

Cultivated Form

Excessive Efficiencies or Efficient Excesses

In the essay "Our Biotech Future" Freeman Dyson argues that it is now biology and not physics that is the dominant science based on budgets, workforce, and output of major discoveries. More importantly the twenty-first century will be dominated by biology because of economic consequences and ethical implications. As a result, the gap between conceptions of natural and artificial will completely dissolve.

Botany has been a key science in the development of evolution. While Darwin had it mostly right, he believed that parents passed on adaptations acquired during their lifetimes. It was a monk from Brno, Gregor Mendel that developed the initial theories of inherited traits after 12 years of systematic investigations of peas. And not until early 1900, Hugo de Vries a Dutch botanist brought the two theories together to develop the basis for our understanding today.

While science offers one understanding of plants, Michael Pollen's *The Botany of Desire*, looks at flowers from a cultural perspective. He argues that natural selection gives flowers the ability to communicate with other species through their visual, olfactory, and tactile devices. Most flowers are no longer driven by natural forces but are cultivated, the passage of their traits decided by human hands. The beauty and fragility of the flower is another reminder about the ambiguity between natural and artificial.

The studio will look beyond the discipline of architecture to biological / botanical processes, structures and forms. We will investigate the richness / robustness of variation, mutation, and adaptations within the plant kingdom. We will tap in to the resources of the University, working with evolutionary biologists and curators from the herbarium to help us understand what we see and aid in the formal translation. The studio will use the plant models to develop parametric, procedural, and associative understandings, translating these observations into dynamic digital models. The studio will cultivate / cross-pollinate various formal and organizational strategies.

As a means to more tightly frame the conceptual and material focus, the studio will be looking into the specifics of wood structures. The studio will be coupled with Professor von Buelow's *Wood Structures Seminar (ARCH544)*. Both the studio and seminar will be exclusive to the team of students registered for the studio allowing for the two classes to play off one another and develop an integrated model of teaching.

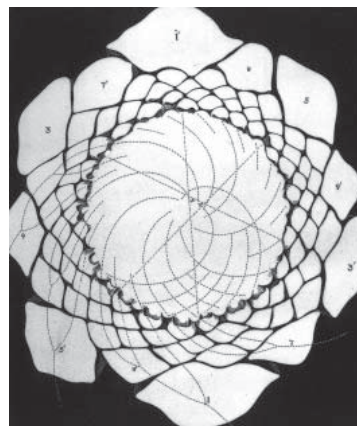
Because of broader interest in the synthesis of plant and building, natural and artificial, art and science the studio will be traveling to and working with the New York Botanical Garden. The studio will be developing a series of wood structures to accommodate various functions for event spaces, exhibition space, public amenities, and outdoor kitchen and dining facilities for the upcoming *Edible Gardens* show that will open this summer.



Ophrys apifera



Nepenthes distillatoria



Dipsacus fullonum



Dionaea muscipula