

PENS-214

Our common soil

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Cursus	Sem.	Type
Projeter ensemble ENAC	BA4	Opt.

Language of teaching	English
Credits	4
Withdrawal	Unauthorized
Session	Summer
Semester	Spring
Exam	During the semester
Workload	120h
Weeks	
Hours	48 weekly
Courses	4 weekly
Exercises	22 weekly
Project	22 weekly

Number of positions

It is not allowed to withdraw from this subject after the registration deadline.

Summary

The course will explore the hypothesis of the "City-Territory" as renewable resource, able to work with and not against ecological systems. Even if still poorly taken into consideration, urbanized soils can in fact play a significant role in the management of urban ecosystems.

Content

Faced with the constant growth of human settlements and increasingly threatening environmental challenges, the Swiss government has recently highlighted, through research initiatives such as the National Research Program 68, the urgency to consider soils as a resource providing a "wide range of ecosystem services" to both human and non-human habitats. In this perspective, the relation between the soil and the city needs to be rethought. Today extended urban formations characterized by a strong co-penetration of urban and rural realms characterize increasingly vast swathes of land all around the world and find in Switzerland a specific configuration. In such a new urban context, the City-Territory, the renewed ratio established between built and open space opens up a wide range of questions where the role of soil is increasingly crucial and strategic.

In this frame, the course aims at: 1 - raising the issue of a necessary re-conceptualization of the existing relation between the city and its soils and 2 - question the paradigm according to which the city merely represents a threat for the natural environment.

The course has the ambition to connect two different "gazes" (disciplines) around the question of urban soils: the "gaze" related to the new forms of the contemporary city, that has recently led the way in urbanism, planning and landscape urbanism and the "gaze" related to urban soils, mainly produced by environmental scientists (pedologists, ecologists).

Keywords

Soil, City-Territory, Renewable Resource, Ecosystem Services, Interdisciplnarity

Learning Outcomes

By the end of the course, the student must be able to:

- Draw an urban soil transect
- Analyze an urban soil transect
- Interpret an urban soil transect
- Integrate different disciplines and know-hows

- Elaborate a set of eco-urban strategies

Transversal skills

- Use a work methodology appropriate to the task.
- Communicate effectively with professionals from other disciplines.
- Demonstrate a capacity for creativity.
- Demonstrate the capacity for critical thinking
- Access and evaluate appropriate sources of information.
- Collect data.

Teaching methods

The course will consist in an "Interdisciplinary Fieldwork and Mapping Campaign" in which the students, supported by the teachers, will "experience" (on site), measure and map (draw and critically analyze) a portion of "urban soil transect" previously selected. A set of interdisciplinary, original maps, representing the diversity and potentials of the transect's "urban soils" (both in surface and in depth), will be produced and commented by the students (work in groups). By the end of the week the students will be able to collectively reflect on "ad hoc" eco-urban design strategies, directly related to the identified urban soil types/functions and aiming at reinforcing the "ecosystemic functioning" of the analyzed territory.

Assessment methods

A final presentation and a small report (work in groups) will conclude the course and guide the evaluation.

Resources

Bibliography

Provided at the beginning of the course