NYU | TANDON SCHOOL OF ENGINEERING

INTEGRATED DESIGN AND MEDIA • TECHNOLOGY, CULTURE & SOCIETY

DM-GY 9201 C | Special Topics in Integrated Design & Media | Fall 2023

Fridays 11am-1:50pm, September 6th to October 20th, 2023
Brooklyn Navy Yard, Bldg 22 Room 303
3 credit hours

MULTISPECIES THEORY:

DESIGN FOR THE MORE-THAN-HUMAN

Instructor:

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Office hours:

In person: Fridays 2-3pm Brooklyn Navy Yard, Bldg 22
Virtual: https://calendly.com/ehenaff

Course materials:

Google Drive



Introduction

Multispecies theory is the rapidly growing paradigm that sustains that all practices of design, even if aimed for human users or audiences, implicitly impact non-human species: those we can see in our nearby environments, and those invisible or in environments far away. In this course, we will read from theorists who discuss feminist, intersectional, and multispecies approaches and apply those to design practices such as form, function and user experience. We will visit multiple current art exhibits in New York City institutions and learn to appreciate and critique contemporary art trends from a multispecies perspective. The class will take one "lab" field trip to learn how to extract DNA from soil microbiomes. Students will produce a media artifact (i.e. zine, podcast ...) as a reflection on class topics for their final project.

Learning Objectives

By the completion of this course, students will be able to:

- understand basic tenets of feminist and intersectional approaches to design
- understand the current state multispecies theory and how it applies to art, design and user experience
- gain experience applying these methodologies to critique contemporary practices

- develop critical thinking skills to assess the impacts of design paradigms on more-than-human actors
- produce a media artifact as a final project

SCHEDULE

Week 1 - defining terms

Topics Covered

- what is feminism
- what is intersectionality
- what is more-than-human
- politics of academic writing

Readings (done in class)

- Pollution is Capitalism by Max Liboiron (introduction)
- Science, Facts and Feminism by Ruth Hubbard
- Feminist Theory by bell hooks

Assignment 1 (done in class)

Optional Readings:

- Agential Realism by Karen Barad
- Bodily Natures by Stacy Alaimo

Week 2 - what (multi)species? biology is queer AF

Topics covered

- species: from micro to macro

- queer ecologies
- symbiosis as evolution

Readings (to be done before class)

- Gathering Moss by Robin Wall Kimmerer (Chapter 5: Sexual Asymmetry and the Satellite Sisters)
- Symbiotic Planet by Lynn Margulis(Chapter 1: Symbiosis Everywhere)

Assignment 2 - DUE

Optional Readings:

- Understanding Microbial Multi-Species Symbioses by Ines Aschenbrenner et. al.
- The Holobiont Concept before Margulis by Baedke et.al.

Shows to go see:

- Mire Lee: Black Sun @ New Museum

Week 3 - "harnessing": exploitation, reciprocity, stewardship and care

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Topics Covered

- directed evolution and domestication
- green revolution
- microbial production
- how do you relate to organisms who perceive the world differently?
- ethics of animal stewardship and domestication

Readings

- Braiding Sweetgrass by Robin Wall Kimmerer (Chapters: "Learning the Grammar of Animacy", "The Three Sisters", "The teachings of grass")
- The Companion Species Manifesto by Donna Haraway
- Grandin, 1980 Observations of cattle behaviour applied to the design of cattle-handling facilities

Assignment 3 - DUE

Optional Readings:

- Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior by Temple Grandin and Catherine Johnson

Show to go see:

- Art of Native America @ The Met

Week 4 - when evolution doesn't happen fast enough: ecologies and the Anthropocene

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Topics covered

- politics of conservation
- evolution in the context of the anthropocene
- anthopocentrism and environmentalism

Readings:

- The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins by Anna Tsing (Part II: Chapters 4-10)
- Ikechi Mgbeoji: Global Biopiracy: Patents, Plants and Indigenous Knowledge by Ravi Srinivas Krishna (Chapter 2)

Assignment 4 - DUE

Shows to go see:

- You are Here @ MoMA
- Emerging Ecologies @ MoMA

Week 5 - Multispecies futurism

Topics covered

- synthetic biology and ecosystem engineering
- pluriverse and worlding

Readings

- The Botany of Desire by Michael Pollan (Chapter 4 Desire: Control / Plant: the Potato)
- The Carrier Bag Theory of Fiction by Ursula Le Guin
- Ciencia fricción: vida entre especies compañeras by Maria Ptqk (introduction)
- Emissaries' Guide to Worlding by Ian Cheng

Assignment 5 - IN CLASS

Shows to go see:

- Cento @ The Whitney Museum

Week 6 - workshop / field trip

- DNA extraction at the Gowanus Canal
- or museum visit if weather is bad

Week 7 - final presentations

Assignment 6 (final assignment) - DUE

ASSIGNMENTS

Weekly assignments will consist in:

- in class reading responses
- short design assignments
- responses to museum visits

Final presentation will consist in a media artifact representing the synthesis of one of the topics presented in class.

More details in Assignments

Grading

Students' overall grades will be a mixture of weekly assignments, reading responses, attendance, participation, and the final project. Participation consists in asking or responding to questions in class, and/or submitting questions by email to the instructors before class.

assignment	points
assignment 1	10
assignment 2	10
assignment 3	10
assignment 4	10
assignment 5	10
final project	25
reading discussion	25
total	**100**

Community Code of Conduct

Attendance

Unless otherwise noted by the instructors before class, all classes will be in person. Students are required to attend every scheduled class meeting, participate actively in class discussions, and prepare and present individual and collaborative projects throughout the semester. Absences and late arrivals are disruptive and inconsiderate to

the rest of the class and will lower your grade. Faculty members may fail any student who is absent for a significant portion of class time. A significant portion of class time is defined as four hours of class time for a seven-week course. Lateness or early departure from class resulting in missing 20min or more of class may also translate into one full absence. Tardiness less than 20 minutes will be penalized at 1 grade point per 5 minutes. The instructors and NYU are supportive of the diverse religious adherences of our student body, and absence to observe religious holidays will not be penalized, however the students should give prior notice.

Responsibility

Students are responsible for all assignments, even if they are absent. Late assignments, failure to complete the assignments for class discussion and/or critique, and lack of preparedness for in-class discussions, presentations and/or critiques will jeopardize your successful completion of this course. Late assignments will be penalized one point for each day late.

Participation

Class participation is an essential part of class and includes: keeping up with reading, assignments, project development, contributing meaningfully to class discussions, active participation in group work, and coming to class regularly and on time.

Critiques

Every student is expected to participate in critiques and class discussions. Critiques are essential to the design process inside and outside of this class. You are expected to apply critical thinking, ask questions, and formulate and explain your opinion. The more active the discussions we have the more rewarding and ultimately fun the class will be.

Electronic Devices

Use of electronic devices (phones, tablets, laptops) is permitted when the device is being used in relation to the course's work. All other uses are prohibited in the classroom and devices' sounds should be turned off before class starts.

Use of AI supported tools in the classroom

We will explicitly use some AI based tools (ChatGPT, Bard, etc) as part of the creative process for some assignments. However, unless specified in the rubric of the assignment, content generated by AI based tools is not allowed to presented as original homework by the student. Penalty for misuse is losing all points on the assignment.

Academic Accomodations

If you are a student with a disability who is requesting accommodations, please contact New York University's Moses Center for Students with Disabilities at 212-998-4980 or mosescsd@nyu.edu. You must be registered with CSD to receive accommodations. Information about the Moses Center can be found at http://www.nyu.edu/csd. The Moses Center is located at 726 Broadway on the 2nd floor.

If you are experiencing an illness or any other situation that might affect your academic performance in a class, please email the Office of Advocacy, Compliance and Student Affairs: eng.studentadvocate@nyu.edu.

Statement on Inclusion

The NYU Tandon School values an inclusive and equitable environment for all our students. I hope to foster a sense of community in this class and consider it a place where individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations, and abilities will be treated with respect. It is my intent that all students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. If this standard is not being upheld, please feel free to speak with me.