Broken Remote Control Delays Re-Opening of ASCIT Screening Room
Perpetrators of Damage Still Unknown

By Gloria Tran
STAFF WRITER

The re-opening of the ASCIT screening room is waiting on the return and replacement of some damaged equipment, due to arrive within the next two weeks. As part of the newly revamped SAC, the ASCIT screening room, located in SAC 23, offered a high definition project and 7.1 sound system for students to view TV shows and movies by reservation.

 Barely after the room was made available to students, ASCIT had to close the room off because the remote control was “irreversibly damaged,” explains junior Tom Gwinn, who oversaw the room’s set-up.

As of now, Gwinn, along with junior Christopher Dwan, are waiting on Logictech to send a replacement remote control. “There are other remote controls we could use, but none of them are programmable, so anyone could mess with the settings, which extremely would complicate things,” says Gwinn.

No one has yet claimed responsibility for the remote control’s damage. Gwinn believes a tighter security system such as installing a card swipe or security cameras is necessary to effectively upkeep the ASCIT movie chairs.

“I always find it a bit chilling when I try to start the Caltech Y, I have been fought by security,” said Daily in an email.

“Needless to say, I didn’t,” says Boney in an email to the Tech. “I’m rarely railroaded into tossing aside something as fundamental as freedom of speech.”

Though this issue of free speech is not a priority for the Caltech Y, students have been striving to improve on campus. After determining that there were fewer than 82 billion federal grants, Avalon Gwinn, the Chair of the Graduate Student Council, was told on Nov 14 by Housing that security would throw the sign away if he didn’t remove it himself. “Needless to say, I didn’t,” said Boney in an email to the Tech.

Activities that could jeopardize Caltech’s tax-exempt status, like using office phones for campaigning or linking candidate sites on Institute web pages, are prohibited.

The summer email did not comment on political conduct on campus, says Ryan Hamerly, the director of TACIT. “I sent one copy of the play to Shirley Manness, who has been with the Theatre Arts at Caltech (TACT) since the beginning. I sent one copy to Caltech and one to MIT because I wanted it to be performed at a scientific institute,” said Morgan. “I heard from Shirley soon after and she was excited about putting it on. However, I never heard from MIT.”

The play is based on interviews with engineers that worked with Mary Morgan. “The hardest part about writing the play was that there was very little written information available about my mother’s life,” said Morgan.

It was decided about a year ago that Caltech would premiere Rocket Girl, when Morgan sent a copy of the play to Shirley Manness, who has been with the Theatre Arts at Caltech (TACT) since the beginning. “I sent one copy of the play to Shirley Manness, who has been with the Theatre Arts at Caltech (TACT) since the beginning. I sent one copy to Caltech and one to MIT because I wanted it to be performed at a scientific institute,” said Morgan. “I heard from Shirley soon after and she was excited about putting it on. However, I never heard from MIT.”

The play is directed by Brian Brophy, the director of TACIT. The cast features JPL engineers and staff, and Caltech undergraduates, graduates, students, and staff, who found TACIT through the annual club fair, the TACIT website, the Caltech master calendar or through actors who have been with TACIT for nearly 20 years. By November 7, the actors will have rehearsed for 4-5 days/week for 4 weeks. “Cast members with larger roles had larger rehearsals, especially Christina Kondos, a freshman who plays Mary Sherman Morgan” said Brophy.

“Scientific play Rocket Girl provides some freshness to TACIT productions. There has been a large emphasis on Shakespearean, musicals, and classical and modern American theater,” said Brophy. “However, this year is different because we are doing a world premiere, a brand new play, a true story about America’s first female rocket scientist. It is also set against the backdrop of the late 1950’s cold war, making it a period piece.”

Student Solar Initiative Plans to Outfit Watson Lab Nov. 19

By Gloria Tran
STAFF WRITER

After the Olive Harvest Festival next month, the entire Caltech community will have another chance to help harvest olives from the trees on campus, Morgan Putnam, a graduate representative at the Caltech Sustainability Council, inspired to create a project that would not only improve on alternative solutions but also once again bring together the community.

In mid-June, Morgan and a group of about ten other undergraduate and graduate students formed the Caltech Student Solar Initiative (CSSI) to head the first project of installing solar panels on the roof of Thomas J. Watson, Sr. Laboratories of Applied Physics.

