Tech Wins Three—What’s Wrong?

Football
by Ath Man at Large

Last Saturday afternoon, the Caltech football team improved its season record to three wins and one loss with a workmanlike 19-7 victory over the powerful, well-drilled, and disciplined Antelope Valley Jaguars. Coming off an exciting 20-14 victory over La Verne the previous week, the Beavers displayed continuous improvement, especially on defense, as they shut down the Jaguars, a team the Beavers barely squeaked by in the opening game of the season.

The Beavers scored the game’s first touchdown in the first quarter after getting the ball on the Bengal 50-yard line.

Soccer
by Tom Remmers

The Caltech soccer team finally came together in the past two games by beating Whittier, on Saturday 4-3, and Oxy on Wednesday, 3-2. The game against Whittier started slowly for the first quarter until one of the Whittier forwards was ejected, leaving them with only 10 players on the field. Taking advantage of this, Tom Remmers was able to score a lifetime high four goals. Assisting were John Sahr, Bob Mostert, and Brad Axs. The Caltech defense made the game exciting by giving away a few goals, but they held Whittier in the end.

Against Oxy, John Krehbiel continued on page 6

Bluegrass!!

The Caltech Folk Music Society brings to the campus tonight (Friday) one of the country’s finest bluegrass bands, Berline, Cryer, and Hickman. The concert will take place at 8 pm in Deubny Hall, and although tickets are $3 in advance and $6 at the door, thanks to a subsidy from the Graduate Student Council, there are 20 tickets available to grad and undergrad students for only $3. Additional information is available from the Caltech Ticket Office (466-545).

Byron Berline, Dan Cryer and John Hickman, who make the trio, are well known as individual performers, but together they are renowned for the best contemporary bluegrass on the West Coast. Frequent performers at almost every bluegrass festival that has ever been held, they perform all too infrequently here in their home, Los Angeles.

Byron Berline has toured extensively on three continents, has won three major U.S. flatpicking championships, has written and performed several motion picture and television scores, and has appeared on dozens of recordings of other major recording artists as well as recording several fiddle records himself. Dan Cryer has just recently returned from a solo tour in Australia. He is clearly one of the finest flatpicking guitarists in the world, and also writes some original music which is performed by the trio. John Hickman is a fine banjo player who does extensive work in recording sessions, movies and television, as well as teaching.

Other upcoming Folk Music Society events on campus include: a concert with Old Mother Log, an all-women stringband known for their old-timey music, who will be here on Friday, Dec. 2, and another Bluegrassgrass, a BYOI (bring your own instrument) get-together on Saturday, Dec. 17. For information about these and other Folk Music Society events, contact Maria Toney at x181, Simon Davies, x4227 or write to the Caltech Folk Music Society, c/o OSC, 138-74.

Electronic Education

Geoffrey Fox: New Dean of Educational Computing

by Sonny Lee

The computer revolution has had far-reaching impacts in many areas, not least of which is education. Recognizing this, Caltech has decided to create a post to oversee the use of computers in education. Enter Professor Geoffrey C. Fox, the first Dean for Educational Computing.

According to Fox, there should be an emphasis on new approaches to teaching using computers as an aid. “Number crunching is probably not important in education,” said Dr. Fox. “Rather, the most important application of computers in education will be to teach difficult ideas.”

As an example, Dr. Fox pointed out the graphics display capabilities of computers. “Most people find visualizing, let alone drawing, very, very difficult,” Dr. Fox explained, “but using computer graphics, this can be quite easily done.”

Dr. Fox also emphasized the general availability of educational software. For him, the least of all is that stated the general calculating power of large mainframe computer systems is best suited towards research, whereas the small personal computers are ideally suited for educational purposes. They are small and inexpensive, and Dr. Fox predicts that every student will have one in high school by 1990.

As to the extent of involvement in educational computing, Dr. Fox believes that Caltech has already taken substantial steps in the field. “We’re trying, and I don’t think that the system has been as well-publicized as it should be. The other places like CMU (Carnegie-Mellon U.) and MIT (you-know-who), the acknowledged leaders in computer science, are ahead of us (in educational computing).”

As evidence, Dr. Fox described the creation this year of two new courses, Ph 20 and E 1, both dealing with computer applications in their respective fields. Also mentioned was the first Dean of some 85 new computer systems.

