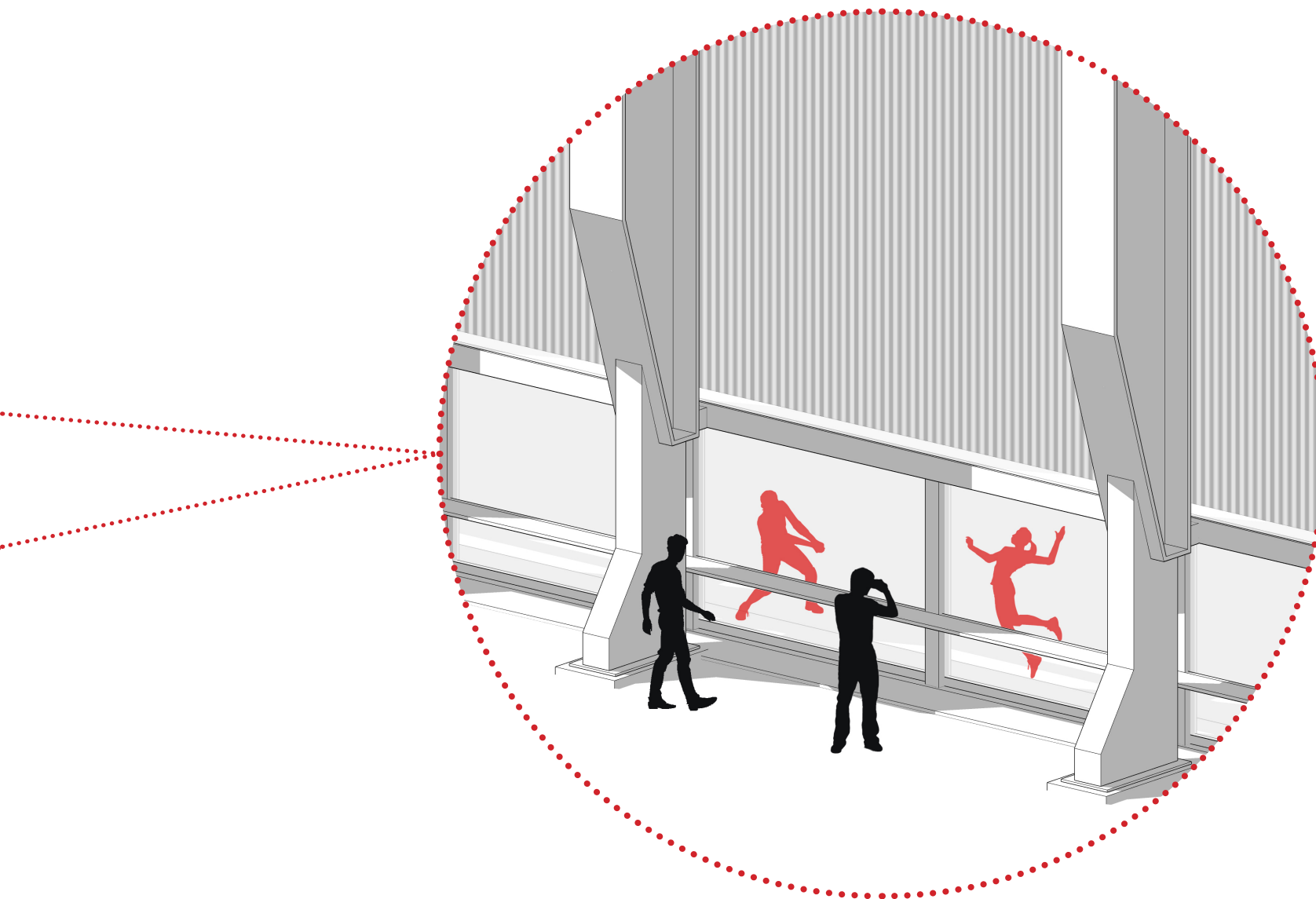
Stabilisation in Facade

Now the site of the harbour has been emptied and new public functions have been introduced around the water. Restaurants at the water edge and other types of entertainment behind them now populate the empty industrial site, making it an attractive and new place for everyone in the city.

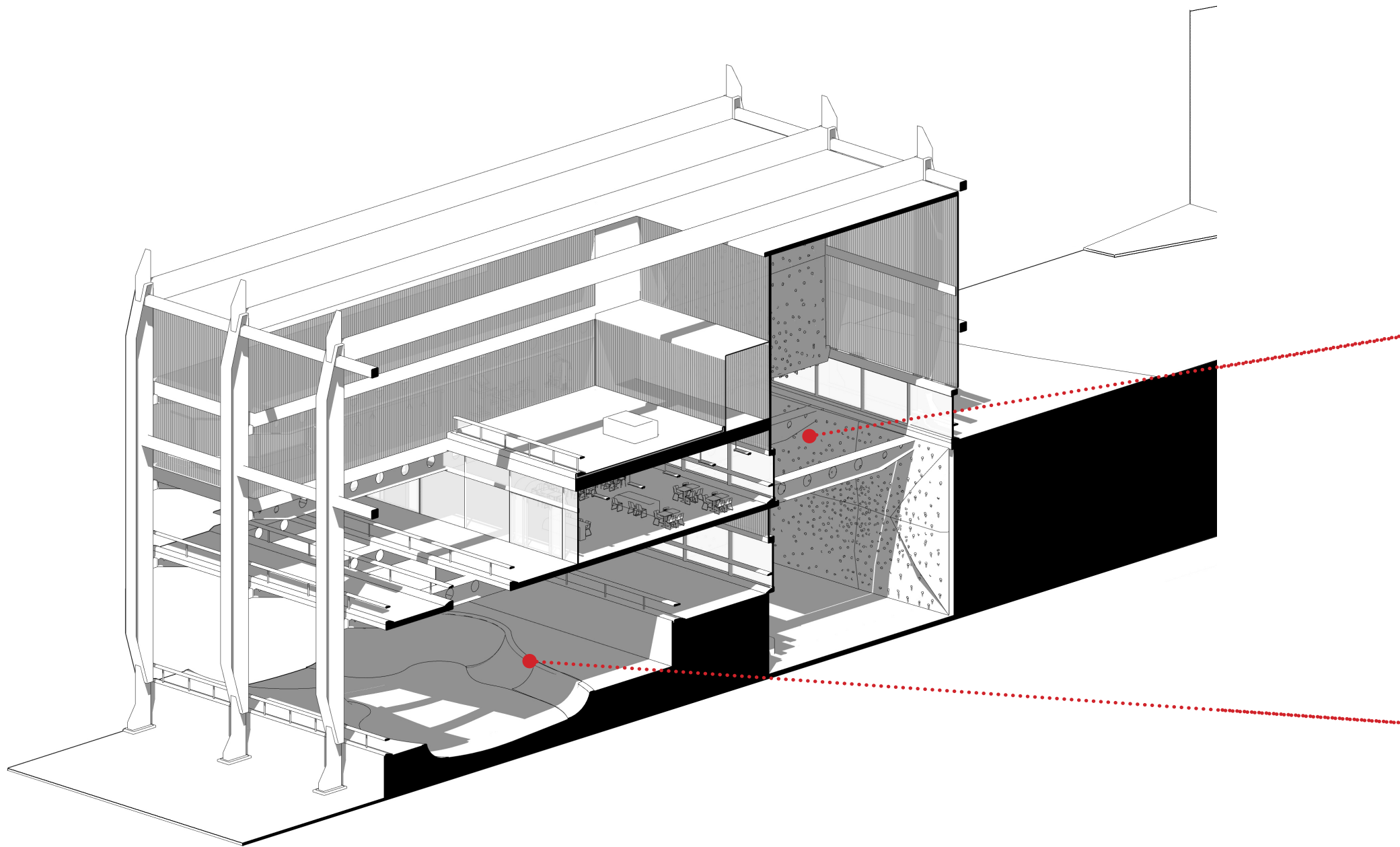
However, it is still very much disconnected by the huge height difference and does not feel a part of the city centre.