“The open space, easy grid access for the panels and the five-foot walls surrounding the roof made it the ideal candidate for the first of maybe many student-led solar projects that will be initiated by the Caltech Student Solar Initiative,” said Morgan.

After determining that there was room for about 15 kW of solar power, CSSI contacted suppliers and in a competitive bid process, selected Solar Electric Supply.

Most of the funding for the

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The California Tech
Volume CX, Number 6
Pasadena, California
November 03, 2008

tech@caltech.edu

By Wesley Yu
STAFF WRITER

An attempt by Housing to move a Barack Obama sign from a graduate student’s front yard has students wondering just how free their speech is on campus. Caltech officials say they were acting to preserve a tax-exempt status.

“After determining that there were fewer than 82 billion federal grants,” Avalon Gwinn, the Chair of the Graduate Student Council, was told on Nov 14 by Housing that security would throw the sign away if he didn’t remove it himself. “Needless to say, I didn’t,” said Boney in an email to the Tech.

“Tossing aside something as fundamental as freedom of speech,” said Daily in an email. “The answer is no.”

The summer email did not mention any ways in which students could be politically active on campus. “I always find it a bit chilling to read an email telling me to regulate my political conduct on campus,” says Ryan Hamerly, the Social Director of Avery House.

“Caltech does not have the power to take away your freedom of speech.”

The Leonhard Law was passed in 1992 to protect the First Amendment rights of students at private colleges and universities. Under the Leonhard Law, students in a publicly or private California university may take legal action if their school violates their right to freedom of speech.

The Office of Government Relations says that Boney’s front yard sign is constitutional and should not be removed.

Continued Pg. 3

By Vibha Laljani
STAFF WRITER

Caltech to Launch Rocket Girl Nov. 7

On November 7, Caltech opens the world premiere of Rocket Girl, a stage-production revolving around Mary Sherman Morgan, the inventor of Hydne – the fuel that powered America’s first rocket into outer space.

The play was written by screenwriter and playwright George Morgan, who is also Mary Morgan’s son. The play touches upon several scientific, cultural and political themes. It offers a glimpse into the lives and work of rocket engineers then, the pioneering role of a woman in engineering and her struggle in a tradition- ally male-dominated field, and the American-Russian tension, politics, and space race during the late 1950’s.

The play is based on interviews with engineers that worked with Mary Morgan. “The hardest part about writing the play was that there was very little written information available about my mother’s life,” said Morgan.

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By Chris Neff
STAFF WRITER

This information was provided by the City of Pasadena Public Affairs Office. For details, please check www.upandmoving.org or call (626) 831-2980.
Letter to the Editor
A little less conversation...

I preface this editorial by acknowledging I have a limited experience with Caltech, this being my freshman year and all. At Fresh Camp, I heard it said that Caltech was the world’s “playground for math and science.” At the time, this statement seemed a little cliché and anachronistic. But the more I thought about it, the more it seemed true. Caltech truly does offer unparalleled opportunities for students in terms of how they choose to express themselves. Look at our club list, the organizations on campus, etc., and you quickly realize that if you have a passion for something, there is a good chance there is a group for you. Moreover, if there isn’t, you’re more than welcome to go ahead and start one! That being said, I must confess I have been reading ‘The Tech’ with some interest and confusion. Over the last few weeks. More specifically, I have been wondering about some of the editorials recently published which take a more or less negative view of the Institute. The first was Evan Boney’s article regarding the election and housing (Oct. 20), and then ASCIT President Ng’s critique (Oct. 27) of the very organization he leads.

I understand that any group cannot be all things to all people, and with such a diverse student body, the Institute can never satisfy all the desires of every student. However, I wonder why the student body seems to take to complaining, instead of working to try and remedy whatever problem there seems to be. Given that we have an administration that is open to constructive feedback and forward-looking ideas, why are we (as students) hesitant to make our voices heard in a positive manner? There are a many great minds that come from the student body (Marissa Cevallos’ column Oct. 27, the Student Experience Trip, etc.). and we need to be more open to expressing those ideas. When the Institute is our playground, we can make of it whatever we desire. I certainly hope that the students can work together to make a positive change here, and leave something behind that future students can appreciate, rather than simply complain and not take any action.

- Travis Scholten, 2012
of the Housing contract prohibiting “alterations” to Caltech rental properties.

“It’s really a contract issue,” said Daily. “I’m not saying it’s not a First Amendment issue, but it’s a housing contract that is at issue here.”

