DISTRICT CONCEPTS
SITE GOALS + OBJECTIVES

Goal 1. Increase and enhance pedestrian and bicycle (active transportation) capacity and activity in and around Norrebro Station
Objectives:
Soft modes over hard modes
Prioritize public over private mobility patterns

Goal 2. Strengthen connections between open spaces, urban nature, and social nodes
Objectives:
Connect to broader CPH public space system
Establish a network of safe pedestrian connections between residences, schools, parks, and other civic places
Make parks and public spaces more inviting for children with opportunities to play
Bridge gaps within the network
Strengthen existing public spaces
Establish a sense of hierarchy within the district

Goal 3. Embrace culture and character of neighborhood/Norrebro
Objectives:
Prioritize underrepresented and underserved groups
Respect cultural identities and uses of space
Include and ensure space for all
Define the center or heart of the site
Strengthen the existing sense of place
Encourage local economic vitality

Goal 4. Integrate human and natural systems for multifunctional performance
Objectives:
Maximize green and blue infrastructure performance on site
Optimize the integrated use of public space
Improve legibility of infrastructure systems
Support immersive sensory experience of green and blue interventions
Catalyze public space activity

Goal 5. Incorporate Climate Adaptation Strategies
Objectives:
Increase quantity and quality of urban nature
Strategically grade roadways to transport, delay, and store stormwater
Creatively re-use stormwater when possible
Link green space to form functional wildlife corridors or urban greenways
Discern appropriate style and density of planting for each street and space

Team:
Jack Alderman, Joanna Kaiserman, Katie Poppel, Kameron Selby, Tatyana Vashchenko

Description:
To create a cohesive District Concept, we combined the visions, goals, and strategies generated by each of the following systems within the district:
1. Land and Activity Uses
2. Public Space “Rooms” and their qualities
3. Mobility Patterns and Features
4. Blue and Green Systems
5. Local Narratives
District Concept Composite

Public Space

Pervious & Impervious Public Space

Land Use
District Concept Composite

Circulation Hierarchy & Opportunities

Concept Diagram

Tertiary Streets

Secondary Streets

Connective Ring Road

Main Arterials

Site Boundaries
District Concept Composite

Economic Sustainability through Future Connections

- Concept Diagram
- Commercial Buildings
- Ground Level Retail
- Private Residence
- Site Boundaries
District Concept: Land & Activity Uses

Team:
Joshua Gawne, Russ Greene, Katie Poppel, Rish Ukil

Description:
To understand the opportunities and challenges pertaining to land-use patterns in the Nørrebro neighborhood one has to undertake a study on the demographics of the place to understand who are living in the neighborhood to better gauge what the needs of those people could be.

Based on previous analysis on the land-use patterns the district concept is developed based on existing businesses and residential establishment, different street typologies and the edges and patterns that are observed in Nørrebro.

The district concept revolves around the idea of re-democratization of public space through reclamation of land parcels (both large and small) that are presently being underutilized or poorly managed and give them back to the people living around them.

In order to achieve the idea of re-democratization of public space the various opportunities and challenges facing Nørrebro have been explored along with possible strategies that could be implemented to achieve the same.

As a precedent study the masterplan of the European Union District in Brussels in this regard help in understanding similar opportunities and challenges that are being faced at a site which is very similar in many ways to the neighborhood of Nørrebro.
District Concept

Denmark has been accepting immigrants for a long time but the number of people seeking asylum in the Scandinavian country has increased manifold in the last decade or so, especially in the recent couple of years during the Syrian refugee crisis.

Denmark has approved resident permits for more than 30,000 people seeking asylum in the last 9 years alone. As data suggests, the most number of people seeking asylum has been from Syria. However, this data also sheds light on the fact that there is a wide range of countries being represented among the asylum seekers. Thus, a previously homogenous Danish society is now witnessing the absorption of a wide diaspora of people from around the world.

As the adjoining map shows that this spread of immigrants who are not of Danish origin in the capital city of Copenhagen is on the rise. Previously areas with less than 3% of immigrant population in 1995 are now showing presence of more than 20%. The neighborhood of Norrebro is one such area in Copenhagen that is showing this trend of a high number of immigrants, thus bringing to focus the existence of variety of culture in a small spatial area.
The number of immigrants and their descendants in the city of Copenhagen, as of the year 2016, accounts for almost one-fourth of the total population in the city. A higher number of immigrants not only means that there is an overall growth in population but also varied needs of different people coming from different cultural backgrounds.

The graph showing the Top 10 immigrant population in Copenhagen in 2016 indicates that people from different parts of the world are moving to Denmark, including from neighboring European countries. However, the startling fact that the graph indicates is that descendants of immigrants are higher in people moving from non-European countries.
District Concept

**Land Use**
The neighborhood of Nørrebro is largely comprised of residential buildings, with a sprinkling of a variety of offices, institutional buildings, commercial shops and light industrial buildings as well as an enzymes factory. One of the prevalent patterns is the presence of ethnic shops in the neighborhood especially along the main arterial roads.

