



D. Korta/The California Tech

ASCIT President-elect Tom Fletcher '04 serves up a customer at the Coffeehouse. Soon to step in for Ted Jou '03, Fletcher hopes to move the board of directors in a more "transparent" direction.

## Fletcher, Loram Coast to 'Exciting' Victory, Plan 'Transparent' Approach

By ADAM SEARS

Not everyone voted in last week's elections, but those who did seemed to favor more revolutionary candidates.

Tom Fletcher '04 and Galen Loram '05 emerged victorious amidst record turnout in a tight first round of student government run-offs last week.

Loram, who won the ASCIT vice presidential race, provided a fresh perspective on the office he stands poised to fill. Without expending any effort on campaigning, he rose to the top and defeated second-place Anita Choi '04. Loram said that while he'd considered the idea of running for office a couple times, suggestions by others prompted him to take action. After no one appeared to challenge Choi, he made up his mind. "I just thought that giving people a choice was really important," he said.

Loram said he was very excited about his victory and expressed that, although he had hoped to be selected by the student body, he hadn't been counting on it. In the past, Loram recollected, the ASCIT vice president has traditionally been an upperclassman. More importantly, previous representatives often had an extensive knowledge of the bureaucracy and procedure that made up a large part of ASCIT.

Loram plans instead to work earnestly for the students he represents and always keep an ear open for their concerns. And by the sound of it, he already has a couple of ideas for how to exercise the power vested in him to change the state student of affairs. For example, some students around campus believe that the role of Resident Assistants should be discussed more thoroughly. In the past, they acted almost as a house's "mother," counseling students in need and looking out for their best interests. However, as the natural will of administration ran its course, some students have lamented that RA's are being manipulated by the administration.

Additionally, Loram believes that ASCIT has a long way to go in promoting the Honor Code and educating students about collaboration policies. Current attempts to prepare freshmen to deal with the policies are better than nothing, but he envisions a new style of approach. "My job is to make something exciting," Loram said. Although he hasn't yet been contacted about an introductory meeting, Loram is looking forward to "learning the ropes" and meeting the new BoD that will be elected.

The Presidential election lasted to a fourth round, when Fletcher finally edged out competitors Jialan Wang '04, Libin Zhang '05 and

Janet Zhou '05. Fletcher, a strong proponent of improved communication throughout campus, is also relatively new to ASCIT. Instead of weakening his position, he sees it as a benefit, allowing him to more easily take control and direct ASCIT in a radically new way.

Towards promoting discussion and "transparency" in the often shrouded bureaucracy of ASCIT, he plans to boost the effectiveness of the Tech in reporting on important matters and hold overwhelmingly public forums on the Olive Walk and elsewhere such that undergraduates will have every chance to participate.

According to ASCIT bylaws, "a candidate must win an absolute majority of votes" in order to win

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## SPRING FEST. 'RAISES BAR' ON CULTURE

HIGHLIGHTS SINGING, DANCING

### Winnett Fair Bridges Chinese Tradition, Modernity

By O.J. CARLTON

No, I don't understand the words that are coming out of your mouth.

Depressed at having missed out on celebrating the coming of 2003

with the Western world, I decided I could redeem myself by ringing in the year of the goat.

I attended this year's Spring Festival thinking at worst I'd lose \$3 and a couple of hours, but was pleasantly surprised more than once at the vivacity, creativity and pride that went in to making the evening a memorable one for all in attendance.

I've attended my share of Caltech parties, including events put to

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## Wolfram 'New Paradigm' Draws Debate, Discussion

By MATTHEW WALKER

Saturday afternoon, Stephen Wolfram entertained a large crowd in Beckman Auditorium, unpacking ideas presented in his recently published book, *A New Kind of Science*.

After a moment of silence for the crew of the Columbia, Provost Steve Koonin introduced Wolfram, who kicked off the afternoon with a presentation by Wolfram about his "new paradigm."

Beginning with the question "How does anything complex form in nature?" Wolfram proceeded to outline the ideas on which he based his research. His initial thrust came from mathematical analysis, which had solved his past problems in math and physics and which he then strove to apply to all of science.

What he discovered, however, was that it didn't work for his more complex scientific problems, so he switched his focus to simple solutions, working on the assumption that nature follows certain rules. In the same way his Mathematica software uses primitives to solve most every math problem, he reasoned that nature has its own "primitives" that govern everything.

Cellular automata, Wolfram explained, are an example of the way nature might work. Generating the 256 simplest such "automata," he found that even simple rules can produce complex, even random results. In fact, the set of rules denoted as rule 30 displayed a pattern so random that he configured Mathematica to use the rule as its random number generator.

With the computing power of Mathematica in his arsenal, Wolfram was able to quickly-check an increasing number of simple programs. His success at finding simple programs that generate complex results leads him to believe that "Nature has a special secret to create complexity following simple programs."

One area that Wolfram said will be revolutionized by cellular automata is the study of Chaos

Theory. Rule 30, he explains, shows that a system can generate its own randomness. To verify this theory, one would need perform an experiment, such as one involving turbulence, twice under the exact same conditions to ensure that the randomness is exactly the same in both.

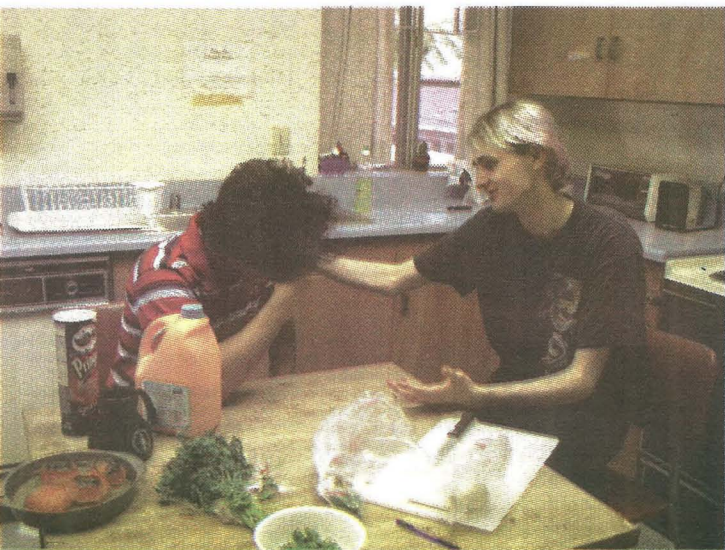
Wolfram also said that cellular automata will replace the theory of natural selection in biology. Both the patterns on mollusk shells and the shape of leaves can be nearly duplicated by cellular automata, suggesting a correlation.

The grand aim of his research, he suggested, would be to find a program that reproduced the universe. Wolfram speculated that such a program would be very small, with little definite structure. The only component of the initial universe would be space, which he hypothesized is a collection of points, in a network, connected to other points.

Wolfram made the analogy that space is to these points as water is to its constituent molecules. The time factor would be represented by taking steps in the program; the update of the universe. The universe created by such a program would have numerous arms, but a theory that Wolfram called "causal invariance" explains that it doesn't matter in which order they are updated since the end result is the same. He further claimed that causal invariance implies special relativity by implying space-time invariance. Other simple programs generate other known portions of physics, added Wolfram.

A final idea outlined by Wolfram was the idea of computational irreducibility. He thinks that theory will reach a point where it can no longer be simplified to formulas. Rather, running governing models will be the only way to predict anything. Fortunately, Wolfram also laid out his notion of an upper limit of sophistication in computation in the universe and that the upper limit is

Continued on Page 2, Column 3



D. Korta/The California Tech

Newly elected ASCIT Vice President Galen Loram '05 counsels a fellow student. As chairman of the Board of Control, Loram will tap his sensitivity in his effort to manage fairly the disciplinary body.



D. Korta/The California Tech

"Mathematica" spokesman Stephen Wolfram plugs his new book in his address to the Caltech community last Saturday in Beckman.

## HEART TO HEART WITH TOM

**What do you hope to accomplish in the time you are in office?**

I'd like to accomplish many things: first and foremost, I'd like to improve the quality of life of the student body at Caltech. This should be ASCIT's major responsibility and everything I do will be focused around this goal. Along these lines, I'd like to use ASCIT to help Caltech grow and nurture students leaders and to improve the dialogue between administration, faculty and students.

**Why [did you run] for the position?**

I've served as a UCC for two years now and have become very familiar with the challenges facing Caltech students (in fact, some of you may remember me from Challenges and Choices!). I also feel that when the student voice needs to be heard, I've spoken up. Last year, I was the opening speaker at the Olive Walk Sit-In that helped the administration understand our position. When no one knew what was going on with the library, I went and interviewed Provost Koonin for an hour to try and get at the answers. I believe that this experience makes me a strong voice for the student body and my lack of previous association with ASCIT means that I can take it anew direction that benefits students.

**What is the most important issue facing the student body president right now? How do you intend to deal with it?**

I feel that last year we made a lot of progress towards getting the administration to respect the concerns and desires of the student body, but we can't let up. In the same way that the cockroaches come out when you turn off the light, if we (the students) don't keep the pressure on the administration, all of our gains will be for nothing. Getting students on committees (and making sure they go), meeting with administration, making sure that all students get represented in ASCIT... that's the most important issue: improving communication on campus.

