

The Muddraker

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ASHMC Constitutional Amendments Call for Change

By Nick Hasegawa '10

On May 1st, 1977, the first Constitution of the Associated Students of Harvey Mudd College went into effect. The ASHMC Constitution was written to define the role and function of the ASHMC student government. ASHMC is a an incorporated body independent from Harvey Mudd College. All HMC students are considered members of ASHMC, and the sole purpose of ASHMC student government is to serve the student body. Over the last three decades, the ASHMC Constitution has been amended to keep up with the changes brought about by the HMC student body. This semester, the ASHMC council has decided to attempt one of the most significant overhauls of the ASHMC Constitution in recent years.

There are a variety of motivations behind this project. One of these motivations is to update the Constitution to reflect new developments within ASHMC. For example, a new electronic voting system for ASHMC elections is in its final stages of testing and approval, and the procedure for conducting student elections must be updated in anticipation of this new system. A second motivation is to make ASHMC student government more efficient. Examples of this include removing or modifying defunct positions and having more specific descriptions of the duties of ASHMC elected officials. A third motivation is to increase the visibility of ASHMC student government, so that HMC students always have easy access to updates on ASHMC council, ASHMC committees, etc.

One big question that many students will probably ask is, "Why should I care?" If you're a student that doesn't interact with ASHMC and isn't interested in interacting with ASHMC, then it's not obvious why any of this ASHMC stuff concerns you at all. The primary reason is that ASHMC is in place to benefit you, the student. ASHMC's budget comes from the \$245 that each HMC student pays every academic year. This money pays for clubs, student-organized events, and a variety of other activities requested by students. If you care at all about how your money is being spent, then it's in your best interest to participate in *ASHMC continued on page 3*



PHOTO COURTESY OF KATIE HAUSER '13

Rube Goldberg Machine Unites Campus, Mostly Works

By Ben Keller '10

On a sunny Sunday afternoon in March, the campus was abuzz with activity. Determined students ran to and fro, relaying messages and shouting instructions. Suddenly, students began pouring out of their dorm rooms and heading towards Linde Dorm, gathering in anticipation. After a tense few minutes, a countdown began. The crowd chanted excitedly, until finally the mysterious contraption was set off. The 2010 HMC Rube Goldberg machine had begun to cascade towards completion!

But how had this strange machine come to be? What could motivate so many Mudders to brave the sun's harsh glare? Just as the machine was set off from a single point, so did the idea for an HMC Rube Goldberg machine originate in one mind, that of Michael Ho '10, a Case proctor with some big ideas for the Harvey Mudd campus and its student body. We've all seen Rube Goldberg machine videos on YouTube, but for Michael, they were inspiration for something greater, something that would bring the entire campus together and put a personal mark on the YouTube Rube Goldberg universe.

Michael first imagined a campus-wide machine more than a year ago, but in order to ensure adequate time for preparation and discussion, he delayed his dreams, announcing the project last fall with a target date sometime in spring 2010. He soon gathered together interested students in some preliminary meetings and refined his expectations for the project. While his original conception had the machine running down the central length of the campus, most of this initial group of students favored passing the various components through the dorms themselves, a more interesting environment for the complexities of the machine. This also allowed a hierarchical organizational scheme in which each dorm could work on their components of the machine separately, while coordinating with neighboring dorms to determine the connections between them.

From the beginning, Michael felt that a sure way to increase student participation would be to ensure enough funding that imaginations could really run wild. In aggressively pursuing funding for the project, Michael received \$2000 from the Shanahan fund,

Rube Goldberg continued on page 4

Homework Hotline Offers Helping Hand

By Johnathan Chai '13

"Hi, thanks for calling the Harvey Mudd College Homework Hotline!"

The HMC Homework Hotline began this semester on February 1st and has been operating in the Linde Activities Center, Sunday through Thursday evenings from 7-10 PM. Each night, eight student tutors take calls from elementary through high school students who need help on their homework. The Hotline initially advertised to the Pomona and Claremont district schools but calls have come in from as far as New York. Although this free service focuses on math instruction, callers have requested help from other topics such as history and spelling as well; the tutors attempt to answer any question that comes in.

The hotline idea was sparked when President Klawe visited Rose-Hulman Institute of Technology (RHIT) in Terre Haute, Indiana, and was impressed by their Homework Hotline program.

Although the RHIT currently services the whole state of Indiana, they were looking for a west-coast partner. Thus, HMC chose Gabriela Gamiz-Gomez, a Pomona College alumnus, to lead this project. Gabriela, along with the help of Darryl Yong, a math professor at Mudd, has helped the homework hotline start up promptly over the past few months.

Student tutors went through training sessions, including a video conference with the head tutors at Rose-Hulman. The Rose tutors gave advice on how to teach math over the phone, which was the most common concern expressed by the Mudd tutors. Tutors have access to copies of the California state-approved textbooks, which makes it easier to follow along with the callers' questions. Several students were also trained to become mentor tutors, who supervise each night's session. James and Marilyn Simons provided a generous \$125,000 grant to establish and sustain this program. James

Homework Hotline continued on page 4



PHOTO COURTESY OF KATIE HAUSER '13

In this issue:

page 2

Editorial

World Science Cup Dazzles Local Youth

The World Science Cup, held on Saturday, March 27th 2010, brought over 100 elementary school students to HMC to participate in various science workshops.

West Dorm Purchases Bus

A new vehicle has found its home on the Harvey Mudd College campus.

3

ASHMC Voting Hits the Web

HMC students can now vote for their favorite candidates online.

Robotics Kicks off at Mudd

The HMC FIRST Robotics Mentors Club offers engineering advice to local youth.

4

The Shot Heard Round the World

Butler's loss to the Blue Devils startles many.

5

Rube Goldberg 2010

6

Trayless Tavern

A brief history and analysis of the trayless Hoch movement.

Havey Mudd Pilots Mentor Program

The new mentor program will serve as an additional resource for incoming freshmen.

7

Ask a Prof: Prof. Cha

Prof. Cha addresses your questions!

Lexicon Annoyances

8

Russell Transue Is Famous

Russell Transue describes his rise to fame.

Random Thoughts on the Passing Scene

9



10

The Muddraker Poll

How should ASHMC use its long term fund?

Puzzle of the Issue

Editorial

The Muddraker Sucks!

By Michael Ho '10

...or so I hear.

During my three and a half years working on the Muddraker, I've heard all sorts of negative comments about this newspaper and few positive ones. I've heard a student ridiculing the Muddraker in front of members of Shaimus, a band that we interviewed. I've even heard some faculty poking fun at our paper, including one from the HSA department (I don't think this professor realized I was an editor-in-chief).

I'm not going to go on about all of the (unconstructive) criticism I've heard about the Muddraker, because that isn't the point of this editorial. Instead, I'd like to take the opportunity to address these (valid) criticisms:

"The Muddraker never comes out!"

Well, that's not true. We publish about twice a semester.

"The Muddraker is super short!"

NO, YOU'RE SHORT!

Here's the thing: we're trying! We really are! Trust me, our staff wants the Muddraker to be more comprehensive than it is and wants to publish more frequently than it does (even more than you do).



Co-editor-in-chief, Ben Keller '10

However, publishing a newspaper is kind of difficult. Writing, editing, photography, and layout all need to occur and, as you probably know, students here are really reallyyyyyy busy. In spite of all of this, we have a non-zero staff that does it all.

Most of them even do so without compensation (currently we only offer work-study). To me, that is amazing.

Here's the other thing: we're growing! Let's not forget that the Muddraker didn't even exist 4 years ago. Since our first issue, we've doubled our page count for each issue, and can solidly do two issues a year (in previous years, we've had problems with needing to push back publishing dates). Next year, the staff will be rolling out a website with all past issues. If Hayden "Horatio" Hatch gets around to scanning them, the website will even include issues from the Muddraker's first incarnation.

The last thing: we could really use your support!

Students: In order to expand the Muddraker, we need more staff members! It's a great way to express anything you have to say, or get involved with current events on campus.

Faculty: I have a special request

for y'all. We (the editors-in-chief) have been pushing for our staff to get academic credit for the hard work they've put in. Time and time again, we've been told that this isn't possible due to red tape. Really? I think we can do better than this.



Co-editor-in-chief, Michael Ho '10

First, let me explain why I think the Muddraker staff deserves and needs credit. The Muddraker is about journalism. Though we do include some fun pieces into the paper, the Muddraker is a serious publication. With the exception of the

Muddslinger, we are not interested in talking about the latest Harvey Mudd gossip; our staff is interested in performing real research into the topics they write about. The HSA department has limited opportunities to practice journalism and I think it makes sense for the Muddraker to fill in this gap.

Furthermore, giving credit to the staff would do a lot for the paper. Currently, we have a staff that is truly passionate about the Muddraker (or else they would've dropped out by now). However, when it comes down to it, people need to get their work done and it's hard to justify working on the newspaper when you have a mound of other work to attend to. If we could get credit for staff members, our writers, editors, photographers, and layout staff would work more consistently on the Muddraker to make it an even better publication.

Think about it, would you? Maybe you could help the Muddraker stop "sucking" in the near future.

World Science Cup Dazzles Local Youth

By Johnathan Chai '13

On Saturday March 27th, over a hundred students from Allison and Roosevelt Elementary Schools participated in the World Science Cup. Forty student volunteers from Mudd, Scripps, and Pomona guided the enthusiastic students through various workshops in the topics of robotics, biology, and physics. The day kicked off with an eye-opening

chemistry show filled with fire and color-changing acid-base chemical reactions.

In the robotics station, students practiced thinking like computer programmers by giving specific step-by-step directions to prepare a peanut butter and jelly sandwich. They then helped code Roomba robots to drive along a path with instructions

such as "Forwards," "Turn Left," and "Drive to Wall."

The biology station included several interactive role-playing games. Students began by matching up as nucleotide base pairs and acting out how restriction enzymes cut DNA. Afterwards, the kids modeled a chain of neurons and raced each other to transmit the signal, a squeeze of the hand in the simulation, from one end of the line to the other.

The physics station was a gauntlet of four rotational motion projects. First, the kids created "screaming balloons" by blowing up balloons with hex nuts inside. The centripetal force from spinning up the balloon caused the nut to vibrate and produce a distinguishing noise. Next, the kids experienced conservation of momentum firsthand by spinning on office chairs. The students were amazed to see their friends rotate faster after pulling in their arms and legs. Third, the kids attempted to balance an inverted pendulum on their fingers and quickly realized that it was much easier with the weight placed as high as possible. Finally, the volunteers gave a dem-



PHOTO COURTESY OF JOHNATHAN CHAI '13



PHOTO COURTESY OF JOHNATHAN CHAI '13

onstration of how centripetal force can keep water from falling out of an upside down bucket by spinning it very fast. Sophomore Johnson Qu, who headed the World Science Cup, reflected, "It was a bit of work to organize this event. I wanted to make sure that everything flowed smoothly on the day-of, so there was a lot of planning in the weeks lead-

ing up to the event. A major change this year was that we were able to organize school buses from the schools for the kids, which allowed more of them to come. This was a massive improvement for everyone. But there are always things that can be run better, and we will see what we come up with next year."

