

Panspermia

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Panspermia is the name for the theory that life exists and is distributed throughout the universe in the form of germs or spores. This piece places the viewer in the middle of a virtual world of aggressively reproducing intergalactic life forms, to depict a single life cycle of this unusual self propagating system.

In this work, I attempt to bring together several concepts: chaos, complexity, evolution, self propagating entities, and the nature of life itself. This botanical form of life, reproducing itself from planet to planet through space, is in many ways analogous to other self replicating systems including humans, entire species, and even ideas. A window into this system, replicating on a grander scale, will hopefully increase awareness of self propagating systems in general, as well as inspire thoughts about *our* entire planet of life as a single entity.

Original software was used to create and animate forests of 3D plant structures. "Artificial evolution" techniques allow the user to interactively select from random mutations of plant shapes until a variety of interesting structures emerge. The subject matter of the piece suggests the underlying biological methods that were used to efficiently create an unusual level of complexity. Dynamic simulations and particle systems were also employed to achieve motions that are calculated automatically.

For me, it is important to consider the computer as not just a fine arts medium, but as an artistic tool whose limits can be expanded. Ideally, a computer would allow the realization of virtual worlds and images without limiting the levels of complexity or the resulting style. In Panspermia, I hope to have demonstrated a step towards these difficult goals.