**Street Typology**
The various streets in the neighborhood highlight the different character of public life and space in the main arterial roads, the secondary streets leading off of them and the narrower tertiary streets.

**Edges and Patterns**
The presence of the train line and main arterial road of Frederikssundsvej-Nørrebrogade cuts the project site in consideration into four quadrants that shows different land-use patterns, namely light industrial/institutional, mixed-retail housing, residential housing and social housing with a commercial core towards the center of the site.
Land & Activity Uses

Re-claiming public space / Re-democratizing public
characteristics to capitalize on...

a) present public space
current system to build upon
b) present, private courtyard space
current (private) system to build upon
c) street typologies
  secondary streets
  street typology with most space to
  be redistributed
  tertiary streets
  less space, nonetheless available
  space
d) superblock restructuring
  building structure/layout can
  incorporate restructuring
to provide more public space
e) residential groupings to incorporate
  commercial
  proposed addition of corner retail/
  commercial focus to stimulate activity
f) superblock greening
  land use groupings with more stable
  building structures
goals

**Connect to Broader Public Space System**
Establish a network of connections between Nørrebro and other neighborhoods through parks and civic places and the bridging gaps within the network.

**Increase Public Space Usage**
Increase the usage of public space by strengthening existing spaces and establishing a sense of hierarchy within the district.

**Enduring Space For All**
Creation of a space that is enduring and inviting for all generations with opportunities for all.
challenges

**Edge(s) Created by Major Arterials + S-Tog**
Edges that are created due to the presence of major arterials as well as the S-Tog line that divides up the neighborhood into separate entities.

**Conflict between Different User Groups**
Presence of a wide diaspora of immigrants from different parts of the world present a different kind of challenge.

**Limited Space / Urban Density**
Lack of urban space in the neighborhood coupled with one of the highest densities in the city of Copenhagen presents a greater challenge in achieving new developments.

opportunities

**Connection to Public Space Outside of Site**
Presence of public spaces outside of the project site in all directions means the site acts as a key intersection in connecting these different public spaces into a cohesive network.

**New User Group: Student**
The much anticipated development of a new student housing with an imposing skyscraper presents Nørrebro with the rise of a new user group and their different needs.

**Metro Space**
The construction of a new metro at this major intersection reflects on the changing times and the expected spike in footfall in the neighborhood.
objectives + strategies

**Urban Greening**
Promoting more green spaces in the neighborhood by converting unutilized spaces

**Reallocating Public Space Through Streetscape**
Better management of urban spaces by converting underutilized spaces on streets to spaces with a public utility

**Vacant Site + Building Analysis**
Converting vacant plots and abandoned buildings into usable structures to promote more small-scale businesses
**Temporal Activation of Space**
Activating spaces in the neighborhood through activities that are temporal in nature, such as food trucks

**Understanding the Population Groups**
Understanding the different population groups that are present in the neighborhood to better gauge the varying needs

**Re-zoning to allow more local business**
Re-zoning the neighborhood such that more residential-only buildings can be converted into more local businesses
District Concept

VISION
Brussels needs a series of key, specific projects that act as acupuncture points, made in actual contexts in need of change and revitalization... to crystallize into a new symbiotic neighborhood

GOALS
1. Widen the realm of public space along the street
2. Build a strong image of the presence of different diaspora

STRATEGIES
Key strategies involve not just design alterations to existing buildings but also considers climate adaptation and zoning regulations in new built forms


“Europe is open ended, vague, an unidentified political object with no final shape, no clear final borders and no real definition of what it is as a political creature... In many ways this is still Europe’s most attractive feature”
- Mark Leonard,
Director Commission of European Reform

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**Urban Porosity**
Creation of blocks that reconnect all of the neighborhoods surrounding the EU District and increases the porosity on each site

**Strategic Zoning**
Zoning areas created for distributing the program rather than clustering them. Key moments of housing and other program are added to stitch back into the existing neighborhoods
Reflection:
The main concept of this is to recognize the lack of proper public places in the Norrebro neighborhood and find a way to locate the abandoned sites and vacant buildings as well as marginal or leftover spaces in Norrebro so that they can be returned back to the people.

The idea of re-democratization of public space is borne out of the need to integrate the many immigrants moving into the city of Copenhagen with a large section of them finding their way into the neighborhood of Norrebro.

The chief concern due to the influx of the many immigrants is to achieve design solutions that not only cater to the people of Danish origin but also to the varying cultural and traditional needs of the wide diaspora of these emerging population.