The Buses of Mudd

By Matt Goodwin '13

With the purchase of the West Bus, Harvey Mudd adds another yellow, four wheeled vehicle to its collection of famed modes of transport. When many think of vehicles at Mudd, minds often go to the longboards and unicycles that are ubiquitous throughout campus. However, as one digs a bit into the history of Mudd, one finds that

some of the greatest stories of intrigue and adventure come to us via the wheels of a bus. The first is one that all too many of us are acquainted with, be it really fact or fiction. This tale is indeed that of the pre-frosh lost in Mexico. As legend has it, some visiting prospective students found their way onto a Muddrader Van (yes, I know its not exactly

a bus, but work with me here) and through some strange set of events ended up in Tijuana with a group of Mudders. As the story goes, somehow the students forgot they had guests with them (they were probably excited over the prospect of all the homework that awaited them back at Mudd), thus causing some poor young stranded teens to contemplate not only what college they were going to apply to, but also how to send in their letters of acceptance internationally. Another story of bus lore (yes this time it does involve a real bus, although its more akin to a Greyhound line than a school bus) lies with Jay Wolkin, the North Proctor who was tragically killed in a plane crash before he graduated in 1999 and the same Jay whom Jay's Place is named after. The next time you go into Jay's, take a look at his picture next to the fireplace. If you look carefully you'll notice that Jay is at the helm of, you guessed it, a bus. Jay and his friends too had a bus. It cost them \$3750 to buy, spent 25 years in ser-



The legendary West Bus, parked behind West Dorm. PHOTO COURTESY OF KATIE HAUSER '13.

vice, and had over 500,000 miles on it. Their plan was to leave from Mudd and get to New Orleans just in time for Mardi Gras. Suffice to say they ran into a bit of difficulty, but I won't ruin the story. To see for yourself, visit <http://www.cs.hmc.edu/~vaughan/bus/>, a website created by one of Jay's friends that is

dedicated to their wild adventure. With the dawn of the age of the West Bus, one can only hope the long legacy of the storied Mudd Buses continues. I heard they already managed to get it locked in a parking lot overnight, so it looks like they are off to a good start.



The interior of West Bus. PHOTO COURTESY OF KATIE HAUSER '13.

ASHMC Electronic Voting System Approved

By BEN KELLER '10

When this year's ASHMC elections were announced, many Mudders were surprised to discover that the call to perform their civic duty was not shouted from an ASHMC council member in the dining hall, but instead broadcast right into their dorm rooms. ASHMC recently approved an electronic voting system that allows students to vote at their convenience, without all the hassle associated with filling out and counting paper ballots.

The new e-voting system has been in the works for several years, but only recently did it become certified for official ASHMC use. Initially, the project was assigned as coursework for CS 121, a course involving large-scale software projects. While the students in the course succeeded in constructing an e-voting system, the program suffered from issues of stability and ease of use. Further compounding the problems, no one was responsible for maintaining the code after the course was completed. After one attempt to use the software in an ASHMC election, the program was abandoned.

In the fall of 2008, three members of the class of 2009 founded Mudd Software Designs, or MSD. The e-voting system deployed earlier this month was the inaugural project of MSD, an attempt to salvage the workable portions of the original e-voting software while improving the robustness of the design. Work continued on the project for over a year, with many club members devoting spare weekend hours to the project. Bryce Lampe '10, the current president of MSD, expressed confidence in the new system. He explained that even though individual MSD members will graduate, the club will persist and remain responsible for maintaining the code for the e-voting system, as well as other projects that

the club has underway. He also hoped that the successful deployment of the e-voting system would serve to promote the club (more information about MSD can be found at muddsd.org).

The voting website, which can be accessed at vote.muddsd.org, is straightforward and easy to use. Students log in with their CIS account information and are presented with ballots appropriate to their class year. While the e-voting system supplants the use of paper ballots, its verification systems meet the standards delineated in the ASHMC bylaws. The system maintains the anonymity of all votes, and sends an e-mail confirmation to students that have voted. It also allows ASHMC council administrators to easily check whether quorum has been reached, as well as ascertain election results without any manual ballot-counting.

ASHMC vice president Nick Hasegawa '10 was optimistic about the new e-voting system, explaining that its ease of use would likely increase student participation in ASHMC elections. However, he acknowledged that it might be more difficult to engage some students because of the ease with which many Mudders ignore or delete the copious amounts of e-mail that they receive. If turnout does not meet expectations, it might still be necessary for ASHMC council members to table in the dining hall, sporting laptops instead of paper ballots. Nonetheless, the e-voting system represents considerable time savings for both council members and students, and it will likely become the *de facto* standard for conducting ASHMC elections in years to come.

ASHMC continued from Front Page

ASHMC and keep up with changes to the Constitution that might change the ways your money is allocated. A second reason is that ASHMC, while separate from HMC, can be an agent of change on campus. ASHMC officers and committee members interact with the Dean of Students office, the Faculty Executive Committee, Dining Services, F&M, Career Services, alumni, and trustees. If there are things at HMC that you as a student want to see changed, you should look to your ASHMC representatives to help you push for those changes.

Furthermore, the changes to ASHMC that have been discussed this semester will definitely have notable impact on student life. For example, the ASHMC Council and the JB and DB chairs have been discussing changes to the Honor Code. One the most innovative of these changes is the creation of the role of "student advocate." In JB and DB cases, the advocate would be a representative from the Honor Board chosen by the student defendant to act as an advisor. The advocate, armed with knowledge of the Honor Code and previous cases, would help the student defendant determine if they are being offered fair settlements.

As another example, one of the most discussed issues related to the ASHMC Constitution has been dorm presidents. As it is currently written in the ASHMC Constitution, dorm presidents are officers of ASHMC student government, elected in ASHMC-sanctioned elections. While dorm presidents do currently serve as members of the ASHMC council, the current practice is to elect dorm presidents unofficially within the dorms, independent of ASHMC student government. This has raised several questions: can dorm presidents be considered members of the ASHMC council if they are not elected in an ASHMC election? Should ASHMC be concerned about how dorm elections are being run (or if they are being run at all)? Should the ASHMC Constitution be changed to give the dorms more autonomy in selecting presidents and officers? A lot of different opinions have been brought forward regarding these questions, and if dorm life is an important issue to you, then you should make your opinion heard as well.

If you want to get more involved, there are a number of ways to do so. First, join the discussion. ASHMC council meetings, held at 4 PM on Sundays in the LAC Riggs Room, are open to the student body. Join ashmc-agenda-l to see what's on the agenda for the coming week's meeting so that you can come to meetings dealing with items of interest to you. We've also created constitution-l, an email list for discussion of proposed changes to the ASHMC Constitution open to the student body. A second way is to stay updated. Feel free to ask any students involved in ASHMC about what is going on. Be on the lookout for announcements of Friday Forums where students will be invited to talk about ASHMC issues. Finally, you can get involved by running for ASHMC office, applying to take an ASHMC appointed position, or joining an ASHMC committee. This is a great way to be involved on campus and do something you care about. The time commitment varies from position to position and week to week, but the work can be highly rewarding. Whether you know it or not, ASHMC has the potential to have a major impact on student life at Harvey Mudd College. Hopefully, students will take advantage of this opportunity and help ASHMC to change the school for the better.

Nick Hasegawa is an outgoing ASHMC vice president.

Robotics "Kicks off" at Mudd

By JOHNATHAN CHAI '13

The bell sounds as players rush to the joystick controls of their robots. On the field, six 120-pound robots compete in Breakaway, the 2010 FIRST Robotics Competition game. Teams play 3 versus 3 matches and score points by kicking soccer balls into goals. However, the game arena is not your typical soccer field. The carpeted surface is divided into three zones by one-foot high bumps and tunnel pathways.

Teams designed their machines with the center of gravity and wheel traction in mind to avoid tipping over while crossing over the bumps. Many robots were equipped with kickers that could launch balls over 10 feet. Each match starts with a 15 second autonomous period, during which robots could only run using a pre-programmed routine. Then, for the remaining 2 minutes, team members operate their ro-

bots using remote controls. Unlike other robotic competitions such as BattleBots, the FIRST Robotics Competition encourages "Gracious Professionalism," a spirit by which teams are competitive yet maintain a friendly atmosphere. The ultimate goal is not destroy the other robot but to share each other's common passion for robotics.

Thirteen local teams showed up to the event in the Linde Activities Center Gym on Sunday, February 21st. The scrimmage was led by Sarah Ferraro, currently a sophomore computer science major, and a team of Mudd students, many of whom had been involved in the FIRST Robotics Competition in high school. The student volunteers helped the event run smoothly, setting up field elements, refereeing, and playing enthusiastic Master of Ceremonies. One of the participating teams even arranged a live webcast of the competition.

"Participating in FIRST as a college student is a very different experience than high school," reflects Sarah. "Suddenly, there is more to the program than whether or not my robot is working today -- it is really about making sure the kids are learning about engineering and turning their ideas into a physical machine. Watching teams use our scrimmage field to diagnose and fix the issues with their robots was really cool. It was great to know we could make a difference even with our limited time as college students."

Sarah started the FIRST Robotics Mentors club after founder of FIRST and inventor of the

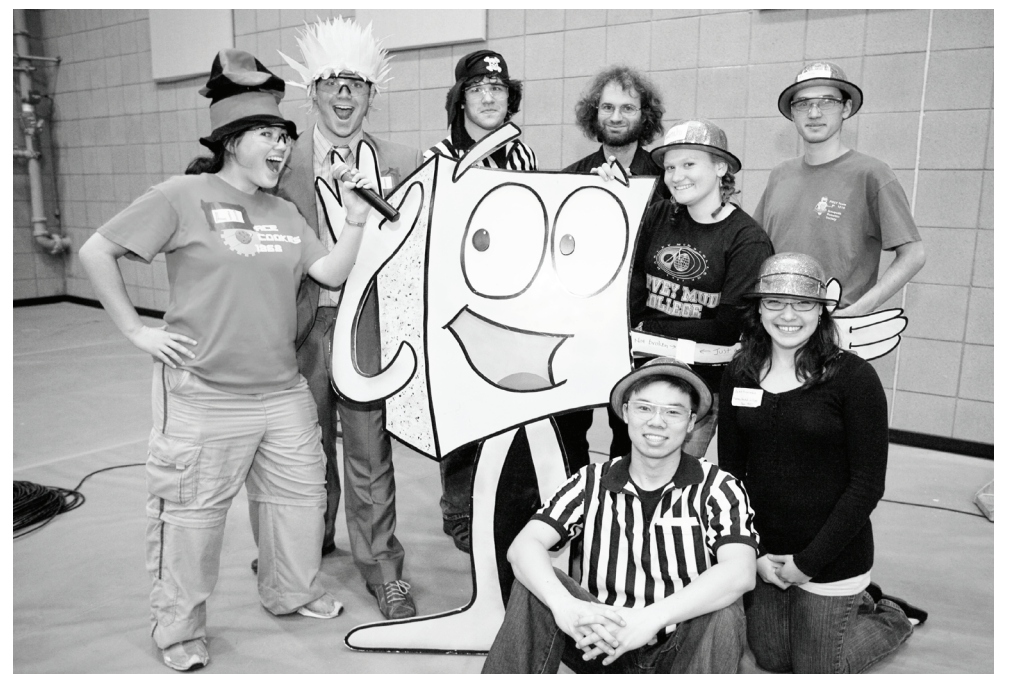


PHOTO COURTESY OF WILLIAM VASTA

segway, Dean Kamen, gave the commencement speech at Mudd last spring. The club's original plan was to help mentor a rookie team at Diamond Bar High School, but that project was cancelled due to their head teacher unexpectedly dropping out. Nonetheless, several students were able to visit a veteran FIRST team in West Covina to observe their prototyping process. Sarah told the Muddraker that "for [the] next school year, the FRC

Mentors Club plans to mentor a FIRST team. We are excited about being able to work closely with the high school students for the entire six week season, helping teach them about engineering and how to turn their ideas and a bunch of spare parts into a competitive robot."



