Porous Public Space:
Climate Adaptation through Public Space Design for Capitol Hill, Seattle 2030 District

Scan I Design Master Studio, Autumn 2019 [Larch 501]

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With Master Teacher Louise Grassov, Schulze + Grassov

"Inviting cities must have carefully designed public space to support the processes that reinforce city life…At eye level the good city provides opportunities for walking staying, meeting and expression, and that means it must provide good scale and good climate." – Jan Gehl, *Cities for People*

"We use Nature to solve problems while improving genuine life quality for all. We use Nature's processes and principles rather than an image." – Kristoffer Holm Pedersen, *Head of Communications SLA*

"What kind of city do you want? How will your city use climate imperatives to create urbanism, public space and architecture?"
– Peter Honneke, Landscape Architect COBE

PROJECT DESCRIPTION

How can the integration of water management, activation of the public realm, and infusion of a healthy "Nature," help to create a vibrant, healthful, climate-change resilient urban district? As a case example, how might Seattle's Capitol Hill neighborhood integrate green infrastructure to **eliminate combined sewer overflows into Lake Washington, and cleanse water before it is discharged into Lake Union,** in ways that also help to **regenerate a healthy urban nature** and equitably provide the ecosystem services of **heat island reduction, air quality improvement, habitat provision, and social and cultural space?** How can such an integrative design approach help to create and sustain a **democratic, just, public life**, and foster a **safe, vibrant, creative urban neighborhood?**?

What if it were really safe for people to swim, and for salmon to thrive, in Lake Union and Lake Washington?
Can the city "feel and function like a forest?" (SLA) with all its benefits and capacity to address climate change?

Inspired by our experiences of Copenhagen's and Malmo's design examples for successful public space that contributes to climate resilience, we will work with the **Seattle 2030 District** and **Capitol Hill Housing's Public Realm** project to begin to answer these questions. We will develop **design ideas and typologies** to inspire retrofit of streets and urban spaces that employ natural processes to **create a more livable district, while solving the area's stormwater issues and future City water and wastewater demands.** We will have the unique opportunity to work directly with proponents at the front end of promoting **green stormwater infrastructure approaches to achieve 2030 District's** visionary goals to reduce peak stormwater discharge and potable water use, and to advance an enhanced, connected **public realm that cultivates a public life culture.**

Guided by principles developed by Gehl Architects, and their offspring of Schulze + Grassov, we will devise approaches to cultivate and enrich public life -- both moving through, and staying in, the public realm of streets, plazas, parks and leftover spaces of this district. We will work at district, site and detail scales to use urban design to address climate change impacts, through:
  • exploring opportunities to **insert urban nature for biodiversity resilience and human health benefits;**
  • addressing social and cultural needs and amenities to **cultivate social resilience**; and
  • artfully integrating **water into the cityscape for hydraulic performance, urban nature, and human delight**.

During the term, our Master Studio will benefit from the involvement of Louise Grassov, formerly with Gehl Architects and now with her own firm, Schulze + Grassov. Throughout the quarter, we'll build on the Copenhagen study tour by referencing examples from our travels and employing and expanding on the public life / public space and "cloudburst" design principles we learned from projects and firms – from Copenhagen's integrative approach to climate adaptation, and from Malmo's, SLA's, Third Nature's and other firms' approaches to cultivating biodiverse "nature" in the city.

COURSE GOALS AND OBJECTIVES
  • to practice site and district analysis methods
  • to explore strategies for creating a democratic public realm that is ecological, resilient, regenerative, playful and just;
  • to explore, implement and expand on Gehl Architects' urban design concepts and methods to promote a lively urban realm;
  • to develop and apply ecological infrastructural planning and design strategies for urban biodiversity and green infrastructure that address the challenge of climate change in Seattle;
  • to practice the creative act of developing and transforming program ideas into integrated, responsive designed form;
  • to apply evaluation metrics to anticipate actual social and environmental performance of design interventions;
  • to develop clear and compelling graphic and verbal communication skills;
  • to practice working effectively in interdisciplinary teams;

- to practice working at all scales, using both large and small scales simultaneously to each inform the other.

