



## To Dream the Impossible Design

*Behind every technically challenging product on the market stands a hero, a lunatic, or maybe a bit of both.*

By Nicole Dyer



WHO HASN'T SET OUT TO TACKLE an ambitious project, bright-eyed and full of enthusiasm, only to regret the decision after it proved to be a rabbit-bole of headaches? My personal list of abandoned undertakings is woefully long: There's the bicycle I never put back together, the blouse I planned to sew from scratch, the vintage medicine cabinet I hoped to restore to its original brushed-steel glory only to quit the project after discovering the seven layers of paint that lay between me and success.

Reality, it seems, has a way of goose-stepping over aspirations. Few dream of the inconveniences, technical snafus, expenses, paperwork, and countless other troubles that invariably arise when we try to pull off something hard. Because that wouldn't be dreaming—that'd be worrying. And nothing kills ambition like worry.

So it was with this rather unromantic conception of dreams that I set out to investigate how great designers—those stalwarts of grand

conceptual thinking—manage to bring their visionary ideas to life. There's the recently introduced **Mr. Impossible chair** by Philippe Starck that merges together two plastic shells with nary a seam—a heretofore unthinkable task, hence the name. How did he do it? Or the Iris table from British designers Edward Barber and Jay Osgerby—what sort of brazen psychology birthed that? Each table in the limited-edition series is an iridescent circular sculpture forged from up to 60 strips of solid aluminum and anodized to give each strip its own unique color—a painstaking process. And consider the chutzpah behind American furniture designer Jeff Miller's Littlebig chair, a cantilevered seat made of molded plywood that appears to float off the front edge of an aluminum tube frame. "But you forgot the supports," the Italian manufacturers said when he proposed his design. Finally, let's not forget Mario Bellini's classic gas-molded plastic chair for New York-based furniture maker Alan Heller. To make the chair

from one seamless piece of fiberglass-reinforced polypropylene, Heller and Bellini modified a plastic bottle-making technique, using gas to push hot molten plastic through a steel-and-aluminum mold. The high-tech experiment paid off when the chair won a Compasso d'Oro award in 2001.

The examples of audacious, game-changing design seem to go on and on. What is it that drives these designers, and how do they pull it off? Are there lessons to be learned from their dogged pursuits, lessons that might blow fresh wind into the deflated sails of mere dabblers like me? Here's what I learned:

Lesson #1: Delegate wisely.

This seemingly cliché dictum of middle management is actually the cornerstone of breakthrough design. When Barber and Osgerby set

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out to make the **Iris table** for furniture company Established & Sons, they knew that they wanted color to be the project's focal point instead of shape and form. "Color is so often an afterthought," says Osgerby. The idea was to anodize strips of metal to give the table a sparkling iridescent quality like its ocular namesake. The electrochemical process of anodizing opens tiny pores on the metal's surface, allowing it to easily absorb dyes. "The beauty is that you're still touching metal, not paint," Osgerby says. It was an ingenious idea. But then came reality. Barber and Osgerby quickly realized that few people know how to anodize well. The process, in turns out, is more like alchemy than chemistry. The color depends on dozens of variables—the temperature of the solution, the amount of time the metal sits in the solution, the saturation of the dyes. "It's not something you can just punch into a computer," says Osgerby. "It's all done by hand." So priority number one was finding the Leonardo da Vinci of anodizing. (As for who eventually took on the task, Osgerby can't name names, owing to a confidentiality agreement with Established & Sons.)

Timing was another big problem. The British duo had less than five months to complete the tables. So they enlisted a Formula 1 manufacturer to machine the aluminum strips. "The F1 guys are used to incredibly fast response times. It meant that we could prototype in the same day. It was fantastic," Osgerby says. "Italian manufacturers can take months."

