Science Historian Named Caltech/Huntington Professor

By JILL PERRY

A historian with interests as wide-ranging as entomology and Greek astronomy has become the first-ever Eleanor Searle Visiting Professor in the History of Science, a newly established joint program between the California Institute of Technology and the Huntington Library, Art Collections, and Botanical Gardens. Ido Yavetz, assistant professor at The Cohn Institute for History of Science at Tel Aviv University in Israel, arrived in Pasadena this fall and will remain for the academic year. Yavetz specializes in the history of classical electromagnetic field theory, history of electrical technology in the late 19th and early 20th centuries, history of entomology in the 19th century, and history of early Greek astronomy.

Through the scholar program, he will teach two courses at Caltech and conduct research at The Huntington in the area of ancient Greek astronomy. Yavetz earned his bachelor’s degree and did graduate work in physics while earning a master’s and PhD in history of science, all at Tel Aviv University. He was a visiting professor at Caltech in 1999-2000.

Each year the scholar will be chosen by the Caltech faculty with the advice and consent of the director of research at The Huntington.

The goal of the scholar program is to bring visiting faculty to Caltech with a superb track record in teaching, who can inspire students to think about the role creativity plays in the scientific process. A different perspective on the challenges that Copernicus, Galileo, Du Vinci, Newton, and Einstein confronted in their work and how they overcame them could be enlightening to today’s scientists. Simultaneously, faculty members have the opportunity to exercise their own creative instincts in conducting research at The Huntington to help inform their teaching.

“The Huntington and Caltech were born at roughly the same time as research institutes and have remained close ever since,” says Robert C. Ritchie, W.M. Keck Director of Research at The Huntington, “This gift further our joint goals in the history of science and honors a great scholar who enriched the intellectual life of Caltech and The Huntington.”

The program is named for Eleanor Searle, the first woman to hold a named professorship at Caltech. She was a world famous medieval historian, a popular teacher, and respected colleague during her time at Caltech, 1979 to 1993. She continued to conduct research at The Huntington until her death in 1999. The author of four books in medieval history that are still widely cited, her students and fellow faculty members were saddened when glaucoma cut short her career and forced her to retire early.

An anonymous local couple is funding $100,000 in annual program costs during their lifetimes. They have established a $2 million charitable remainder trust to eventually fund the Searles Visiting Professors Endowment and provide the program’s permanent source of support.

ASCIT Bylaw Changes Acknowledge Avery

By JOSEPHINE SUH

Expedite Elections and Create House CRC Reps

In an online vote that took place in the last week of October, the students approved all but one of the bylaw changes that the Board of Directors at ASCIT proposed.

Six of the changes involved amending more than one ASCIT bylaw, and concerned the definition of House, the logistics of the Conduct Review Committee, and election procedures.

In particular, the first proposal on the ballot eliminated all references to the number of Houses and added a clause requiring the Interhouse Bylaws for a House definition, in effect confirming Avery’s new status as a House.

Alternations made with regards to the CRC bolstered its function and significance as a student representative body, allowing each House to elect its own representative and adding the committee’s student chair to the ASCIT Board of Directors. Before, the CRC representatives had been appointed by the chairs of the BoD, IHC, and CRC.

A significant portion of the fourteen individual bylaw proposals, together with the sixth group bylaw change, was dedicated to improving election procedures. As a result of the approved bylaw changes, students will either place their ballot in a box outside the Tech Express or vote online at the DONUT site, in all future elections. In the case of a tie, another election will be held automatically, whereas a petition of 20% of people able to vote was required in the past.

More controversially, the time frame for submitting election protests will be reduced and the public announcement of results delayed, until all the protests have been settled. “One thing that bothered me a lot last year was when a second wave of elections had to be redone after a bunch of protests... I found it hard to believe that very few, if any, effectively made the election less valid. I figured a way to cut down on frivolous protests was to have the period for protests occur before the winners were announced,” ASCIT president Warner Leedy ’06 said. As for the opposition to the proposal met, he commented, “There were issues with the election protest changes... I don’t know for sure the motivations of those issues.”

The eighteenth proposition, the only one the students rejected, failed to garner the two thirds of non-abstaining votes required for it to pass. Had it come into effect, it would have granted the Board of Directors the right to name an appointee in the scenario that three elections, held within a year, all failed to produce a valid winner. “I think this bylaw change didn’t pass because people knew that they can do a better job picking the candidate they like than somebody else can. Also, it prevents from getting in the messy situation where a) either the majority of the BoD was appointed by the rest of itself or b) somebody is appointed after losing an election to ‘No’,” Matt Walker ’06 said. Leedy said, “Since it’s a fairly unlikely scenario, we weren’t too put off by the change not passing.”

