

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



Pervious & Impervious Public Space



Land Use





Green and Blue Systems



Economic Sustainability through Future Connections





District Concept: Land & Activity Uses



Team:

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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 redemocratization 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 opportunies 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 opportunies and challenges that are being faced at a site which is very similar in many ways to the neighborhood of Nørrebro.

District Concept



Approved Asylum Resident Permits in Denmark between 2006 - 2015



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 Nørrebro 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.



Distribution of Non-Western Immigrants in Copenhagen



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 of 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.



Land & Activity Uses



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 Increase the usage of public space by stregthening and other neighborhoods through parks and civic places and the bridging gaps within the network.

Increase Public Space Usage

existing spaces and establishing a sense of hierarchy all generations with opportunities for all. within the district.

Enduring Space For All

Creation of a space that is enduring and inviting for

Land & Activity Uses

challenges







Edge(s) Created by Major Arterials + S-Tog

Edges that are created due to the presence of major arterials as well 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 acheiving 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 The construction of a new metro at this major housing with an imposing skyscraper presents Nørrebro with the rise of a new user group and their expected spike in footfall in the neighborhood. different needs.

Metro Space

intersection reflects on the changing times and the

District Concept

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 acts 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

The Masterplan of the European **Union District in Brussels, Belgium** by Julian De Smedt Architect, 2008

"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

STRATEGIES

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



Land & Activity Uses

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



COMMERCIAL

HOTEL

POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation



References:

- 1) Julian De Smedt Architects (http://jdsa.eu/)
- 2) Kobenhavns Kommune (http://kbhkort.kk.dk/cbkort?&profile=sociokort)
- 3) StatBank Denmark (http://www.statbank.dk/statbank5a/default.asp?w=1920)

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.



Public Space "Rooms"

Team:

Derek Holmer, Laura Durgerian, Drew Badgett, Jack Alderman, Kevin Van Meter

Description:

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







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.

Precedents





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.



Both the Nørrebro transit hub and the connecting arteries need to exhibit strong clarity within the rightof-way. This area has large volumes of multimodal traffic and a potentially confusing variety of right-ofway hierarchies.







POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation 3

System Concept

Analysis	Problem	Opportunity
Wide variety of rooms and spaces spread throughout the neighborhood.	Rooms are disjointed and scattered. Some areas are lacking in open, green space.	Strong foundation for a green network that will span the entire neighborhood.
Diverse demographics of visitors with different needs.	Rooms are unable to fulfill all the needs of commuters/ residents, ethnic danes/ immigrants, or families/singles.	As a network, rooms can each become more individualized and defined, working together to provide amenities for everyone.
Rapidly Changing and Growing Neighborhood	Gentrification and new development are changing the heart of the neighborhood, driving out many who can no longer afford the cost of living.	Responsible development can create a supportive outdoor culture that provides necessary amenities to at-risk communities.

Challenges, Opportunities & Objectives



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

System Concept



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 near by 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.

System Concept



PART 1: The Organs

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.

Vision

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.

System Concept



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

Vision



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.

System Concept



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.

Mobility



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.

District Concept Plan



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 thourgh the site are mainly on private vehicles, which also result in conficts in different modes of transportation.





Mobility 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.

District Concept Plan



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 transits, the site need to organize the spaces for all of them to provide a better flow and more efficient and enjoyable environment.

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GOAL#3 - Strengthen connections between open spaces, urban nature, and significant points of interest.

The project site is located where should be largescale 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.
District Concept Plan

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.



USE MATRIX

Mobility

PEDESTRIAN



BEST CONDITIONS

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



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.

GOOD CONDITIONS

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

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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.



District Concept Plan BICYCLE



BEST CONDITIONS

- Off-street paths through parks or other urban nature.
- Minimal 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.

GOOD CONDITIONS

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



- 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



Mobility

VEHICULAR



BEST CONDITIONS

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

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.

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 pedestrain life will enhance the city public realm by creating district bubble center where people can observe street life and activies, especially in retail and commertial 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.