This past year, we’ve added 85 new machines,” said Dr. Fox. “We plan to continue at this rate and perhaps accelerate it.” Since “home-grown” software, that is, software written here, will be better to modify and update with changing equipment, Dr. Fox expects to use commercial software in the future. He also mentioned the future activation of “The network—allowing linking of PCs in student houses to the computer center. According to Dr. Fox, the system should be working with a few terminals very soon. New links will be added as needed.

As a final note, Dr. Fox directs this message to the student body: “If any student has an idea, an idea, no matter how minor, just call or see me.”
An examination of student life at Caltech

what is wrong. Each professor feels as if his subject is the most important and so the student wouldn't mind if he had to spend the most time on it. Well wake up prof, your students do mind, particularly if it is a core class. Academically overloading a student is physically and mentally unhealthy, it leads to less learning and the student gets frustrated with a feeling of impotence.

A load of 18-unit classes, which is normal at most other Ivy League schools, on an overload here at Caltech. In taking five classes you have to keep shifting gears to keep track of five trains of thought. Typically, each class has a weekly assignment which requires more time than it is used for. In that situation, if you spend one evening a week on each subject, and make allowances for evening classes and those subjects that require more than one evening, then you are left with less than one night a week to recuperate before the cycle starts again. The work piles in much faster than most people can assimilate it. As a result, a good deal of the taught knowledge is never learned and the student gets frustrated with a feeling of academic inadequacy and falling behind.

This frustration leads to many unhealthy practices. To meet the homework deadlines, some try to live on less than four hours of sleep a night for a few days in a row, plus there are those famous all-nighters. Professors often say that you are not getting enough sleep, that you must start an assignment until the last moment, but that is not true. If you use the five class scenario described above. Besides, it is humanly impossible to work every second, every day without break, which is how one might try to get ahead. This pressure leads to students resenting the work and getting depressed. The very concepts that the prof is trying to bring out are lost in the endless homework and exams. At o'clock in the morning, the attitude is "what's the right answer" rather than "hmmmm, what a beautiful concept I'm learning this morning, instead, and I'd rather you do calculus." His answer was a pathetic summary of much of the...
by Zobi-Wan

The effect of that class of forces which is so often labeled as "beyond our control" is rather better documented than it is understood. To date, the scientific community still awaits the publication of even a single serious treatment of the problem. Events whose set of initial conditions is disjoint from the current state of their pending subject do not enjoy wide popularity in the experimental disciplines, simply by virtue of the necessary fact of causality. To wit, you can't correct something you know nothing about.

Further, the absolute orthornormality of event and observer in such cases, though poorly understood, is accepted as fundamental. Few choose to view reality in any other light. This concept is reflected in the mathematical model of the universe, particularly in the Uniqueness Property discussed previously in this column. That is, you can't control things which are beyond your control.

It should scarcely come as a surprise, then, that the author feels perfect justification in disclaiming all responsibility for any errors appearing beneath this byline. The reason is that an error is by definition an alternate solution to a given problem, and its recognition concretely, the potential for correction would surely be sufficient to cause a tending towards change. That is why it is no one's fault that the following paragraph was excluded from last week's column:

The following proof originally appeared in this column on January 22, 1982. It is reprinted here due to (non-zero) popular demand.

Similarly, it is no one's fault that the obvious parallel between the Padding Uncertainty Principle discussed earlier in this column ("One cannot simultaneously maintain a pudding and prove its existence") and a particular subset of the wisdom of the ages ("You can't have your cake and eat it, too!") was never explicitly drawn. Again, an error of omission is an entity whose existence is not recognized and which therefore is neither understood nor acknowledged. By this logic, errors do not exist. The customer is always right.

-----

The Inside World

The following proof was never explicitly drawn. Again, an error of omission is an entity whose existence is not recognized and which therefore is neither understood nor acknowledged. By this logic, errors do not exist. The customer is always right.

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TEACH IN JAPAN

Persons with a degree in such fields as civil, mechanical, chemical, electronic, and other various engineering wishing to teach Japanese adults for one or two years in Tokyo and other parts of Japan should write to:

International Education Services
Shin Tsai Bldg.
10-7, Dogenzaka 2-chome, Shibuya-ku
Tokyo, Japan 150

Instructors employed by I.E.S. will teach Japanese businessmen and engineers English as a second language and the terminology in their own field of study or job-experience in Japan.

No Japanese language is required for classroom instruction. Teaching experience is not required. An orientation and training are given in Tokyo.

