CRITICAL PRACTICE IN AN AGE OF COMPLEXITY - AN INTERDISCIPLINARY CRITIQUE OF THE BUILT ENVIRONMENT

• Paper / Proposal Title:
Performing Multiplicity - Digital Tooling and Ecological Thinking

• Format:
Written paper, verbal presentation

• Author(s) Name:
Marantha Dawkins

• University or Company Affiliation:
Carnegie Mellon University

• Abstract (300 words):
Our landscapes are territorialized by the power relationships which move through them, configuring and refiguring material and movement. Anthropogenic articulations of space and procedure have engendered self-perpetuating power relationships which operate as feedback loops that degrade biodiversity, exploit resources, and disempower voices of dissent. But ways of seeing space are not limited to making legible the untouchable and indifferent ways in which time presses on: simulated space can unfold forms of multiplicity which relate alterity to the everyday.

Engaging with novel representational tools can uncover new avenues of composition and illuminate spatial contingencies which offer a rich stage for design. The artifacts of seeing effectively become design interfaces, operating simultaneously as registrations and codifications of space. Contemporary digital tools enable us to understand and apply design imagination to complex landscape dynamics with the object of redefining and redirecting flows and relationships, designing and thinking at multiple scales. The ability to work between scales enables fluidity between the intimate and the
regional, between discipline and its effects, between organisms and their physical environments; this kind of comprehension becomes ecological.

I contextualize ecological design thinking augmented by digital tools within a Foucauldian construction of power which describes a shift from typical understandings of subtractive and transferable power to productive, ubiquitous power. Under the regime of biopower, resistance operates through performance. I ground this notion of performance in two ongoing design projects: the choreography of robotic agents encoded with autonomous planting behaviors derived from a computational framework designed to transform urban lots into culturally valuable and environmentally productive spaces in Pittsburgh; and a bioremediative planting, habitat restoration, and terraforming project utilizing native seagrasses in Indonesia.

• Author(s) Biography (200 words each):

Marantha Dawkins works on material speculations that disrupt their political and ecological contexts. She teaches undergraduate architecture studios and graduate digital media courses at the School of Architecture at Carnegie Mellon University, and is interested in supernatural ecology, urban infrastructure, science fiction, and softness.