MADE IN
USA

This is a new essay for the Japanese edition of *Hackers & Painters*. It tries to explain why Americans make some things well and others badly. *continued* ▶

by Paul Graham

A few years ago, an Italian friend of mine traveled by train from Boston to Providence. She had only been in America for a couple weeks and hadn't seen much of the country yet. She arrived looking astonished. "It's so ugly!"

People from other rich countries can scarcely imagine the squalor of the man-made bits of America. In travel books they mostly show you natural environments: the Grand Canyon, whitewater rafting, horses in a field. If you see pictures with man-made things in them, it will be either a view of the New York skyline shot from a discreet distance, or a carefully cropped image of a seacoast town in Maine.

How can it be, visitors must wonder. How can the richest country in the world look like this?

Oddly enough, it may not be a coincidence. Americans are good at some things and bad at others. We're good at making movies and software, and bad at making cars and cities. And I think we may be good at what we're good at for the same reason we're bad at what we're bad at. We're impatient. In America, if you want to do something, you don't worry that it might come out badly, or upset delicate social balances, or that people might think you're getting above yourself. If you want to do something, as Nike says, just do it.

This works well in some fields and badly in others. I suspect it works in movies and software because they're both messy processes. "Systematic" is the last word I'd use to describe the way good programmers write software. Code is not something they assemble painstakingly after careful planning, like the pyramids. It's something they plunge into, working fast and constantly changing their minds, like a charcoal sketch.

In software, paradoxical as it sounds, good craftsmanship means working fast. If you work slowly and meticulously, you merely end up with a very fine implementation of your initial, mistaken idea. Working slowly and meticulously is premature optimization. Better to get a prototype done fast, and see what new ideas it gives you.

Working slowly and meticulously is premature optimization. Better to get a prototype done fast, and see what new ideas it gives you.

It sounds like making movies works a lot like making software. Every movie is a Frankenstein, full of imperfections and usually quite different from what was originally envisioned, but interesting, and finished fairly quickly. If you tried to make movies perfect, they'd never be done.

I think we get away with this in movies and software because they're both malleable mediums. Boldness pays. And if at the last minute two parts don't quite fit, you can figure out some hack that will at least conceal the problem.

Not so with cars, or cities. They are all too physical. If the car business worked like software or movies, you'd surpass your competitors by making a car that weighed only fifty pounds, or folded up to the size of a motorcycle when you wanted to park it. But with physical products there are more constraints. You don't win by dramatic innovations so much as by good taste and attention to detail.

The trouble is, the very word "taste" sounds slightly ridiculous to American ears. It seems pretentious, or frivolous, or even effeminate. Blue-staters think it's "subjective," and red-

staters think it's for sissies. So anyone in America who really cares about design would be sailing upwind.

Twenty years ago we used to hear that the problem with the US car industry was the workers. We don't hear that anymore now that Japanese companies are building cars in the US. The problem with American cars is bad design. You can see that just by looking at them.

The trouble is, the very word "taste" sounds slightly ridiculous to American ears. It seems pretentious, or frivolous, or even effeminate.

All that extra sheet metal on the AMC Matador wasn't added by the workers. The problem with this car, as with American cars today, is that it was designed by marketing people instead of designers.

Why do the Japanese make better cars than we do? Some say it's because their culture encourages cooperation. That may come into it. But in this case it seems more to the point that their culture prizes design and craftsmanship.

For centuries the Japanese have made finer things than we have in the West. When you look at swords they made in 1200, you just can't believe the date on the label is right. Presumably their cars fit together more precisely than ours for the same reason their joinery always has. They're obsessed with making things well.

Not us. When we make something in America, our aim is just to get the job done. Once we reach that point, we take one of two routes. We can stop there, and have something crude but serviceable, like a vise-grip. Or we can improve it, which usually means encrusting it with

gratuitous ornament. When we want to make a car "better," we stick tail fins on it, or make it longer, or make the windows smaller, depending on the current fashion.

