[145] Institut für Städtebau

Atlas of peri-urban spaces

Vertiefung Territorial Habitat

WiSe 2022/23

Prof. Aglaée Degros,
Prof. Klaus Loenhart,
Eva Schwab,
Patricia Ventura

stdb.tugraz.at

[145] Institut für Städtebau

Atlas of peri-urban spaces

Vertiefung Territorial Habitat

WiSe 2022/23

Prof. Aglaée Degros,
Prof. Klaus Loenhart,
Eva Schwab,
Patricia Ventura

stdb.tugraz.at

Cases

EXPRESSIONS OF THE PERI-URBAN

- Lissabon - Universidade de Lisboa (Portugal): Social and Micro-Economic Potential
- Helsinki - Aalto University (Finland): Social and Micro-Economic Potential

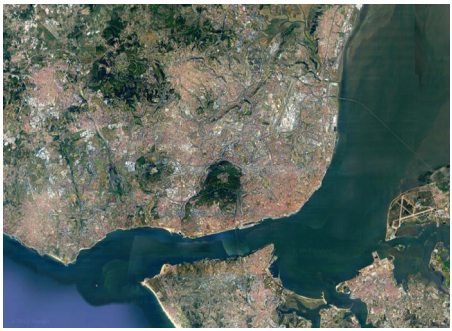
PERI-URBAN AGRICULTURE

- Barcelona - Universitat Politecnica de Catalunya (Spain): Outlining landscape dynamics vis à vis socio-environmental functions
- Glasgow - Strathclyde University (UK): Food System

ALPINE CITY-LANDSCAPE NETWORKS

- Grenoble - INP Grenoble (France): Green Infrastructure
- Turin - Politecnico di Torino (Italy): Green Infrastructure

[01]



[02]

[03]

[04]

[05]

[06]

[01] Barcelona
google.com/maps
[02] Lisbon
google.com/maps
[03] Helsinki
google.com/maps
[04] Glasgow
google.com/maps
[05] Grenoble
google.com/maps
[06] Turin
google.com/maps

