

PRECEDENT STUDIES

Ama'r Children's Culture House

Team: Jesce Walz & Kevin Van Meter

Typology: Social Amenity

Description:

The Ama'r Children's Culture House engages children and parents in a playful re-imagination of architectural space. Formally the Culture House presents as strikingly modern within a context of brick buildings. A covered plaza near the House presents the only other metallic facade in the vicinity. Within, the House invites exploration and play through inventive layout and detailing. Rooms range from large open spaces to tiny nooks, windows orient up and down as well as out, a climbing wall ascends adjacent to the staircase.

The House offers workshops for children of all ages as well as open-ended and experiential play spaces for children. It is part of a block of cultural venues at the center of the Amager neighborhood. Other cultural institutions on this pedestrian-oriented block include 2 music venues, a kindergarten, a children's theater, an outdoor amphitheater, and the covered plaza.

Location: Amager, Copenhagen



Image: Torben Eskerod, Courtesy of Dorte Mandrup

Ama'r Children's Culture House

Window Watching

Windows frame much of the action at the Ama'r Children's Culture House. Windows don't repeat. Windows slant, shrink, enlarge, extrude, embed. They are colored, open, glassed, handled, ledged, out-of-reach. They are above as well underfoot. Sometimes they look out, sometimes within, and sometimes they look back to where you just came from. Most rooms have only one entrance but all have an interesting angle of view that engages an unusual relationship to space and scale.



All Images on Spread: Torben Eskerod, Courtesy of Dorthe Mandrup



A Room with a View

The rooms of the culture house have distinct scales and lighting effects. The size, orientation, placement, and depth of the windows and their frames exaggerate and enhance the particular experience of each space. In a compressed, dark room, a tiny window looks from above over a vast white space. Meanwhile, larger windows with deep ledges shrink the distance between the outside and the foyer.

Ama'r Children's Culture House

Cultural Nodes Generate Activity

1. Children's Culture House
2. Amager Bio, music venue
3. ZeBU, theatre
4. Covered Plaza, multi-purpose event space w/ steel mesh curtain
5. Flex-space: hosts musicians, food vendors, art, community organizers, markets, and festivals
6. Wooden benches form space for performance, lessons, or events

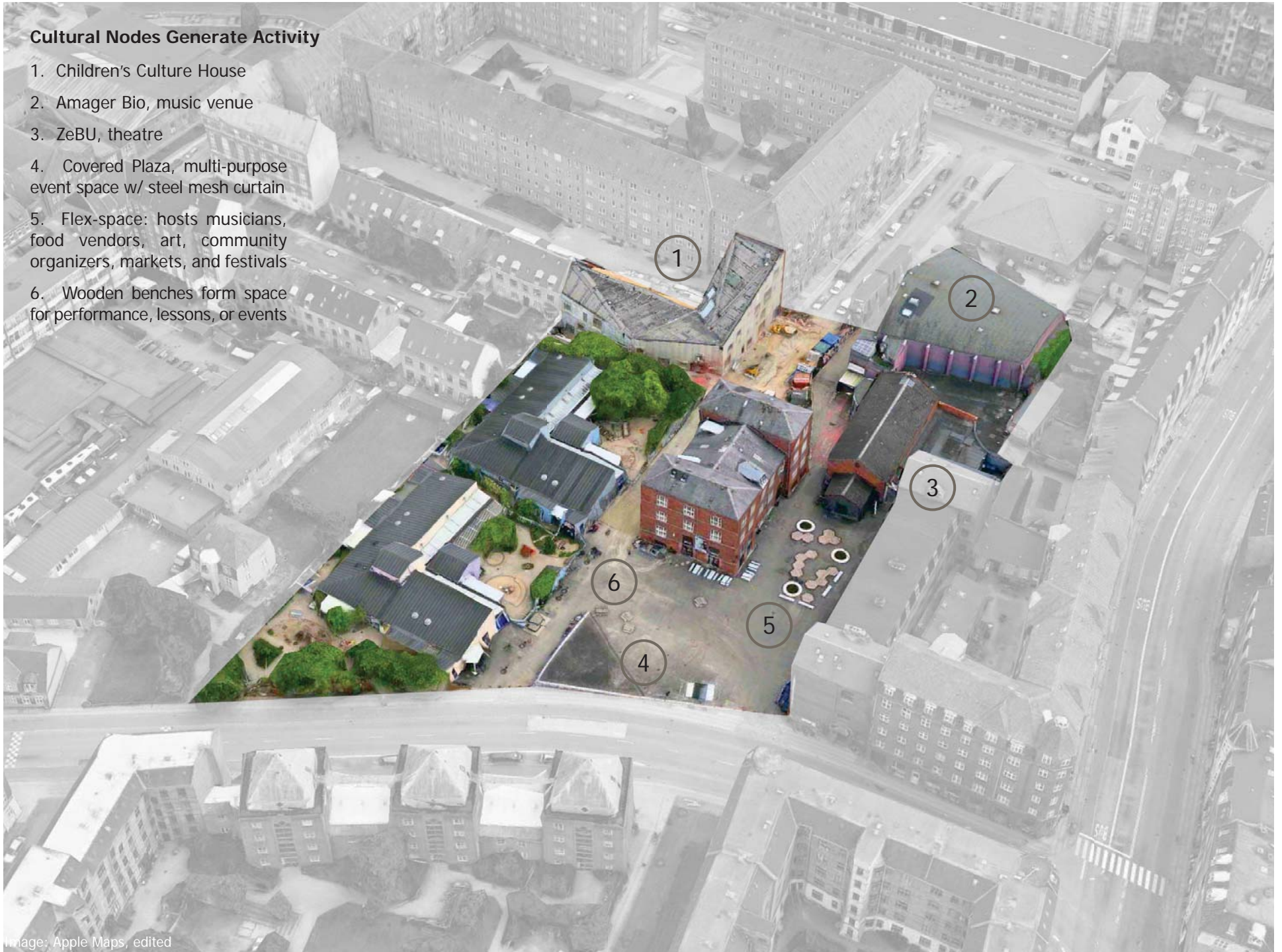


Image: Apple Maps, edited

Scan|Design Master Studio 2016



Performance as a Window

The site began with Amager Bio - an auditorium that features an indoor stage and outdoor theater seating. This was the only music venue in the area, and it provided window for culture and entertainment for the community. The theater's presence had enough gravity to draw other activities to the site, these include the aforementioned Zebu theatre and metal-canopied gathering space, enclosed by steel curtains.

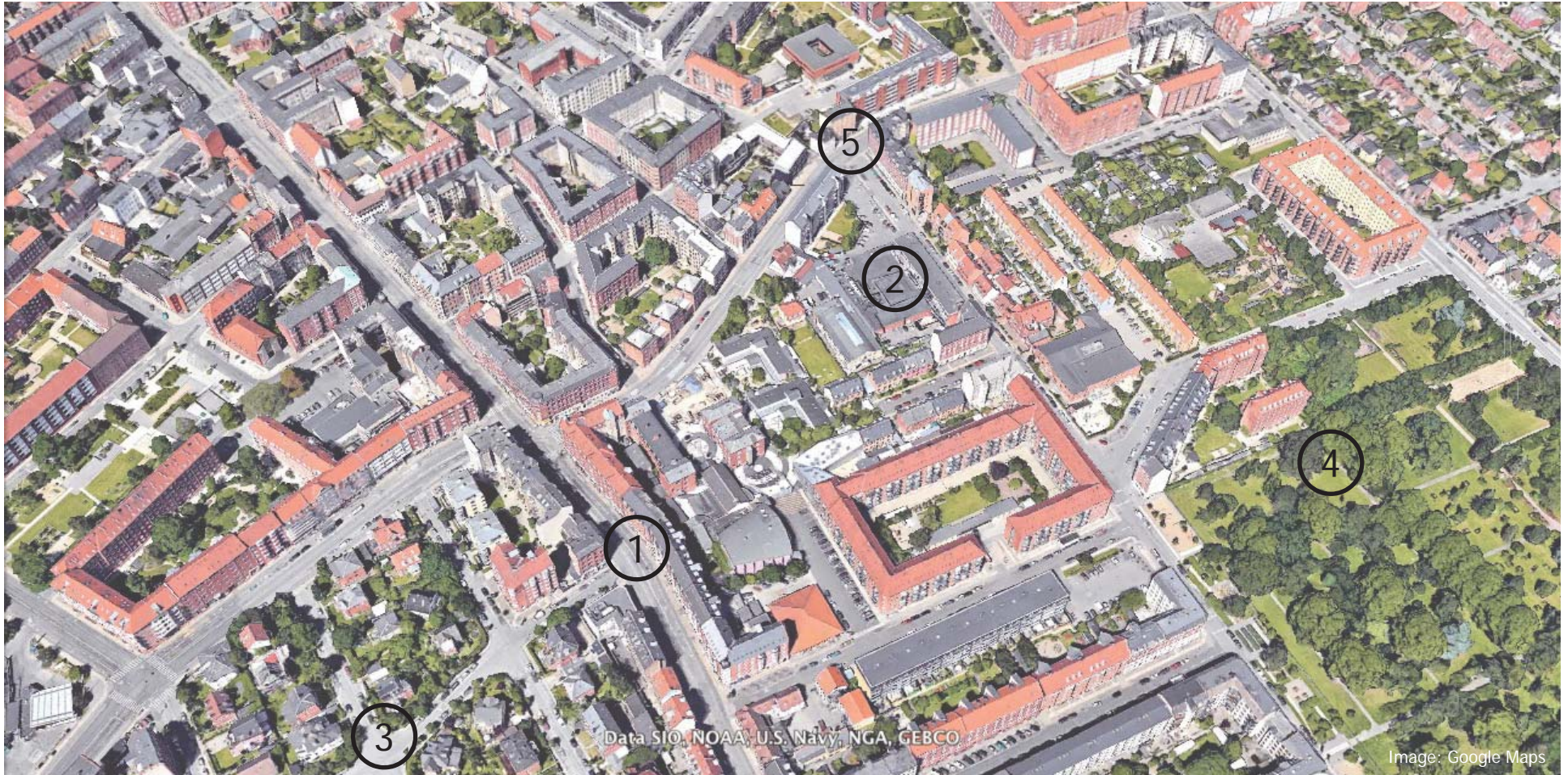
An Inter-Connected Neighborhood Center

The Ama'r Children's Culture House is one part of a larger collection of cultural institutions oriented toward residents and families. Weekly markets, festivals, music performances, and children's theater enliven this area. These nodes of space are all connected by pedestrian pathways.

While windows on the interior draw the eye and attention between spaces, pathways on the greater site connect nodes of open air activity. Spatially, these nodes and paths are an inverse of windows and sight-lines, yet energetically, they perform a similar function of drawing a user through the site.



Ama'r Children's Culture House



Immediate Surroundings

A journey around the site reveals much about the terrain. Ama'r Children's Culture Center is interwoven within the fabric of its own block. Surrounding areas, while providing much variety, are incongruent, providing little social amenity or connection.

1. "Amager Vest" has been zoned as a different district from "Amager East." The two are divided by a main road - "Amagerbrogade." This presents difficulty for community organizers working to network the area; Amagerbrogade is a busy street with traffic and shops at ground level
2. To the north and immediately around the Ama'r site are larger housing blocks
3. To the south and beyond are a substantial number of single-family homes with yards
4. There are small public spaces near and in the cemetery: Sundby Kirkegård
5. Commercial spaces are clustered at Kirkegårdsvej and Øresundsvej

Scale: Terrain



Other Images on this page: Jesce Walz



Image: Google Maps



Ama'r Children's Culture House



Larger Terrain

Zooming out, the terrain is somewhat disconnected - in age, scale, materiality, and accessibility. This disconnect does not contribute to social amenity. One example is the distinct character change between the super-open mega district near Islands Brygge and the dense fabric of older Copenhagen near Amagerbrogade.

In attempt to weave these communities and promote cultural amenity, Copenhagen has

invested in a network of social nodes nearby to Amager East. Each is attraction and organizer of community, and could be seen as a frame for fostering culture. This network of spaces, connected by sidewalk/bike path/transit, could help to "fill-in" other parts of Ama'r over time. Examples include the Maritime Youth Center, Holmbladsgade Kvarterhuset Community Center, Kastrup Sea Bath, and others.

Scale: Overview



SEB City Dune

Team:

Sujing Sun, Tatyana Vashchenko

Typology:

Urban Greening

Description:

The City Dune was designed by SLA for their client, SEB Bank. The site had previously been dominated by a large, treeless parking lot and monolithic office building. The designers were challenged to maintain the number of existing parking stalls while humanizing the space to accommodate pedestrian and cyclist through-traffic and creating places to linger.

The terraced rooftop undergrounds two levels of parking while creating a universally accessible connection through a performative landscape which mitigates heat island effect and diverts 95% of the site's stormwater from the municipal sewer system. The sloping site is composed of shifting terraces which penetrate the surrounding SEB Bank buildings, subtly linking indoor with outdoor space.

A universally accessible path cuts its way across terraces and plantbeds, linking a future bicycle high line to street-level bike lanes. Narrow plant beds, when viewed at ground level, create the illusion of dense planting through repetitive layering of beds along each terrace. The City Dune evokes an open woodland draped across a bright hillside, an urban oasis for skateboarders and office workers alike.

Location: Bernstorffs Plads, Kalvebod Brygge, Copenhagen, DK



Source: <http://www.landezine.com/index.php/2011/10/park-by-sla-landscape-architecture/>



Source: <http://www.publicspace.org/en/works/g363-bymilen>



Illustration Grey and Lindstrom



Source: <http://www.publicspace.org/en/works/g363-bymilen>

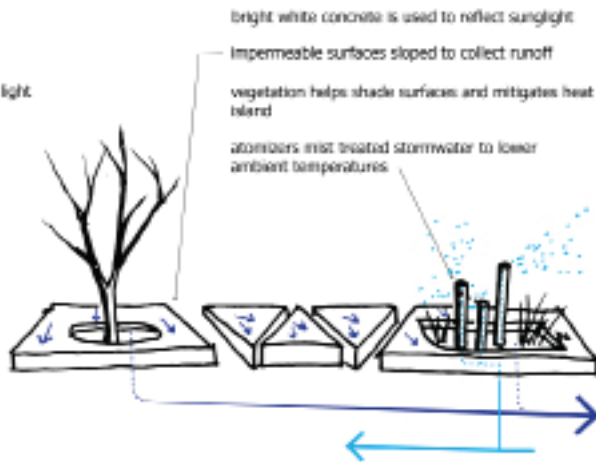
SEB City Dune

light pollution reduction



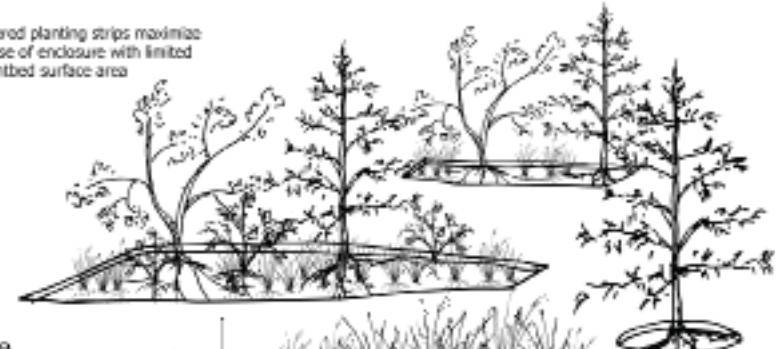
directional light fixtures focus light on walking surfaces

heat island reduction



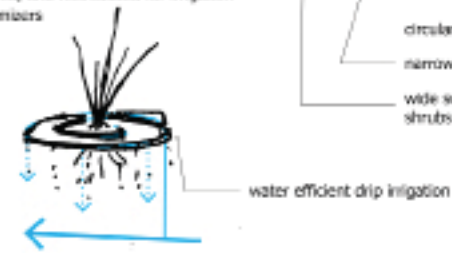
habitat enhancement

layered planting strips maximize sense of enclosure with limited planted surface area



stormwater reuse

rainwater is collected through planters and drains, UV treated, stored, and recirculated for irrigation and cooling atomizers

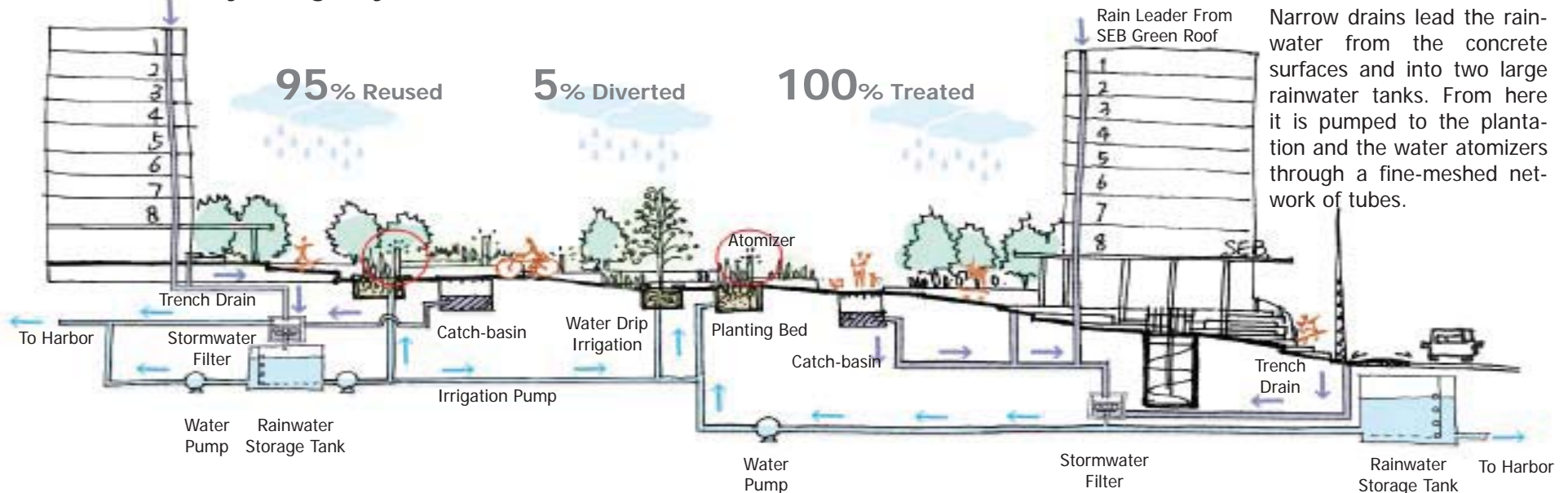


circular pits for specimen trees

narrow strips for low shrubs and grasses

wide swaths for a multi-storied mix of trees, shrubs and grasses

Rainwater Hydrologic Cycle



Intervention Scale



- 1 All concrete used on site is bright white, allowing it to reflect UV light and reduce heat island effect.
- 2 One hundred and ten atomizers utilize reclaimed stormwater to emit a fine mist on very hot days, helping to cool the area and ensure survival of plant material.
- 3 Multi-tiered plantings occupy narrow planters, which in plan view, appear to be scattered across the sloping site. At eye-level, they collapse to form a layered screen.
- 4 Pavement joints highlight the facets of the multi-planed, inclined landscape, serving both a functional and aesthetic purpose.
- 5 Light posts vary in height and all feature lamps which are manipulable and directional, reducing light pollution at night.
- 6 Trees are planted alone as specimens or in groupings to form masses. The City Dune planting palette is composed of Swedish dune plants which are well suited to a bright urban hillside.
- 7 The winding path across the dune is made up of relatively large and continuous concrete pours while the spaces between ramps are formed of numerous triangular "facets" which span the slopes between path segments.



SEB City Dune

Stormwater Surface Strategies

Surface system consists of permeable and impermeable parts. Planting paths, linear planters combined with deciduous and evergreen plantation allow rain-water's infiltration. The folding movements of the concrete is impermeable to collect surface runoff leading to planting fissures, catch-basin, trenches to reuse. Drains lead the rainwater from the concrete surfaces and into two large rainwater tanks. As such, no rain-water ends up in the sewers or on the roads.

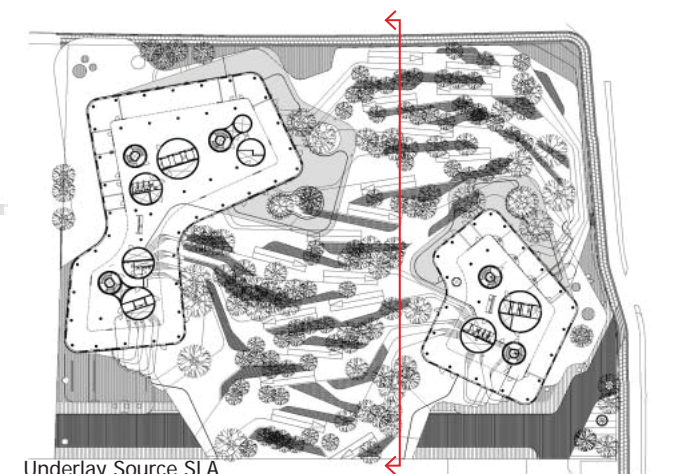
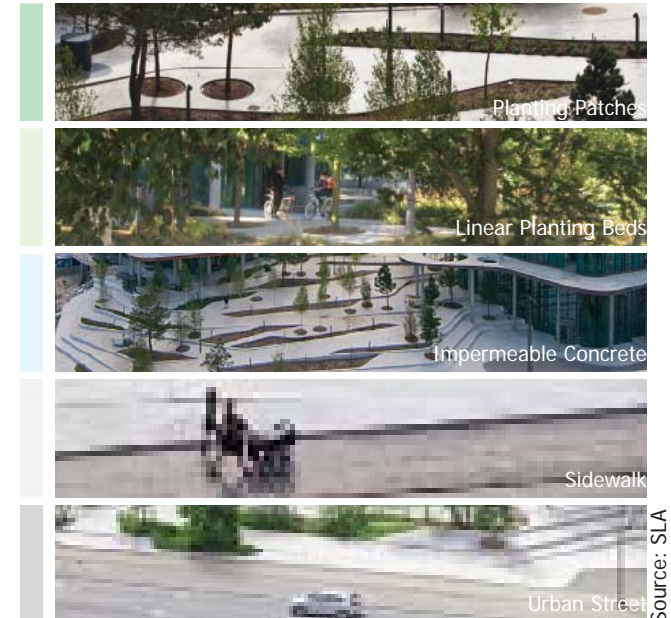


Image Source: SLA

Section

The terraced green roof accommodates a two-story parking garage, stormwater and irrigation conveyance, as well as adequate depth for established vegetation.