According to Tim Chang, Housing, the sign can be changed on the issue of signs. Their new policy is that “yard signs are ok in trees as scheduled service and possibly also taped to the door.”

“The policy was really just because of an incident ten years ago that involved residents talking of ‘one upping’ each other with the potential of neon signs and billboards. None were actually put up, but they tried to outdo each other by escalating the signs that were already up,” said Chang. “We’re just trying to maintain mutual respect between residents. I mean, it’s analogous to prohibiting guns in Caltech housing.”

My feeling, though, is that in this case it’s not that big of a deal since California is so left leaning already,” said Chang. “A single sign isn’t going to change anything.”

The sign Boney put up is still in his front yard, now with an attached notice: “Any effort by CSSI to remove this sign will be seen as a violation of my First Amendment rights and will result in a lawsuit.”

Rocket Girl World Premiere

CONTINUED FROM PG. 1

play inspired the production of Bertolt Brecht’s Life of Galileo, to be put up during the spring term.

Revolving around the fuel - Hydrogen, the play involves a lot of scientific calculation. Did director Brophy manage to follow all the chemical reactions of the he “act” his way through it? “The play does have a lot of scientific calculation about reactions of chemicals and getting the right proportions of chemicals to form the propel- lants,” said Brophy. “At one re-hearsal, all the actors – the JPL engineers and Caltech students had a long conversation about the accuracy of the science and math in the play because the playwright was trying to ensure the accuracy of his science. He knew the audience watching the play would say things like, ‘Well, using Unsymmetrical Dimethyldihydrazine (UDMH) is not going to work because of the density. However, if you took a small part of UDMH and replace it with Dd you will get a better combination of propel- lants.’ I had no idea what they were talking about. However, as a professional actor and di- rector I need to make that work dramatically. One can read the script as one likes, yet, in a play there has to be something compelling about UDMH!”

Brophy has many hopes from this production. “I hope that the students who come see the play will get excited and want to take my intro to acting offered during the winter term, and participate in the Life of Galileo, which has a cast of 30. I want the students in the play to get more serious about their acting and continue participating in the TACT holiday experience. My personal feeling is that science and culture cannot ex- ist independently and theatre is the mediating agent that can merge the two. I would like students to merge the analytical and emotional sides of their brain through theatre, which will enable develop- ment of their emotional intu- ition and allow them to better tap into their creative scientific capacity. Emus, I would like the faculty, administration and local businesses to see the ad- vantages of theatre on campus and provide funds so we can become a fully functioning theatre department with our own theatre rather than just being just a program.”

The play will be performed on Friday November 7 at 8:00 p.m., Saturday November 8 at 8:00 p.m., and Sunday No- vember 9 at 3:30 p.m. at the Ramo Auditorium at Caltech. Tickets are priced at $18 for general Admission, $9 for se- niors, and students who are 18 and over with ID, and $5 for Caltech students and children under 18. For more informa- tion about tickets please con- tact 626.395.4652.

Correction

Last week’s article on sustainability incorrectly reported that the Wilson Parking Structure would be the largest solar structure in Pasadena. This should have said the Holliston Parking Structure.

CSSI’s green projects offer opportunities for community participation

CONTINUED FROM PG. 1

project, the administrative sup- port and the engineering for the installation are done by Put- nam. The installation of the solar cell array is scheduled for No- vember 19th through 21st. There will be two 4-hour shifts each day. Students who will be going through a training prior the instal- lation and will be provided with free food. Putnam hopes to get a large amount of the community to get involved in this project.

The cost of the installed solar cell array after the rebate from Pasadena Water and Power is $64,000. The Caltech Facilities Department will cover half this cost and assume maintenance of the array for its lifetime, esti- mated to 25 years. The other half of the cost will be covered by an MHF grant, which was awarded this fall.

“We [CSSI] worked exten- sively with Facilities and would like to especially acknowledge John Onderdonk, the Caltech Sustainability Programs manager. He’s worked with lots of student groups to make their projects a reality. Jim Cowell, the associ- ate vice president of Facilities has been extremely supportive as well,” says Putnam.

