Millikan Library’s future in doubt

BY ROBERT KERN

Last term, an “ad-hoc Library Taskforce” was formed to “identify ways of improving library service to the campus while optimizing the use of financial, physical and personnel resources.” Five meetings and a term later, the question remains: What will happen to Millikan Library?

Millikan, built as a monument to Robert A. Millikan (a scientist who worked at Caltech from 1921 to 1949), was originally built to house various administrative and academic offices. Only in the last thirty years has it been used as a library.

Problems with sufficient space and space use across campus have arisen over the past few years, and the job of the Task Force is to investigate whether the housing of books in Millikan is making the most efficient use of its nine floors and to explore alternatives to the central, open stacks currently in place.

According to Charles Peck, Chairman of the Task Force, the committee is considering several options to make better use of Millikan.

One idea is to build a new library somewhere less central to campus and move the books there. Partially or fully warehousing the books has also been considered. The current library would then be used to house administrative offices like Public Relations and Development.

One advantage to re-vamping the library system would be that current technology can be incorporated into the plans. For example, many periodicals are now available online and downsizing bookshelf space for them would be more efficient. Also, a system is being considered where a given book has a small microchip on it that would allow librarians to physically locate it very quickly.

However, that system comes with a price: the stacks will be closed to library users. One must request specific books from the librarian. A faculty member could also request that certain books be placed on open stacks for a temporary period much in the same way that professors place books on reserve for their classes’ use.

Issues of the structural stability of Millikan have also been discussed. There is some concern that Millikan’s floors would not be able to safely tolerate more weight than they already carry.

Librarians, two of whom are serving on the Task Force, have noted that the layout of the library is awkward; it does not have the typical expanses of reading space that is conducive to doing work there.

Some are becoming nervous about the prospect of a partially or fully warehoused library. Closed stacks imply no free browsing, an essential component of library research for some.

Morgan Kousser, a professor of history and social science, commented that “with that kind of library, it would be impossible for undergraduates to do serious book and journal research in any subject. With a closed library, Caltech will become a second-class institution.”

A survey of library use will soon be distributed by the Task Force as part of their investigation.

Millikan Library, built in honor of scientist and Caltech alumn Robert A. Millikan.

Beaver basketball concludes against Oxy

BY TECH STAFF

Coming off a tough loss on the road to Redlands on Monday night, the Caltech Beavers took to the floor Thursday night in their last game of the season against the Occidental Tigers in a hyped-up conference match. The night was also eventful because it was the last game in a Caltech uniform for two senior Beavers, Chris Arneson and Jay Turner. Also in the news was sophomore Jon Bird, who continues to lead SCIAC in rebounding (10.6/g) and field goal percentage (63%).

The first 5 minutes saw the Beavers hanging tough with the taller Tiger team. However, by the middle of the first half the Beavers were being overwhelmed by a Tiger lineup that boasted 9 players over 6 feet tall. At halftime the Beavers trained by the score of 42-18.

The second half saw a rejuvenated Caltech team try to get back into the game. Bird finished with 18 points to lead the charge while Paul Updike added an impressive reverse layup. However, the Beavers ran out of gas at the end and fell to the Tigers 76-52 in a tough loss to end the season.

The Caltech Beavers would like to thank all the fans for their continued support throughout this season.
Better living though topological interferometry

By Elizabthe Adams

On a handiheaf globe, Mt. Everest would only be a fraction of a millimeter high - probably not enough relief to feel. But the Earth’s surface has plenty of topology, as Dr. Michael Kobrick, a research scientist at JPL, demonstrated in the latest Watson lecture on Wednesday evening. His presentation, entitled “Planetary Phenomena-the lumps and bumps of Earth,” used a variety of pictures, models, graphs, and movies to describe what went into the recent Shuttle Radar Topography Mission (SRTM), which managed to map almost the entire earth with radar interferometry.

Because of the long wavelengths (between 2 to 6 cm), the shuttle-based radars are able to see through clouds, and, in one intriguing set of photographs, the huge billows of smoke from a volcanic eruption.

