

**Course Title:** More-than-human-centered design in practice

**Brief Description:** The course provides insight into the field of 'more-than-human-centered' design, including its underlying motivations, theory, evolution, various current design contexts of application, and criticism. Throughout the course, we explore the potential that the built environment holds for non-human urban inhabitants and how urban (public) spaces and places can be welcoming to species beyond humans. Students will work in groups, and the project work will focus on designing habitats (with physical and digital space markers) for non-human species and applying related design strategies - serving as an experiential sustainability experiment and a manifestation of global sustainability principles.

**Course Language** English

**Course Objective or Intended Use of the Product:** The course aims to introduce students to the fundamentals of ecological design and, building on that foundation, to design and create habitats for non-human inhabitants of the campus, moving beyond human-centric design norms. Participation in the course will also help students recognize the intertwined and mutually influential relationship between design and sustainability, as well as become aware of the societal and environmental consequences of design impacts on sustainability.

**Partner (External Partner Name, if applicable)**

Hungarian University of Agriculture and Life Sciences (MATE), ecologists (TBA)

MOME IK Data Storytelling HUB (TBA)

**Implementation Cost** 200,000 HUF

**Source of Financing (Who finances?)** MOME Innovation Center

**Instructor of the Course** Judit Boros ([boros.judit@mome.hu](mailto:boros.judit@mome.hu))

**Minimum Number of Students** 8

**Optimal Number of Students** (the course is advertised at this number) 12

**Maximum Number of Students** 18

**Relevant Fields of Study / Required Competencies**

Architecture, Product Design, Designer-Maker, Interaction Design

**Who is the Course Advertised to?** (BA/MA which field(s), in what proportion?)

BA/MA

**Schedule Timing** Morning, Room Requirement MOME UP Coworking Room, 3rd floor

**Other Notes** The course is built upon a currently ongoing research of the Innovation Center's Data Storytelling Hub. Students have the opportunity to gain insight into the daily routines and processes of research work and, if interested, to participate in research beyond the framework of the course.

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## **2. Course Objective and Principles**

The course provides an overview of the field of 'more-than-human-centered' design, including its underlying motivations, theory, evolution, its various applications and criticisms within current design contexts. Throughout the course, we will explore the potential that the built environment holds for non-human urban inhabitants and how urban (public) spaces and places can be accommodating for species other than humans. We will approach the 'more-than-human-centered' direction as a problem of transition in complex socio-ecological systems, mainly from the perspective of regeneration and sustainability. A repository of design risks, opportunities, compromises, and unsolvable dilemmas. During the course, lectures will be combined with various interactive elements, including group work and tasks, simulation games, and fieldwork. Additionally, students will gain a detailed understanding of the tools and mechanisms of systemic, context- and location-based design (e.g., sustainability indicators, ecosystem services, biodiversity surveys, and monitoring). As part of the design task, we will examine how these can be used to formulate design goals and visions, as well as to create healthy urban places for both humans and non-humans. Students will work in groups, and the project work will focus on designing habitats (with physical and digital space markers) for non-human species and applying related design strategies - serving as an experiential sustainability experiment and a manifestation of global sustainability principles. The course concludes with the presentation of prototypes or models created for the design concepts.

### **Learning Outcomes**

- Students will become acquainted with sustainable design frameworks and will be able to differentiate between them in terms of expected results and consequences. They will understand the contradictions of 'sustainable design' and see the shortcomings of our built environment, and be capable of moving them (in theory) towards sustainability and regeneration.
- They will gain practice in research related to design, systems-based design, and communication, as well as vision creation related to the topic.

### 3. Pathway

#### Topics to be covered in the course:

- Limits of Earth's (ecological) capacity
- Relationship between climate change and biodiversity crisis
- Nature-based solutions and ecosystem services
- Overview of design frameworks (sustainable, circular, ecological, and regenerative design)
- More-than-human-centered design
- Biodiversity values, assessment, monitoring
- Placemaking and urban habitat design
- Data storytelling

#### Methods and tools applied during the course:

- more-than-human-centered placemaking methodology and toolkit
- Non-human personas
- design research
- regenerative design

#### Learning organization/process peculiarities:

**Course structure, nature of individual sessions, and scheduling** (indicating the division of teacher involvement, in case of multiple teachers): 12 sessions