Once the installation is com- pleted, a little worth of renew- able energy credits are available to students with a donation of $30 to the Sustainability Projects Fund, which will be overseen by GSC and ASCIT. In change, students will receive a sticker for that academic year, stating that they paid for the generation of 150 solar power laptop certificates will be given out with the hope of generating about $5000 a year. This in turn will provide fund- ing for smaller future student- led green projects such as cam- pus gardens and composters for undergraduate and graduate housing.

“Administrative support and funding are there; we only need student interest in sustainabili- ty. With something as big and influential as the energy market, I think we should take a bigger interest,” concludes Putnam.

Blood Drive Exceeded Red Cross Expectations, But Blood Battle Postponed Due to Scheduling

By Brian Peng

Students turned out last week for one of three annual blood drives, donating a total of 120 pints of blood. The “Blood Batt- le” itself, however, was post- poned to next year.

The American Red Cross held a blood drive on Monday and Tuesday to benefit hospitals in need around Southern Californ- ia. In order to gain support and attention for the cause, the event was publicized as the “Caltech vs. MIT Blood Battle.”

“The Caltech vs. MIT Blood Battle began when MIT con- tacted me last year and asked if there could be an annual blood drive,” said Nicole McAdam, an event organizer and coordina- tor for the American Red Cross. “Whoever collects the most gets a trophy.” In actuality, the amount of blood collected is based on a person percentage. The American Red Cross uses such a formula due to the large difference in the student population at Caltech and at MIT.

Unfortunately, this year’s Blood Battle did not take place because MIT backed out of the scheduled date. It will be postponed to February 2009, when the American Red Cross has their next blood drive.

Still, the amount of blood col- lected for this event exceeded or- ganizers predictions. “We have blood drives 3 times a year,” said McAdam, “and we usually get around 300 [pints] total.”

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Olive Harvest 2009: Q & A

By Tim Black, Anthony Chong, Dvin Adalain, and the rest of the Olive Harvest Planning Committee

Last November we held the first Caltech Olive Harvest Festival. We enjoyed the company of Caltech and JPL faculty, staff, postdocs, students, and family members as everyone came together not only to harvest olives, but to enjoy the various exhibits, educational “Edible Tours” of campus, and of course share a delicious meal during the gala feast that fed over 2000 people as it stretched down the Olive Walk. Last year’s Harvest Festival received great responses from administrators, the media, and even a handful of students, but more importantly it provided a unique atmosphere to discuss Caltech’s place in its community and its environment. So, we suggest you mark your calendars now for Caltech’s Second Annual Olive Harvest Festival on November 13th. Numerous olive trees are beginning to sag with the weight of their fruit this year and we are looking forward to having a successful harvest again. In addition to all of last year’s events surrounding the Festival, we’ve added new events and new contests to get even more people involved this year. To clean up on the details, we’ve arranged a Q&A with some of the organizers for this year’s harvest. Of course, some of you may have still other questions, so if you’re looking for answers, please feel free to email the organization committee at olives@caltech.edu.

What’s for Dinner?

“Start the dinner, the tables will have a large loaf of homemade bread, babaghanoush, assorted olives and pita bread. The waiters will bring trays of tapaas, tapas, tapaliles. A large Greek salad will be followed by fried calamari, beef and vegetable skewers, vegetable skewers, rice and pita bread. The waiters will bring trays of bread, olive oil, hummus, tabouli, falafels. A large Greek salad will be followed by fried calamari, beef and vegetable skewers, vegetable skewers, rice and pita bread.” (Peter Daily, Senior Director of Campus Dining)

What time does dinner start and where am I supposed to sit?

“Dinner will start at 5:00 pm. Since the time will be changing the week prior to the dinner, we will be pushing darkness shortly after the beginning of dinner. The seating will be along the Olive Walk and the lawns between the South Houses and the Athenaeum. This year there will be tables designated for each of the eight houses along the Olive Walk – look for the signs. Some of the Alums, faculty and staff may be designing the house tables to dine with the students.” (Peter Daily)

Will there be an open bar again?

“There will be an open bar again? Will there be an open bar to dine with the students.” (Peter Walk – look for the signs. Some of the eight houses along the Olive Walk will be pushing darkness shortly after the beginning of dinner.)

What if I don’t want to go to the dinner, how do I get my board meal?

“If this is the board dinner for all Feynman and Avery Plan undergradaute students. If you let the board manager know, a late plate can be arranged and be picked up in the C-Store.” (Peter Daily)

Will there be free food in the afternoon again this year?