PHOTO COURTESY OF WILLIAM VASTA

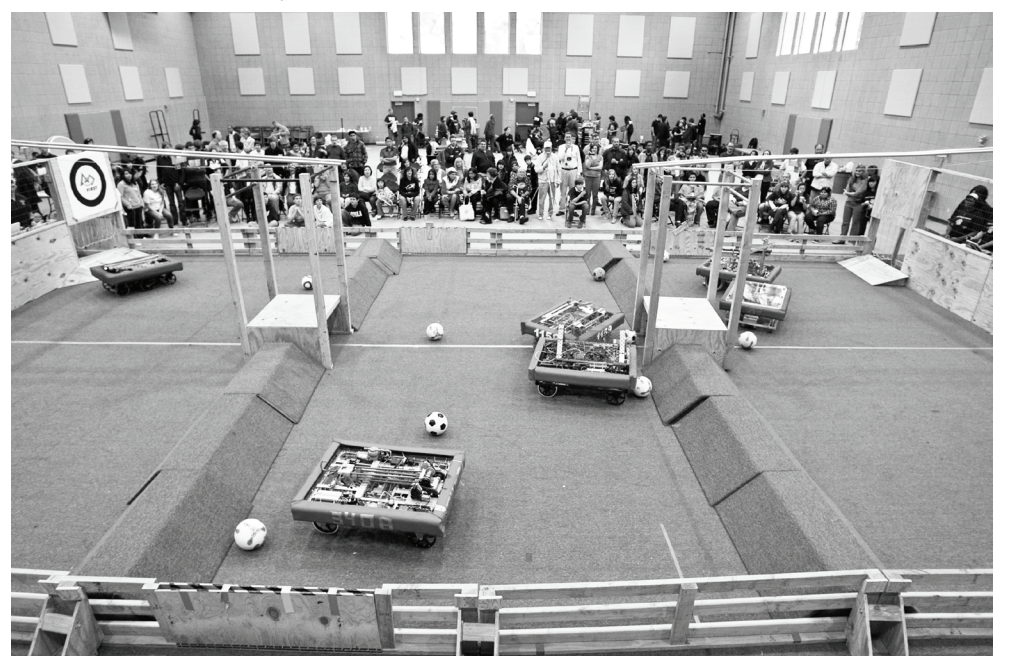


PHOTO COURTESY OF WILLIAM VASTA

Rube Goldberg continued from Front Page

\$1000 from ASHMC, and over \$3000 from the Alumni Association’s Board of Governors, who were sold on the idea on a visit to campus. With nearly \$1000 for each participating dorm, the project could move forward with a solid basis for funding some extravagant student ideas.

Despite the months of planning, most of the actual construction occurred in the week leading up to the event itself. With tensions mounting, Michael made the decision to postpone the event until the final Sunday of Spring Break. While this may have reduced the number of students able to participate in the construction of the machine, it ensured that those on campus would have real time to put into the project. Michael believes that this was ultimately the correct decision, and that the project “wouldn’t have happened otherwise.”

Despite the frantic scrambling right up to the set-off, the machine was completed in time. As the cascading dominos and toppling two-by-fours tumbled about the campus, each dorm’s personality could be seen in their own section of the machine. North set up a cascade of (empty) beer kegs across the quad, while Case’s extensive domino networks transferred their kinetic en-

ergy within its halls, away from prying eyes. The machine concluded at West; fire, of course, figured prominently in the final send-off. As students sprinted to keep up with the twisted machinations of the contraption, many were wielding cameras and camcorders, contributing to a crowd-sourced documentation of the entire machine that revealed more than any single student could see. Weeks later, an edited compilation video was released (point your web browser to youtube.com/watch?v=Any6bCAmnl0 to see it for yourself).

Canny observers may have noticed a few points at which the machine needed some human coaxing to continue along its path. Nonetheless, Michael (and many others) considered the machine a success. Achieving a perfectly working machine “wasn’t really the main goal,” he says. The real objectives were to get outside, be creative, and have fun! Might this be the first of many campus-wide Rube Goldberg experiments? Michael thinks that the school might be able to repeat the experience on a two-year timeline. Now that students have hands-on experience with organizing and building the machines, he says, “it will just get better and better.”

Homework Hotline continued from Front Page

founded Math for America, a non-profit organization which improves math education in public schools, and spoke at Mudd for the Annenberg Leadership and Management Speaker Series on April 27th.

A meet and greet reception was held on Wednesday, March 10th in the Platt Green Room. During the event, student tutors shared their Homework Hotline experiences with HMC faculty and staff, as well as members of

the local community. President Klawe, Dean of Students Maggie Browning, and Gabriela all gave brief speeches about the history and quick success of the Hotline. This outreach program has provided tutoring to students who would not normally have access such free services. In addition, the Hotline has also given leadership experience to the student workers, many of whom are freshmen and sophomores. Although the program is currently in a

pilot phase, plans have been discussed to expand the Hotline’s services. The combined enthusiasm of all the participants involved has been a key factor in the Homework Hotline’s accomplishments and positive outlook.

The toll-free Homework Hotline number is 1-877-8AskHMC (1-877-827-5462). To learn more, visit their website at www.AskHMC.org.

What do you like most about being a tutor?

“I like Homework Hotline because kids don’t get embarrassed asking questions over the phone. There’s a sense of confidentiality”
—Evann Gonzales 2012

“Working at the Homework Hotline is a way to reach out to everyone who needs help. From people who are just struggling to understand a concept, to people who lack basic math skills, no one is left behind”
—Malous Kossarian 2012

What is the strangest call you have received?

“Someone asked for directions to get to the homework hotline because they thought it was an actual place”
—Tiffany Liu 2013

“Someone tried to make a face-to-face appointment”
—Emma Van Burns 2013

“Do I drop my kid off?”
—Kim Quach 2012

March Madness 2010 and the Missed Shot Heard ‘Round the World

By Kevin Leyden ’13

It was so close. Gordon Hayward got the inbound pass and drove up the court, dodging Duke defenders with Butler University and the whole state of Indiana on his shoulders. The stage was set for the greatest sports moment in history. Down two and with less than a second on the clock, Hayward launched up a prayer from half-court, and it looked perfect. Fans on both sides will tell you they thought it was going in, no question. The ball hit the backboard, but bounced off the front of the rim and landed with authority on the floor of Lucas Oil Stadium. Duke 61, Butler 59.

The Butler players, coaches, and fan base – which, by this time, included most everybody watching – were stunned. The story had been straight out of Hollywood. Butler had won all of its conference games in the Horizon League, but their league was so obscure that people still didn’t give them a chance in the Big Dance. They were saddled with the fifth seed in the West Region, even though they hadn’t lost a game since before Christmas. It was the selection committee’s way of saying, “Play somebody legit and then we’ll talk. Better luck next year.” However, after making 12-seed UTEP and

13-seed Murray State look like appetizers, Butler brought its classic small-ball mentality up against the sharpshooting and physical 1-seed in the West, Syracuse. The odds were with the Orange, whom most considered to be one of the top three teams in the nation. However, Butler topped Syracuse 63-59 to advance to the Elite 8, one game away from playing in the Final Four in their home city, Indianapolis. Up next was a ferocious Kansas State team, the 2-seed, and this time it was the fast pace of the Wildcats’ offense that was supposed to put an end to the Bulldogs’ run. Butler was not fazed, though; they relied on their defense and won 63-56.

Now in the Final Four, seven miles from their campus, the Bulldogs had the whole nation bleeding black and blue. Everybody whose team had already lost, or whose bracket was busted – in other words, everyone except Duke fans – was pulling for the Cinderella story. Could Butler etch its name in the history books? First up was the 5-seed from the Midwest and 2009 national title runner-up, Michigan State, who had thus far proven that Tom Izzo could win with anybody on his roster. With Kansas, Ohio State, Georgetown, and Maryland in

that region, few expected the Spartans to make any noise. Yet here they were, another semi-local powerhouse ready to rob Butler of the glory. They almost did, too; even without star guard Kalin Lucas, the Spartans lost in a thriller, 52-50 in favor of Butler.

Butler didn’t have long to revel in that victory, though; standing in between them and the national championship trophy were the perennially elite Duke Blue Devils. Led by Jon Scheyer, Kyle Singler, and Nolan Smith, collectively known as “Superb, Scintillating, and Sensational,” Duke – the Evil Empire of college hoops, highly analogous to the New York Yankees – was the last 1-seed standing. In this year of wild storylines and stunning upsets, surely it was time for a small school with academics a higher priority than sports to win it all, right?

Well, not quite. Duke didn’t let the pressure get to them, and Hayward’s shot just didn’t fall at the end, so the Blue Devils are national champions. But let us not forget some of the other amazing stories that went down over the course of this tournament. Midwest 14-seed Ohio took down the bigger, more fiercely tested, and more talented 3-seed Georgetown in the first round, and did so in dominating fashion. Ali Farokhmanesh threw millions of brackets, including mine, in the trash when his three-pointer sealed ninth-seeded Northern Iowa’s victory over undisputed title favorite Kansas, in only the second round. Washington made it to the Sweet 16 with wins over 6-seed Marquette and 3-seed New Mexico, in what was supposed to be a down year for the Pac-10. And, to continue the theme of academically inclined schools stepping up to the plate, let’s have a hand for Cornell. The Big Red were sorely underseeded, given the 12 in the East when they were probably more deserving of something in the 5-8 range. This did not shake the Red, though; they came out and crushed 5-seed Temple by 13 points and 4-seed Wisconsin by 18. Top-seeded Kentucky put an end to Cornell’s pursuit of the title, but that is beside the point. An Ivy League school without the luxury of handing out huge athletic scholarships beat two of the nation’s best teams in three days, and like Butler, Cornell inspired hope in young athletes and fans everywhere. With determination and the right decisions, any team can win.