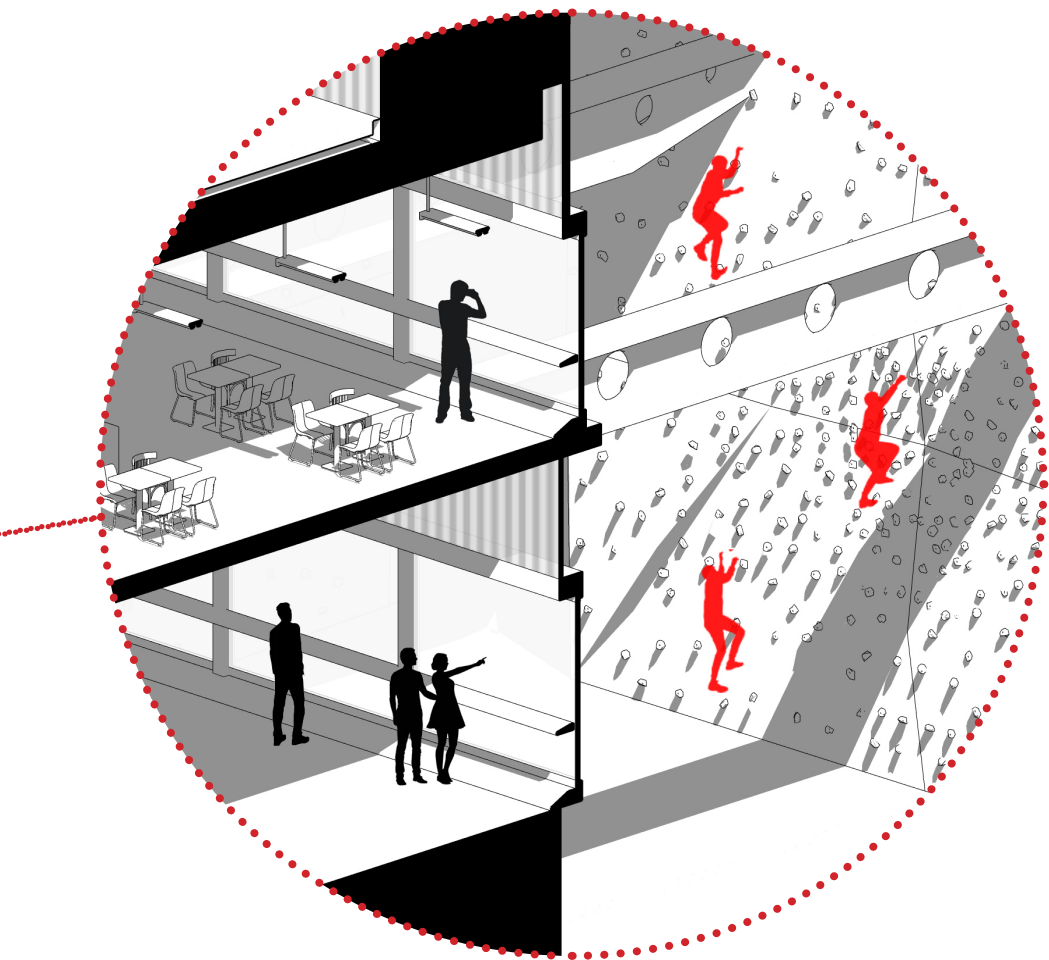
Look-In Principle

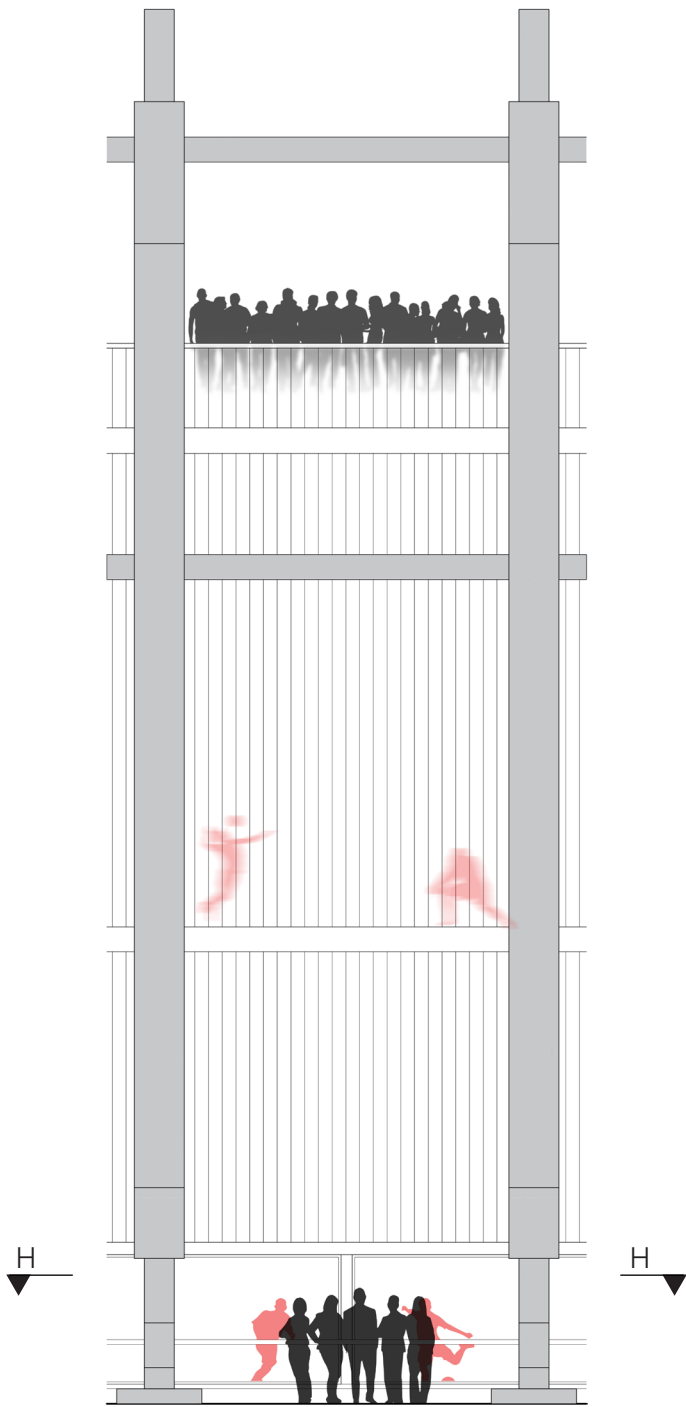




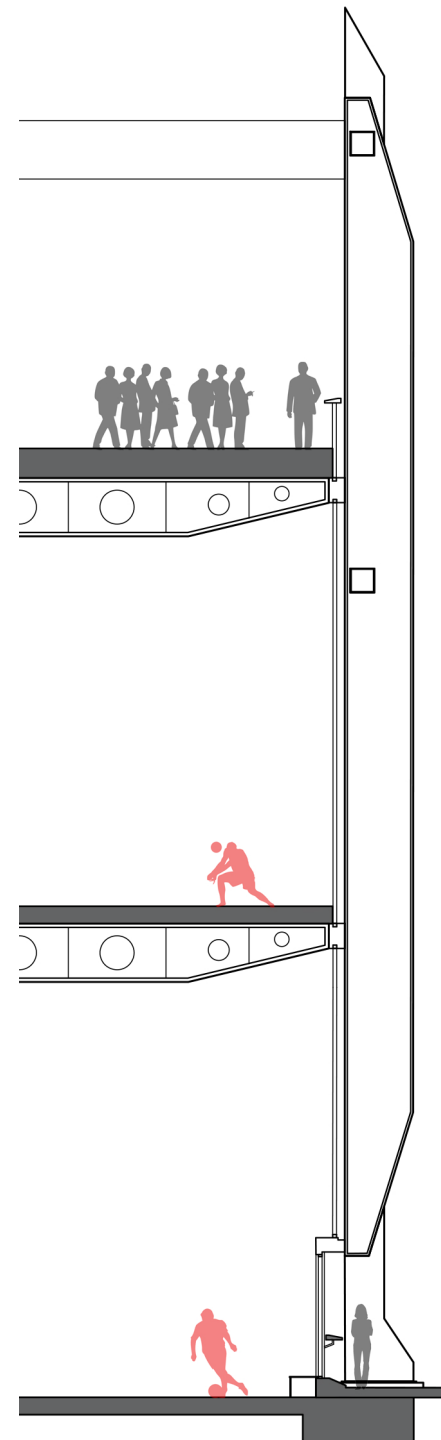
Specific moments in the building encourage passers-by to look into the otherwise opaque sporthall. These allow for spectators to observe without even entering the space.





