Stephen Hawking Comes to Tech

By Jonah Michaud and Robert Fisher

Last week, Dr. Stephen Hawking, perhaps the world's greatest theoretical physicist since Einstein, visited Caltech to attend a symposium on large scale structure in the universe. Dr. Hawking holds the Lucassen chair of Mathematics at Cambridge University and is the author of the best-selling *A Brief History of Time*. On Thursday a press interview was conducted in the East Bridge Reading Room. Among those present were Hawking's niece, two graduate assistants, a Channel 7 reporter and cameraman, and the authors. Hawking, who suffers from ALS, or Lou Gehrig's disease, has been confined to a wheelchair for over two decades. Several years ago, he nearly died of pneumonia, requiring doctors to insert a breathing tube in his trachea, silencing his voice. Now, he communicates through a voice synthesizer which he controls by selecting words displayed on a LCD monitor with a switching device held in his lap. His other hand grasps a joystick on his wheelchair which allows him to move independently.

As Professor Hawking entered the room, the participants rose and greeted him. He settled down to a discussion with the Channel 7 interviewer, who was preparing a special report on "black holes and space and stuff."

**Channel7Q:** Dr. Hawking, is this a thrill and an honor for me to be here to say hello and to interview you—thank you very, very much. Um... One question that I was really interested in asking you to start off with was have you... [A long pause] .... Dr. Hawking, with the advent of the Hubble Telescope we have had the opportunity to look at Cygnaus one [wee think he means Cygnus X-1], a strong x-ray source in the constellation of Cygnus(now with the Hubble, and if we have, what do we discov- ered? A: I don’t think the Hubble Telescope looked at Cygns X-1 yet. It is not really the right telescope for the job. What we really need is a large x-ray telescope in orbit that could enable us to see signals which are characteristic of black holes.

**Channel7Q:** So, the Hubble really hasn’t helped us with Cygns X-1 very much, has it? A: It has not really helped us with anything, but hopefully they can fix it.

**Channel7Q:** Yes... Dr. Hawking, you recently have there been some, some studies over the past couple of years that had talked about the possibility of a massive black hole being at the center of the galaxy. Do you believe that? A: I think the evidence is very good that there are very large black holes at the centers of some galaxies we can see. There may also be one at the center of our own galaxy. This is more difficult to observe because there is a lot of dust in the way, but the evidence points that way.

**Channel7Q:** Thank you. Dr. Hawking, of course you can see that I have your book [the interviewer has held a copy of *A Brief History of Time* in then the creator of the universe, a prime mover? A: I don’t think one needs God as a prime mover because it seems that the universe doesn’t need to have a beginning and end. It can just be. But one still has the question, why does the universe bother to exist. If you like, you can define God to be the answer to that question.

**Channel7Q:** So Dr. Hawking, obviously you see evidence that the universe will contract, that it will not just expand until it reaches its maximum entropy, maximum disorder, it will contract, there’s enough mass, meaning in the universe to cause a recontraction of the universe.

A: I think there should be just enough matter in the universe to cause it contract eventually. But it is one of the great puzzles of mod-

Whereas Stephen W. Hawking firmly believes that naked singularities are an anathema and should be prohibited by the laws of classical physics,

And whereas John Preskill and Kip Thorne regard naked singularities as quantum gravitational objects that might exist unclothed by horizons, for all the Universe to see.

Therefore Hawking offers, and Preskill/Thorne accept, a wager with odds of 100 odds to 1 that even if any form of classical matter or field that is incapable of becoming singular in flat spacetime is coupled to general relativity via the classical Einstein equations, the result can never be a naked singularity.

The loser will reward the winner with clothing to cover the winner's nakedness. The clothing is to be embroidered with a suitable concessionary message.

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*Stephen Hawking: God, John P. Preskill & Kip S. Thorne  Pasadena, California, 24 September 1991*

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S.E.D.S.