This March Madness was truly mad and certainly unpredictable. However, it could get even harder in future years, because the days of the 64-team field



PHOTO COURTESY OF MICHAEL CONROY

in the NCAA men’s basketball championship are numbered. The field is most likely going to be expanded very soon to 96 teams, which is atrocious. No championship contender gets left out in the current tourney, and giving the best 32 teams first-round byes only makes the workload harder for the potential upset stories. A 96-team tournament would make the regular season practically meaningless, for a bid would require so much less in terms of quality wins, strength of schedule, and

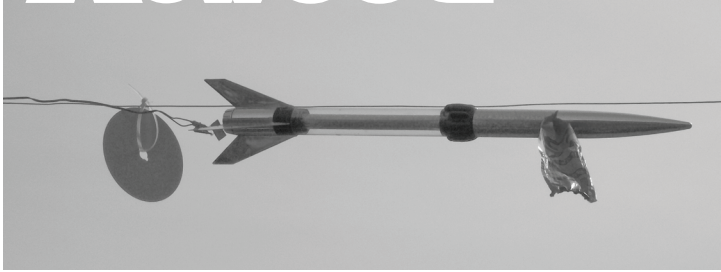
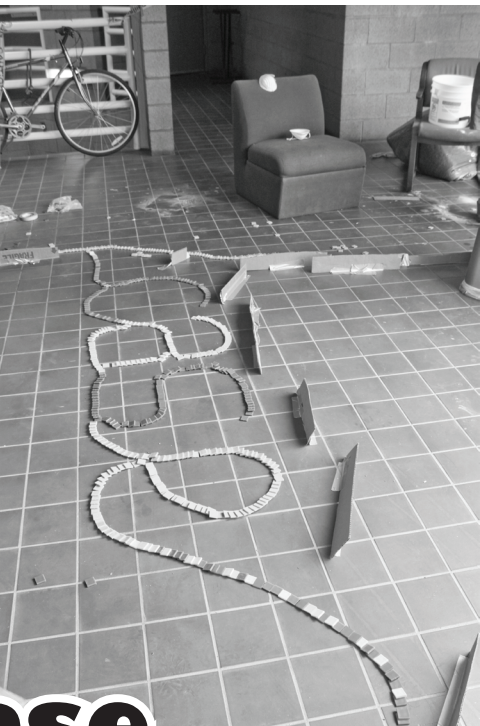
the like. But as it stands, the fan’s voice is not heard; the NCAA wants its cash, and it will get it. Until then, though, we will remember Butler. If Hayward returns for his junior season, this team could make it all the way back to the national championship game in 2011, no matter how many teams it has to eliminate to get there. And next time, Butler will win. After all, they were just a shot away.



PHOTO COURTESY OF AP PHOTO

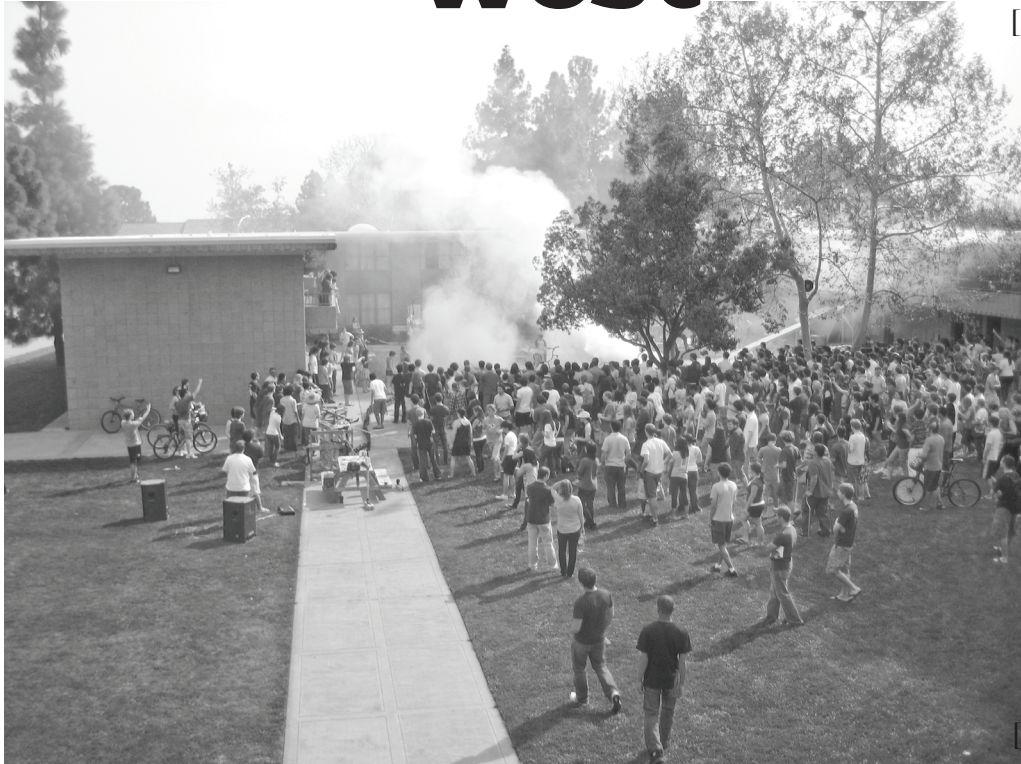


PHOTO COURTESY OF AP PHOTO



Rube Goldberg 2010

Photo Credit: Ariana Friedman: [1], [5], [9], [16]; Johnson Qu: [2]; Tracey Luke: [3], [4], [12], [14]; Moby Khan: [6]; Kristine Fong: [7], [10]; Kate Burgers: [8], [13]; Caitln Jacques: [11]; Katie Hauser: [15], [18].



Trayless Tavern

By SCOTT ALMOND '11

If you're reading this, you're probably having a meal in the Hoch. Chances are your plate lies on the table rather than on a tray as the students who dined here last year had. Why the trayless movement? Was it really worth it to give up your tray?

The trayless movement on the Harvey Mudd campus began in December of 2008. Daniel Ihlenfeldt '11, as acting Food Committee Chair, announced to the student body that the Hoch was considering removing or reducing the use of trays in the dining hall in order to reduce the negative environmental impact. This move was sparked in part by the student body's desire to become more sustainable, and also in part by Sodexo, the company that provides dining services for the Hoch. At the beginning of 2009, Sodexo reported that nearly 40% of the 600 campuses they provide services for had gone trayless. According to Sodexo, the trayless initiative saves around 200 gallons of water per 1,000 meals served. The Hoch, on an average day before going trayless, used 8,500 gallons of water in a day (measured between 9/7/08 and 10/10/08), although the number of meals served in that time could not be found before this article's publishing. Sodexo went on to report that going trayless would reduce one ounce of waste per plate.

From this initiative, the Hoch started a "Trayless Thursdays" program on March 1st, 2009. From the "overwhelmingly positive response" this program sparked (a reported 23% reduction in water usage), the Food Committee announced another experiment, "Waste-not Wednesdays," where only trays would be available: plates and silverware would not be offered (under the presumption that trays would pack more efficiently into the washer than plates and silverware would). This idea apparently was not as effective and was later dropped. On April 29th, the Food Committee announced that the Hoch would be going trayless with the rest of the 5C colleges the following Fall of 2009.

Fast-forward a year. The Hoch has now been trayless since September of 2009. Was the trayless initiative as successful in the long term as initially reported? Ideally, one would simply read off the water gauge for the Champion washer in the dining hall and determine if the total water usage decreased. Also, inspecting the total number of meals served would provide a base mark for the quantity of food being eaten, and by extension, an estimate at the amount of waste. However, to this reporter's knowledge, there does not appear to be a water gauge directly connected to the washer, and the food budget data proved infeasible to obtain. However, Mr. Miguel Ruvalcaba, the General Manager of the Hoch, did state he had noted a decrease in the amount of food purchased in the Hoch from past reports he had seen. The most quantitative data was obtained thanks to Tom Shaffer, the college's Plant Engineer. Mr. Shaffer provided not only water usage for the Hoch, but also for the academic end of campus for comparison.

In inspecting the water usage over the past two and a half years (since November 2007), there does appear to be a significant decrease in water usage at the end of 2009 and at the beginning of 2010. Unfortunately, not all the data was accessible for 2010 as the digital water meters failed in March, losing several months of data. However, the average daily water usage between 9/7/09 and 10/10/09 was 6,400 gallons, a 25% drop from the previous year. Presumably the washer decreased it's own water usage by more than 25%; the data presented is from the entire dining hall, not just the washer, so many factors that did not decrease, such as the water used for cooking, mitigate the water saving percentage. The water usage for the Hoch over the last two and a half years is presented in the Figure 1. It can be noted that not only did the water usage drop this school year, it was also tapering off at the end of the last school year when various initiatives were being tried to see which was most effective.

It is also interesting to note that the water usage over the summer goes up significantly in Academics. Perhaps certain research projects use more water during the summer. It appears that when everyone goes home during the winter that the water usage drops, but when select professors and some students remain on campus, water usage increases significantly. It is also plausible that the water is used for coolant, which would explain the correlation with temperature. Speaking with Mr. Shaffer, he stated, "The water meter in Academics was installed mainly to measure the water consumption of the cooling towers for the central plant chiller system." He theorized further that the trend was from the "heat rejection of the chillers during the hot summer months through evaporation in the towers."

Perhaps that is the complete story. The Hoch initiated an environmentally friendly program and the results were substantial. However, Mrs. Laura Clark, the college's Director of Business Affairs, desired to look at all the possible factors that could also alter the data presented in addition to going trayless. She indicated that the number of meals served might have gone down if there was a trend of students going off

campus for meals rather than staying with the Hoch. She also noted that food prices had increased quickly over the course of this school year, and the Hoch had had to make adjustments accordingly to remain within their budget. For example, Mrs. Clark pointed out, the number of cereals offered has been cut from twelve to eight (students who recall the trayless announcement may also recall a poll attached to that email asking about your favorite cereal).