Site Scale



Site Circulation:

Though the most obvious route through the City Dune is the universally accessible path zig-zagging its way between plantbeds, many pedestrians choose to cut across the terraces where plantbeds don't pose an obstacle. The main path forces one to slow down and view the landscape from numerous vantage points, yet the terraces do not preclude an agile pedestrian from scaling them and choosing a more direct route. To a skateboarder the concrete terraces are an amenity and invite urban play. For SEB Bank employees moving between buildings, the route is quite convenient as building entrances are located on nearly the same plane.



Site Users (left):

Currently, the City Dune is used recreationally by skateboarders, curious cyclists, people who work locally, and the odd architectural tour group. Once the Harbour High Line is completed, the path will likely see much higher volumes of cyclist and pedestrian traffic.

SEB City Dune



Bicycle Network

Though Copenhagen's bicycle facilities network is extensive, the area Southeast of the railroads has relatively few safe bike connections.

This neighborhood is in the process of development, the largest of which is a flagship "urban" Ikea which is likely to draw significant traffic. The neighborhood's main bike route runs along the southeast edge the City Dune site, and takes form as a bike lane along the 9 lane Vasbygade.

Vasbygade (left) is made up of 8 to 9 lanes bookended by two bike lanes which shift between on-street and separated configurations.

The City Dune path is the first segment of what will eventually be a longer, above grade, promenade, serving pedestrians and cyclists. Once completed the route will strengthen the link between Sudhavnen, and Indre By.

Terrain Scale

Proposed Harbor High-line

New Ikea building is destination of Green High-line Park. The warehouse will be highly accessible for bikes, and visitors will be able to borrow a bike trailer or carrier bikes to accommodate the two-wheeled Copenhagen lifestyle. The linking green roof garden serves as a green pedestrian and cyclist park street that connects Bernstorffsgade and SEB bank's new headquarters, to the north, the Tivoli hotel and convention center to the south.



Masterplan & New Construction Plan



Ikea Warehouse



Source Dorte Mandrup

Tivoli Square



Green Roof



Source SLA



Harbor High-line



Rigsarkivet Grønne Green Roof



SEB City Dune



Image Citation

SEB City Dune



Photo By: SLA , Jens Lindhe

References:

- 1) <http://www.sla.dk/en/projects/city-dune/>
- 2) <http://www.landezine.com/index.php/2011/10/park-by-sla-landscape-architecture/>
- 3) https://issuu.com/sla_architects/docs/sla_selected_works
- 4) <http://www.e-architect.co.uk/copenhagen/the-city-dune>
- 5) <http://www.publicspace.org/en/works/g363-bymilen>
- 6) Google Maps
- 7) www.dortemandrup.dk

Reflection:

Though it has many performative features, City Dune does not flaunt them. Its predominant effect evokes a layering of planes- both horizontal and vertical. The terraces fan out and compress to create spaces for sitting/scrambling, or conversely, gradual ascent. The narrow planting strip and tree pits, when viewed at eye level, visually collapse to form a series of screens, together evoking an open vegetated dune and successfully providing a sense of refuge without obscuring sight-lines.

The site's climate adaptation features function both as green infrastructure and aesthetic moves. The white concrete brightens the space, its multi-faceted planes, creating an interesting surface. The stormwater collection, storage and reuse system treats 95% of the site's water, the remaining 5% being comprised of copper-contaminated water running off the SEB buildings, which is ultimately diverted to storm-sewer. The stormwater atomizers, are infrequently used, perhaps because they place a great demand of cistern water during the hottest and perhaps driest periods, when plants require additional irrigation.

The perceived success of the site may vary by perspective. Currently, its use is limited to visiting designers, skateboarders and the occasional office worker. The usership may change significantly once the Harbour High Line is complete, and the City Dune functions as a main entrypoint to the promenade.

The site's zig-zagging path, though universally accessible, can be difficult to navigate when cyclists, wheelchair users and pedestrians intermingle. Its aggressive turning radii will likely require that cyclists dismount when pedestrians are present, a circumstance which may prompt many cyclists to choose an alternate exit/entry point.

Hothers Plads

Team:

Andrew Badgett, Hanyu Wang

Typology:

Stormwater Mitigation

Description:

Located in a residential courtyard in the Nørrebro neighborhood, Hothers Plads is an excellent example of how stormwater management principles are being applied to small scale projects in Copenhagen.

Designed by Niels Lützen, the goal of this site was to retain and absorb a large amount of rain water while providing a comfortable and functional space for residents. By weaving stormwater interventions such as rain gardens, green roofs, and permeable surfaces throughout the space, the courtyard was able to capture, retain, and manage a large amount of water without sacrificing the needs of the residents. Lützen was able to layer so many functions within the site that the stormwater mitigation aspects blend into the beauty of the garden, which creates a comfortable, beautiful space for adults and children to enjoy.

Location:

Hothers Plads



Green Roofs:

Almost all of the buildings in the courtyard are covered with green roofs. These greatly increase the amount of water that the site is able to retain.



Rainwater Gutters:

Subtle hardscape variations direct stormwater into the rain gardens while changes in color and material clearly communicate the purpose of these channels.



Overflow Drain:

In times of heavy rainfall, the rain gardens are equipped to send excess water straight into the sewer.



Rain Garden:

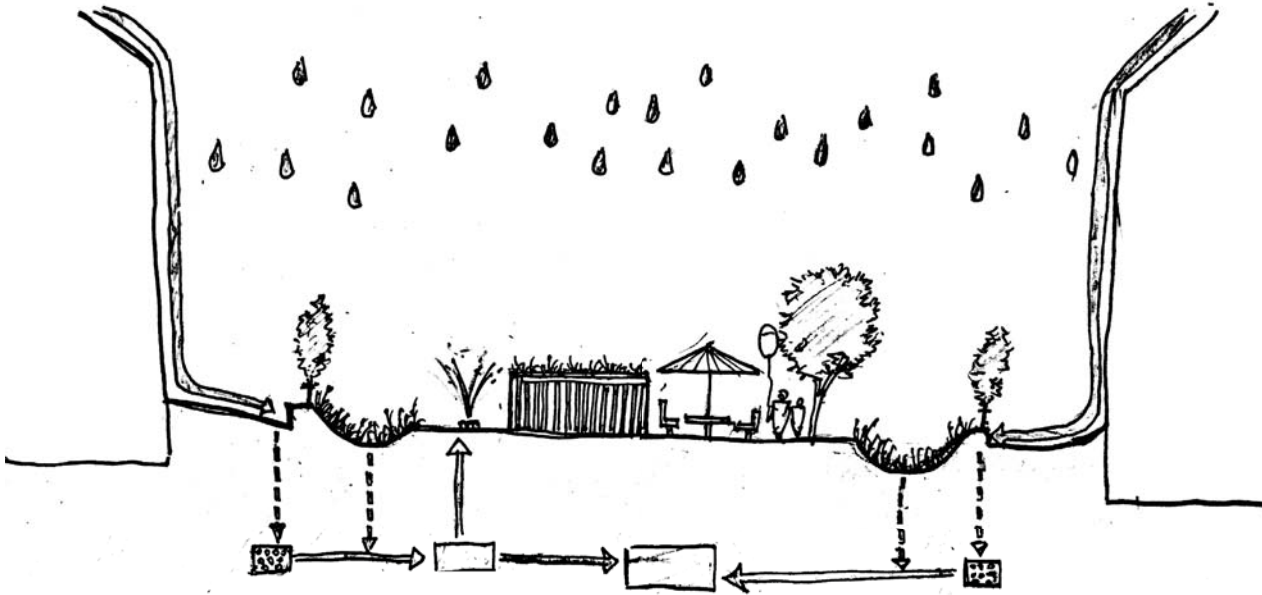
As the primary form of stormwater management, these rain gardens are scattered through the site and blend in exceptionally well. A simple gap in the stone wall directs water from the sidewalk into the rain garden. Many of the rain gardens were experimenting with different plant varieties to see which species worked the best.

Hothers Plads



Site Plan:

By highlighting the rain gardens in dark blue and the permeable spaces in light blue, it's easy to see how much surface area is used to manage stormwater. The deep rain gardens are designed to capture a lot of water but are dispersed in such a way that the landscape doesn't feel overwhelmed with ditches.



Water Path:

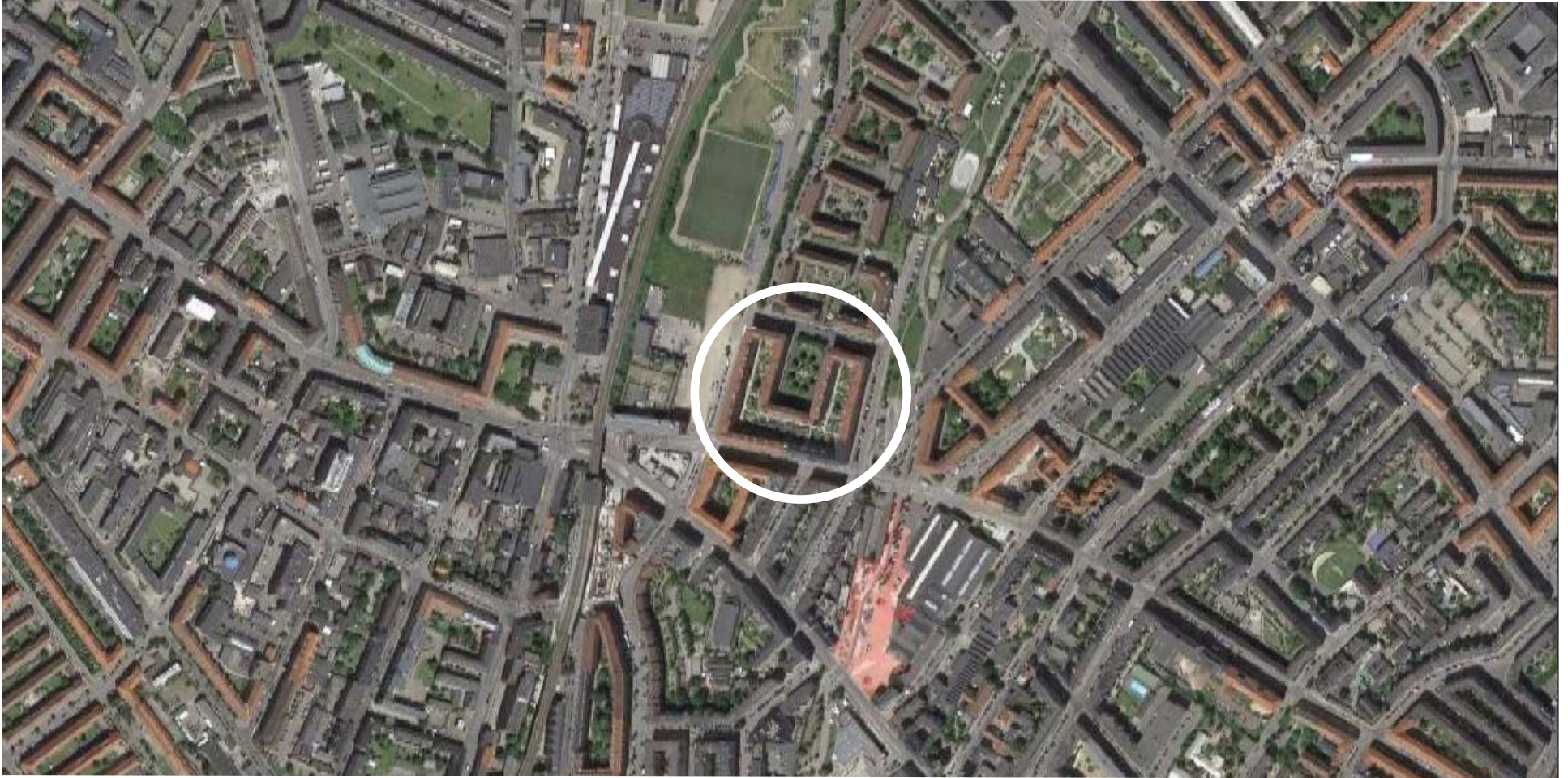
All the rainwater that lands on the roof and site is directed towards the rain gardens and underground tanks. Residents are able to pump water up from these tanks as needed. Any excess water is then sent to the municipal sewer system.



Satellite View:

Looking down onto the site makes it apparent how much green space was created within the courtyard.

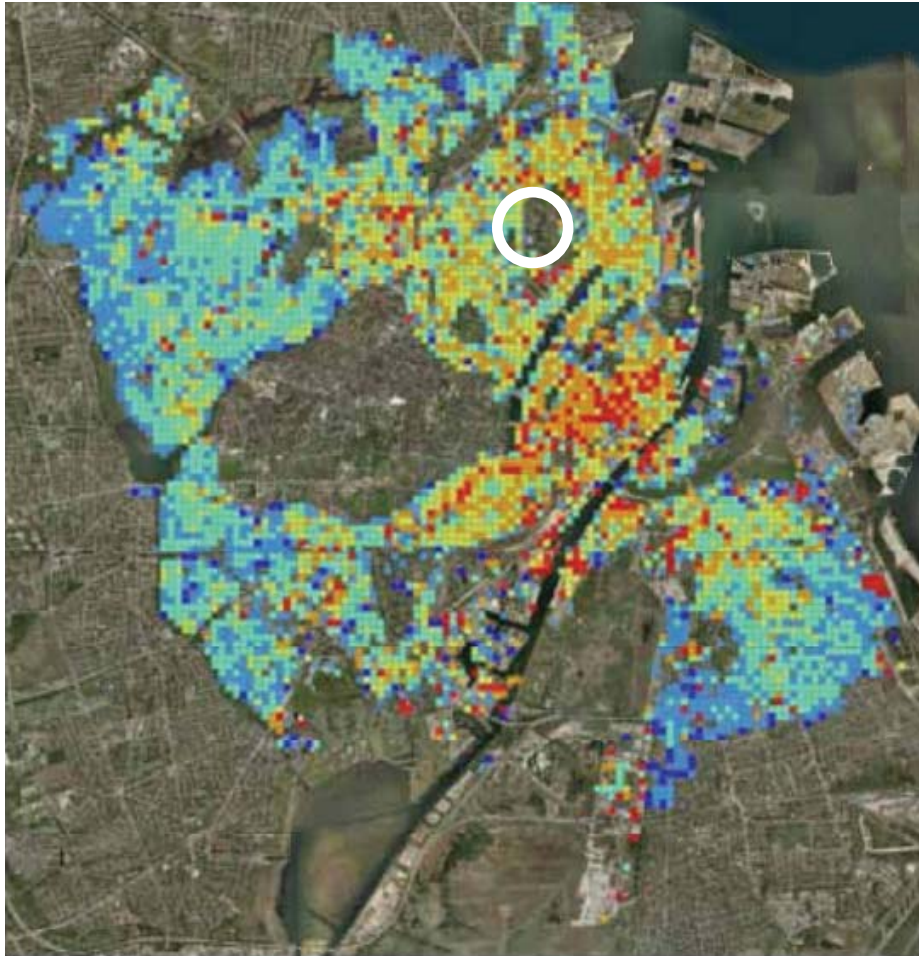
Hothers Plads



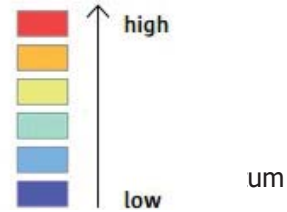
Neighborhood:

Looking at the neighborhood as a whole, it's easy to see how important it is for each courtyard to manage its own stormwater. If all the courtyards in this image were able to retain and manage as much water as Hothers Plads then it would greatly decrease the runoff into the sewer system.

Scale: Terrain



FLOODS FROM RAIN
Risk



Flood Risk:

The Nørrebro neighborhood is in a high risk flooding area. Like most of Copenhagen, the area is relatively flat with a high water table.

Hothers Plads



Reflection:

With the City of Copenhagen pushing for stormwater mitigation in nearly all of its projects, Hothers Plads is an exceptional example of how even a small residential courtyard can be used to great effect. In a city where there are thousands of green courtyards, the simple techniques used in this project could easily be duplicated.

Lützen was required by the City to design a space that could manage 30% of the water it collects. He was able to do much more than 30% without sacrificing aesthetics and usability.

Stormwater management is one of a few areas that Copenhagen lags behind many other cities around the world. Lützen has taken many proven techniques and adapted them to this project. On top of this he is continually monitoring and experimenting with plant choices, rain garden depth, and soil composition. It's inspiring to see that even after a project is 'finished', the designer is continually learning and adapting his work to better serve his clients.

References:

- 1) Niels Lützen Landskabsarkitekt firm website: <http://www.nl-landskab.dk/>
- 2) 'Core', City of Copenhagen (2011). Copenhagen Climate Adaptation Plan. City of Copenhagen, pp. 3-7; 57-66. Retrieved on 05 September 2016 from http://en.klimatilpasning.dk/media/568851/copenhagen_adaption_plan.pdf

Lindevangsparken

Team:

Li Yan, Heley Koesters

Typology:

Stormwater Mitigation

Description:

Lindevangsparken and loop based on the desire to uncouple and retain rainwater in the park to avoid stress on the vulnerable low around Peter Bangs Road south of the park. Rainwater solutions must help to revitalize the park, both figuratively and concrete meaning. Rainwater solutions included as recreational items and innovative adaptation solutions. With water as the source of new initiatives, expanded the park's bykulturelle features so residents, school children and other groups in the community will benefit from the new recreational items as includes: the stage, the Exploratorium and playground, blackcurrant ditch and water space vs. The loop.

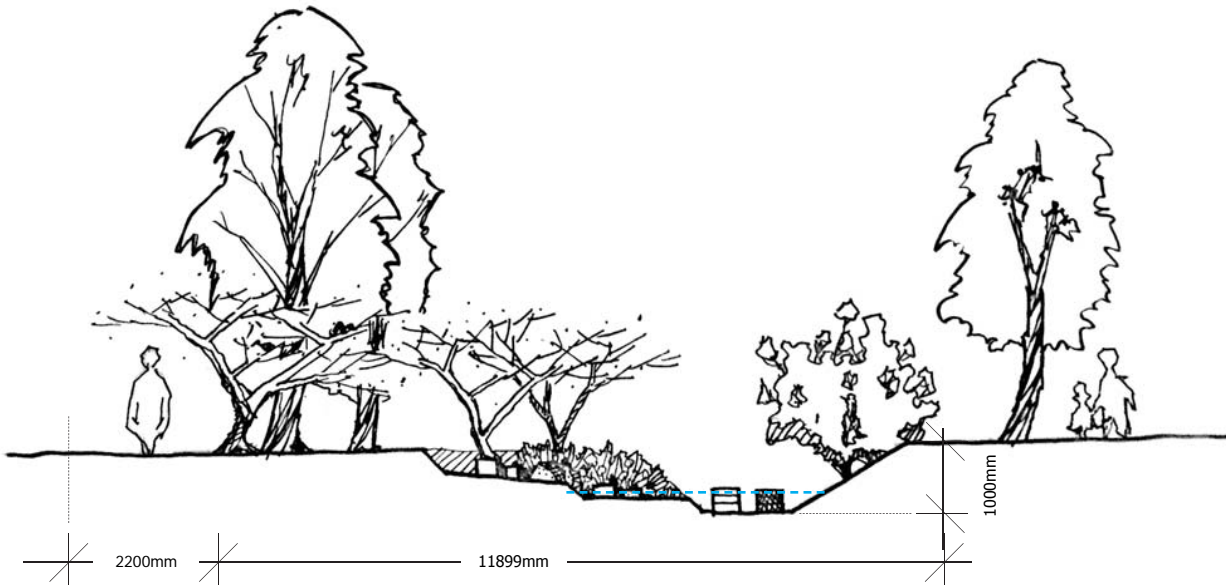
The park's function today Lindevangsparken in Frederiksberg is a special place - a park in the city with its own features and recreational qualities - a defined landscape space, by virtue of its large valuable trees, densely planted edges, spatial variation and exuberance defines itself and have qualities that give the district: IDENTITY, BEAUTY, NATURE EXPERIENCE, SOCIAL CONTACT, PHYSICAL RECREATION.

Location:

RAIN

CONTACT
SOCIAL
RECREATION
PHYSICAL
IDENTITY
NATURE
EXPERIENCE
BEAUTY

Lindevangsparken



Normal status, Sep-07-2016



Rain, June-16-2016



Climate Change Adaptation in Lindevangsparken stood the test

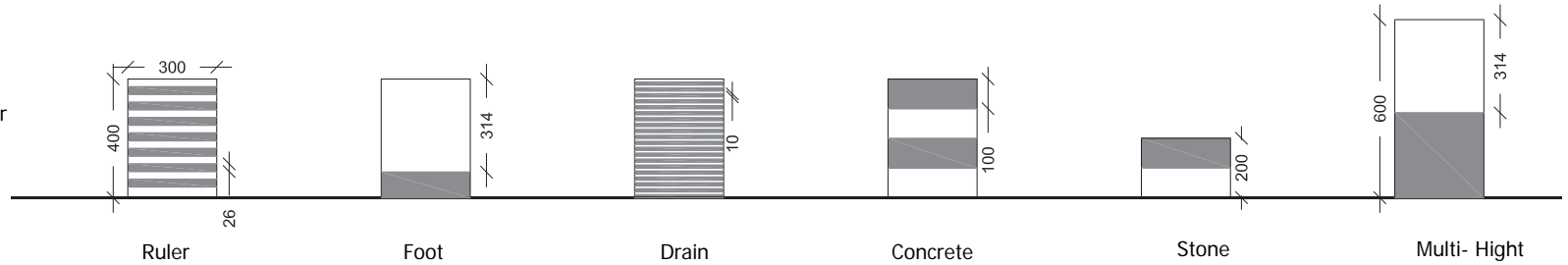
In connection with the heavy rain Thursday, June 16 was the recent climate-Lindevang Park tested. Over 50 mm of rain fell in Frederiksberg Thursday morning. Since it was the worst, sent FF an expedition to Lindevangsparken.

From the ditch there was overflow via a storm water drain to the stage in the middle of the park. Here stood the water well in the lawn before it retreated. At loop out against Peter Bangs Vej had the new space also got a fine water level.

Scale: Intervention



various measuring devices to
grinding the volumes of water



Section: Principle of the measuring stubble



Water Quatily & Over Flow Control

According to the Copenhagen's regulation, Rain wa-
ter must be drained within 48 hours. Because of the
water quality and bio-control.

