

INTERN, GET ME A CAMPARI!

WHY SUMMER INTERNSHIPS ARE MORE IMPORTANT THAN EVER BEFORE. By Saul Griffith

WITH THE LOSS OF INDUSTRIAL TRADES and craftsmanship, apprenticeships have declined steadily. They started in the Middle Ages, with young people spending about seven years living and working with master craftsmen in the hopes that one day they would become masters of their art.

The modern equivalent is the internship, devilishly satirized in *The Life Aquatic with Steve Zissou*, when Zissou asks an administrator (who happens to be a topless blonde), "Do the interns get Glock's?" The answer: "No, they all share one." It perfectly captures the two-edged sword that interns are faced with in this day and age.

This summer I had 13 interns. We rented a rambling, run-down house a short bicycle ride from the office, and the interns populated it. Two each were undergraduates from Berkeley, MIT, and Stanford, and one was from art school. Six more were high school students, most of them candidates from the InvenTeams program of the Lemelson Foundation.

Despite frustrations with California's labor laws (it turned out that interns under 18 would not be allowed to use many of our power tools, access to which was probably the reason they had signed up for servitude), the summer was a huge success, both for my company and for the students who came to work with us.

Why was I offering the internships? It's what I would have loved to do when I was in late high school. Interning in a high-tech company working on cutting-edge technology before going to college was not an option available to me, and probably not to most people. At the onset of the summer, I sat the students down to set expectations: "At worst you

won't get in the way ... At best you will make useful contributions!" It definitely turned out for the best.

I can think of only positive reasons why this should be the norm, and not the exception. I write here to encourage those readers of MAKE who have the power to offer internships to do so. More of them, lots of them. It's easier than you think. It's more rewarding than you can imagine.

SAUL'S STEP-BY-STEP GUIDE TO INTERNSHIPS:

1. Don't expect core company work to get done by interns.

2. Expect a pleasant surprise.

3. Don't underestimate the interns. They are likely smarter than you. Treat them like intelligent adults and give them responsibility over their own work.

4. If you have multiple interns, it's great to have one a little older to help motivate and manage the rest. (Thanks, Jesse.)

5. Write a long list of things to do before they arrive. I found it useful to divide the list in terms of project duration:

- a.** Projects of less than one day. This can be a long list. Think of all the things that don't get done around your office: tool organization, light installation, furniture building, internet research projects, etc.
- b.** One-day to one-week tasks. Things like helping engineers to assemble something (code or hardware), or self-contained peripheral projects.



THE FUTURE: Still life with interns, Mt. Diablo.
(Or, make sure your interns have time to go sightseeing.)

c. Summer-long projects. These are non-core business projects, things that would be nice to have, or that you'd like to explore but can't justify spending your own time on.

With a list pre-generated, your ADD interns won't be able to ask the dreaded question, "What should I be doing now?"

6. Give them purchasing tasks. Let's face it, engineering is a lot about researching and purchasing components. It's time-consuming, so get them started young on how to do it well.

7. Invite them to your social events. Dinner parties you host, business networking events, public talks that are interesting, and sports activities. Our Interns vs. Employees softball game ended with many bloody knees, a drawn scoreboard, and huge smiles all around.

8. "Wax on, wax off" policy. Interns are learning what work is all about, after all. It isn't a problem to give them menial tasks, but let them know that every apprentice has had to do it at some time in their lives, including you. If you give them repetitive tasks that are arduous, do some of the work with

them, and demonstrate a lack of ego. Let them have pride and praise for the end result.

Our "wax on, wax off" project was a roof deck for our office, which is housed in a decommissioned air traffic control tower — not a core business need, but a wonderful thing to have. We helped the interns use CAD to design it, and you could see that after a few weeks of backbreaking, sunburnt work, they were delighted and proud that they'd engineered something from start to finish. It was beautiful and much better than I could have imagined.

9. Involve them in the brainstorming, and in the imaginative and creative parts of what you do.

They don't have the biases you have. Their ideas are fresh, perhaps uninformed, but absolutely interesting and worthwhile.

10. Ask them to write a story about the things they enjoyed doing while working with you.

It will make them feel good. It will make you feel great. Here's one from our intern Vicki Thomas:

"Another of the most significant things I learned this summer was how to learn from a source other than direct teaching. I spent the first several weeks feeling confused, overwhelmed, and in the way. However, I soon realized that I was learning a ton even by just observing and listening to conversations. Basically, feeling stupid is actually a great way to get smarter. I also learned how to teach myself about, and more efficiently approach, problems that I didn't know how to solve.

The last and most significant aspect of my experience that I want to include is the exposure to a real-world environment where extremely intelligent people are working, having fun, and making a difference simultaneously. I truly believe that it's important to show kids that such an environment can exist, and to inspire them to pursue ideas that create one. And let me tell you, I feel very inspired."

Thanks to all of the following interns for reminding me why I do engineering, for working hard, and hopefully for carrying this experience into their future work and giving apprenticeships back to a world that needs inspired young people more than ever before: Alex, Erich, Jesse, Josh, Garrett, Guy, Monica, Naomi, Rob, Sam, Skyler, Star, and Vicki.

Saul Griffith is a co-author of *Howtoons* and was recently named a MacArthur Fellow.