“The operation of the BoC also underwent some changes. A BoC representative will now need only a simple majority vote, instead of a three-quarters vote, to leave a case, allowing her or him to sleep or attend classes. In addition, the chair and secretary of the Graduate Board of Review, the graduate equivalent of the BoC, will be able to take part in hearings with both undergraduate and graduate students as defendants.

Asked for an assessment of the long-term impact of the bylaw changes, Leedy said, “We hope it would be that they make life easier for a lot of people - and not at the expense of functionality.”
Condom Sense at Caltech

By JANE CURTIS and ALICE M. SOGOMONIAN

Proper and consistent use of condoms makes common sense for the prevention of sexually transmitted infections, or STIs, and pregnancy. Your health center and health educators can provide important information and products to help you choose and use an appropriate STI-protective sexual relationship. STIs are a serious problem here at Caltech and most college campuses throughout the country. With the holidays and break time upon us, too, are lots of parties and social gatherings, and the possibility of meeting someone special. Love may be in the air, but sex and alcohol are not too far behind. 

For 2004 Caltech health survey, 48% of Caltech students reported not being sexually active. We all know this is the only sure way to avoid contracting an STI, to use all forms of sexual activity, oral, anal or vaginal. Of the students who reported being sexually active, 20% did not use a condom the last time they had vaginal intercourse. As a health care provider we would like to see all sexually active students to use condoms, which improves the chances of protecting against STIs, indicates that they are using condoms properly and consistently. If you are sexually active, you can lower your risk of contracting an STI by limiting the number of partners, using latex condoms or dental dams during vaginal sex, or by being in a monogamous relationship with an uninfected partner. Open and honest communication about past sexual history and present status with your partner(s) is extremely important to having a fulfilling, positive, and healthy relationship.

In a 2002 Centers for Disease Control & Prevention survey, http://www.cdc.gov/nchstp/dstd/condoms.htm, 50% of people ages 15-24 years will contract an STI in the next one of 19 million new cases diagnosed each year. Human papillomavirus (HPV) is the most common STI in the United States, with an estimated 19 million new cases of different types diagnosed each year. About 1 million people in the United States are infected with HPV each year. HPV is a viral infection that causes warts, and in some cases, can lead to cancer. HPV can be spread through skin-to-skin contact. HPV warts can be painful and may cause bleeding. In the United States, HPV is the cause of more than 90% of cervical cancers. HPV is also the cause of many types of genital warts, which are most commonly diagnosed in young women. HPV can cause cancer in the cervix, vulva, vagina, and anus, as well as in men, both in the penis and in the rectum. New I will, the best venues in the city are the Secret Room, 1420 York, and the Vinyl Club, 1417 York. These bars are known for their late-night crowds and live music. The Secret Room is a small bar with a DJ and regular music nights, while the Vinyl Club is a larger venue with a more diverse music lineup. Both bars are popular among locals and visitors alike. 

Every one in a while, I get friends to buy me an expensive, flash-thick-looking CD I can find at the record store, whether I’ve heard of it or not. It’s a big gamble in terms of what I’m paying vs. my satisfaction with the album. Of course, most of the time, this sort of thing ends badly. In the past, that’s how I ended up with CDs like, “Spice World” (okay, so I was 11 when I made that decision...). Anyway, when she ended up working out in my favor, I feel like I’ve earned the right to be a snobby, musical badass. And that’s precisely what happened to me this weekend when I picked up this CD at Amoeba. 

“The Other Side” is actually a series of three releases put out by Urbanation, dedicated to making the savvy music listener aware of some of the world’s biggest cities. The collection includes the songs of a variety of artists, performed by New York, Paris, and London, New York. (I chose the New York edition because I was there on my birthday). The songs features a mix of artists also a few of the best venues to visit, little known spots in New York that only natives would know about, and 3 minute videos featuring Casey Spooner giving tours of Penny’s Park (man, did he get fat?), etc. It’s like a seasoned New Yorker took you by the hand and showed you around a city you never ever supposed to see as a tourist. The fatty booklet that comes with the disc is pretty awesome. They list the best venues in the area to go clubbing, as an overview of the general nightlife. I guess it’s sort of the disc form of a “Not For Tourists” Guide for music. No frills, no gimmicky things—the real deal. The CD features a compilation CD, and it demonstrates that Dan’s music is great, the guitarwork is great, the lyrics aren’t bad, and it’s quite satisfying to sing along. It’s one of the few songs on the album that actually shows feeling, and it demonstrates that Dan’s songwriting ability is getting better than Matt’s. The rest of the tracks are just regular Alkaline Trio-type songs about blood and crucifixes and stuff. Nothing special. Overall, the album gets a C rating. (Yeah, I’m rating albums now. After several years of getting C’s myself, it feels pretty good for me to be able to give a C to someone else. Suck it up.)