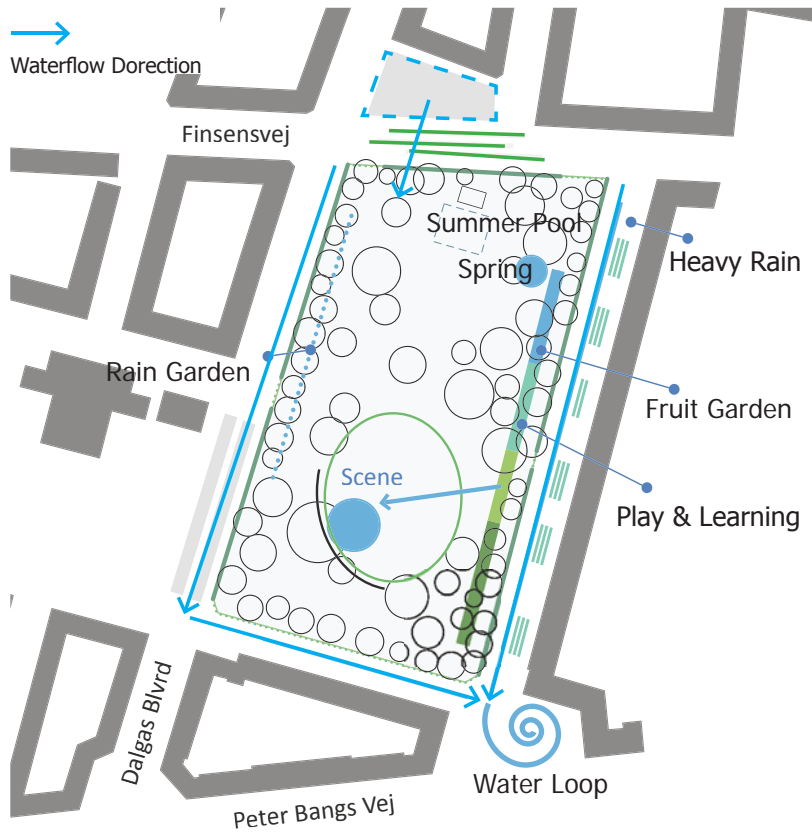
The redering shows the design is also aimed to en-
gage human's activity, but fences on the sites shows
water quality and over flow control are the one of
the major problem.

Lindevangsparken

Water Feature



Waterflow Dorection



Water Quality



Filter
Sand Free

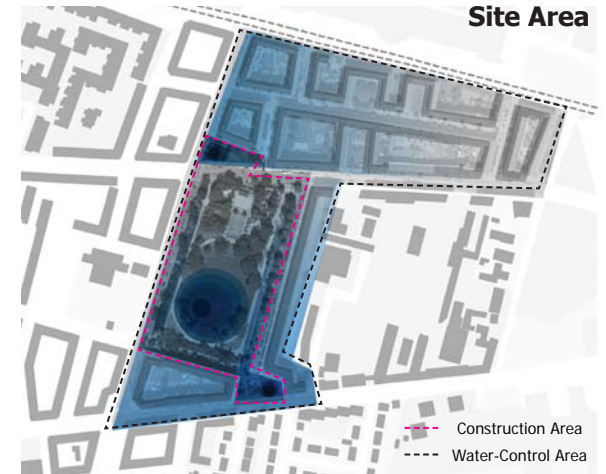


Winter Water
SALT
Sewer



Summer Water
Clean
SITE

Site Area



Climate adaptation and cloudbursts security

Rainwater Management in the dense city - Changing Climate

Less extreme events such as the sewage system must be able to handle increased significantly in the future due to climate change. If sewers future must be able to provide the same service level as today, it is estimated that the capacity must be increased by 30%. An alternative to shift sewer with new and larger pipe is to cut off part of the area today rainwater to the sewer. For example, be by directing rainwater to Lindevangsparken where magasineres and percolated into the groundwater. This will leave room for the rainwater into the sewer from other areas. Lindevang Park project contributes to the fulfillment of the Frederiksberg Climate Adaptawhich aims to:

- 30% of rainwater is decoupled sewer system within 100 years
- no more than every 100 years must be more than 10 cm of water on the ground (except for areas designated for flood / magazine ring).

Within 100 Years



30%
Sewer Capacity
Increasing



10 cm
Ground Water



Keep
Original
Sewer Pumb

Decoupling of the roof and road runoff water to Lindevangsparken - climate adaptation

The terrain generally fall to the south. And from roof water vejvandet Wilkensvej transported towards the east down to a collection well located at the Malthe Bruun path. From here, the water in the pipes to the south during Finsensvej and up again into Lindevangsparken to the east side of Lindevangsparken to a leach field. After a rainfall event, a pump to empty the part of the drain that crosses Finsensvej. This is to ensure that no build up of sand in the conduit, wherein the conduit capacity reduced. It is not allowed to lead the road water into the park in winter as salt from ice clearing will both contaminate groundwater and have a negative effect onthe vegetation in the park. Therefore, to establish a valve plug into the park, which in summer leads water into Lindevangsparken and winter carry water to the sewer. The most potent precipitation events occur in the summer, and it is Thus, only in the summer, the need to expand capacity to meet the expected climate change.

Scale: Site



Water Playground



Physical Playground



Historic Monument



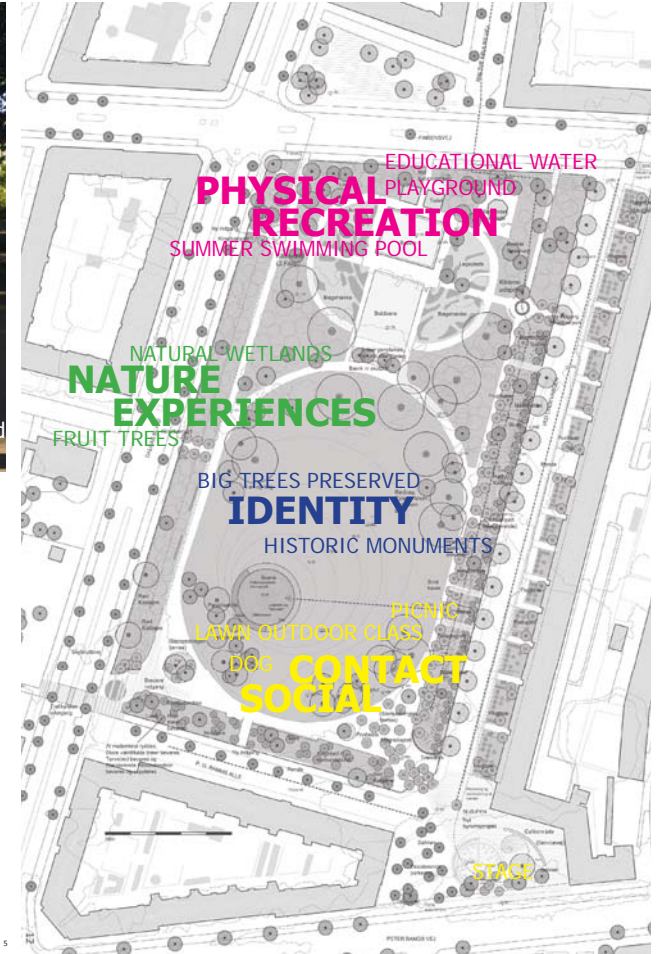
1. Gruppe af løn og bøg - fredet

2. Gruppe af rød-bøg, forsk. typer ahorn og birk - fredet

3. Blandet gruppe af store og bevaringsværdige træer



Preserved Trees



EDUCATIONAL WATER
PLAYGROUND
PHYSICAL RECREATION
SUMMER SWIMMING POOL

NATURAL WETLANDS
NATURE EXPERIENCES
FRUIT TREES

BIG TREES PRESERVED
IDENTITY
HISTORIC MONUMENTS

PICNIC
LAWN OUTDOOR CLASS
HIGH CONTACT SOCIAL

STAGE



The Scene
Water Basin
Social Contact



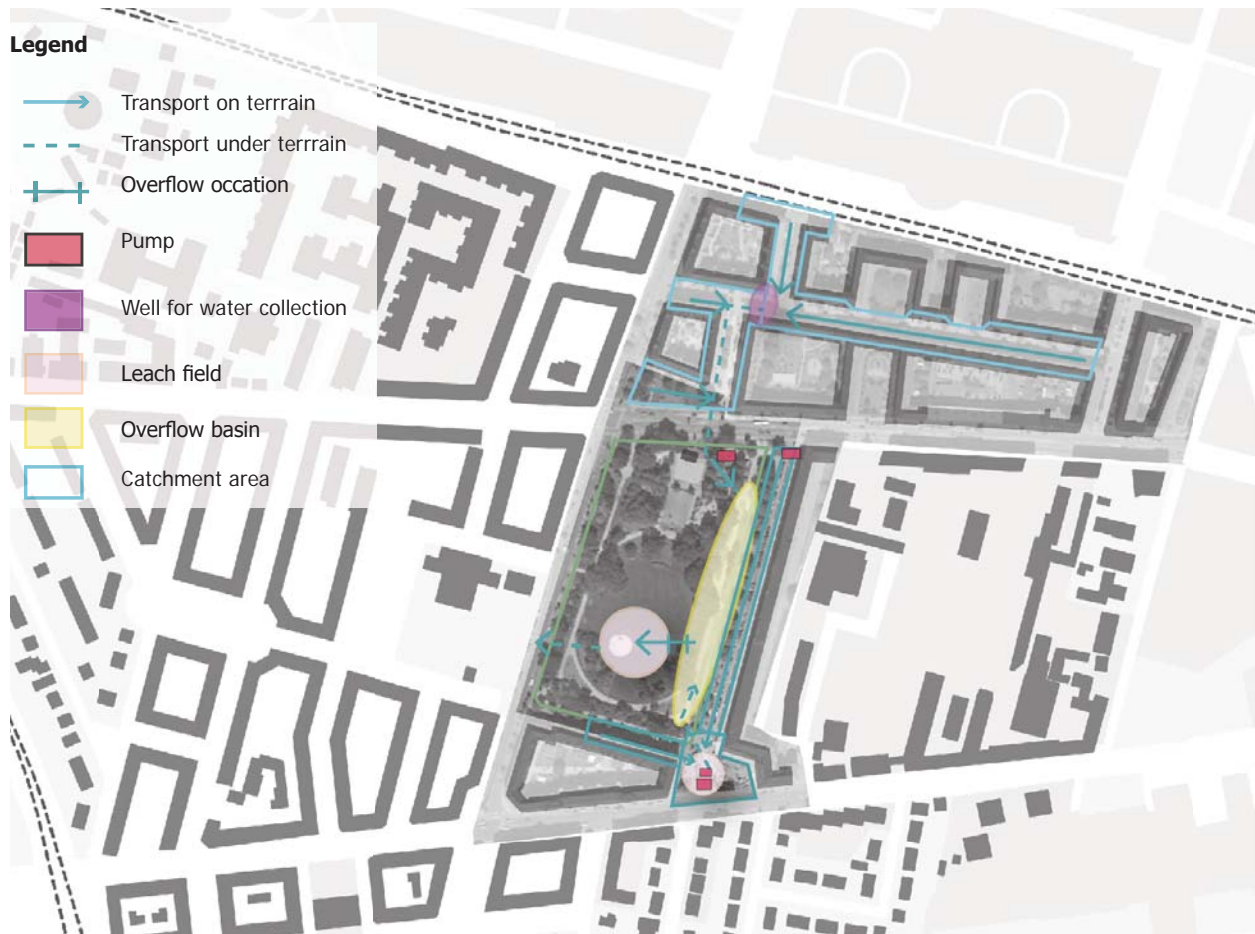
The Loop
Social Contact

WATER AS AN INSPIRATION FOR LINDEVANGSPARKEN

With water as the source of new initiatives, expanded the park's bykulturelle features so residents, school children and other groups in the community will benefit from the new recreational items as includes: the stage, the Exploratorium and playground, blackcurrant ditch and water space: The loop. Today Lindevangsparken is a special place - a park in the city with its own features and recreational qualities - a defined landscape space, by virtue of its large valuable trees, densely planted edges, spatial variation and exuberance defines itself and have qualities that give the district: identity, beauty, nature experience social contact and physical recreation.

The qualities are obvious when visiting the park a nice sunny day in September: Kids' on the lawn and games in areas - which are arranged hertil-, old people on benches looking at, "dog walkers" meet and hear the chirping of spring happy birds in the dense bushy parties.

Lindevangsparken



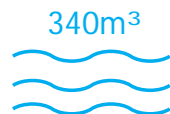
Handling the roof and road runoff water in a normal rainfall situation

Percolation area is established by excavate to a depth of approximately 1 m below ground in the eastern side of the park. From seepage area established an overflow so that the water at extreme precipitation events led in a pipe of a gabion which is placed at the bottom of a new hollow on the green area below the stage (see detail in subsequent sections). When rainfall is so powerful that both the Eastern leach field and gabion in the hollow is filled, the water will stow up on the surface of the hollow. To ensure that the water on top of the hollow only staying for 12-24 hours on the surface established a drain to the nearest sewer, so the water on terrain slowly emptied into the sewer. The total capacity will be 2,000 m³, of which 450 m³ in the eastern percolation area, 100 m³ of gabion and 1450 m³ in the hollow. It provides a sufficient capacity to ensure that only the overflow from eastern leach field to faskinenhvert every two years, visible water on stage every 2 to every 5 years and there is ample capacity to handle a 10 year event.

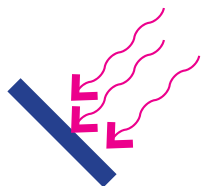
Vejvandet from By Lindevangen and P. G. Ramm Allé led the way down to the loop, which established a catch basin. Vejristene blinded in both ways. The collected water will be in the summer pumped into the park's eastern side to seepage, but in winter it is led to sewer. The pump is driven in part by solar panels mounted on the roof of the settlements that are in Lindevangsparken. maintaining a smaller volume of water in an underground tank. This water is recycled and used to form the one sound barrier between Peter Bangs road and loop. Energy for this second pump is also retrieved from the solar cells mounted in Lindevangsparken. The water is recycled to be filtered and cleaned with UV light, so that it meets the hygiene requirements for water in public spaces. total capacity of 340 m³ would be sufficient to handle a 10 year event.



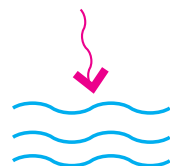
12-24Hours
Drained



Cloudburst
10 Years Capacity



Solar Panal
Clean the Water

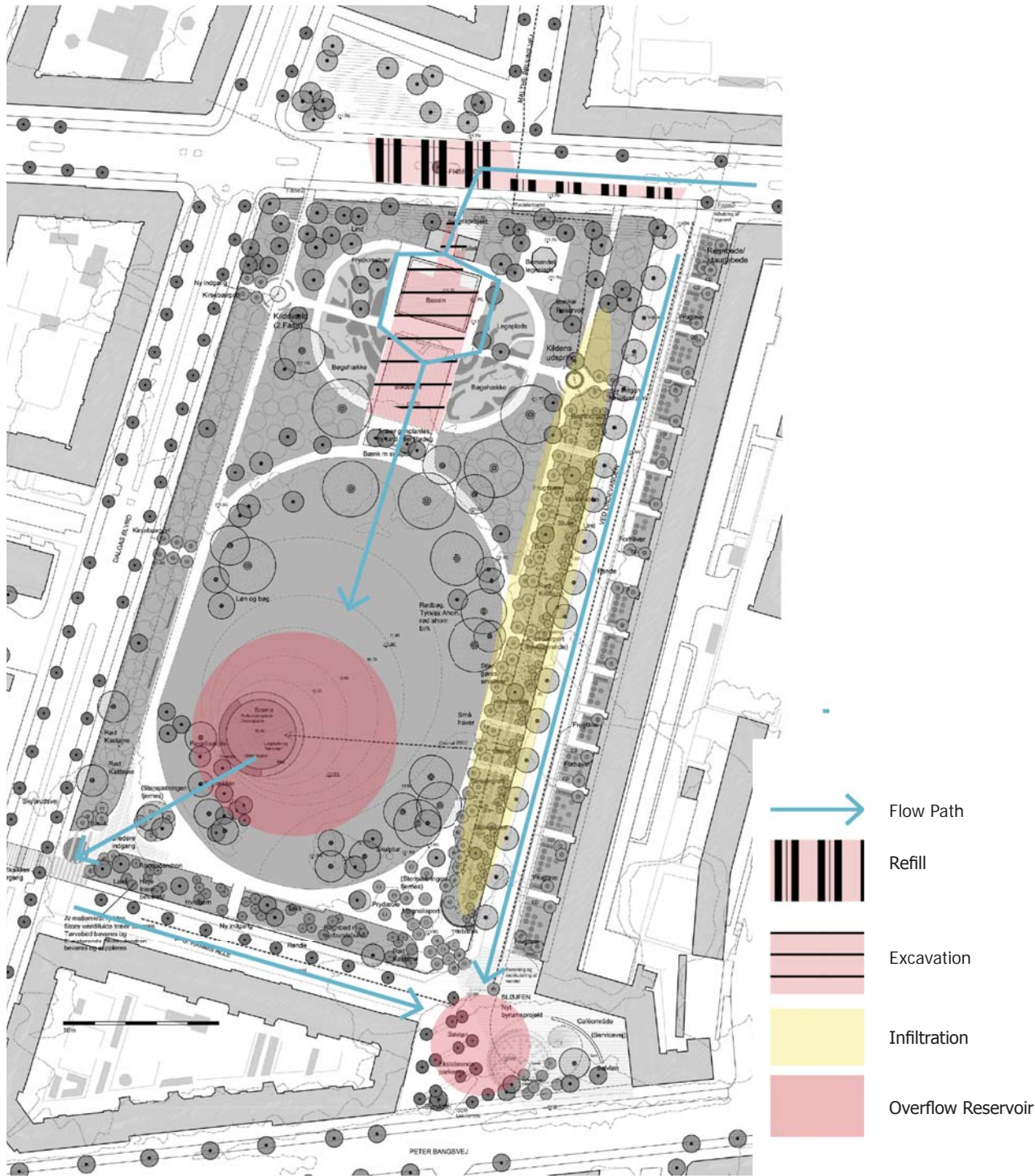


UV Rediation
Clean the Water

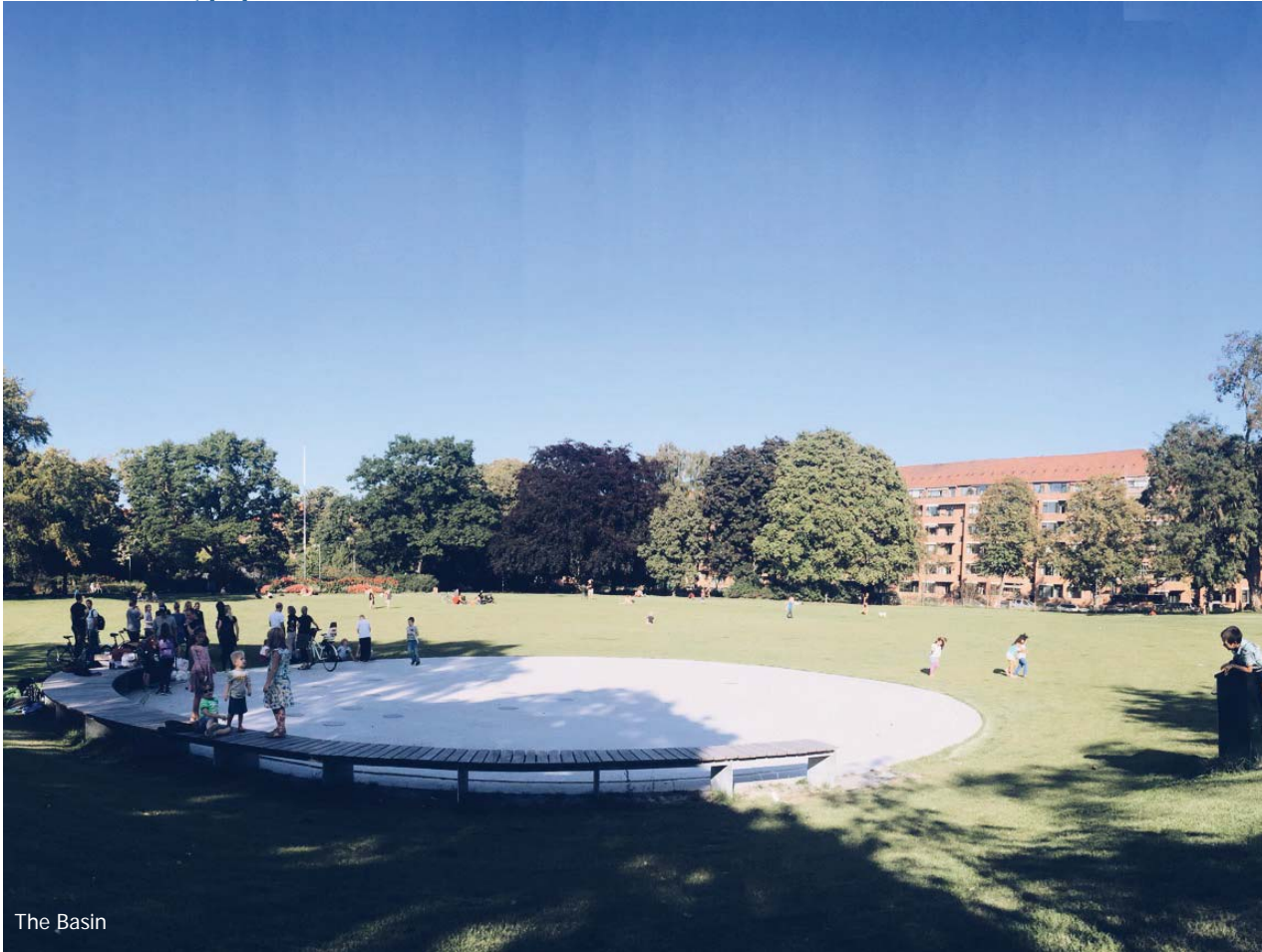
Scale: Terrain

Cloudburst System

When rainfall is so powerful that it can not be handled by the sewage system is flowing water on terrain for almost lows. To reduce the risk of flooding downstream Lindevangsparken will it is appropriate to direct the water flowing on the ground, into the park, where it can magasinere. The water that flows from east to west on Finsensvej passed by By Lindevangen by raising the pavement by about 10 cm. At the northern entrance to the park raised Finsensvej to level 12 and cycle path and pavement into the park is lowered. In case of extreme precipitation events will water on Finsensvej thus be led into Lindevangsparken. In the park establish a skybrudsvej by lowering path from Finsensvej into the paddling pool and pass around whether the paddling pool to the football field. The football pitch is lowered by approximately 50 cm and, in a situation rainstorms act as a reservoir. When the football field is filled, the water flows further south into the lawn and down towards the new overflow basin to be established in the south-western end of the lawn. From overflow basin establish an overflow for Dalgas Boulevard. Rainwater landing on By Lindevangen and micrograms Ramm Allé headed down to the loop where established superficial magazine ring capability that can collect a rainfall equivalent to a cloudburst situation. In cloudburst situation is expected to get 10 cm of water on the parking lot and sidewalk and more than 10 cm in the square.



