

Landscape Architecture education and the wicked problem of climate change

In order to remain relevant, the role of landscape architects must constantly adapt to the needs of a sustainable and resilient society. These needs are increasingly tied to issues of climate change such as flooding, storms and drought. But how do we deal with the question of climate change, its impact, its mitigation and adaptation in our landscape architect programmes? What means do we have to equip our students with the necessary tools for dealing with these new, uncertain, complex and wicked problems? Finding answers to these burning questions is central to the work of directors of studies within SLU Landscape, whose remit is to constantly developing the relevance of the programmes. In this project we make visible how our teaching engages with the challenges of climate change, as well the gaps; pinpointing what could be the potential and the next steps forward. We seek insight into other landscape architecture programs and discuss with colleagues about the field of sustainability-climate change to gain knowledge and inspiration from another educational environment.

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Team members

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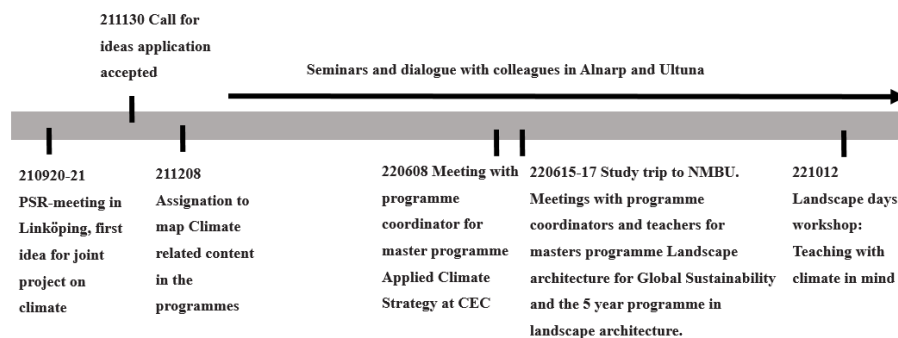
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Landscape architecture at SLU

This project Landscape Architecture education and the wicked problem of climate change has been part of an ongoing process of mapping and developing the climate related content in the Landscape architecture programmes at SLU. The contribution to the process is knowledge and inspiration from other educational environments.



Current situation

Climate related content in the Landscape architecture programmes has been identified through an overview of the course syllabi in dialogue with the course leaders as well as in workshops.

Climate- and sustainability related content in the syllabi is mainly expressed through knowledge and skills, often not explicitly described as connected to climate or sustainability. It is clear from dialogue with course leaders that course goals are interpreted so that climate related content is embedded in all courses e.g. connected to ecology, land use, water issues, materials and social issues. Critical thinking, problem solving and understanding of the professional role is expressed as important skills.

How do others do?

Lunds university – Applied Climate Strategies (master program, Environmental science)

This programme is anchored in needs formulated by professionals. The set up for creating this master programme was a series of meetings between the University of Lund (more specifically the Centre for Environmental and Climate Science) and the practice, i.e. companies and businesses with an interest in the matter. Here we find an

interesting and appealing approach in our search for applied strategies to identify relevant contents for SLU's landscape educations.

The 2-years long master's programme *Applied Climate Strategies* is rather theoretical but they have two project-oriented courses that could be of great interest for us to look into. An exchange between our programmes would be of great benefit. Their quite strong contact with practice is inherent in our landscape programmes as we often invite practitioners supervising, having lectures and excursions. The difference is that they rarely (or not at all) take part in actual planning of the educations.

Visit at the Norwegian University of Life Sciences (NMBU)

We in the project group conducted a visit to the Norwegian University of Life Sciences (NMBU) to discuss and understand how the the wicked problems of climate change are addressed in both their Masters program 'Landscape Architecture for Global Sustainability' (2 year) and their five year Masters in Landscape architecture. A comparison of our programmes was made through both formal and informal meetings with personnel and students as well as participation in their graduation day. We found that the students in the Master in Landscape Architecture for Global Sustainability:

- did address complex, climate/sustainability related issues as topic for the thesis work more frequently than our students do.
- were actively engaged with the professional role in urgent situations of catastrophe like flooding, construction of refugee camps etc.
- had a focus on policy rather than place.

Insights

- The future role of landscape architects requires engaging with a wider range of scales, engaging with policy and governance.
- Students need to address a global perspective in their site specific projects.
- Our students need to be encouraged to engage with complex, climate/sustainability related issues as topic for the thesis work.
- New concepts and methodologies related to current sustainability issues need to be connected to professional competences.
- Traditional cases in our studio courses need to be supplemented with extreme events and radical ideas.

Strengthening the awareness on climate and sustainability

Landscape days workshop: Teaching with climate in mind

As a final part of the project a workshop with 13 participants was arranged during the landscape days in Alnarp in October 2022.

We take the opportunity to share experiences about how we best arrive at knowledge and skills that students can apply in their proposals and work. The workshop is conducted as an open conversation around questions such as:

What rhetoric do we use in different types of courses?
Which theoretical framework do we lean towards in teaching?
Do we feel confident in our point of departure?
How do we as teachers fill our knowledge gaps?
Are we successful in our teaching?

The discussion is here summarized under What do we need? And next step.

What do we need?

- Tools for analysing, planning and designing for unpredicted
- Basic knowledge on how to work with nature as a system
- Identify and invite guests- experts on the topic
- Teach the students how to ask questions, how to be critical and provide the opportunity to question our teaching
- Strive to be up to date with what we teach and what we should teach
- Professional ethics – retorics, we ar not always the good guy.

Next step

- Develop a seminar series across the campuses to highlight good practice, issues and possibilities
- Approach EPU to develop course, climate teachers licesnse
- Understanding of different stakeholders' and actors' perspectives
- Discussion how radical we may need to be, allowing students to feel safe and deliver
- Explore the Litterature on climatology, ethics and communication

Suggestion for future Landscape days

In order to start a collegial conversation on how to take our programmes one step further we suggest a half day event at the Landscape days. The initial part would provide a basic understanding of the situation and inspiration. The aim is to find a common reference framework (literature) (litteraturkanon, referensverk).

#1 Climate facts and figures - introductory lecture on the current situation/forecasts regarding climate change.

#2 Vollebeckk torg – models for circularity and recycling.

#3 The Role of Aesthetics in Advancing Material Circularity –a master thesis.

#4 Catastrophy as a case – the pedagogical setting, wins and challenges. Examples from NMBU.

Break

Intro of Individual TASK "Investigate one concept/phenomenon (at least) that you have stuck with during the lectures that you want to look at a little more closely. Feel free to use reference lists. Write down what you investigated on a piece of paper."

The notes are put up according to which lecture they are most related to. Groups are formed based on which group they investigated.

Group discussion with the following assignment: Write down in point form what you have found in connection with our landscape programs. It can be statements, questions, discoveries or ideas. Finally, it is presented in the whole group. Follow-up work for the organizer: Compile the submitted findings/idea bank and distribute these to the participant groups. Considering whether new cornerstones for climate work can be identified through our colleagues' spheres of interest/knowledge/insights.