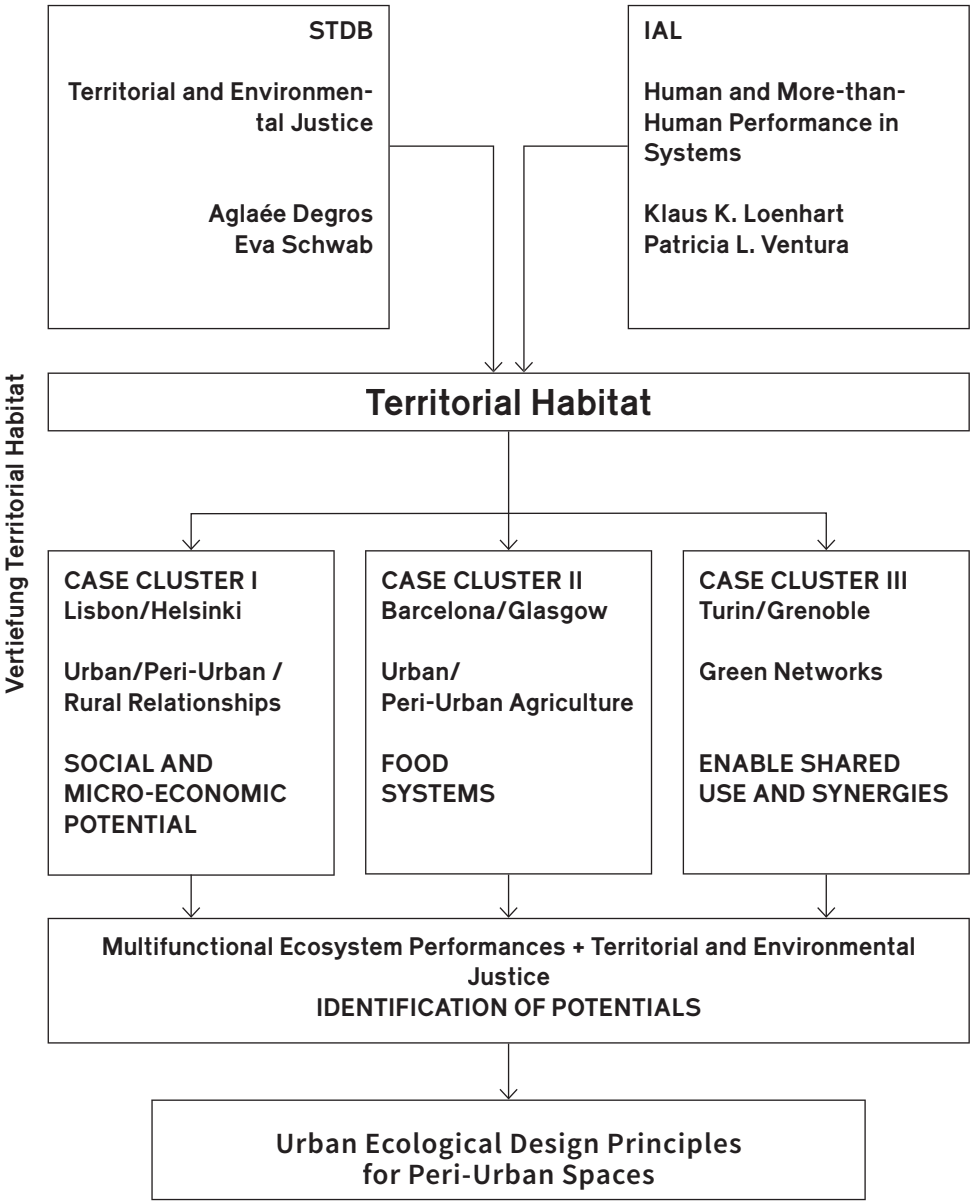
Peri-urban spaces

Vertiefung Territorial Habitat

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

Peri-urban space can be defined as the interface between urban and rural space within the urban envelope, that is, the zone of influence of a city outside the suburbs. Characteristics are, mixed land use (rural and urban), hybrid uses, the expectation of coming development or real estate speculation, a continuous change from productive land use to post-productive land use and related conflicts, sub-optimal institutional structures and weakly developed infrastructures.

Content structure



Academic schedule

Vertiefung Territorial Habitat

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

September

Termin 0
Di. 27.09.2022

Presentation
Q&A

October

Termin 1
Di. 04.10.2022

KICKOFF
Phase 1

Termin 2
Di. 11.10.2022

Desk-Crits
Input 1
9:00am-3:00pm

Termin 3
Di. 18.10.2022

Desk-Crits
Input 2
9:00am-3:00pm

Termin 4
Di. 25.10.2022

Desk-Crits
Input 3
9:00am-3:00pm

November

Termin 5
Di. 08.11.2022

Desk-Crits
Input 4
9:00am-3:00pm

Termin 6
Di. 15.11.2022

Midterm 1
9:00am-4:00pm

Termin 7
Mo. 21.11.2022 till Fr. 25.11.2022

Workshop Week

Phase 2
9:00am-4:00pm

Termin 8
Di. 29.11.2022

9:00am-4:00pm

December

Termin 9
Di. 06.12.2022

9:00am-4:00pm

Termin 10
Di. 13.12.2022

9:00am-4:00pm

Termin 11
Di. 20.12.2022

FINALS
9:00am-4:00pm

— Termin 0: Presentation, Q&A, Enrollment

Phase 1

— Termin 1:
Studio Kick-Off Phase 1: Investigation and Instrumentarium/Vocabulary

— Termin 2:
Human and More-than-Human Performance in Systems I
Territorial and Environmental Justice

— Termin 3:
Human and More-than-Human Performance in Systems II
Territorial and Environmental Justice

— Termin 4:
Human and More-than-Human Performance in Systems III
Territorial and Environmental Justice

— Termin 5:
Human and More-than-Human Performance in Systems IV
Territorial and Environmental Justice