References:
1) Julian De Smedt Architects (http://jdsa.eu/)

2) Københavns Kommune (http://kbhkort.kk.dk/cbkort?&profile=sociokort)

3) StatBank Denmark (http://www.statbank.dk/statbank5a/default.asp?w=1920)
Our analysis of outdoor rooms near our site revealed many, well-used spaces. These rooms had a diverse array of characteristics. We found that there was a marked lack of rooms to the Southwest of our site. We also found that many of these places were not well connected to each other or to the Nørrebro station site. The train tracks were a strong barrier to connection.

Our district concept for outdoor rooms recognizes the Nørrebro station site as the heart of this area, pumping people in and out of the neighborhood. We increase wayfinding from this center to the peripheral outdoor rooms. We also elaborate on this network by connecting the peripheral rooms to each other along a recreational artery. Finally, we look to improve and increase open space amenities to the SW of the Nørrebro station.
System Concept

These examples show formal and symbolic ways to mark significant passages through the city. These markings can indicate the meaning of the passage, orient the passage to other landmarks, and express cultural knowledge.

**Streetscape Wayfinding**

These examples show formal and symbolic ways to mark significant passages through the city. These markings can indicate the meaning of the passage, orient the passage to other landmarks, and express cultural knowledge.
Varied Typologies

Our concept draws on utilizing a well-connected network of diverse spatial typologies to provide maximal amenities to the neighborhood. The organs of this network, the parks, plazas, transit hubs, playing fields, and markets should provide for a range of activities.

Multimodal Clarity

Both the Nørrebro transit hub and the connecting arteries need to exhibit strong clarity within the right-of-way. This area has large volumes of multimodal traffic and a potentially confusing variety of right-of-way hierarchies.
<table>
<thead>
<tr>
<th>Analysis</th>
<th>Problem</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide variety of rooms and spaces spread</td>
<td>Rooms are disjointed and scattered. Some areas are lacking in open, green space.</td>
<td>Strong foundation for a green network that will span the entire neighborhood.</td>
</tr>
<tr>
<td>throughout the neighborhood.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse demographics of visitors with</td>
<td>Rooms are unable to fulfill all the needs of commuters/residents, ethnic danes/immigrants, or families/singles.</td>
<td>As a network, rooms can each become more individualized and defined, working together to provide amenities for everyone.</td>
</tr>
<tr>
<td>different needs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapidly Changing and Growing Neighborhood</td>
<td>Gentrification and new development are changing the heart of the neighborhood, driving out many who can no longer afford the cost of living.</td>
<td>Responsible development can create a supportive outdoor culture that provides necessary amenities to at-risk communities.</td>
</tr>
</tbody>
</table>
Challenges, Opportunities & Objectives

1. Define the Heart of the District

2. Build a Network Green Rooms

3. Fill In Green Gaps

4. Strengthen Existing Spaces

Icons from the Noun Project. Heart by Nick Bluth, Network by Symbolon, Puzzle by Bernar Novalyi, and Work Sign by Gleb Khorunzhi
Heart // Central Node

The heart or central node of the district is the hub that allows all of the external connections to filter through it. It is a space within the site that has the capacity to handle density while catering to a variety of needs. In this case, the heart of the district is our site because of its status as a transit hub and its potential to bring life to the public realm.

Arteries // Corridors

The arteries or corridors of the district are the extending connections that reach out from the central node to help integrate the site within the greater urban fabric. These corridors are larger scale thoroughfares that move higher density traffic into and through the site. Extending from the central node, these corridors increase value by providing a connection to nearby destinations.
**Key Concepts**

**Tissue // Network**

The tissue or network of the district is the cohesive network that unifies the arteries or corridors. This network is what helps create a complete idea of district and helps to fill the inbetween spaces. This network creates access to the less central nodes or rooms and provides a connection of spaces oriented around a central node.

**Organs // Rooms**

The organs or rooms of the district are the spaces surrounding the central node. The use of the rooms is dependent on proximity to the corridors and connection from the network system. The rooms are the inbetween spaces that become vitalized to create a more cohesive district plan.
Our concept for the Norrebro Station district involves drawing from the diversity of character found throughout adjacent outdoor rooms. Because slow development over time is required to properly test strategies and understand what works, our concept is founded on a phased approach. The first phase involves an inventory of the outdoor rooms -- the organs of the larger district system -- that will inform the kinds of characteristics and spaces desired in other parts of the district. What assets exist? What is needed? This first phase addresses these important questions.
PART 2: The Heart
Because much of the neighborhood depends on the transit that runs into and out of Norrebro Station, we see this as the heart of the system. This critical area is the first priority in the systematic improvement of Norrebro’s organs.
PART 3: The Arteries