For one, I'd like to use some of the money mentioned below to really beef up the *Tech*. More incentives to writers will improve quality, more in-

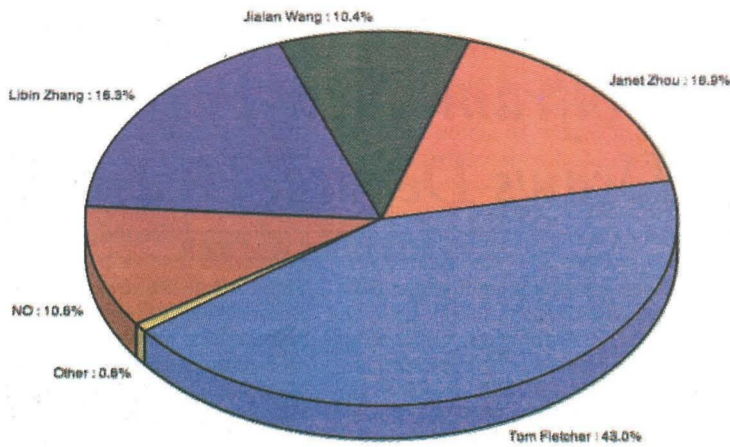
centives for the editors will improve the material. I'd like to see the newspaper be comparable to something like the *Daily Californian*. At most schools, the student newspaper is not a joke, it's a serious magazine that competes with city newspapers in terms of quality. A high-quality newspaper will be a start.

I also don't think ASCIT is transparent enough. Meetings are held in the basement, administration on campus always hears from the same two or three students. Committee memberships rest in fewer hands than they should. To address these communication issues, I'd like to hold ASCIT meetings on the Olive Walk (weather permitting), so everyone passing by can participate. I'd make sure that my BoD doesn't appoint itself to all the committees that need student representation. I'd like to see some effort to poll Caltech students implemented (on Donut) so ASCIT does what you want. I think the President should be in constant contact with the student body [and plan to pursue] a weekly column [in the *Tech*] focusing on student life. ASCIT [won't] sneak off to Capra (and spend hundreds of dollars) to make budget decisions that should be open to the public. I want to rip down every blind, every wall and every impediment so that you all can see the guts and marrow of ASCIT and make sure that it's working for you.

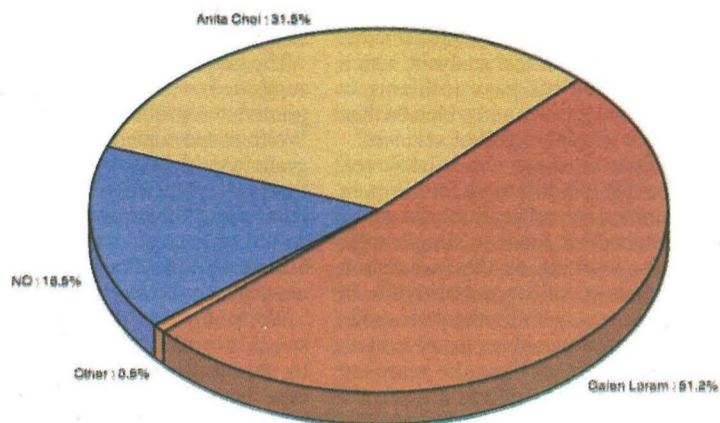
**Since the bylaw election for a Director at Large failed, the president is likely to spend a lot of time overseeing student representatives. How do you intend to deal with this burden?**

I personally felt the amendment was a good idea, but not well executed. I don't like the idea of not having a frosh on the BoD and that's why I didn't vote for the amendment. Nevertheless, I'd like to reintroduce it... to assign a BoD member specifically to coordinating student committee representation; I just wouldn't axe the frosh in doing so. Other than that, Caltech students are adults. The President shouldn't have to cajole them to go to meetings. They'll go and do their job or they won't be representing students anymore.

**Presidential Election**  
Of 509 First-place Votes



**Vice Presidential Election**  
Of 520 First-place Votes



## Watson Lecture Delves Into Technicalities Of Fuel Cells as Generators of Clean Power

By JON FOSTER

Delivered only a day after President Bush's State of the Union speech placed great importance on the needs for alternative-energy cars, Materials Science Associate Professor Sossina Haile's Watson lecture last Wednesday night on the practicality of efficient, power-producing fuel cells came at a particularly auspicious time.

Dr. Haile works in developing fuel cells as efficient and clean generator of power. Although she admitted that fossil fuels are plentiful, she opened her talk with a discussion of their drawbacks, the two biggest being geopolitical uncertainty and environmental harm.

She said it is too early to tell what effect the increasing levels of carbon monoxide will have on the earth, but maintained that the only real way to find out it to continue changing things and see what happens—and "I don't want to do that experiment," she said.

Fuel cells are not a new source of energy but only a conversion device and in many cases using them as electricity sources would still produce harmful carbon monoxide. Instead, their major advantages over regular combustion engines lie in efficiency, espe-

cially at small sizes, and zero-emission of the other toxins associated with combustion engines.

Fuel cells produce electricity by harnessing the energy in chemical bonds. When hydrogen and oxygen are bound up in water they are in a lower energy state; all fuel cells do is find a way to exploit this tendency towards a lower energy state. The key is an electrolyte which grants to charged ions but not electrons or neutral atoms.

In a basic type of fuel cell, hydrogen, wanting to reach the other side of the electrolyte to combine with the oxygen waiting there, sheds its electrons. These electrons then pass through an electric circuit, providing electric current as they do, and reach the other side where they recombine with protons and the oxygen to form water.

If free hydrogen were easy to obtain and transport, that would be all there was to the story. With pure hydrogen as fuel, the only undesirable side-effect of a fuel cell's operation is dihydrogen monoxide. Unfortunately, free hydrogen is difficult to obtain and in order to carry enough compressed hydrogen gas in a small enough space to power an electric car using current technology you'd need 5000

psi tanks. A pressure that high might make some drivers nervous and the sheer weight necessary for the tanks adds about 720 kilograms.

For these reasons, there is much interest in making more efficient fuel cells. Fuel cells are naturally more efficient at high temperatures, but high-temperature fuel cells are often a poor choice for something calling for frequent on-and-off switching, since it takes a while to heat the cell.

One of the two projects Dr. Sossina's group has been pursuing, she said, is placing a high-temperature fuel cell inside a heat exchanger. This heat exchanger, which is affectionately known as a "Swiss Roll," allows you to easily keep the central fuel cell at a high temperature all the time, even if the entire device is operating in a low-temperature environment. At this time, the design for the interior fuel cell meets specifications, but the group is still having trouble inserting it into the "Swiss Roll" without producing short-circuits.

The other major project has been her group's attempt to find a new material to serve as the electrolyte which will selectively carry only specific charged ions. The current favorite is a polymer electrolyte membrane, but this must be kept saturated with water with its cool temperatures—which also decrease efficiency—and is unfortunately permeable to methanol, which is a prime candidate for providing hydrogen into the system.

Dr. Sossina's group has been working on solid acids as a substitute. Several solid acids provide the necessary action to carry ions across the substance when the temperature is high enough, but commonly used ones are slowly poisoned over time and lose their efficiency. They are now looking at silicates and germinates, which might show similar behavior without becoming poisoned.

Fuel cells are still fantastically expensive. In December, Toyota and Honda both released commercially available fuel cell cars, but at an estimated \$1 million apiece they are being leased only to large facilities like the University of California and the city of Los Angeles. The hope is that continued development and refinement will bring the cost down and make these cars realistic choices for consumers—and fuel cells a viable method for clean electricity generation.

But Dr. Sossina said she sees no reason to wait for power circumstances to become dire. As the anonymous quote on her last slide for the lecture said, "The stone age didn't end because we ran out of stones."

## OUTSIDERS LORAM, FLETCHER AIM FOR 'RADICAL' CHANGE

NEW REFORMS ON SLATE FOR ASCIT BOD

Continued from Page 1, Column 3

the position. If a candidate doesn't have a majority of votes initially, the second choice is taken from the ballots that voted "no" and added to each candidate's tally. After the first round, if no candidate has a majority, then the lowest-ranked candidate is eliminated from contention and the next-ranked candidate on their ballots receives a tally.

Says Zhang of the election results, "An ostensibly joke candidate like me getting second place in the first round shows that there is a serious mandate for radical reform." Indeed, Mr. Zhang's "Doughnut Problem" platform certainly garnered more votes than expected, which has to signify that students see holes in their present representation and are looking for a more exciting "filling." Fletcher hopes to fit the bill.

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E. Adams/The California Tech

Associate Professor in Material Science Sossina Haile is working on making fuel cells a more feasible source of energy through her research.

# King's 'National Self-Determination' Still Relevant in Modern-day Israel

Self-declared Zionist Responds to 'Anti-Semitic' Letter on King, Jr.

By ALEX TOBIAS

I am writing in response to Dario Amodei's letter to the editor in the previous issue. While I agree with Mr. Amodei that it would have been nice for those who posted the flyers entitled "Martin Luther King on Zionism" to have identified themselves, I take issue with almost everything else in his letter.