— Termin 6: MIDTERM

Phase 2

— Termin 7: WORKSHOP WEEK

— Termin 8: Design Principle I

— Termin 9: Design Principle II

— Termin 10: Design Principle III

— Termin 11: FINALS

Cluster I

URBAN – PERI-URBAN – RURAL RELATIONSHIPS

Urban areas are characterized by growing urban peripheries. 39.54% of Europe's land surface is covered by areas of intermediate population density Scholars have attempted to frame these phenomena, especially for Europe with different concepts expressing its intrinsic qualities, such as "post-suburban", the "in-between-city", urban intensification, and morphological differences in geographies such as the Zwischenstadt in Germany, Ville territoire in Switzerland, and Cittá diffusa in Northern Italy. These concepts have helped to go beyond the (limited) notion of "urban sprawl" that has shaped both discourse and imaginaries, while stressing specific characteristics that go beyond the traditional rural-urban divide. However, changes in the nature and composition of these spaces can be observed recently, especially where these heterogeneous areas experiencing an increase in social, spatial and landscape fragmentation. This heterogeneous composition incorporates a great variety of functions, such as a wide range of industrial, commercial and business activities while missing a clear identity. This process gives rise to "a fragmentation of society into atomized units without sufficient spatial links to one another." (Madanipour, 2019:47)

LISBON: IDENTIFICATION OF POTENTIAL

Urban greening and access to peri-urban nature areas has become a prevalent tool in the context of climate change adaptation and mitigation in cities, both from a social and ecological perspective. Recent research highlights uneven social and spatial outcomes of such policies, thus stressing environmental justice issues. In this context, Lisbon's greening strategies have been found to be part of a 'green capital' discourse, which falls short of addressing environmental and health justice concerns. This is especially problematic given the city's aging population.

The Metropolitan Area of Lisbon is currently exploring future demands on its peri-urban areas, seeking opportunities that contribute to sustainable social and micro-economic sustainable development at local and regional level. The aim is to create visions for peri-urban areas according to more-than-human peri-urban performances. The understanding of unexplored existing structural and ecological dynamics is central for defining ecosystemic potential provided by various approaches. We aim to identify ecological vulnerabilities; related economic activities, their innovative ecological potential, and evolving needs; so to enhance the quality of life of the urban, peri-urban and rural human population and more-then-human agencies which connect and traverse these various types of settlements.

HELSINKI: EXPRESSIONS OF URBAN – PERI-URBAN

The Finnish population has strongly concentrated in and around the country's urban centres (like Helsinki), where most jobs are found. Recent research demonstrated the heterogeneous nature of neighbourhoods in Helsinki in terms of socio-economic characteristics and pointed to explicit patterns of geographical segregation and associated health inequalities. At the same time, the phenomenon of a (temporal) counterurbanization due to multiple residences, i.e. people spending part of their time in their second home in rural or peri-urban areas, is both linked to being able to increase people's wellbeing and being accessible only to certain strata of the population.

Being one of the most rural countries in Europe, Finland has a strong and conscious urban-rural identity. Throughout the last years the Helsinki-Uusimaa Regional Council has made an effort to update previous regional land use plans. One of the priority plans - The Regional Plan 4 - focuses on five themes: green infrastructure, business and innovation, logistics, wind energy and cultural heritage. The Helsinki-Uusimaa case study reacts to strong pressure of urban growth where new areas for residential purposes are emerging. However, the sustainable goals for densification development, must secure biodiversity and the vital surrounding ecosystem. The integration of green networks and system is imperative to land use planning and decision-making at all levels.

Lisboa [01]

[02]

[03]

[01] openstreetmap.org
[02] http://projectoperiurban.wix.com/periurban
[03] Ortas Urbanas @ Jorge Castro Henriques

Helsinki [01]

[02]

[03]

[01] openstreetmap.org
[02] https://stevenlevourch.smugmug.com/
[03] Ortas Urbanas @ Jorge Castro Henriques

Cluster II

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

URBAN – PERI-URBAN – RURAL AGRICULTURE

Urban and peri-urban gardening has recently undergone a renaissance of interest and popularity. This is the result of greater concern over urban greenspace, food security and quality of life. Urban and peri-urban gardening, however, is not a uniform practice across different territories. While in Europe, a claim to alternative quality food production and distribution chains or to combat the diffusion of 'food deserts' is one of the main drivers, in the global South, urban gardening is often a subsistence practice, closely related to peri-urban agricultural practices.The political nature of these gardening practices, despite not immediately evident, has now been amply demonstrated and documented by scholarly research – stressing that these practices can be interpreted as part of a social movement engaging people in actively shaping their urban environments. Urban planning can be a vector to articulate different forms of power, domination, resistance and alternatives to the current state of unequal distribution of benefits and burdens in space. In this context, urban and peri-urban gardening can be a valuable means for addressing material, political and social exclusion.Urban and peri-urban gardening is a socially and ecologically networked practice, which establishes relations with more-than-human actors, which contribute to the making of urban ecologies.