What we like is speed, and we're willing to do something in an ugly way to get it done fast.

Ditto for houses. In America you can have either a flimsy box banged together out of two by fours and drywall, or a McMansion—a flimsy box banged together out of two by fours and drywall, but larger, more dramatic–looking, and full of expensive fittings. Rich people don't get better design or craftsmanship; they just get a larger, more conspicuous version of the standard house.

We don't especially prize design or craftsmanship here. What we like is speed, and we're will–ing to do something in an ugly way to get it done fast. In some fields, like software or mov–ies, this is a net win.

But it's not just that software and movies are malleable media. In those businesses, the designers (though they're not generally called that) have more power. Software companies, at least successful ones, tend to be run by programmers. And in the film industry, though producers may second–guess directors, the director controls most of what appears on the screen. And so American software and movies, and Japanese cars, all have this in common: the people in charge care about design—the former because the designers are in charge, and the latter because the whole culture cares about design.

I think most Japanese executives would be horrified at the idea of making a bad car. Whereas American executives, in their hearts, still believe the most important thing about a car is the

image it projects. Make a good car? What's "good?" It's so subjective. If you want to know how to design a car, ask a focus group.

Instead of relying on their own internal design compass (like Henry Ford did), American car companies try to make what marketing people think consumers want. But it isn't working. American cars continue to lose market share. And the reason is that the customer doesn't want what he thinks he wants.

Instead of relying on their own internal design compass, American car companies try to make what marketing people think consumers want.

Letting focus groups design your cars for you only wins in the short term. In the long term, it pays to bet on good design. The focus group may say they want the meretricious feature du jour, but what they want even more is to imitate sophisticated buyers, and they, a small minority, really do care about good design. Eventually the pimps and drug dealers notice that the doctors and lawyers have switched from Cadillac to Lexus, and do the same.

Apple is an interesting counterexample to the general American trend. If you want to buy a nice CD player, you'll probably buy a Japanese one. But if you want to buy an MP3 player, you'll probably buy an iPod. What happened? Why doesn't Sony dominate MP3 players? Because Apple is in the consumer electronics business now, and unlike other American com–panies, they're obsessed with good design. Or, more precisely, their CEO is.

I just got an iPod, and it's not just nice. It's surprisingly nice. For it to surprise me, it must be satisfying expectations I didn't know I had. No focus group is going to discover those. Only a great designer can.

Cars aren't the worst things we make in America. Where the just–do–it model fails most dramatically is in our cities—or rather, exurbs. If real estate developers operated on a large enough scale, if they built whole towns, market forces would compel them to build towns that didn't suck. But they only build a couple of office buildings or suburban streets at a time, and the result is so depressing that the inhabitants consider it a great treat to fly to Europe and spend a couple weeks living what is, for people there, just everyday life. [1]

If I had to choose between the just-do-it model and the careful model, I'd probably choose just-do-it. But do we have to choose?

But the just–do–it model does have advantages. It seems the clear winner for generating wealth and technical innovations (which are practically the same thing). I think speed is the reason. It's hard to create wealth by making a commodity. The real value is in things that are new, and if you want to be the first to make something, it helps to work fast. For bet–ter or worse, the just–do–it model is fast, whether you're Dan Bricklin writing the prototype of VisiCalc in a weekend, or a real estate developer building a block of shoddy condos in a month.

If I had to choose between the just–do–it model and the careful model, I'd probably choose just–do–it. But do we have to choose? Could we have it both ways? Could Americans have nice places to live without undermining the impatient, individualistic spirit that makes us good at software? Could other countries introduce more individualism into their technology companies and research labs without having it metastasize as strip malls? I'm optimistic. It's harder to say about other countries, but in the US, at least, I think we can have both.

Apple is an encouraging example. They've managed to preserve enough of the impatient, hackerly spirit you need to write software. And yet when you pick up a new Apple laptop, well, it doesn't seem American. It's too perfect. It seems as if it had to have been made by a Swedish or a Japanese company.