The Students for the Exploration and Development of Space (SEDS) offers a wide variety of activities in all space-related areas, including planetary science, aerospace engineering, astronomy, and the social and political dimensions of the space program. Last year we sponsored numerous tours, hosted guest speakers, attended landings of the space shuttle, went on monthly star parties, hosted a regional space conference, began work on GAS ("Get Away Specials" that are in the space shuttle) and developed an ambitious education program. Our tours included visits to Rockwell’s Palmdale facility, where we saw the space shuttle orbiter under construction at McDonnell Douglas plant at Huntington Beach, which features a full-scale model of space station Freedom, and Rocketdyne’s facility where Delta and Atlas rocket engines and the space shuttle main engines are produced. We also toured Caltech’s Palomar and Big Bear Observatories. Our conference, CalSEDS’91, featured others among others Mark Albrecht, Executive secretary of the National Space Council and astronaut Deke Slayton. Groundwork was laid for one GAS can experiment entourage to determine gamma ray bursts from as yet unidentified sources and another dealing with protein crystal growth.

This year, Caltech SEDS intends to expand the above menu of activities. We have a tour of the Jet Propulsion Lab planned for October 11 at 1 PM and a trip to see the space shuttle Columbia. In addition, we expect to add tours of Edwards AFB and other aerospace companies. The Gamma Ray Burst experiment will be built this year and is scheduled to be delivered for launch by May. Significant work will be done on the other cars. As these GAS cars are student experiments, excellent opportunities exist for undergrad­uate student participation. Caltech SEDS will be co-hosting another regional space conference, CalSEDS’92. Furthermore, we will go to Joshua Tree National Monu­ment or Mount Pinos for monthly star parties with our new Ultima 8 telescope. The first star party is in October.

Though very independent, Caltech SEDS is part of an interna­ tional organization. This past Au­ gust, the Caltech chapter became the co-headquarters for SEDS-USA. As a result, we will be involved in many projects with national scope. Our local education program will be expanded with the goal of interest­ing high school and college stu­ dents form around the country in the space program. Public relation and fund-raising will also be fo­ cused on. Caltech students who want to have an impact on students around the country will have many opportunities to participate in all national projects.

Anyone who would like to get more information about SEDS, on a local, regional, or national level is invited to come to our 1st meeting on Tuesday, Oct. 8 at 7:30 PM in SAC room 25. Nomination for of­ ficers will be held and a video of the total eclipse in Baja will be shown. New members always play a key role in setting the club’s direction and are encouraged to attend. If you are unable to come to the meeting, but would like more information about SEDS or the JPL tour, call Phil Rosenthal at 577-4664.
Letters

Rotation Advice
To the Freshmen and Transfer Students: Congratulations, you’ve almost made it through rotation! By now you’ll be thinking about the houses you’ve been to. Tomorrow you’ll have to consider all the houses and choose which ones you’d like to live in, and which ones you wouldn’t (if any). Today, you’ll turn in your list, and wait. And during the following day you might start to worry a little. What if I don’t get into my favorite house, even if I ranked it 1 and all the others? What if the house doesn’t like me? What’s going on at the house meetings? What happens at picks?

Well, first of all, try not to worry, because after Sunday night everything that happened at rotation and at the meetings is past history. Second, what happens at picks on Sunday is completely confidential, top secret, and nothing that happens or is said should ever be repeated. If you hear rumors about what went on, remember that they are strictly rumors. And if you think someone really is talking about picks, please inform the president of the house or the IRC Chairman. Don’t feel funny about doing this. Talking about picks in a serious breach of trust among the students and something that should be taken care of immediately.

What actually happens at picks is pretty simple. The house presidents choose cards to determine the order of picking. The first five and the last five rounds of picks follow this order, going forward and then backward. The middle picks are done by a computer program which distributes the rest of the number among the order in random, because some houses choose more students than others. Following this order, all the students are picked into a house. There is a separate pick for students living off-campus. Each house brings 4 representatives besides the president and the RA to help with the selection.

There are some things to remember about this weekend. Just as you want to be in the houses you like, so a house wants people who like that house. Secondly, there are often cases of the number of students who pick a house far outweighs the number of students a house needs to fill the house. So if you don’t get into your first choice, and there is a very good chance you won’t, it doesn’t mean the house dislikes you or doesn’t want you around. In fact, they’d probably be glad to see you come back and work out whatever it was that made it difficult for you to possibly become a social member. Once you get into a house, you may find that it’s very easy to stay there and not think twice about whether you want to live there any longer. So while you’re still familiar with some of the upperclassmen and you recognize other freshmen from freshman week, feel free to stop by the other houses you liked.