BARCELONA: OUTLINING LANDSCAPE DYNAMICS VIS À VIS SOCIO-ENVIRONMENTAL FUNCTIONS

Barcelona has seen the negative impacts of the financialization and touristification of its housing market in recent years, with (green) gentrification in the centre and an urban flight to peri-urban areas occurring. City government and urban planning are trying to implement instruments to foreground ecological and social benefits, but recent research shows that low-income and socially vulnerable groups face the greatest barriers to accessing these benefits. Both urban and peri-urban agriculture is influenced by these dynamics, with social and ecological effects showing a huge diversity across social groups.

Sprawling urbanization drives complex relationships between rural areas and the urban periphery, creating new functions for peri-urban agriculture. Although peri-urban agriculture is of interest to urban planners because of its recognized functions, there is a need for conducting in-depth analyses to relate farm dynamics to changes in the peri-urban landscape in different socioeconomic contexts. Since there are currently few specific methods for analyzing the dynamics of peri-urban agriculture, we set out to profile farms and their associated landscape structure in an expanding urban region, the Barcelona Metropolitan Region.

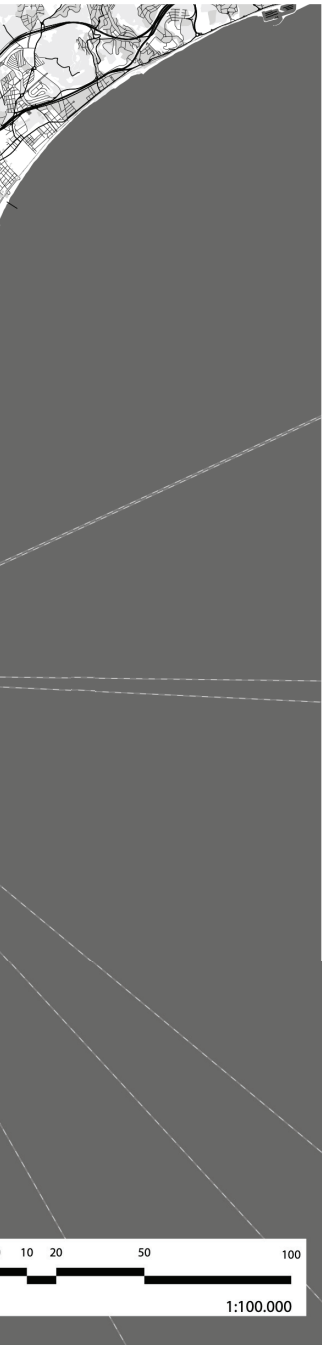
GLASGOW: FOOD SYSTEM

Glasgow counts with one of the highest unemployment rates among UK cities. There are stark socio-economic disparities; with some neighbourhoods showing family/child poverty rate of about 50% and food insecurity being an issue. Within this context, the turn to peri-urban or fringe farming both by city politics and grassroots organisations can be read as aiming at a wider green economic recovery, in which land availability is a major issue and affects especially low-income groups.

Glasgow has identified as main potential for peri-urban integration local organic food farming systems. Thus, in recent years, Glasgow has formulated an ‘Action Plan’ to develop peri-urban agroecological farming types which has grown from participatory process between farmers, researchers, campaigners, council representatives and residents. Having diverse more-than-human food providing systems as initial point of departure, the greater question being explored is how can a growing network of agroecological farms contribute to tackle climate change by sequestering carbon in soils and reducing the greenhouse emissions associated with food production, transport and consumption in the city? In the case of Glasgow, we shall analyze different food system approaches which help answering this question.

