[145] Institut für Städtebau

# Seminar for PhD students (doctoral school for architecture) [145.441]

# PhD Day

02.02.23 10am-06pm Halle, Kronesgasse 5 A-8010 Graz

In collaboration with GAM.Labor TU Graz

Institute of Urbanism

stdb.tugraz.at

# PhD Day

with topics including: Digitalisation, Ecology and Participation

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# 2022/23

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- Laboratoria

# PHD-DAY

Carlos Marchi
Stephan Joeris
Max Florian Frühwirt
Petra Kubin

Zeliha Asya Ilgün Patricia Lucena Ventura

Halle Kronesgasse 5

10-18:00

2.2.23

Anmeldung bis 27.1.23 unter: m.haselbacher-berner@tugraz.at

## program

10-10:10am:

Welcome: Prof. Aglaée Degros

10:10-11:00am:

Carlos Marchi

**Digital Architectonics and Environmental Urbanism** 

11:05am-11:55am:

Stephan Joeris

Der 6. Sinn der Architektur

12:00pm-12:50pm:

Max Frühwirt

Today's Kyou-machiya - 今日の京町家 (Kyou no Kyou-machiya)

lunch break 12:50pm-02:00pm

02:00pm-02:50pm:

Petra Kubin

Gründerzeitliche Innenhöfe in Graz

02:55pm-03:45pm:

Asya Ilgün

LIVING ARCHITECTURE FOR HONEYBEES

03:50pm-04:40pm:

Patricia Ventura

The Sensitive City — The Micropolitical Transformation of

**Territories** 

end: approx. 05:00pm

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## topics

#### DIGITAL ARCHITECTONICS AND ENVIRONMENTAL URBANISM

What to do as an architect, spatial designer, urban "planner" living in the age of information (digitality) and global complex challenges? This research departs from this question. It interrogates eventual resonances between buildings' architecture and specific urban dynamics, including ecological, social, and economic factors, in contemporary cities from 2000 to 2020. The idea is to explore a selection of test-cases via digital mapping & informational modeling techniques, articulating distinct computational tools (such as BIM, GIS, and AI) as cognitive augmentation instruments to understand better (comprehend), to know more (discover) and to think differently ("exodic" knowledge) about the implications of architecture over the urban environment and life.

Carlos Marchi Prof. Urs Hirschberg Institute of Architecture and Media (IAM)

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#### **DER 6. SINN DER ARCHITEKTUR**

Die Dissertation beschäftigt sich mit dem sogenannten "6. Sinn" des Menschen, der Propriozeption, welche die Wahrnehmung von Gleichgewicht, Eigenbewegung und Orientierung ermöglicht. Damit schafft sie eine Verbindung zwischen dem menschlichen Körper und dem architektonischen Raum, der in 3 Modi die Propriozeption anregen kann: direkt, durch Affordanz und durch Empathie. Die Arbeit versucht zu ergründen, welche Bedeutung diese architektonische Reizung des 6. Sinnes für die Konstituierung von Baukunst haben kann.

Stephan Joeris Prof. Anselm Wagner Institut für Architekturtheorie, Kunst- und Kulturwissenschaften (AKK)

#### TODAY'S KYOU-MACHIYA - 今日の京町家 (KYOU NO KYOU-MACHIYA) A contemporary study and re-imagining of the traditional Kyōto townhouse

A study into Kyoto townhouses (Kyou-machiya), which are currently in peril, as an archetype and potential inspiration for contemporary building practices. The aim is to create a hybrid inspired by traditional Japanese building practices and understanding of space, combining pre-fabrication and automation with conventional craftsmanship to reduce cost of production while keeping certain qualities alive. It will thus serve as a prototype and re-imagining of the Kyōto townhouse and hopefully provide an alternative between the current options of either, in rare cases, expensive renovation or, much more commonly practiced, tear down and replacement.

Max Frühwirt
Prof. Urs Hirschberg
Institute of Architecture and Media (IAM)

Institute of Urbanism

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#### GRÜNDERZEITLICHE INNENHÖFE IN GRAZ

Graz—it has around 300,000 inhabitants and a surface area of 130 square kilometres. This city's special feature is well hidden and can only be visited by its occupants. It is the existence of inner courtyards that emerged in the Gründerzeit of the 19th century.

These oases of green space are the focus of this dissertation.

