



(Top left: Intermediate plant stages, *Metamorphosis of Plants* (Goethe); Top right: Fabric form plaster casts (Naomi Frangos studio); Bottom: *Fig Machine*, production/detail (Naomi Frangos)

## Coevolutionary Archetypes

FALL 2019 OPTION STUDIO  
VISITING ASSOCIATE PROFESSOR NAOMI FRANGOS

In his 1790 treatise on botany, *Metamorphosis of Plants*, Wolfgang Von Goethe's scientific understanding of "dynamic archetypes" focused on transformation and evolution rather than fixed forms and species. In current parametric design trends, this ideology can be seen as analogous to custom repetitive manufacturing of architectural or structural components or assemblies that aim to achieve variability in production, often for aesthetic results. The challenge remains to balance cost-efficiency and re-usable effectiveness while maintaining design inquiry embedded in the technique itself.

Inspired by phenomena found in nature, this research-creation fabrication-based studio explores symbiotic relationships and metamorphic states in the making process through coevolutionary and generative relationships between transformable molds and cast elements. As casting is no longer a process of replication (Chandler, 2017), employing this technique offers opportunities for both form-finding and form-making to occur. Tools and processes are informed by experiments in metal, plaster, concrete, ceramics or glass, blending analog and digital modalities to revive humanism in the machine, and allowing for material intuition to have agency - with craft at the core.

Small-scale iterative studies test the limits and possibilities of materiality without a pre-determined final scale in mind. Focusing primarily on the design of formwork that is transformable shifts the formal dialogue to include both positive and negative realms. 1:1 prototypical generations of forms are produced that can exist as individual serial or relatable details, or aggregate as an architectural structure / surface. The group work comes together as a curated installation, placing the archetypes in dialogue with site specific installations inside, around, or just outside the school to create a spatial experience composed of fragments. When moving through the building, their memory is experienced as a whole.

Familiarity with 3d modelling software is highly desirable. Prior shop knowledge and successful safety training is required. A field trip(s) to Corning may occur sometime during the week of September 21-29.

CORNELL AAP DEPARTMENT OF ARCHITECTURE