Barcelona [01]

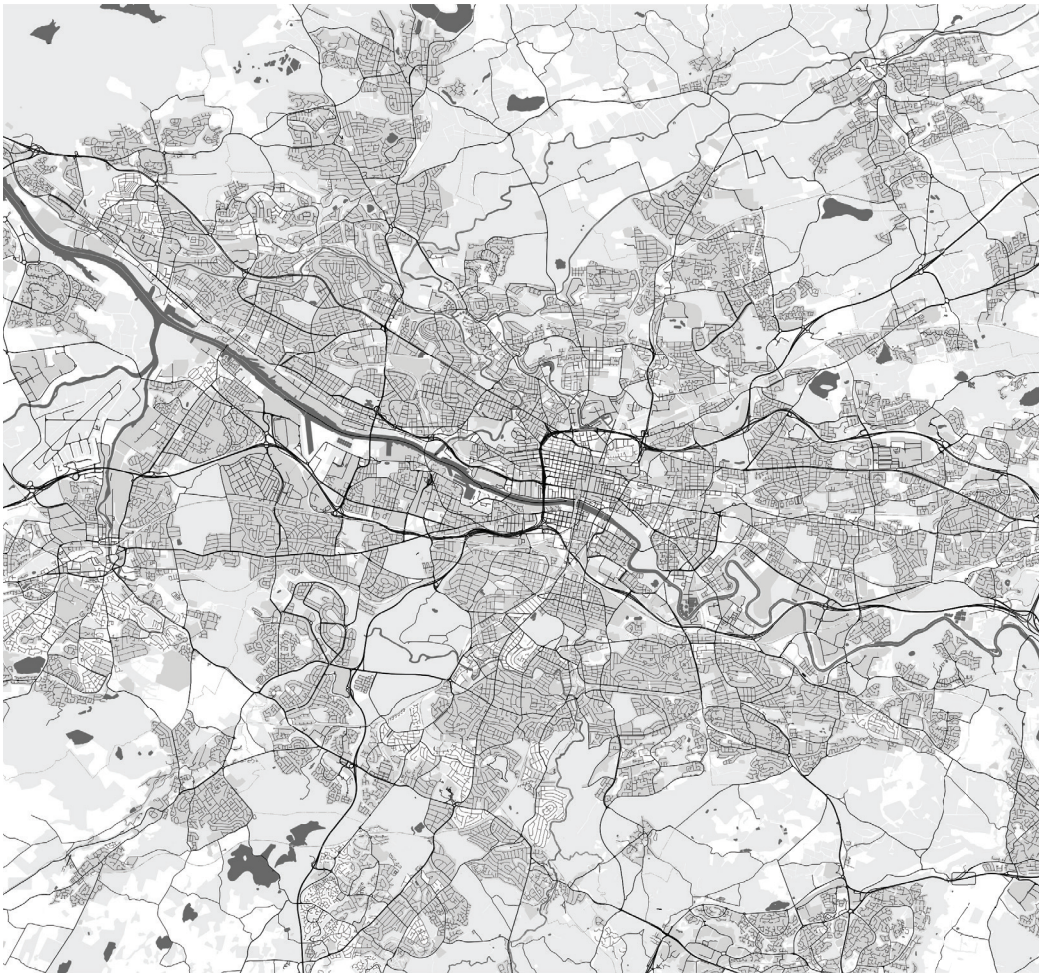
[01] openstreetmap.org
[02] Pere Serra, David Saurí & Luca Salvati. Peri-urban agriculture in Barcelona: outlining landscape dynamics vis à vis socio-environmental functions. Landscape Research,2017 DOI: 10.1080/01426397.2017.1336758



[02]

[03]

[03] Aerial view of some urban gardens in the Poblenou superblock
https://www.barcelona.cat/imatges/es/48/superilla-i-eixos-verds/22007/vista-cenital-de-unos-huertos-urbanos/



Glasgow [01]

[02]

[03]

[01] openstreetmap.org
[02] Social Media Post Local fringefarming action planning meeting! Twitter Account:Shared Assets
[03] Peri-urban land in Glasgow: the potential for food growing and farming https://www.sustainweb.org/publications/jan22-peri-urban-land-in-glasgow/

Cluster III

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

ALPINE CITY – LANDSCAPE NETWORKS

The third cluster deals with Alpine Metropolitan Areas. Surrounded by mountains, by areas of high natural value like heath- and marshlands, by agricultural land and forests, the metropolitan areas in and around the core Alpine region face common challenges related to increasing pressure on peri-urban land. Located at the fringes of urban cores these areas are complex and land use is fragmented, yet their potential for a more sustainable and resilient development is high. The landscapes in these areas are relatively "conventional" and consist mainly of agricultural land in the valleys and forests and meadows in the foothills. Despite recent attempts to restrain growth, the near-urban landscapes continue to be under intense pressure from urban growth. Despite the importance of such areas for a more balanced development, planners struggle to offer effective solutions for their social and ecological enhancement. Conflicts between different users are becoming more frequent. Fragmented ownership patterns and lack of landscape stewardship are pressing issues. What is needed is political commitment, increased cooperation within administrative departments and with stakeholders in order to make these areas more livable and more sustainable.

