23640 : MBL 549E Spring 2021-2022

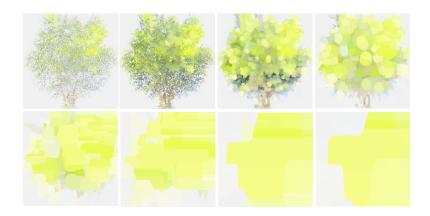
Special Topics in Architectural Design Computing

Digital Topographies of Form

@ ITU Architectural Design Computing Program

Course Date: Monday @13:30-1630 Class | TBA
Course Coordinator: Asst. Prof. Dr. Ayşegül Akçay Kavakoğlu

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from tree to fields1

Course Description:

The course examines past and contemporary digital design theory and practice approaches to enable a critical discussion on the current state of digital design, computation and representation concerning the quest of the form in design and architecture. It focuses on the evolving meanings of form by discussing the paradigmatic shifts in architecture that occurred

¹via technological developments. The course covers critical discussions on the topics such as morphology, topology, computation and aesthetics concerning form generation, representation and production. Reading materials cover book chapters and research articles by architects, researchers, and designers. Workshops and guest speakers will support the course to foster the discussions.

Course Objectives:

To introduce the related terminology, historical background and current debates related to digital design, form and architecture research trio, to initiate a questioning and discussion on the state of form concerning digital design theory and praxis.

Course Learning Outcomes:

- 1. Ability to understand the basic terminology on digital design theory and practice in design
- 2. Ability to gain knowledge on development of digital design theory and practice in architecture
- 3. Ability to gain knowledge on evolving meanings of form in digital design theory and practice in architecture
- 4. Ability to develop a critical thinking on generation, representation and production of form in digital design
- 5. Ability to develop a critical thinking towards contemporary approaches in digital design and architecture
- 6. Ability to develop a critical reading and writing process in design research

Evaluation Criteria:

Each week, students will be assigned to read articles and write commentaries linked to the weekly topics. Class often begins with a round table discussion, followed by lectures or presentations. Students have to attend 70% of class hours during the semester.

Students will be evaluated according to their performance in the class and final paper submission. Midterm grades (40%) will be based on participation, commentaries and discussions. 60% of the final grade will come from students' papers.

¹ The title of the figure "From tree to fields" refers to Stan Allen's text "From object to field: Field conditions in Architecture and Urbanism. In: AD (Architectural Design) 67 n.5-6, 1997, pp.24-31.

| W01 | Introduction | 21.02.2022 |
|-----|-------------------------------|------------|
| W02 | Definitions: What is Digital? | 28.02.2022 |
| W03 | Theories and Ripples | 07.03.2022 |
| W04 | Quest of the Form_part1 | 14.03.2022 |
| W05 | From Cell to City | 21.03.2022 |
| W06 | Quest of the Form_part2 | 28.03.2022 |
| W07 | The Rerise of the Digital | 04.04.2022 |
| W08 | The Math of the Form | 11.04.2022 |
| W09 | The Image of the Form | 18.04.2022 |
| W10 | The Form of the Image | 25.04.2022 |
| W11 | HOLIDAY | 02.05.2022 |
| W12 | Aesthetics of Form | 09.05.2022 |
| W13 | Form & Matter 1 | 16.05.2022 |
| W14 | Form & Matter 2 | 23.05.2022 |
| W15 | General Discussions | 30.05.2022 |
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