



## The European Graduate School EST. 1994

Seminar with Professor Benjamin Bratton (4.5 ECTS credits)  
Division of Philosophy, Art and Critical Thought  
June Session/June 18–20 2019

### **The Artificial: Programming and Planetaryity**

This seminar will consider how ecological realism (including the specter of collapse) and the scope of planetary-scale computation together alter how we conceive of “the artificial.” At stake is whether we should embrace “the artificial” as the basis of a more viable technical epistemology, practical materialism and planetary economics, and if so, how so? For this, it is useful to think in terms of totalities not least because they invite the tracing of distributed agency, subjectivity, causality and effect, all at once and beyond any one situated perspective.

Which “artificial?” There is no “nature” of course. The very idea of an absolute outside of culture is discredited but persistent, yet the inverse is even harder to swallow. If there is no nature, there is also no culture. There is chemistry, abstraction and phase change, pattern and then collapse, and other things besides

What “planetaryity?” Despite the integrity of our mutual integration, planetaryity cannot be imagined in opposition to plurality, especially as the latter term is now over-associated with the local, the vernacular, and with unique experiences of historical pasts. That is, even as we look back on dissimilar histories that also set our current relations, we will nevertheless inhabit conjoined futures. That binding includes a “universal” futurity, at least of a kind. It is, however, not one formulated by local idioms nor by a viewpoint collage of reified traditions and perspectives, but rather by the difficult coordination of a common planetary interior. That is, it is not that planetary-scale computation brought the disappearance of the outside; it helped reveal —again—that there never was an outside to begin with.

This seminar approaches computational media less as a unique sort of device than as pervasive infrastructure for automated functional abstraction, and considers “programming” not only as writing software but also as designating the conditions for how complex indeterminate systems interact. For example, the Stack model argues that we can understand planetary-scale computation as comprised by modular layers (Earth,

Cloud, City, Address, Interface, User) together forming a coherent whole: an accidental megastructure.

We will consider the challenge to computational Art and Design through this lens of “the artificial,” defined here as all the ways that the world might be deliberately and synthetically composed, including ourselves. Like an astronaut on a space walk, we are always entangled with the tethering prosthetics that make human life possible. Indeed the human is invariably the real object of design.

The seminar will trace the interwoven history of what is today called “artificial intelligence,” and its emergence simultaneously as a philosophical thought experiment and a foundational technology. We will model alternatives to anthropomorphic models of AI, and map existing and potential forms of human-AI interaction design, such as voice and search. We will consider the history and contemporary applications of machine sensing media, such as computer vision and synthetic skins. The seminar will also map how modern urban systems may evolve in relation to intensified automation and distributed algorithmic interaction. As ever, our interest is not to domesticate these as tools for self-stabilized human users, but in where the boundaries of the human are reshaped as these extensive technologies coax the material world into conceiving us, over and again.

Finally we will address what the emergence of ecological realism and planetary-scale computation reveals about the limits of our species condition in the so-called “Anthropocene.” We will consider how together these may simultaneously threaten the living material substrate on which it (and we) depend and also clear the way for a necessary artificial composability of our shared planetary perch.