GRENOBLE: GREEN INFRASTRUCTURE I

Grenoble-Alpes Métropole (GAM) comprises 49 municipalities with a population of around 450,000, spread over 543 km. Around 100,000 people live in the surroundings of the metropolitan area, which is directly linked to the city center and the surrounding natural sceneries: the Vercors, Chartreuse and Belledonne mountain ranges, as well as the two rivers, the Drac and the Isère. The city council of Grenoble has adopted strategic planning to enhance green and blue infrastructure solutions to deal with the city's main quality of life challenges: urban density, heat in the summer and air pollution due to the blocking mountains around. In the newly established green areas, native wildlife as well as stormwater retention are integral part of the design and the city's new eco-districts aim at social inclusion by providing 40% of the housing stock is as social housing. Advanced cycling infrastructure and services have positively influenced the modal split in the city. The effects, however, show that ignoring social and spatial justice as a fundament for these policies prevents already marginalized social groups from benefitting equally. A pilot project is exploring new ways to better respect near-urban landscapes so they can be preserved and valued. Adding social-political components to the pilot project can foster socio-ecological dynamics of inclusion and justice.

TURIN: GREEN INFRASTRUCTURE II

Decisions makers in Turin have opted for adopting nature-based solutions to transform the post-industrial city since more than a decade and so seized the opportunity deindustrialisation and demographic contraction presented: less development pressure on green areas. Policies aim at establishing and improving green corridors, social farming projects, green roofs and walls throughout the city and especially in the post-industrial areas. While these solutions play a major role in providing environmental benefits, the challenge remains to involve citizens of all social strata and to make these benefits available to all. Turin was characterized by distinct patterns of geographical segregation and high deprivation in the industrialised neighbourhoods at the beginning of the 2000s and environmental justice remains an issue until today. As the urban area continues to grow, the Piedmont Region has developed the Corona Verde strategy project, which aims to create a green system of open spaces designed to stimulate biodiversity and other environmental, economic, social, and cultural functions. Corona Verde allows for connections within the city, as well as between the city and the wider countryside. It serves as a test site for a new system of green infrastructure governance.

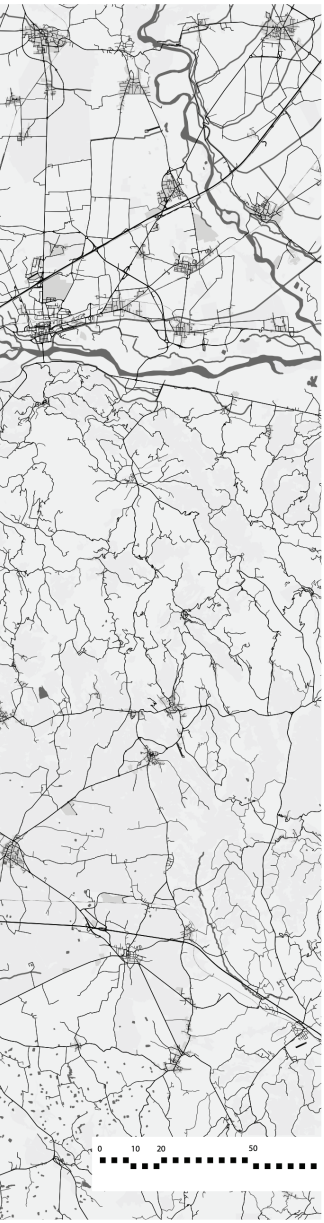
Grenoble [01]

[02]

[03]

[01] openstreetmap.org
[02] Grenoble City overview; https://www.hotel.com.au/gi%C3%A8res/hotelf1-grenoble-universit%C3%A9.htm
[03] Grenoble; Transition: prospective scenarios and action plans / https://www.best-europe.net/en/category/all-meetings/

