ABSTRACT

Among the many emerging discourses and technologies potentially adhering to landscapes, morphogenesis, conceived as an architectural theory, derives materiality, functionality, and form from the biotic world. As part of a discussion of “data driven” or “bottom up” design, Leach’s morphogenesis recognizes that “nature itself can teach us about the efficiency of certain structural organizations.” (Leach, 2009) This case study experiments with morphogenesis in the landscape. The study method is to document a morphogenetically derived installation’s form in the landscape. The team developed a morphogenetic module, built 330 copies of it, and created an emergent intervention (Algaeic Infrastructure) for a specific site in an example of Clement’s Third Landscape. Built from recycled cardboard, Algaeic Infrastructure proposes an emergent pattern derived from the module’s form, the landscape, and the process of building. The structure is created by interactive rules similar to the development of computer programs that “think” (Johnson, 2011) and thus physically models a version of “learning.” The interlocking system was deployed along an arroyo as an event space for High Desert Test Site (HDTs) in October 2013. The project site is Montessa Park, Albuquerque, NM, where the city’s edge intersects the military base and the airport. A past dairy, deep downcutting of the arroyo, a prison farm, and current “sacrifice” uses, such as ATVs, shooting ranges, and garbage collection layer this in-between (Third) landscape. The ecological implications of this study lie in the proposal of a flexible, modular, morphogenetic system allowing building/designing to accommodate ecological flows rather than impede them.