Whatever house you get into, remember that how much you like it will depend somewhat on the other new students and upperclassmen you may have not met. Keep an open mind, and realize that you’ll probably end up really liking the house you’re picked into.

One last thing. On Sunday, go around to the houses until you find where you’ve been chosen. Don’t get discouraged, especially if you don’t get into your first choice, because the house members are waiting to meet you. There’s also usually some kind of house event or activity that you’ll be able to attend to break the ice. Of course, anyone type of house induction is voluntary and if you don’t want to participate you should hesitate to say so. You will not be ostracized, or teased if you choose to do this. Have fun on Sunday night and best of luck in the coming year.

Andrea Mejia

More and More Rotation Advice
I certainly hope that everyone has gotten their money’s worth and a fun out of rotation as possible, and I’m sure we’ll all be glad when it’s finished. But now that rotation is almost over and we near the time that freshmen will find out what house they are going to become a part of there are some important points that everyone must know, so that we can all enjoy the next year to the fullest.

This Sunday all of the freshmen will find out which houses they are going to be in and they will immediately be welcomed by a myriad of traditions and activities that are special to each house. In some houses they will start from the moment that you are told where you will be living. In any case these traditions are all intended to welcome everyone to and to be enjoyable to everyone involved. They are not intended to put the freshmen in a position where they feel inferior or taken advantage of. We all have a great filled year with joy and good times, but in order to have that happen we just need to be aware of what goes on in our houses and to govern our life here at Caltech.

So here’s what you need to know:

If you are asked to engage in any activity, you always reserve the right to refuse participation. From Page discussion, it would be fun to have activities in our houses that may not be observed in mainstream society. If there is any activity that you feel uncomfortable with you can refuse to participate. This is something all of the upperclassmen should be aware of, because if an upperclassman is expressing doubts about an activity, then it is the upperclassman’s responsibility to inform the freshmen about the content of the activity without putting any pressure on them. Some people may rather see an activity performed once or twice before they engage in it. Never go into a situation where you feel pressurized.

You should never engage in any activity which will put you in a real physical jeopardy. This is an absolute rule. If you get into a dangerous activity and you get hurt, you’re the only one who suffers. There are laws against engaging in dangerous activities as an organization, and if someone gets hurt, it’s the organization that will suffer the most. We have all spent a lot of time trying to make Caltech an enjoyable place to be, and the house system is very special. A careless mistake where someone gets hurt could jeopardize all that we have. And this also extends beyond just physical trauma. The activity is not reasonable or can potentially make people feel humiliated afterwards. A note to upperclassmen: be careful not to delude yourself into thinking that you know how this person will react.

We should never engage in any activity which changes for you at any time. Although you may not be one to speak, I think that showering is a good example. It’s great to wrestle and play with new friends and old friends, and it’s still fun. It’s great to wrestle and play with new friends as long as you enjoy it. If you start to get hurt, it is the responsibility of all of us to stop the activity right away. Nobody wants to see anyone get hurt or killed and if it’s happening it’s hard to tell from the outside what’s going on with a person’s body. If you start to become injured, and you can’t go on, you should say “Stop” and the action should cease. This applies to all activities.

In releasing participation in activities, we will not be socially ostracized. Participation in an organized event is not what makes you a member of any of the houses. There are no rules of passage to become a real Darb, Mole, Flem, Pageboy, Rudd, Scurve, or Lloydt. Not only is this a very important part of our organization, it simply means you choose not to participate, nothing more or less. Upperclassmen should be well aware that refusing to participate will place social pressure in order to increase participation. The activities should be attractive enough to warrant participation on their own.

These are the basic understandings that we all live by, here at Caltech. And with all of these points in mind...

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Jennifer Wright

PHOTO EDITOR
Varoujan Gorjian

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WEB SITE
Mailbox Convenience?

Dear Eds:

Registration is here again. Go down to Dabney Hall, wait in line, wait in line. A new line this year was for the new undergraduate mailbox assignments. I went through the line, got my key and mailbox number, and got handed a pink form telling me how these new mailboxes were for my convenience.