To state that the political situation in the Middle East with respect to Israel is "completely different from the one that [Martin Luther King, Jr.] was addressing" is a gross error in judgment. Except for a recent escalation in violence directed randomly at civilians—also known as "terrorism"—much remains unchanged in the region since the establishment of the state of Israel in 1948, immediately after which it was attacked by Egypt, Iraq, Jordan, Lebanon and Syria in an effort to destroy the fledgling country.

Israel is still by far the smallest country in the region; Israel is still a democratic country surrounded by undemocratic ones, many of which are actively hostile toward it; Israel must still struggle for recognition as a country by many other nations

in the world; and Israel still provides all of its Arab citizens—to day, one fifth of its population—with full rights and privileges, unlike the surrounding countries which expelled most if not all of their Jews long ago.

Mr. Amodei states, "Zionism now almost universally refers to militant support for Israel." If, by "militant," he means "fervent" in the sense that Zionists strongly believe in the right of Israel to exist, then that statement might be accurate.

*"I have always understood the word to mean 'the quest for national self-determination...'"*

However, I would say that most supporters of Israel are in favor of military action only as a means of self-defense and have never been interested in harming others for the sake of revenge, imperialism or other ignoble purposes.

As a proud Zionist, I was com-

pletely unaware prior to reading Mr. Amodei's letter that the definition of Zionism has changed since 1948. I have always understood the word to mean "the quest for national self-determination of the Jewish people."

Indeed, Dr. King believed in the same definition. On anti-Zionism, he spoke, "And what is anti-Zionism? It is the denial to the Jewish people of a fundamental right that we justly claim for the people of Africa and all other nations of the Globe. It is discrimination against Jews, my friends, because they are Jews. In short, it is anti-Semitism. Let my words echo in the depths of your soul: When people criticize Zionism, they mean Jews—make no mistake about it."

It seems that Mr. Amodei has adopted the anti-Zionist definition of Zionism. If this is truly the "almost universal definition," then either the Jews of the world are in deep trouble or Mr. Amodei's statement is anti-Zionist—and therefore, anti-Semitic according to Dr. King—or both.

Unlike Mr. Amodei, I believe the phrase, "the right to occupy their homeland" on the flyer in question simply refers to the right of the Jews of the world to have one country they could call home, the right of the Jews to have a Jewish state in the same way that the world has Christian and Muslim states.

However, even if one changed "homeland" to "the Palestinians," I would still strongly disagree with Mr. Amodei that any sort of perceived "right" serves as the "prevalent justification for the Israeli occupation of Palestine." Rather, the occupation is a hopefully temporary result of a 1967 war started by its enemies but won by Israel, after which Israel was forced to take control of key strategic territory in order to buffer itself from future attack.

Since very shortly after that war, Israel has repeatedly offered to trade territory, seized or not, in exchange for real, lasting peace. On some occasions this has occurred,

*Continued on Page 4, Column 1*

# From Proud Narrators To Clans, Honor Code

Revel Responds to 'Beringia' Television Special

By JEAN-PAUL REVEL

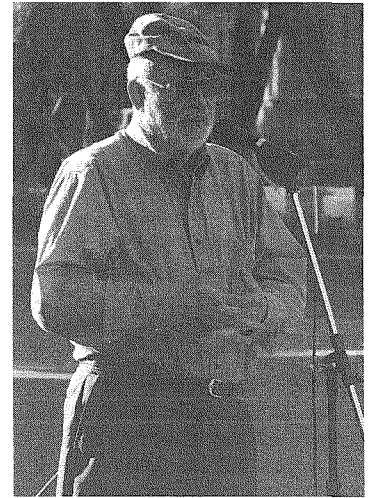
Not long ago I saw part of a program tracing the migrations of human populations first from Africa into Asia and from there into North America. The last step in that trek was made possible some 14,000 years ago—maybe, starting as early as 30 or 40 thousand years ago—because at these times the sea level was greatly lowered by glaciation elsewhere. This resulted in the formation of a land bridge, Beringia, between Siberia and what is now Alaska.

Genetic evidence based on an analysis of the DNA sequences in the Y chromosome can be used to construct "genealogical" trees and to follow the migration of populations. The outcome of such studies on indigenous populations in Siberia and North America strongly supports the idea that the peoples whose descendants are now herding reindeer in central Siberia were actually the ancestors of the populations which long ago crossed into the Americas.

Now you might ask what that has to do with the world today, with the distrust and hatred and incomprehension that our country is arousing around the world among the many who once looked up to us but now are sorely disappointed at our attitudes. Well, you see, one of the things I found hard to take in the show, riveted as I was by the science, was the way in which the story was presented.

The narrator—I am not sure who he was, because I got to the show late—behaved in what I saw as a self-important and obnoxious way, speaking disparagingly of the "primitive" peoples he was visiting, superciliously lording it over these unsophisticated migratory herders. Can you imagine... the reindeer these people drew their livelihood from, the same reindeer that feed on lichen they find under the snow... yuck! And look at these un-Hilton-ish, even un-Day's Inn-ish of night lodgings.

Can you imagine, the narrator ex-



plained, I had to spend the night in a tent made of skins within a yurt made of felt... brrr... Note that our picky, picky scientist nevertheless emerges cozy and toasty in the morning in spite of the bitter cold and wind outside. To provide some perspective, I just checked: at five a.m. last Thursday, the temperature was -24 degrees Celsius and the wind was calm in Ulan Bator, not unlike our Upper Midwest...

Anyway, the speaker displayed what I considered a revolting attitude. It was unpleasant to hear him talk disparagingly about the reindeer herders and even more unpleasant to see him talk to the Navajo Indians at Canyon de Chelly, haughtily spreading his wisdom and his knowledge of modern science to a group of admiring if benighted—that's the impression his tone made on me—members of a proud nation.

And that is where the stories intersect. None of us stands alone. We all belong to groups and part of belonging is to believe in the intrinsic superiority of "our" group over others. Each group develops an internal cohesion and perforce this must be at the expense of our relations to the members of other groups.

And so we had the 21<sup>st</sup>-century geneticist and his cohorts against nomadic Mongols. Konrad Lorenz,

*Continued on Page 4, Column 4*

# Letters: Worm Not Swedish, But Microsoft SQL Mess-up

SQL Server Discrepancy

Instructor in Computer Science

Dear editors,

**A Proprietary Goof**

Dear editors,

Just in case it hasn't been pointed out by anybody else yet (unlikely, I know): the article "SQL Worm Slows Internet to Crawl" refers, repeatedly, to the SQL worm that wreaked havoc on much of the Internet late last week and over the weekend as exploiting "a bug in Microsoft's MySQL database software." In fact, the bug in question is in "Microsoft SQL Server" and products based on it and has nothing whatsoever to do with MySQL, an open-source database by Swedish company MySQL AB. Moreover, MySQL is not affected by the bug in any way.

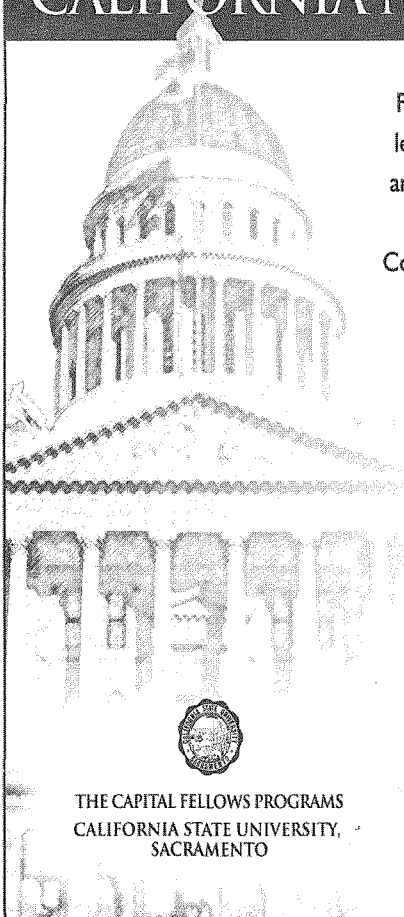
I'd just like to point out that MySQL is a high-quality piece of free software which was not vulnerable to the Sapphire attack over the weekend. The offending program was MS-SQL.

Let me repeat that in case you didn't understand: MySQL is a program by MySQL AB, is free software and was not vulnerable to the attack. Microsoft SQL Server, also known as MS-SQL, is a Microsoft product and was vulnerable to the attack. They are not the same. Thank you,

Daniel Zimmerman

Aaron Plattner '05

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Conduct cell biology, molecular biology and biochemistry research related to the growth and differentiation of pancreatic  $\beta$  cells. Contribute to the development cell therapies for the control of diabetes and its complications.  
Ph.D. in cell biology or related field with a strong publication record and a proven ability to develop and implement robust research strategies.  
Biotechnology or biopharmaceutical company experience and/or tissue engineering experience highly desirable.
3. Research Associate:  
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## Israelis to Allow Palestinians to Build Legal Gaming Casinos, Fostering Peace

### Authorities Realize That Indians Never Had Suicide Bombers

By LIBIN ZHANG

Taking a cue from the final solution to the American Indian problem, the Israeli government has decided to allow Palestinians to build Indian-style gaming casinos. Ariel Sharon is confident that the Palestinians will end their struggle for national self-determination once they're allowed to play such games as blackjack, *chemin de fer*, keno and video poker.

