

Reflection 2 - Strandbeest

Theodorus Gerardus Jozef Jansen, or Theo Jansen for short is a Dutch artist most famous for his Strandbeests. Theo started out studying physics at Delft University of Technology until ultimately dropping out in 1974 without a degree. He always expressed an interest in the intersectionality between engineering and art, and most importantly how similar both are. He was quoted to say "The walls between art and engineering exist in our minds". In 1979, Theo created a 4 meter wide flying saucer made of cheap PVC and a tarp. The UFO was launched over Delft causing mass panic in the area. Theo later went on to develop a giant printing machine that would paint onto a large 2D surface. The printer would detect darkness and in turn recreate incoming silhouettes. Theos current and latest work is the aforementioned Strandbeests, or Beach Beasts in English. First started in 1990, these creatures were initially started with the goal of moving sand on Netherland beaches to nearby dunes. Over time however, the project has grown into an exploration of evolutionary engineering. For example, the Strandbeests must have the ability to move. To do so, the beasts must convert a consistent rotational movement into a very complex stepping motion. So Theo designed the legs that bend and rotate a somewhat consistent stepping motion. The motion however was unoptimized, and any minor change in the design would completely change what motion was created. In turn, Theo went on to code an evolutionary based program with the intent of finding the most optimized dimensions for his system. The program first generates a random set of dimensions and draws out the motion these dimensions create. The program then picks out the best performing dimensions and tweaks them all a little by little. It runs this generative program millions of times until the perfect dimensions were found, imitating natural selection and proper evolutionary practices. This is just one of countless examples where Theo implements the thinking of the natural world in his works.

What speaks to me the most about the Strandbeests is the goal of persistent existence. Theo is attempting to create a self sufficient creature that can continue to exist past his own. I want my work to emulate that idea, to continue to exist past the point where history doesn't remember my name. There's something fascinating with creating a self sustaining system, one with the ability to react to any conditions thrown at it. In modern computing, its becoming rarer and rarer to find systems designed to last forever. We have built systems that rely on dependencies that rely on other dependencies. Chains of un-optimized design to bring complex ideas to reality. However, as the world of tech continues to grow, we see more and more the consequences of creating dependency based technology. Ubisoft has recently been in legal turmoil over its game The Crew. The game was developed in a way that required to always be run on a server, and that server required costs to maintain. Ubisoft in turn decided to shut those servers down, and now millions of people who originally bought the game have absolutely no access to it. All the hard work the developers put into their title is now gone. The Strandbeest is antithetical to this notion. The goal of a Strandbeest is to perpetuate its own existence and to experience life. My goal as a software developer is to make software that can also exist forever, that is open to anyone, and that can be enjoyed by everyone. That can only come either through proper ingenuity and care, something Theo has done with his Strandbeests. He has forced himself to use simple materials

which allows his engineering know how to shine through, another mantra I hope to emulate. So much of what this man does directly translates to how I want to work as an artist.