The most remarkable aspect of SRTM, however, is the fact that it completed its scan of the earth in 11 days, passing over every point in the scan area (which excluded only Antarctica and the north pole regions) at least twice. This continuous, high-quality data collection resulted in a flood of very clever thinking, Dr. Kobrick modestly admitted. The first idea was to attach a very long, unfoldable antenna to the end of the radar beam scan across the Earth’s surface, a straight line. Using the ScanSAR mode, however, the radar beam is moved in rectangular swaths perpendicular to the direction of motion-leading to a lower intensity image, but one which covers a much wider area. The width of the swath for the JPL’s radar engineers calculated was 225 km.

As Dr. Kobrick described it, he had one of those “special days” (akin to graduation, a wedding, or the birth of a child) the day when “I divided 159 into 40,000, and multiplied by sin(60°).” This is a reference to his fortuitous discovery of the maximum number of orbits he could make, 159, given payload and atmospheric restrictions and still be able to map such spot twice for interferometry purposes.

This number is critical in calculating the gap between the cross-crossing ribbons of data, which is based by multiplying the number of orbits by the Earth’s circumference, adjusted for the angle at which those orbits cross the equator. The answer is 215 km—which, being just less than the limit of the size of the swaths made by using the ScanSAR technique of radar, means that there would be no gaps at all in the data.

The mission flew exactly one year ago and was a great success. Nearly 12 terabytes of data were gathered which, though not expected to be completely analyzed for another year, already reveal quite a bit on maps with parts of the same areas made by the US Geological Survey.

Dr. Kobrick ended the talk with visions of the many uses for this data, ranging from databases for pilots to avoid crashing into unexpected terrain, to analyzing where to put cell towers to get the best cell phone coverage. The most esoteric use was “foresight topology,” as reconstrue what happened when a Marine jet flying in the Italian Alps severed the lines of a cable car in 1998, killing 20 people. As for the future of radar topology mapping, Dr. Kobrick showed a map of the Hector Mine earthquake of October 1999 where the topology had been removed, leaving only a centimeter-level map of the movement of the earth. Since it is theorized that the earth also moves minutely before earthquakes, Dr. Kobrick suggested that someone should equip a plane with a radar array similar to the one he used and have it fly over every day over the Andreas fault line-just in case.

Egg donor needed

Couple seeks egg donor with 1420 SAT

33 ACT, 18-28 yrs old, 5’4”-5’10”, attractive, athletic and healthy.

Grandparents European and at least one Jewish.

Comensation $25,000. Email photos and scores to Nancykp@aol.com

A Multilingual Choral Experience

By kevin costello

No fewer than nine languages will be filling Dabney Hall this weekend when the Caltech Glee Clubs give their annual winter concert. The performances will be held on Friday and Saturday night at 8:00 and admission is free for the general public.

Thus far, a Multilingual Choral Festival, hosted by the Pacific Southwest Intercolligate Choral Festival and a combined performance of Carl Orff's Carmina Burana with Occidental's choral group and the Caltech/Occidental Orchesra.

Come out this weekend for some good singing and good music and make sure to mention good (did I mention most concern have had free cookies after wards?)

The California Tech
The Ticket Stub & Outside World

Hannibal (C-)

A moratorium should be placed on sequels to all movies with the exception of mobster sagas, (and only because of The Godfather). The audience's imagination is usually more adept at inventing alternatives to "Silence of the Lambs", Hannibal is relegated to a mere shadow of its younger self.

In "Hannibal", Lecter is seen establishing himself as a Renaissance scholar in Florence, Italy. Here he is protected in a blanket of security and anonymity, but this makes him careless. A police detective, working on the disappearance of the museum staff-member, begins to suspect the true identity of the learned man, and Lecter only manages to escape because the agent is reckless and headstrong.

Lecter is pursued by multiple forces, masterminded by a filthy cartoonish immorality established Hannibal as a protagonist. The relationship between Lecter and Starling is exploited through a series of incidents she must her life. But the monologue is predictable enough to allow the semblance of sense of immediacy that pervaded the film reaches a disjunction. The classicism of the Florentine atmosphere and the quick pace of the Italian story give way to anti-climatic plot plodding in the States, and Lecter's didacticism turns grating. There is never a sense of danger for Starling's life. Rather, Lecter assumes the role of mentor and lecturer, preaching about good and bad and the betrayal by the agency to which Starling had dedicated her life. But the monologue is boring.

