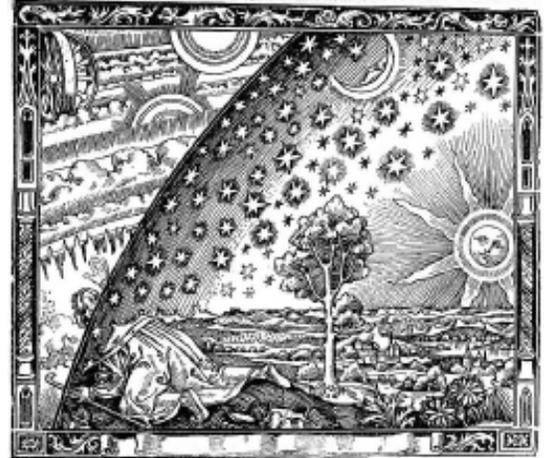


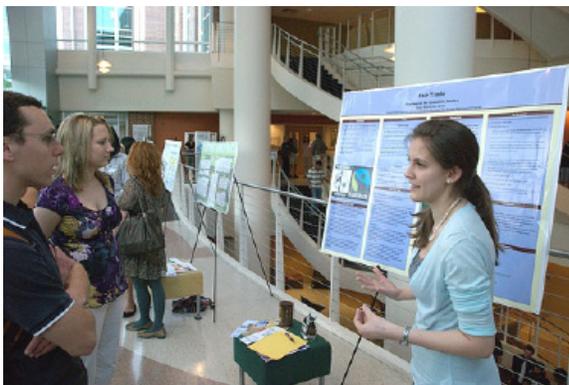
**THE VIEW FROM HERE** by Dr. Monica Halka

For the first time in my life, I'm teaching a course that is completely unrelated to my academic field of training, and I'm loving it. I have to admit it was a little scary going in, but here we are, heading into the last couple of weeks of the semester, and I can't wait to do it again. With the help of my 18 highly-engaged students, I have learned more about the world of those habit-forming, pleasure-inducing, and morally hazardous substances: coffee, tea, and chocolate. We have learned about problems with middle-men, child labor, monocultures, insects, and government subsidies. We've surveyed how much acreage is taken up by farming of these non-food items in countries whose people rely on U.S.-contributed flour in order to feed their families. We've tasted milk chocolate and dark chocolate and discussed research on the health benefits and risks of caffeine versus theobromine. The students have discovered how difficult it is to ask a good question, as well as the perils of citing unreliable sources. We've been exploring together—from a cupping (coffee-tasting) at Empire State South to a sipping of Aztec-spiced hot chocolate at Cacao Atlanta. With this course I have stepped into a new realm of teaching, which I would instead call "modeling intellectual exploration" or "encouraging in-depth curiosity." I've been learning for some years that I don't have to be bound by my disciplinary boundaries, though I can see why some professors find the stretch a bit intimidating; they've been stuck for so long in the empires of expertise. Fortunately, this group of students had no such inhibitions. They are courageous and thoughtful, and the reason the journey through this semester has been so enjoyable for me. You can see the results of their project work on December 8 at the Honors Program Poster Session. Taste a little bit of their experience.

**AN INTERN IN CHINA** by Stephan Stephenson-Moe

This semester, after completing my China study abroad at Shanghai Jiao Tong University, I was given the opportunity to intern for a company that makes plastic-forming machinery about 100 km outside of Shanghai. We make a variety of machines for melting and forming plastics. Primarily we make machinery lines that take a stock plastic (PP, PPR, PE, or PVC) in the form of lots of small pellets and pump out long plastic tubes of varying

shape and diameter—depending on the dye and the diameter of the extruder. The company also makes machines that recycle old plastic, but I guess we don't get many orders for those because I haven't seen any yet. We sell about \$4.6 million worth of machinery a year with a profit margin between 20 and 30 percent. In China this is a small business. I should mention that this is not some international conglomerate that has a factory in China. This is a family-run



Interested in what your fellow HPsters have been working on this semester in their special topic courses? Join us to find out at the...

**HONORS PROGRAM FALL POSTER SESSION**

Thursday, December 8

2 - 4 pm

in the

Library East Commons Area

*All welcome. Refreshments provided.*

# ARTS & LEISURE

## OPPORTUNITY KNOCKS by Hal Zhao

Do you enjoy teaching and engaging in hands-on activities with younger kids? Are you also savvy with technology or meteorological knowledge and want to show it off to others? This may be your chance to do so! The SMART Academy Center of Excellence is offering opportunities to Georgia Tech students to participate in the tracking of a high-altitude balloon with scientific payloads and also to teach elementary and middle school kids about basic scientific principles in our world today.