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) Kobenhavans Kommune Kobenhavernkortet: http://kbhkort.kk.dk/spatialmap
- 3) DOT: http://dinoffentligetransport.dk/trafikinformation/nu-og-her/livekort-med-bus-tog-og-metro/
- 4) http://www.mapsta.net/denmark/copenhagen-transport-maps/

blue + green district concept

Team:

SWATH

FURROW

Sierra Druley, Tatyana Vashchenko, Kun Lyu, Yuchia Jan

Description:

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, Bispebjerk 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 Adapatation 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.

district hydrology



district green space



swath + furrow A SWATH:

spans travels connects spreads reaches

encompasses





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A FURROW:

conducts conveys concentrates wrinkles traces supports growth

swath + furrow





POROUS PUBLIC SPACE: Urban Nature for Climate Adaptation 5

Concept development





green space opportunities ammun km 5 min walk and the second

cph climate change adaptation plan



GOALS

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





Cloudburst Road:

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. 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).



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.



A retention road retains and stores water. This retention can be done with green elements.

strategic grading



The hydraulic function of green roads is to remove and retain the water locally, typically on smaller roads, for example private shared roads.



Green Road

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





The principal hydraulic function of retention spaces is to retain and store water by creating basin volumes. The retention spaces can be advantageously designed as multifunctional urban space elements, which in everyday conditions function for example as sunk parking areas, squares, sports fields, or similar. A retention space is a square or a park arranged to store water when cloudbursts 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.



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

creative stormwater re-use

Irrigation: athletic fields, golf courses, parks, landscaping, community gardens, water features;







In-building: toilet flushing, cleaning

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.



Grass ditch Lawn



Wild nature

There is a critical gap between the urban

green space an surrounding wild nature

Critical Gap!

in the site.

Urban nature

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

Wild nature

Urban nature







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photo by: Drew Badgett

EXPERIENTIAL + PERFORMATIVE

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



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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



Colorful Norrebro



istorical key transport hubs



Conflicts between different group of peop



Crucial public transport hubs



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.

Bird View



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Local Narratives

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.





Super Killen Park (BIG)



Student Housing



Mimers Parken







Patchwork Patters to encourage on site: Milieu, grain, tactility, ritual, network, palamcest, polyvalence, rhythm, ephemora, scaffold, container, empowerment, exponent, co-evolution, faclilitation.



Local Narratives



Fabric



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Local Narratives

Intervention



Apartment Built in 1902

Ethinic Diversity



Public Green Space



Bispebjerg



Historic Building Renewal



Children Playgound with Barrier



Rangerplads



Container & Tomat



Immigration



Green Way

Fabric



Local Narratives

Industrial



Residence







Metal





Products





Timber



Immigration



Site Analysis




Timeline

COMMUNITY INTERVENTION OF NEW COPENHAGEN

Perspectives: History & development of population features

Diverse usages of local materials Historical maps of site features

1885

8% immigrant German

1930s

Second World War Worker: Poland, Sweden, Refugee: East Euro, Jews, German

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2010-Present

1970s

Guest Work: Turkey, Pakistan, Moroco Refugee: Chile, Vietnam

1990s

Refugee: Soviet Union

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"



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

Needs:

-Safe public spaces that welcome everyone

-Create solution for illegal market

-Green spaces for children to play

-Better maintenance of the neighborhood



" We just need some better maintenance"

" I wish there was a safer area to play for my children"

Mission

Scale X Distance	Function
×7.5 m The Formal Distance	A feeling of safety & security, gender balance Edge zones & 'eye' on the street Connection to active sites
3.75-7.5 m The Social Distance	Diversity of activities(daily) Social events(weekly/ monthly/ annually) Choice of interaction
<pre> the Intimate Distance the location the</pre>	Family time Culture experience Intimate interaction with others

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







Formal Scales:

In this scale, mainly about complete size of the public space, and connective to active sites and functions. Provides the identity and safty for the ditrict.

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Strategy 1:

Encourage women participation (green balconies & private markets)

Encourage make balcony green and furnitured 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 safty feelings. Enable Positive interaction with other people.Offer daily contact with other people.





Local Narratives 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.



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Strategies for Social Scales



Present social scales in Norrebro (photo from Google)



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.

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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 a 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 fron 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





Intimate Scales:

In intimate scales, people experience 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.



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.

Strategies for Intimate Scales



Strategy 2:

Convey Danish culture

Using visual signs and Danish Language to encourage all people can read and learn Danish Language.

Venstre

Højre

Hunde Skalføres i snor





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 othe 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



References:

- 1) Google images
- 2) COBE's images & design

3) https://cdn.knightlab.com/libs/timeline3/latest/embed/index.html?source=1QqUhQ_W4Jmbe_1nvlyRABUR_AWEAflOIsQPIUAd21Yk&font=Default&lang=en&hash_bookmark=true&initial_zoom=1#eventthe-first-post-war-european-refugee-crisis-reaches-denmark

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