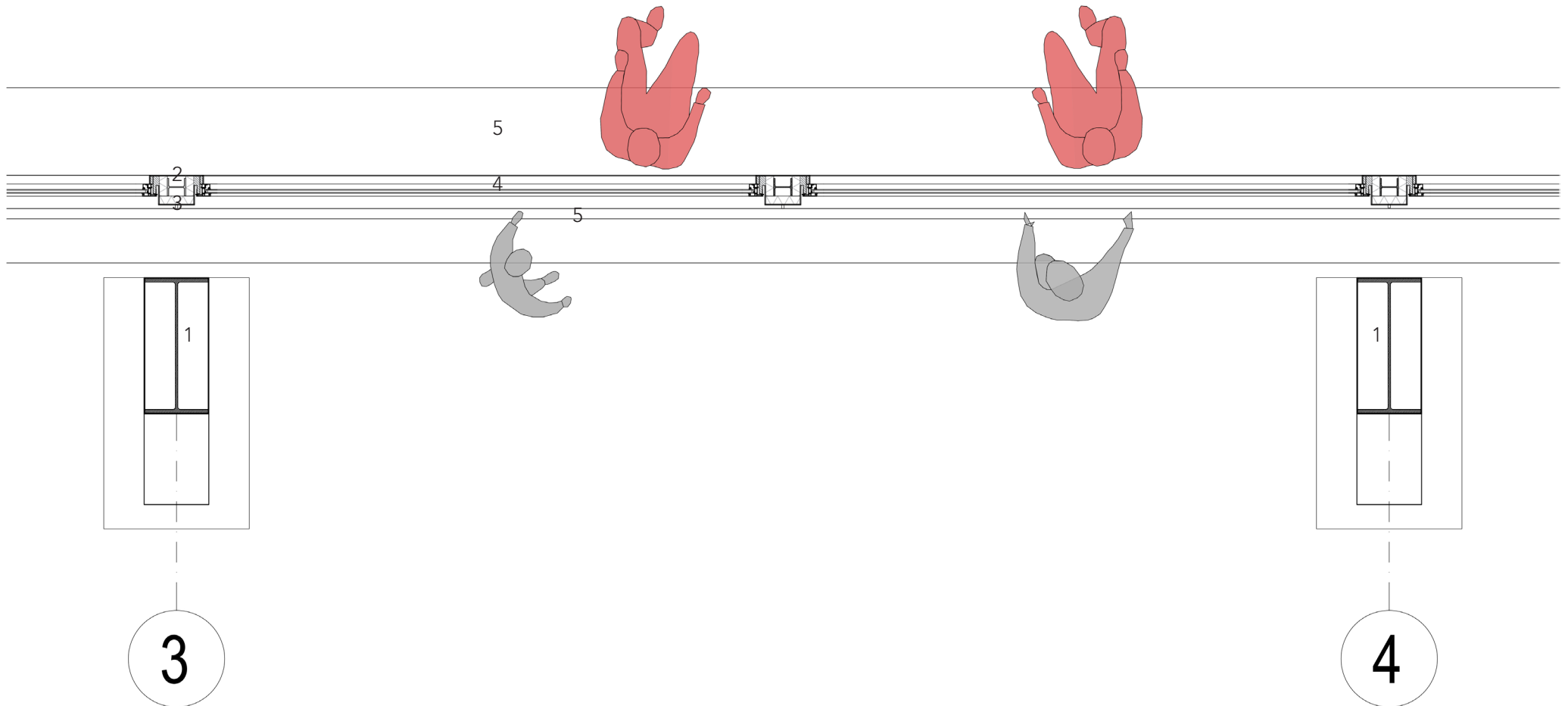


Facade extract

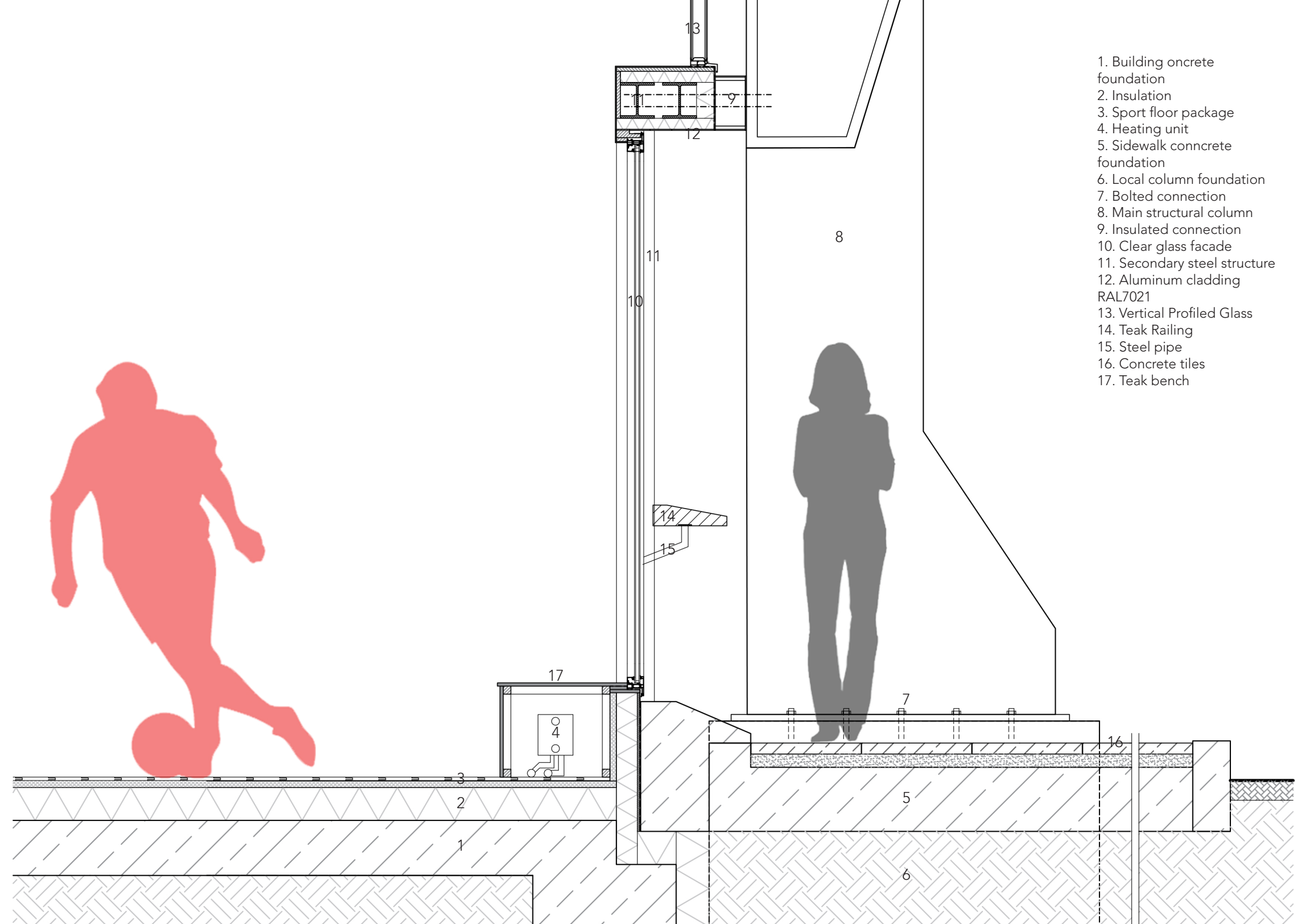


Facade section

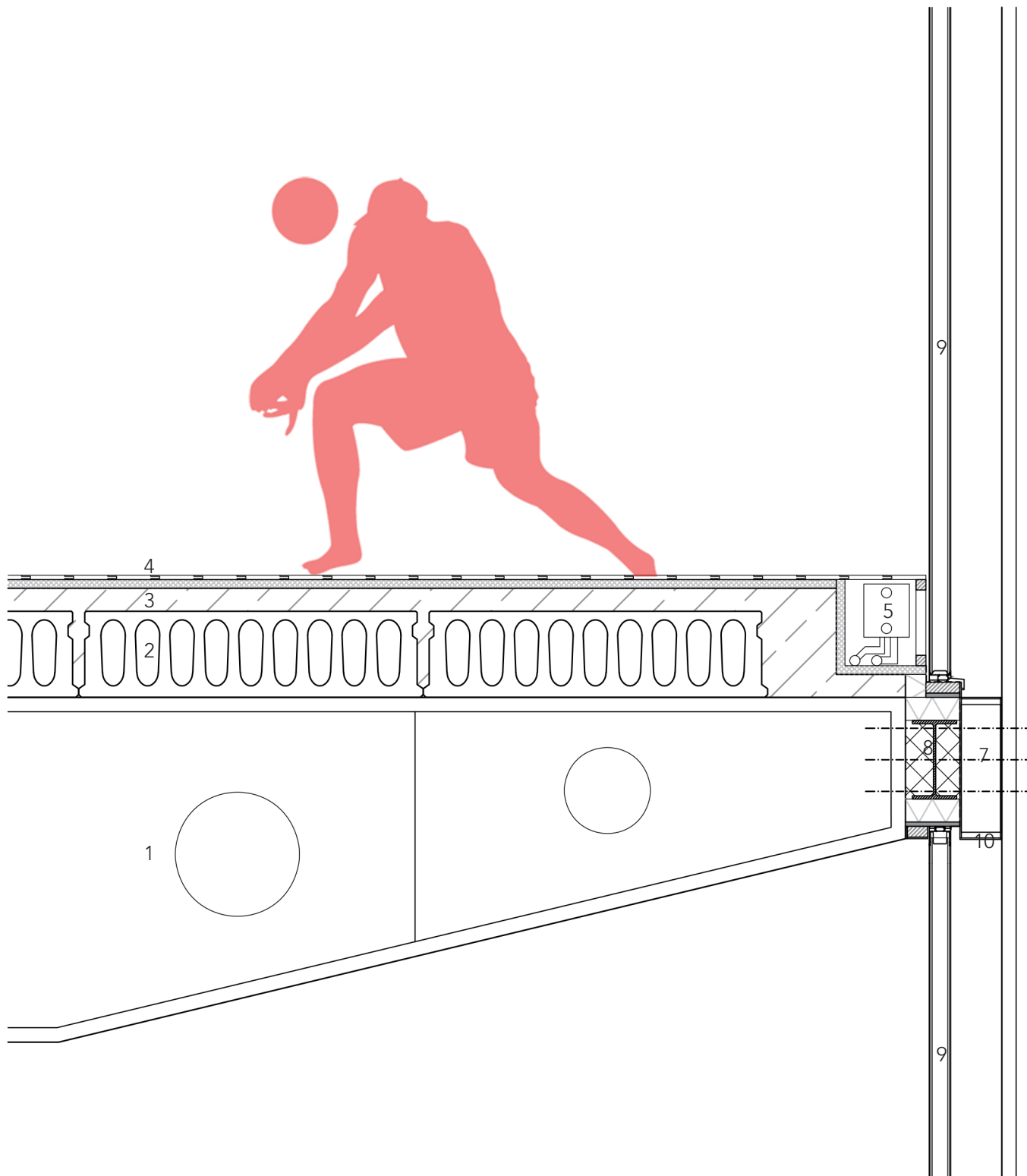
1. Main structural column
2. Secondary steel construction
3. Insulation - clad in aluminium RAL7021
4. Clear glass
5. Teak bench for players
6. Teak Railing