While only a small minority of the United States' Indians are involved with gambling, gaming casinos have greatly improved the employment statistics of many Indian tribes. The Foxwoods Resort Casino of the Mashantucket Pequot tribe in Ledyard, Connecticut claims to be the world's largest casino, making more than a billion dollars a year. As a bonus side effect, there has been no reports of Indian intifadas or suicide bombers since the arrival of Indian gaming casinos. Palestinian Authority officials noticed the pacifying and money-making potential of gambling and are eager to follow the Indians' success.

Under the so-called Tokens for Peace plan, the three million Palestinians will be divided into twelve tribes, each of whom will be entirely autonomous in internal, gambling-related affairs, with the remainder powers left to the Israeli federal government. Reservations and radio airtime will be set aside for each Palestinian tribe, with tax

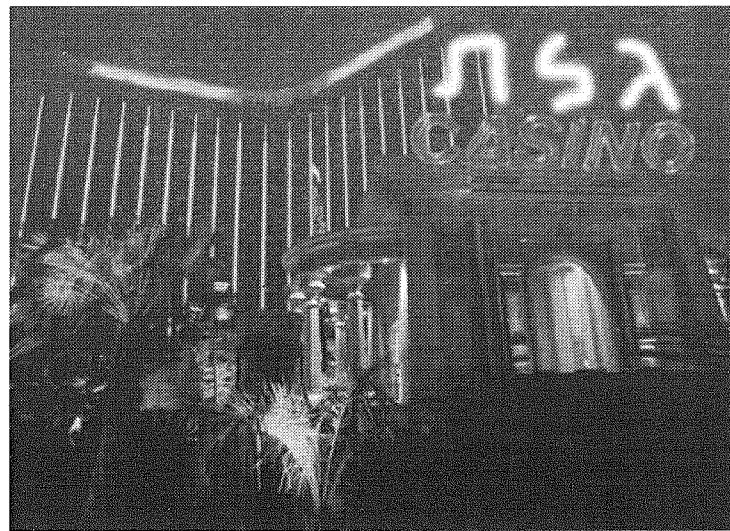
incentives and special privileges to encourage resort-building. While the Palestinian land will be mostly barren desert, the example of Las Vegas shows that that is the ideal environment for casinos to thrive.

It is hoped that the Palestinians will become complacent and busy managing the casinos or gambling, instead of worrying about historical struggles or land annexations. Like the Americans, Palestinians and Israelis have decided to ignore the impact of gaming casinos on local crime, alcoholism, delinquency and deprivation of revenue for other businesses.

Local Palestinians are enthusiastic over the predicted influx of rev-

enue from tourists all over the Middle East. Said one resident of a refugee camp, "I thought there was some vague prohibition in the Koran against gambling, but I also once thought there was something against killing people. Oh well, I'm too busy imagining rolls of shekels to worry."

As a token of goodwill from the Jewish people, some of the initial capital for the Palestinian gaming casinos will be financed by Jewish money. Prominent Israelis are willing to collectively offer 22% of the wealth of traditional pre-Mandate Palestine or approximately 100,000 euros in modern currency.



Courtesy of L. Zhang

Artistically depicted above, the future Gelt Casino will soon be constructed in the Palestinian reservation of Jericho.

## Drawbacks, Benefits Of Innate 'Clan' Setup

Continued from Page 3, Column 5

ethologist and Nobel Prize winner in physiology and medicine in 1973, says in his book *On Aggression* that "man's social organization is very similar to that of rats, which... are social and peaceful beings within their clans, but are veritable devils towards all fellow members of their species not belonging to their own community."

Now a pack of rats cannot express that by taking on superior airs, at least to human eyes, but people do. Even superior beings like the people at Caltech. Teachers are proud of their techiness and inherent superiority to students at other schools.

And although all of us are part of the same group, there is rivalry between subgroups, say, between the members of different houses or contention between students and faculty... Clearly these antagonistic feelings are not based on any real deficiencies of members of house A versus inhabitants of house B. And the clannishness that separates one alley from another in a given house is no more than forming an inside group by keeping outsiders away. The formation of groups is highly beneficial, because the members of each support each other and profit from such collaborative efforts.

Obviously we are not always veritable devils as rats are against members of other clans, but sometimes we are. Upperclassmen lord it over freshmen, sophomores are pitted

against juniors and groups of seniors reign. The feeling of us-versus-them can be expressed mildly as pranks, which start as fun but can end up causing anguish and pain. The clannishness, often harmless, can sometimes lead to serious antagonism between groups.

Besides the dynamics of group interactions one must also look at the relations of members of a group. Being part of even a close-knit group does not mean that one relinquishes private space and moments. Jack and Jill can be pals, members of the same group—say, living in the same alley—but that does not mean that they give up their separate individualities.

It can be difficult to recognize that there are boundaries that remain between even the closest of pals. If Jose lent you his bike to go downtown last week, it is not good to take it for granted that you are welcome to take his bike anytime without a say-so, when he is not here to give a specific go-ahead. If you went to play Pinochle in Helen's room until three a.m. a month ago, you would not necessarily knock down her door at three a.m. tonight without advance arrangements.

I have often wondered, by the way, what kind of game Pinochle is, besides the fact that it is a card game. The dictionary says it is similar to "Bezique," but that did not help me much because Bezique, it turns out, is defined as a card game similar to Pinochle. I guess I need an idle moment to explore the Web.

None of us should take anyone else for granted, friend, foe or just someone neutral. It is important to respect others, their belongings, their ideas and their wholeness as one wishes them to do towards us. It all comes down to not taking advantage of our fellow Teachers—and, I want to say, fellow humans.

In fact, that's something with which I have always been uncomfortable, that the Honor Code is couched in a way that seems to restrict its application to members of our community. It should apply to our behavior towards everyone, even though as many argue the world outside, well, is a jungle and we are placed at a great disadvantage if we behave honestly.

Let not pride and self-importance lead us to disrespect any of the clans with which we interact. Funny how I got there from some mumbling about the Y chromosome.

*A bientot*, be they the dilapidated and coarse lodgings of many in rural Afghanistan or the hogans in Navajo country... those who have to make do with "primitive" huts or tents. Like the yurts of the Mongolians they are in spite of their apparent coarseness well-suited to their purposes and to the ways of realities of life for their inhabitants. The reality of today, our imperious and superior attitude towards those who have not reached our extravagant scale of living.

## MLK ZIONISM RINGS CLEAR STILL TODAY

DRIVEN BY NEED TO SURVIVE

'60s Leader Among Few 'External Champions'

Continued from Page 3, Column 3

but the Palestinians have yet to prove to Israel that they are prepared to seriously negotiate for peace; recall the negotiations of Camp David in 2000, the failure of which then-president Bill Clinton blamed squarely on Yasser Arafat.

Indeed, not much has changed in the Middle East since 1948. Now as then, most of Israel's neighbors appear to have no interest in achieving peace with a Jewish state. Now as then, despite their vast territory and common language, religion and ethnic roots with the Palestinians, Arab nations use the plight of the Palestinians as a key weapon for breeding hatred of Israel instead of absorbing these refugees as Israel absorbed Jewish refugees expelled from those same Arab nations.

And, now as then, Jews around the world must continually stand up and defend Israel against unreasonable attacks based on shortsightedness and obvious lack of or disregard for historical context.

If it seems from time to time that Jews, Zionists, supporters of Israel and the like are a bit overzealous in their rush to defend Israel from criticism, I kindly ask one and all to cut us a little slack. Throughout history, the Jews have had few external champions with the exception of Dr. King and have learned firsthand too many times the price of letting one's guard down too quickly and easily.

## That Final Promise: Enhancing Representation With Web Polls

Online Voting Amendment: 'Solution to ASCIT's Biggest Problems'

By TED JOU

Online voting is the solution to ASCIT's biggest problems. Imagine a student government that did what the students wanted. Imagine student leaders that knew exactly what their constituents were thinking. Imagine a student government that made decisions by consensus instead of behind closed doors.

When I ran for president, my statement read, "While we always have the best interests of the students in mind, I don't think ASCIT always has a complete picture of what those best interests are. As president, the major thing I would try to improve is the communication between ASCIT and the student body. The actions of the ASCIT BoD should not reflect the opinions of nine people, but those of 929."

In Dabney's grievances about ASCIT, house members wrote, "As a 900-person school, referendum is easy. Why have BoD have power?" In Tom Fletcher's campaign statement, he wrote, "I want everyone in ASCIT to be able to 'poll' on the issues we discuss, to try and make ASCIT more of a true democracy than just a closed-doors power clique."

This is clearly an idea that many people share and one of my major regrets is that I haven't made any progress on the issue. Now, at the end of my term, I've realized that the answer has been staring us in the face. If official decisions could be made by an online vote of the student body, it would be trivial for ASCIT to do it more often. Rather than online surveys being an unofficial expression of opinion, online votes could decide what direction ASCIT takes on an issue or how much money ASCIT spends on

doughnuts.