Turin [01]



[02]

[03]

[01] openstreetmap.org
[02] Planning Peri-Urban Open Spaces: Methods and Tools for Interpretation and Classification
https://www.mdpi.com/2073-445X/10/8/802/htm
[03] Piemont
https://italyxp.com/es/torino-piamonte/tours/4-dias-piamonte-milan

Peri-Urban Spaces

IAL
MORE-THAN-HUMAN SYSTEM PERFORMANCES

The expansive scope of more-than-human life forms and their intertwinements with and within human condition have increasingly begun to attract attention across disciplines and practices. While human commodification of life forms has reached a point of unprecedented disruption of the planet, the frailty of humanity in its interactions with larger ecosystems is becoming apparent. Originally drawn on anthropological research, the recognition of more-than-human agencies and its relevance for almost all human systems disciplines is crucial, especially in regard to spatial disciplines, hitherto still separately categorized. What exactly are more-then-human systems, how do they perform, and what potentials do they offer to converge interrelated aspects of spatial disciplines, as urbanism, landscapes and architecture? We will identify more-then-human systems according to biometeorology as the major interdisciplinary scientific field that studies the interactions between the biosphere and the Earth's atmosphere on time scales related to seasons and shorter time intervals. . Furthermore, the human influence on the natural micro- and macro-climatic conditions are recognized aiming at solutions that minimize negative impacts and harness balanced approaches so to naturally enhance more-than-human system performances.

STDB
TERRITORIAL & ENVIRONMENTAL JUSTICE

In the face of an unprecedented ecological crisis expressed in e.g. climate change, ocean acidification, loss of biodiversity, it is becoming increasingly apparent that the impact of these crises on different social groups and different levels of our territory cannot be generalized.

Thus, it becomes all the more evident that the question of social justice remains central to the conception of sustainability. The discourse of environmental justice offers an interesting starting point to reflect on the impact of environmental harms and environmental goods on diverse social groups and to recognize that territories are neither sustainable nor unsustainable, but rather comprise different socio-economic and socio-ecological processes that negatively affect some social groups while benefitting others. Aiming at working from complex social, political, material, infrastructural connections and dependencies between social and ecological systems, we consider the peri-urban as central to understanding the systemic interconnectedness of both arenas and to discuss and map questions such as: Who makes decisions? How are they made and what methods and processes are used? What values are they based on? What impact do they have on different social groups and on different levels of our territory? in order to define justice challenges in the six chosen case study cities.

Vertiefung Territorial Habitat

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

SHARED SYNERGIES

Under current conditions of climate change, environmental degradation, and disappearing biodiversity, a human-centered view of cities is becoming a growing problem. Not only because it negates the complex social, political, material, infrastructural connections and dependencies between social and ecological systems, but also it forms the basis for an economic system that turns out to be increasingly unsustainable and serving to exacerbate existing social and ecological problems. Thus, taking the complexity of these relationships in both social and ecological spheres seriously means understanding that the interconnections between city and country, between nature and culture, are central to addressing current challenges for our more-than-human settlements. Ignoring this complexity thus increases the fragility of our settlement space in the face of crises. In contrast, the conception of the territory as a complex system of resource cycles reveals interesting design possibilities at a wide range of scales.

This seminar focuses on an expanded more-than-human perspective for cities informed by studies of the Anthropocene in fields such as geography, planning, and design. We will explore how a more-than-human perspective and the ethical, legal, and methodological concerns it raises can shape participatory design practices and policies toward cohabitation and drive a cultural shift for the sustainable cities agenda.

The ideals of activism, civic engagement, and democratization through the co-creation of networked urbanism are here detached from the understanding of urban space as separate from nature and restricted to human inhabitants. By focusing specifically on peri-urban spaces which highlight the transitional boundary between rural and urban territories, we enable a cross-disciplinary understanding between natural ecosystems and the human oriented usage of soil, water, air, plants, animals, minerals, in short, more-than-human agencies at large. Peri-urban spaces, which demarcate the borders between cultural landscapes and urban settlements, provide the opportunity to think both these systems together and rethink the border as such. We aim to identify, map, and articulate environmental dynamics, reaching from the social, micro-economic perspective, to food systems, up to connecting green networks using a territorial approach that surpasses commonly defined city limits as current administrative regulations hardly do justice to this interconnectedness; on the contrary, they diminish the ability of cities and municipalities to respond to challenges. The six chosen case studies allow us to differentiate between various more-than-human systemic performative modes and to identify multifunctional potentials in order to formulate synergies of justice issues and the planning and design of our more-than-human environment.