In many technologies, version 2 has higher resolution. Why not in design generally? I think we'll gradually see national characters superseded by occupational characters: hackers in Japan will be allowed to behave with a willfulness that would now seem un-Japanese, and products in America will be designed with an insistence on taste that would now seem un-American. Perhaps the most successful countries, in the future, will be those most willing to ignore what are now considered national characters, and do each kind of work in the way that works best. Race you.

NOTES

[1] Japanese cities are ugly too, but for different reasons. Japan is prone to earthquakes, so buildings are traditionally seen as temporary; there is no grand tradition of city planning like the one Europeans inherited from Rome. The other cause is the notoriously corrupt relationship between the government and construction companies.

Thanks to Trevor Blackwell, Barry Eisler, Sarah Harlin, Shiro Kawai, Jessica Livingston, Jackie McDonough, Robert Morris, and Eric Raymond for reading drafts of this.

info
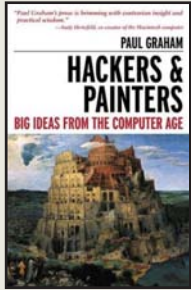
BUY THE BOOK

For more details or
to buy a copy of Paul
Graham's book,
Hackers & Painters,
click here.

ABOUT THE AUTHOR

Paul Graham is an essayist, programmer, and programming language designer. In 1995 he developed
with Robert Morris the first web-based application, Viaweb, which was acquired by Yahoo in 1998.
In 2002 he described a simple Bayesian spam filter that inspired most current filters. He is currently
working on a new programming language called Arc.

Paul is the author of *On Lisp* (Prentice Hall, 1993), *ANSI Common Lisp* (Prentice Hall, 1995), and *Hackers &
Painters* (O'Reilly, 2004). He has an AB from Cornell and a PhD in Computer Science from Harvard, and
studied painting at RISD and the Accademia di Belle Arti in Florence.

His web site, http://www.paulgraham.com, got 3.7 million page views in 2004.

DOWNLOAD THIS

This manifesto is available from http://changethis.com/12.MadeInUSA

SEND THIS

Click here to pass along a copy of this manifesto to others.
http://changethis.com/12.MadeInUSA/email

SUBSCRIBE

Learn about our latest manifestos as soon as they are available. Sign up for our free newsletter and
be notified by email. http://changethis.com/subscribe

info

WHAT YOU CAN DO

You are given the unlimited right to print this manifesto and to distribute it electronically (via email, your website, or any other means). You can print out pages and put them in your favorite coffee shop's windows or your doctor's waiting room. You can transcribe the author's words onto the side-walk, or you can hand out copies to everyone you meet. You may not alter this manifesto in any way, though, and you may not charge for it.

NAVIGATION & USER TIPS

Move around this manifesto by using your keyboard arrow keys or click on the right arrow (→) for the next page and the left arrow (←). To send this by email, just click on   .

HAVING PROBLEMS SAVING TO DISK?

First, make sure you have the latest version of Acrobat Reader 6 which you can download from http://www.adobe.com/products/acrobat/readstep2.html. If problems persist, it may be due to your Acrobat Reader settings. To correct the problem (for Windows), a reader, J. Hansen, suggests going to your Acrobat Reader Preferences > Options > Web browser Options. Check the "Display PDF in Browser" option. Then click on Save to Disk   .

KEYBOARD SHORTCUTS	PC	MAC
Zoom in (Larger view)	[CTL] [+]	[⌘] [+]
Zoom out	[CTL] [–]	[⌘] [–]
Full screen/Normal screen view	[CTL] [L]	[⌘] [L]

BORN ON DATE

This document was created on 24 January 2005 and is based on the best information available at that time. To check for updates, please click here to visit http://changethis.com/12.MadeInUSA

info

ABOUT CHANGETHIS

ChangeThis is a vehicle, not a publisher. We make it easy for big ideas to spread. While the authors we work with are responsible for their own work, they don't necessarily agree with everything available in ChangeThis format. But you knew that already.