Perhaps the most confusing factor was the water usage over the day from the Hoch. While the usage over this school year may have decreased, this reporter is left wondering if perhaps the savings may not be due to the washer. Figure 2 displays the number of gallons used per 10-minute period on average in the Hoch as well as in Academics. You will notice that the usage peaks around 9PM and 2AM. Speaking with Mr. Baltasar Quintero, the Dining Services Lead at the Hoch, he indicated that the dining staff are most active, and by extension use the washer most, between 7:30 to 10am, noon to 3pm and from 5:30 to 9PM. There is no overnight washing of dishes in the Hoch. Why, then, the large spike around 2AM? Looking instead at the academics water usage, there is also an increased amount of water consumption during the evening and late morning. Looking at 5AM, the usage drops very suddenly in academics. Most likely, this trend is from the sprinklers, which are run when they least inconvenience people. But why the variability? Certainly, if the sprinklers were on a timer, the data would most likely show a distinct rise and fall during the time they were on, a step function, rather than the gradual rise that is seen in academics and the gradual rise and fall that is seen in the Hoch's data (presuming the Hoch's water line is also connected to the sprinklers). Perhaps landscaping has a higher cost than would be presumed on first blush.

Another proposed theory is that the data are inverted from the actual values. This, however, isn't possible because of the way the data was collected. The water readings were calculated as a difference between two water readings. The meter outputs a digital signal of the total water used thus far that year and each data point was generated by taking a difference between two consecutive readings.

An alternate explanation of the nighttime usage lies with the meter itself. Perhaps the timer is off. While the date is correct, the time of day may not be; perhaps the spikes really do occur during the meals, just the data is shifted from the true time. If this were true, the water wouldn't be used until the Hoch opened (and when staff had access to the equipment), which would dictate that 1PM, as shown on the chart, would actually correspond to 6am. That would make the usage peaks at 2PM and 7PM. This explanation definitely holds water since both those times lie after big meals during the day. Comparing the data between 2008 and 2009 reinforces this theory. By looking at the 2009 data (from 9/7 to 10/10), it becomes apparent that the two peaks decrease in magnitude an equal percent over the data from the previous year. If the sprinklers were going off at 2AM, and if the sprinkler water usage remained constant, we would expect to only see the peak on the right of the plot to decrease, not both peaks.

Speaking with Mr. Shaffer shed some light on the odd timing of the spikes in the Hoch's water usage, "The 2AM spike in the usage is most likely due to the evaporative water coolers on the roof dumping the water tray [there are three coolers that are scheduled to go off every day at 2AM], flushing and refilling to flush the sediment and mineral deposits." Given that explanation, that doesn't fully explain the drop in the morning spike between 2008 and 2009. If the washer machine were being used more efficiently, why would the efficiency of the Hoch's water coolers on the roof be affected? Mr. Shaffer continued, "There were some maintenance issues with the evaporative cooler sections for the dining hall cooling system that we corrected last year, probably on the order of a gallon or two a minute", or as it would appear in the plot, 10 to 20 gallons per 10 minutes.

While that describes the sustainability data, it is intriguing to note other trends in water usage: the variations over the span of a week, for instance. The water usage appears to be every so slightly lower on Mondays than the rest of the week. Talking with Mr. Quintero, he stated the Hoch does see a slight slump in meals purchased on Mondays and Fridays.

While the Hoch's decreased water usage over the past school year may be attributed to a number of causes, it continues to be significant. If it is due to variations in the sprinkler levels or air conditioning units that are tied to the Hoch's water meter, maybe altering how the Hoch's washer is used isn't the only meaningful measure the Mudd community can take towards sustainability. If the data really does point to the washer as being the driver behind these water usage savings, then it really goes to show what the community can accomplish when we work together.

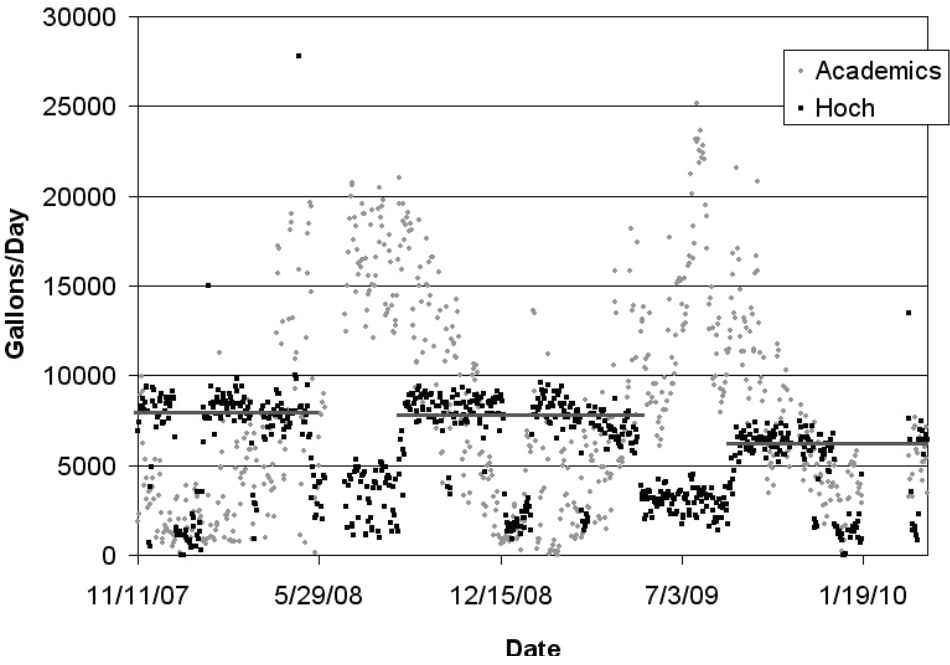


Figure 1. Daily water usage of both the Hoch and the academic end of campus. The horizontal lines were added to indicate average water usage when the Hoch was open.

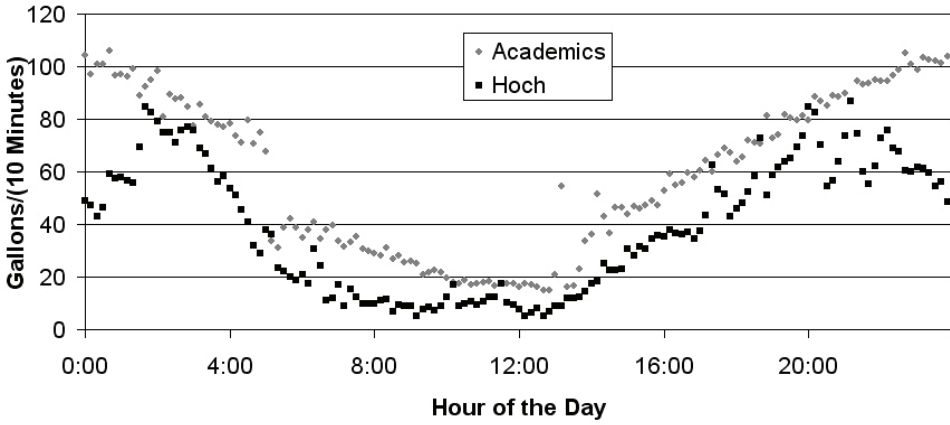


Figure 2. Water usage over the period of a day in both the Hoch and in academics.

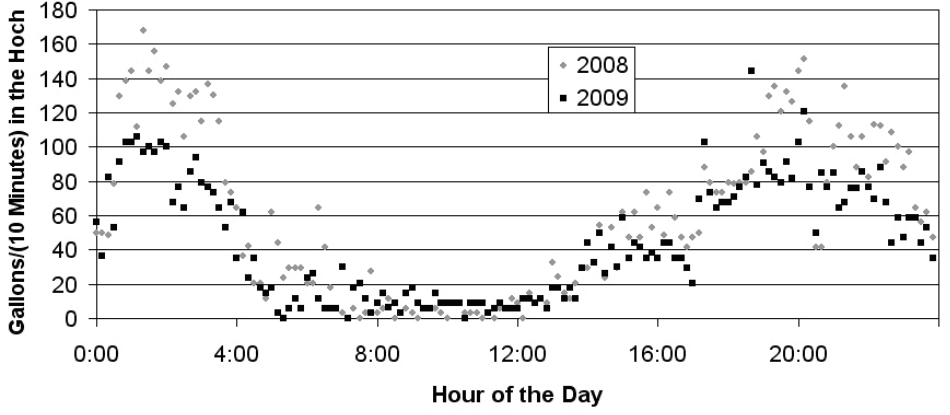


Figure 3. Average water usage over the span of the day in the Hoch from 9/7 to 10/10 in 2008 and 2009.

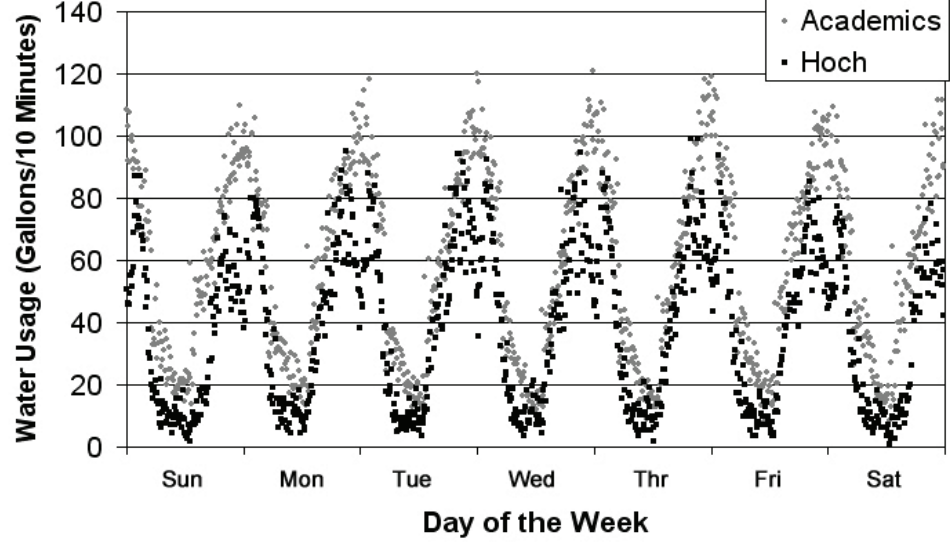


Figure 4. Water usage per day of the week in the Hoch.

New Mentor Program Takes Shape

By GARRETT MENGHINI '13

As Harvey Mudd College continues its never-ending quest to improve the lives of its students, a new program has taken shape for the 2010-2011 school year. In addition to the proctors of each dorm, freshmen will have an additional resource, mentors, to help guide them through the year.

The mentor program is an extension of the supersponsor program that was implemented this year. This was a pilot program that assigned 15-20 freshmen to an upperclassman, who served as a guide to the freshmen. Occasionally, the supersponsors put together group activities and were always available to counsel the freshmen. In addition to having the supersponsor as a resource, each group was also given a faculty advisor who could assist in the supersponsor program.

The new mentor program will not only carry over some of the ideas from the supersponsor program, but will also go a long way in fulfilling some of the college's long-term goals. The year-round purpose of the mentors will be to help the proctors within the dorms. Three mentors will be placed in Atwood, Case, and North, while two mentors will be placed in each of the remaining dorms. Each mentor will be assigned a mentor group of 15-20 incoming students. Throughout the year, the mentors and the proctor will collectively work to guide the freshmen to success, forming the beginning of a residential system at Harvey Mudd College.