Weekly lecture with the course instructor and invited experts, followed by guided workshops for concept development, and weekly consultation sessions with IK researchers and, if needed, experts:

- Introduction and theoretical foundation (1)
- Expert lectures (3)
- Design workshop: more-than-human habitat concept design (4)
- Prototyping and modeling (4)

#### *Tasks and responsibilities of students:*

- Mandatory reading/viewing of a chosen literary/film work related to the relationship between humans and nature Short essay (~200 words) related to the chosen film/literary work and the course topic for the first session: What interests the student about this?
- Research on a chosen animal/plant species' lifecycle and exploration of the possibilities provided by the built environment: demonstrating complex thinking and a critical approach to the gathered data and processes

- Design of a creative habitat concept, including sketches of the habitat and its supporting environment, as well as its spatial representation (place marker)
- Evaluation and selection of design ideas through regular (short) presentations and consultations
- Prototype using chosen tools
- Presentation of the final result

**Learning environment:** In the Innovation Center Coworking space on the 3rd floor, occasionally on the campus

#### **4. Assessment**

##### **Requirements to be fulfilled:**

- Textual and visual presentation of the creative process leading to the design of an environment or product that aids the chosen animal/plant species' lifecycle
- For the final presentation, the more-than-human-centered habitat concept must be completed, presented live by the student or team.
- Additionally, it should be presented through a prototype created using chosen tools
- Minimum of 2 images and accompanying text to be shared on social media platforms

**Assessment method:** Assessment based on the presentation and submitted materials. Personal attendance during classes and workshops (or absences) will also be taken into account.

##### **Assessment criteria** (what is considered in the assessment):

- The extent to which the task solution aligns with the assignment: how deeply the designer or team explored the life cycle and capabilities of the given species in terms of design, and how they can apply them in the design process.
- The pragmatic, usable yet provocative and thought-provoking quality of the presented concept.
- The visual quality of presenting the concept.
- The level of detail and quality in developing the prototype.
- Overall view of the design study – presentation of the concept, its visual and verbal communication, etc.

##### **Components of the semester grade:**

- Attendance in classes, active contribution to discussions, workshops (40%)
- Course project (concept design and realization) (40%)
- Final presentation (20%)

##### **Required literature:**

You must select either a film that deals with the relationship between humans and nature, or a literary work.

Recommendations:

- The Hidden Life of Trees (2020)
- Planet Earth (2006) – BBC TV series
- David Attenborough: A Life on Our Planet (2020)
- March of the Penguins (2005)
- The Salt of the Earth (2014)
- My Octopus Teacher (2020)
- All That Breathes (2022)
- The Elephant Whisperers (2022)
- Whale Rider (2002)
- Kiss the Ground (2020)
- Dolphin Man (2017)

OR

You must select a literary work that deals with the relationship between humans and nature.

Recommendations:

- Bill Laws (2010) 50 Plants That Changed the Course of History
- Peter Wohlleben (2021) The Hidden Life of Trees
- Helen Bostock - Sophie Collins (2012) How Can I Help Hedgehogs?
- Douglas Adams - Mark Carwardine (2000) Last Chance to See
- Jonathan Franzen (2019) The End of the End of the Earth
- Elizabeth Kolbert (2016) The Sixth Extinction
- Lucy Cooke (2019) The Unexpected Truth About Animals
- Robin Wall Kimmerer (2015) Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants
- Robin Wall Kimmerer (2021) Gathering Moss: A Natural and Cultural History of Mosses
- George Monbiot (2022) Regeneration: Feeding the World Without Devouring the Planet
- Joshua Trey Barnett (2022) Mourning in the Anthropocene

**Other information:** The course is based on one of the ongoing research projects of the Innovation Center Data Storytelling Hub. Students have the opportunity to gain insight into the daily life and processes of research and, in case of deeper interest, to participate in research work beyond the course.

**Consultation times and location outside of class:** Thursday afternoon, MOME UP 314

12 sessions:

1 - Theoretical foundations

2 - Theoretical foundations

3 - Theoretical foundations

4 - Theoretical foundations + start of concept creation

5 - Workshop

6 - Workshop

7 - Workshop

8 - Workshop + end of concept creation

9 - Consultation

10 - Consultation

11 - Consultation

12 - Final presentation