Inspired by the five finger plan that founded Copenhagen’s development as a city, this phase hinges on the importance of access. By improving access to neighborhood amenities, the value of those amenities also increases. Clear, efficient arteries improve the functioning of the heart as well as other organs.
PART 4: The Connective Tissue
This next phase creates a network of outdoor rooms -- a circuit of a finely scaled circuit that offers slow exploration of the diverse range of places surrounding Norrebro Station.
The Body

Ultimately, these steps intend to strengthen a body-wide system -- bringing life from the heart to the extremities and back again. A vital part of this system is the existing energy and diversity of character that makes this neighborhood so unique. This conceptual strategy simply draws on existing assets and creates connections to spread life throughout the district.
Team:
Robin Croen, Kameron Selby, Jian Shan, Sujing Sun, Hanyu Wang

District Goals
Aiming at producing a softest mobility mode, our district goals along 5-min walk circle are: 1. prioritize soft modes of transportation over hard; 2. prioritize public transit over private; 3. Strengthen connections between open spaces, urban nature and significant points of interest. Based on evaluation of district pedestrians, bicycles, vehicles and transit with parameters from Schulze+Grassov, mobile matrix usage is applied to give street different emphasis to specific modes along specific paths of travel, pursuant to the overarching district goal of prioritizing soft mode of transportation over the hard. With that street toolbox along with the four evaluation levels we have done in research, we provide four specific strategies for best conditions, good conditions, moderate conditions and poor conditions for each kind of circulation.

Site Strategy
Zooming into our site, we come up with an idea, PED BUBBLE, which means we focus on soft mode of transportation, especially for public transit and offer buffer development area for coming increasing traffic flows. From bubble center, intersections and hierarchical street toolbox, we design the flexible soft mobile network, contributing to organizing traffic flows, saving pedestrians and public space in the center part, making intersection safer, gentrification and improvement of street network. The pedestrian bubble inside will enhance city public realm, especially in Norrebro, to protect the edge and social image of Copenhagen.
Location on the 5-Finger Plan:
The 5 “fingers” of the plan are all centered on 5 S-Train commuter rails. The project site is located between the “middle finger” and the “ring finger”. The norrebro station is on the train line that connects all 5 “fingers”.

The space between the “fingers” was supposed to be large-scale green space between the urban areas. While as a result of the urban expansion the location of the project site now is urban area with relatively high density. The Norrebrogade is a very busy street with large amount of bycicles and pedestrians, due to the lack of transit on the outbound direction, the commuting happenning though the site are mainly on private vehicles, which also result in conflicts in different modes of transportation.
GOAL#1 - Prioritize soft modes of transportation over hard

The more sustainable and greener modes of transportation should be encouraged and prioritized over vehicle traffic. The environment for the bicycle and pedestrians should be enhanced for better connectivity and a more integrated network.
GOAL#2 - Prioritize public transit over private

With the finish of the new student housing high-rise, there will be a much larger quantity of pedestrian, depending on public transit for longer distance commute.

There will be a metro station in the site in 2018. With all these different modes of public transit, the site needs to organize the spaces for all of them to provide a better flow and more efficient and enjoyable environment.
GOAL#3 - Strengthen connections between open spaces, urban nature, and significant points of interest.

The project site is located where should be large-scale green spaces, but the network of the open spaces is broken and not cohesive to each other. There should be a more integrated bicycle and pedestrian network connecting all the open spaces and green spaces, to create a network of public spaces and encourage more social activities and public life into it.
Description:
- Prioritize soft modes of transportation over hard.
- Prioritize public transit over private.
- Strengthen connections between open spaces, urban nature, and significant points of interest.

Application:
Given that street width, in many cases, is a fixed constraint, it is not possible to give equal weight to each transportation mode in every location. An analysis of district land uses and existing or opportune connections, provides the basis for a mobility network that gives emphasis to specific modes along specific paths of travel, pursuant to the overarching district goal of prioritizing soft modes of transportation over hard. The Use Matrix offers a process by which the district principles can be realized.
Mobility

As the softest mobility mode, pedestrian paths should be prioritized for safety and circulation throughout the site. In addition, as the slowest mode, pedestrians are most likely to benefit from paths adjacent to urban nature. Connections should be emphasized along important district-wide pedestrian routes with an emphasis on connecting green spaces, points of interest, and locations of neighborhood culture. Pedestrian circulation can also benefit from, as well as be a instigator of, the vibrant sidewalk activities that make for vibrant urban spaces.

**BEST CONDITIONS**
- Fully separated pedestrian paths.
- Best access to urban nature.
- Minimal street crossings.

**GOOD CONDITIONS**
- Wide, activated sidewalks.
- Adjacent to calmer streets.
- Some access to urban nature.
- Some street crossings.

**MODERATE CONDITIONS**
- Typical sidewalks.
- Adjacent to busier streets.
- Less sidewalk activities.
- Typical street crossings.

