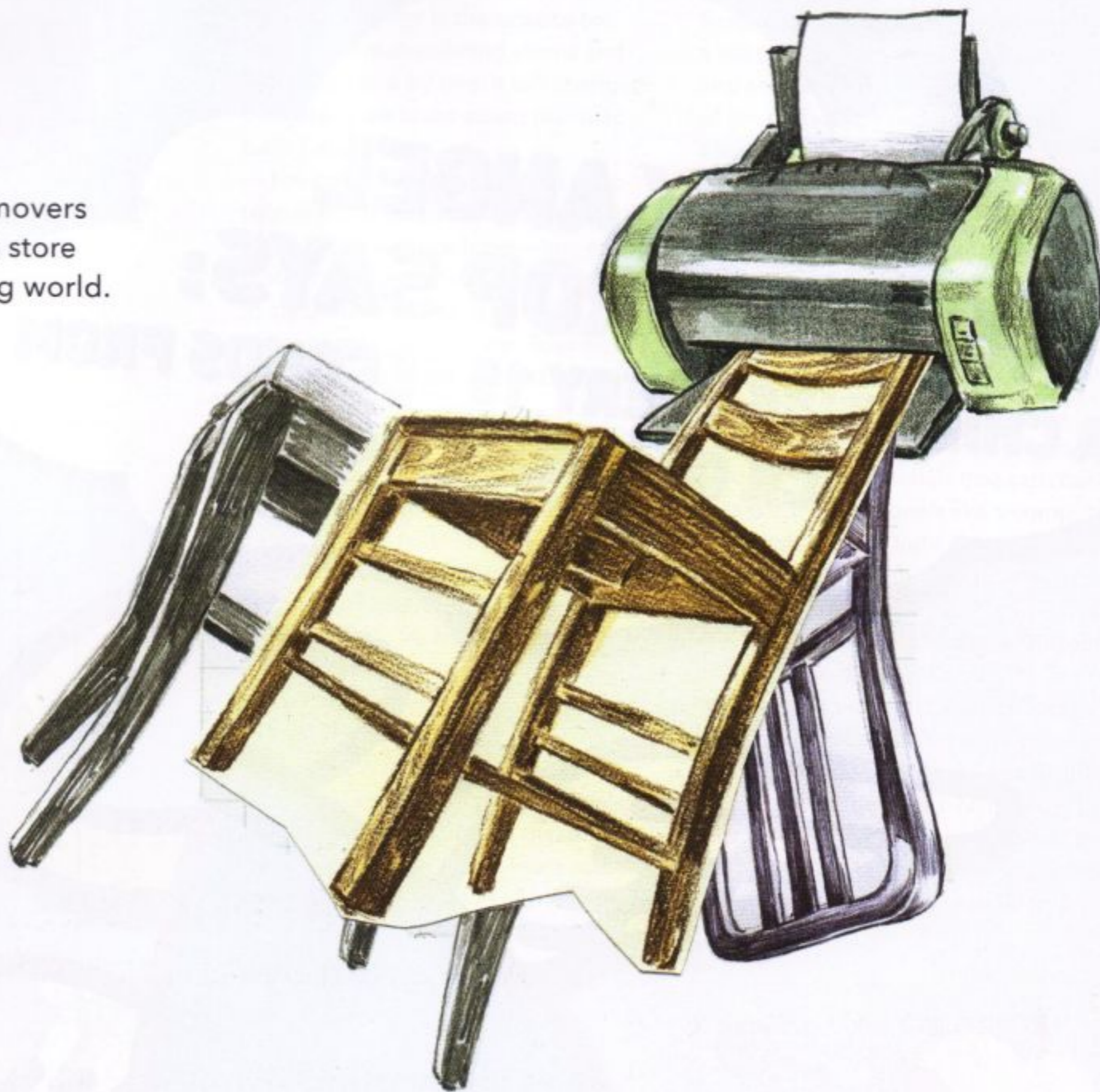


Absolutely Fabricated

We talked to a handful of movers and makers to see what's in store for the wider manufacturing world.



Bre Pettis is the host of the History Channel special *History Hackers* and one of the founders of MakerBot Industries, which offers 3-D desktop fabricators.

"The goal of MakerBot is shifting the kind of mind-set we have now, where if we want something, we go out shopping for it, toward one of wanting something and downloading it, or designing it yourself. I was at an art exhibit where digital artists made 3-D printed art they couldn't make any other way. So it's a shift not just in the economic sense but in consciousness as well. For instance, I broke a knob off an air conditioner. You can't get a replacement for it, or if you can, it's expensive. But if I could just get the specs and make one with a 3-D printer, it suddenly becomes supercheap."

Russel Versaci is an architect behind Pennywise modular homes.

"In September 2007, we saw the beginning of the end of the old way of making houses. By 2030, we're going to see nearly all houses made to order in factories. There are fewer qualified tradesmen coming along, and young people are less interested in working in the trades. Hand-built houses are going to be far fewer, as they're going to be so expensive, available only to a few at the very highest income level. Factory manufacturing of modular houses by that time is going to be well established, and it'll become exponentially more sophisticated, more efficient, and cheaper to do. It'll never replace the elegance of something handcrafted, but the economics are going to favor doing it this way."

Bill Young is a boatmaker and the founder of 100KGarages.com, a Web service that links designers to fabricators.

"For some things, a desktop 3-D printer isn't going to cut it. For bookshelves and other large objects, you're going to need access to larger tools. And when people see how easy it is to create and build their own designs, the end result will be that instead of buying this factory-made object, where everyone's is the same, you can design your own chair, let's say, that fits you perfectly. There's no reason why you can't have custom-built everything for the same cost as mass-produced. I'm not saying everyone will have a replicator in their garage 20 years from now—that won't happen—but everybody will have access to one." ■

© Assembly-line manufacturing has played a role in works of art like Charlie Chaplin's *Modern Times*, Aldous Huxley's *Brave New World*, and Fritz Lang's *Metropolis*.