Bridge-Building Bots And Rococo Radiators: Inside Designer Joris Laarman's World

THE NETHERLANDS-BASED DESIGNER PROVES THAT ORNAMENTATION CAN BE WILDLY FUTURISTIC—AND FUNCTIONAL.

Joris Laarman is not afraid of a little decorative flourish. For more than a decade, the Dutch designer has deployed cutting-edge manufacturing techniques to marry the functional and the ornamental, whether you're talking about skeletal chairs that grow themselves or a steel bridge 3-D printed from robot arms in mid-air.

It's a provocative approach at a time when efficiency is design's favored byword, evident in everything from the houses we build to the websites we scroll through. A new exhibition at the Netherlands' Groninger Museum represents Laarman's first major solo show, and puts 12 years of his future-nudging designs in the same room. "The red line that runs through all of my work [is that] everything I do has to have a functional reason for why it looks the way it does," he says.
Organized across seven rooms in roughly chronological order, the exhibition starts with the project that made Laarman's name in the design world: a baroque-style radiator called Heatwave that looks less like the clunky, cast iron thing in your apartment's corner than a bit of Rococo-style wall flair. Laarman says that the piece was an exploration about how ornamentation could actually improve functionality: because radiators need to be as large as possible to give heat to the air, his Rococo radiator is actually better at heating a room than traditional models.

The theme extends to his Bone Chairs, which are in the collection of the Rijksmuseum and MoMA. The project started when he found a professor in Germany who had created a software algorithm that mimics the way bones grow. Eventually, General Motors bought the software and used it to develop car parts. Laarman then contacted GM and asked if he could use it to design the optimal structure for a chair. The result is what Laarman calls "an unexpectedly beautiful and elegant object" that minimizes materials and as a result is "more efficient" than a normal chair. "The old industrial analog world is merging with the digital world, where we can finally handle more complex, organic, and efficient geometry," he says.

The Bone Chair, which Laarman first designed in 2007, is sort of a bridge piece in his career. That was the first project in which Laarman teamed up with a corporation, scientists, and engineers to push the boundaries of algorithmic design, something which he has continued to do through the years.
His latest project, represented by a scale model at the Groninger, is the MX3D, a pair of robot arms that, with the help of Autodesk, 3-D print a steel bridge in the historical center of Amsterdam in 2017. 3-D printing allows the bridge to assume an intricate, almost bespoke appearance, because it allows for more granular control of detail than industrial manufacturing. Laarman's work offers a seductive glimpse of the future, one in which automation allows for designs that look and feel like anything but. Predictably, not everyone's ready for that future.

The bridge project was originally meant to be 3-D printed in situ—two robot arms were supposed to 3-D print a bridge in real-time over a canal in mid-air—but it's been moved to a shipyard, where it will be 3-D printed and then dropped into place. Laarman says the issue of printing it in Amsterdam's busy city center was simply one of permits: Officials get antsy when you suggest that a bunch of menacing robot arms be allowed to spray molten metal around a tourist area with up to 80 million visitors a year.

The Joris Laarman exhibition will run at the Netherlands' Groninger Museum until April 2016. A book about the exhibition will also be forthcoming.

[All Photos: courtesy Groninger Museum]