Lindevangsparken



The Basin

Reflection:

The whole park renewal idea was based on climate change, but integrate with community participation, education, water cleaning and bio-diversity methodologies. The heavy rain in 2016 approved the design capacity. Really succesful project.

Challenging

According to the Copenhagen's regulation, Rain water must be drained within 48 hours. Because of the water quality and bio-control.

The redering shows the design is also aimed to engage human's activity, but fences on the sites shows water quality and over flow control are the one of the major problem.

References:

- 1) Lindevangsparken dispoitionsforslag
- 2) Federisberg Forsyning

Nørreport Station

Team:

Yue Yu (Karlie), Derek Holmer

Typology:

Social Amenity

Description:

Nørreport Station has been an important transit hub and entry to Inner Copenhagen since its founding in 1916. Rebuilt in 1934, it quickly surpassed capacity; once the metro reached the station, more than 250,000 people passed through the station each day. The lack of public space coupled with decrepit station houses created a bleak entry into the city as well as insufficient bike parking for the 20,000 cyclists who pass through daily.

In 2015, the station reopened with a new design by COBE, which resurrected the formerly choked public space for people, by removing one street, segregating bike parking in 40cm depressed 'bike beds', and providing shelter with curved pavilions roofs over glass pavilions. In order to maximize flow, all elements were placed in movement vacuums discovered through intense movement diagrams. This station provides smoother connections within the surrounding district by allowing flow along natural corridors, rather than strict, linear motion.

Location:

COBE

Nørreport Station: last modernized in 1938



COBE

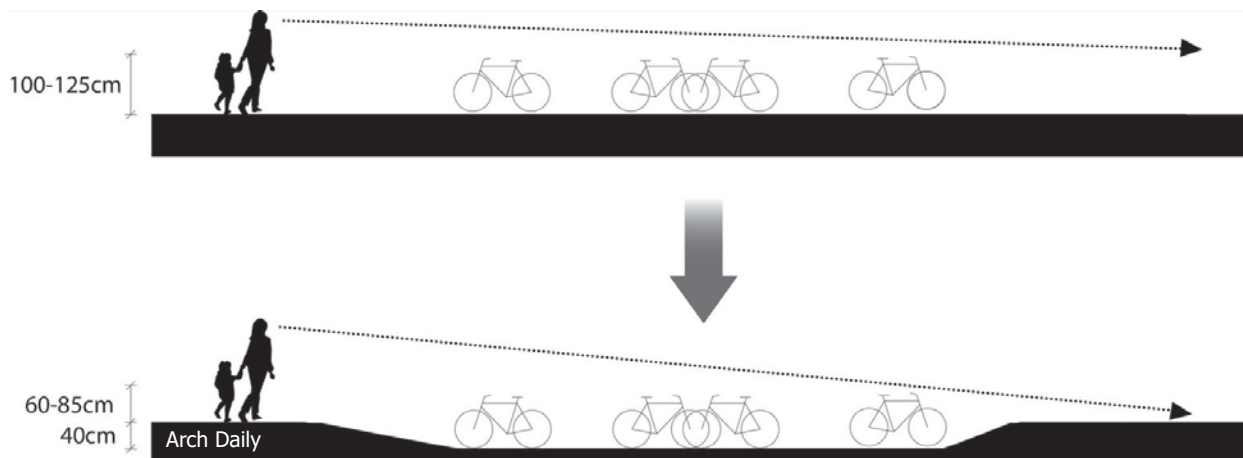
Nørreport Station: enhanced entry pavilions

Nørreport Station



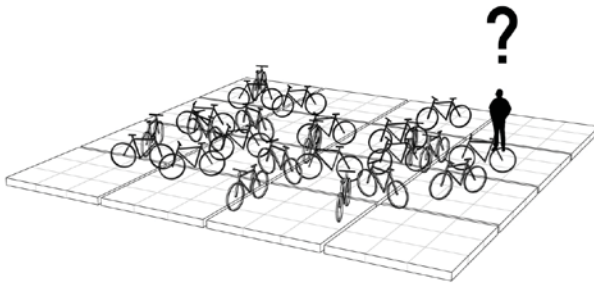
The Bike Problem:

With 20,000 bicyclists passing through the station a day, a key design challenge was organizing 2,500 bike parking spaces. In their current state, they were both visual and physical clutter.

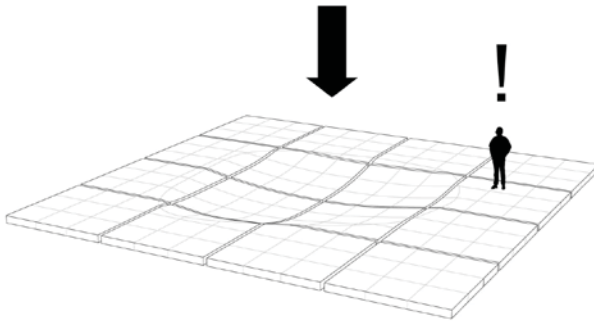


The Bike Solution:

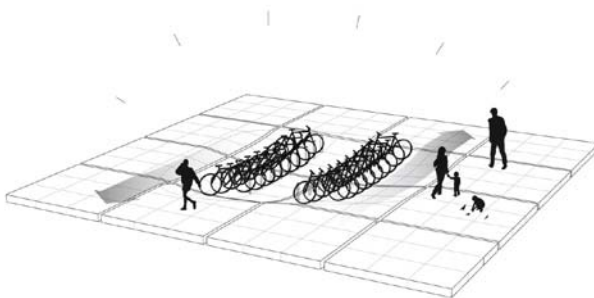
In order to reduce the footprint of bike parking on the site, all parking was condensed into pods, called 'bike beds' by COBE. Each bed was lowered 40cm to clear sightlines across the site. The slopes surround the bed are steep enough to prevent bikes from being parked on them, thus limiting the space for bike parking to the racks within the bed.



COBE



COBE



COBE

Bike Beds:

With a 40cm depression and clear border, the bike beds create a clear hierarchy of space as well as allowing room for movement and public life.



COBE

The design of Nørreport Station perfectly reflects the principle of sustainable multifunction. The green roofs cool down the temperature and also serve a part of the drainage system. The bicycle-beds are not only created for bike parking but also solve the storm water problem.

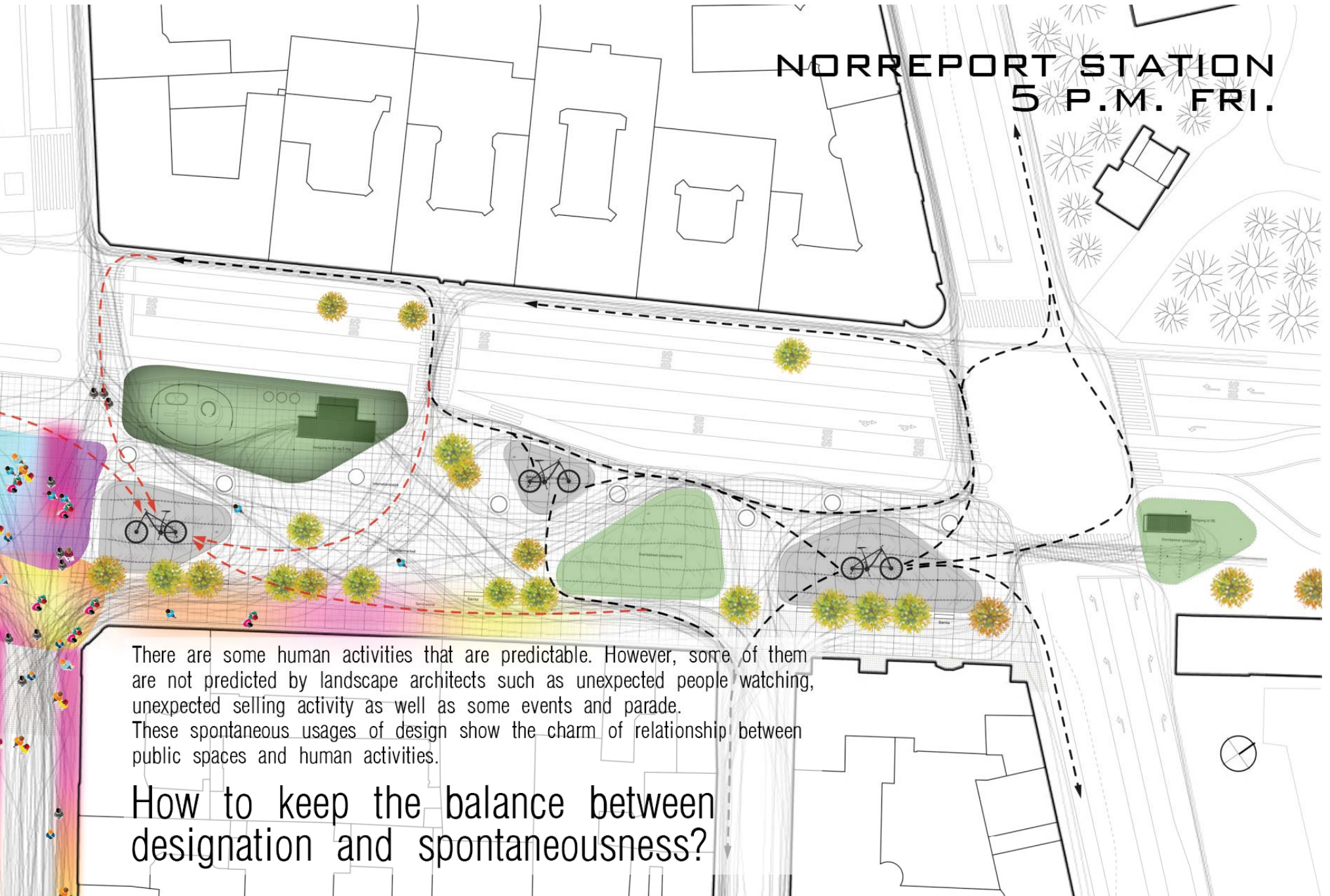
Is refuge for homeless a part of multifunction?

In different time of a day, the tracks of bikes are different. For example, at 5 pm on Friday, bike parking areas in the middle of Nørreport Station which connected to commercial area are gradually occupied. In contrast, bike parking areas on two sides of the station are gradually vacant which shows the tracks of people heading home.

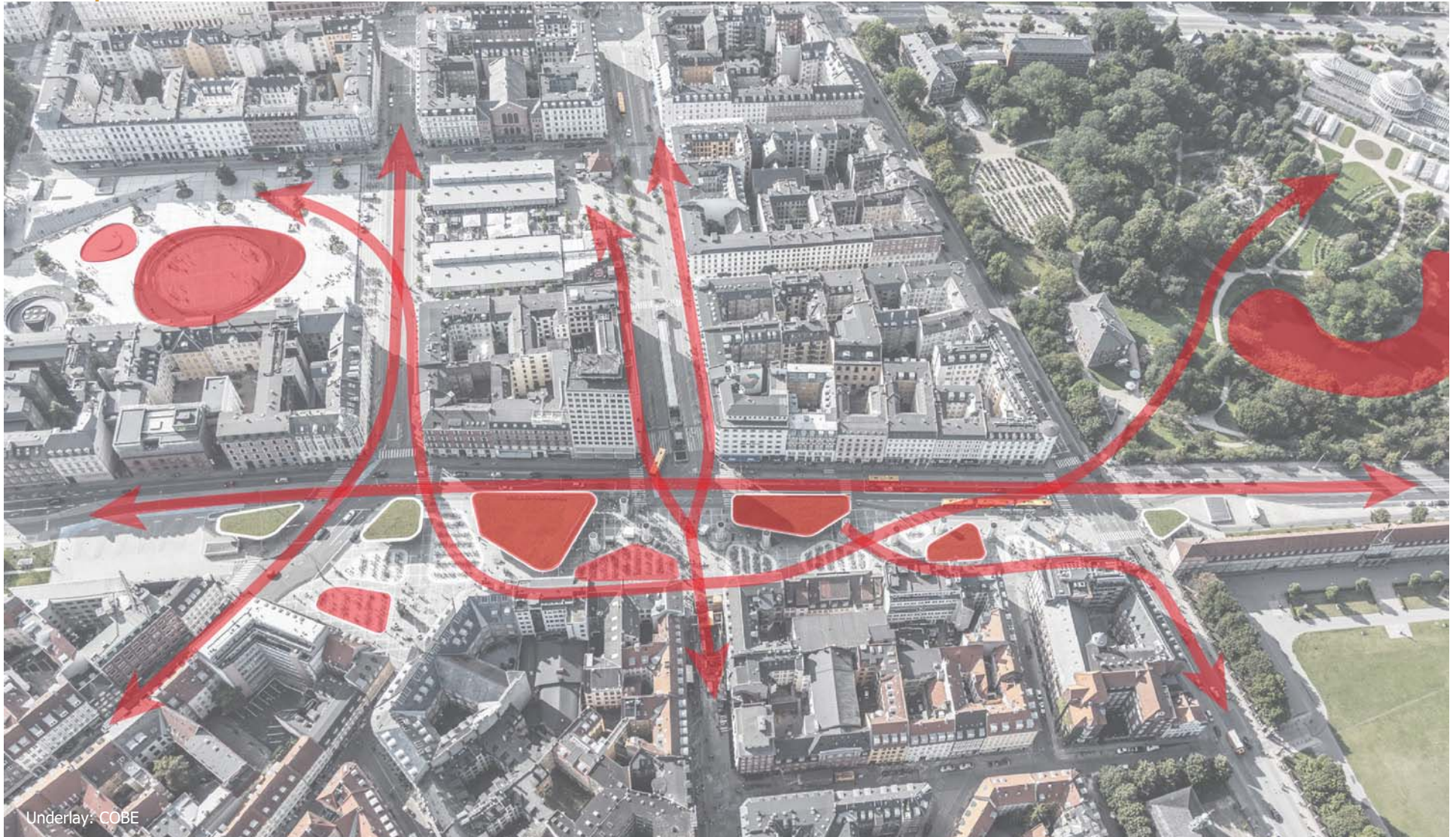
Development of Copenhagen as a cycling city makes bike capacity of Nørreport Station insufficient.

How to adapt the design for different time of a day and different period of development?

NORREPORT STATION
5 P.M. FRI.



Nørreport Station



Organic Gateway:

COBE has used Nørreport to continue an existing patch of organic shapes within the district. As a gateway into Indre By, organic flows are necessary to allow 250,000 people to smoothly pass through the station. The shape of the bike beds and the pavilion roofs speaks to the rounded shapes within Israel Plads and the curved paths and landscape features within the Botanical Gardens. Together, these create a terrain of free-flowing movement, with pedestrians able to walk from point A to point B in the most direct route.

These sites also unify the terrain in another way--through elevation change. While 40cm may seem like an insignificant amount, this grade change breaks up the relative homogeneity of Copenhagen's floor plan. This rhythm of depressions dictates programming while also allowing city life to occur around them uninterrupted. Israel Plads, the Botanical Gardens, and Orstedsparken all use the same method of separating program through elevation change.

Scale: Terrain



Project Title



Reflection:

COBE's design is a successful social amenity because it is a correspondence and a reaction to public life. Rather than dictating movement, it encourages natural stream by breaking the linear nature of the old station and allowing free movement between streets and transit stairs.

Every intervention on the site serves many functions: exhaust pillars are benches and visual elements, pavilion rooftops are green, and bike parking serves to contain bikes, capture stormwater, and declutter and visually reconnect the entire plaza.

The shape of the pavilion roofs are extrapolated from the shape of the bike beds, further unifying the design and softening the structures within the space. The former bottleneck now allows movement even in rush hours. The shape of pavilions and bikebeds corresponds to organic shapes of surrounding districts such as Israel Plads, the Botanical Gardens, and Ørstedsparken.

By breaking the strict linear patterns of the old station, Nørreport Station allows the passage of 250,000 people, all while still supporting the theatre that is public life.

References:

- 1) COBE
- 2) Arch Daily
- 3) Google Maps

Frederiksberg Open Space

Team:

Joshua Gawne, Joanna Kaiserman, Katie Poppel

Typology:

Urban Greening

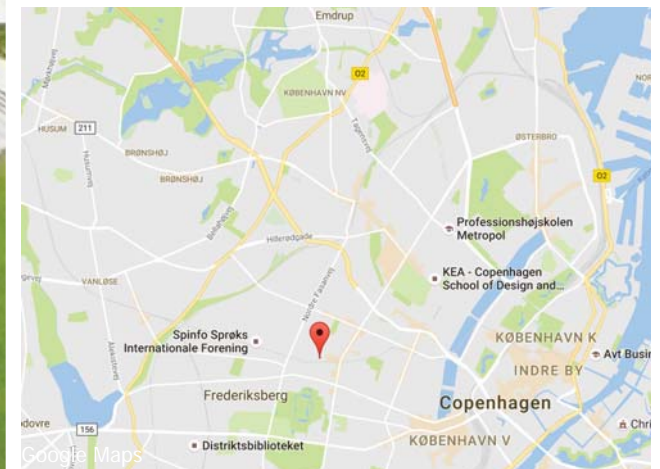
Description:

The Frederiksberg Plazas and the Copenhagen Business School Campus are in the heart of Frederiksberg, surrounded by the municipality of Copenhagen. The sites are enclosed by multiple points of interest: Frederiksberg Gymnasium, Frederiksberg Library, and the Frederiksberg (Shopping) Centre, among the rest of dense Frederiksberg. Two Metro stations - Fasanvej & Frederiksberg Center - act as nodal points to the west and east of the site(s).

Together, both sites create, what we are calling, Frederiksberg Open Space. With the idea of bringing urban nature back to the dense city, these sites used both hard and soft scape in what is a densely busy city center. With the official opening of the Metro stations in the coming years, this slice of urban nature will only grow in importance and use.

Due to construction on three of the five Frederiksberg Plazas designed by SLA, we have chosen to consider both the Plazas and Copenhagen Business School to be one site.

Location



YouTube

Frederiksberg Open Space



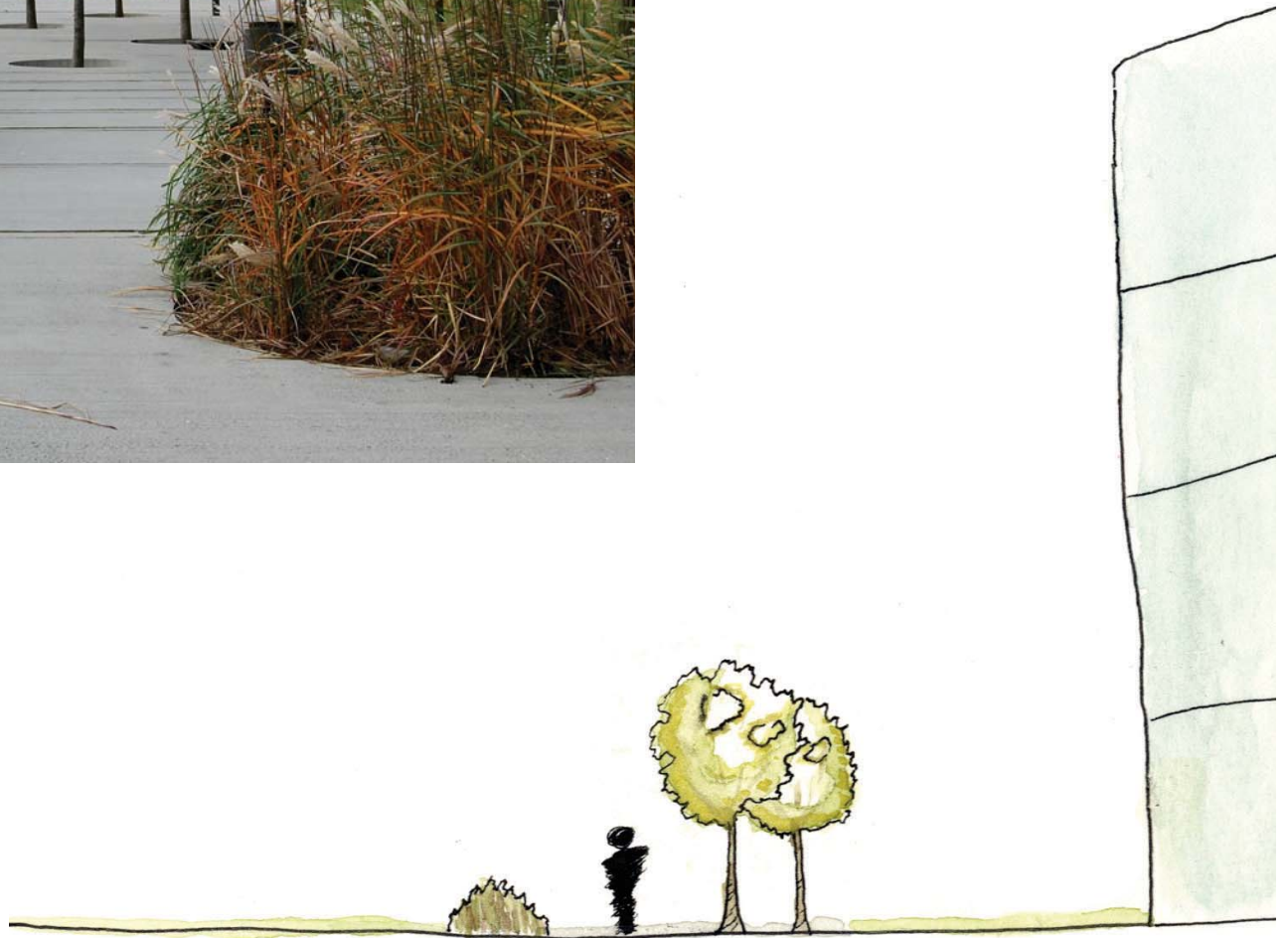
Arkitektens Forlag

Intervention

The chosen intervention is placed mainly along the 8m wide promenade; large cast concrete forms with molded holes for trees and tall grasses.

Human Scale

The intervention acts as a human scale for the pedestrian users as they pass through the site. Without the intervention, the scale would be lacking a true human essence.