The mentors were chosen from a very selective pool of applicants, as in order to become a mentor, the applicant must first have been accepted as a sponsor. The sponsor selection was particularly competitive, as more than 150 students applied for only 37 positions. From this group of accepted sponsors, 24 applied to become mentors. After all was said and done, 19 mentors were selected. The mentors were chosen because they showed the integrity, mature character, and strong interpersonal, organizational, communication, and team skills that best represent the college, and that will help the incoming freshman make the transition to Mudd.

The mentors will assist sponsors and orientation directors in running orientation. They will arrive at Mudd one week prior to orientation to go through training with the proctors and sponsors, and will be assigned a sponsor group consisting of 6-7 students who will not be in their mentor group throughout the year. After assisting with orientation, the mentors will be given their permanent groups of 15-20 students whom they will guide to a successful first year at Harvey Mudd College.

Ask a Prof

"Ask a Prof" is a regular section of the Muddraker. Here, you'll be given the chance to anonymously ask professors whatever you'd like. We'll be rotating professors for every issue.

With projects and finals coming up, I'm starting to get really stressed out. Do you have any advice for how to relax with all this pressure to do well?

"It's important to have regular study breaks and time for relaxation and exercise. Healthy body, healthy mind. Take a couple of hours off between study sessions. Go to the gym, go for a hike or a bike ride. You need some time to clear your head and recharge your body. Periodic breaks will also help you study and concentrate better. Finally, it's also important to try and keep things in perspective: while how well you do on exams can reflect your understanding of the materials, exams are just one part of the education process; it's a learning milestone, if you will. At the end of the day, it's not how well you do on the exams that count but how well you've understood the materials, and more importantly, how adept you are at applying that learning."

I'm a freshman and approaching my first finals for a grade. I'm really nervous about remembering some of the material from the beginning of the semester. Can you give me any advice about how to study for a cumulative test?

"Make sure you learn the underlying concepts, and not merely the mechanics on how to solve a particular problem. Once you understand the basic principles, how to apply them, and their limitations, you will be able to tackle any prob-

lem we come up with in the finals. I strongly encourage you to look at all the exam and homework problems that were given throughout the term, and think carefully about how else we can modify the problems to make them more interesting and challenging. Once you can "guess" what type of problems are most likely to be on a given exam, you have properly identified the most important concepts we wish to convey."

I'm a student with no summer plans so far. Can you give me any advice about how to make my summer count?

"If possible, try to find a summer internship or summer research position that is related to your major and future career path. Internships are one of the most important ways a student can gain experience and start to make contacts within his/her field. Research companies in the industry that interests you and check their web sites for summer internship or other opportunities. Find a human resources representative or department manager to whom you can send an email or letter. Network, network, network. Ask your parents, high school teachers, professors, friends' parents, relatives, and anyone else who might be willing to help you if they're aware of any opportunities. Be proactive and persistent. Another option is to do something meaningful or for personal interest, something just for you that makes you happy. Cultivate a passion that will last a lifetime, whether it be a hobby or a cause. Do something that will provide greater perspective to life and your role in it."

Prof. Philip Cha

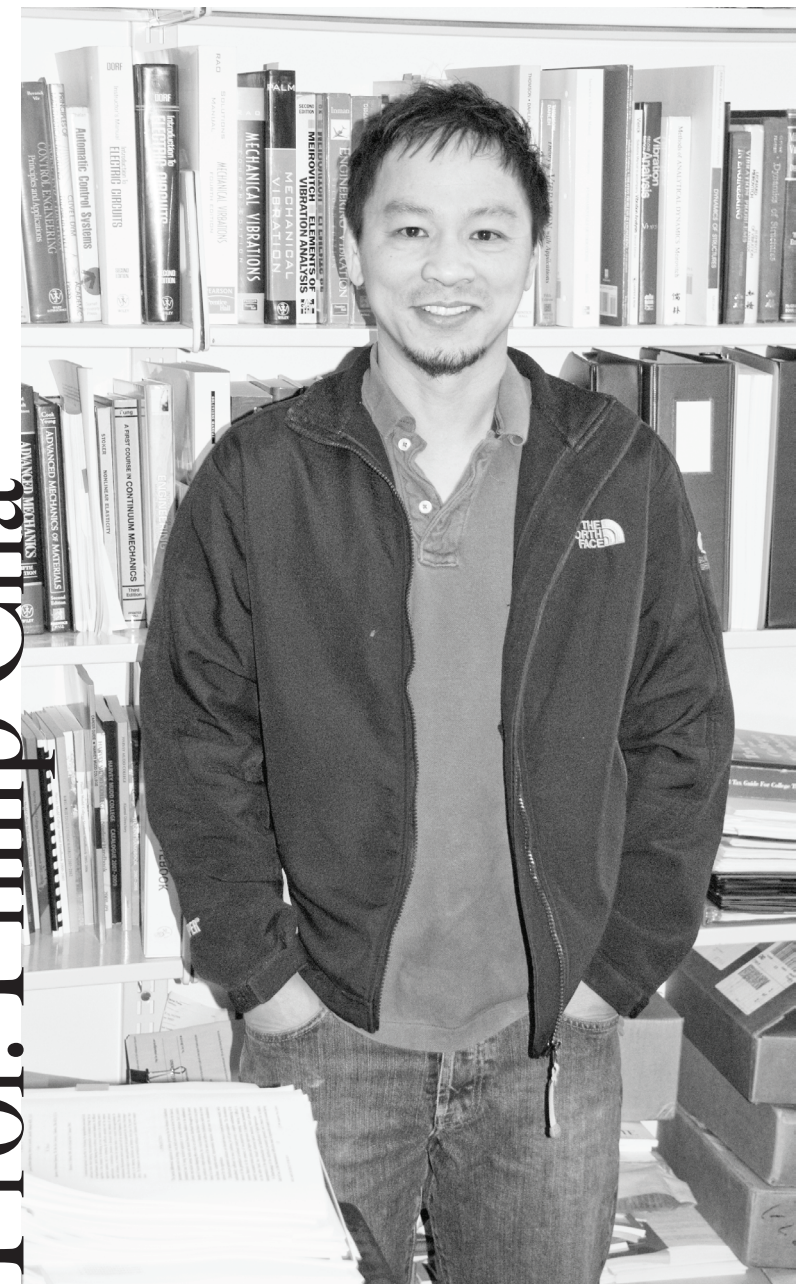


PHOTO COURTESY OF KATIE HAUSER '13

Have a burning question for an HMC prof?

Email the Muddraker at muddraker@gmail.com.

Lexicon Annoyances or Words, Words, Words!

BY KEVIN THAM '12

Remember that scene in *The Princess Bride* where Vizzini goes "He didn't fall?! Inconceivable!" and Inigo Montoya responds with, "You keep using that word. I don't think it means what you think it means"? Modern political and social justice speakers, regardless of affiliation or intention, probably deserve to have those words tattooed on their eyelids. These are a few of the more annoying and noticeable confusions of denotation I've seen in a lot of such rhetoric. Note that some of these examples are probably influenced by the fact that I'm on Harvey Mudd campus... but then so is most of my readership, so why not?

Costs, Prices: I realize this point is probably beaten into the ground, but still it merits repeating—to say that your bill, reform, whatever reduces costs is to say it alters the supply side of things. Perhaps it's a new factory flow that reduces wastes, or a faster system that reduces time required to manufacture, or something along those lines. If your reform has something to do with currency coming out the other end,

that's price, which is affected as much by consumer wants ("demand") as by cost of manufacture ("supply"). Costs may influence prices, but the two are not synonymous in the slightest, even if they are both usually translated to currency.

Immoral, Amoral: One means "against" morals, the other means "without" morals. The denotation may be obvious, but often (as in columns on "amoral markets" in the *New York Times*) the latter is frequently used to connote the former in pleas to higher morality. The laws of thermodynamics may be "amoral", being natural laws that cannot be personified, but that doesn't make them bad or "immoral" (unless you somehow consider free energy to be the highest task man can aspire to).

Theory, Hypothesis: "Hypothesis" is the one that's closer to "intelligent guess," and "theory" is closer to "this possible situation fits all the data and truths we have and is awaiting testing." These words are frequently conflated (especially by those who want to teach intelligent design in science classes) to reduce the definition of

"theory" to that of "hypothesis" in public.

Tax revenues, tax rates: Hearing a politician discuss how his plan is a "\$5 billion tax cut" or "will increase revenue by \$3 billion" is nonsensical because politicians can't alter tax revenues, only tax rates. If they're voluntary taxes or "sin" taxes like on cigarettes, the tax may be enough to drive people to alternate products. If they're income or sales or some other tax, the economy in aggregate might go funny and cause a drop in net revenue.

Organic: An utterly irrational annoyance on my part, I know, but for me, "organic" still means "with carbon," along with all its other new definitions. Thus, a mass manufactured soda is still "organic," thanks to its sugar. Of course, even the modern definition of "organic" has problems: the label as seen on assorted food-stuffs is a product less of actual practices and more of the approval of a board of inspectors, so that label is perhaps less descriptive than may be expected. Same with "free-range" and other labels people like to see on food to make them feel special.

Non-profit vs. for-profit: Denotations are obvious, but the former carries a certain connotation of morality or effectiveness that I'm not certain is justifiable, not least because they haven't already run the for-profit groups out of business.

Business, Government, Committee, Congress, Market, Organizations of any sort: Perhaps the most annoying of the set here, all of the above are big groups of people assembled to accomplish one task or another. To hear certain speakers describe them, however, one of the above is an abstract independent entity which tends towards stupidity or immorality, and some other one is the equally abstract and independent, but much more intelligent and/or moral in intention or action. As one and all are staffed by humans, this view is fairly silly, if not out-and-out infuriating.

Did I miss one, or is there a hideously misused turn of phrase that gets you riled up? Send it in to the Muddraker, and maybe we'll put it online!

Life of Fame

A Brief Look Into the Life and Times of Russell Transue and his Subsequent Rise to Fame Via Social Networking Websites and the Utilities Involved Therein

By Russell Transue '12

The rise to fame has never been an easy one. Hell, just ask Jamie Lynn Spears. Look how she crashed and burned. Similarly to Jamie Lynn Spears my rise to fame has been marred by many trials and tribulations, including a day where I've broken down and cried about how famous I am, and various forms of hate mail. But I'm getting ahead of myself. Let's start at the beginning.

Deep down, I am just a mild-mannered country boy, just like everyone else. I come from a rural suburb about five miles across a bay from Seattle, and I'd always dreamed of something greater, something more grandiose. But up until this semester in college, I hadn't come up with anything. That is, until I found my inspiration. It was late one Saturday night and I was my typical manically depressed self. Suddenly, Lady Gaga's "The Fame" started playing over my speakers and it made me think, "What made Gaga so famous? She's around my age, and no one had ever heard of her before she

RUSSELL TRANSUE



IS FAMOUS.