**POOR CONDITIONS**
- Narrow sidewalk.
- No access to urban nature.
- Adjacent to busy streets.
- Many street crossings.
As a relatively soft mode of mobility, bicycles should be the second priority after pedestrian circulation. Cyclists also benefit from paths adjacent to urban nature. Connections should be emphasized along important district-wide pedestrian routes with an emphasis on connecting green spaces, points of interest, and locations of neighborhood culture. Cycle infrastructure should be safely separated from pedestrian and vehicular traffic whenever possible.

**BEST CONDITIONS**
- Off-street paths through parks or other urban nature.
- Minimal street crossings.

**GOOD CONDITIONS**
- Bike paths adjacent to streets and separated by vegetation or median.
- Some street crossings.

**MODERATE CONDITIONS**
- Bike lanes integrated with street but separated by elevation.
- Typical street crossings.
- Adjacent streets busy.

**POOR CONDITIONS**
- Shared lanes.
- Adjacent streets very busy.
- Many street crossings.
VEHICULAR

Vehicular traffic represents the hardest mobility mode. The best conditions for vehicular traffic often represents the worst conditions for softer modes, therefore care must be taken to adhere to the district vision prioritizing softer modes when optimizing vehicular circulation.

**BEST CONDITIONS**
- Street not shared with other modes.
- Multiple lanes.
- Minimal stops.
- Minimal traffic.

**GOOD CONDITIONS**
- Multiple lanes.
- Typical stops.
- Street adjacent to bike lanes but separated by some means.
- Some traffic.

**MODERATE CONDITIONS**
- Single lanes.
- Adjacent to busy bike path.
- Many stops.
- Moderate traffic.

**POOR CONDITIONS**
- Single lanes.
- Shared lanes with other modes.
- Bad traffic.
- Many stops.
District Concept Plan

District Goals:
Prioritize soft modes of transportation over hard.
Prioritize public transit over private.
Strengthen connections between open spaces, urban nature, and significant points of interest.

Site Strategy: "Pedestrian Bubble"
-Flex lanes to move rush hour traffic

1. Bubble Center
Norrebro Convensional Ped-Bubble: a central pedestrian life will enhance the city public realm by creating district bubble center where people can observe street life and activities, especially in retail and commercial aspects.

2. Intersection
The idea is to reduce the complexity of a given intersection in eyes of all travelers, making it a safer city street facing with the potential huge traffic capacity in the future.

3. Hierarchical Street Toolbox
Use these categories to establish priorities on specific streets or transit routes. The priorities will help to determine what specific actions should be take to achieve the goal of a functional mobility network.
Mobility

MAKE THE STREET EASY TO READ
Reduce the complexity of main intersection in eyes of all travellers. Make the whole intersection more predictable.

1. Guide the traffic: Turn left area increases the main benefit of intersection mobile storage capacity, reducing waiting time, using lanes especially when it is free with buses.

2. Minimize turning speed from the major to the minor street. Drivers on major street yield to people on crosswalk and bike lane.

MAKE INVISIBLE VISIBLE
Clear sight of the lanes will increase a street’s safety.

3. Slight grade crosswalk entrance extension makes notice to everyone and eliminate other traffic’s speed.

4. Crossing pedestrian islands: Add green space to reduce psychological anxieties and eliminate complicated dangerous turns.
District Concept Plan

References:
1) Parameters for Public Spaces in Copenhagen, Schulze+Grassov

2) Københavns Kommune Københavncart: http://kbhkort.kk.dk/spatialmap


4) http://www.mapsta.net/denmark/copenhagen-transport-maps/
Our site's 5 minute walking district is situated within a relative vacuum of publicly accessible green space. There is a notably abrupt discontinuity in public greenspace networks within a 1 kilometer radius of our project site. Green open spaces such as Faelledparken, Ryparken, Bispebjerg Kirkegard, Kirkemosen, Utterslev Mose, and Rokilde Park line the perimeter of a 1 kilometer radius circle around the project site, leaving a lack of immersive and performative green space within walking distance of Norrebro Station. This shortage of greenspace offers an opportunity to connect some of the implied green networks identified along the edge of our district.

Topographically, the site district is bisected by a shallow trough pinched by a very gentle slope on either side. The City of Copenhagen’s Climate Change Adaptation and Investment plan identifies a number of cloudburst “branches” or (drainage basins) within the city, four of which converge within the project site’s 5 min. walking district. A significant portion of the trough located within the project sites has no planned stormwater management improvements, yet the topography and configuration of other hydrologic improvements suggest that this is a prime location to use public space to infiltrate and store rainwater.

The project site offers many opportunities for improving green space connectivity and function while also shifting stormwater management from the conventional combined sewer to more proactive, and engaging approaches. Both green and blue interventions should be legible to the site’s human users, offering sensory engagement and visual interest in addition to infrastructural services.