EXPECTED LEARNING OUTCOMES
At the culmination of the studio, students will:
- be facile with implementing recognized public space planning principles and design criteria
- be aware of climate change impacts to urban populations, and a range of alternatives for addressing such impacts
- have practiced applying artful urban nature and water management strategies to the urban realm
- have advanced personal planning, design and design communication skills
- have increased insight and skill for working in teams

STUDIO PROCESS and EXPECTATIONS
We will meet Mondays, Wednesdays and some Fridays, 1:30 to 5:20 for *group presentations, discussions, field trips, working time and team desk critiques.* Occasionally we'll go beyond these times for special events and work times. This term you will primarily work in groups on district inventory and analysis, and in smaller groups on conceptual and schematic site planning/design level endeavors. Each participant is expected to be in class during the scheduled class time, and to participate as a full member in your teamwork. When Louise Grassov is scheduled to be in town, we expect you to be in studio at all times, and plan on slightly longer days and scheduled sessions outside of class time to best make use of her limited time with us (recognizing conflicting work and school commitments). This will likely require meeting on Tuesdays and Thursday for group and individual desk crits.

You are highly encouraged to continue your sketchbook from Copenhagen (or start a new one) that documents your research and design explorations. Consider including your research and design process, notes from readings, class discussions and community meetings, solutions seen, heard, and imagined, and your reflections and conclusions about process and product.

Resources and Accommodations
Everyone deserves to have their needs met and your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your specific needs in this course. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Religious Accommodation
Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/)

READINGS AND RESOURCES
The required book for the term is Jan Gehl's *Cities for People,* and the Green Futures Lab publication *Porous Public Space.* We will also be able to use the "Toolbox" developed by a former studio that focused on water and public space. Over the term we'll compile a studio library to support your work, and you are encouraged to share new resources with each other as you discover them.

COURSE WEBSITE: http://courses.be.uw.edu/SDMasterStudio/

COURSE SHARE SPACE:

The share space for our course is on Google Drive. The course folder is **2019 Scan|Design LArch 501**. Google Drive is very user friendly. For anyone interested in becoming more familiar with how Google Drive works feel free to avail yourselves of the numerous tutorials online or approach Krista with specific questions. Here's a good place to start: https://support.google.com/drive/?hl=en#topic=14940.

The 2019 LArch 501 folder will be shared with all students, with some files editable and others not. Since everything that you share could potentially be edited/removed/otherwise changed by other members of the group, **do not store your original files on the class Drive**. Please share copies (exact duplicates) of your work and store the original files elsewhere for safekeeping. We will happily advise on storage systems if anyone would like help safely and conveniently storing their files. This is very important to note: **once you have added the class Drive folder to your personal Google Drive everything you do in that folder affects the rest of the class** (editing and removing files, etc.).

For photos and imagery, Krista has shared instructions for uploading to the class **Google Shared Album**. Google Photos will automatically tag our photos so we can search by place or thing. Each individual should upload photos to https://photos.app.goo.gl/wLuk5zWYqHgiycXE7. Feel free to share scans of sketchbook pages if you like. We will use these photos for publications, presentations as well as precedent imagery for your studio projects.

STUDIO EVALUATION (C/NC)
Evaluation will be both from guest reviewers and faculty throughout the quarter, with written comments provided at the end of the term. We may also elect to conduct peer evaluations for group work.

Required at the end of term:
- **Digital upload of your project files and book pages, including scans of your process work, to the Course G-Drive**
- **Your final printed posters**
- **If we elect to create an exhibit of our work: models/ photos of models/exhibits, videos, etc. displayed and also uploaded to Course Drive**
- **Printouts of your posters in reduced format (e.g. 11 x 17 or 8.5 x 11)**
- **Final versions of book pages to be published (precedents, analysis, etc.)**

  Select examples of your work may be saved in the Landscape Architecture archives for publication and for future Departmental accreditation.

RESOURCES: Available on the 2019 Scan|Design LArch 501 Google Drive or online at specified link:

Google Drive > *Presentions* for Gehl, Gemzøe, Copenhagen Municipality, Schulz + Grassov, SLA, COBE, Third Nature, Copenhagenize, Green Roof Institute etc. as they become available.

  Gehl:
- The City as Meeting Place (Lars Gemzøe)
- Copenhagen Planning 1167-2017 (Lars Gemzøe)
- The Gehl Approach (Victor Nyman)
- Human Senses and Scale + Quality Criteria (Jonna Eckholm)

  Schulze + Grassov
- Parameters for Public Space – Presentation + Guides (Louise Grassov)

  City of Copenhagen
- Copenhagen Climate Adaptation (Lykke Leonardsen)
- Co-Creation Copenhagen
- Urban Nature in Copenhagen
- Soft Edge Diagrams for Nordhavn
- Copenhagen Cloudburst Plan