“There will be oil, bread, escargot, of olives picked, we will be giving away raffle tickets to win gift certificates to places like Chipotle. In addition there will be olive-themed games for the entire Caltech community. Join us for hot “olive” (potato) and olive bread. Some people will get each get a free bottle of olive oil.” (Anthony Chong, Olive Guy, Rudder House)

What if I’m a grad student?

“If you’re a grad student, this is your perfect excuse to take a break from lab and enjoy some time outside. Better yet, bring your lab buddies with you. We’ve organized a grad student competition as well as the undergrad competition. Teams of eight will compete against each other and the team that picks the most pounds of olives will win a 5-course meal at Tom Mannion’s. You can form teams by recruiting postdocs, faculty, find other members, whoever you want, however each team must have at least three grad students...You can still sign up by emailing olives@caltech.edu with the subject line ‘olive oil picking’ just clicking in with the registration desk on Harvest Day.” (Dolmy Emerson, Manager for Sustainability Programs)

What incentives are there for me to go pick olives?

“Last year, not as many undergraduates participated as we hoped. So this year we came up with some ways to encourage people to participate. There’s going to be a competition for which house can pick the most olives. When you turn in the olives you pick, they’ll be weighed and added to your house score sheet. The house that picks the most olives will win a dinner at the Prees. People who have already graduated from your house can still participate on your house team, so invite your alums to come join you.” (Tim Black, The Guy, Blacker House)

What if I don’t care if my house wins anything?

“Besides rewards for houses, you can also expect individual prizes. Exclusively for undergrads: for every pound and the edible tour will all be available from 11 am to around 4pm.” (Tom Mannion, Ass. VP of Student Affairs and campus Life)

What sort of yield do you think we’ll get this year?

“We are anticipating a higher yield. Last year, we produced over 500 bottles. This year, we anticipate to double or triple the production.” (Delmy Emerson, Director of Facilities Management)

What if I’m a grad student?

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Do we really have to go to ladder training to pick olives?

“No. If you want to climb the orchard ladders, then yes, training will be required. Grounds personnel will be available in the festival area to help and train people who may want to use the orchard ladders.” (Delmy Emerson)

Do I have to register as a volunteer to pick olives?

“Certainly not. We are still working on the websites, caltech.edu and are hoping to have an online volunteer registration form up and running soon, however even if you can’t register online you can register in person at the registration/info desk that will be set up on the Olive Walk in the morning or on the Court of Man in the afternoon. We prefer all volunteer harvesters register online or the day of so we can keep track of pickers and segments of the Caltech community are most involved, but we certainly aren’t going to stop you from picking olives if you really don’t want to register. I should mention that if you want to register for our mailing list you should go to olives.caltech.edu/participate. We send out updates periodically with information about the Olive Harvest, including volunteer opportunities and events (Events Assistant for Campus Life)

How do I get a free t-shirt?

“To get a free t-shirt you will have to register this year. We had a lot of folks show up last year, register, get their free t-shirt, and leave, so this year we’ll be handing out t-shirts to our volunteers when they bring us our first batch of olives. If you want a t-shirt but you don’t want to volunteer in the bookstore the booklet will be selling a similarly designed souvenir shirt.” (Erin White)

What will the olive oil be available for sale?

“We are anticipating to have the Caltech gift account that supports not only student activities, but also Caltech’s institutional financial aid programs. Your purchase is therefore going to contribute to Caltech and its activities in many ways...This olive oil will be sold at the Caltech gift store and is a testament to the great teamwork of the entire Caltech community.”

Are you doing that stupid lottery thing again?

“Sales will, most likely, be done on a first come/first served basis with a limit on number of bottles purchased.” (Tom Mannion)

Why are you charging so much for just olive oil?

“The proceeds from the sale of the olive oil are deposited in a Caltech gift account that supports not only student activities, but also Caltech’s institutional financial aid programs. Your purchase is therefore going to contribute to Caltech and its activities in many ways...This olive oil will be sold at the Caltech gift store and is a testament to the great teamwork of the entire Caltech community.”

Exact pricing this year is still to be determined, but I do hope to have a certain amount allocated to students at a student friendly only price.” (Tom Mannion)

Where do you see the Olive Harvest Festival going in the future?