What if the *donut* survey over the summer actually carried the full weight of a corporation resolution? What if the recent ASCIT Board resolutions regarding health insurance and a cooking class were voted upon by the entire student body? What if instead of just surveying people's opinions on clubs, we let them vote on how much money to give them? It would make for a lot of voting, but if it were automated, this would be almost no additional work for anyone.

*"Arguments regarding bylaws should play out in a public forum rather than behind closed doors."*

The only thing that prevents this from happening right now is that it's a lot of work for the election chairman to run around the houses with cardboard boxes and counting up paper ballots. With this in mind, the ASCIT BoD keeps issues on the back-burner for weeks until things pile up and it feels as though it is worth the effort to hold a referendum. I spent all last term negotiating with the IHC over the Director at Large amendment when it really should've just come to several votes of the student body. After being shot down a few times, it's likely the ASCIT BoD and the IHC could have come up with a procedure that the entire student body could support.

Arguments regarding bylaws should play out in a public forum rather than behind closed doors. Passing something as complicated

as the amendment creating a director at large should occur in several successive votes rather than in one big confusing one. I tried to put the debate in a public place, but the ASCIT newsgroup discussion on the *donut.caltech.edu* Web site took place between only three people.

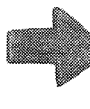
The real debate seemed to happen in house spam lists, also behind-closed-doors discussions but at least ones with a lot more people participating. Shifting the conversation campus-wide may or may not happen over time, but having a whole house discuss something is far better than having the ASCIT BoD make an uninformed decision.

I will admit that some of the previous proposed amendments have been rife with bureaucracy. However, the online voting amendment attempts to reverse that, trying to break down the barrier between the ASCIT BoD and the student body. Of course, the BoD may not take advantage of online voting even if this amendment passes, but that is up to Tom. I feel I owe him a chance to fulfill the campaign promise that I broke and I hope you help me when you vote this Wednesday.

### CALTECH CONVENTIONAL WISDOM WATCH



**A Fletcher Future:** The man is opaque, but his plan is transparent. He wants to lasso the cockroaches that come out when you turn off the lights, yet he's no Capra Rancher. He wants to revamp from the bottom up.



**By Jove, More By-laws!** Passage hinges on voter attrition. They're paving the way, perhaps, to slip through an Emergency War Powers amendment one of these days. If you want it, just *asc* it one more time!



**A Lacy Case:** Even St. Peter once told a lie, but this Peterson is pushing the envelope with his Christmas-eve fishing trip nonsense. Hold on, Scotty; the cops'll beam you down shortly.



**ASCIT Minutes.**  
January 29, 2003  
Present:

BoD: Ted, Kim, Marcus, Basit, Jialan, Neda Andrea. Absent: Vikram, Joe.  
Meeting called to order at 10:20 p.m.  
There will be a Bylaw Vote on Friday (January 31) and officer sign-ups now open through Tuesday (February 4).

The "Online Voting Amendment" to fully approve voting on the Donut web site (available at <http://donut.caltech.edu/about/news/bylaws/OnlineVote.html>) was approved for the ballot (4-1, Marcus opposed). In discussion of the Online

Voting Amendment, Marcus raised the issue of campaigning via e-mail on the day of the election, which the BoD has discussed several times and concluded is distasteful, but not prohibited.

The "Class Officer Amendment" to move the dates of class officer elections (<http://donut.caltech.edu/about/news/bylaws/ClassOffice.html>) is approved for the ballot (5-0).

The *Big T* editors want to put the current BoD and IHC in the yearbook again for this year. The BoD has no objections.

Kim has drafted a letter for the IRS, which the BoD comments on briefly. It should be sent to our accountant and to the IRS shortly.

Marcus reports that Dabney's new president is Jessie Kneeland.

Vice-President for Student Affairs Margo Marshak has volunteered the use of her home for the ASCIT Installation Dinner, which will be on Friday, February 28.

The ASCIT BoD thanks her for this generous offer, but wonder if she has a pool table. The ASCIT Game won't play itself, after all.

Former Totem Editor Alvaro Masias is seeking reimbursement for costs he incurred in operations for the 2002 Totem. Neda gives Kim receipts for food and beverages purchased for the BoD house visits last term.

Meeting adjourned at 11:10 p.m.

Respectfully submitted,  
Joe Jewell  
ASCIT Secretary

**Y News.**

**Upcoming Events:**

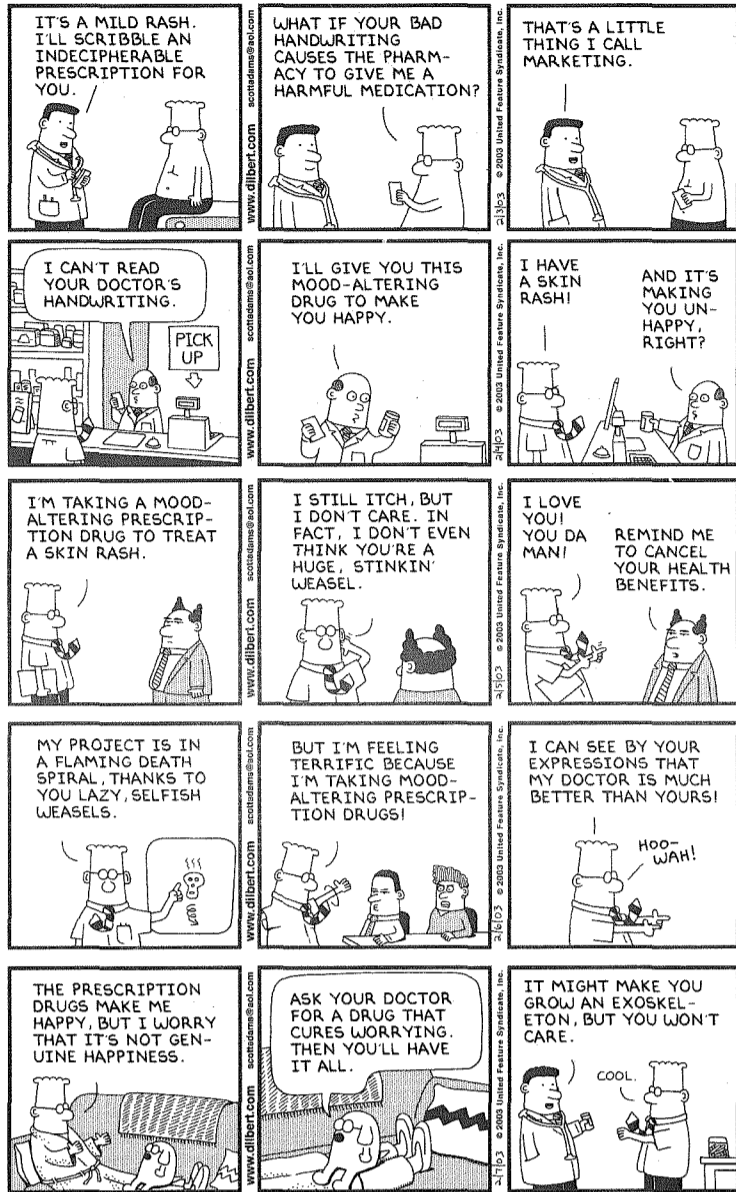
- On-Campus Tutoring (2/4 and 2/6, Winnett 4-6 p.m.): Stop by Winnett and tutor a local middle or high school student. No experience is necessary. Everyone is welcome to come as their schedule allows. (Contact [y-veep@ugcs](mailto:y-veep@ugcs) if you'd like to join the tutor mailing list.)

- Aaron McGruder (2/4, Beckman Auditorium, 8 p.m.): Author of "The Boondocks," McGruder deals with the issues of race, society and comic strips. Free, no tickets required.