This is not a convenient change. Not for anyone. I’ve yet to meet a student who’s not at least irritated by the change. Now I have to pick up my mail on the Olive Walk, which is slightly less convenient than picking it up in Dabney. Big mail, like graduate school applications, I’ll have to pick up in Spalding, which is very inconvenient. And we also lose some of the social character of the lounge with the loss of the mailboxes.

The advantages cited in the friendly pink flyer are also largely untrue. “No one else will have access to your mail...only you have the key.” A key which opens a 3-pin lock. Anyone with any experience picking locks could break into these mailboxes with paper clips inside of 5 minutes. Furthermore, the mailboxes are now in a very open, accessible outside area, where wandering persons of low moral turpitude might happen by. “No matter where you live, the box number doesn’t change.” This was largely true before. Most Techers stay in the same house for their entire Tech career, thus always having the same mail code. Some to move, it’s true. However, according to the current plan, people going on leave lose their mailboxes, to get new ones when they return. This is certainly not an advantage for these people.

Advantage #4 really takes the cake. “Small packages, such as cassettes, can now be placed in the box saving you unnecessary trips to the mail room.” I’ve gotten lots of packages in Dabney Lounge, some quite a bit larger than cassettes, and the only other place I’ve had to go down to the SAC for the really big boxes.

Now I have heard some good reasons for making mailboxes more secure. There are stories floating around about stolen CDs or credit cards getting stolen from student house mailboxes. Of course, the insecurity of the new mailboxes kind of invalidates these reasons too. But, “R. McKinnel,” please stop feeding us this bullshit about the mailboxes being “for our convenience.”

Steven C. Anderson
Dabney House
Mail Code 1-58

Auditions for The Ugly Dachshund

Anyone desiring to put on the dog should consider auditioning for TACIT’s next production, The Ugly Dachshund. G.B. Stern’s charming canine comedy is not, however, about a dachshund. It’s about a Great Dane. He’s suffering from an identity crisis. Scripts are on three day reserve at Millikan Library, and the auditions are to be Saturday, October 12th from 1 to 3:30 and 7 to 9 PM and Sunday, October 13th from 2-7 PM in Winniet Lounge. The play, adapted and directed by staff member Lynne McGrath, is to be done as a staged reading, and permission to perform it on Nov. 22-24 has been given by the Disney Company in honor of Caltech’s centennial year.

The play is set in the south of France in 1938; nine of the players are dogs, and the other four are not; and while never vulgar, the humor is aimed at adults rather than children. Faculty, staff, and students are all welcome to try out. If you ever wanted to perform in something out of the common way (a combination of The Ugly Duckling, Romeo and Juliet, and Cyrano de Berge rage) this is your opportunity.

Career Development Center

Open House

Friday, October 11, 1991
3:30 – 5:30 P.M.
Room 8 Parsons-Gates

Come see our new look
Help us start the new year
Enjoy refreshments
Learn about our services

The California Tech

October 4, 1991

CRIME AND INCIDENT BEAT

Crime Tip: There is an escort service available from the security office. Call any time x4701.

9/23 A bicycle was stolen from the bike rack on the north side of Church Lab. The lock was apparently cut with a bolt cutter. Value: $320

9/24 Two boys were found in a ladies restroom in Baxter. They were told to leave and were verbally abusive. Later, it was noticed that the restroom sign was missing.

9/25 A suspicious person was reported in a van with surfboards pulling up to a Caltech house. The person was Charles Rubin—he had obtained permission to store things in the rear of the home.

9/25 A bicycle was reported stolen from Beckman Lab pond area. The victim had told a friend to go get a cup to catch pollywogs from the pond, and the friend had borrowed the bicycle without his knowledge. The friend returned with the bike as security arrived.

9/26 Three students were sighted driving an orange electric cart at 2200 hours. The cart was found abandoned in Ruddock courtyard. At 2320 hours the three students were found driving a white cart on Holliston. One of the students explained that she was using the cart to move dirt for her plants. The Page House RA was informed.