One of the interesting features of "Silence of the Lambs" was the ambiguity as to who truly held the power in the relationship. The attraction Lecter felt toward Clarice was discernible, but Lecter was intelligent enough to allow the semblance of his affection to make his captors believe in his frailty, perhaps just so that he could manipulate Starling while her supervisors were under the impression that they had uncovered a taboo of being repetitious, but Lecter was intelligent enough to allow the semblance of his affection to make his captors believe in his frailty, perhaps just so that he could manipulate Starling while her supervisors were under the impression that they had uncovered a

The California Tech

February 23, 2001

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Wells Fargo
Present: new BoD; old BoD: Emma Kang, Eric Tuttle, Laura McHugh, Chris Elion, Ted Jou, Megan Smith; Guests: Dave Guskin, John Guskin, Jeff who's surname shall remain nameless, Jon Foster, Elisa Chiang

First meeting of the new BoD, alias Stupleton regime, called to order at 11:10 am.

Quick glances around the room reveal a few hang-overs, the past. So we haven't dismantled everything from the old administration after all.

The Tech Editors come to say "we quit." They demand sever­age, and mobile computing.

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See you at the Pre-Meeting on Monday, February 26th and at your interview, Tuesday, February 27th.

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ASCIT

Minutes

February 15, 2001

In light of the changing of the times, the Board of Directors, guardian, many positions in our administration have opened up. Take an active role in keeping the publications at Caltech alive and welcome as a business manager or editor. Or, help to keep us a legitimate institution by serving as our election chairman. Like previous years, we also need a Movies Chair, and introducing a new appointed position this year Jamroom Manager.

California Tech

The newspaper, documenting life at Caltech on a weekly basis, needs a business manager(s) who will be responsible for all funds belonging to that publication and serve as the only one(s) empowered to transact business in its name. The role of business manager(s) will take effect immediately, because the righteous editors need you help in bringing the weekly.
Announcements and News

ASCIT
Continued from Page 4

news to press.

Big T
The Big T is the undergradu­
ate yearbook with sections on 
academics, athletics, clubs, stu­
dent houses, and senior pages.
It's disappeared for a bit lately 
but is making a grand comeback.
ASCIT will appoint students to 
serve as editors for the 2001- 
2002 school year, responsible 
for the selection and preparation 
of all content excluding adver­
sising material. A business man­
ger is also needed for the 2001- 
2002 school year to handle ad­
vertising and funding.

little T
The handbook created for undergrads includes information on Caltech services, student activ­
ties, student government, Pasadena services, transporta­
tion, entertainment, restaurants, the student directory, important documents like the ASCIT By­
laws and randomness. It may have been confused for a Calvin 
and Hobbes anthology this year. We are searching for an editor­
ial staff who will select a theme and update the database in time 
for publication early in the 2001-
2002 school year. ASCIT will also appoint students to serve as business managers to handle funding and negotiate with the publisher.

Totem
The Totem is dedicated exclu­
sively to representing the liter­
ary and artistic capabilities of the Caltech community, consisting of professors, staff, graduate stu­
dents and undergraduates. In­
dulge in non-science and serve 
as a member of the editing staff.

Election Chair
The Election Chairman has the power to appoint members to 
form an election committee that will serve to oversee all elec­
tions associated with ASCIT. This committee will manage polling stations, record votes, and report the results in a judi­
cious manner to ensure the in­
tegrity of our elections.

Movie Chair
The Movies Chairman will head the task force granted the power to operate and maintain the ASCIT Movies equipment, to choose the movies which will be shown each term if ASCIT movies come back from the grave, and manage the ASCIT DVD library and the ASCIT screening room. The Movies Chairman appointed by ASCIT will have the authority to ap­
point members to his/her task force to achieve these ends. Oc­
casionally, the movies commit­
tee will work in concert with Caltech Business services to or­
ganize campus-wide shindigs at a rented movie-house playing a new release.

Jamroom Manager
Keep music alive, and orga­
nized and tidy! ASCIT, in con­
junction with the approval of the 
departing Jamroom manager, will appoint a member of the Caltech community to oversee the affairs of the jamroom in the interest of keeping musicians happy.