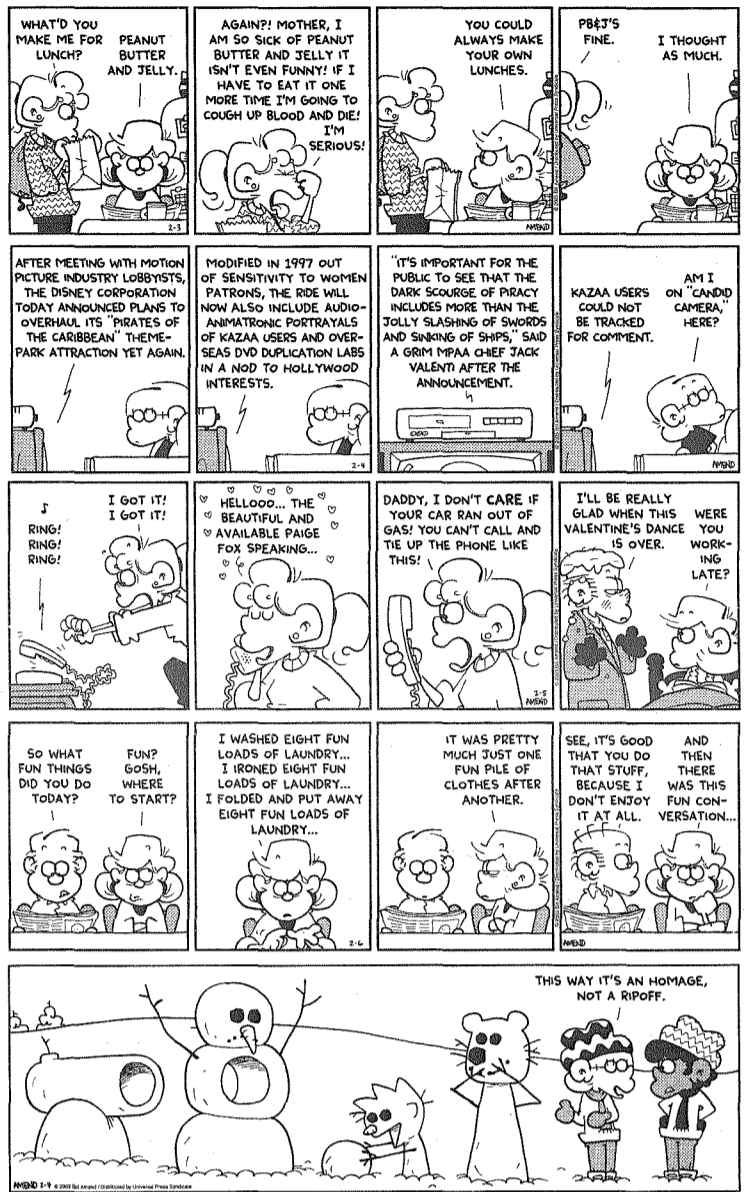
- Reading to Kids (2/8, 8:30 am to 12:30 p.m.): Read to children at a library in downtown Los Angeles. You must register with the Reading to Kids organization online at [www.readingtokids.org](http://www.readingtokids.org) before attending. (Contact: Anita Choi [anicho@its](mailto:anicho@its))

**Factoid:** Having a party? The Caltech Y supplies latex balloons for 50 cents each and mylar

**DILBERT®** by Scott Adams



**FoxTrot** by Bill Amend



balloons for \$1.50 (helium is available).

**Y Not Join Us?**

Come to an ExComm meeting! All meetings are open to students, staff and faculty - every Monday at noon in the Caltech Y. The Y (x6163) is located on the first floor of the Student Services building, south of the Holliston parking structure. If you are interested in a Y activity or have questions about the Y, please stop by or send an e-mail to the Vice President ([y-veep@ugcs](mailto:y-veep@ugcs)).

**Caltech Ice Skating Afternoon** organized by Caltech Ice Skating Club and GSC. Come join us for a couple of hours of ice skating fun and hot chocolate! When: Saturday, February 15, four to six p.m. Cost: FREE admission and rentals Where: Pasadena Ice Skating Center, 310 East Green Street, 626-578-0801. [www.skatepasadena.com](http://www.skatepasadena.com) (The rink is across Green Street from Paseo, same building as Civic Auditorium, but enter in the back around the northwest corner of the building). If you want to drive, you can

**LOOKING FOR SOME LOVIN' THIS VALENTINE'S DAY?**  
Next week's *TECH* will feature a special "SINGLES" section. For \$5, you can have your very own personal ad! Just send in whatever you want to say (must fit in a 1.875" x 1" box) to [business@tech.caltech.edu](mailto:business@tech.caltech.edu), and send \$5 to MSC #938, c/o The California Tech. See flyers for more information or e-mail [business@tech.caltech.edu](mailto:business@tech.caltech.edu).

park for free at the parking meters on nearby streets or in Paseo parking lot (\$1 if you validate parking at Gelson's - with a small purchase). If you have questions or want to join the Caltech Ice Skating Club mailing list, please e-mail [skating@caltech.edu](mailto:skating@caltech.edu).

**Caltech Library System Presents:** The following sessions are approximately one hour of formal instruction in the Sherman Fairchild Library Multimedia Conference Room (Room 328). Walk-ins are welcome, but pre-registration is preferred. Thursday, February 6, 2 PM: "Quick Review of HUMSS Information Resources" Thursday, February 13, 2 PM: "Web of Science for Science and Engineering" You may register for these and other upcoming classes at [library.caltech.edu/learning](http://library.caltech.edu/learning). For further information, please contact Kathleen McGregor at x6713 or [kathleen@library.caltech.edu](mailto:kathleen@library.caltech.edu). The Literature Faculty is pleased to announce the Annual **Hallett Smith Com-**

**petition** honoring the finest essay devoted to Shakespeare. Only full-time, officially registered undergraduates are eligible to enter the competition. All submissions must be typed and double-spaced and should not exceed 4,000 words. The essay may be one prepared for a humanities class or may be specifically written for this competition. No student can submit more than one essay. All contestants must submit two hard copies of their work to Professor Jenijoy La Belle, Division of the Humanities and Social Sciences, 101-40, no later than April 17, 2003. This year's prize will be approximately \$300, though the judging committee may divide the award in case of more than one outstanding submission. For more information, contact Prof. La Belle, x3605 or Barbara Estrada, x3609.

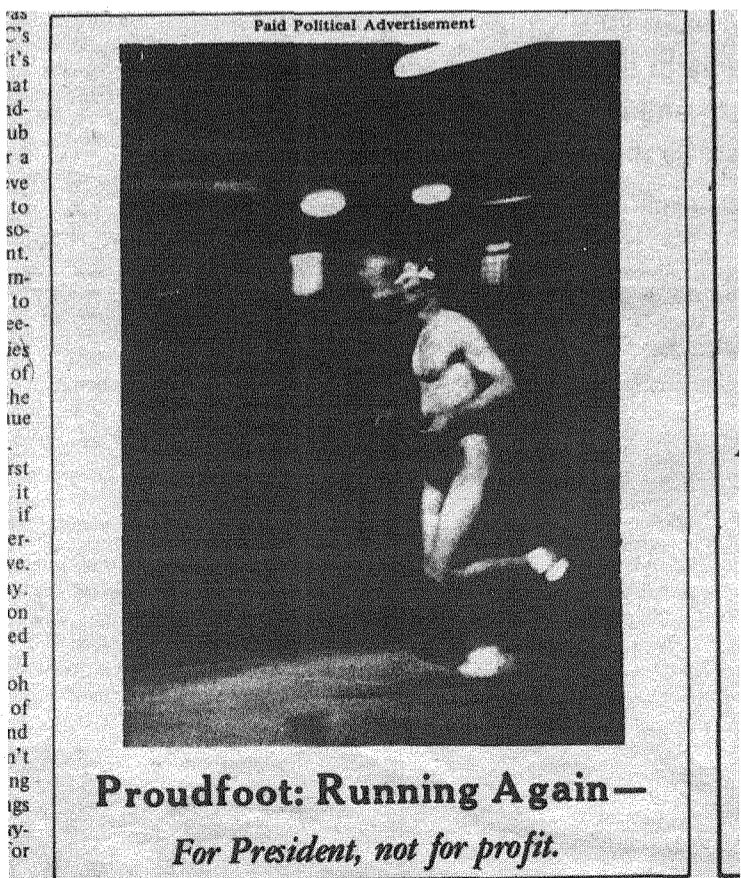
The Literature Faculty is pleased to announce the **57th Annual McKinney Competition**. The Mary A. Earl McKinney Prize is awarded each year for excellence in writing. Only full-time students offi-

cially registered at Caltech as undergraduates are eligible to enter the competition. This year, prizes will be given in three categories: poetry, prose fiction and nonfiction essays. All submissions must be typed and double-spaced. Include your address and phone number. In the poetry category, entrants may submit up to three poems. Submissions of prose fiction should not exceed 12,000 words. Essays may be ones prepared for a humanities class or any good piece of original writing on a topic relevant to the humanities. The prize in each category will be \$300. Each student is entitled to only one entry in each category. Contestants should submit their work to Professor Jenijoy La Belle, Division of the Humanities and Social Sciences, 101-40, by no later than March 6, 2003. No entries will be returned. Each category will be judged by a committee from the Literature Faculty. Essays will be judged on the quality of thought and the effectiveness of the writing. Winners will be announced in May and the names of the winners will appear in the commencement program. The Committee may divide the award in each category in case of more than one outstanding submission. Previous winners in any one category are not eligible for the competition in that category. If you have any questions, contact Prof. La Belle, extension 3605 or Barbara Estrada, extension 3609.

**Mid-Term Salsa/Latin Dance Party**-Join us for a hot night of salsa and Latin music!! Plenty of refreshments. Free as always! Beginners are especially welcome. Sat, Feb 8, Dabney Lounge, 9:00 p.m. - 12:30 a.m. Beginners' salsa lesson from 8:40 - nine p.m. **Upcoming Ballroom Dance Class Info**- Intermediate/advanced salsa, taught by professional instructor Jorge Geronimo. Five Mondays, Feb 10 - March 10, Winnett Lounge 7:30-9 p.m., followed by practice 9-9:30. Cost: \$25 for all 5 weeks for Caltech students or \$6 per class. For nonstudents: \$35 for the series or \$8 per class.