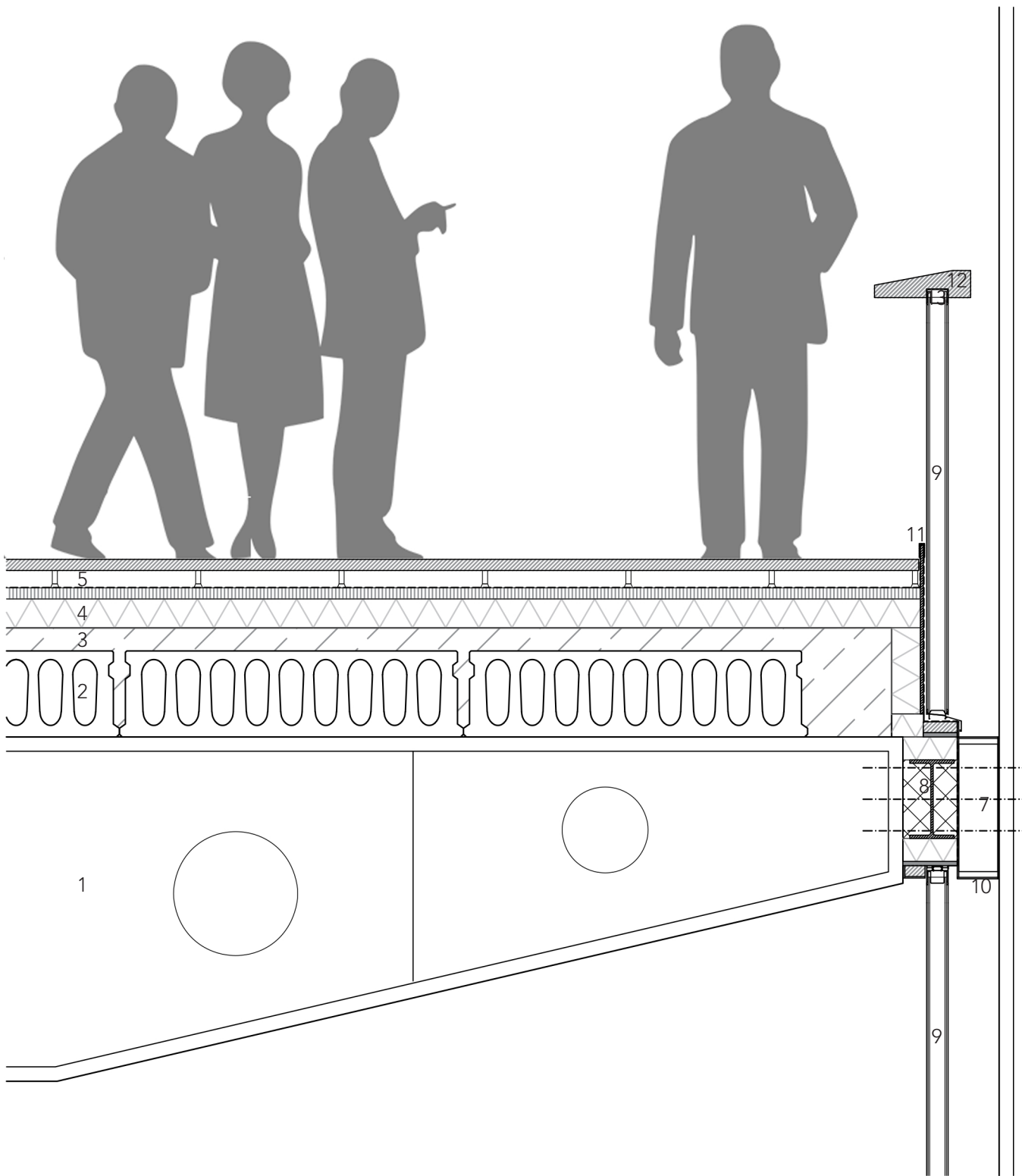


Horizontal cut



1. Main structural beam
2. Kanaalplat
3. In situ concrete layer
4. Sport floor package
5. Heating unit
6. Main structural column
7. Insulated connection
8. Secondary steel structure
9. Vertical Profiled Glass
10. Aluminum cladding
RAL7021

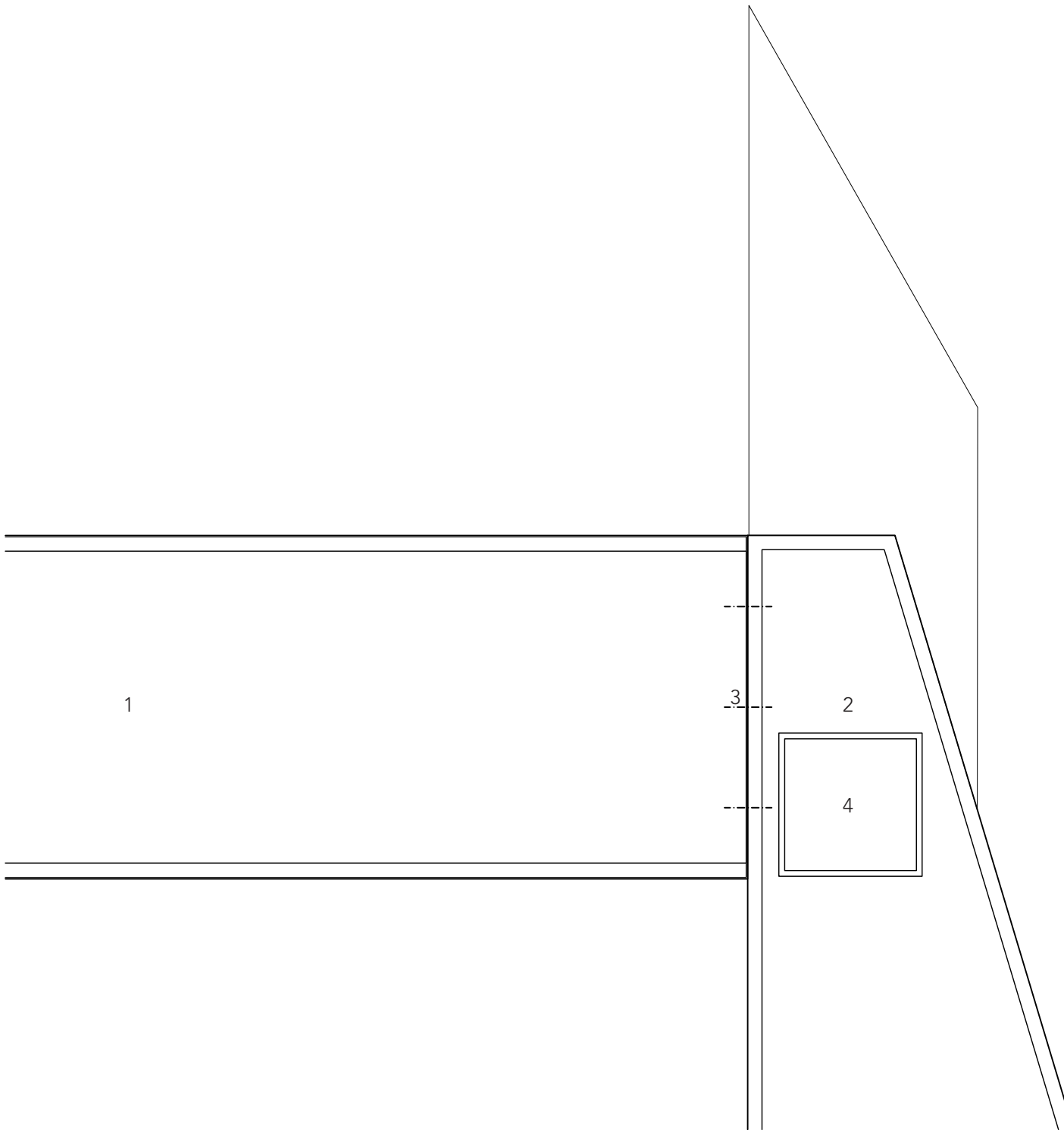




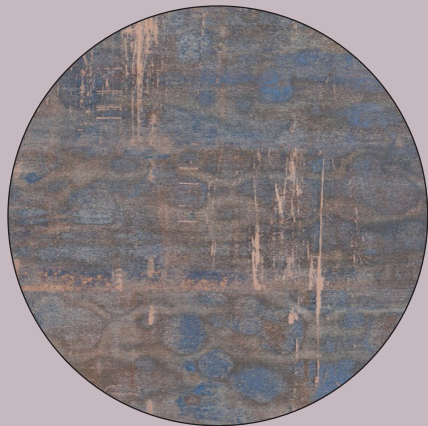
1. Main structural beam
2. Kanaalplat
3. In situ concrete layer
4. Insulation
5. Deck floor system
6. Main structural column
7. Insulated connection
8. Secondary steel structure
9. Vertical Profiled Glass
10. Aluminum cladding RAL7021
11. Raised steel plate edge+ waterproof membrane
12. Teak Railing
13. Steel profile

6

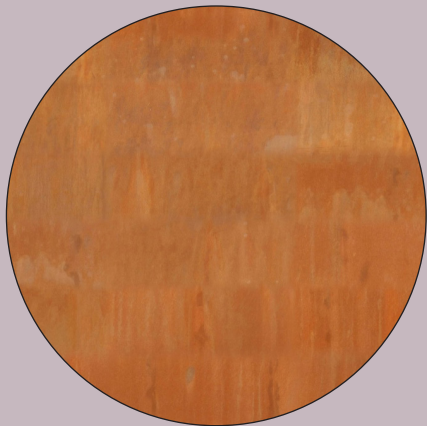
1. Main structural beam
2. Main structural column
3. Bolted connection
4. Stabilisation structure
5. Steel plate cladding
(sealed corten steel)



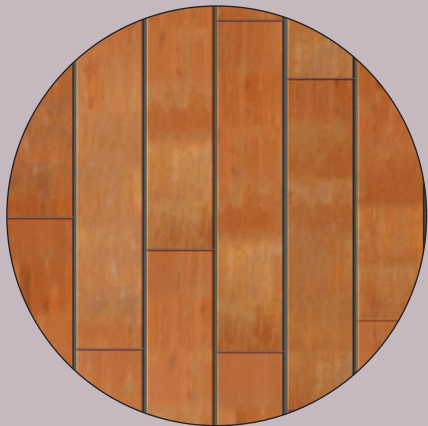
Material Pallette



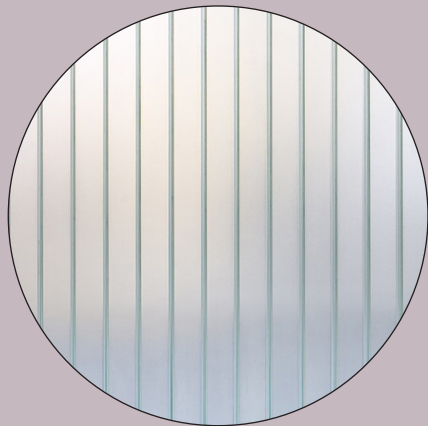
Sealed Corten
(Main structure)



Seamless Corten Surfaces
(Landscape)