Information on salary, transportation and housing can be obtained by providing International Education Services with a detailed resume and a letter indicating an interest in the position.

Personal interviews will be held in San Francisco and Los Angeles in January, 1984. Selected applicants are expected in Tokyo April through August, 1984.

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A free root beer float to all Juniors, Seniors, and Grad Students

Faculty, Grad Students, Attend!
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-----

THE CALIFORNIA TECH / FRIDAY, OCTOBER 28, 1983

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The Nobel Laureate Meets the Press

I had "no indication that I was a candidate... it really came as a complete surprise to me"

"It's not going to make any difference to me... I'm still going to be Willy Fowler"

Postwar funding "supported, in a very generous way, pure research."

"I hope... the eventual payoffs from the pure research culturally, intellectually, and economically will keep the U.S. competitive."

Willy Fowler is a grand old chap
With white hair, whiskers and his Pirate's cap,
He cracks to the students in the tandem lab
"Boys, there's just one thing that I wish I had."
"Your Medal of Science!", the Kellogg team cries,
continued...

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Or contact the Fairchild Scholars Program representative when he visits your campus:

DATE: November 10, 1983
TIME: 9:00 a.m. - 4:30 p.m.
PLACE: Career Development Center Rm. 8, Parsons-Gates

A Cooperative Program between the University of Maryland and Fairchild Industries

Please Vote for PCC

An open letter to Caltech's students:

For years, members of the Pasadena community have tried to involve Caltech students in local elections, particularly those regarding education - Pasadena School Board races and Pasadena Community College Trustees positions. The local wisdom goes like this: Caltech students are highly intelligent, certainly persuaded of the value of education, and live in the communities as local residents with local concerns while students at Caltech. Surely, they must swarm to the polls on election day! Unfortunately, though, the reality is that only 15 students living on campus voted in the local School Board election last spring - an election where there was a clear philosophical choice among the candidates regarding education.

It should delight students then to know there is another opportunity to redeem this sad voting record. November 8 is election day when Trustees will be elected for Pasadena City College (PCC) Districts 2 and 4. District 4 includes the Caltech campus. I, as an active community citizen, will be facing Roger Gertmenian, the incumbent on the Board.
Vote Miele

from page 2

ty. It is a wonderful school that has offered a myriad of students (like myself) opportunities not to be found elsewhere—to senior high school students, to Caltech families, to foreign students, to college students wanting their first years near home, and to those seeking technical training. It's even open to those who want to learn just for its own sake!

But PCC is in trouble. Funds are drastically cut, teachers' morale is low, there are fewer classes and more students in most. It is time to try some new leadership: VOTE FOR SUE MIELE ON NOV. 8. This is the only vote on the ballot; turn-out will be low. Your vote counts!

Sincerely,

Manny Delbrück

A REMINDER...

Get To Know Northrop

We'll be on campus this Fall to interview individuals with a background in:

- Engineering
- Math
- Computer Science
- Physics

Check with the Placement Office for specific requirements.

We'd like to get to know you.

NORTHROP
Making advanced technology work.
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Willy Comes Home to Caltech

A reception for Willy Fowler was held in Dabney Gardens on Friday afternoon. Caltech faculty from all divisions, staff, and students attended.

Far left, Willy Fowler.

Center, Fowler makes an address at Friday's reception.

Bottom, From one Nobel Laureate to another, Fowler chats with Feynman.

Near left, Fowler displays his "Nuclear Alchemist" sweatshirt, in Ohio State colors, given to him by friends.

"Or maybe your thinkin' 'bout a Nobel Prize?"
"The Nobel Prize? Nope, I'll explain. All I really want is my little choo-choo train."

from "Willy at the Throttle" (sung to the tune of Casey Jones), composed for the occasion
**Football Team Wins**

from page 1

following a terrible punt by the visitors, Phil Scott completed a 15-yard pass to Brian Bruno, and the Beaver ground attack pushed it most of the rest of the way into the end zone, with Phil Scott taking it in from the three. Scott added the conversion, and when Jonathan Brown scored from the one in the second quarter, the Beaver lead became 13-0. After this touchdown, the Bengals mounted their only sustained drive of the game, a march which culminated in a six-yard touchdown run which narrowed the margin to 13-7. The Beaver offense put the game out of reach when Pat Magee played his best game to date in goal with several point blank saves. The back line of Ted Wingreen, John Sahb, Bob Mosert, and Lawrence Barr led the way to victory with their outstanding defence. Shutting down the Owl offence for most of the game.