The Caltech Dance Troupe will have two dance classes for the winter term. All classes meet in the Braun multipurpose room. **Intermediate Jazz**; Instructor: Collette Sibal; Tuesdays, 9:30-11 PM; Trial class fee: \$5 Caltech students full term fee: \$20 Non-Caltech students full term fee: \$30. **Beginning/Intermediate Ballet**; Saturdays, 1-2:30 PM. FREE! The first hour will be a beginning/intermediate barre while the last half hour will be an intermediate floor exercise.

**TODAY IN CALTECH HISTORY**



*The California Tech Archives*  
As the current ASCIT BoD stands on the brink of annual elections, campaign slogans begin to pop up. This slogan comes from the presidential race of 1974.  
By Ted Jou '03

**BoD Approves Pair Of Amendments For Vote**

**Class Officer Amendment**

The class officer amendment is being proposed primarily for one simple reason: to keep the ASCIT Board of Directors from forgetting the fact that class officers are supposed to be elected along with the other officers. Last year, the BoD forgot to hold this election and this year, I did not realize until the very last moment, when I was putting up sign-ups for the new officers. The amendment also provides a provision for the senior class to recall their officers if they are not doing a good job. Currently, there is no way for class officers to be removed from their positions. This amendment certainly doesn't need to be in the bylaws, but it certainly doesn't hurt either.

By Ted Jou '03

**Online Voting Amendment**

The online voting amendment will legitimize completely online votes as the official method by which all votes are taken. This will benefit the student body because it will make it easier for the ASCIT Board of Directors to poll the entire student body when important issues arise. Online voting will eliminate human error from the voting process and will allow results to come quickly and reliably. It will also prevent "double voting," which isn't being policed at all right now. Some people may have concerns about the reliability of the system or possible negative effects on turnout. However, since online voting started there have been 24 separate votes with no technical problems and voter turnout has been higher than ever for ASCIT elections.

By Ted Jou '03

by Tim Wan, Mike Yeh, Ben Lee

# CRIPPLING DEPRESSION

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All characters are purely fictional. Any resemblance to any persons living or dead is coincidental. The views expressed are those of the authors, not those of the newspaper staff or Caltech.



## Caltech, McKeown Team With Local High Schools

By MARK WHEELER

They stream out of deep space, traveling at speeds close to that of light, constantly bombarding Earth and literally passing through our bodies: "subatomic shrapnel," as one magazine described them, energetic matter known as cosmic rays.

For the past year, Los Angeles-area high school students and their teachers have teamed up with a Caltech physicist to, in a sense, "catch" these ultra-high-energy rays on their own campuses. Students and their science teachers from the Pasadena Unified School District, Los Angeles Unified School District and other districts in southern California have been involved in the development and construction of detector hardware, the associated electronics and the computer equipment to form a networked system among 30 southern California high schools.

The project is called the California High School Cosmic-Ray Observatory (CHICOS). Ultimately, says Caltech Physics Professor Robert McKeown, at least 90 detectors will be installed, scattered widely throughout Southern California.

A large array of detectors will enable the study of these ultra-high-energy cosmic rays through the detection of "showers," several kilometers in radius, of secondary particles they create in the Earth's atmosphere. Such rays are the highest-energy particles ever observed in nature and have captured the fancy of the astrophysics and particle-physics community.

Thus, while establishing a state-of-the-art experimental facility, the project is also providing an exceptional educational experience for local high school students. When a majority of the sites are operating, Dr. McKeown expects the project will yield enough significant science to be reported in the scientific journals.

Cosmic rays are comprised of an array of subatomic "stuff": protons; "neutrinos," uncharged elementary particles; and gamma ray photons, bits of light emitted spontaneously by a radioactive substance. They are of interest to scientists for a couple of reasons.

For one, studying their composition tells how the galaxy has continued to evolve chemically since the solar system was formed. This

helps us to understand how the solar system got the chemical composition that it has and, in turn, tells us something about our origin.

Further, as energetic as they are, cosmic rays may emanate from cataclysms of staggering proportions, including the Big Bang, shock waves from supernovas collapsing into black holes and matter that's accelerated as it is sucked into massive black holes. Knowing where these particles originate and how they attain such colossal energies will help scientists understand how these violent objects operate.

"The idea is, 'what do these things point back to?'" said Dr. McKeown. "And, can we learn something about where they come from as a result of that? This is real science. Maybe these things will point back to some exploding object in the sky, which is exciting to kids. And to me, for that matter."

The timing of when the showers hit the different schools is what tells scientists like Dr. McKeown a lot about where they came from. The cosmic rays will generate a "pancake" of rays that, as it falls, gets bigger and bigger. The particles will hit one detector first, then another one sometime later. The detectors at the center of the shower will have stronger signals than the detectors farther away.

Once the center of the shower is detected, the direction of the shower can be determined from the relative times. This is where the high school kids come in; using trigonometry, they can reconstruct the direction of the showers, taking into account the orientation of the earth at that time.

The program also incorporates a high-school-teacher education component coordinated by Ryoichi Seki at California State University, Northridge. Teachers are developing curriculum materials to help their students participate in this research. Caltech also hosts a summer workshop where physics teachers and students can participate in the construction of new detector stations for deployment at additional sites.

"One of the things I like to show the students and teachers is that this really is a current and ongoing research project," said Dr. McKeown, "so it's not an exercise out of a textbook but real science."

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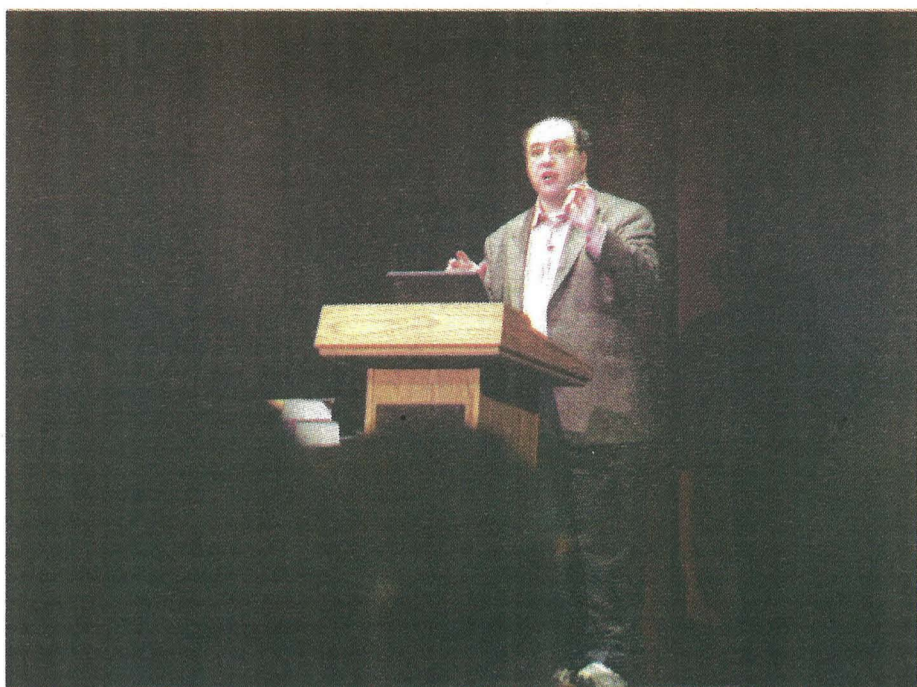
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D. Korta/The California Tech

Donning sneakers and less-than-premium attire, Stephen Wolfram lays out key ideas from his *A New Kind of Science* last Saturday in Beckman before bulging crowds.

# Wolfram Outlines 'Paradigm Shift' Impending in Science

Continued from Page 1, Column 5

often met in many computations. In closing, Wolfram took a moment to defend his method of introduction of ideas. The reason he published one big book rather than a number of papers was that he wanted to explain his ideas clearly, rather than publishing papers in several different fields. In addition, the book was published by his company because he felt it didn't fit with any common publishing companies. *A New Kind of Science*, Wolfram said, will start a paradigm shift. Already, a conference is slated for this spring in Boston and a summer school program for graduate students for this summer at Brown University. His ideas, he hopes, will spawn a new field of science. After his hour-and-a-half talk and a brief intermission, a panel discussion led by Dr. Koonin explored some of the ideas in Wolfram's book. The panel included Chris Adami, principal scientist of the Quantum

Technologies Group at the Jet Propulsion Laboratory, John Preskill, professor of theoretical physics, and David Stevenson, professor of planetary science. In a lively dialogue, the Caltech faculty questioned the applicability of Wolfram's work. Dr. Preskill admired the ease with which Wolfram conveyed his ideas but questioned their applicability. Dr. Stevenson challenged Wolfram to give a specific example of a prediction that could be tested. Dr. Koonin followed up with the question of how Wolfram could prove his ideas. Wolfram answered the challenges confidently, saying that the lack of experts in his new field made it difficult to easily use all of his ideas. Furthermore, he thought that the applicability of his ideas is enough to demonstrate their merit. Wolfram compared proving his ideas to proving calculus: if it's helpful, he reasoned, it should be used. Dr. Adami questioned Wolfram's ideas on natural selection, but Wolfram replied that he had focused on previously unstudied topics, rather than well-documented phenomena. Dr. Koonin ended the discussion in asking the panelists if they thought Wolfram's ideas would lead to a paradigm shift and all responded negatively. Dr. Stevenson thought that the ideas seemed more like "the emperor's new clothes." Dr. Preskill dismissed the ideas as too simple and Dr. Adami explained that there were too many open-ended statements. Wolfram rebutted by reminding the audience that skeptics had all said the same things before other paradigm shifts. Wolfram finds his scientific roots at Eton, Oxford and Caltech, where he became the youngest recipient of the MacArthur Award in 1981. His most famous scientific achievement was the discovery of cellular automata. In 1986, Wolfram founded Wolfram Research, Inc. and created Mathematica, which is regarded as the world's premier advanced mathematics software and also which enabled Wolfram to make great strides in his research for *A New Kind of Science*.