For French designer Philippe Starck, a man whose only interest is in "dreaming impossible dreams," as he says, there is but one partner for the job and that is industrial design firm Kartell. In fact, this year marks the 20th anniversary of their relationship, which is perhaps most notable for introducing the world to the wonders of transparent plastic furniture. When I asked Starck about whether Kartell had ever doubted any of his designs, especially his Mr. Impossible chair, he answered with an emphatic, Parisian-infused, "Non! I said, 'I want this chair but I think it's impossible.' They said, 'Oh my God, we love it!'" As for the apparent improbability of innovating it—specifically, securing the laser technology that would allow them to mold the plastic seat to the legs without glue—Starck seems not to have noticed. "There was probably something that interrupted Kartell but they didn't tell me. Their job

is not to tell me when there are difficulties. If they told me, I shall never continue to design something impossible. I work only with people like that, because they are the only fun people," he says. Which brings up an important corollary to lesson #1: Delegating wisely sometimes means delegating the headaches.

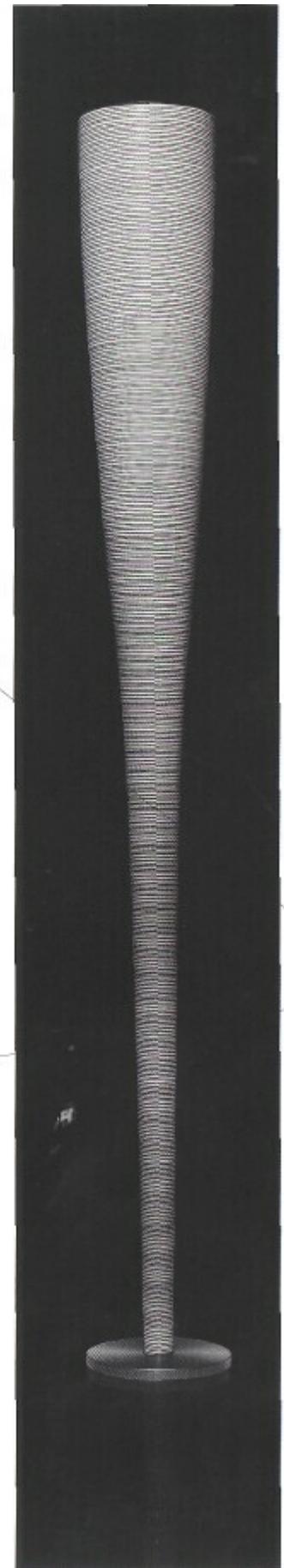
Lesson #2: Great design often springs from a rarefied air of high-functioning insanity.

"The drive to question the status quo and challenge what is normative is generally the kingdom of the designer eccentrics," New York-based industrial designer Rama Chorpash advised me in the midst of my research. Or as Starck puts it, "It's cuckoo-land/Ht also tend to be workaholic land. Starck, 59, juggles up to 250 projects at a time. His latest agenda is bringing ecologically friendly design to the masses. He has already designed a personal windmill, a solar-powered boat, and an electric car. "I'm a furious worker. I always want to succeed. I push, push, and push to explore and to invent." Osgerby demonstrates similar, unwavering ambition: "It's the desire to get perfection regardless," he says. This seems like a dangerously rigid psychology doomed to deliver frustration—until you fully absorb lesson #3.

Lesson #3: Imperfection redefines perfection. Things change and it's often for the better.

Very rarely do concepts materialize in the world as they appear in a designer's head. "Part of the thrill is seeing how your concepts compare to reality," says Miller, who added a new version of the **Littlebig chair** to his collection for Baleri Italia last spring. Manufacturers and engineers both put their stamp on a project, changing it in the process. More often than not those influences improve the design, says Miller. "Sometimes when I think a project will be nearly impossible, the factory comes back and says, 'Yeah, we can do that, no problem.'"