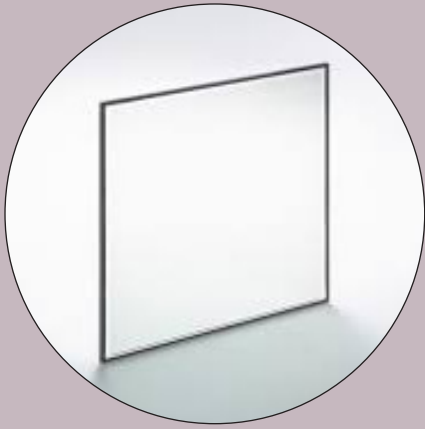


Corten Plates
(Building exterior)

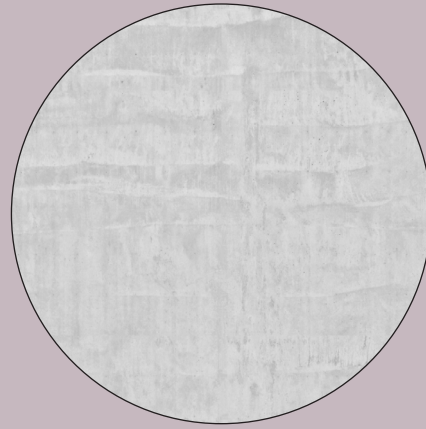


Vertical Profiled Glass
(Sports halls)





Clear glass
(Circulation core, Public space,
Look-in opportunities)



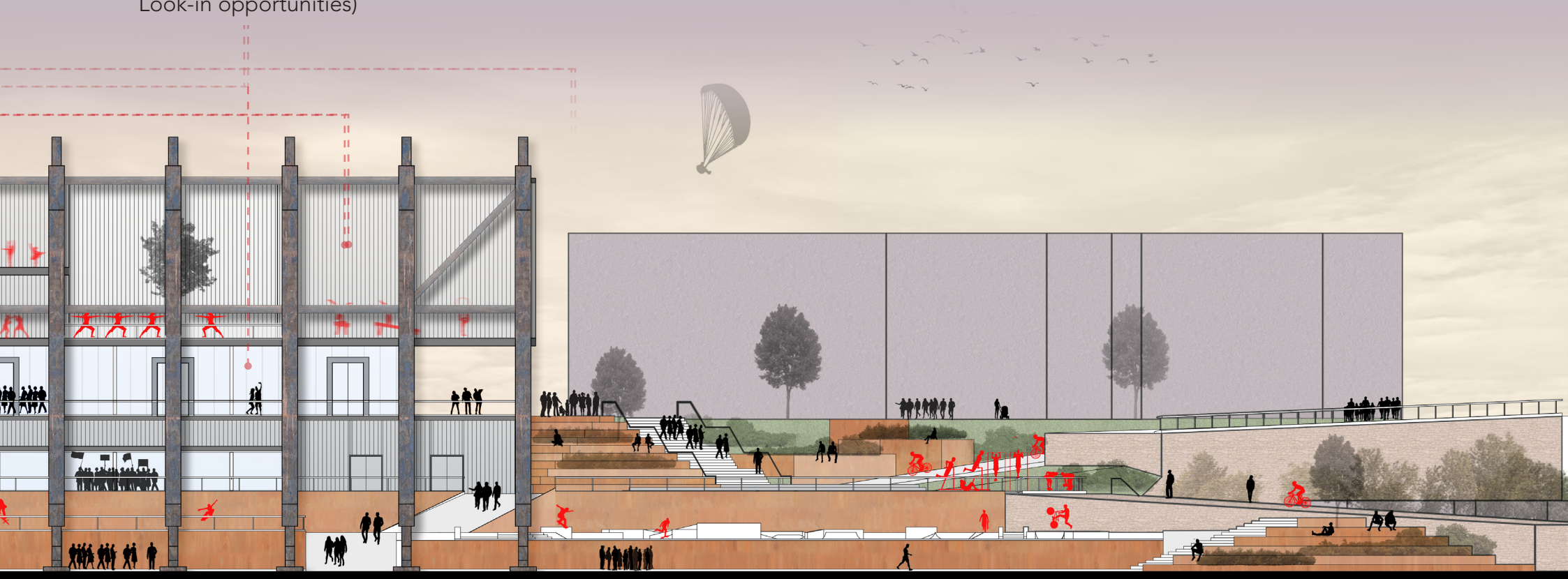
In situ Concrete
(Interior walls, floors)



RAL 7021
(Window frames, Doors)



Teak wood
(Handrails, Tribune seating)

