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Metabolic Architecture: Growth and Decay

Designers continually pivot between that which is rooted in rational intention and that which is intuitively generated. Teaching and learning in the early phases of architectural design benefits from both approaches. The balance an instructor strikes between teaching a proscribed set of exercises and encouraging the student's self-discovery of design is truly a matter of agency. Letting go of the illusion of control, we could explore methods of inducing students to create generative processes more attuned to complexity.

The pedagogical approach for a beginning graduate architecture design studio serves as a provocative example of framing design education as a dialogue and back-and-forth between instructor and student, and between thinking and making. Over the course of three weeks, students were tasked with designing, fabricating, and operating a full-scale installation "demonstrating qualities of growth and decay as a means of exploring architecture's agency as an active participant with its expanded ecosystems." What is a first-year student to make of this? As a team, and with guidance from the instructor, they explored a set of ideas rooted in architecture's myriad contingencies, including indeterminacy and a deep interest in living forces that shape the built environment. The result is a shelter changing perpetually—growing with the addition of new materials as scripted by the students, decaying in response to wind and rain. The architecture's metabolism links designer, fabricator, and occupant with site complexities—weather, gravity, spiders, mold, neighboring studios—some predicted in advance, and some emergent or made visible by the project itself. The process invites students to suspend disbelief, to explore material agency, to invite time as a partner, and to explore a form-making process allowing space and enclosure to emerge and evolve without being fully preconceived through typical representational methods.



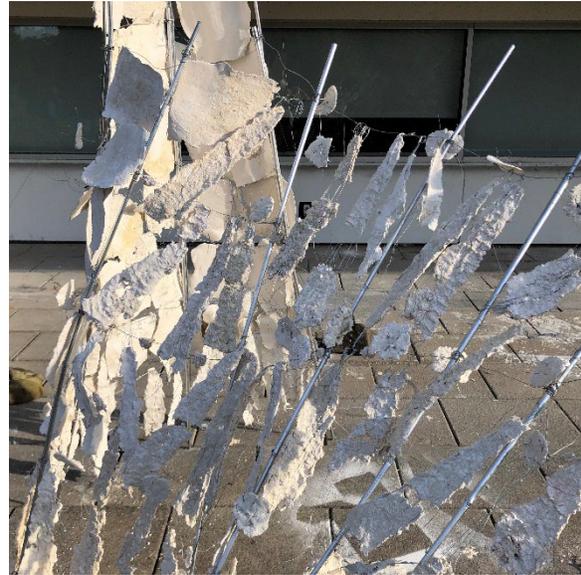
Scripting a Perpetual Architecture: Our expectations of performance (already sensitive to how buildings behave post-occupancy) should value the processes of production as being equally significant to the architectural outcome.

Maintenance Practices: Designing around materials that actively decay at different rates, the designer/fabricators continually tend to the development of this architecture, which is understood to never be “complete.”

Generating Atmosphere: Architecture’s capacity to constructively engage the atmosphere of its site, and also to actively generate its own influences in the production of atmosphere, are key objectives of this work.

Material Behavior: Material research reveals the potential to explore materials actively evolving with the environment on an accelerated timeline.

Embracing Indeterminacy: The fabrication and construction process should influence how spatial intentions evolve into the realized structure.



Assuming Agency, Sharing Agency: Pedagogically, projects like this allow students to work in a continual dialog between intuition and outcome, continually developing the architecture through a careful choreography of action/reflection/reaction. This helps them assume responsibility and a more active voice in establishing the parameters of design. At the same time, studying architecture's contingency and dependence on outside forces opens up ways of sharing agency with many more aspects of the project's expanded site, seeing architecture as part of a complex ecosystem, characterized by hybridity and flux.