## Swim Team Continues Great Season, Men's, Women's Basketball Fall Just Short of Wins

By BRENTON REGER

had some fast times as she took the 50 free and 100 free.

dies travel to CMS and Redlands this week.

The following week, Yu continued to lead the women's team scoring 18 and 13 points and grabbing 14 rebounds. The Beavers take on Whittier and Occidental this week in their final week of first round SCIAC play.

### Athletes of the Week

Sina Yeganeh '04 from track took first in the 100-meter with a blazing time of 10.78. In addition he added a 2nd place finish in the 200-meter with a time of 23.21 and ran a 52.1 split in the 3rd place finish in the 4x400. Tamara Becher '04 also had a great meet with top finishes. She led the meet in the 1500 with a time of 5:20, took second in the 400 at 65.5 and third in the 800 at 2:30. She also ran the first leg of the 4x400, which finished with a time of 4:48, good enough for third place.

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In a big conference meet the Beavers took the Sagehens for their second loss of the season and first conference loss. Jim Rebesco '04 came up big for the men as he took first in every event he swam including the last leg of the 200 medley relay. The win marks the first victory over Pomona-Pitzer since the '67 season. The team finished the week with six wins and three losses.

The Beavers played tough against the Bulldogs at home last week. The big difference seemed to come in numbers as the Bulldogs subbed in five at a time to outlast the Beavers. Caltech had four players in double digits. The Beavers also pulled in 43 rebounds with Jonathan Bird (9) leading the category. The men dropped two the following week as they faced two very tough teams.

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The women had several solid performances this week. Saskya Bylerly '03 had three first place finishes as well as adding a strong leg of the 400 medley relay. Jacki Wilbur '04 also

The ladies dropped two conference games this week, both at home. Ada Yu '03 led the Beavers in both match-ups, putting in 19 on the week and adding 12 rebounds. The la-



J. Mao/The California Tech

Men's basketball faces off this week against a conference opponent. The men's and women's teams posted winless records these past two weeks.

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## Xiu, Duan Oversee Night Of Cultural Games, Song

Continued from Page 1, Column 3

gether by just about every student organization on campus, so I speak with some degree of authority when I say that the Caltech C outdid themselves with this one. Never in my career of twenty Decompressions has the Winnett lounge been so packed, nor so well decorated. Everywhere I looked were shiny orb-looking-deals, huge non-ASCII characters, goats and sheep and a plethora of all things Asiatic. The food was abundant and delicious, although I lack the words, literally, to describe exactly what I was eating. Having arrived early, I had the pleasure of watching a hundred people stand in line as I ate, which made savoring the cuisine even more enjoyable.

The festivities were hosted by emcees Xinan Xiu and Gang Duan. A graduate student, Xiu was dressed in an exquisite red and gold satin dress, decorated with Chinese lettering in what I assume to be a traditional fashion. If it isn't traditional, it needs to be, starting now. Duan was probably wearing clothes too, but because he was standing next to her your humble reporter failed to notice.

The Southern Chinese Youth Association performed classical tunes in a most professional and euphonious fashion, including a spectacular feature with demonstrations of various traditional—or maybe, they were cutting-edge Chinese, in any event—wind instruments. I've known scores of wind players, but I can't say that I've ever witnessed anyone who could play half a dozen instruments in a row without compromising musicianship.

Actually, it's not correct to say he played them all in a row, because this soloist managed to play two of them at once. In tune. And in harmony. The instruments resembled a much finer version of the plastic recorders children play in school, which are not known for their intonation. This man was wailing.

Opening and closing addresses were given by the head of the Chinese Consulate in Los Angeles. I had meant to learn Mandarin on

Saturday morning, but I overslept, so I missed out on understanding the finer points of what I'm sure was a delightful speech. Most non-Mandarin speakers would've been confused at hearing it full speed without subtitles, but once you've survived an ACM 95c lecture, you can make sense out of anything.

Party games were a lively diversion, including several rounds of charades. The clues and answers were transliterated for the rest of us, but for all practical purposes the game was rigged in favor of those who actually knew how to read all the little pictures. The most popular category seemed to be "idiom," which generally meant I was hosed.

Later, however, I managed to redeem myself. I used my mad linguistics skills, knowledge of song lyrics and utter imperviousness to embarrassment to win two door prizes in a later contest involving songs with the word "goat." You had to be there.

An unexpected highlight came from Eli Jorne, a graduate student in applied physics who at first glance doesn't appear Chinese at all, who gave a passionate rendition of a Chinese—I think—song entitled "Girl, Please Look this Way." At least one listener complimented his performance, noting his astute proficiency in the finer points of Mandarin. I'm jealous, not because he could make the crowd laugh uproariously, but because he knew what they were laughing at. That, and he's a mighty fine singer to boot.

In addition, I got to hear the finest zither performance I've ever encountered and to see other students in musical acts, skits with goats and sheep and interpretive Tai Chi dancing.

All in all, I'd say the Chinese C has raised the bar for heritage. I know culture isn't a competitive sport, but I may just be persuaded away from KSA, OASIS or CLASES in favor of these goat-loving people with the karaoke machine and all the other traditional Chinese cultural gadgets.



J. Mao/The California Tech  
Graduate student emcees Xinan Xiu and Gang Duan energize the crowd at the Caltech Y's Spring Festival Celebration.



T. Ma/The California Tech  
A Thai dancer performs for the crowd in a colorful lavender costume.



D. Kortz/The California Tech

This year's Caltech Career Day sees a notable decrease in the number of companies and recruiters present. Companies in attendance included Lockheed, JPL and Microsoft.

## Slow Economy Slows Career Day Recruiting

By ROBERT LI

Albeit with a recruiting crowd diminished in the face of poor economic conditions, the annual Caltech Career Day took place last Thursday in Brown Gymnasium.

Scheduled every year around January to February, the Career Day is designed to provide students and alumni "an opportunity to gather company information, speak with company representatives and drop off their resumes in a fun, informal arena." It is also a place where undergraduates can search for summer internship opportunities.

Despite having 50 companies in attendance this year—a respectable number considering the depressed state of the economy—the gathering in Brown Gym was a muted affair with many students appearing less than optimistic about their chances for a permanent or temporary internship.

Unlike past Career Days, when the entire gym would be filled with company recruiters eagerly seeking students, this year's event occupied only half of Brown Gym with the remaining areas cordoned off by plastic sheeting. Even the promotional gifts were a far cry from better times, when companies were holding raffles for video cards and giving out foam footballs. This year, most companies simply handed out their advertising brochures. If you were lucky, you might have scored a pen or some cheap chocolates.

The usual organizations were in attendance including Microsoft, Intel, Lockheed and government groups like the DOE laboratories and JPL. None had more than three recruiters present and most had only a handful of people around the booths.

William Fong '04, an applied

math major, said of the event, "The lack of attendance at this year's Caltech Career Day was not a total surprise. Due to the weak economy, it was not so shocking to see so few recruiters at the event. I myself left after 10 minutes because there was nothing suitable for me." Asked what his summer plans were, Fong quipped, "It looks as though I'll be doing a SURF again."

Career Day has long been the keystone event of the Career Development Center's academic year. Aimed at complementing the center's usual array of employment opportunities—offered to students through the group's Web site and through individual counseling sessions with students—the gathering is traditionally a popular stop both for undergrads looking for summer internships and for seniors in search of permanent employment.

## POLL WINNER WATTERSON WON'T SPEAK

COMMENCEMENT CHOICE DENIES

By PHIL ERNST and PHIL HARRIS

Bill Watterson, *Calvin and Hobbes* artist and top vote-getter in the recent senior-wide poll for this year's commencement speaker, has informed Caltech that he does not give commencement speeches, said Public Relations Vice President Bob O'Rourke.

"I communicated with Mr. Watterson's agent who told me that he does not give commencement speeches," said Mr. O'Rourke.

Caltech is traditionally at a disadvantage in the run for a "high profile" name, in Mr. O'Rourke's words, because administrators do not convey honorary degrees or agree to exorbitant speaking fees. They pay only travel and lodging for the chosen speaker.

More news is expected shortly.



E. Adams/The California Tech

The Public Relations building on Hill Ave. sometimes plays host to potential commencement speakers sought out by Caltech.

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