PRACTICAL MATTERS

BRIGHT IDEAS

A YOUNG DESIGNER’S EXPERIMENTS WITH NEW METHODS OF FABRICATION RESULT IN RADICALLY CHIC FURNITURE

Dutch designer Joris Laarman has never limited himself to conventional materials or manufacturing techniques. His Soft Gradient chair is one of the first pieces of furniture 3D-printed from polyurethane to provide cushioning precisely where it’s needed. His Halflife lamp uses genetically modified animal cells to light up like a firefly. And his skeletal Bone furniture was conceived using software from the automotive industry. TIM MCKEOUGH

ELLE DECOR: How will new technologies change the furniture and accessories world?

JORIS LAARMAN: Digital technology is starting to define the way we design, manufacture, distribute, protect, and even recycle physical products. In the early 20th century, modernist pioneers changed our ideas about design when they became inspired by emerging industrial methods. Now the realm of digital design tools and digital fabrication is pushing artists to explore endless new possibilities.

ED: In the past, 3D printing has been limited by small machines and poor materials, but now you’re working to print large-scale objects with stainless steel and resin. Why is that important?

JL: Three-dimensional printing is most often used for prototyping, but we want to bring it to a higher level and make objects that are actually usable. We want to build the first mass-production digital manufacturing unit. It would be very flexible and efficient: You could personalize designs and create an infinite number of them, rather than making separate and expensive injection molds for each product.

ED: How is your Soft Gradient chair made?

JL: It’s made from polyurethane foam that’s been engineered for specific functional needs on a cellular level with software. The solid cells in the design create structural strength, and the more open cells are soft and comfortable.

ED: You’ve also been working on a new kind of porcelain.

JL: Foam Chima is a substance that foams in an oven before setting, becoming both harder and lighter than porcelain—it’s just one-eighth the weight. It expands in the kiln like bread. We’re now developing this material for industrial application with a Dutch ceramics company.

THE HOT SKINNY

WHO SAYS THIN ALSO MEANS WEAK? THE LATEST SURFACE MATERIALS ARE SVELTE, SCRATCH-RESISTANT, AND SURPRISINGLY STRONG

Thin is in. Thanks to new advances in manufacturing technology, companies can create stonelike surface materials with remarkable performance characteristics and previously unthinkable levels of thinness.

• DEXTON, by Cosentino, is made through a process called particle sintering that accelerates the way rock is naturally created under heat and pressure. In the Earth, it takes millennia to form; in the factory, just hours. The resulting material, in thicknesses starting at 8 millimeters, is nearly nonporous, incredibly strong, and resistant to scratches, stains, and heat (dexton.com).

• NEOLITH, by TheSize, is another almost indestructible sintered product; it comes as thin as 3 millimeters. Suitable for anything from countertops to exterior facades, it’s available in a wide range of colors as well as convincing faux-stone, wood, and metal finishes (thesizex.com).

• KERLITE, by Cottode Este, is a laminated porcelain tile that comes in a variety of thicknesses beginning at a slender 3 millimeters. The lightweight, easy-to-cut material is available in extra-large sizes and can even be installed directly over existing floors and walls (cottode.it/en/kerlite). TM