**Soccer**

from page 1

scored his second goal of the game to break a 1-1 tie with 15 minutes left in the game. Evan Cromwell added a much needed insurance goal as Oxy later added another penalty shot for the final score. Steve Hawes played his best game to date in goal with several point blank saves. The back line of Ned Wingen, John Sahb, Bob Mosert, and Lawrence Barr led the way to victory with their outstanding defence. Shutting down the Owl offensive for most of the game.

The victories raised the conference record to 3-6, and with another victory, a 4th place finish in the league is possible.

**Fencers Begin Season**

by Chien-Wei Han

The Caltech fencing team started its season with a loss to Cal State Northridge on October 22.

The men's foil team consisted of Scott Sahr, Andre Burgoyne, and Kurt Anderson. They had tough bouts and lost 6-3. The men's epee team were James Bell and Kenny Bell. They also lost, 8-1. The men's saber team were Lee Sudderlin, Chien-Wei Han, and Peter Konopka. They were overwhelmed 9-0.

Contrary to the men's losing streak, the women's foil team won 10-6. The women fencers were Barbara Turpin, Phyllis Li, Karla Peterson, and Daniela Bonafede. Barbara and Phyllis each won three bouts and lost one; Karla and Daniela each won two bouts and lost two.

This Saturday the Caltech fencing team will meet Cal State Fullerton at Fullerton.

**X-Country**

from page 1

Pomona-Pitzer. Jennifer Hause took third overall in 18:06 (3000 meters) to lead the team. The other four Caltech runners were Clea Bures (12th), Diane Creveling (13th), Jariata Holbrook (tie, 16), and Marit Jentoff-Nilsen (tie, 16). Nagle of Claremont led the pack with a time of 16:19.

Both teams are now preparing for tomorrow's (October 29) SCIAC league finals at Redlands. Coach Leroy Neal expects Caltech to do well.

**GSC Volleyball Scores**

**Weekly Sports Calendar**

**Graduates...The Ambition for Excellence**

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**Frosh vs. Sophomores Beerball Fiasco**

**Saturday, November 5th**

1:00 PM

Munchies

Soft-drinks

and Beer will be provided

Sign up

in your

House

NOW!

Juniors interested in helping out, meeting 8 p.m., Monday in Ruddock

**Painting by Greg Susca**

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**The Fantastics**

These are the last weeks to see the longest running musical in the history of the western world.

October 28 and 30 at 8:00 pm

The Junior Class Presents...

FROSH VS. SOPHOMORES BEERBALL FIASC0

SATURDAY, NOVEMBER 5th

1:00 PM
Concrete

Proposals

from page 2

that is considerably longer than the current one week. When freshmen are assigned to houses initially, each is given an official card bearing the name of the house in which he resides. Up until the day of actual house selection, each freshman is free to trade his card with one or among any number of other freshmen, in any way as long as he ends up with exactly one card. There are no other restrictions on how or how often cards can be exchanged. When the house selection day arrives, each freshman moves into the house whose name appears on his current card.

This is very similar to the current system, except that guide presidents at the draws, gives us a full spectrum of to having prescribed values to houses from 1 to 7. This now using the added information to freshmen in their higher 'pick for graduation, etc. These suggest that they should. Just as members of a family which never interacts with the larger community can become insular, paranoid, and emotionally unstable, so too can members of a student house which does the same. If there is a problem, the problem is not intrinsic to the nature of the student houses, but is derived from what students make of the student houses.

The decline of ASCIT as an alternative to House organizations was evident ten years ago. Without a strong campus-wide social program, the fragmentation of social activities into specific communities of interest (i.e. the student houses) was and is inevitable. To the degree that the Institute itself has contributed by neglect to the decline of student-body-wide activities, administrations both past and present share culpability for any social fragmentation which may exist. Intra-community relations, whether at Caltech or in the outside world, require effort; for many years, whether consciously or unconsciously, the policy has been one of benign neglect. Neglect doesn't work. So let's not decry Rotation specifically and the student housing system in general for not providing the best of all possible worlds. Let's recognize the fact that student housing at Caltech was a compromise which continues to work as it was intended to work, and cry instead about things which are not working, and need attention and correction.

—Dennis Mallon, Class of '76

House System isn't the Problem

from page 2

housing system at Caltech to student housing systems on other campuses.