SLA
- Urban Nature and Climate Adaptation http://www.sla.dk/en/about-us/publications/climateadaptationcitynature/ + hard copy
- SLA Presentation (Kristoffer Holm Pedersen)

COBE:
- Our Urban Living Room (Rune Boserup)

Third Nature:
- Tredje Natur Presenation (Hulda Hallgrimsdottir and Anders Juul Jensen)

Ramboll Water:
- Ramboll Presentation (Christian Nyerup Nielsen)

Google Drive > *Resources* for related documents (images, articles, tech memos, etc.) to which you can contribute throughout the quarter. Online resources to date include:

Capitol Hill Design Guidelines
https://www.seattle.gov/Documents/Departments/OPCD/Vault/CitywideDesignGuidelinesUpdate/CapitolHillGuideline.pdf

Pike Pine Community Design Workshop
https://photos.google.com/share/AF1QipMyzuRc4oIZBd26_Dr-ClxRNQK1ISl-DiFfEDgRpasSWYrSqQEhKhxJW0cCduaXow?key=a1hORThHRkRTV3g2OFY4ZVZmZ0JNMmRGbm1nNWRn

Capitol Hill EcoDistrict
Capitol Hill EcoDistrict (2012). Capitol Hill Housing. Prepared by GGLO. Access at: https://www.gglo.com/wp-content/uploads/Capitol_Hill_EcoDistrict_Full.pdf
Website: https://capitolhillecodistrict.org/

Pike Pine Corridor GSI Study (document in G-drive):
Kwak, Yoonshin. (2016) "GIS-Based Suitability Analysis and Planning of Green Infrastructure: A Case of the PPCOD, Capitol Hill." MLA Thesis, University of Washington Department of Landscape Architecture

SPU GSI Urban Village presentation and brochure:
https://www.seattle.gov/Documents/Departments/SPU/GSIHalaApril2017.pdf
http://www.seattle.gov/util/cs/groups/public/@spu/@diroff/documents/webcontent/1_062771.pdf

Seattle's Public Life
Peter's and Lauren's files: see GIS below
Seattle Department of Transportation , Public Life Study, 2018 Summary Report:
https://www.seattle.gov/Documents/Departments/SDOT/UrbanDesignProgram/PublicLifeStudy_2018Summary_Report2(0).pdf
City's Public Life Program website: https://www.seattle.gov/transportation/projects-and-programs/programs/urban-design-program/public-life-program

Seattle Public Utilities Green Stormwater Infrastructure (GSI) documents:
"Right Place, Right Project- Green Stormwater Infrastructure Program; A Community Guide to Partnership Opportunities" (stored in Drive – can be difficult to find on-line)
Website: https://www.700milliongallons.org/

Seattle's Green Area Factor https://www.seattle.gov/Documents/Departments/SPU/LeClergueGreenFactor.pdf

https://19january2017snapshot.epa.gov/sites/production/files/2014-07/documents/greenfactor_0.pdf
Resources at: https://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/seattle-green-factor

Seattle Street Right of Way Manual "Streets Illustrated":
https://streetsillustrated.seattle.gov/

Central Seattle Neighborhood Greenways:
http://seattlegreenways.org/neighborhoods/central-seattle/

Climate Change Impact Predictions:
https://cig.uw.edu/news-and-events/publications/state-of-knowledge-climate-change-in-puget-sound/
http://cses.washington.edu/picea/mauger/ps-sok/PS-SoK_2015.pdf
https://www.seattle.gov/utilities/environment-and-conservation/climate-change-program/projected-changes
https://www.seattletimes.com/seattle-news/environment/how-climate-change-threatens-our-health-in-the-pacific-northwest/

2017 S|D Studio Stormwater Toolbox (pdf also in the drive)
http://courses.be.uw.edu/SDMasterStudio/wp-content/uploads/2018/05/2017_Stormwater_Toolbox_web.pdf

Google Drive > GIS files
- Public Realm Studies, Summer 2019, by Peter Samuels and Lauren Wong
- City of Seattle Open Data Portal: https://data.seattle.gov/
- Washington State Geospatial Data Archive/ City of Seattle Data: https://wagda.lib.washington.edu
- GIS Files provided by partners as they become available

Hard copies of the following will be available in the studio for your use during the quarter (ALL MATERIALS ARE TO BE RETURNED):
- *Parameters for Public Spaces in Copenhagen.* Schulze + Grassov, January 2015

Additionally, see separate list of books, articles and websites. We will continue to build the resources and references in the Drive and in hard copy in the studio library – please contribute!