The advertising deadline is five p.m. Friday; all submissions should be received by that time. Letters and submissions are welcome; e-mail is preferred. Letters should be within 400 words. Thank you for your interest. Letters to the editor should be addressed to the business manager at Tech@tech.caltech.edu. The California Tech is published weekly except during vacations and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and do not necessarily reflect the views of the Technet. The California Tech does not accept anonymous communications. All advertising copy should be directed to the business manager at business@caltech.edu. For subscription information, please send mail to “Subscriptions.” 

Thanksgiving Food Drive

Please drop off non-perishable food for local organizations (i.e. salvation army, stand up for kids) in boxes located at the following locations: spalding procurement office, undergrad north houses, avery dining hall, human resources, chandler, red door cafe, caltech y, broad cafe, caltech credit union, physical plant (near key office).

Contact: wei@caltech.edu http://www.its.caltech.edu/eburidge

“O Mercy Me, God Bless Midecicity”

By CINDY KO

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All condoms sold in the US are regulated by the FDA and have gone through a series of tests before being approved for sale. In a Centers for Disease Control and Prevention survey, http://www.cdc.gov/nchstp/dstd/condoms.htm, 50% of people ages 15-24 years will contract an STI in the next one of 19 million new cases diagnosed each year. The CD features a compilation of the best indigenous disc performers ever to see as a tour-ist. The fattest booklet that comes with the disc is pretty awesome. They list the best venues in the area to go clubbing, as an overview of the general nightlife. I guess it’s sort of the disc form of a “Not For Tourists” Guide for music. No frills, no gimmicky things—the real deal. The CD features a compilation CD, and it demonstrates that Dan’s music is great, the guitarwork is great, the lyrics aren’t bad, and it’s quite satisfying to sing along. It’s one of the few songs on the album that actually shows feeling, and it demonstrates that Dan’s songwriting ability is getting better than Matt’s. The rest of the tracks are just regular Alkaline Trio-type songs about blood and crucifixes and stuff. Nothing special. Overall, the album gets a C rating. (Yeah, I’m rating albums now. After several years of getting C’s myself, it feels pretty good for me to be able to give a C to someone else. Suck it up.)

Despite their undeniably unique sound, perfectly halfway between punk and rock, Alkaline Trio has made a niche for itself among punk rock bands. Their music, paired with lyrics delineating themes of drugs, failed relationships and the wrestling of personal demons, reaches a wide range of listeners from high school to college age to just about anybody. (As proof of this, I went to Warped Tour three years ago when they were on the bill. In the audience, there was this kid that couldn’t have been more than 7 years old, sitting on his dad’s shoulders, singing along to their songs by heart. The frontman was so impressed that he practically serenaded that kid while the rest of the audience watched on.) Matt Skiba, Dan Andriano and newcomer drummer, Derek Grant, have made their band one of the most respected names in music. That being said, their second effort since their move to Vagrant Records, after 2003’s Good Mourning, Alkaline Trio has had many shining moments halfway through listening. The two singles off of the album, “Time to Waste” and “Mercy Me,” are among one called, Poison,” which is about the feeling of being bad and it’s quite satisfying to sing along. It’s one of the few songs on the album that actually shows feeling, and it demonstrates that Dan’s songwriting ability is getting better than Matt’s. The rest of the tracks are just regular Alkaline Trio-type songs about blood and crucifixes and stuff. Nothing special. Overall, the album gets a C rating. (Yeah, I’m rating albums now. After several years of getting C’s myself, it feels pretty good for me to be able to give a C to someone else. Suck it up.)
Read
The Grand Unified Theory of Physics
by
Joseph M. Brown

Discover how to derive the special relativity observations from Newtonian Mechanics
- All matter particles consist of a small composite particle made of ether gas particles. The composite particle moves at the speed of light and at rest it has a circular orbit. Photon "mass" can be coupled to the composite particle at the speed of light to cause it to accelerate. Part of the "mass" is scattered and part is captured giving the result that the matter particle mass grows as given by \( m_v = m_0(1 - (v/c)^2)^{-1/2} \) where \( m_0 \) is the matter particle mass at velocity \( v \), \( m_v \) is the rest mass, and \( c \) is the speed of light.
- The composite particle initial circular path is changed to an elliptic path with a minor axis smaller than the circular radius by the factor \( (1 - (v/c)^2)^{-1/2} \).
- The composite particle elliptic path has an orbital period \( 1/(1 - (v/c)^2)^{1/2} \) times the period when at rest.
- Thus, mass growth, matter shortening, and time dilation predicted by this Newtonian Theory is the same as that predicted by Einstein's Special Theory of Relativity.

