Det Kongelige Danske Kunstakademis Skoler
for Arkitektur, Design og Konservering

Undervisningsplan 2022/2023

Programme: Architecture and Extreme Environments

Title: Investigation and fieldwork

Semester: 1. semester

Semester Theme: Concept and Medium - Theory and Method

Period:

ECTS-points: 30

Contents:

The programme aims to develop a site-specific, technological and artistic understanding of architecture, as a response to present and future global challenges, including those defined as UN Global Goals. The first semester will centre on the understanding of the context/theme/site and its relevant challenges in habitation and the built environment. The semester's work is divided into the phases; Information gathering, Prototype, Fieldwork, Program, Formalization and Communication. The fieldwork revolves around the testing of prototypes and their hypothesis, designed to explore a certain theme and/or survey a chosen site. Emphasis is given to an understanding and positioning of the formal and artistic implications of the prototypes in the given contexts and how it can instigate a dialogue with its surroundings and a collaboration with local communities. These exercises will culminate in the formulation of a preliminary architectural program while on-site. The main formats of engagement during this semester will be academic, artistic and technological investigations, sketching, manufacturing, written work, on-site field exploration, collaborations with practices and manufacturers both at home and abroad, and group work. A theoretical positioning is a pivotal part of this program, which translates into a continuous series of reading and writing activities focused on critical thinking.

Tasks:
- Mapping of data and fact collection of the context in question through relevant literature, drawings and other sources. Work in groups. Use of relevant research methodologies. Final information processing presented in A2 format as infographics.
-Formulation of scientific hypothesis to be tested by a prototype.
-Formulation of artistic positioning defining the prototype's aesthetics.
-Formulation of social engagement strategies to inform the prototype.
-Formulation of unexpected factors that the prototype should respond to.
-Continued reflection and exercises on theoretical fields through the Critical Thinking course.
- Drawings and other relevant representations exemplifying details and performance of the prototype in 2D and 3D as well as through simulation software.
-Manufacture of the prototype through digital manufacturing, design and performance measurements and aesthetic considerations.
-Design, test and manufacture a 1:1 functioning prototype that explores critical relationships between artistic design, performance driven design and site-specificity.
-To inform the 1:1 prototype thorough engagement with manufacturers, experts local knowledge and state of the arts.
-To test (min 4 tests) the prototype on site and derive, record and assess the results, while utilizing the prototype to engage and survey the context towards the development of an architectural program.
-Written preliminary architectural program.
-To produce a portfolio which is a comprehensive and reflective semester work presentation.
-Production of a video documenting the fieldwork.
-Written work; scientific report.
-Physical curating and manifestation of the semester work in exhibition format.

Learning Outcomes (Knowledge, skills and competences)

Theory and Method

-Knowledge of critical thinking methodologies.
-Knowledge of applied research methodologies.
-Knowledge of academic, artistic and practice-based methods.
-Knowledge and critical approach to site-specificity.
-Skills in searching, selecting and assessing relevant data and state of the art.
-Skills in applying and using relevant measuring tools.
-Skills in detailed simulation and assessment of architectural performance.
-Competencies in argumentative project development in relation to the defined tasks.

Concept and Medium

-Knowledge of technologies/sciences related to the theme, and how they can be applied to enhance architectural performance and inform spatial design.
-Skills in digital and analogue design and manufacturing of prototypes.
-Skills in representation supporting design strategies.
-Competencies in design of prototypes that allow for a precise on-site study of selective parameters and engages sociallty, artistically and scientifically with the context.
-Competencies in collaborating with manufacturers, experts and local communities towards developing prototypes and investigating performance and impact.

Professional progression

During the master programme's four semesters, the learning goals connected to the eight central themes set in the associated study regulations, are managed through professional progression, with each semester having a specific, but not exclusive, focus on a selection of themes. The progression is ensured through increased requirements to the level of each students knowledge, skills and competencies.

Courses: Time Based Representation: Aesthetics and performance through the lens, Sensing the Environment, Arts and Science seminar, Scientific Methodology, Critical Thinking seminar, Wood and metal workshop introduction, Library course, Adobe Premier and After Effects course. QGIS course.	
Attendance requirements: Students are epected to attend all lectures, workshops, fieldwork activities, reviews and tutorials and be on time.	**Submission requirements:** 1.Infographic A2 page (printed and digital). 2. Comprehensive design portfolio of all semester's work and project development. (printed and digital) 3. 1:1 working prototype. 4. Presence and verbal presentations for each review. 5. Comprehensive printed material at relevant scale for pin up for each review. (printed and digital) 6. Video of project/prototype (max 3 minutes, digital video file). 7. Written scientific report. (printed and digital) 8.Preliminary architectural program. (printed and digital) 9. Three page booklet template. (digital)
Syllabus: 200 pages minimum (titles given in the semester plan).	**Method of assessment:** Oral examination **Grading**: Danish 7-point grading scale **Censor**: Internal