Art by Elissa Leonard '12

made her first single. Why is she so extraordinary?" And that's when it struck me. All Lady Gaga really wanted was to become famous, and then suddenly, she was. So I made that my goal as well! I wanted to believe I was truly famous, and then become famous like Gaga.

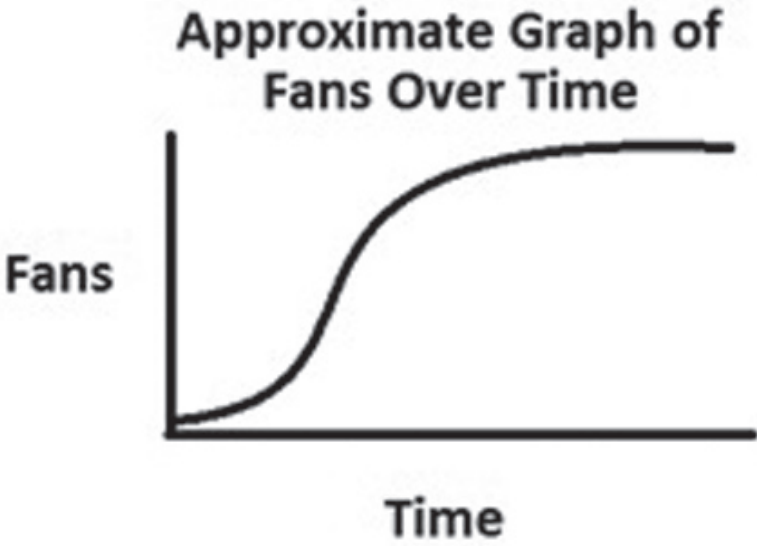
I then found myself focused on social networking, the only other case I could think of in which someone can become famous for no reason. Tila Tequila had used the myspace.com utility to facilitate her famedom. So I decided to be original and use Facebook. It started out great, but as I expected, fame works on a logistic scale as shown by the graph to the right.

Thus, my fame started to waver and I had to become more creative in order to become more famous after a while. That's when the T-shirt idea came to mind. I knew that the concept of wearing my fame upon peoples' chests would be an appealing idea, so I pressed it with Elissa Leonard '12, and she helped me produce my own line of "Russell Transue is Famous" tees. That was when I started having my "troubles."

Some nights, I would wake up in a cold sweat, wondering, "Did I mail those tees to those fans?" "Do my fans all secretly hate me?" "What have I done to myself? Fame, like you could handle it, Russell." One day, I even called my friend back in Washington and asked, "Does everyone I know secretly hate me and talk about me behind my back?" I was a mess. This all culminated in a set of hate mail I received. After receiving the following email I sent the same friend a text (so tech savvy) asking, "Are you sure?":

"Russell Transue, you need to check yourself because you think you are hot s*** with this dumbf*** shirt of yours and some really *** Facebook group or something, but don't forget no one actually gives a ****."

I literally cried for hours.



But fame waits for no one. So my quest HAD to go on. Later that month I decided that the campus wasn't aware of fame, so I wrote and gave a presentation on the importance of the eight pillars of fame: Fans, Photography, Charity, Selling Out, Mimicry, Scandal, and Modeling Careers (as well as a direction to orient your Compass Rose of Fame TM to make eight.) I could literally feel the campus become more aware of fame. Everyone was coming up to me saying, "Hey you're that one famous guy." And I was all, "yeah." Since then, I've been asked to endorse the Ameriquiz Facebook app, have walked the red carpet, and have driven by the House of Blues in Hollywood.

Life has been supernatural for me in the last few months, but I still believe my fame is on the rise. Many people say that life becomes much more difficult when you're famous. And I have to agree. But, like Spiderman's aunt (or whatever) said, "With great fame comes great responsibility." And as any intelligent person knows, there are huge benefits to being a responsible human being, so I'm not complaining.

Check out Russell Transue's Fame VLog at:
<http://www.facebook.com/group.php?gid=262859446815&ref=ts>

Random Thoughts on the passing scene

• Toyota has gotten into some trouble over what the news is calling "sudden acceleration incidents" in a large number of cars, including both "in-house" models like the Camry and "luxury" brands like Lexuses and Pontiacs. What interests me, however, is that that term "SAI" isn't anything new. Apparently, the term was first used in the media to refer to the Audi 5000 a good twenty years ago. There was a 60 Minutes special and everything, and even the National Highway Traffic Safety Administration at the Department of Transportation got involved. And, to quote good old P.J. O'Rourke "the dumb buggers [drivers experiencing these SAIs] stepped on the gas instead of the brake. Thus sudden-acceleration incidents, or SAIs, closely resemble those sudden-unintelligence incidents, or SUIs, that many of us have experienced with our automobiles..." Turned out that Audi 5000 was one of the cheaper luxury cars to import when imported luxury cars were a fad, and deliberately had its gas and brake pedal closer together than the design on most American cars. And, perhaps more interesting, both the Honda Civic and the Mercury Marquis had their gas and brake

pedal in arrangements similar to that of the Audi 5000 Marquises reported large numbers of SAIs, Civics did not. Perhaps something similar is happening today; that is, SAIs are caused or aggravated by driver error?

• The Muddraker receives letters to the editors, even if we don't always publish them. One of them had a very long section devoted to an old article of mine on "The Problems of Institutionally Mandated Diversity." To avoid being accused of cherry-picking sections and building a straw man to respond to, I reproduce it in full here:

"I did want to comment on an article titled, "The Problems Arising from Institutionally Mandated Diversity," by Kevin Tham. Kevin took issue with a White male student who wanted to be part of solution with regards to discrimination, but instead found himself to be part of the problem. Kevin goes on to assume that the student thinks of himself as "evil" and "inferior". I think Kevin went too far in assuming the student's mentality. It is quite possible to have good intentions with poor results, and to be part of a problem while desiring a solution. There are those who don't desire to discriminate, but

find themselves reaping the benefits of institutional discrimination and then enriching their own, often mono-racial, networks in a manner that furthers the issues that racism brought us. The fact that relatively few college attendees of American descent through the 19th and 20th centuries were Black or Latino is certainly related to the fact that relatively few college attendees of American descent through the 21st century will be Black or Latino. Parents who went to college are more easily able to facilitate a college experience for their children, friends and relatives of college graduates are more likely to have the knowledge and access necessary to reach for higher education, and communities with college-educated adults are more likely to have the wealth, experience, and modeling that is so important in inspiring and educating the neighborhood kids. It doesn't have to be this way - efforts to improve inner-city schools, mentor disadvantaged children, and provide experiences like HMC's Science Bus can be instrumental in giving opportunity to those who have historically been denied it. But I still think it's likely that a strong majority of Mudders have come, and will continue

Random Thoughts, continued on page 9

Last One of the Year!

By Kevin Tham '12

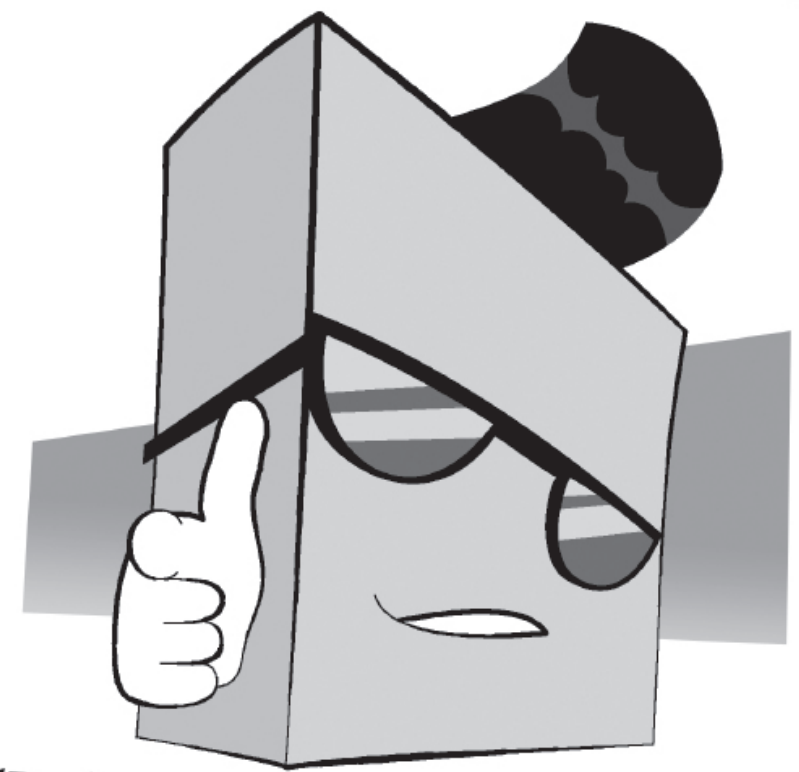


BY PAULA NING '13



BY SAMANTHA IPSER '13

WALLY SAYS,



"IT'S HIP TO BE SQUARE!"

Credit to Huey Lewis & The News
for the song "Hip to be Square"

BY SCOTT ALMOND '11

Random Thoughts, continued from page 8

to come, from wealthy backgrounds and communities that historically had strong access to education, rather than inner-city communities where most of their parents and grandparents were denied an equal chance at quality schools. I've taught in several schools where 70-90% of the student body qualifies for free or reduced price lunches, whereas that was true for...5% of Mudders? Perhaps only 1%? These communities don't have anywhere near the same resources, both financial and experiential, that most of the private and resource-rich public schools that us Mudders went to had. Not all advantaged communities are White, but for clear historical reasons it breaks strongly along those lines. It is quite possible that the White male student that Kevin refers to knows this, but realizes that he has done little to equalize opportunity for those who didn't have it as good as him. If we ignore the racial injustices of the past and fail to admit that historical imbalances really do affect modern realities, then it will be very, very difficult for true equal opportunity to ever be granted to Americans from historically discriminated backgrounds, no matter how pure our intentions."

- Yes, perhaps I did go somewhat far in guessing at the thoughts of someone I haven't met by a one hundred word note card. And yes, good intentions can (cynics would say "usually do") have poor results. (In fact, I'd argue that the current restructured core has the high intention of allowing freshmen more flexibility in their first year, but the poor

result of diluting the strong educational grounding for which Harvey Mudd is famous.) However, I find it difficult to see how a man who does not desire to discriminate finds himself "reaping the benefits of institutional discrimination and then enriching their own, often mono-racial networks" that further ingrain racism. First, we must assume that institutional discrimination exists, and is not beaten down either actively by lawyers and lawsuits, or passively by the presence of equivalent or better alternatives. (Or just by other considerations; in South Africa, nominally institutional apartheid was subverted by white business-owners and landlords looking to fill jobs/housing and turn a profit.) Second, granting that that institutional discrimination exists, how would one go about unconsciously deepening previous racial tensions if one wishes to improve them? Even "doing little" to equalize opportunities is not deepening racial tension, if not particularly improving them. Further (and the writer notes this), "advantaged" does not exclusively denote "white", but "historically disadvantaged" does not exclusively denote "black or Latino" either that term could be reasonably used/expanded to work for other ethnic groups such as Jews, Catholics (the "Al Smith effect"), the Irish ("No Irish Need Apply" in the 19th century)... the list goes on and on. We can go still further by asking ourselves "are the Irish considered white?", and thus noting that "white", like "black", "Latino", etc. cannot be used as a meaningful descriptor

and that to describe the matter in such terms is to perhaps defeat the purpose of the exercise. The fact that the Office of Institutional Diversity considers this an important point, even going so far as to plan grand events of "pride" and "history" in their name, is, I believe, to its detriment.