Team:
Sierra Druley, Tatyana Vashchenko, Kun Lyu, Yuchia Jan

Description:
SWATH + FURROW
district hydrology
district green space
swath + furrow

A SWATH:

- spans
- travels
- connects
- spreads
- reaches
- encompasses
A FURROW:
conduces
conveys
concentrates
wrinkles
traces
supports growth
Concept development
green space opportunities
cph climate change adaptation plan

POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation
Strengthen connections between open spaces, urban nature, and social nodes

LINK, LAYER, CLARIFY

Integrate human and natural systems for multifunctional performance

BLUE + GREEN SYSTEMS SUPPORT HUMAN USE

Incorporate Climate Adaptation Strategies
green + blue composite
Strategies 1

Transport

The principal hydraulic function of cloudburst roads is to discharge water. Cloudburst roads are established by re-profiling the road, making changes to terrain or raising the kerb. In principle, no green elements are incorporated in a cloudburst road.

Cloudburst Road:

A cloudburst road is a road which in normal weather functions as a road in the city and when torrential downpours and large volumes of water occur transport the water to places from which they can either be collected or discharged (typically to the harbour or similar receiving body).

Delay

The principal hydraulic function of retention roads is to retain and store water. This is done by integrating various retention elements into the road - roadside beds, rain beds and similar features. There will often be good opportunities to incorporate urban space improvements, for example in the form of green and blue elements.

Retention Road:

A retention road retains and stores water. This retention can be done with green elements.
The hydraulic function of green roads is to remove and retain the water locally, typically on smaller roads, for example private shared roads.

Green roads also retain and store water, but on a smaller scale and typically on small side-streets.

A retention space is a square or a park arranged to store water when cloud-bursts occur, to avoid having too much water on cloudburst roads, etc. When the downpour is over, the facility is drained either to the sewers or to the cloudburst management system. An example of such a space is Enghaveplads.
strategy 2

visible landscape: fountains, waterscape

Municipal uses: utility washing, street cleaning, construction dust control, equipment washing, sanitary sewer flushing

Industrial: Cooling water, process water, washdown water
Irrigation: athletic fields, golf courses, parks, landscaping, community gardens, water features;
strategy 3

Linking Green Space

Swath

1. Maximize the patches’ scale.
2. Use layers to connect all the patches. (pavilions, green roofs...etc.)
3. Combine with the water draining and catchment system.

Wild nature
Urban nature

Critical Gap!

There is a critical gap between the urban green space and surrounding wild nature in the site.

Wild nature
Urban nature

We use the swath as our strategy to stretch to the surrounding wild nature areas and create more potential urban green space.

Water-basin area
Grass ditch
Lawn

Wildlife crossing

Greenway
Greenbelt
Pavilion
Greenroof

Multiple corridor options
discern appropriate level of greening for each space
strategy 5

EXPERIENTIAL + PERFORMATIV Ex

support immersive sensory experience
of blue and green landscape interventions;
render ecological processes
experiential and legible
reflection

Our concept of swaths and furrows facilitates the use of contrasting green bands to bridge and link divided spaces on site. At the same time, the furrows’ linear depressions take form as infiltration swales, retention basins, and cloudburst streets. Swaths sweep and blanket, draping across railway corridor, adjacent buildings and the in-between spaces below. Furrows dig down, with a linear momentum, conveying, conducting or diffusing, all while promoting vegetal growth. The two typologies are linked in a shared agricultural history, a history integral to Danish economy and culture, past and present. Though the proposed green and blue systems are inherently functional, they are equally suited to improve aesthetic legibility within the landscape serving to enhance the sensory experience of public space.
Local Narratives

Team:
Jesce Walz, Joanna Kaiserman, Yan Li, Yue Yu

Site:
Norrebro

Guiding Principles:

1. Strong Sense of Place
Preserve and enhance the historical character and industrial vitality of the area. Establish a civic core as not only a transit stop but a destination. Highlight and support the cultural diversity of the neighborhood.

2. Local Economic Vitality
Promote development that includes a balanced diversity of retail, commercial, office, institutional, and service related activities. Support locally owned businesses. Provide support to immigrant business owners by connecting them to existing programs and services.

3. Prioritize Women and Children
Prioritize safe pedestrian connections between residential uses, schools, parks, and other civic places. Make parks and public spaces inviting to children, with opportunities for play.

4. Diversity and Housing
Provide housing opportunities that respond to the diversity of cultures, economic levels, and age groups that make up the demographics of our growing populations. Encourage housing that integrates communities groups in healthy and respectful ways.

5. Sustainable Development
Provide incentives for development that supports local business, responds to the community vision, and protects and supports the natural environment.
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Concept: PATCHWORK

Nørrebrogade is a place of diverse history, narrative, and cultural identity. The neighborhood’s urban fabric reflects this through a broad mixture of uses, faces, and places.