Sign-up sheets will be posted 
outside SAC 33 from Friday, February 23 through 5 pm Fri­
day, March 2. Leave your name and e-mail address so that ASCIT can contact you concern­ing 
an interviewing time. Get in­
volved, work for the machine, and be our friend! Questions? Con­tact justinh@cco.caltech.edu (Evi­
dently, Justin, ASCIT secretary)

CONTINUED FROM PAGE 3

ter of fact, desensitizing, and predictably immature. The film is so quick to bring gore to the audience's eyes that it withholds suspense and psychological tor­
ment. Lecter is reduced to a petty homicidal maniac, as op­
posed to someone who isn't nec­
essarily worthy of our respect, because that would be the wrong word, but at least our nightmar­
ished dread.

PAULING:
Continued from Page 1

The second session is chaired by Caltech's latest Nobel Lau­
reate, Ahmed H. Zewail, Linus Pauling Chair Professor and re­
cipient of the 1999 Nobel Prize for Chemistry. Alexander Rich, 
William Thompson Sedgwick Chair Professor of MIT gives a personal reflection of Linus Pauling, and Charles H. Townes, University Professor of Physics at UC Berkeley, recipient of the 1964 Nobel Prize in Physics and Thomas A. Steitz, Eugene Higgins Chair Professor at Yale University will give technical talks.

According to Dr. Tirrell, this event has been in planning for over a year, with the goal of ac­
knowledging and preserving the memory of the great strides made in physics, biology, and 
chemistry by Linus Pauling. The topic of the talks given reflect the research of Linus Pauling, 
with topics on biology and physics 
interwined with an empha­
sis on chemistry.
WHAT IS THIS STRANGE AND BEAUTIFUL FEELING INSIDE OF ME?!

WAVES OF ECSTASY ARE PULSING THROUGH MY SOUL.

THIS IS WHY I ONLY GIVE POSITIVE REINFORCEMENT ONCE A YEAR.

I'M ALL TINGLY!

I EXPERIENCED SOMETHING CALLED POSITIVE REINFORCEMENT TODAY.

I'M ADDICTED TO IT NOW... BUT IT'S WEARING OFF... MUST GET MORE...

SAY SOMETHING NICE ABOUT ME!

I NEED SOME DELIVERABLES SO I CAN BE PRaised AGAIN.

WHAT'S SHE BEEN LYING AND STEALING TO GET MORE.

SHE LEAVES US NO CHOICE.

I HAVE TO PROMOTE YOU TO MANAGEMENT.

HERE'S A CLAIM TICKET IN CASE YOU GET DEMOTED OR LEARN TO PLAY SAX.

YOU SHOULD HAVE ME IN YOUR CLAN! NOW, MANAGER.

I WAS ONE. I WAS ONE.

I'M ADDICTED TO POSITIVE REINFORCEMENT!

I INADVERTENTLY GAVE ALICE VERBAL PRAISE.

IS SHE ADDICTED?

YOU'RE A MANAGER NOW. YOU WON'T BE NEEDING ME.

SHE'S BEEN LYING AND STEALING TO GET MORE.

YOU SHOULd HAVE ME IN YOUR CLAN! NOW, MANAGER.

YOU SHOULd HAVE ME IN YOUR CLAN! NOW, MANAGER.

HELLO, ALICE. I'M YOUR SOUL.

ALICE, THE MANAGER.

WHY DO I CRY WITH THE EMPTINESS OF HAVING NO SOUL?

I CAN TEACH YOU TO PLAY AIR GUITAR.

TRY DOING THIS WITH YOUR TEETH WHILE YOU DANCE.

IS THERE ANOTHER WAY?

MUSICAL VALUES ARE THE SAME AS MUSICAL THINGS.

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STUDENT TRAVEL

Change YOUR World!
Dean's Corner

Honor the system

by Jean-Paul Revel

Having to know a minimum of facts. Without a factual background it is impossible to think, and besides, if pushed to the limit it would mean having to continuously reinvent everything, ball bearings and wheels too. Louis Pasteur, one of the founders of modern biological science, expressed it well when he said (something like) "discovery will only favor the well prepared mind".