9/27 A suspect was observed trying several doors to the Arms lab. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way. These understandings that we have are the way in which we’ve been able to do or you have any doubts about an warm social environment, and we want to keep it that way.
Filmmaking Club at Caltech

by Varoujan Gorjian

Undergraduates, graduates, and staff members interested in making films came together during the Summer to form the Caltech Film Club. The purpose of this club is ultimately to provide movie making equipment for the Caltech community. At this stage the club is trying to raise money to get video cameras, editing decks, and special effects equipment, and, eventually, the structure will be such that those who are interested in making a movie will have access to this equipment and the other members of the club will help them realize their vision. The way it will work will be that the person with the idea will be the director and the other members will be the actors, producers, editors, key grips, etc.

The first meeting will take place in the SAC, room 35, at 8:00, Wednesday, October 9, 1991. The more people who show up, the closer we will be to getting the equipment. No concrete decisions have been made as to the format of the movie making, we can still go with film or video. If you have a preference, show up and voice your opinion. Right now, we have access to both a video camera and a super 8mm film camera. Your interest need not lie solely behind the camera. If you want to act or write, come join us, your input will be welcomed.

But you say "I have no experience in making movies, can I join and learn?" Sure, this is a no-experience-necessary club. Just bring your enthusiasm.

Another goal for the club is to have special showings of rare and classic films where we can learn from more experienced film makers. The selection will depend on the membership. So come on down and add your voice to this new club.

President: Alex Protopapas
Vice President: Scott Dolim
Faculty Advisor: Robert Rosenstone

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Don’t miss Bank of America’s Student Banking Double Feature. This electrifying duo is a winning combination of financial convenience and purchasing power, where BoA checking accounts team up with BankAmericard® credit cards to deliver the high-flying hit of the college season.

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Open a checking account and get a pair of Superstar Shades and two free video rentals from The Warehouse. Apply for a BankAmericard® credit card and get 2 more free video rentals. This offer is good only while supplies last and ends October 31, 1991.

In addition to these great gifts, college students get free "summer months" checking.*

*Offer applies to monthly service charges. Charges for overdrafts and other account related services still apply.

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  (818) 578-5072
• 1687 E. Colorado Blvd., Pasadena, CA 91106
  (818) 578-5181

Jim's Journal

Tony came by today.

I thought he'd want to play pool, but he said, "Ah, I'm sick of pool."

We ended up watching the news on TV.

by Jim

CAL. INST. OF TECH
Movie Previews:

STAR WARS, STAR TREK AND BEYOND...

By Varujan Garjian

The next Star Wars movie will soon begin production. George Lucas finally announced that he will begin work on the next Star Wars chapter after he finishes work on his current project, Red Tails, the story of the first black American fighter squadron during World War II. The only definite thing about the next Star Wars trilogy is that it will be a prequel to the already released movies. The story, tentatively titled "The Clone Wars," will chronicle the rise of the Empire and Vader's turn to the dark side of the Force.

No director has been announced and at the tenth anniversary convention in 1987 Lucas said that he will not direct any more of the Star Wars movies which was a decision he made after he directed the first one. "On a project as complex as this, four directors is the way to go," Lucas said. Speculation has been rampant as to who will be chosen to direct. For "The Empire Strikes Back and Return of the Jedi" Lucas chose relatively unknown British directors. For his other large project, Willow, Lucas worked with his protégé Ron Howard. Spielberg's name has also been thrown about as he and Lucas worked so well together on the Indiana Jane movies. The decision will be coming soon.

Unfortunately no release date has been announced for the next movie giving rise to speculation that Lucas might try to make all three of the movies back to back, and thus release in quick order. The previous Star Wars movies each took three years to make, so if Lucas makes just one, the first movie will be coming within three years, but if he makes them back to back, the release dates are unpredictable.