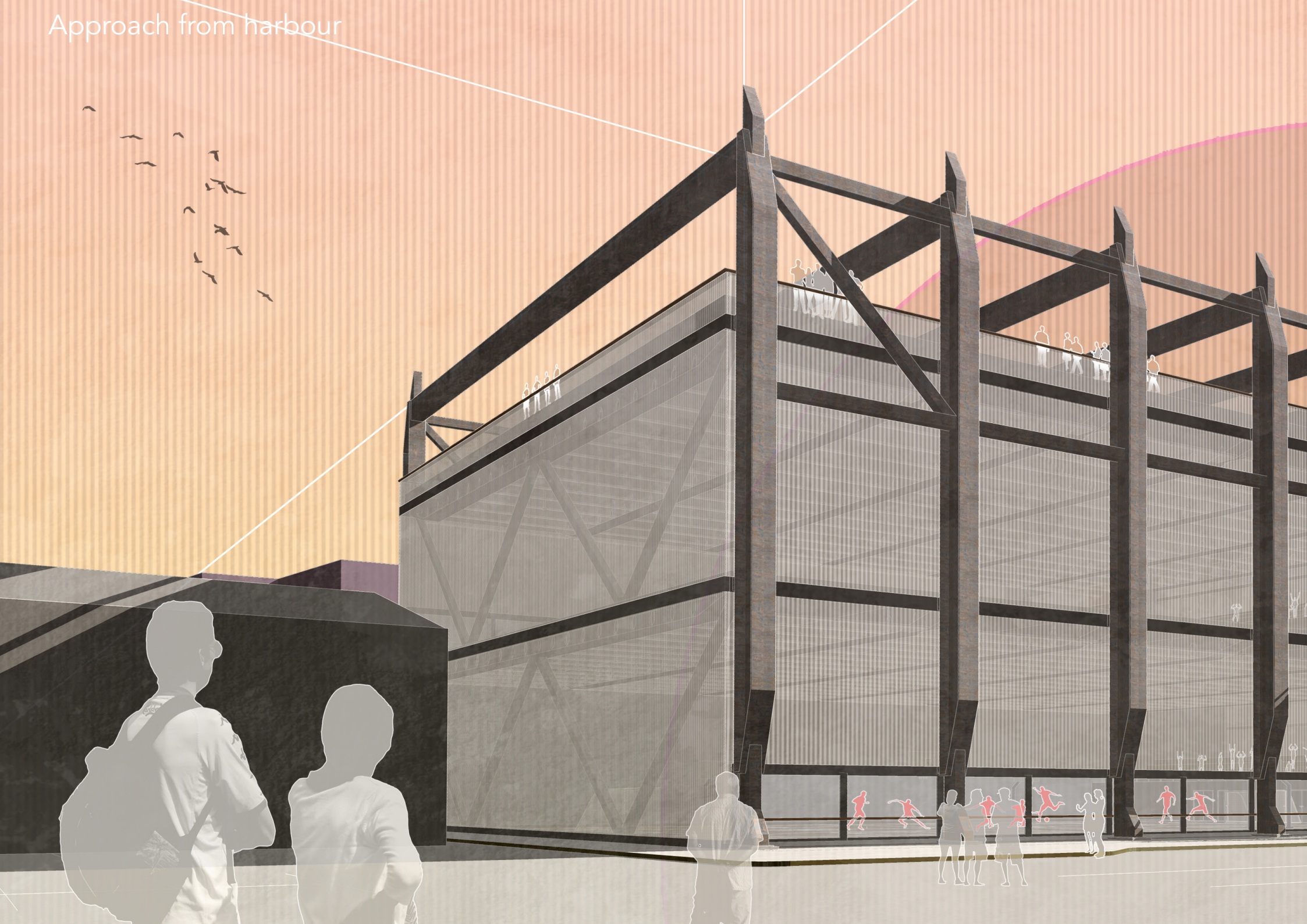


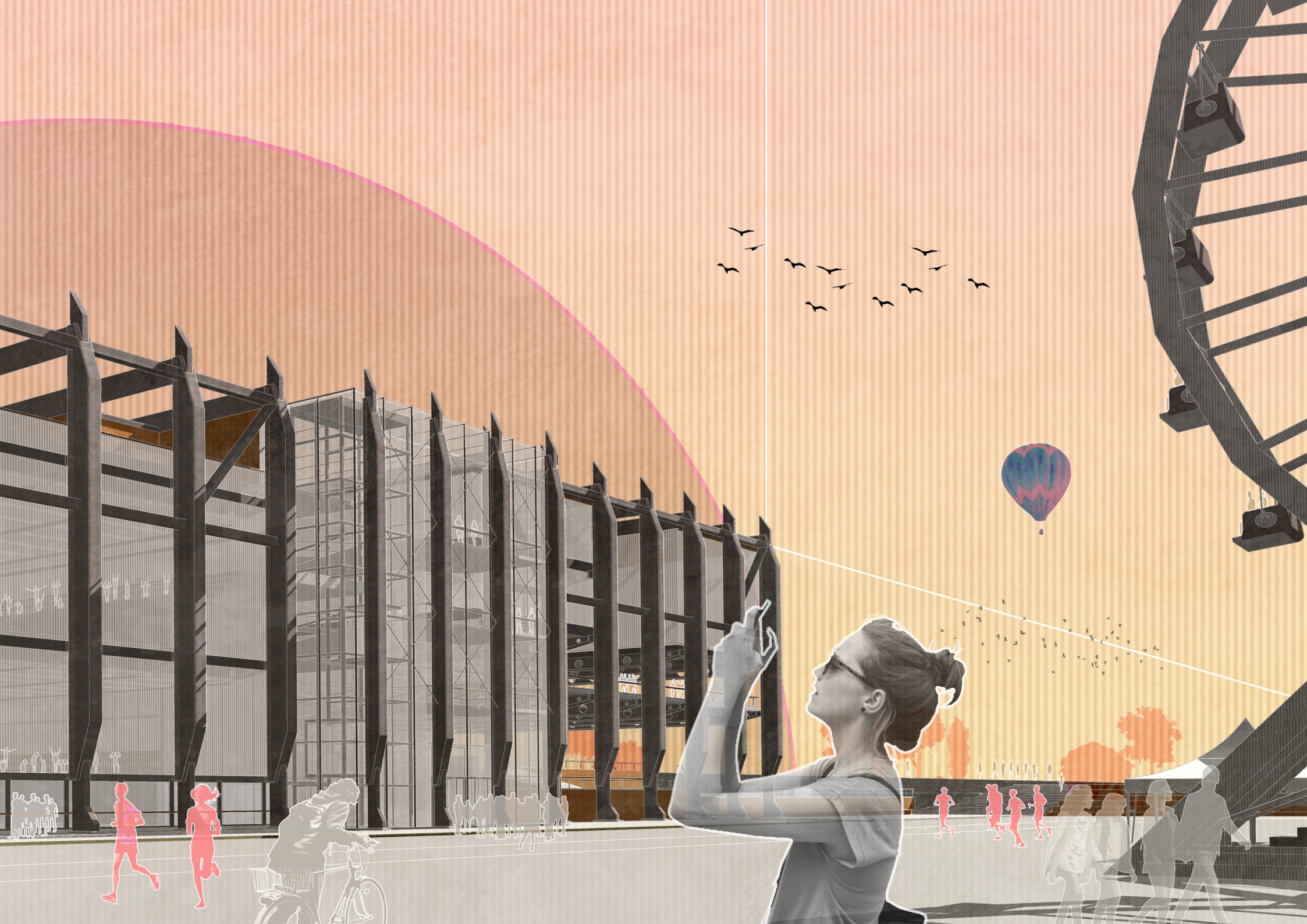
Approach from Jetty

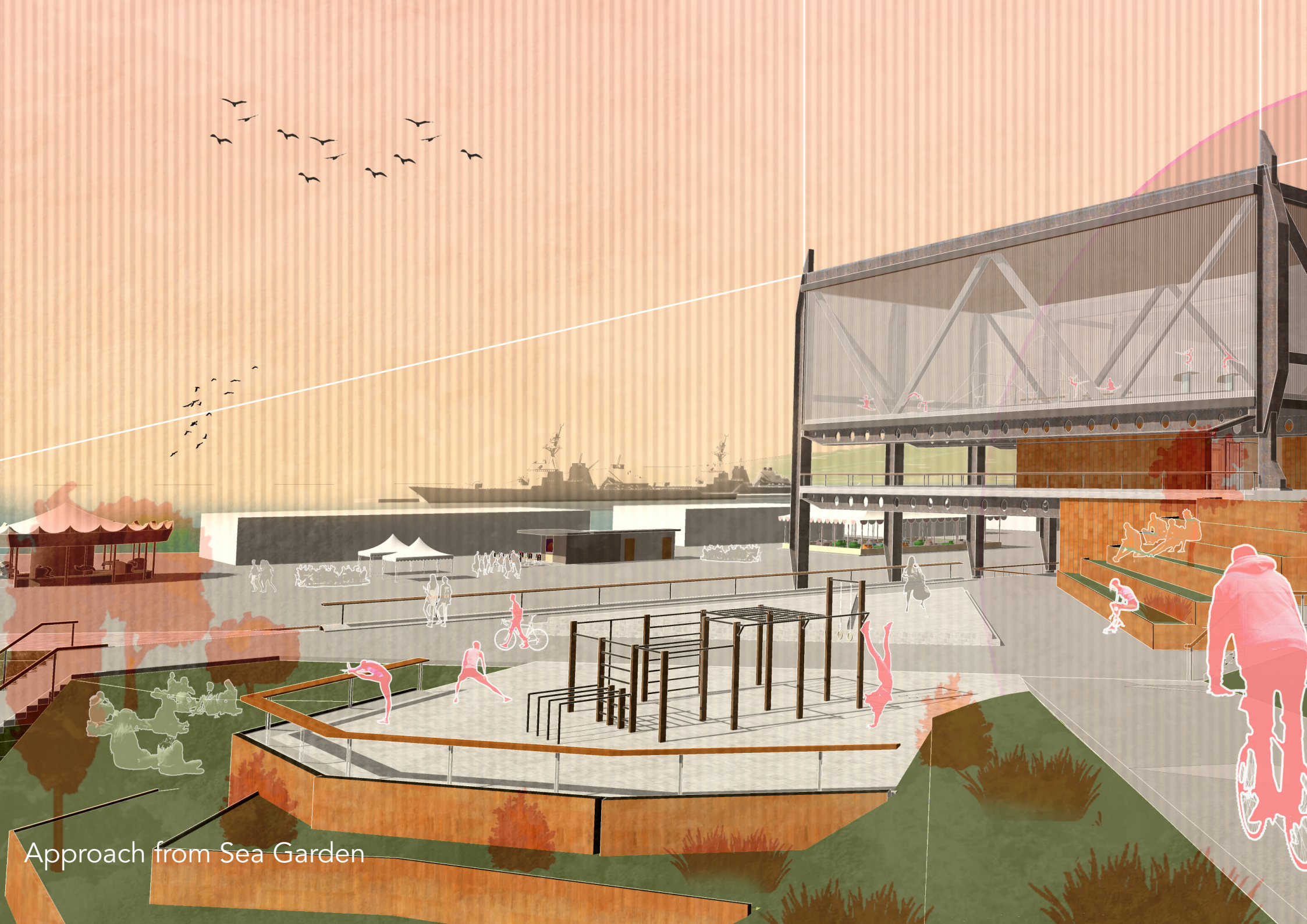




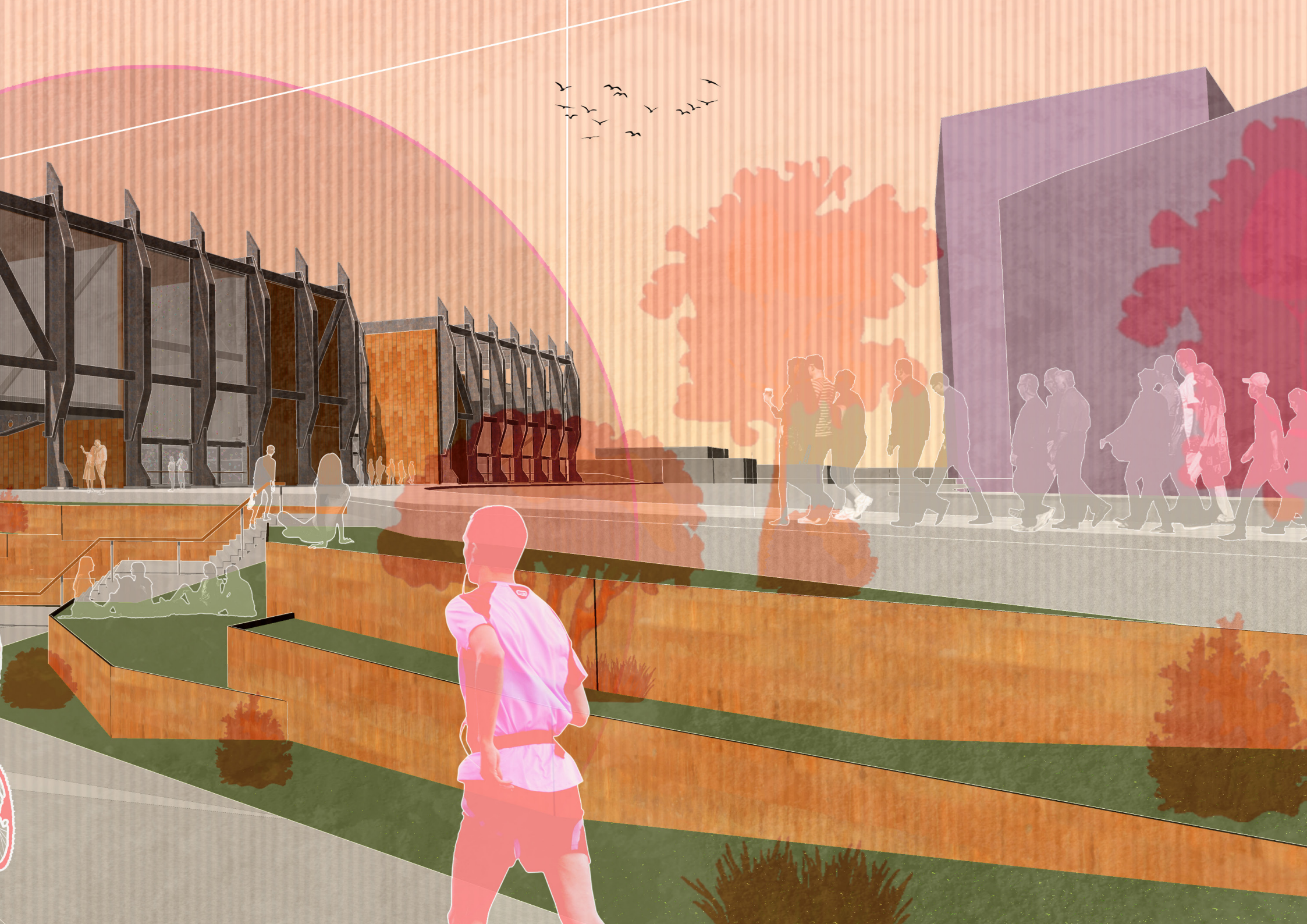
Approach from harbour



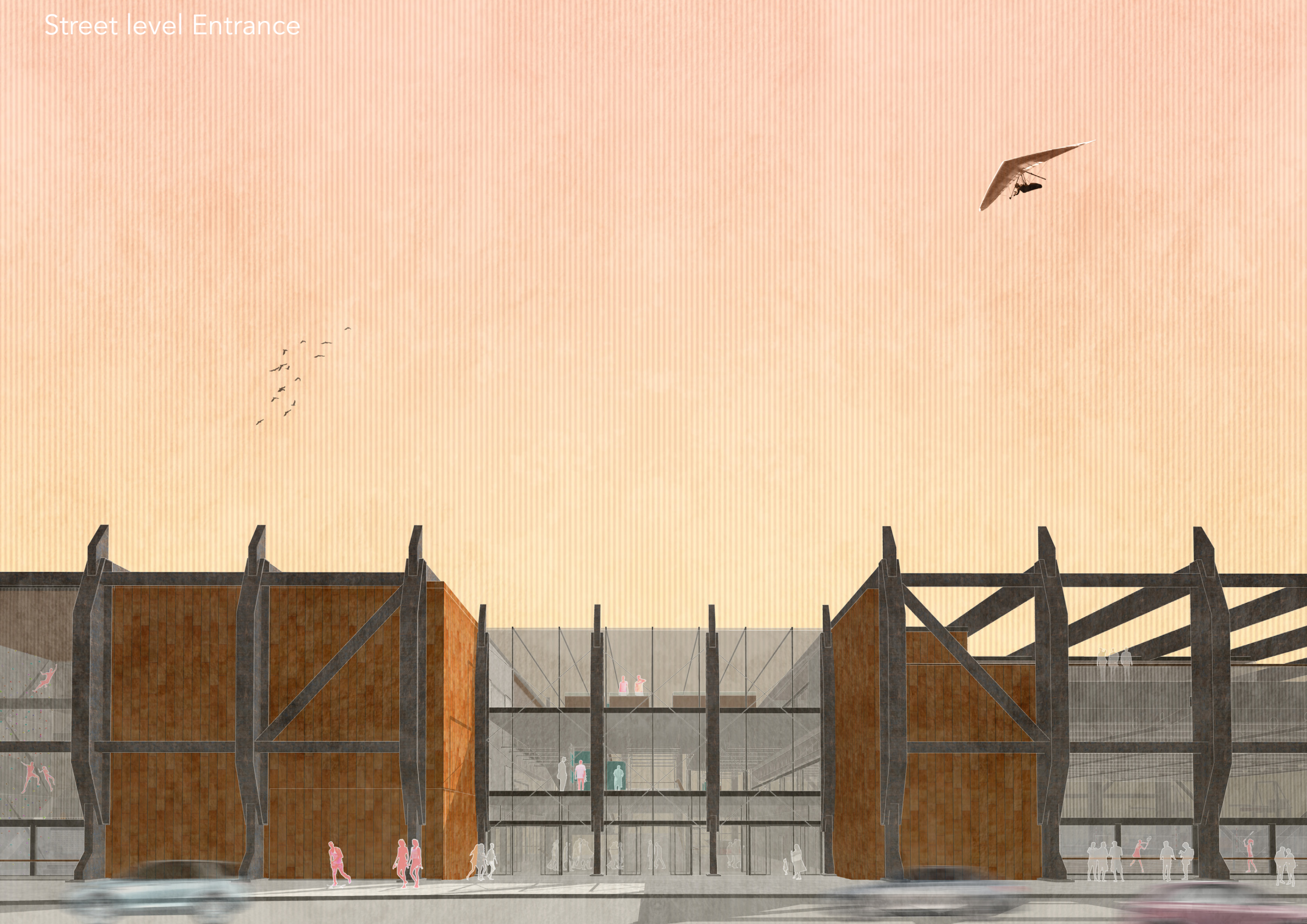