In point of fact, the student housing system at Caltech was not designed haphazardly, but deliberately, to be neither fraternity nor dormitory; it was, and has been since 1931, a well-thought-out compromise designed to minimize the unso­

cial excesses of both fraternity and dormitory living. The idea was to create a sense of community in the undergraduate population by creating a frater­

nal atmosphere without sacri­

ficing the convenience of dormitory housing. For more than fifty years, that system has worked fairly well, and (more to the point) pretty much as it was hoped it would work. If there is a problem these

students are familiar with these problems, and that's too many.

P.S.

An examination of student life at Caltech gadfly

Taking Time

from page 2

rect all this fewer than 516 units to graduate, a five year college program, longer vaca­

tions and more holidays, strict enforcement of the amount of homework given per homework unit, a semester system, fewer specific classes required for graduation, etc. These sugges­

tions and others will be con­

sidered in depth here in the following weeks along with specific social changes. Think and talk about all of them. The choices open to the administra­

tion, if they really care to alleviate these problems, are endless. And this time, don't take their cop-out answer of "well, it was worse before"— that is useless and is irrelevant today.

—Lily Wu

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• Microelectronics
• Missile Systems Engineering
• Optical Communications Systems
• Propulsion Systems
• Scientific/Manned Spacecraft
• Sensor Systems/Scientific Experiments
• Telemetry, Tracking and Control Systems

TRW Electronics and Defense
OWC Brown Bag

On Tuesday, November 1, the OWC will have a Noon Brown Bag in Clubroom 1. It will be a Candidate’s Forum with Susanna Miele, the challenger and Roger Gertmenian, incumbent. They are running for the District 4 seat on the Pasadena City College Board of Trustees. Caltech is in District 4. They will both give a 10-minute presentation, then the floor will be open to questions and discussion about the future of PCC.

It is important for members of the Caltech community to be aware of events, especially those related to the Board of Trustees. Caltech is in District 4.

Focal Dinner

Glenn L. Bradvig, director of information resources at Caltech, is guest speaker at a dinner meeting of the Friends of Caltech Libraries (FOCAL) on Monday, October 28, 8 to 11 pm in Deluise Lounge. The calling will be done by a professional caller and will start at the beginning level. Even if you’ve never square danced before, you’ll have a great time. This event is sponsored by the CCF and the Caltech Y, and both admission and refreshments are free.

Square Dance

Come join the fun at this term’s Square Dance. This event, open to everyone, will be Saturday, October 29, from 8 to 11 pm in Deluise Lounge. The calling will be done by a professional caller and will start at the basic level. Even if you’ve never square danced before, you’ll have a great time. This event is sponsored by the CCF and the Caltech Y, and both admission and refreshments are free.

H&SS Ad Hoc Study

The first meeting of an ad hoc committee to study Caltech’s Humanities and Social Sciences curriculum for the upcoming Faculty/Student Conference will be held today at noon in the Y Lounge; all interested parties are welcome to attend. Probable major topics for discussion include diversity of curriculum (or lack thereof), the Freshman writing requirement, and Freshman humanities in general, although the discussion will be informal and new topics are welcome. Bring your lunch, your ideas and a friend. If you can’t attend, you can contact Glen Crawford, x1582, or Paul Filmer, 793-7656, for more information.

Math Lecture

Irv Kaplansky of the U. of Chicago will deliver the 1983 Alsaghu Memorial Lecture in mathematics on Tuesday at 4:15 pm in 22 Gates.

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Application starts from: Admissions Registrar, LSE, Houghton Street, London WC2 2AE, England, stating whether undergraduate or postgraduate.

Toymaker & Son

Next Wednesday, Nov. 2, at noon on the Quad, the dramatic dance presentation “Toymaker & Son,” based on an allegorical Christian message, will be shown. The performance, working with Youth With Mission, are college student and young adults from Western Europe, Canada, Australia, New Zealand, and with United States who have toured through those areas and have been received well by a wide variety of audiences. This event is co-sponsored by the Caltech Y and the Caltech Christian Fellowship.

Lost

A red cap with a stuffy rhinoceros head on the front was last seen during the Ruddock-Fleming interhouse softball game. The Ruddock pitcher wore the hat during the game. The hat is my personal property, and a part of my rhinoceros collection. I would appreciate it if anyone who finds it would return it to me at Ruddock House. Thank you.

Rick Kremer