- Cesar Chavez Day has been expanded into a month or so of events here in the Claremont Colleges. While I'm happy that at least the students' day off is untouched, I find the events listed on the posters advertising all the fun things to do somewhat puzzling. The last time I checked, Chavez was Mexican American, so why tie an Afro-Cuban music performance (which I'm sure is very interesting on its own terms) to the man? And I don't believe he was ever canonized, beautified, or had any particular religious ties, so why refer to a trip which would probably follow his life and times as a "pilgrimage", a word with all manner of religious connotations?

- (Further, and perhaps to expand on the point I made in the last Random Thoughts, why celebrate Cesar Chavez Day (even though it's actually 31 March and not 26 March) in particular and not celebrate, say, "Stop the Slave Trade Day" on 25 March (the 203rd anniversary of the official banning of the slave trade in the British Empire, and the prompt reduction of slavers from traders to pirates)? Or perhaps "Purple Day" for awareness and money for epilepsy?)

The Muddraker Poll

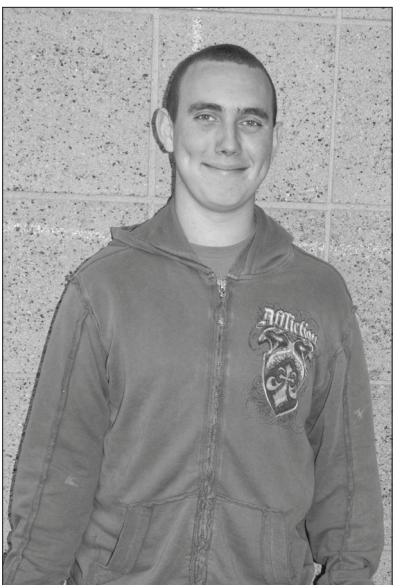
Every year, ASHMC’s budget surplus is set aside for the purchase of long-term assets. We asked nine Mudders what ASHMC should purchase with those funds.

Poll conducted by Fiona Foo ’13
Photos courtesy of Katie Hauser ’13



Nadia M'Tarrah
Class of 2011

“Maybe a swimming pool, or if not, more blow-up pools.”



Max Zhvanetsky
Class of 2013

“The surplus shouldn’t be set aside, just rolled over into next year’s general budget and used for normal activities.”



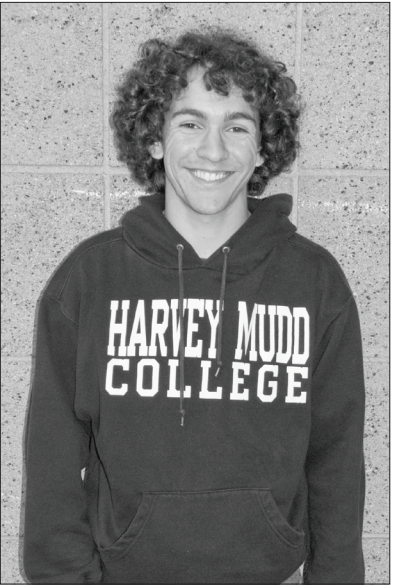
Raquel Robinson
Class of 2010

“I always wanted a fountain along the quad, one which spritzes water into the air.”



Alice Paul
Class of 2012

“More tire swings, because everyone should get a chance to sit on one.”



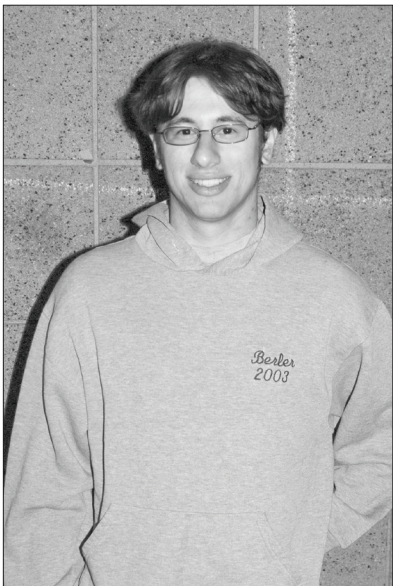
Tynan McAuley
Class of 2012

“DeltaH, the outdoors club, needs more good equipment. The Pre-O hike should also get more support.”



Erin Powers
Class of 2011

“We could get a chariot because it has the awesome factor, but I’d settle for a wagon.”



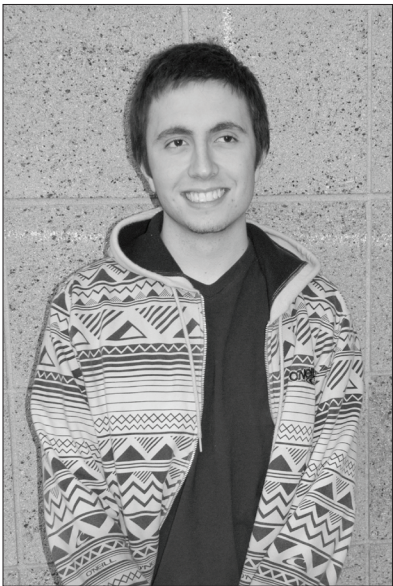
Steven Berler
Class of 2010

“An underground tunnel system between the dorms and Academics, since Academics are already connected.”



Bethany Okada
Class of 2013

“There aren’t enough lathes in the shop because we use the metal lathes a lot.”



Ethan Susca
Class of 2012

“The lookbook, because its funding might be cut. It’s the first piece of mail that new students get from the Mudd community.”

Πυζζλε οφ της Ισουε

By Scott Almond ’11

NOT TO BE OUTDONE BY THE LOGIC PROFESSOR DESCRIBED IN THE PREVIOUS MUDDRAKER ARTICLE, THE STATISTICS PROFESSOR CONCOCTS A SIMILAR CHALLENGE FOR HIS STUDENTS.

THE STATISTICS PROFESSOR LAYS OUT HIS PLANS AS THUS:

HE ANNOUNCES TO THE GENERAL MUDD STUDENT BODY THAT HE WILL BE OFFERING SPECIAL STATISTICAL SUNDAES ON SUNDAY. HE KNOWS THIS WILL GENERATE QUITE A LINE OF STUDENTS WAITING FOR THE SCRUMPTIOUS DESERT. HE ALSO ANNOUNCES THAT HE WILL BE GIVING AWAY ONE TICKET TO A VERY EXCLUSIVE MAGIC SHOW. THE PROFESSOR STATES HE WILL GRANT THE TICKET TO THE FIRST STUDENT IN LINE WHOSE BIRTHDAY IS THE SAME AS SOMEONE WHO HAS ALREADY GOTTEN A SPECIAL SUNDAE. THUS IT IS BENEFICIAL TO BE LATER IN LINE IN ORDER TO ENSURE MORE BIRTHDAYS ARE AHEAD OF YOU SO YOURS IS MORE LIKELY TO MATCH THEIRS, BUT GOING TOO FAR BACK IN THE LINE MEANS OTHER STUDENTS MAY WIN THE TICKET BEFORE YOU GET TO THE FRONT OF THE LINE

THE STUDENTS WHO HAVE BEEN TANTALIZED BY THE TALES OF THIS MAGIC SHOW FOR THE ENTIRE SEMESTER ARE EXTREMELY MOTIVATED TO MAXIMIZE THEIR CHANCES AT WINNING THE TICKET. THE STUDENTS DO NOT KNOW THE DISTRIBUTION OF THE OTHER STUDENT’S BIRTHDAYS THROUGHOUT THE YEAR AND THUS ASSUME AN EVEN DISTRIBUTION THROUGHOUT 365 DAYS. THE PROFESSOR FORBIDS THE STUDENTS FROM WORKING TOGETHER TO WIN THE PRIZE (SUCH AS TWINS STANDING ONE BEHIND ANOTHER IN LINE). THE STATISTICS STUDENTS SHOW UP TO THE SUNDAY SUNDAE SOCIAL EARLY TO ENSURE THEY CAN GRAB ANY SPOT THEY DESIRE. WHAT POSITION IN THE LINE DO ALL THE STATISTICS STUDENTS ATTEMPT TO CLAIM?

Solution:

All the Statistics students scramble to be the 20th person in line. Suppose you are the Kth student in line. Then you win the ticket if and only if the K-1 students ahead AND your birthday matches one of theirs. Let A = event that your birthday matches one of the K-1 students ahead B = event that those K-1 students all have different birthdays Then Prob(you win) = Prob(B) * Prob(A | B) Prob(A | B) is defined as the conditional probability of A given that B occurred. Now let P(K) be the probability that the K-th student in line wins, Q(K) the probability that the first K students all have distinct birthdays (which occurs exactly when none of them wins). Then P(1) + P(2) + ... + P(K-1) + P(K) = 1 - Q(K) P(1) + P(2) + ... + P(K-1) = 1 - Q(K-1) P(K) = Q(K-1) - Q(K) this is the quantity we want to maximize Now if the first K-1 all have distinct birthdays, the K-th student has K-1 chances out of D to match, and D-K+1 chances not to match (which would produce K distinct birthdays). So Q(K-1) = Q(K-1)*D = Q(K-1)*(K-1)/(D-K+1) Q(K-1) - Q(K) = Q(K-1)*(K-1)/D = Q(K)*(K-1)/(D-K+1) Now we want to maximize P(K), which means we need the greatest K such that P(K) - P(K-1) > 0. For convenience in calculation let's set K = 1 + 1. Then Q(1-1) - Q(1) = Q(1)*(1-1)/(D-1+1) Q(1) - Q(1) = 0 Q(1) - P(K-1) = P(1+1) - P(1) = (Q(K-2) - Q(K-1)) = Q(1)*(1/D - (1-1)/(D-1+1)) To find where this value goes from being positive to being negative, solve x/D - (x-1)/(D-x+1) = 0 (D+1-x)*x - D*(x-1) = 0 x^2 - x - D = 0 x^2 - x - D = 0 x = (1 +/- sqrt(1 - 4*(-D)))/2 = 0.5 + sqrt(D + 0.25) Setting D=365 days in a year yields 1 = x = 0.5 + sqrt(365.25) = 19.612 (approx). The last integer I for which the new probability is greater than the old is therefore I=19, and so K = 1+1 = 20th position in line

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