Research ability is innate for some, but most of us can profit from training. At Caltech a very popular way to acquire the needed skills is to do a SURF in the summer; a great chance to meet with professors and explore in a variety of research fields. One major problem that you have to contend with now is that SURF applications have to be in by March 1. Not much time left to find a laboratory in which to work (pretty redundant phraseology! laboratory means just that, a place to work) and to write a proposal. If you haven't yet done so, hurry to the web at (http://www.its.caltech.edu/~surf/2001/index.html), and consult Slick the Cat who professes: "Surf now, do everything else later". Well, OK. But don't take that too literally; there are plenty of other things to be done (you know, brushing your teeth, going to classes, doing your homework, attending recitations, who knows what else.)

The very day after you have turned in your SURF application, i.e. next Friday, March 2, you can hear a series of lectures by a bevy of illustrious researchers from around the country. They will gather in Beckman Auditorium to celebrate the 100th anniversary of the birth of Linus Pauling, certainly one of the greatest researchers and educators to work at Tech (see http://www.paulingexhibit.org/exhibit/early.html). So, all of you, go to see and hear starting at 10 am. At the end of his life (he passed away in 1994) Pauling mused "I was born at the beginning of this century, in 1901, and am living close to its conclusion—a fine period to have been a scientist. No century before this one has experienced such changes in the way we humans live, do our work, or even think." Yes Linus, and few have contributed as much as you during your career. It is ironic for someone whose contributions to science have been so important, that many know him for the wrong reasons. Many have only heard his name because of his work on vitamin C as a cure for the common cold and cancer both. But that, I believe, is of importance mostly as a reminder that previous achievements are not a guarantee of infallibility. Besides the work (inspired by Ava Helen, his wife) which led to the Peace Prize, his real achievements are mostly known in scientific circles. Any of these individually would ensure him a place in the scientific Pantheon. Altogether they form an amazing record of achievement. There were at least 3 areas where his work in celebration Linus Pauling's centenary. See you there.

A bientot,
Jean Paul Revel

Many will leave an interview.
Few will leave an impression.

Details
Attention to them will make all the difference. From the kind of tie to the polish of his shoe, the BOSS Hugo Boss man distinguishes himself from every other.
So, whether it's finding a suit that suits your build or colors that flatter your face, BOSS associates offer sound counsel.
The company, passion and field you are entering will all be considered. Carefully. Not simply in terms of the suit you choose to invest in, but in the elements you choose to complement it.
Putting together the look for your first interview is something we can definitely help you with. The interview itself, however, will be in your capable hands.
H&S Announcement

The Caltech Alumni Association has awarded 2001-2002 academic year scholarships to students for full-time study of management, engineering, materials science, environmental science, or political science. Scholarship recipients were selected based on an application form, statement describing career objectives, list of high school and college grades, official transcripts, and three letters of recommendation from teachers, employers, or friends. Applications are available in the Caltech Alumni Office.

The Coalition of Higher Education Associations of California and the Western States (CHEAC) awards scholarships to eligible undergraduate students for the 2001-2002 academic year. Applicants must be U.S. citizens, U.S. nationals or permanent residents. For applications, please contact: CHEAC Scholarship Committee, American Epileptologists and Surface Finishers Society, Central Florida Research Park, Suite 1204, Research Parkway, Orlando, FL 32826-3206. Entries must be submitted to the CHEAC Scholarship Committee by April 15, 2001.

The California Alumni Trust, a non-profit organization established in 1947 with a mission to support the University of California, Berkeley, has awarded a scholarship to an undergraduate student with a major in science or engineering. The scholarship is for $5,000 per year for three years. For more information, please contact the University of California, Berkeley, Office of Scholarships and Financial Aid (OSFA), Room 220, 3146 Sproul Hall, Berkeley, CA 94720-1770.

Submit an event for the Mints, contact mints@acsouthernflatten.com to mail your announcement to the California Tech 40-58 Alumni, Minns. Submissions should be brief and concise. You are encouraged to e-mail your submission, but printed copies of the above announcement are preferred. The editors reserve the right to edit and abridge all material. Deadline is noon Wednesday. The next issue of the Mints, all mints will run for two weeks.