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Performative Tectonics

Cultural Parks as Regenerative Infrastructures

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Tectonics in architecture relates to the science of construction. Yet the notion of Tectonics raises construction to an art form, through the symbiosis of technical requirements and creative design. Studio 12 explores fields of transdisciplinary research, addressing art, design and engineering. Combining building science and artistic processes, the Studio becomes a laboratory of pedagogical tools, supporting students to learn by making, design by testing and explore by research. The building systems produced in Studio 12 over the last 3 years compile an atlas of tools and craftsmanship, creating a valuable collective document of cultural heritage preservation, environmental impact and socially sustainable principles. The Studio has been working on complex social landscapes and ecological infrastructures exploring material innovation, cultural development and new human geographies. The discussion about the timing of architecture is always present: from the fascination for fast-assembly dynamic structures to mindful regenerative infrastructures of legacy. The research projects get deep into how buildings stand, operate, age, dismantle or disappear, pass away or degrade. Active geometries, regenerative patterns, material ontologies and fabrication systems open up for a fresh approach to sustainability, reviewing the physical and digital limits of architecture as an advanced creative discipline. The studio agenda will develop new architectural languages, exploring tectonic expressions with particular attention to understanding how buildings and infrastructures perform socially and environmentally.

Studio Agenda

Geopolitical, social, and environmental concerns will be the context of our exploration during the year, where we will test infrastructure for engagement able to host life of humans and non-humans species. The studio will operate as a support for advocacy projects focusing on social and environmental reengineering. The studio starts by analysing pattern geographies: territories, ecologies, industries and regional inhabitation, addressing how they can be affected by architecture and spatial design from the molecular to the planetary scale. Students will generate architectural and territorial design proposals, developing supportive infrastructures and regional visions. Studio 12 stands on a strong technical agenda. The project in the Fall term will concentrate on temporal devices of engagement, explore flexible components, fast assembling logics and the underlying mechanics of materiality. In the Spring term, these will be developed into complex living systems, leading to new socio-ecological models of inhabitation. These complementary agendas will provide a wider understanding of available human and environmental resources and technological possibilities.

Studio Methodology

The studio will implement a methodology of learning by making, thereby integrating new knowledge into a practicable design proposal. The studio will implement preparatory technical and professional research and studies through experimentation and testing. The Studio operates as a research platform combining digital and analogical design methods, using open-source technologies and traditional building techniques. The studio will develop a comprehensive number of physical models, mock-ups, and prototypes, building a library of experiments able to lead the research progressively to a fully resolved design. Through a continuous dialogue between artistic production and technical expertise the projects will be developed in a holistic comprehension of the science and craft of building. Through a continuous dialogue between artistic production and technical expertise the projects will be develop in a holistic comprehension of the science and craft of building.