It takes as its starting point the urban growth in Graz during the Gründerzeit period and places emphasis on the legal conditions during the construction of the housing blocks. Close attention is paid to the haphazardness and design seen in the emergence of inner courtyards in the course of the urban planning process, which played an important role in this epoch. The relationship between profit gained through site speculation and the health of inhabitants quickly became an area of conflict, and remains so today.

This dissertation also links up with future developments as it prompts discussion on the current situation. Photo documentation makes it possible to focus on the situation of the inner courtyards in Graz today and to establish their potential for influencing quality of life in urban areas. A questionnaire provides a more detailed impression of the ways in which inner courtyards are currently used and a close examination of estate agent advertisements reveals the value of inner courtyards on the property market.

To summarise, this dissertation uses various indicators to highlight the quality and relevance of inner courtyards in Graz. Furthermore, a comparison of urbanisation in Graz with that in other cities makes it possible to identify relevant points that argue for or against development in inner courtyards. Examining the current significance of private inner-city green spaces in Graz makes it possible to depict a trend in their usage. This enables a consideration of possible measures for conserving these spaces. As urban green spaces are an important topic for the future, this dissertation aims to contribute to an improvement of living conditions in this

Petra Kubin Prof. Aglaée Degros Institute of Urbanism (STDB)

## LIVING ARCHITECTURE FOR HONEYBEES An Ecosystem Effective Biohybrid Design Framework

Incorporating non-human species into the built environment's materials, operational scenarios, and intrinsic usage rights is feasible and imperative. Thus, architectural research is highly linked to the life sciences. Given the need to preserve ecosystems, such architectures must work outside the lab, studio, or gallery. My dissertation proposes a holistic design framework for architectural biohybrids that combine artificial life technologies, honeybees, and fungi. This framework renders a theory of biohybrid reconstructivism using multispecies constructionism. The proposed biohybrid re-constructivist strategy provides a design research framework for tackling the complexity of ecosystem embodiment and assessing the ecological effectiveness of living architectures. This framework is the culminating element of this thesis, and it is based on case study findings that were successful or unsuccessful in various ways.

Asya Ilgün Prof. Urs Hirschberg Institute of Architecture and Media (IAM) Prof. Thomas Schmickl Artificial Life Lab, Uni Graz

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### THE SENSITIVE CITY — THE MICROPOLITICAL TRANSFORMATION OF TERRITORIES

The thesis explores individual and civic participation in urbanization processes. Transformative micropolitics enables the expression and negotiation of individual desires in the social field, introducing flexible subjectivities into political processes to foster new forms of socio-political engagement. Lastly, the research asks: How can the micropolitical potential be harnessed for the autonomous self-organization of cities and neighborhoods?

Patricia Ventura Prof. Aglaée Degros Institute of Urbanism (STDB)

## Guests

#### **INSTITUTE OF URBANISM**



Prof. Aglaée Degros



Dr. Eva Schwab



Dr. Radostina Radoluva-Stahmer



Dipl.-Ing. B.Sc. Mario Stefan

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#### **TU INTERN**



Assoc. Prof. Dr.phil. Antje Senarclens de Grancy

Associate Professor at TU Graz after working in the interdisciplinary FWF Special Research Area on Modernism in Central Europe. She was a visiting researcher at several Universities.

DOES

IS

Research on the history and theory of architecture in the 19th and 20th centuries in a social and political context, reform movements of modernism, as well as the relationships and intersections between camps and architecture or urban planning.



Assoc. Prof. Dr. techn. Milena Stavric

IS

Associate Professor at TU Graz. She was a visiting scholar at Harvard University and lectured at several unversities DOES

Reasearch on architectural geometry, new materials, digital methods and presentation, robotic in architecture, parametrical modeling and digital fabrication.



Assoc. Prof. Dr. phil. Günter Getzinger

IS

Professor at TU Graz and heads the Science, Technology and Society Unit (STS), and was co-founder and director of the interdisciplinary Graz Research Center for Technology, Work and Culture.

DOES

Social science research on energy and mobility transition with a focus on philosophy of technology; ethics of technology and sustainable technology design.

2022/23

#### **EXTERNAL GUESTS NATIONAL**



Dr.in Dl.in Martina Majcen (AEE Intec)

IS

Researcher and project manager at AEE INTEC, Gleisdorf after working in architectural offices in Graz and at the Institute for Urban Design.

**DOES** 

Sustainability research with focus on building energy systems and user:inside comfort, zero and plus energy buildings.

## Personal Notes

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Imprint

VERANSTALTUNG PhD Day 2022/23 Institut of Urbanism

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PLACE OF PUBLISHING AND PRODUCTION

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