SMART Academy in Atlanta partnered up with the Columbus Space Program to launch the BEST-1/ DREAMS-13/Quest high altitude balloon. The balloon was launched on November 5th and attained a height of 115,500 feet. University environmental studies professionals and selected meteorologists, who have also partnered with SMART Academy, are tracking



atmospheric conditions with this balloon. The group is currently looking for college students, particularly from Georgia Tech, to be involved in this project.

Another opportunity that SMART Academy is offering to Tech students is teaching younger students about basic scientific principles, helping kids reinforce what they learn in their science classes and assisting them in practically applying what they learn. These teaching sessions occur once every week and usually take place on Saturday mornings.

SMART Academy of Atlanta is very close to the Georgia Tech campus. The positions listed above are all volunteer positions. However, a few positions may offer a stipend and compensate for student contribution and involvement. If you are interested in any of the above opportunities, contact Mr.

Gary Harris at [htsenterprise@aol.com](mailto:htsenterprise@aol.com). What are you waiting for? There are kids out there who crave knowledge and a high altitude balloon which needs tracking!

## DESSERT NIGHT by Prachi Fulay

We awaited the event, eagerly. Perhaps we'd step out into the hallway, and tiptoe toward the source of the stimulus tickling our olfactory senses, tempting us, beckoning us. Though it happened unfalteringly, week after week, the reaction was still the same: the same anticipation, the same excitement, the same spontaneously uplifted spirit permeating the dorm.

Georgia Tech is notorious for being a stressful school. The effects can be seen everywhere – the library, the Clough Commons, the corridors of Field; it pervades every nook and cranny of the school. Fortunately, the Honors Program has the most amazing PL's on campus, who know a little something about relieving stress. This is why every Monday at 9:30 pm, the girls (and the occasional brave third and fourth-floor nomad) migrate to the first floor kitchen for the sweetest part of the week—literally: dessert night! I can't think of a better way to ease into a stressful week than satisfying my sweet tooth with some pretty sweet people. It is not only a time to savor,

but also to socialize. How unfortunate, but typical, it is not to see one's floor-mates because of mismatched schedules, study habits, or sleeping patterns. What better a solution to this dilemma than dessert night?

Perhaps the most touching aspect of the event is the realization of the sense of community in Field. This is evident in dessert night's very nature. While it would be too easy with our busy schedules to simply grab a goody and get going, we (assuming there are no pressing matters, of course) stay to chat and catch up with our fellow HPsters. Furthermore, the bakers (without whom dessert night would not be possible) make sure to accommodate everybody, so as to include everybody. As a vegan, I accepted early on that I would not be able to fully enjoy the event. To my surprise, Monday nights have been host to vegan cookies and muffins!

As the holiday season is upon us, and consequent reflection ensues, I realize that I am so grateful for the wonderful company of my HPsters and dessert night.

# AN HP GRAD REMEMBERS TO PURSUE HIS DREAMS

I accepted a Schlumberger Fellowship towards the end of my undergraduate studies in order to pursue a Masters “with a thesis” at GT-Lorraine (GTL), which seemed a great opportunity. I finished the graduate credits in two semesters (which is neither fast nor slow, but was prescribed to me by the fellowship) and moved to Paris to complete my internship in May of this year.

The internship with Schlumberger has been incredibly interesting, and the material is all new to me. Despite the fact that my Masters is in ECE, it turned out my internship would be a series of optimization problems in different areas of pressure gauge calibration and modeling. My manager was incredibly hands-off, so he would simply voice his concern over some facet of his segment (e.g. a process or a method of production), we would write down a problem statement, and I would independently tackle it and present it to him when I was ready. One such project resulted in a 30% improvement in the accuracy of our product and our “Product Champion” (that’s what they call the guy in the suit that knows everything about a segment’s product) suggested that I try to publish a paper on my proposed methodology. This has certainly been the highlight of my internship, and so far my paper has been approved by an internal review—where lawyers, marketing honchos, and scientific fellows gave me the green light to publish externally. With this green light, it’s my intention to publish in the Society of Petroleum Engineers, though I never thought this is where I would first publish professionally. I’ve also met a share of very active environmentalists who are less than happy to hear what I do and who I work for. But it’s not so black and white, and Schlumberger (SLB) does pride itself in its environmental record.

My time with the company has not been without its trials, and my Master’s thesis has been something that GTL and

SLB did not negotiate very successfully. When GTL said “Master’s Thesis,” the people at SLB understood, “Rapport de Stage.” The latter is more like a senior design project for French people, and isn’t as theoretically or academically involved as the former. Unfortunately, GTL and SLB have not been able to reconcile this difference, and while they attempt to come up with a topic (8 months into my internship, no less), I’m trying to figure out how I can churn my work into some kind of thesis with academic merit. What has further complicated matters is that I effectively don’t have a thesis advisor (I did, but he had no experience or advice to give in my field of research at SLB). That said, I am confident that I will get through this process one way or the other, and that by May of 2012 I will receive my diploma. This has also made me think about what I want my next step to be, and it is clear that I need more creative license in my life than I am bound to find in Big Oil (i.e. Schlumberger). I have to face it, the oil industry is hardcore engineering, but it’s not the outlet for a musical dilettante.