“I think this event will continue to grow into a week long celebration of Caltech’s past, present and future. There is so much to be proud of as a student, faculty member or staff member that this is an important time to enjoy that and develop a sense of stewardship for the institute” (John Onderdonk)

“We hope for an annual event that fits two sustainability models, one in relation to the environment, and one in relation to financing the venture. I expect a festival that becomes self-sustaining financially is just around the corner.” (Tom Mannion)
On Thursday night Caltech hosted the world premiere of "Einstein’s Cosmic Messengers," an astrophysics-infused multimedia concert by Andrea Centazzo aimed at artistically interpreting the relativistic phenomenon of gravitational waves.

The event took place in Beckman auditorium as an interdisciplinary effort to describe, celebrate and interpret the cosmic waves, a major consequence of Einstein’s theory of gravity that has fascinated physicists for nearly a century. The event featured three segments, each designed to complement the other two in an ambitious effort to uniquely combine science, technology and art. Caltech’s renowned Feyman Professor of Theoretical Physics, Kip Thorne, first described the science behind astrophysics and relativity, followed by Jay Marx, executive director of LIGO, or Laser Interferometer Gravitational-Wave Observatory, who described the principles and capabilities of the extraordinary technological effort to first detect the elusive waves. The centerpiece of the evening was a whirling artistic exploration of gravitational waves by Andrea Centazzo, an award winning percussionist and multimedia artist.

Thorne’s introduction to what he termed the “warped side of the universe,” filled with black holes, colliding neutron stars, and, of course, gravitational waves, was more than appropriate for the mixed audience of children, students, professionals and retirees. He managed to describe, without a single equation, not only Einstein’s prediction of the waves, but also the process of their creation and their ultimate relevance and value to science. His almost childlike enthusiasm for the subject justified his introductory quote from Einstein, “Everything wants to be where it ages most slowly.” Indeed, the majority of the audience most likely paid for the gasoline fair to the auditorium with their Social Security checks. Still, the ability to instill the excitement of science in people of all ages is something only a few can pull off, and Thorne certainly deserves this distinction.

Jay Marx, executive director of LIGO, did an exceptional job at describing both verbally and graphically how the giant interferometer works. It had been mentioned that the detection of gravitational waves would require unprecedented sensitivity, but when Marx mentioned the actual number (detection of displacements of 1/1000th of the size of a proton) it must have been hard even for the non-student to take him seriously. Any doubts were soon cleared when he revealed recent data which showed that after years of refinement, LIGO had finally reached its target sensitivity. This excitement was soon extinguished, though, when he revealed the anti-climax, that LIGO had not yet actually observed any gravitational waves after 2-3 years of operation. Marx remained optimistic, though, as he described future plans for modifications of LIGO as well as an outline of a future non-terrestrial based interferometer labeled LISA, or Laser Interferometer Space Antenna. Marx remained convinced that both the improved LIGO and eventual realization of LISA would certainly provide us with observation of gravitational waves in the future. Although the fact that the waves had not yet been observed may have been a disappointment for some, it does not conflict with the evening’s intentions, as it must have encouraged the audience to stay informed with current developments in astrophysics.

In what was most likely the world’s first ever musical interpretation of gravitational waves, Andrea Centazzo ended the evening in an appropriate display of percussion, vibration, resonance and imagery. The concept of the performance was conceived by Centazzo and Michele Vallisneri, a theoretical physicist at JPL, and the multimedia written and compiled by Centazzo. The artist sat surrounded by percussion instruments, synthesizers and, of course, his MacBook, emanating vibrations from the stage in what must have been an audio wave analog of two colliding black holes. An animated Centazzo spun and pounded amid a backdrop video montage saturated with images of historical scientists, numbers, equations, spinning galaxies and computer simulations of propagating gravitational waves. The video was appropriate accompaniment for a mostly percussion-based musical piece, but was not without its imperfections. The relevance of a number of images was not immediately clear, and the video segments shot with real actors may have been a bit too much. Einstein did not wear that much hair gel! It may have been difficult for some viewers to understand his musical interpretation, but not as difficult as it may have been for Centazzo to interpret something that has yet to even be observed. Ultimately, the five part performance demanded one of the most essential qualities of any great scientist, patience. In the end, those audience members who possessed this quality were not disappointed.