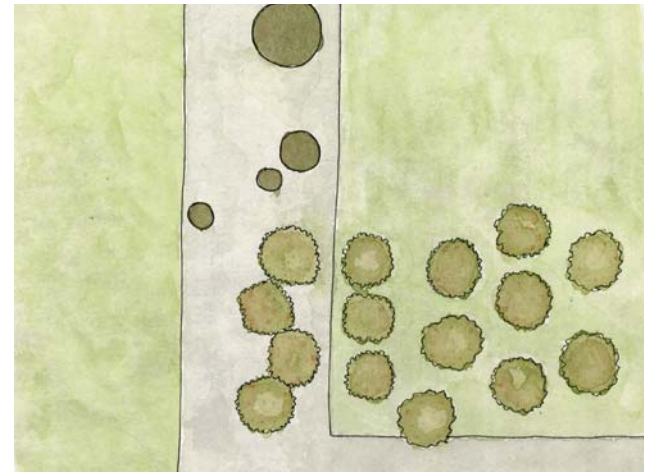




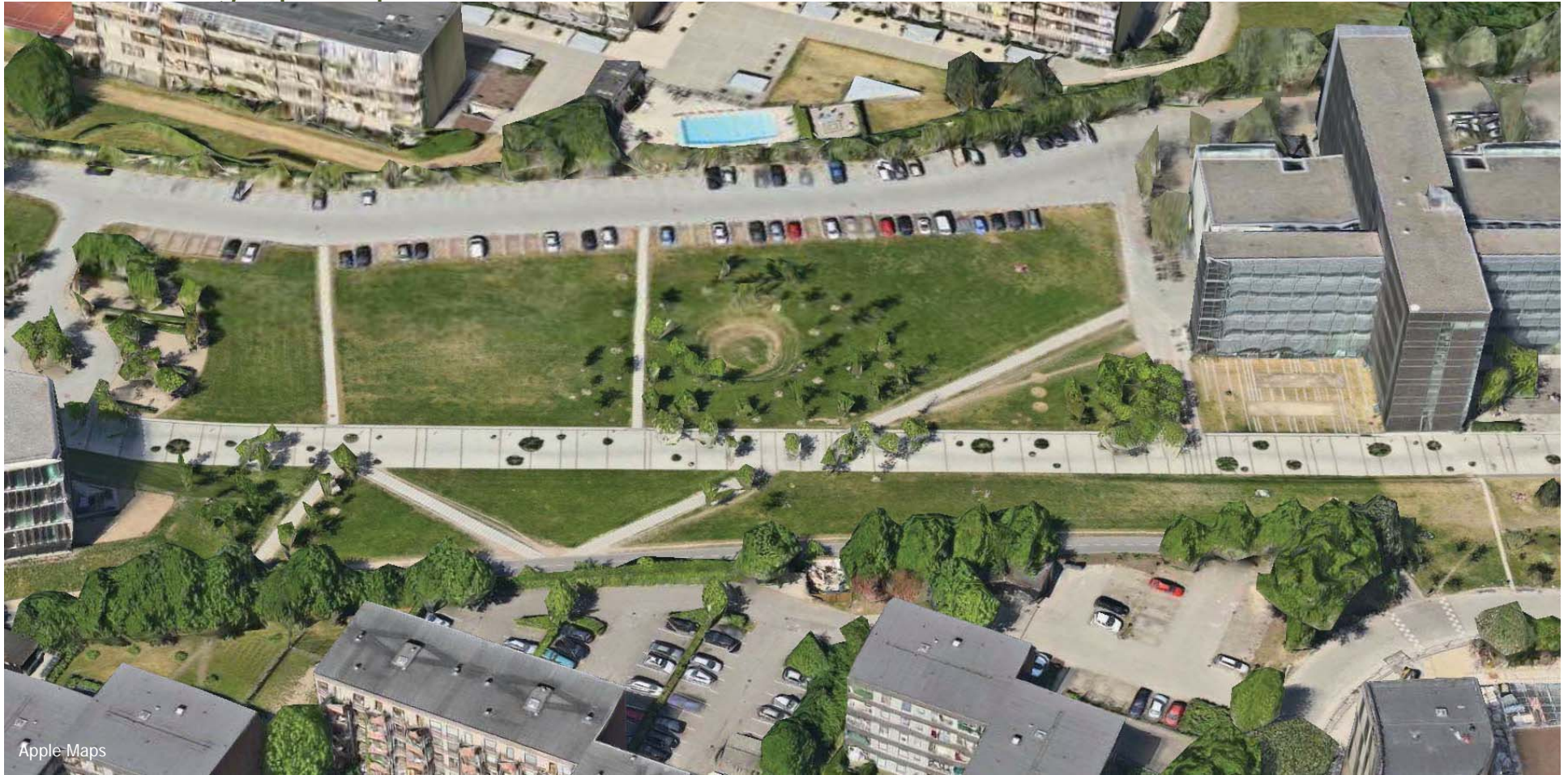
Joshua Gawne

Connecting Multiple Spaces

By pulling the red oak groves into the pedestrian promenade, the designer has merged two spaces into one: 'urban nature' & pedestrian axis.



Frederiksberg Open Space



Greening on Site

Greening manifests itself on the site in several ways. There are large grassy open spaces surrounding the pathway, dotted with oak trees. The South side of the site has grass covered mounds and a grove of pine trees. Trees are also found in planters in individual plazas tucked into alcoves of the Copenhagen Business School building adjacent to the pathway. The oak trees are drawn into the walkway as well, growing out of circular cutouts in the pavement. Other circular planters in the pavement holding tall grasses green the pathway its entire length.

Scale: Site



Movement

People are move along the path heading in both directions, to and from the metro stations, to the business school buildings, and on secondary paths leading to adjacent roads.



Staying

People sit on the benches near the CBS building, at the picnic tables, and in the pine grove. Others sit or lay on the grass, particularly the grass mounds. There are gatherings of people too, drinking beer and socializing.



Other Typologies

Examples of social amenities: benches and picnic tables for sitting and gathering.

Examples of stormwater mitigation: runnels along the North edge of the pathway divert water from the path.

Role of Greening

Greening is utilized in the site to provide areas of recreation and relaxation. The open, grassy fields and mounds invite people to gather, play, or lounge in the sun, or beneath the shade of the oak trees.

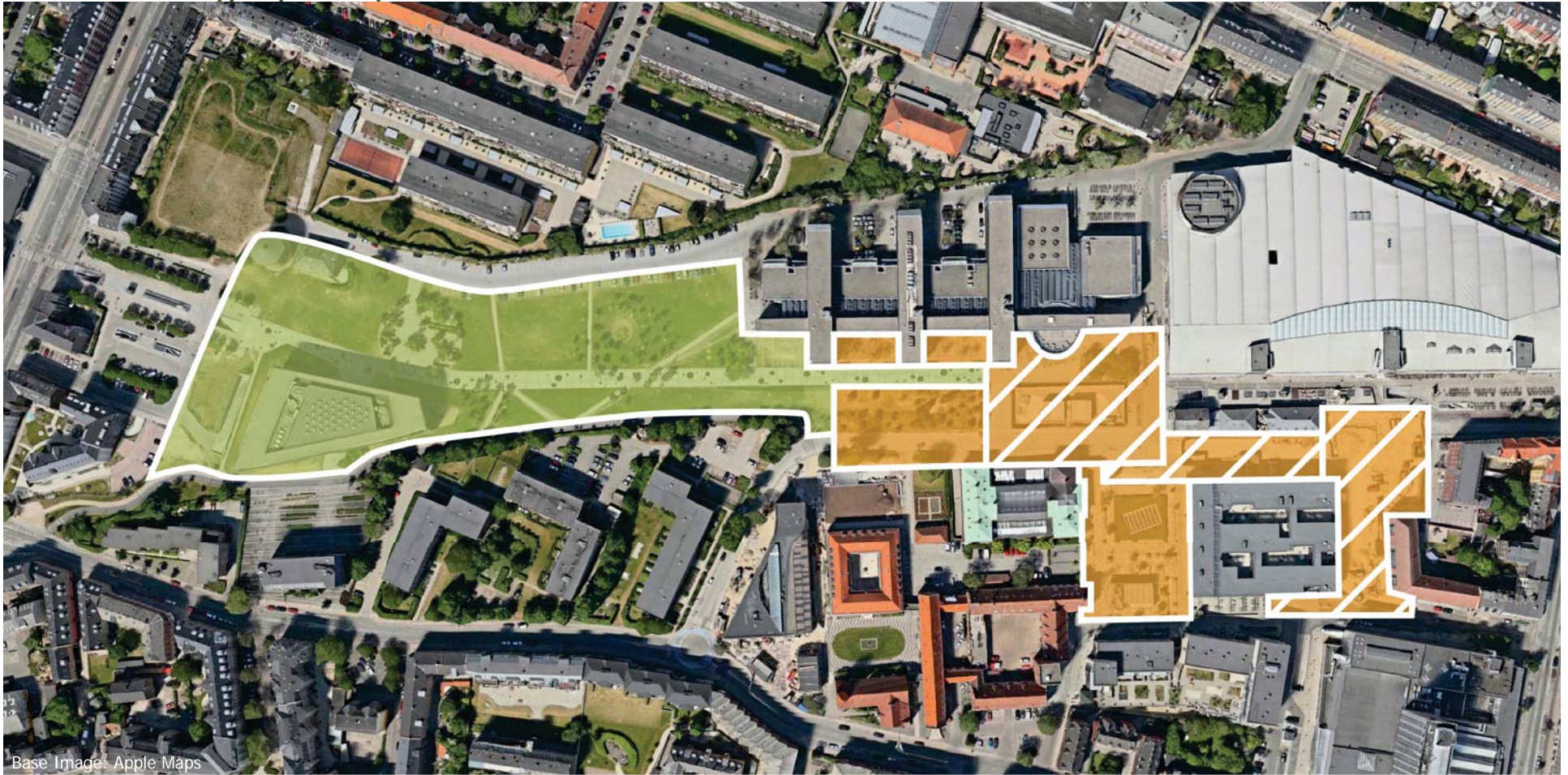
The pine grove offers a more private retreat, with the thick branches providing a barrier from the rest of the park, where people can sit and stay on benches inside the grove.

The alcoves also provide a sense of retreat, where students can sit beneath the shade of the trees and be at a distance from the passersby on the pathway.

The circular plantings dotting walkway break up the linearity of the path, and encourage users to meander around them as they move through the space.



Frederiksberg Open Space



Base Image: Apple Maps

A Merging of Two Designs

The two edges of the entire terrain are Fasanvej and Frederiksberg Stations. Frederiksberg station includes the five plazas designed by SLA, Copenhagen Business School, Frederiksberg Gymnasium, Frederiksberg Library, and the Frederiksberg (Shopping) Centre.

One cannot immediately tell that there are two separately-designed spaces connecting the ground level of Fasanvej and Frederiksberg Metro stations. First, the sites are interlocked; they are not perfect squares touching on only one side, but rather, they are odd shapes that fit together along an assortment of edges.

There are other greenspaces surrounding the Metro stops that coexist with the Frederiksberg Plazas and Fasanvej. It almost feels as though the 'urban nature' is seeping into the surrounding Frederiksberg municipality.

Scale: Terrain

SLA's Frederiksberg Plazas + CBS Campus

SLA designed five plazas above the Frederiksberg Metro Station: The Solberg Pinet, Solbjerg Plads, Falkoner Square, Solberg Torv, & Holger Tomoes Passage. The plazas are a mix of soft and hardscape with common themes throughout all five in order to tie them together.

Marianne Levinsen Landskab designed the Copenhagen Business School Campus to feel like outdoor common areas of the school. The change in scale - from building, to tree, to person - is felt by the pedestrian user, which in turn makes the large open space feel more cozy.



dac.dk - under construction



SLA - under construction



SLA



SLA - under construction



Katie Poppel



Marianne Levinsen Landskab

Frederiksberg Open Space



Katie Poppel

Reflection:

Although three of the five plazas were under construction as of September 2016, the cohesiveness of the Frederiksberg Plazas project can still be realized. As a group, our biggest takeaway was the cohesiveness of the landscape between the two Metro stations - Fasanvej & Frederiksberg.

Our site intervention was chosen without actually knowing the true 'boundary' between the two sites. But, upon researching and learning about two separately-designed sites, we considered the combination to be our terrain. Each individually-designed site follows similar design interventions.

In terms of urban nature, the Frederiksberg Plazas and their adjacent Copenhagen Business School campus is a true refuge compared to the dense, urban development of Frederiksberg. The combination of hard and softscape designs allows for prospect and refuge.

As a group, we felt both designs were artful and thought-provoking. The greening on the site encourages people to linger and gather, versus a hardscape designed for to get people from point A to point B. The Frederiksberg Open Space promotes urban nature, while also serving as a major circulation axis in the center of Frederiksberg.

References:

Page 1) Marianne Levinsen - CBS Campusplan, Promenaden
https://www.youtube.com/watch?v=tDm_BisyD4k

Page 2) Image: <http://arkfo.dk/en/node/971>

Page 7) Image: <http://www.dac.dk/en/dac-life/copenhagen-x-galleri/cases/frederiksberg-plazas/>
<http://sla.dk/en/projects/frederiksbergnyebyrum>

Israel Plads

Team:

Robin Croen, Sierra Druley

Typology:

Social Amenity

Description:

Israel Plads, or Israel's Square, is a public plaza located in the inner city district of Copenhagen, known in Danish as Indre By. The site was initially occupied by a stretch of Copenhagen's historic bastioned fortifications. After the fortifications were decommissioned in the latter half of the 19th century, the site was integrated into the city as public space.

COBE Architects won the competition to redesign the plaza in 2008. Construction began in 2013 and the plaza was completed in 2014. The "flying carpet" park is actually the roof of a subterranean parking structure. In addition to capping this public amenity, the space serves multiple functions as a school playground, flea market, and meeting space.

Location:

<http://www.cobe.dk/project/israels-plads>



Inviting Play:

Human scale interventions on site, such as these concrete “boulders” scattered in a linear water feature, invite play and haptic interaction within the space.



“Design with no Front or Back:”

At Israel's Plads, interventions at all scales follow a logic of flow and circularity. These tree-ring benches break up the space and provide 360-degree pods for respite and visual engagement with the site.

Integrated Site:

When designing the new Israel Plads, COBE Architects and collaborators sought to connect the nearby market to the vast, lush neighboring park. Using water and vegetation as threads through the plaza, the designers wove softscape into hardscape to create an integrated urban landscape.

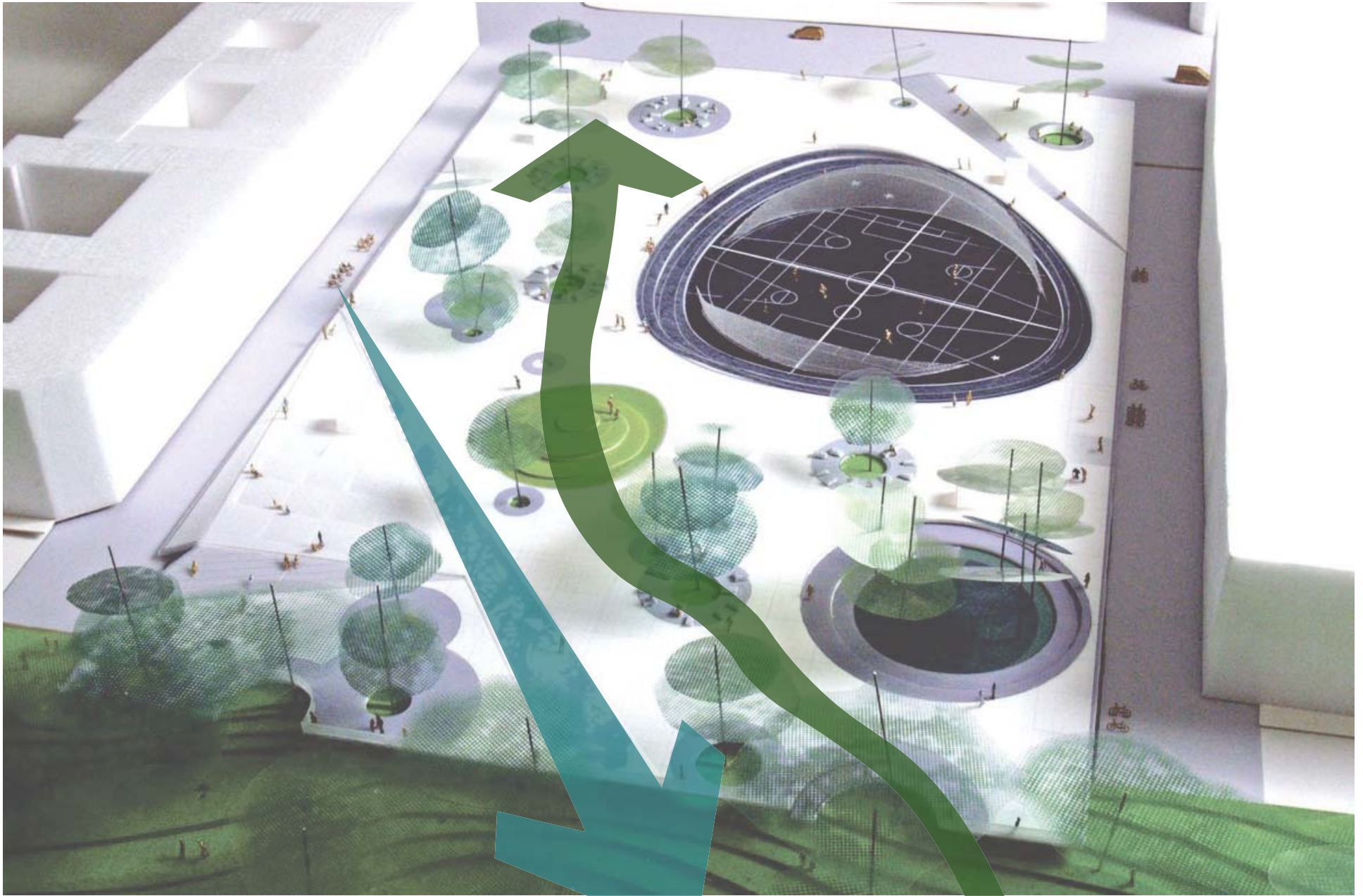
Circulation on site is directed around circular forms, creating a flow of human movement that mimics the meander of water in a stream. The design logic is one of “no front or back,” meaning that every element and structure on site functions and invites from all angles.

Israel Plads functions on the site scale by being highly adaptive and well connected to adjacent facilities and uses. Users of the plaza can engage in a range of recreational activities, browse flea market stalls, or simply take a seat. The entire plaza is built on top of a parking garage, and is designed to manage storm water in flood events. These elements exemplify the principle of stacked uses and make this plaza a highly functional social amenity.



Stacked Uses:

Each space on the site serves multiple functions--from playspace to flea market venue to stormwater infrastructure--depending on the time of day and the weather.

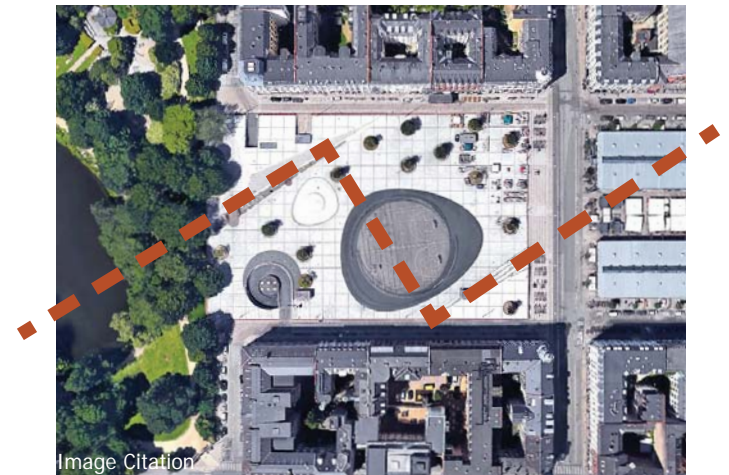


Connecting Park and Plaza



Urban Patchwork:

At the district-scale, Israel Plads can easily be seen as just one patch in a diverse urban quilt. The plaza's proximity to the Nørreport Station and the neighboring park, market, and school firmly situate the site as a focal point of urban life.



Traces from the Past:

From a bird's eye view, the pyramidal seating structures echo the historic fortifications of medieval Copenhagen.

Israel Plads



Rasmus Hjortshøj via <http://www.landezine.com/index.php/2015/05/sport-square-israels-plads/>

References:

- 1) Google Maps
- 2) COBE Architects: <http://www.cobe.dk/project/israels-plads>
- 3) http://www.oticonfoundation.com/wp-content/uploads/2015/06/575x370_cobe_israels_plads_25.jpg
- 4) <http://www.dac.dk/Images/img/1920x1200M/>
- 5) <http://archemon.com/wp-content/uploads/2015/06/Israel-Square-Copenhagen-Sweco-05.jpg>
http://www.kobenhavnergron.dk/wp-content/uploads/2014/06/18_IsraelsPlads.35.jpg
[http://www.dac.dk/Images/img/1920x1200M/\(53230\)/53230/IsraelsPlads_07.jpg](http://www.dac.dk/Images/img/1920x1200M/(53230)/53230/IsraelsPlads_07.jpg)
- 6) COBE Architects http://www.cobe.de/project/israel_s-square
- 7) https://en.wikipedia.org/wiki/Israels_Plads

Reflection:

Overall, we found Israel Plads to be a highly successful space. The diversity of uses and users, from schoolchildren at play to locals meeting friends to tourists exploring the city, makes for a lively and activated space. It should be noted, however, that our observations were made during an usually warm and dry September where public activity in the city was likely to be particularly high.

In terms of design, COBE's efforts not to inhibit circulation with walls or barriers are achieved. The site and its constituent spaces are highly permeable, and virtually every space enjoys a degree of non-orientation, which is to say that one can approach and appreciate the plaza's myriad experiences from multiple vantages. This leads to a user experience that invites exploration and discovery, in addition to allowing for a diversity of temporary activities.

The design is not without fault, however; the materials palette, while clean and uncluttered, seemed a bit stark and uninspired. We felt there was an opportunity to do more with materials and texture, particularly in regards to the paving, to give the site a deeper level of detailing. In addition, a stronger connection between the neighboring Ørstedsparken and Israel Plads would serve to tighten the connection of the hardscaped plaza and the softer park. This is hardly the fault of the designers, however, as it was pointed out that funding cuts made these design elements impossible.

Sankt Hans Torv

Team:

Jack Alderman, Jian (Jesse) Shan

Typology:

Social Amenity

Description:

Sankt Hans Torv meaning St. John's Marketplace, is a public square in the Nørrebro district. The center of the site is dominated by a large granite sculpture designed by Jørgen Haugen Sørensen. St. John's Church, the largest and oldest church in Nørrebro, is situated just east of the square and is a major contributor to the use and traffic surrounding the site. The square was originally used as a cattle grazing area and market before being paved over around the 1890's. The current square was established in 1993 as a part of the urban renewal program. The current design was created by Sven-Ingvar Andersson and Henrik Pøhlsgaard for City Architect Otto Käsner.