For more information and to access the book, visit www.physicsunifiedtheory.com

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The Grand Unified Theory of Physics

- Photons
- Matter

Joseph M. Brown

Prepared by
The California Tech Commerce
November 14, 2005

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Caltech Transit Guide

By AMEERA CHOWDHURY

Introduction
With gas prices, parking fees, and traffic congestion on the rise, more people at Caltech are exploring public transit as an alternative to driving. This transit guide is intended especially for the Caltech community. Whether you commute to Caltech or want to take a day-trip off campus, you will find Caltech-specific information on everything from transit subsidies to bus routes to make your commute cheaper and faster on public transit.

A Quick Guide To Public Transit

The Metro Rail System operates over 200 bus lines, which offer a variety of services such as Local, Rapid, and Freeway Express. To help riders identify which type of service a bus provides, Metro uses both color-coding and numbering systems.

Metro Local buses are painted in California poppy orange, and have bus numbers between 1-300,

1-99: Local buses to and from downtown Los Angeles

100-199: East and West Local buses

200-299: North and South Local buses

Metro Limited Stop and Metro Express buses have bus numbers between 300-599.

300-399: Limited Stop Buses

400-499: Express buses to and from downtown LA

500-599: Crossover freeway express buses

Metro Rapid buses are the fastest and most frequent, and come every 3-10 minutes during peak hours. Unlike regular buses, Rapid buses have special sensors to change traffic signals. You'll recognize Metro Rapid buses by their distinctive red color, and Rapid bus numbers are always in the 700s. Metro Rapid 780 links Pasadena to Hollywood.

Pasadena Area Rapid Transit System (ARTS) has seven routes that connect Pasadena. The 10 ARTS bus services Caltech at three stops: Del Mar @ Hill, Del Mar @ Chester, and Del Mar @ Wilson, and links Caltech to Old Town and the Allen Gold Line station for only $0.50. For Gold Line commuters, the 10 ARTS bus can get you to Caltech in six minutes, and has the most reliable and frequent service. www.ci.pasadena.ca.us/trans/transit/

Metro also offers a number of tools to help the traveler who knows where to go but needs to find a way to get there.

Metro's Trip Planner provides public transit itineraries to anywhere in LA. Although Metro's Trip Planner will get you to your destination, it may not be the best possible route. www.metro.net

TranStar: If your destination is in Southern California, but out-
side LA county, use the TranStar Trip Planner instead. TranStar includes all bus, rail and Amtrak schedules for Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara and Ventura counties, as well as connecting service between lines. Like all automated trip planners, the TranStar Trip Planner may not always produce the best itinerary, but will introduce you to transit options with which you may not be familiar. www.lastransart.tann.com

BikeMetro: Bicyclists should trip plan with BikeMetro. BikeMetro is like MapQuest, but geared for bikes: it understands that bicyclists look for different qualities in a route than automobile drivers. BikeMetro's itineraries, for example, avoid hills and traffic, and consider road quality and the existence of bike lanes and routes. BikeMetro currently covers LA, Orange, San Bernardino, and Riverside counties. www.bikemetro.com

The Metro System Map is a great resource in planning your trip. You can pick one up for free on campus at the Rideshare Office at 515 S. Wilson or at Metro's Customer Service Center in Union Station. The System Map can also be downloaded from the Riding Metro section of Metro's website, but it's easier to work with a hard copy. An additional advantage of using a Metro System Map is that it presents you with all your transit options whereas Metro's Trip Planner gives at most two. Consequently, if you've missed your bus connection, check the System Map to see whether you can catch an alternative bus at a bus stop nearby. Metro System Maps are posted at Metro Rail stations.

The City of Pasadena Transit Map shows the routes of all transit service providers with stops in Pasadena, including Metro, Pasadena ARTS, Foothill Transit, Glendale Beeline, and many more. You can pick up a copy for free at the bookstore or at the Rideshare Office at 515 S. Wilson.

The City of Pasadena Bicycle Map is the definitive guide to bicycling in Pasadena, and shows all of the bike lanes and bike routes in Pasadena. You can find this free map in convenient pocket size form at the bookstore or at the Rideshare Office at 515 S. Wilson. You can also contact Rich Dilluvio for a hard copy via mail at (626) 744-7254 or at RDilluvio@cityofpasadena.net.

