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Joris Laarman Lets His Skeletal Chairs and Hamster Cell Lamps Do Their Own Thing

BY: LINDA TISCHLER Tuesday March 02, 2010

Joris Laarman's chairs grow like bones, his tables mimic leaves, and his lamps are powered by luminescent hamster cells. Is this science run amok or the future of design?



Joris Laarman says his bone-like creations are just furniture doing what comes naturally. "This is what a chair wants to be," he says, settling briefly into a bit of alabaster artistry that looks like a dozen femurs welded together.

Laarman, the very picture of a Dutch designer, with spiky hair, blue eyes, checked Keds, and dusty jeans, had taken a break from frantically painting gallery walls in a Sol LeWitt-like grid, to talk to us about his first U.S. solo show, which will open on Thursday.



The boney form of the exotically-shaped piece on which he was sitting is not just an artistic conceit, he says. The chair was actually formed by using an algorithm to translate the complexity, proportion and functionality of human bone and tree growth into a piece of furniture. It's shape, which started out as a chunky block of material, was carved and altered just the way a bone would grow, into a branching series of supports, strong where they need to bear loads, open where no material is necessary.

The algorithm, originally developed by a German scientist, Claus Mattheck (a "curious scientist who lives in the forest and studies bones and trees," says Laarman), was adopted by Opal, the German automotive company, to craft car parts that were optimized both for strength and for minimal material use. Laarman stumbled upon Mattheck's work while cruising the Web--science sites, not design ones, he is quick to note--and wondered how it might work in designing a chair.

Laarman's first U.S. solo exhibition at New York's Friedman Benda gallery will run through Apr.10.

"We've worked with almost everybody of note in the area of cutting-edge design," says gallery owner Marc Benda. "But nobody of his age has such a developed approach, is able to do the material innovation he does, and is also able to complete such beautiful objects. Most designers need decades to do this."

The title of the show, "Joris Laarman Lab," is more than just a catchy way of marketing the designer's latest work. It's an accurate reflection of the restless

curiosity that drives Laarman, 31, who's actually a science geek trapped in a designer's body. "At school, I was always good at physics," he says. "My brain is kind of alpha, beta." Over the past five years, Laarman has sought out collaborations with scientists as inspiration for his own work. "I like to combine high tech with poetry," he says.

Laarman's next project is to take Cho cells from Chinese hamsters' ovaries, infused with luciferase, the enzyme that causes fireflies to glow, and turn them into bioluminescent lamps. Sadly, Laarman's attempt to bring a "Half Life Lamp" to New York failed when the stress of the trans-Atlantic trip proved too much for the little critters "They're dead," says Benda.

Eventually, says Laarman, he hopes this project, which he's doing in collaboration with the Universities of Twente and Leiden in The Netherlands, will allow scientists -- and designers -- to grow objects and products in the lab using biological processes. "It might be the solution to the drain of natural resources," he says.



His original Bone Chair created a sensation in 2007 when it debuted at the Milan Furniture Fair. It was subsequently featured in MOMA's 2008 show, "Design and the Elastic Mind" and acquired by the museum for its collection. The morning after his Rococo Radiator, a thesis project for Eindhoven, the prestigious Dutch design school, was first published, he woke up to a Japanese film crew outside his door.

Days before his first U.S. show opened, Laarman's pieces were already spoken for, at prices Benda refused to divulge. "He's been blowing away anybody who's walked through these doors," says Benda. "He's 30 years old and able to compete with the best." The only person who's come close to his level of talent at such a young age, Benda says, is Marc Newson, who created his seminal Lockheed Lounge at 23.



He's also working on a table that embodies the form of a flock of 25,000 starlings in mid-flight, based on an algorithm that tracks birds' flight patterns. And he's toiling on a bookcase inspired by architects' models, that captures the dissonance he feels between the virtual and actual worlds. "A digital world makes material and form disappear," he says, with some regret. "This will be a monument for books before they, too, disappear. As a designer, you want to make shape, not just an iPhone."

And, in conjunction with the U.K. firm Robofold Ltd, he's programming robots to fold sheets of metal into forms with volume--like chairs. That would eliminate the need for expensive injection molds, and allow them to be shipped flat.

Right now, all these projects are either in the prototype stage, or available only as limited edition, high end art furniture. But Laarman is also experimenting with a lower cost version of his chairs that might make it into commercial production. Still, the prospect of seeing his name on the shelf at Target is not what drives him. "I don't do things with a goal in my head," he says. "I just do them to discover things."

[Photos courtesy of Joris Laarman Labs and Friedman Benda: Steve Benisty (bone chairs); Michael Shick (Laarman); Giovanni Tarifeno (Bridge table); Jon Lam (Leaf table)]