Located close to the major shopping street Nørrebrogade and The Lakes, the square is a major junction in the area where the streets Blegdamsvej, Nørre Allé, Guldbergsgade, Elmegade, Fælledvej and Sankt Hans Gade meet. The site is a strange shape similar to a round corner square that is slightly depressed in one corner. The site is roughly 47m running North - South and 51m running East - West.

Location:

Image Citation



Sankt Hans Torv



REST + RECHARGE

Most users of the square were using the space to rest or recharge themselves. The square provides ample seating and the fountain in the center of the square has larger stone places outside the area of the splash of the fountain. A number of benches are placed along the edges of the square so that users can rest while watching other users and enjoy the calming sound of splashing water from the fountain. Two cafe's and a coffee shop also line the edges of the square adding more users searching to recharge themselves with food or a quick caffeine break. The sensory element of the fountain helped to drown out the sound of traffic creating a peaceful place for these activities.



PLAY + INTERACTION

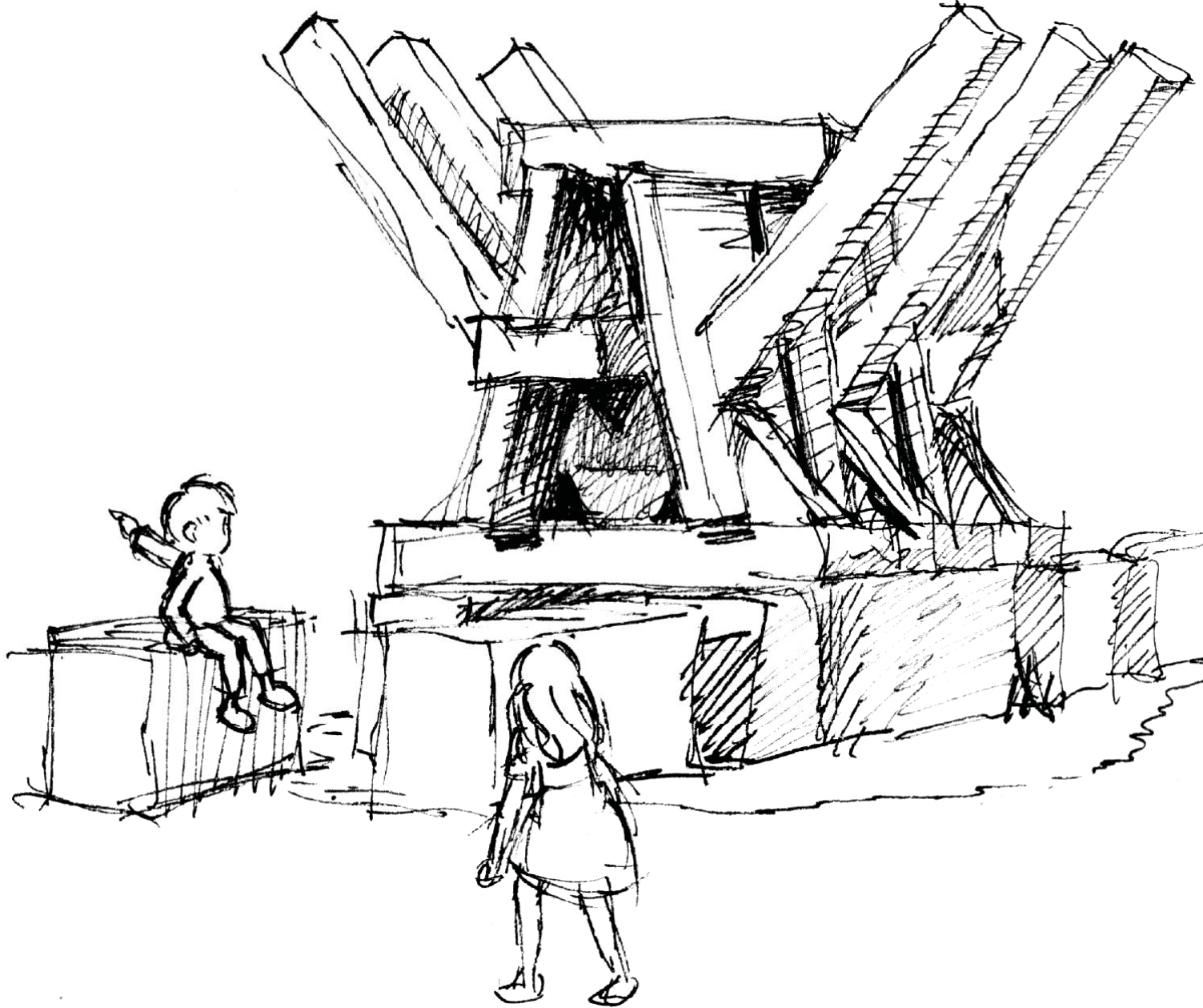
The fountain located in the center of the site is a strong factor in the sensory impact of the site. It provides sensation in sound and touch and promotes a fun and loose definition of the uses for the site. Children enjoyed the spouts located off the central axis of the fountain and occasionally ventured towards the cave like lower section of the fountain formed by its monolithic granite blocks. The fountain also acts as a catalyst for interaction on the site forcing users to a common ground and also creating a talking point through mutual interests. Many parents engaged in conversations of their little ones or with passersby apologizing for accidental splashing!



THOROUGHFARE

Another strong use of the site was for movement. Users often locked their bikes towards the south end of the site and then proceeded in different directions through the site, typically to continue outside of the site's boundaries. While stagnant and relaxed activity played a strong role in the use of the site, movement was a strong rival. The site is at a literal crossroads and saw foot, bike, and car traffic in large scales. A key hinge point in the grid of the city and a combination point of many modes of transportation.



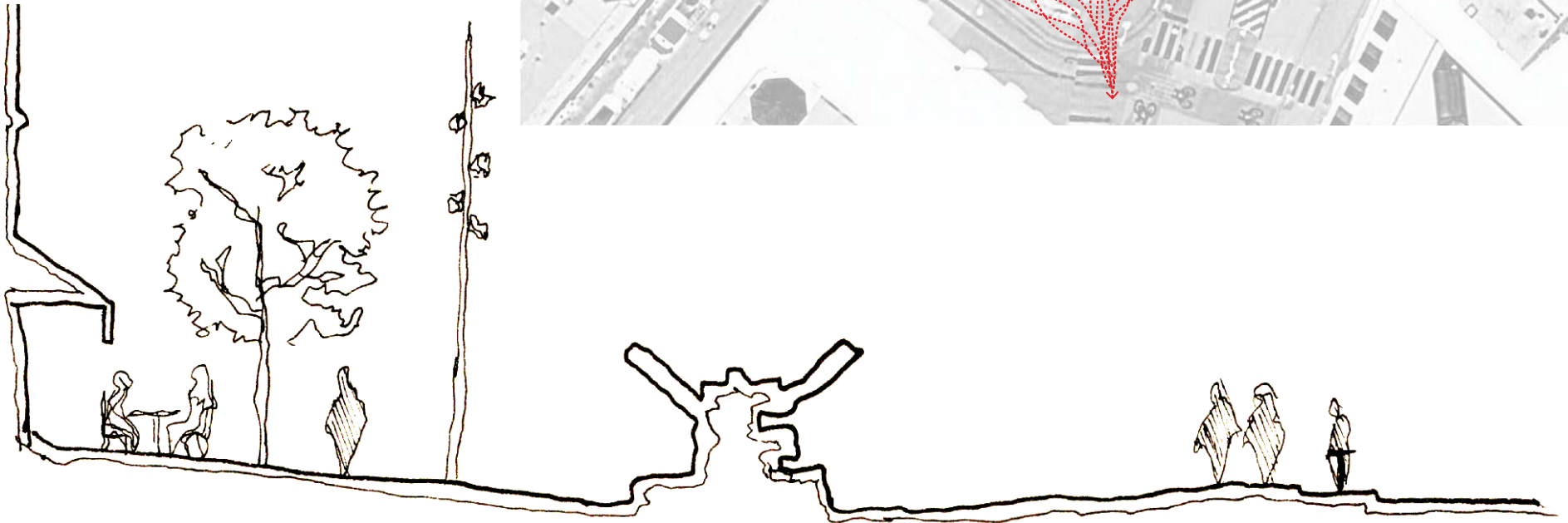
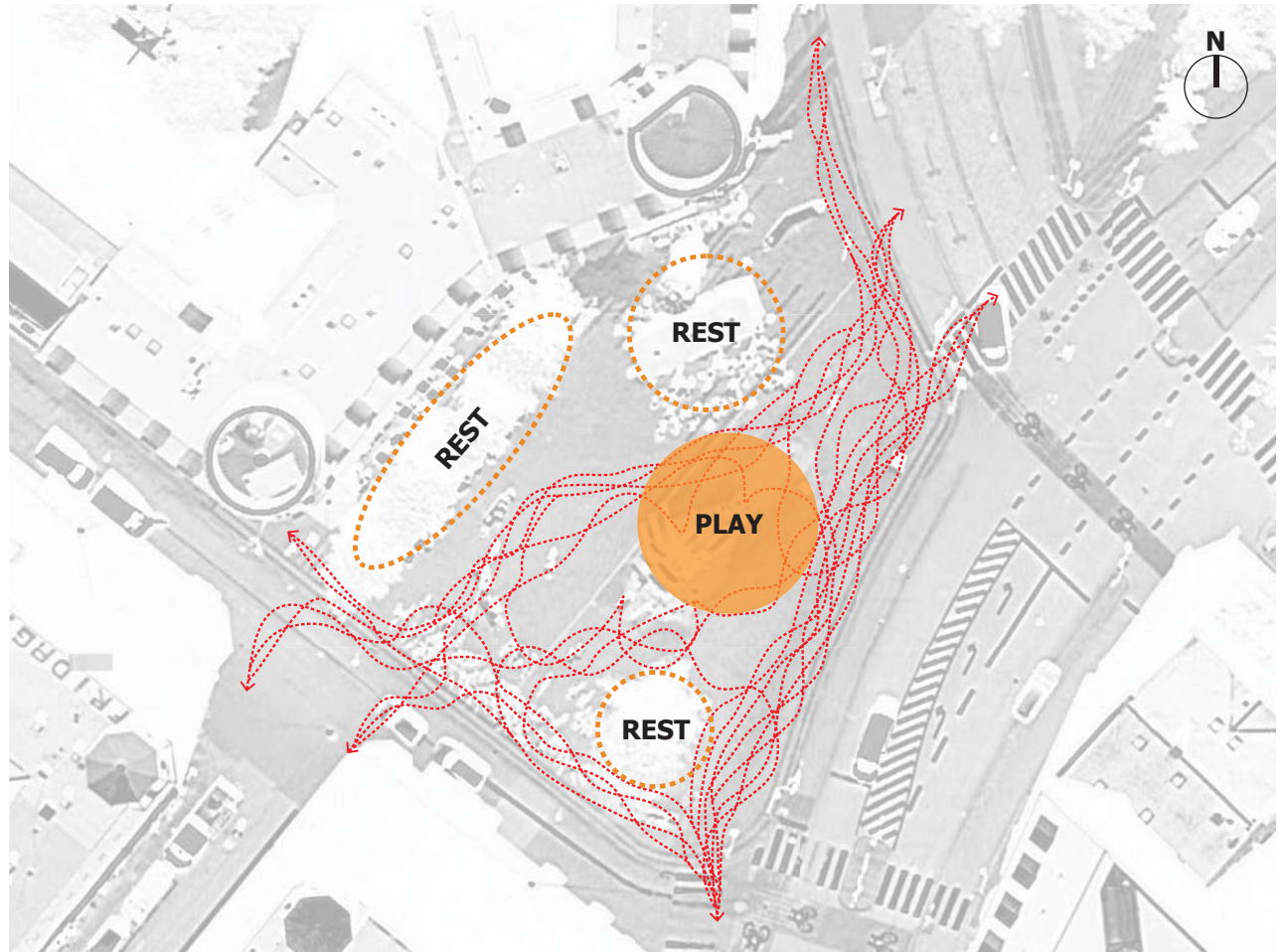


Sketch showing playful use of granite fountain by Jesse

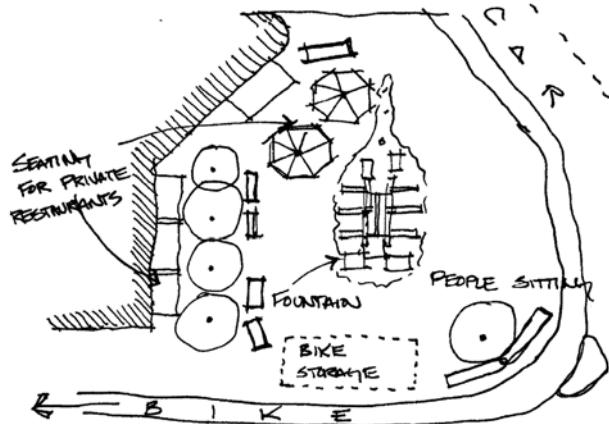
Sankt Hans Torv

Forms and Functions

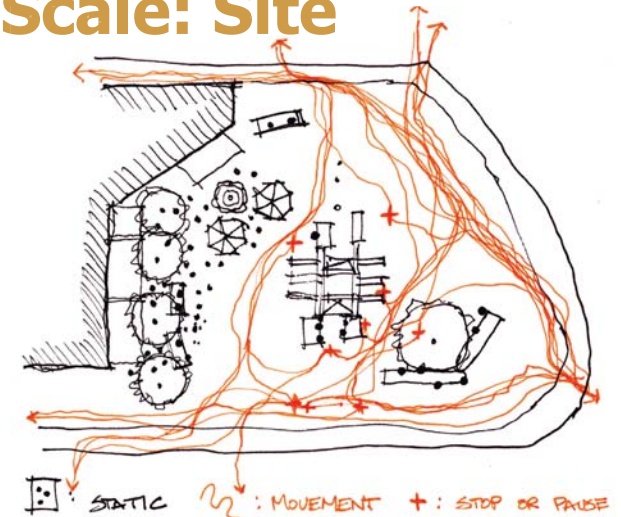
The use of the site is divided evenly between areas of rest and areas of movement. The edges of the site are split between sidewalks and bike paths and cafe's and coffee shops on the north side. The largest and most noticeable seating on the site is private for the cafe's and restaurants. The paving of the site is dominated by cobble stones with a broken pattern of large granite pavers to help dicate the private space within the square. The design of this square is very encouraging of public use and seating by also suplimenting the private seating with large granite benches that have a visual correlation to the fountain located at the center of the site as well as installed more generic benches. Along with granite benches is a mound that provides a retaining edge also used for seating. All of these elements help to promote the importance of pausing at the site and resting.



The southern edge of the site is movement focused and has layers of transit from vehicle to bike to pedestrian. While most movement was held the edges of the site, multiple users still passed through the center and made use of bike storage located on the western edge of the site. These two contrasting edges are what help the site function in an orderly and fluid manor. The uses are defined around a central point of focus and provide ample space for both styles of use. The central point of the site being the monolithic granite sculpture and fountain. This piece acts as both a play intervention and landmark used for creating a meeting place that offers seating while waiting on others. Moving water adds a sensory element to site and encourages play while creating white noise that drowns out the traffic and heavy transportation use surrounding the site. The fountain acts as gentle giant that dominates the site but is seen as softer element due to the sculptural qualities and water feature. The only greening elements of the site are a singular tree and row of trees. The singular tree sits atop a mound on the site most likely built around the tree at its original height to save it while undergoing a redesign process. This tree shades the retaining edge seating offering shade while people have a conversation or await others before moving on. The row of trees lines the outside of one of the cafe's and offers additional shade to people eating or having a cup of coffee. Both of these elements provide a nice glimpse of green while enjoying the square.



Scale: Site

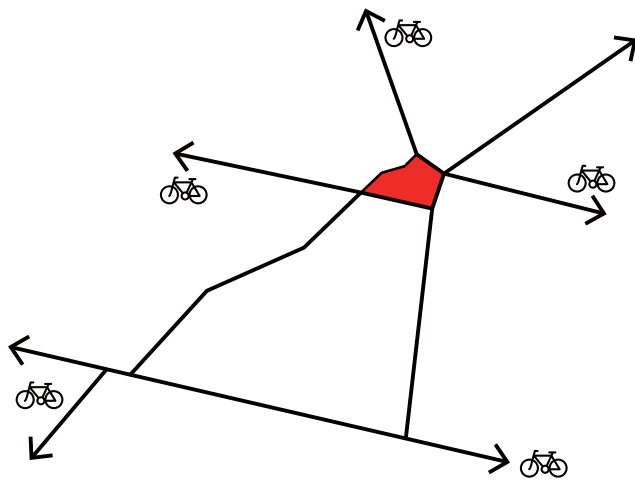


Sankt Hans Torv



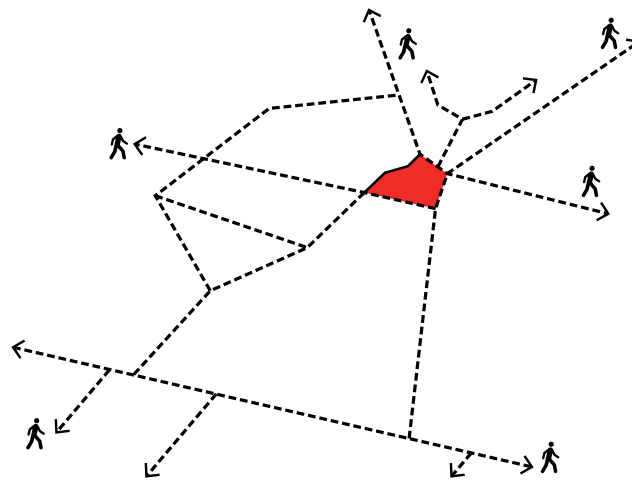
Connection to the public open spaces

Sankt Hans Torv is at the crossroads of Fælledvej, Guldbergsgarde, and Blegdamsvej. It's also closely connected to Nørrebrogade. The site is well connected to the public open spaces through different kinds of transportation.



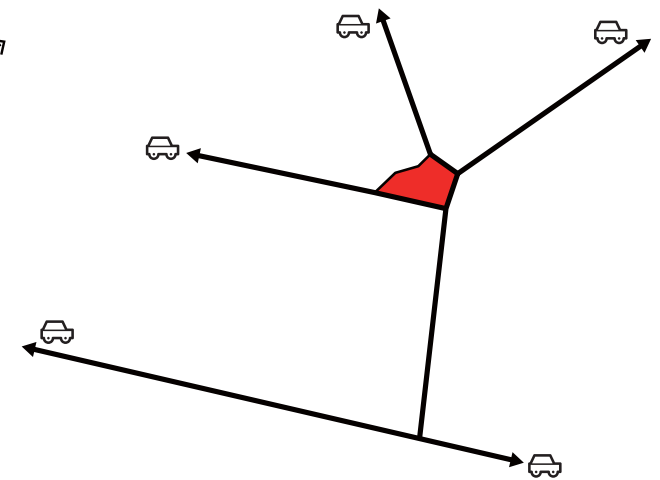
Bicycle circulation

The site is in close vicinity to Nørrebrogade and has a high amount of foot and bike traffic because of this. Cycling is the primary way of getting to the site. Most of the streets connected to the torv have dedicated bicycle trails, the rest are also bicycle-friendly.



Pedestrian flow

There are also a large amount of people on the site that arrive on foot. The site is directly connected to the Nørrebrogade, and there's Sankt Johannes Church adjacent to the site where there's a public open plaza in front of it, also mostly used by pedestrians.



Car use

Fælledvej and Blegdamsvej have a large amount of mobile traffic, but there are no parking areas near the site for mobile vehicles, so most of the mobile traffic are passing by the site without stopping here.

Sankt Hans Torv



Image Citation

References:

- 1.) https://en.wikipedia.org/wiki/Sankt_Hans_Torv
- 2.) <http://www.cobe.dk/project>
- 3.) Google images: Sankt Hans Torv
- 4.) Google Maps

Reflection:

Sankt Hans Torv functions very well as a traditional Danish Torv. The square makes use of public and private use offering areas of rest and movement. Overall the flow of the site moves easily around the central focus point, the granite fountain. People can easily find places of refuge, or lanes of movement unhindered. The fountain functions for the purpose of art and landmark as well as providing sensory stimulation from the sound of running water, which encourages play as well as sequestering surround noise from vehicular traffic. This square is a pleasant place that functions well for a variety of uses. It is enjoyed by people of all ages and appeared safe as well as comfortable.