I live for the fulfillment that creative achievement brings me; it’s a creativity that extends beyond the world of algorithms, theories, nuts, and bolts (those can be fun, too). Therefore, I’ve put together a strategy and looked into a couple of programs that will allow me to break away from the Schlumberger coat. The real goal is the Program in Media Arts and Sciences at the MIT Media Labs. It’s been a dream of mine for years to apply to the MIT Media Labs. And only recently did I forget that the dream is not to apply, the dream is to attend, and that I’ve been sidetracked. I feel as though I have blurred my vision out of fear of failure, perhaps because I also put art on the backburner. But as I revisit the few compositions, the photography, and the art that I’ve put together over the last five years, I’m reminded that the MIT Media Labs is a perfect match for me, and that I should be confident when I apply to their program.

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## CONTINUED FROM PG. 1

business that exports all over the world. Therefore, none of my coworkers speak any English. Since the original plan for what I was supposed to do fell through, I’ve just been helping out around the factory in any way that I can find. I’ve done a little bit of everything— MIG welding, TIG welding, SMA (stick) welding, plasma cutting. Sometimes I help make the back halls for the end of the extruder line. I find the manual labor interesting, since the quality of work usually ends up being quite good, though the equipment they use usually isn’t. Most of it is outdated by western



standards and almost none of it has any computer control. For reasons I don’t understand, they don’t seem to take good care of the equipment. The insides of their arc welders are covered with dust and the factory is disorganized and messy. I think the biggest disparity between this and a typical U.S. factory, however, is in safety. They pretty much have no rules they have to follow. Soon after I got here I saw one of the lead engineers light his cigarette on a plasma torch. Despite these

differences, it’s an interesting experience, one I can tell you more about when I get back to Tech next semester.

## "Eight hours for work, eight hours for rest, eight hours for what we will."

In the 1880s, the American labor movement took up that slogan in its struggle for the eight-hour workday, and I think it still resonates with us today. We now take the eight-hour day for granted, although we shouldn't do so too easily: people fought the bosses to get it, and a lot of them got killed in the process. Your doctor would also recommend eight hours of sleep, although I suspect not many of you get it: maybe "rest" allows you a little more latitude in that category. But for me, it's the "what we will" that deserves some attention, especially as we think, as I hope we do, about what to do with our lives.

Nineteenth-century working people understood that life can't be divided simply into "work" and "rest," that we are not just employees and sleepers. What helps us feel fully human is the business in between, the tasks and activities we choose for, even assign, ourselves. Students may feel as burdened by their books as any hod-carrier by his bricks, but sometimes you get to set everything down and do what you want, and that may well be what matters most. This semester I'm teaching an Honors Program course on the history of Georgia Tech. Among other things, it's a way of reflecting on the situation of undergraduates in a research university—which is, if you haven't noticed, the situation you're in. One of the readings suggested that a critical (and maybe pretty large) part of a student's education comes outside the classroom, in the informal interactions students have among themselves. My students certainly underscored that point, telling me that some of their best discussions about ideas and important issues typically come without the mediating, perhaps dominating, presence of a professor. (They were very kind not to name any professorial names, including my own.) The "work" of classroom assignments may be useful, but the "what we will" of extra-curricular, or what I call super-curricular, engagement may be what's most valuable in the long run of getting a good education.

Still, if I may offer one modest history-professor observation, it's that the notion of "what we will" doesn't mean just a random, happenstance hodge-podge of chit-chat, frat parties, and video games. The "will" I take to be an indication of intention, an expression of desire and decision-making, a sense of personal purpose. That takes some thought, but at least it can be yours.

Georgia Tech doesn't have an Andrew Carnegie paying a bunch of Pinkerton thugs to make you go to class, much less work in a coal mine. Instead, we have an Andrew Carnegie Building inhabited by senior administrators who are committed—trust me on this one—to helping you make the most of your Tech education. How you do so, though, is up to you. Your day may not divide itself into neat, eight-hour segments, but cherish whatever time you have "for what you will" and make the most of it. And as you do, think a kind thought for the nineteenth-century labor movement, the people who also brought you weekends.

### The Honors Program has awarded the first Liam Rattray Grant for Sustainability and Social Justice to Lillian Ponitz



The grant will help support her planned winter break service trip to Cameroon with *Engineering Students Without Borders*. The grant program is ongoing, and proposals are accepted on a continuing basis. See Dr. Halka for details.

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