The Fannie and John Hertz Foundation takes great pleasure in announcing Fall 2005 Fellowship Awards to two California Institute of Technology graduate students:

Mr. Michael David Henry
Applied Physics

Mr. David Van Valen
Applied Physics

Mr. Henry and Mr. Van Valen are two of 15 Hertz Foundation Fellows chosen from a field of 662 applicants to receive a five year Graduate Fellowship Award of up to $240,000 in the Applied Physical and Engineering Sciences.

The Hertz Foundation would like to extend its congratulations to California Institute of Technology for attracting these Fellows to their graduate programs.

See www.hertzfoundation.org for more details.
G.L.O.M. - Greg's Life of Misery

Awww yeah! An actual conversation with Amy! This is the best thing ever!

RUBIK'S CUBE TOURNAMENT!!!

Awww yeah! An actual Rubik's Cube Tournament! This is the best thing ever!

Visit G.L.O.M. on the web at http://www.its.caltech.edu/~citcapp/y/ By Nathan Lau

G.L.O.M. - Greg's Life of Misery - G.L.O.M. - Redone by roommate

Wow! Amy has a really big finger!

MY EYES! SHE POKEO OUT MY EYES!

I'LL NEVER BE ABLE TO PLAY WOW AGAIN!

OH, THE HORROR!!!

Safety glasses. Can't poke out my eyes

NATHAN SUCKS! RETEXTED BY HIS AWESOME ROOMMATE MICHAEL INADOMI!

Visit G.L.O.M. on the web at http://www.its.caltech.edu/~citcapp/y/ By Michael Inadomi - By Nathan Lau

Irrational Exuberance

The proof is trivial. Now bring me carrots.

Did you notice anything unusual about our TA today?

Um...

Um... no?

This was the first time you were awake in section, wasn't it?

Ow.

Zhiyun Guan

We Like Coquettish Kali-Tech Bread Life

By ADAM CRAIG

We eat bread. 

I'd like to accept that as your fault.

And then we eat bread. 

Yeah, yeah.

We eat bread. 

I don't know how many times.

Each other.

I don't know who.

5 minutes?

Or is it 2 minutes?

Um... Good!

by: Dave Zhang

Topic Relief #1: Learning.

We at Caltech are greatly adaptable.

We learn a great many things from our body, our peers, and our experiences.

Even so, there are times when we are faced with problems we are unprepared for.

When that happens, we let our expertly honed intuitions take over,

by: Dave Zhang

We eat bread.

I don't know why.

And we eat cake.

I think it's just because we eat bread.

by: Dave Zhang

We eat bread.

I don't know how many.

by: Dave Zhang

We eat bread.

I don't know what.

And we eat bread.

I don't know who.

by: Dave Zhang
Professor John Bennett has just done the impossible:

By altering the electrical characteristics of space itself, he has actually managed to change the speed of light...

www.3000years.org

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Would love to see your name in the Tech. You never write for us, and this makes her very sad.
This Week in Caltech Sports

By MIKE RUPP

Women's Volleyball finishes season; Streit sisters named to CoSIDA Team

Despite a tough season that saw the team go winless, the Caltech Women's Volleyball team has much to be proud of looking back on their 2005 season.

Senior Middle Blocker Colleen Moody wrapped up her intercollegiate career in grand style, leading the team in kills, kill percentage and blocks. She was third on the team in digs. For her achievements, Moody was named Team MVP for the 2005 season.

Junior Outside hitters - and twin-sisters - Elisabeth and Rebecca Streit were the team's second and third options on offense. But more impressively, the sisters were named to the CoSIDA Academic All-Region team, and their names will be considered for the Academic All-American team.

Congratulations to the whole team!

Men's Soccer wraps up season with losses to Oxy, CSU East Bay

The Caltech Men's Soccer team finished its season with strong performances against Occidental and CSU East Bay. Against Oxy, Sophomore Nathan Chan had his second goal of the season and Senior Defender Eric Kelsic had his first in a 2-5 loss. It was the first time Caltech has scored two or more goals against a conference opponent in two years.

Against CSU East Bay, Senior Midfielder Chris AhNew scored his fifth goal of the year in a 1-6 loss. AhNew finishes the season leading the team in scoring.

On the Men's side in the Sk, injuries again made for a difficult day for Caltech. Sophomore Matt Kiesz had the top finish with a time of 28:35.40. Senior Team Captain Gustavo Olm finished his intercollegiate career in the team's fourth-place spot with a time of 29:40.70.

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