Tasinge plads

Team:

Yuchia Jan, Kun Lyu

Typology:

Stormwater Mitigation

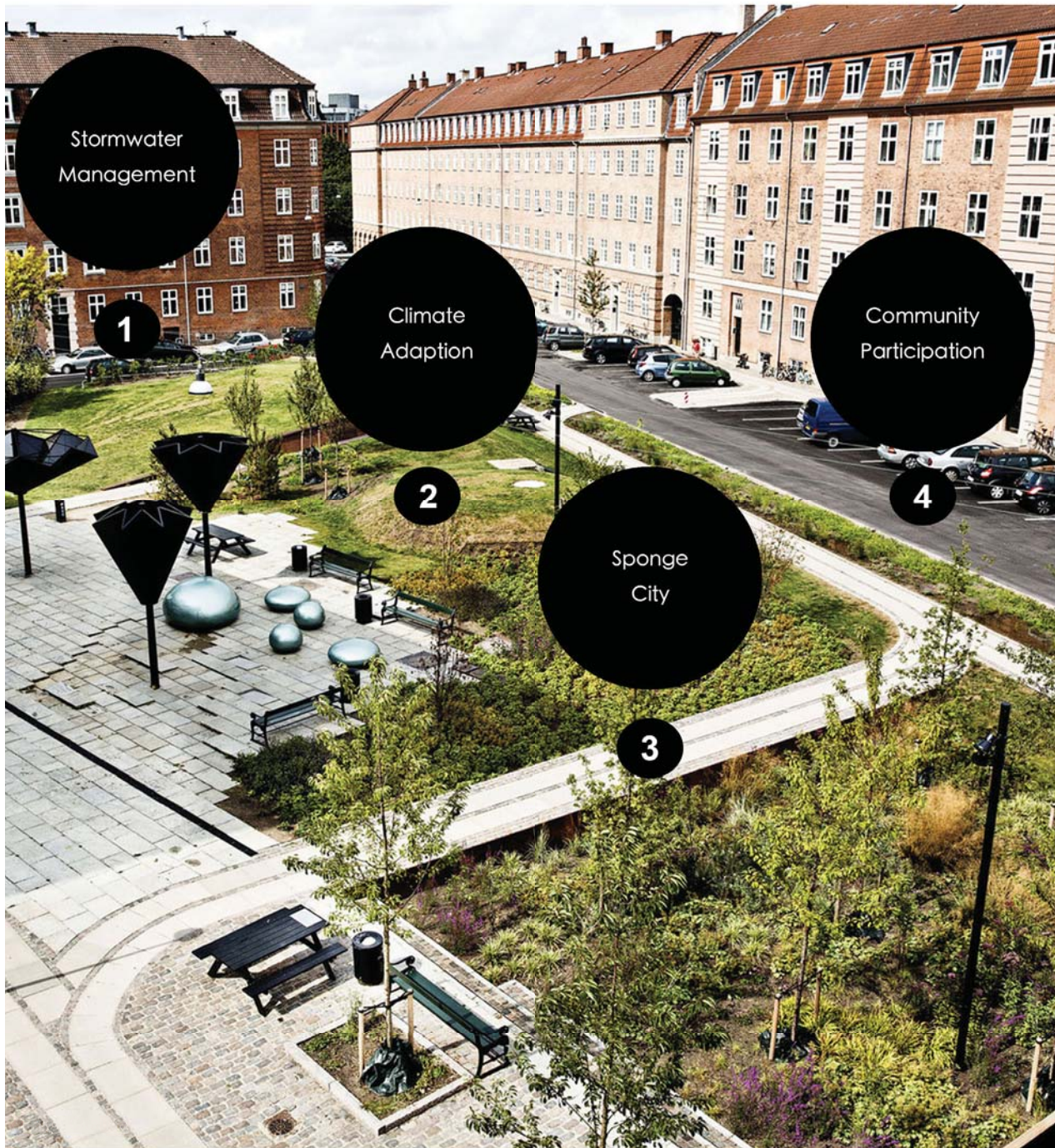
Description:

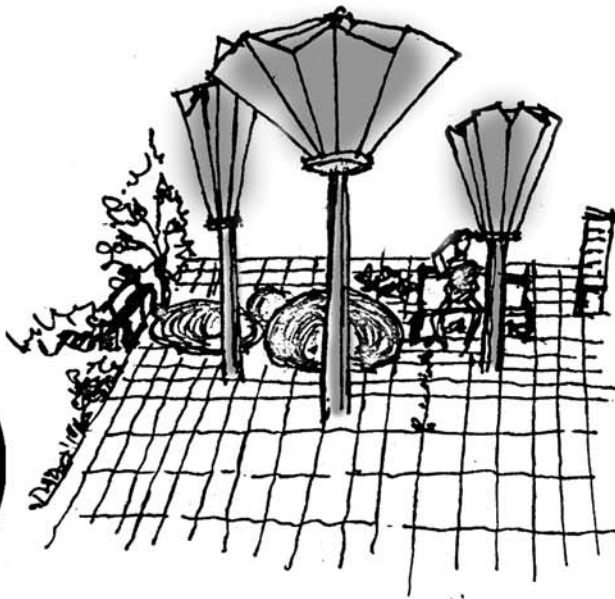
Tasinge Plads is Copenhagen's first climate change-adapted urban space. The square is a green oasis, which both handles large volumes of rainwater and creates a place for the neighborhood's resident to meet.

Here urban life is combined with nature. There are urban life and cobblestones on the square where people can enjoy a coffee and the green view. A few metres away it is possible to go on discovery in the luxuriant 'Danish rainforest'. Here, 1,000 square metres of unused asphalt has been turned into 'wild' urban nature.

The projects are to lead the rainwater away from streets, homes and basements when the cloudbursts occurs, but designers are also intended to create lush and attractive urban spaces to be enjoyed by the people of Copenhagen when the weather is dry.

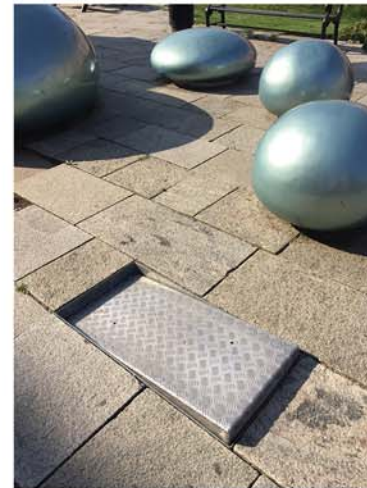
Location:





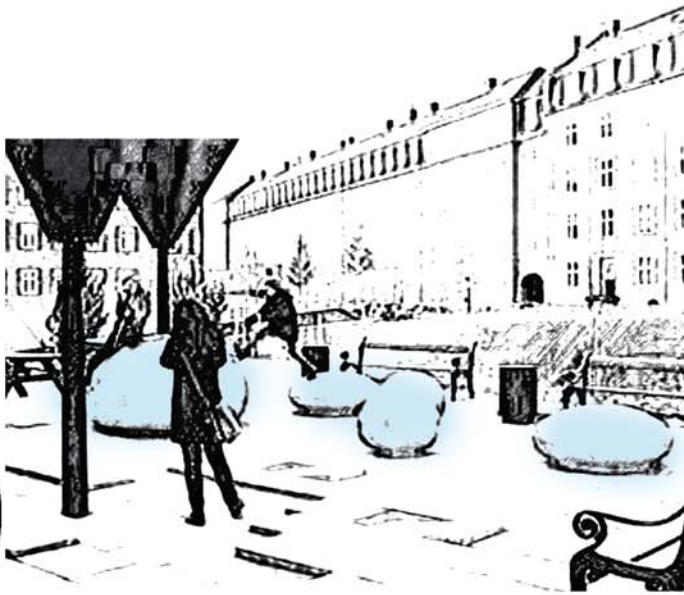
Rain Parasols

This umbrella shaped sculptures can collect the rain water and also provide the shelter from the rain. However, the real function seems not really useful, as the sculpture, they represent the concept of climate adaption much more than their function.



Water Pump

Water will be pumped out of the ground, where it will flow on the surface and end in the raingarden (retention base). It also can be a part of the playground equipment, and also educate children how this plaza work to cope with the rain water under the ground.



Water Drop Sculpture

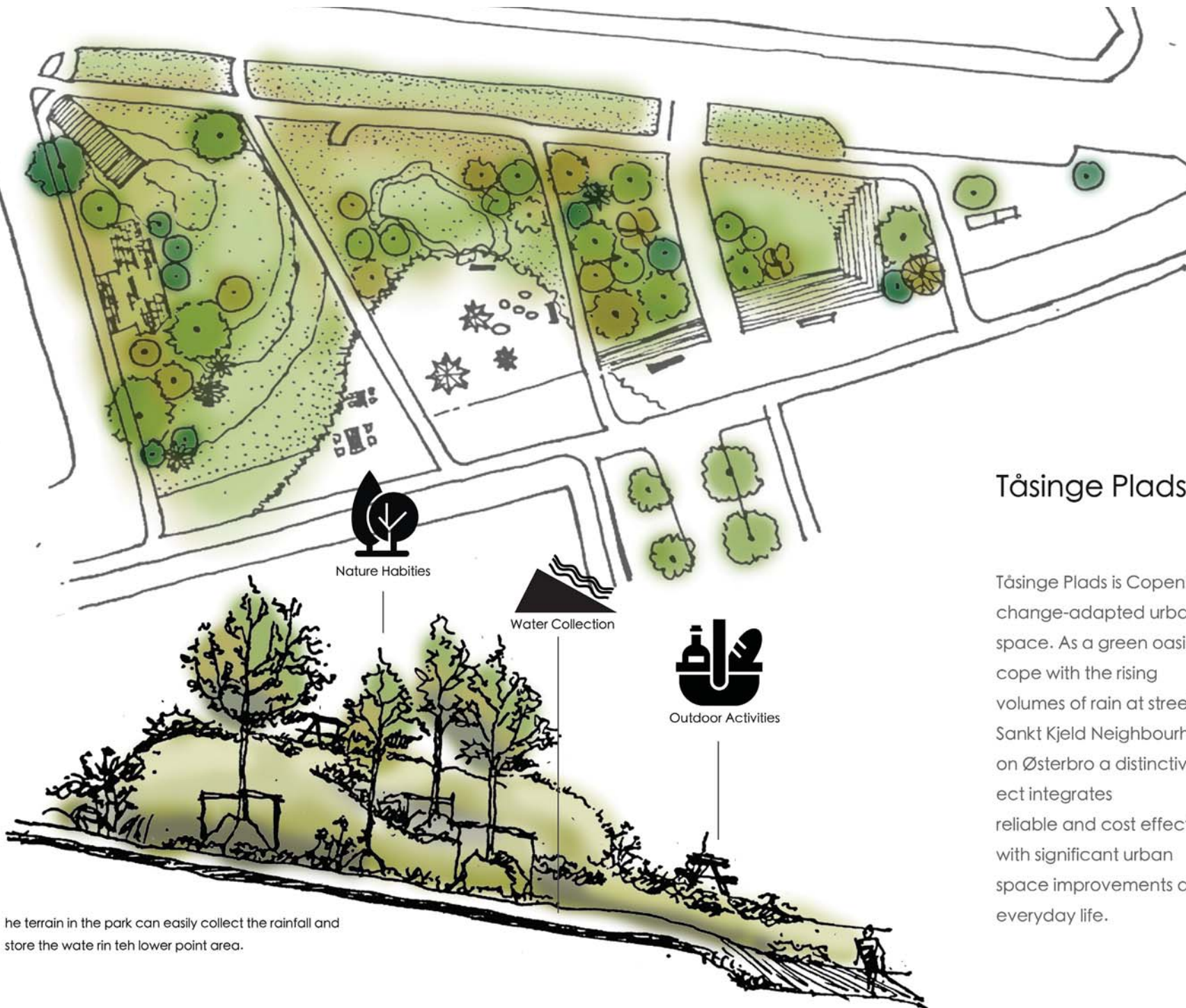
On the plaza in the center of the square, this rock like sculpture represent the of the rain water presence on the square ground, water drops. This sculptures can also become the equipment of the play ground.



Draining System

When rain hits the surrounding roofs on the Tasinge Plades, the water is diverted through drain pipes and underneath the square into a big reservoir (tank). The rain-water has undergone multiple purification processes before it reaches the tank. This means that it's clean enough to use for water play on the square.

Scale: Site

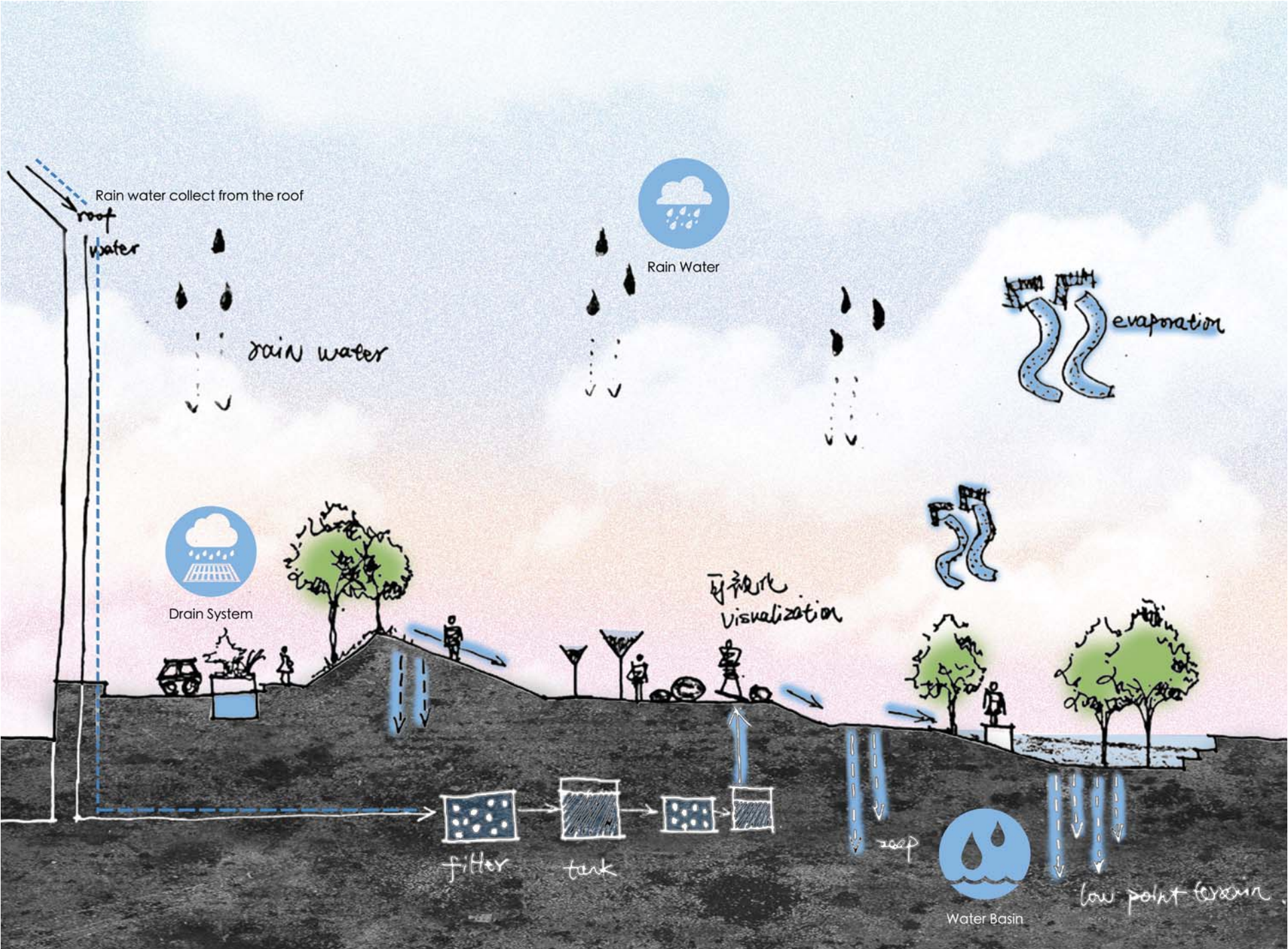


Tåsinge Plads

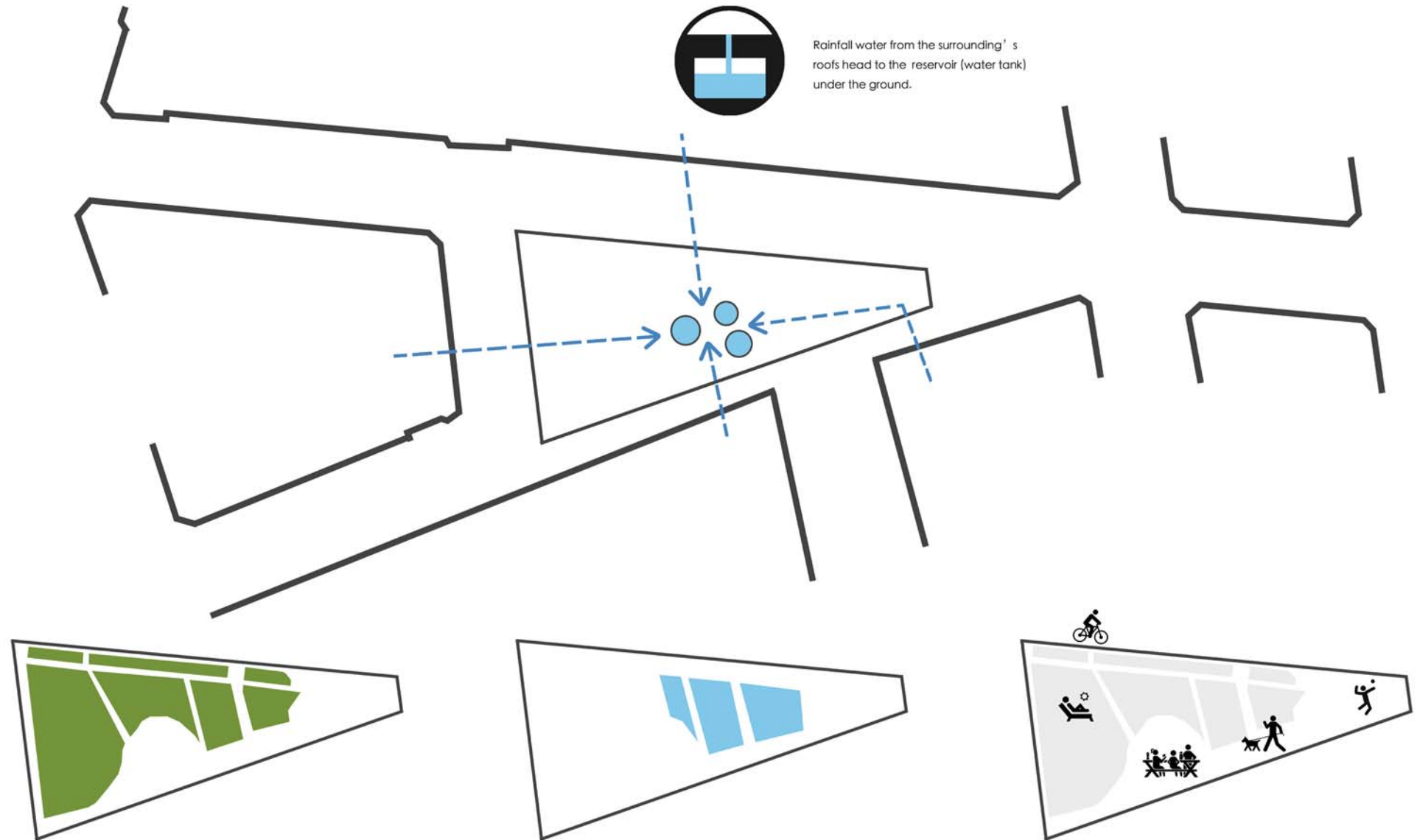
Tåsinge Plads is Copenhagen's first climate change-adapted urban space. As a green oasis, the square is able to cope with the rising volumes of rain at street level, while giving the Sankt Kjeld Neighbourhood on Østerbro a distinctive trademark. The project integrates reliable and cost effective technical solutions with significant urban space improvements and lasting impact on everyday life.

The terrain in the park can easily collect the rainfall and store the water in the lower point area.

Tasinge Plads



Scale: Terrain



Green Area

Tasinge Plads represents a cross-section of the Danish countryside, with plant variety extending from hillside to lakeside.

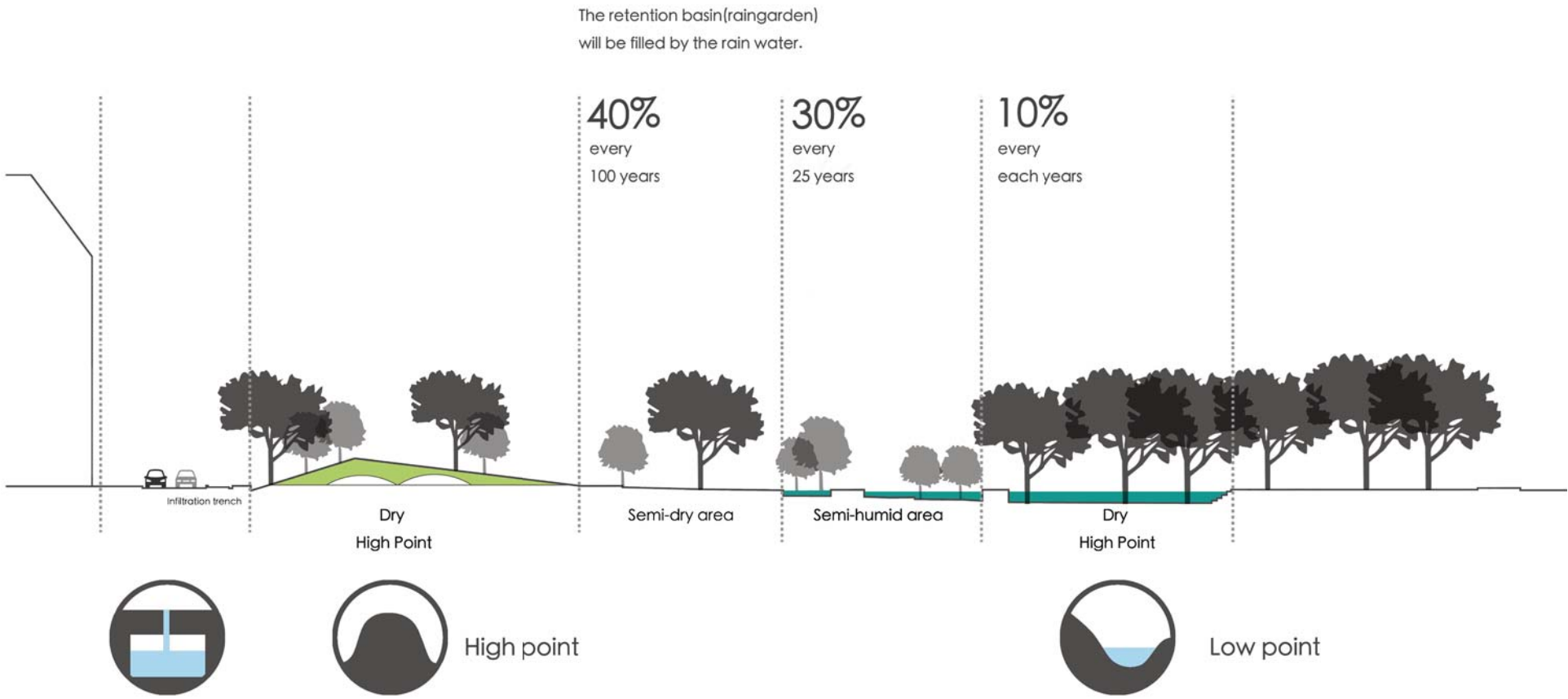
Water Basing Area

There are three part of the water basing area in the park, with different depth.
Water will run the easiest path to the lowest point.

Activities

As the public in the community, there are lots of the activities happening in the park. People biking , walking the dog and suntanning and picnic here.

Tasinge Plads



Tasinge Plads



Reflection:

Blue: The rolling **terrain** with high points and low points contribute to water flowing and collecting; the diversified local **plants** in the low point areas are growing luxuriantly to purify water; the whole Tasinge plads like a **giant sponge** to absorb water from streets and nearby buildings' roof.

Green: The most areas of the Tasinge Plads are covered by lush plants. In this way, Tasinge plads is an attractive and lush place for citizens to come when weather is hot and dry in Copenhagen. (**Climate and plants**)

Public space: Combined with blue strategy, concrete umbrella and pipe in TOR-VET make "blue strategy" **visible** and interesting. Combined with green strategy, SOLSKRANTEN offers citizens a green leisure space. Three of them together, Tasinge Plads becomes a beautiful space.

