

# MAKERS VS. SHAKERS

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MAKE IT BEAUTIFUL, MAKE IT LAST, OR DON'T MAKE IT AT ALL.

By Saul Griffith

**JUST BEFORE THE NEW YEAR, AN EDITOR** at MAKE asked contributors for their New Year's resolutions (see [makezine.com/go/resolutions](http://makezine.com/go/resolutions)). I glibly responded, "to only make things worthy of lasting 100 years." A few months into 2007, I've already broken my resolution, but I've thought more about the reasons behind it, and why I'm still aiming at it.

I was recently in London and visited the British Museum. While standing there in front of a magnificent carved stone piece of the Acropolis, I had to reflect that what we makers are creating isn't particularly impressive. We might be making things, but we are not always being craftsmen — stewards of the materials that have so radically been torn from the earth.

It made me think that the readers of CRAFT magazine ([craftzine.com](http://craftzine.com)) have the right approach. The average maker is perennially in a state of prototyping. The crafter is making a finished item, lovingly created, designed to last a lifetime or more. It is the difference between spoiled technophile children and Shakers, who built such beautiful furniture that collectors now pay exorbitant prices for simple chairs and tables made 150 years ago.

Why should we care about this distinction? I care because the more prototypes that go to landfill, the worse off the world is. I care because with the loss of craftsmanship, we accept an Ikea world. My father made a teak dinner table for my mother before I was born. More than 30 years later, it's only more beautiful than it was originally. Years of oiling, wine spilling, small hands pawing at it, and countless projects being hammered out on top of it have left it with a loved patina of memory. It would take

a dozen Ikea dining tables to last the same abuse, and that would be a dozen dining tables going to landfill. My father's table will last at least another 70 years with a little love, and a little repair.

So I set myself the task, for this article, to write about something I would make designed specifically to last longer than my own lifetime. I settled on creating for myself a table and benches as functional and beautiful as the table my father built.

The process made me think a lot about electronics, because I couldn't really imagine building anything with a circuit board that could last 100 years, let alone that I'd want to last 100 years. It was a troubling conclusion, and I'm still unresolved regarding the dilemma of making electronic things that will be fun for a month, then fragile and broken for a lifetime.

I had recently built all my office furniture out of bamboo ply, leaving a dozen or so scraps 12"×96" and ¾" thick, so these scraps served as my inspiration and raw materials. At the Squid Labs workshop, with various people looking curiously over my shoulder, I labored over the CAD design for 4–6 hours until the "cartoon" — my colleague Robert "Danny" Daniels' description of CAD — appeared as I wanted it. This was something I didn't want to revise, for to make the "improved version" was to defeat the purpose. Also, to make it in CAD was to leave a digital path that could be followed by others, improved upon, a design I could give away to see perfected by other, brighter minds.

I took my CAD files to the water jet cutter. I could have used more traditional craft techniques, such as pull-saw and chisel artisanry, but my first test attempts showed me that I had neither the patience



**This heirloom wouldn't exist without high-tech materials like CAD, a water jet, and a 70-ton press.**

nor the skills — another troubling conclusion. The article deadline was looming. I had “real” work to do, and only the weekend to finish this extravagance. Granted, the jet did allow for the incredible accuracy required to make a glueless squeeze fit, but I could already see my deadline-driven world competing with my artisan ideal — or perhaps it's a new artisanry?

I pushed on, I pushed go, the jet started cutting parts, and having already found the machine was designed for something slightly different, I was imagining modifying it to cut wood without getting it wet. The desire for heirloom objects was again coming up against my perpetual prototyping mindset.

It's terrible when the data doesn't support the thesis. Before I had even finished the table, the first of a few design bugs was pointed out to me, and I was contemplating giving it away or trashing it in order to make a “perfect” revision. I was making my heirloom dining table and I'd already noticed mistakes. Nothing terminal, just the things you would do differently next time. “Angle those pieces pointing toward the guests at the center of the table, to prevent sharp corners hitting legs,” Danny exclaimed while giving me a lesson in Japanese historical furniture design. I found solace in the fact that Persian rug makers always introduce an error into the rug — only Allah can make things perfectly.

I finished cutting the parts. Now for the assembly: there was the laborious preparation, the sanding, the edge routing and finishing. My impatience built. I was stuck between “finish and look at the mistakes, then revise for the perfect Version Two” and “move slowly, make it perfect now, once, forever, don't waste the material.”

As I assembled it, I naturally found all the other things I'd change next time. It all fit together (the CAD modeling had insured that), but it could have been more elegant. Change this, mental note that. If anything, the CAD had made it too accurate. I had to use soap to

lubricate the finger joints. Then at the suggestion of Rich Humphry, I realized that a 70-ton press was a better way to put it together than just a rubber mallet — in fact, it was now the only way.

Finally the moment came. I was three-quarters of the way through assembly, and the critical top piece requiring sub-millimeter precision dropped into place. There was my nirvana, my inner peace. I knew at that moment that despite the flaws, it was all going to work. The joy of that moment overcame me. I danced around the workshop as my colleagues looked on. They couldn't understand the revelation I was having. I knew all the flaws in the design, but I understood this object. I had made it. I was going to love it forevermore, precisely and undeniably because I had crafted it. The errors were mine to laugh at and tell stories about at every dinner party to come.

This heirloom was going to be a hoot. I may have failed to mentally resolve the problem of making too many short-lived prototypes and hacks, but at least I succeeded in making one object that my grandchildren might desire.

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