Design Principles

TERRITORIAL SCALE TO SCALE OF DETAILS

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura

As joint task we aim to develop methodological synergies to create scenarios for each case studies based on the understanding the ecological, urban structural, social, and political dynamics of each case, considering the more-then-human systemic performances provided by each context. As such, we aim at in depth understanding of ecosystem benefits provided by each typology. In addition the analyzed social and territorial condition of urban human structures shall serve as base for the ecological integrated growth in the surrounding peri-urban spaces where transitions occur.

The final phase aims at developing integrated design principles for each context. In light of uncertainty towards future demand on peri-urban areas, we will explore opportunities and possible contribution to sustainable developments at local and regional level through urban ecological concepts.

The innovation of this studio is the articulation of a multidisciplinary approach aiming to recognize the unique nature of peri-urban spaces as a transitional area of diverse disciplines and participative ecological agencies.

We will develop a peri-urban atlas that highlights the opportunity of these territories and their capacity to integrate multiple visions in the spatial planning process. Through the active collaboration of the agencies involved in the transformation of these territories we will develop scenarios as a way to identify the main constraints and potentials, to define a framework for the evaluation of sustainability objectives, and also to identify opportunities for adaptation of policies and planning instruments.

Output and Evaluation

The results of the first and second phase allow the identification of:

- Urban-ecological vulnerabilities and potentials
- Economic activities, their innovative potential, and evolving needs
- quality of life of human and more-than-human community - resident, animals, plants, bio- climatic elements - and their expectation toward future developments;
- governance models and spatial planning systems at local scale,
- assessing its potential for change; especially through expert and stakeholder participation,
- specific challenges that need to be confronted by each peri-urban typology, in terms of the formulation of sustainability quality objectives;

In the third phase we will develop specific urban ecological concepts for each peri-urban area. In order to achieve this goal we will together:

- Foreground a conscious change of perspective: from uniquely human-centered development towards the more-than-human equal valorization and recognition
- Bridge scientific and practical knowledge acquired in analysis and studies from phase1+2
- Communicate our findings in research and translate it into useful and relevant information for planners and decision-makers,
- Develop strategic planning guidelines and governances models with various stakeholders, including the more-than-human dimension into the negotiation by acknowledging their needs and demands.

The work results of the Advanced Studio are evaluated according to the following criteria:

CONCEPT:
- Elaboration of an independent approach
- Integration of the preceding research
- Translation of external information (text, analysis) into a spatial context
- Dealing with complexity
- Programme development
- Vividness, sharpness, logic, congruence, coherence, innovation, complexity

DESIGN:
- Linking of landscape, urban planning and architectural parameters
- Appropriateness of the urban planning idea and regional strategy
- Programme development
- Spatial quality and elaboration
- Inclusion of more-than-human actors
- Response to the socio-economic and bio-climatic context
- Quality and depth of the project

REPRESENTATION:
- Quality, readability and clarity of the presentations
- Quality and precision of oral presentation
- Ability to present and convey complexity

IN GENERAL:
- Continuous cooperation and work progress, regular attendance as well as active participation in discussions.
- Independence and innovation potential of the work

Impressum

VERANSTALTUNG
Vertiefung Territorial Habitat
WiSe 2022/23
Prof. Aglaée Degros,
Prof. Klaus Loenhart,
Eva Schwab,
Patricia Ventura

TU GRAZ
Institut für Städtebau
Rechbauerstraße 12/II,
A-8010 Graz
www.stdb.tugraz.at
facebook.com/stdb.tugraz.at

LV-LEITUNG:
Prof. Aglaée Degros

BILD BACKCOVER
faz.net

TU Graz i a&l

Vertiefung Territorial Habitat

WiSe 2022/23

stdb.tugraz.at

Vertiefung Territorial Habitat

Prof. Aglaée Degros, Prof. Klaus Loenhart, Eva Schwab, Patricia Ventura