On a cultural and granular level, Nørrebrogade is influenced by a vast array of nationalities.

On a geographic and site level, Nørrebrogade is one microcosm amidst Copenhagen’s larger network of neighborhoods, transit lines, and green spaces.

As a woven whole - Nørrebrogade is globally connected and locally intertwined. This manifold reality presents great opportunity to fortify the neighborhood’s unique character while connecting it to greater Copenhagen, encouraging mutual vitality and exchange.

Mimers Parken

Fotex

Norrebro

Super Killen Park (BIG)

Student Housing

Future Metro Station (COBE)
Patchwork
Patterns to encourage on site:
Milieu, grain, tactility, ritual, network, palamcest, polyvalence, rhythm, ephemora, scaffold, container, empowerment, exponent, co-evolution, facilitation.
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Legend

**Intervention**

**Ethnic Diversity**

**Public Green Space**

**Fabric**

- Bispebjerg
- Rangerplads
- Children’s Plads with Barriers Mosk
- TOMATOTemporary Green Box CONTAINER, Government 5 years’ intervention project
- Historic House, and Government’s renewal construction
- Butterfly Green Way
POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation

Local Narratives

Intervention

Apartment Built in 1902

Historic Building Renewal

Container & Tomat

Ethnic Diversity

Moske

Children Playground with Barrier

Immigration

Public Green Space

Bispebjerg

Rangerplads

Green Way
Local Narratives

Industrial
- denim
- Uniform
- Products

Residence
- Hippies
- Local People
- Immigration

Environment
- Metal
- Timber
- Stone Pavement
Local Narratives

- Public Space
  Mimersparken/SuperKilenPark/FutureCOBEProject

- Industrial
  Old/New

- Construction
  MetroStation/StudentHousing

- Landmarks/Culture
  S-Station/Moske/Playground/ChildrenProjectSchool
COMMUNITY INTERVENTION OF NEW COPENHAGEN

Perspectives: History & development of population features
Diverse usages of local materials
Historical maps of site features

1885
8% immigrant
Worker: Poland, Sweden, German

1930s
Second World War
Refugee: East Euro, Jews, German
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1970s
Guest Work: Turkey, Pakistan, Morocco
Refugee: Chile, Vietnam

1990s
Refugee: Soviet Union

2010-Present

POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation
Vision

Opportunities:
- cultural diversity
- transit hub
- public spaces at core
- new student housing

“I love Norrebro. It is so colorful everywhere you look”

“Lots of people to see”

“The shopping here is more affordable than other places in the city”
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Needs:
- Safe public spaces that welcome everyone
- Create solution for illegal market
- Green spaces for children to play
- Better maintenance of the neighborhood

“We need to change the market under the bridge. People are selling things illegally there every day”

“We just need some better maintenance”

“I wish there was a safer area to play for my children”
<table>
<thead>
<tr>
<th>Mission</th>
<th>Scale X Distance</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Formal Distance</td>
<td><img src="image1" alt="Diagram" /></td>
<td>A feeling of safety &amp; security, gender balance&lt;br&gt;Edge zones &amp; ‘eye‘ on the street&lt;br&gt;Connection to active sites</td>
</tr>
<tr>
<td>The Social Distance</td>
<td><img src="image2" alt="Diagram" /></td>
<td>Diversity of activities (daily)&lt;br&gt;Social events (weekly/ monthly/ annually)&lt;br&gt;Choice of interaction</td>
</tr>
<tr>
<td>The Intimate Distance</td>
<td><img src="image3" alt="Diagram" /></td>
<td>Family time&lt;br&gt;Culture experience&lt;br&gt;Intimate interaction with others</td>
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</tbody>
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## Local Narratives

<table>
<thead>
<tr>
<th>Word cloud</th>
<th>Strategy</th>
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<tbody>
<tr>
<td>Women participation, open the windows, green balconies</td>
<td>Exchange used bottles for free plants</td>
</tr>
<tr>
<td>Neighborhood production</td>
<td>Farming &amp; markets</td>
</tr>
<tr>
<td>Social events (weekly/ monthly/ annually)</td>
<td>Usage of interactional infrastructures</td>
</tr>
<tr>
<td>Diversity of activities (daily)</td>
<td>Activities in rain gardens &amp; pocket wetlands</td>
</tr>
<tr>
<td>Choice of interaction</td>
<td>Elevated non-vehicle pathway</td>
</tr>
<tr>
<td>Family, educational, safe for children &amp; women</td>
<td>Continue Children Project School (family &amp; educational interaction)</td>
</tr>
<tr>
<td>Copenhagen culture immersion</td>
<td>Popularize Danish &amp; bike riding</td>
</tr>
<tr>
<td>Legal, secure, organized, economic</td>
<td>Linear, dense but organized activities underneath the railway</td>
</tr>
</tbody>
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Strategies for Formal Scales