A blockbuster whose release date is more certain is Star Trek VI: The Undiscovered Country. In its teaser in the theaters (which does not contain any scenes from the movie) the announced date is December 15, 1991. The movie was directed by Nicholas Meyer, who also directed Star Trek II: The Wrath of Khan, and is being produced by Leonard Nimoy. The whole cast is back with many new faces like Christopher Plummer (The Sound of Music) and Kim (Mononoke) Kattrall. ILM is doing the special effects so we won't have to worry about getting cardboard effects from the old Trek V. As far as the story goes, you can find out pretty much the whole thing from the BBS and the movie's 25th Anniversary Special. Also see how the trailer for Trek V gave away all but the last ten minutes of that movie and, I would suggest you refrain from seeing any commercials for Trek VI if you want to be surprised when you see the movie.

and you don't want to find out the whole story, close your eyes and ears and sing something to yourself, or if you want to protect the whole audience, stand up, turn to the nearest exit, and start singing the national anthem. Others will have to follow suit and will be saved. Now for a report from the set. My cousin was an extra on the set of Trek VI and he gave me some inside information that may explain any plot points. First of all, the set was somewhat tense as the production was behind schedule. Everyone was a bit on edge, especially Meyer who knew exactly what he wanted and got it most of the time. Due to the action packed nature of the movie a lot of smoke from explosives was present on the set. Interestingly enough, the smoke is purple, and will appear brown on film. A lot of the props look very cheap and nothing like what one would imagine them to look like, but since film does not have the resolution of the human eye, the props look much better on screen.

Paramount has announced that this will be the last Trek movie with the old cast, but never say never in Hollywood. Apparently the early word on the movie was so good that the end was changed to accommodate a possible sequel. According to Walter Koenig "there were some changes in the dialogue, and the way the movie ends now, there's a door that's more than an inch open. We're talking about sixteen-whether semi's. The indication there is in Star Trek VI, we're not necessarily ready to pack it in."

Another long awaited sequel is Highlander:2 The Quickening. The movie finally got an American distributor and will be out November 1st. The movie stars Christopher Lambert, Sean Connery, Virginia Madigan, and Michael (Total Recall) Ironside. The director is Ruedi Mulcahy who did the original Highlander and, earlier, the Duran Duran videos for the Rio video. Unfortunately the music will not be done by Michael and Queen since they were unavailable at the time. The reason that the movie's American release was delayed was that the producers did not want to deal with the large American studios which cut several key sequences from Highlander from the American release. If you want to see Highlander in its entirety, rent the Japanese laserdisc version. The plot of Highlander 2 takes place in the year 2099 and is much more action oriented than the first one. Mulcahy's distinctive visual style once again comes through to liven the many sword fighting sequences. The movie was well received when it opened in Europe and based on that another sequel is in the works with the title Highlander 3: The Magician with Mulcahy and Lambert already signed on as director and star.

For more in the future is Alien 3, or, if you prefer, Aliens 2. The release date for that sequel is Memorial Day Weekend 1992, thus kicking off the '92 Summer movie season. Sigourney Weaver stars in a story that has been re-written by multiple authors with a lot of studio interference. I still would not hold my breath for this movie as this is the third announced release date.

Other movies shooting for the '92 movie season are Batman Reserve (which should have shut production down due to cost overruns), Honey, I Blew Up the Baby (the sequel to Honey, I Shrank the Kids), and Robocop 3 (without Peter Weller).
Career Development News

Yes, folks, they're finally in! The NSF Fellowship applications have arrived. STOP by to pick one up if you're interested. Graduating seniors and Master's students: If you have not already received your packet of recruiting information, please stop by and talk with Carol about getting your information and getting you on the mailing list. It includes information about on-campus recruiting, which starts on October 28 for B.S. and M.S. candidates. Mobil Corporation will be interviewing for seniors and grad students in Geophysics on October 17 for summer employment. Sign-ups went up for these interviews on September 30.

Be sure to join us for our open house on Friday, October 11 from 3:30 to 5:30. See our newly remodeled offices, have some munchies, and get to know the staff. Keep in mind our listings for on-campus employment, off-campus employment, and tutoring positions.

The Alexander von Humboldt Foundation is sponsoring a "Bundeskanzler Scholarship for Germany." It was created to give outstanding individuals who are extraordinarily gifted and have shown a high degree of responsibility and leadership an opportunity to obtain a first-hand knowledge of Germany. The Career Development Center is located in 08 Parsons-Gates. Our office hours are 8 AM to noon and 1 to 5 PM. Give us a call at x6361.