Often it's the materials themselves that dictate the finished product. Parisian designer Marc Sadler, for instance, initially envisioned his award-winning **Mite floor lamp**, designed for Italian manufacturer Foscarini in 2000, as a tall glass cylinder wrapped in Kevlar thread, using technology borrowed from the sporting industry (fishing rods, ski boots, oars) to



bake the Kevlar in place. The idea was to flare the lamp at both ends like a Chinese fingertrap so the top would act as a cup for the light and the base would serve as support. But the shape proved "technically unsustainable," Sadler says. It would have required two separate molds and even more disruptive, it would have made the Kevlar strands overlap during the baking process, compromising the beautiful translucent quality of the glass fiber beneath them. So Sadler shifted to a 6-foot conical design that tapers upward like a baseball bat with the Kevlar threads wrapped evenly around it. The quantity and positioning of the threads allowed for greater transparency—"the light diffusion is striking," Sadler says—and it also improved the lamp's overall flexibility, lightness, and durability. "Troubles are always on the horizon, but a miracle could be just around the corner!" he says.

Lesson #4: Avoid sore losers.

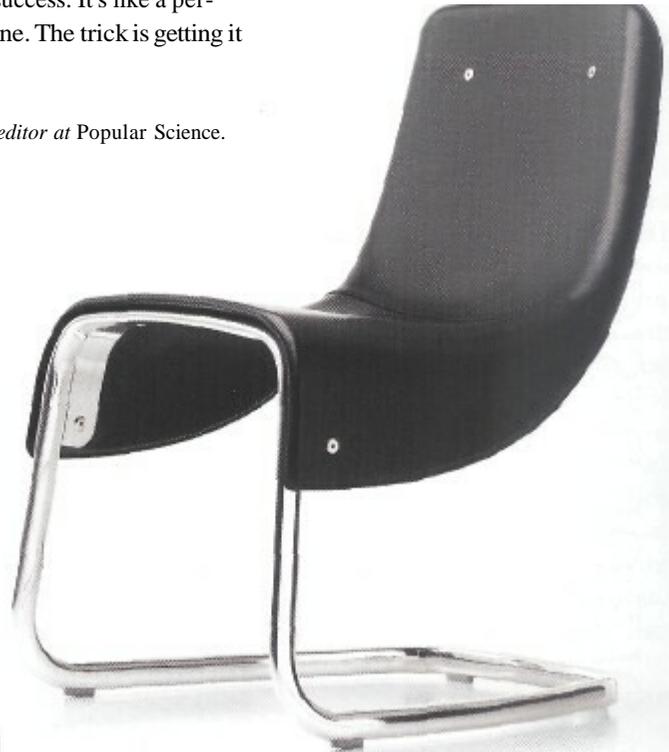
When Miller brought the idea of his cantilevered chair to Baled Italia's factory in Italy, the workers were convinced that the chair would collapse beneath the sitters weight. Instead of the side brackets Miller had proposed, they suggested using a metal support beam beneath the plywood seat. But Miller refused. He was so confident that his floating seat would withstand actual usage that he placed a gentleman's bet on it with the workers. A few months later Miller received a video message showing the portliest employee in the factory comfortably and safely plunked on the chair. It wasn't just playful ribbing. "They were thrilled to see that it could be done," says Miller. "It was an exciting day in the factory."

Lesson #5: Forget failures. In fact, block them out entirely.

"It is on our failures that we base a new and different and better success," the British sexologist Havelock Ellis once noted. Indeed much has been said of the virtues of thwarted goals; the affirmations about learning from our mistakes are everywhere. But when I asked these Herculean designers to recall their notable failures, none of them could. They were stumped. It's not that they hadn't experienced failure—everyone said, "Oh, I'm sure there's been something"—but they had no immediate

recollection of it. It's like when you fall in love and suddenly forget all the losers who broke your heart in the past. Success is intoxicating. It wipes from memory the sting of humiliation and emboldens you with confidence, which in turn spawns more success. It's like a perpetual-motion machine. The trick is getting it started. ✨

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