Approach from Sea Garden



Street level Entrance



Street level Entrance



Playing Field 1





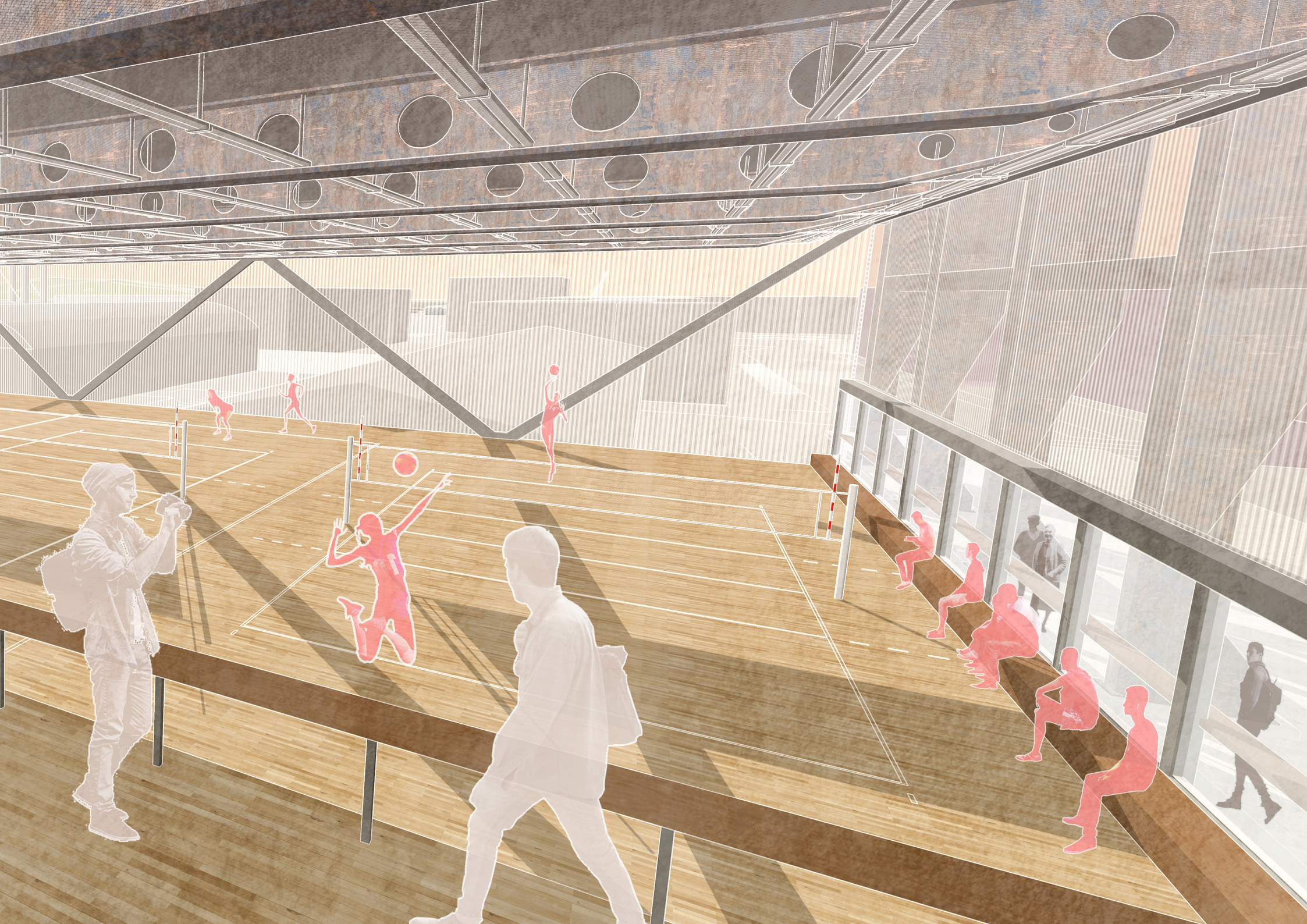


Climbing hall Cafe/Bar





Playing Field 2 - Tribunes





Skatebowl



Exhibition space