Formal Scales:
In this scale, mainly about complete size of the public space, and connective to active sites and functions. Provides the identity and safety for the district.
Strategy 1:

Encourage women participation (green balconies & private markets)

Encourage make balcony green and furnished to make the opening window rates includes. Meanwhile, based on local features and activities. Used return cans not for money but for a box of vegetables, to encourage people decorate their balcony and window with urban farming and no-cost methods.
Strategies for Formal Scales

Strategy 2:
Increase ‘eye’ on the street
Increase ‘Street Eyes’ and encourage eye contact to bring the district with higher safety feelings. Enable positive interaction with other people. Offer daily contact with other people.
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Strategy 3:

Provide opportunities

Invite and provide possibilities for all users of the city. Has primary and secondary user groups. Encourage longer stay by providing places to sit and stand, and visual diversities.
Strategies for Social Scales

Social Scales:
In social scales, people involve in different kinds of activities. Social scales are between formal scales and intimate scales which provides more opportunities for people to participate in social activities. Public spaces are usually of social scales. Increasing sustainable public spaces for residence in Norrebro is crucial.
Strategy 1: Using interactional infrastructures to recycle rain water

One strategy for enhancing social scaled experiences for people is to use interactional infrastructures. Infrastructures in city play an important role in people’s life. Sustainable and multi-functional infrastructures make landscapes necessary for people.

We’ve designed this structure that can collect and recycle water. The curved pipes can remediate grey water and make it drinkable for birds. It connects the green spaces in Norrebro and serve as a corridor among them. This infrastructure involves social activities among people. While bird watching, they can communicate with people and also have a beautiful conversation with nature.
Strategies for Social Scales

**Strategy 2:**

**Activities in pocket wetlands & rain gardens**

The other way to improve social scaled activities is to increase parks and green spaces in Norrebro. There are a lot of opportunities for landscape architects to design these open spaces for Norrebro residence. Such as Skodagrunden and Basargrunden. These places are now quite vacant and not well used by people. Infrastructures there are too temporary and unstable. For example, there are only a few wood seatings at the plads which limited people’s activities a lot.

Pocket wetlands and rain gardens will solve this problem. These parks meet the environmental needs of Copenhagen. Ecological and well designed public spaces will provide people good places to rest and communicate.
Strategy 3:

Elevated walkway between Fotex & Metro station

The third way to enhance social scales is to improve and organize the traffic. Presently, the road between Fotex and the metro station in construction is chaotic. People usually choose their preferred path randomly. Bikes, vehicles and pedestrians are disturbing each other when crossing the road. And there is a large undesigned square in front of Fotex.

After construction, we decided to create an elevated walkway between Fotex and the metro station for pedestrians and bikes which will organize the traffic on the cross road. This strategy will highly improve the crucial nod in Norrebro which also will enhance the experience of social distances.
Strategies for Intimate Scales

In intimate scales, people experience the culture of Norrebro and have intimate interactions with others. We should create a safe place for women and children in intimate scales. We also want to convey Danish culture by using intimate scaled infrastructures. This is a good opportunity to protect and share local culture.
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Strategy 1:

Continue & Expand Children Project School

There is a really cool project called children project school at Basargrunden in Norrebro. Presently, it is only a pretty concealed place that under the rail way. The place is linear and condense. Parents in Norrebro are trying to create a school for children to learn some practical creative thing instead of courses like maths and physics. These people have such cool and beautiful ideas that represent the free and creative atmosphere of Norrebro.

So our strategy is to continue this project school and expand this culture to broader spaces in Norrebro. The linear places can be expanded to open spaces at the station. This will enhance the culture and interactions among people. The project involves intimate family activities and interactions among different families and individuals.
Strategy 2:
Convey Danish culture
Using visual signs and Danish Language to encourage all people can read and learn Danish Language.
Strategy 3:

Increase Legal, Organized and Economic Market Activities

The market activities now are illegal and disturbing. Residence are not satisfied with the current situation of the markets under the railway nearby the crossroad near by the S-station. People are selling stolen things. Our strategy is to clear the remnant of illegal selling activity and expand some legal and intimate scaled market activities under the railway farther from the station.

The market can be outside or can be sheltered by glasses and other materials. The design of the markets can be adaptable and movable which allow the equal chances for residence to sell in this space. Or market can be placed in front of housing just like park-let which creates a intimate communication among residence.
Summary

Goals:

1. Respect cultural identities and uses of space
   a. Engage the public through workshops and other activities to learn their needs and desires
   b. Diagram the current uses of space in the neighborhood

2. Prioritize pedestrians
   a. Make sidewalks and crosswalks more legible to pedestrians
   b. Lighten and open up tunnels and entrance to the train station

References:
1) Google images
2) COBE’s images & design