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Alpine Club Meeting

The Caltech Alpine Club will have its first meeting of the year on Wednesday, October 9 at 7:30 PM in Wigner Auditorium. It will be hosted by Chris比特, who will also present a slide show entitled "Back-

packing, Skiing, and Climbing the San Gabriel Mountains: Travel...". This year's trip schedule will also be discussed. Trips in the works include camping in Caltech's reservoirs, backpacking in the San Gabriel Mountains, mount-

aineering, and cross-country skiing, and backpacking in the Sierra Nevada. Everyone is in-

vited to attend, bring their trip ideas with them, and prepare to meet other folks who

also like to spend time in the out-of-doors.

For more information, call Andy Wells at 2-1497 or e-mail to andywell@design.

Yearbooks

The 1991 yearbook is here! All upper-classmen who have registered for the past

three terms are entitled to one. You can pick your copy up from your house editor.

Students living in off-campus can also pick up a copy from Michelle Tang, Marks 115.

If you are interested in working on the yearbook, phone Tom Hughes at 2-3316 or send e-mail to andyw@design.

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**SPORTS Runners**

Toby Cottonezzi ran an impressive 26:16 in her first collegiate race. She also edged out a La Verne runner. With 800 meters left Anna "No Pain, No Gain" George shouted for ice but refused to stop. She overcame the pain to place fifth on the team in 26:38. Rounding out the top seven were Aimee Smith (26:45) and Emmeline "Coach Is Sooo Persuasive" Narragel (27:19). Coach O'Brien described the women's race as a "burner" as the Caltech women won 26-29. Way to go!!

**Romp At Home**

"Where's Ben?" That was the question on the men's minds. (Except for Dave Kuzn who kept singing... "I love a man in uniform..." Don't say that to your ROTC instructor, Dave.) La Verne's cross country champion of a year ago, known simply as Ben, deserted La Verne to train in Colorado to be ready for Barcelona in 1992. Since Ben the La Verne had only two male runners, O'Brien split the men's squad into two teams for an intrasquad meet. Dan stopped sharking after learning of Ben's departure, and he jogged a 28:46 to set a course record on a new 5.0 mile course. Ned "3-D" Bowdon heard of the free sugar coated donuts of

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**Weekly Sports Calendar**

<table>
<thead>
<tr>
<th>DAY</th>
<th>Date</th>
<th>Time</th>
<th>Sport</th>
<th>Opponent</th>
<th>Location</th>
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<tbody>
<tr>
<td>SAT</td>
<td>10/5</td>
<td>2:00 pm</td>
<td>Volleyball</td>
<td>(W) Pacific Christian</td>
<td>Caltech</td>
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<tr>
<td>SAT</td>
<td>10/5</td>
<td>10:00 am</td>
<td>Soccer</td>
<td>La Verne</td>
<td>Caltech</td>
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<tr>
<td>SAT</td>
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<td>all day</td>
<td>Water Polo</td>
<td>Caltech Classic</td>
<td>Caltech</td>
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<td>SAT</td>
<td>10/5</td>
<td>TBA</td>
<td>Cross Country</td>
<td>Biola Invitational</td>
<td>Caltech</td>
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<tr>
<td>SUN</td>
<td>10/6</td>
<td>1:00 pm</td>
<td>Football</td>
<td>Antelope Valley Crusaders</td>
<td>Caltech</td>
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<tr>
<td>SUN</td>
<td>10/6</td>
<td>all day</td>
<td>Water Polo</td>
<td>Caltech Classic</td>
<td>Caltech</td>
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<td>Soccer</td>
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<td>Caltech</td>
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<td>WED</td>
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<td>Water Polo</td>
<td>Chaffey</td>
<td>Caltech</td>
</tr>
<tr>
<td>THU</td>
<td>10/10</td>
<td>4:00 pm</td>
<td>Football</td>
<td>Australian National Team</td>
<td>Caltech</td>
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<td>FRI</td>
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<td>6:00 pm</td>
<td>Volleyball</td>
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<td>10:00 am</td>
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<td>Caltech</td>
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<tr>
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<td>10/12</td>
<td>TBA</td>
<td>Cross Country</td>
<td>Open Date</td>
<td>TBA</td>
</tr>
</tbody>
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