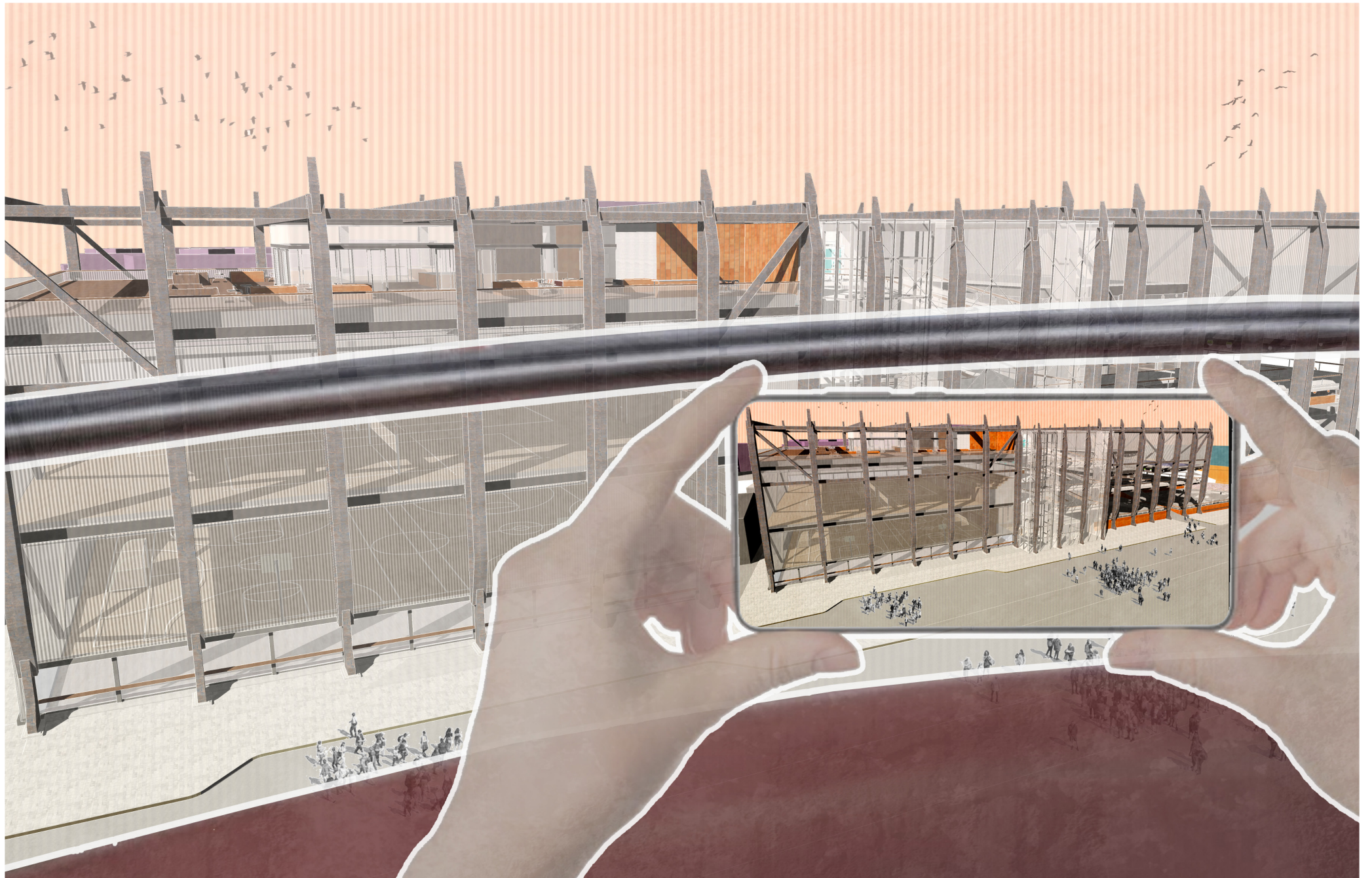
Outdoor Yoga



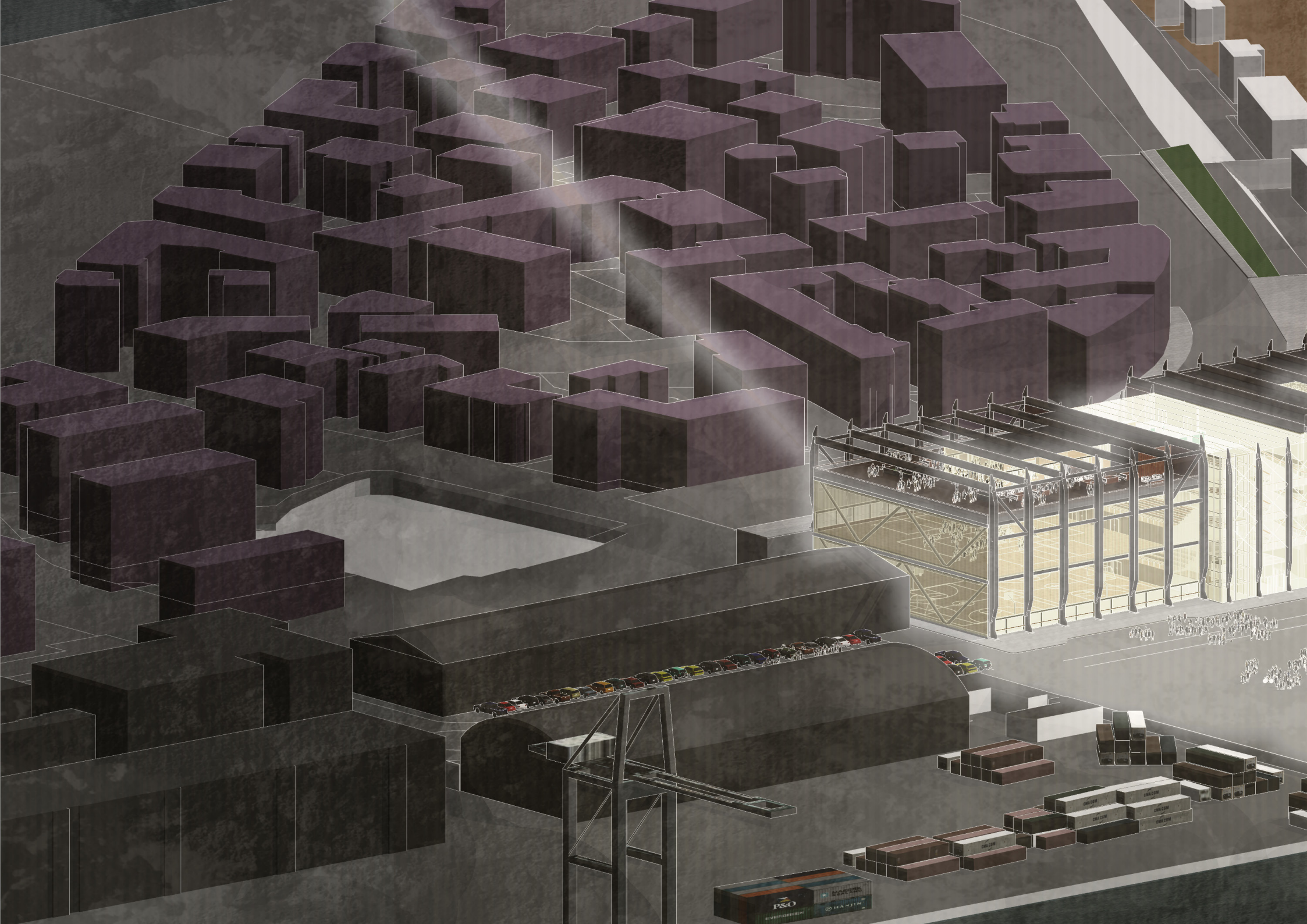
Rooftop bar and terrace

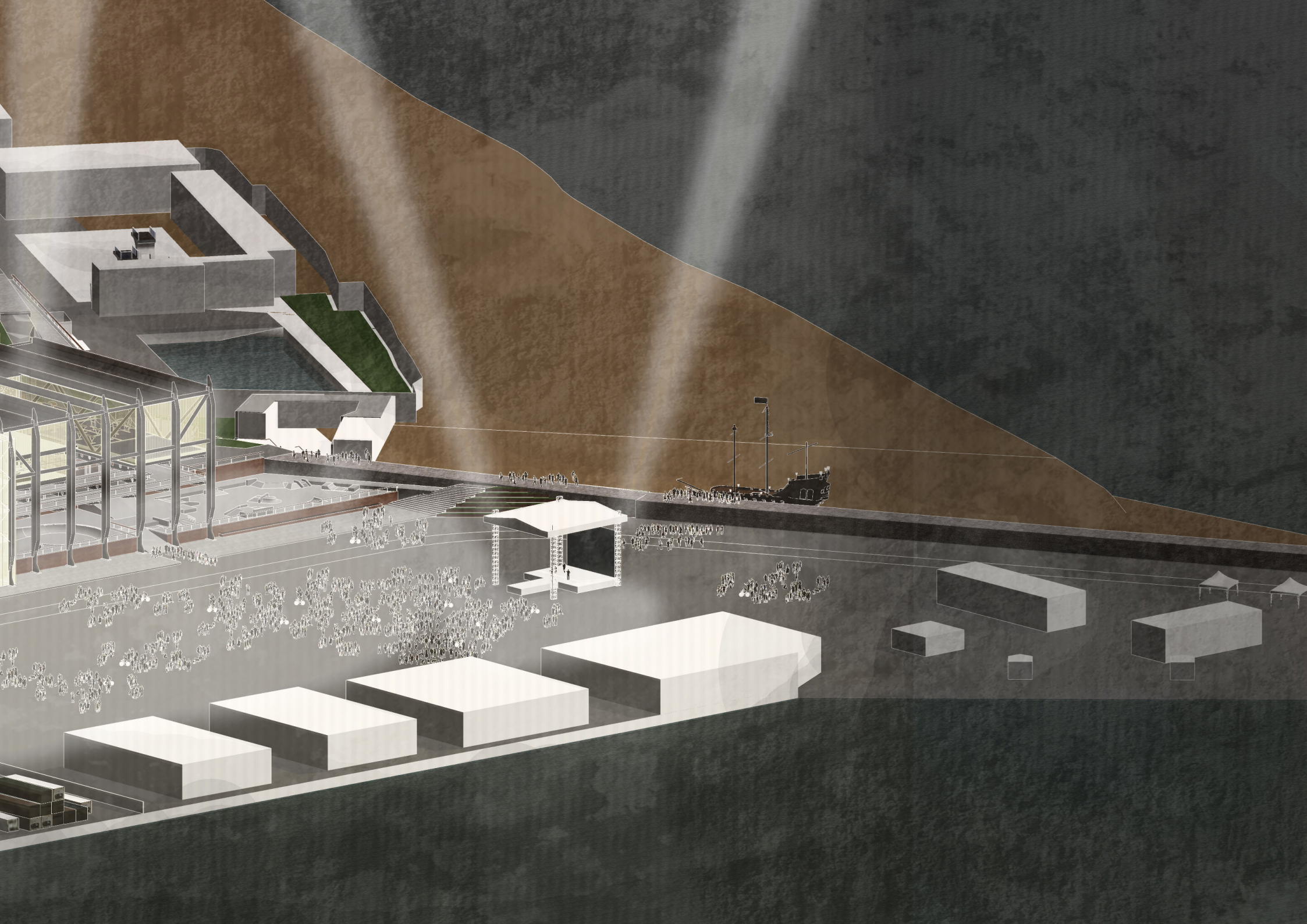


Martial Arts Hall



Ferris wheel POV





Don't forget to grab a card...



BAPHA 2022



A
22