The bridge between science and art has never been as easy to construct, but with these three masters plugging away from opposite ends, on Thursday night we may have gotten as close as we’re ever going to get.
Upcoming Games

**Nov. 4**  
Women’s Volleyball vs. Pomona-Pitzer  
7:30 P.M.

**Nov. 5**  
Men’s Water Polo at Occidental  
4:00 P.M.

**Nov. 6**  
Women’s Volleyball vs. Whittier  
7:30 P.M.  
Men’s Soccer at SOKA University of America  
7:00 P.M.

**Nov. 8**  
Men’s Soccer vs. Alumni  
11:00 A.M.  
Women’s Volleyball vs. Alumni  
2:00 P.M.  
Women’s Basketball vs. Alumni  
5:00 P.M.

*Sports Briefs*

**Women’s Volleyball plucks Golden Eagles in 3-2 victory**

The Caltech women’s volleyball team avenged three previous losses by scoring a 3-2 (20-25, 25-14, 25-21, 25-21, 16-14) win over West Coast Baptist at home on Thursday. The Beavers won the game in dramatic fashion by breaking the Golden Eagles’ serve on game point 14-13 and scoring the last two points of the match for the team’s first win this season.

The game seemed to be headed towards a familiar collapse in the fifth and final game as the Beavers gave up the early lead by allowing the visitors to go on a five-point run. Caltech lost its home opener to Southwestern in the last game 16-13.

“We started celebrating too early,” team captain Katie Peters said. “But once they held a 14-13 lead, [we told ourselves] that there was no way we were losing that match, it was not happening.”

The Beavers sported a dramatically improved defense in the victory, scoring 11 blocks to West Coast Baptist’s 2. Freshman Theresa Juarez led the way with eight for the Beavers.

“We just really started feeding off of each other [as the game went on] and played with energy and determination,” Peters said. “We were really scrappy and started making a bunch of plays.”

In addition to an improved defense, Caltech scored many easy points off of service aces to demoralize the Golden Eagles. Junior Lisa Yee led the team with seven, just two fewer than the entire West Coast Baptist team.

Playing in front of a partisan home crowd seemed to energize the Beavers and frustrate the visitors. West Coast Baptist hitter Carmen Lopez seemed visibly flustered by the crowd’s antics.

“We were comfortable playing in our own gym,” Peters said. “It’s nice having people you know [cheer you on]. They kept it fun. The fans were definitely a part of [the win].”

**Beaver forward Tyler Volkoff honored as male athlete of the Week**

Caltech forward Tyler Volkoff was named SCIAC male athlete of the week following his game-winning goal in the final minute of regulation against Cal Lutheran on Oct. 22. It’s the first time a Beaver athlete has received the title this season.

“I’m honored to have that goal recognized because it wasn’t easy,” Volkoff said. “[But] the win against Cal Lutheran was the most exciting part.”

Playing in his third year, but first full season at Caltech, Volkoff has exploded into an offensive threat.

“Tyler is by far the most dangerous forward that I have coached in seven years at Caltech,” head coach Rolando Uribe proclaimed.

Although better conditioning has played a role, according to him, the change was mainly mental.

“(Coach Uribe) had a really instructive coaching plan this year and that made me a better player,” Volkoff said. “[He taught me] mostly not to be shy about taking shots [and to] take more time to possess the ball. Every time I got the ball freshman year I was so surprised and nervous that I either gave it away or took bad shots.

“Now I try to bring the ball down and look for a pass or start to dribble because I’m confident that I can beat most of the SCIAC goalkeepers. I’m not intimidated.”

Compiled by Yang Yang

*The Weekly Scoreboard*

**Oct. 25**  
Men’s Soccer at La Verne  
L 6-3  
Men’s Water Polo vs La Verne  
L 17-10

**Oct. 28**  
Women’s Volleyball vs Occidental  
L 3-0

**Oct. 29**  
Men’s Water Polo vs. Redlands  
L 24-1  
Men’s Soccer at Whittier  
L 3-1

**Oct. 30**  
Women’s Volleyball vs. West Coast Baptist  
W 3-2

**Nov. 1**  
Men’s Soccer vs. Pomona-Pitzer  
L 3-0  
Men’s Water Polo at Cal Lutheran  
L 19-3  
Women’s Volleyball at La Verne  
L 3-0
Comics

Submit your comics to the Tech!
We pay $5 - $15 for original student comics
email: tech@caltech.edu

The ladies all wonder: what could be the simplest explanation for how Occam kept his face so baby-smooth?

Sine Error "Kind Of Not My Day" by Mark Eichenlaub

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