References:

Website: 1.<http://klimakvarter.dk/en/projekt/tasinge-plads/>
2.<https://www.dr.dk/nyheder/indland/kobenhavn-goer-klimaklar-til-fremtidens-skybrud>

Books: Climate change adaptation and investment statement (p10~p11)

Superkilen

Team:

Laura Durgerian, Rishabh Ukil

Typology:

Social Amenity

Description:

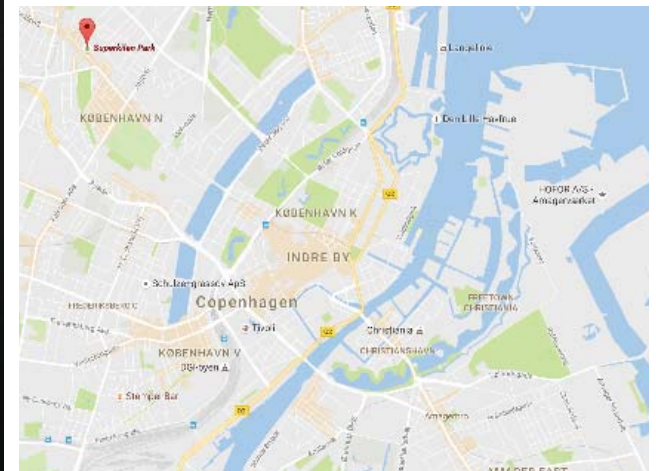
Superkilen is an example of urban design driven primarily by its function as a social amenity. Located in the diverse Nørrebro neighborhood of Copenhagen, Denmark, the park's design reflects the many cultural backgrounds of residents through physical objects placed on the site. Over 100 objects -- ranging from palm trees to bollards to a giant play octopus -- provide focal points and opportunities for interaction within the park.

Superkilen is made up of three distinct sections:

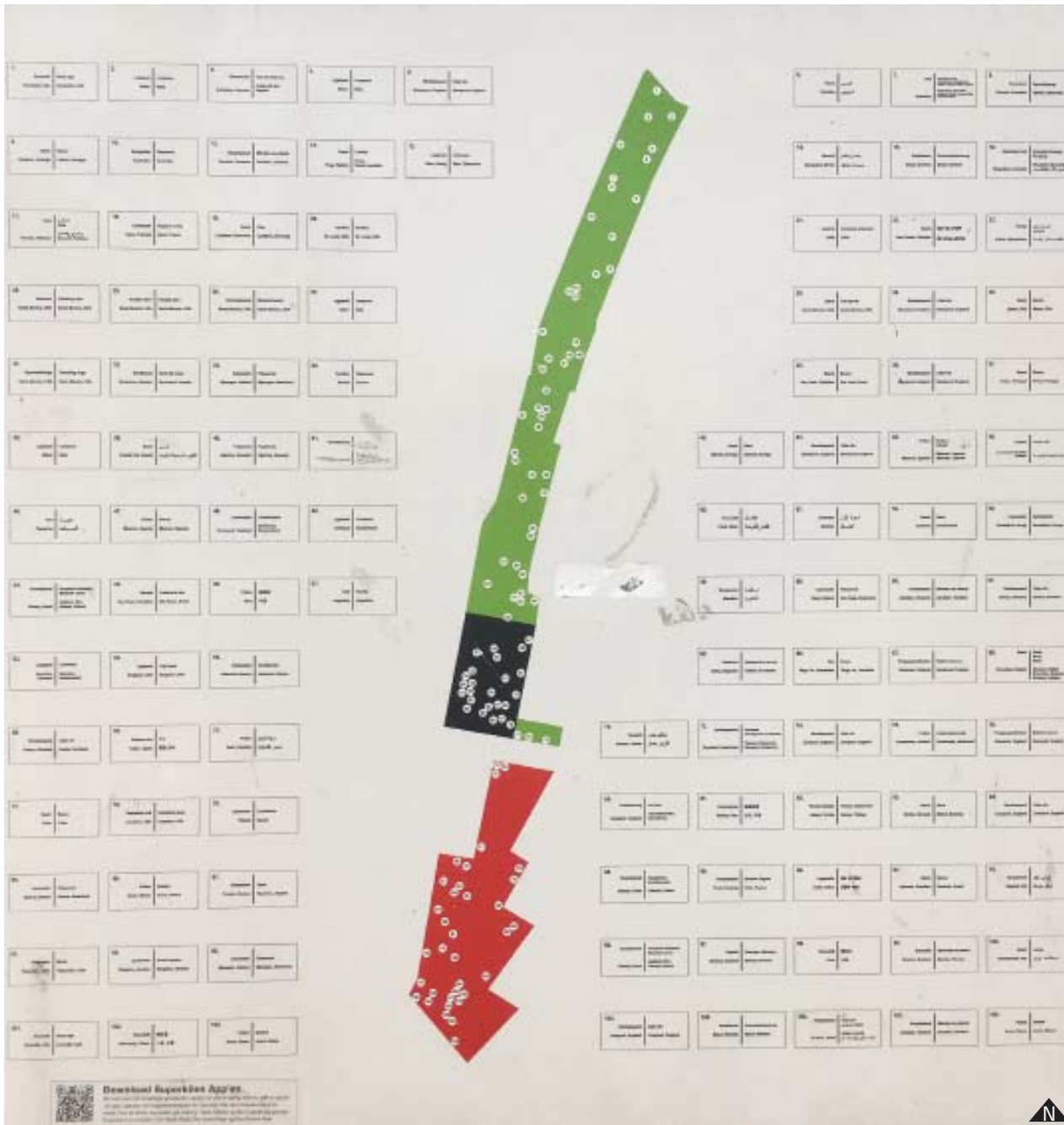
- ① the red square to the South
- ② the black square in the middle
- ③ the green park to the North

Adjacent to the major bike arterial, Nørrebrogade, and designed as a continuation of the Nørrebrøparken -- an existing linear park directly to the South -- Superkilen has become an important connection for bike traffic throughout the neighborhood.

Location:



The black square as seen from the octopus slide in Superkilen



Cultural Objects & Plaques:

At a small scale, there are few repeating typologies in the park's design. Paradoxically, the one consistency is non-repetition -- the diverse collection of objects and each object's descriptive plaque make up the physical elements that shape the Superkilen experience; the consistent intervention here is curated diversity. Plaques that describe each object can be found throughout the park, each with a simple description of the object and its place of origin. Although subtle and sometimes overgrown, these important locators add meaning to an otherwise seemingly random object.

Scale: Intervention



A sampling of the range of cultural objects found on the site





Social interaction and activity

A Social Amenity:

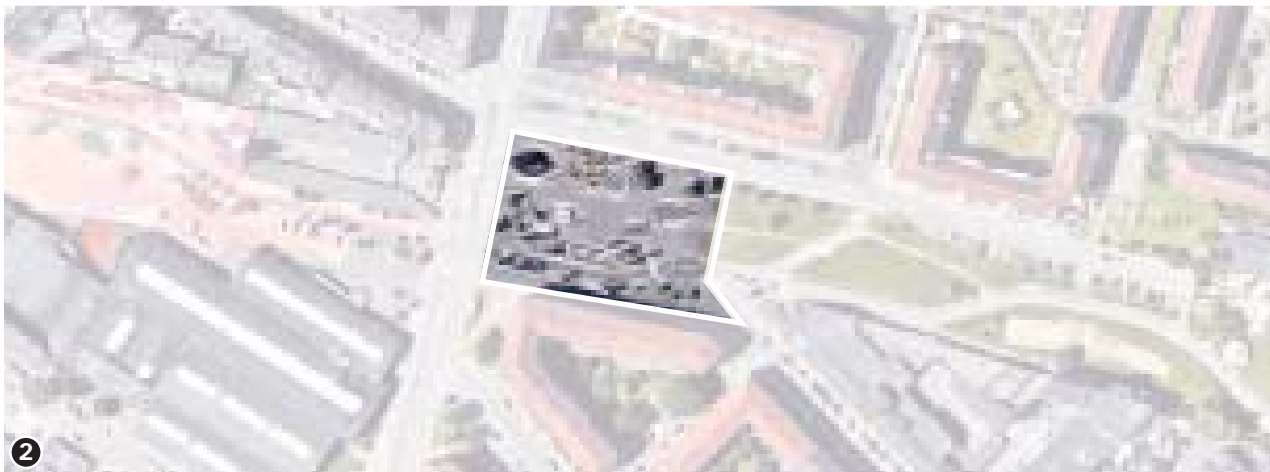
At the site scale, this collection of cultural objects takes on greater meaning. It becomes a statement about identity -- about a “melting pot” of cultural backgrounds, rather than a single bench or sign. However, a site-wide view of Superkilen also reveals layers of urban design that seem to have been forgotten in the pursuit to provide a social amenity for all. This representation of diversity through cultural objects drives the design of Superkilen to an extreme, with little attention paid to stormwater mitigation or urban greening. The vast, tree-less expanse of paving that makes up the red square particularly fails to provide “urban nature” for residents seeking shade, shelter or softness.

Despite this singular focus and fluctuating levels of use depending on the day of the week, time of day and weather, Superkilen does accommodate a great number of users and uses. Pedestrians, bike commuters, skateboarders, slackliners, young families, soccer players, elderly explorers, chatty teenagers and fitness gurus all have a place here. Is it a great amenity for the neighborhood? Undoubtedly. Could it be even better? Yes to that as well.

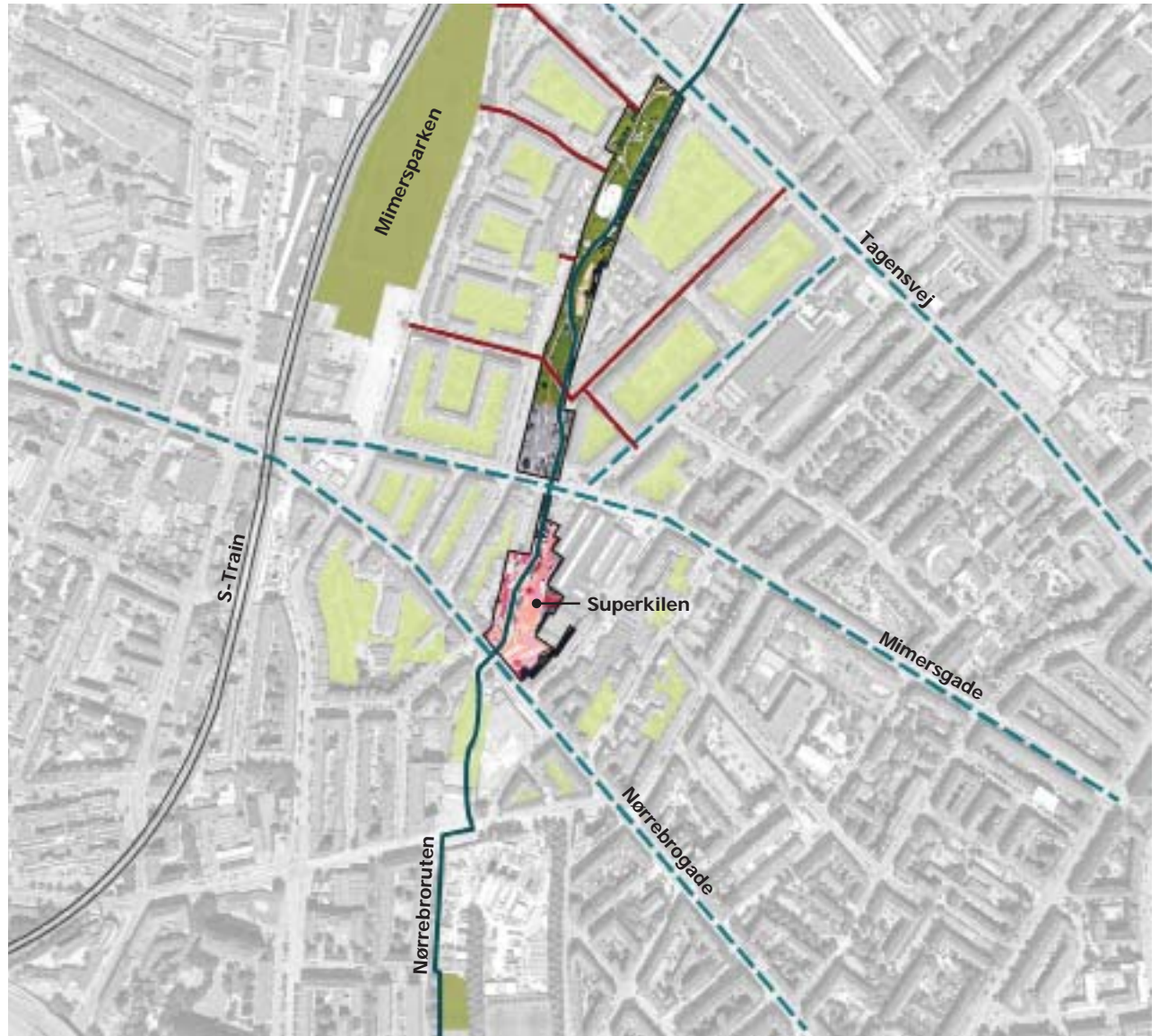


Red square's lack of urban nature

Scale: Site



Superkilen



Connection & Destination:

Looking at Superkilen from a wider lens, one can begin to understand its important function as part of the Nørrebro neighborhood. Located North of Nørrebrogade and Nørrebrøparken, and East of Mimersparken, Nørrebro Station and the S train, Superkilen is both a destination and a connection.

Surrounded by buildings of various uses, including a community sports complex, a school, a couple of cafes and numerous apartments, there are many eyes on the park. Streets and paths run through this linear stretch of park, bringing vehicles, bicyclists and pedestrians into and through Superkilen.

Scale: Terrain



Connection to Mimersparken & apartments:

Quiet residential streets connect Superkilen to Mimersparken. Because these streets do not lead beyond the parks, there is little vehicular traffic here beyond that of apartment residents. These streets offer a calm contrast to the bustling neighborhood arterial, Nørrebrogade.



Connection to surrounding apartments:

Sounds, sights and smells of Superkilen are shared with surrounding apartments and businesses, making it a safer and more integrated part of the neighborhood.



Connection to Nørrebrogade:

The open transition between Superkilen and Nørrebrogade allows porous movement to and from the park.



Connection to Surrounding Streets:

Open boundaries again enable traffic flow between the park and surrounding neighborhood.

Superkilen



Image Credit: Iwan Baan, Archdaily

Reflection:

Responding to the cultural diversity of its neighborhood context, Superkilen's identity is founded on a collection of physical objects originating from all parts of the globe. Users of the park engage with these objects in a number of ways, regardless of whether or not the intended meaning of the objects resonates with them. However, based on the observed users of the park, it appears (at least superficially) to be a place where all feel welcome; a spectrum of skin tones, ages, genders and languages are all brought together in the same stretch of public space. An equally wide range of uses -- both active and passive -- can be observed at the park.

With the exception of the earth berms on the green park of Superkilen, divisions of space are created through differing treatments of the ground plane, and there are few attempts to create three dimensional space, or rooms. Intentionally scattered objects and open, hard spaces characterize both the black and the red squares. Despite these commonalities, the combination of the wavy pavement, trees, and complementary layout of objects on the black plaza make it a more compelling and comfortable public place.

At the neighborhood scale, Superkilen functions as both a connection and a destination. Easily accessible via Nørrebrogade, Nørrebrovæn, Mimersgade and Tagensvej, the park provides a vital connection for the neighborhood while also offering a social amenity for residents. With greater attention paid to green stormwater infrastructure, urban nature, and climate regulation, Superkilen could be an even greater asset to the Nørrebro neighborhood.

ØsterGRO/Tag Tomat

**Team:**

Russ Greene and Kameron Selby

Typology:

Urban Greening

Description:

Urban farming is a relatively new concept in Copenhagen, but draws inspiration from a historic tradition of allotment gardens in Denmark. ØsterGRO and Tag Tomat are urban farming initiatives located in Østerbro and Nørrebro that intend to expand the practice of urban farming throughout their prospective neighborhoods and the city of Copenhagen at large.

ØsterGRO is a community supported agricultural project founded by Kristian Skaarup and Livia Urban Swart Haaland that works in partnership with surrounding farms, provides produce for its 40 members. ØsterGRO operates from one central location, but provides a precedent for future urban agriculture.

Tag Tomat was founded by Mads Boserup Lauritsen in 2011. Tag Tomat began as a single rooftop garden, and has now expanded to working at varying scales throughout the city to promote their effective self watering containers and sharing knowledge on small scale urban agriculture.

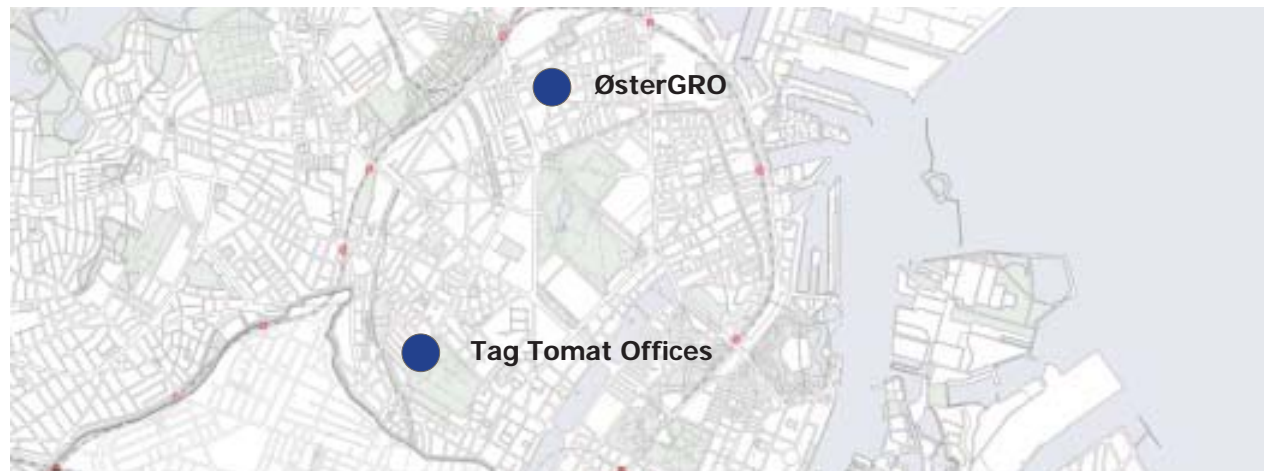


Image Citation

Bee Box/SWCs



Bee Boxes at ØsterGRO:

The bee boxes placed around not only provide pollinators for the rooftop flora but also for the surrounding areas. The bee boxes are an important intervention for this project and while most interactions with the boxes are secondary experiences perceived through the relationship of the bountiful agriculture they do provide visual stimulation through their unique designs and frantic movements. The image to the right shows bee boxes on a neighboring roof.



Scale: Intervention



Self Watering Container (SWC):

Self watering containers are ubiquitous in many Tag Tomat projects, and are applied in varying ways. They are used for temporary street installments, they are sold for residential use, and the planters shown above are in use at a halfway house for the homeless and victims of domestic abuse. They are simply made from plastic tubs, geo-textile fabric, soda bottles, and Styrofoam. They are designed to require minimal maintenance after initial installment. The planters are often used as productive gardens that have the dual function of delineating private and public space.

ØsterGRO/ Kirkens Korshærs Herberg



Title:

Ostergro is a Community Supported Agricultural (CSA) initiative located atop an existing automotive auction house. The substantial structure of the building, used to holding cars, allows for the 110 tons of soil to be adequately supported. Located towards the back of the rooftop is a restaurant with seating for roughly 16 people that utilizes fresh and locally grown ingredients in a vibrant and ever changing menu. Both the garden and the restaurant seek to inspire attendees to find the power in locally grown food and the emotional connection we can have to nature while living in an urban environment.

Above: ØsterGRO rooftop garden
Right: Stedsans kitchen staff preparing the first of two dinner services for the evening.



Scale: Site



Harvest Fest at Hillerødgade 64



Kirkens Korshærs Herberg, Hillerødgade 64



Kirkens Korshærs Herberg, Hillerødgade 64: Kirkens Korshærs (Church Army) employed Tag Tomat to establish an outdoor community space for the residents of their halfway house located at Hillerødgade 64. Workshops were also held with residents on how to construct and maintain individual self watering containers. Residents are responsible for the upkeep of the community garden space, however Tag Tomat employees go to the site every two weeks to provide additional care for the garden beds.

The Kirkens Korshærs half way house serves a vulnerable portion of the population: the homeless, people that have been displaced due to domestic violence, and individuals that are in need of assisted living due to mental illness. In addition to employing individual care takers and three department managers, there are 26 educators that teach vocational skills to the residents in hopes of future job placement. The ultimate goal for all residents at the half way house is self reliance. Kirkens Korshærs is funded by the city of Copenhagen.

Top: Images from Harvest Fest 9/14/16
Right: Community garden at Hillerødgade 64 during construction and present day



Title:

Ostergro, while occurring in a central location, provides urban agriculture to 40 different families (area shown in blue). The spread of this CSA not only reaches local residents but its workshops extend all across Copenhagen empowering attendees with the knowledge and skills to further progress the urban agriculture movement. Through its tours and media presence Ostergro acts as a precedent for future urban agriculture design initiatives through the rest of the world.

Shown in yellow are some of Tag Tomat's larger projects: Isværket Stefansgade, Husumgade 2 home office, Bryggervangen 12, Redmolens Strandbar, Miljøpunkt Østerbro, and Kongens Køkken Kitchen Garden. Although this is not a comprehensive list, the map illustrates the scope of Tag Tomat's influence in and around Nørrebro.

Scale: Terrain



Bryggervangen 12 Sidewalk Haven:

This sidewalk garden was established in cooperation with local residents in 2013, and with funds from the Neighborhood Climate association. The planters use harvested rain water from a roof top downspout.



Kirkens Korshærs Herberg, Hillerødgade 64:

Self watering containers that residents of the half way house maintain and harvest.



City Garden at Amager:

20 people volunteered for the initial building of the garden. The build out was comprised of 13 planting beds that would later be maintained and harvested by local residents.



Temporary Installment at Tag Tomat:

This temporary installment was constructed in the parking lot at Tag Tomat's offices at Husumgade 2. In addition to their showroom this parking garden was built to showcase the versatility of many of Tag Tomat's projects.

Project Title



Reflection:

Both companies are good examples of how design can be used as a tool for education, and for promoting the human health, social, and ecological benefits of urban agriculture. ØsterGRO and Tag Tomat have stimulated the continuing growth of urban farming in Copenhagen. Tag Tomat has affected this stimulation through partnerships with multiple community organizations, while uses it's central roof top location to demonstrate how urban farming can be used as a tool for creating space.



References:

- 1) <http://oestergro.dk/>
- 2) <http://hilleroedgade.kirkenskorshaer.dk/>
- 3) <http://www.tagtomat.dk/>
- 4) <http://hilleroedgade.kirkenskorshaer.dk/>