

This Could Have
Been a Really
Lousy Week,

The CALIFORNIA Tech

But It Was
Much Worse
Than That. . .

Volume LXXV

Pasadena, California, Friday, May 31, 1974

Number 30

Page Wins Interhouse Third Consecutive Year

A bone-jarring victory in Wednesday's all-or-nothing inter-house football game gave Page House the Interhouse Trophy for the third consecutive year. In a repeat of last year's results, Fleming has clinched the Discobolus Trophy and Page took the

Varsity Rating Trophy.

With only 8½ points separating Page and Fleming in the Interhouse Trophy Standings, Wednesday's Page-Fleming football game decided the winner of the 1974 trophy. Page pulled out a 13-12 win en route to a perfect 6-0 football season and, providing there are no upsets in the three remaining games of the season, will lead Fleming by 17½ points in the final standings.

Varsity Rating Trophy

Page	1.255
Fleming	1.125
Ricketts	0.840
Lloyd	0.675
Ruddock	0.653
Dabney	0.600
Blacker	0.270

ASCIT of O'Malley

Runoff Election Retake Today

by Dick O'Malley

In a move that came as no surprise, the Board of Directors last night refused to validate

Kleinsasser Makes It To NCAA Finals

Despite the poor weather in eastern Illinois (see page 4 for more on this), the NCAA College Division Nationals are underway. In action yesterday and Wednesday, Alan Kleinsasser qualified for the finals in the 880-yard run and, in Coach Neal's words, "looked good."

Sprint star Haywood Robinson has not had such good luck, as he progressed to the semifinals in the 100-yard dash but failed to make the finals. At last report, Greg Griffin was sitting under the bleachers while meet officials debated whether it was raining too hard to hold the 6-mile run.

Weather permitting, the last events in the Nationals will be held today.



This lovely lock and chain set, modeled for the Tech by Joe Carlsen, is a fine Ditch-Day present for the absent-minded senior. Photo by Gruner

Y's Lost and Found Auction, Swap Meet Happen TODAY!

by Silverstein

There are only two more weeks left of what has been a long, long year and everyone, students and faculty alike, are just about exhausted enough to call it quits. Everyone but the people at the Y, that is, who are still truckin' with four major events yet on this year's calendar. First upcoming is the annual Lost and Found Auction on the Quad today during the noon hour. Walt Meader will probably be the barker and he has more to disburse this year than last, most of it in reasonably good shape: "Not all the sliderules are broken." Be there and you may pick up a bargain. All the found items the Y has will be disposed of—so if you just remembered what it was you lost, you have until the start of the auction to claim it. Otherwise it will turn into profit for an as-yet-unchosen outside charity.

But don't go 'way after the auction; if you couldn't find what you wanted on the block, you may be able to pick it up (cheap?) from another Techer at the Swap Meet, which will be from one to five on the Olive Walk. This is the first year that the idea will be tried, but there will be a reasonable number of vendors all the same. Walt Meader explained that the purpose of the Meet is to give students, especially Seniors, a chance to "clean out their closets" before packing out. For

Continued to Page Three

Institute Stages History Conference

by Chris Harcourt

I keep claiming that Caltech is good for more than just science. Sometimes there is reason to believe this. For example, Caltech is a co-sponsor of UCLA's conference "First Images of America: The Impact of the New World on the Old," to be held February 6-9, 1975 on several local campuses.

The conference, held in conjunction with the 21st annual meeting of the Renaissance Society of America and including international participation, will be the object of a two-volume publication. There will be twenty-two panels on various facets of the New World's impact on the Old, including the topics of imagination (art & literature), politics and law, economics, and technology. Among the panels to be conducted on the Caltech campus is one concerning the impact on medicine.

Fifty places in the conference have been set aside for students. Conference registration in this category is only \$10 until October 1, when the fee rises to the regular \$50. Bed and breakfast is also being arranged at the Miramar Hotel in Santa Monica at \$25 for four nights (if that excites you, keep in mind that there are four to six beds per room).

For further information concerning the conference, contact either the Caltech coordinator, Dr. John Benton, in Baxter Hall, or the UCLA Center for Medieval and Renaissance Studies, Bunche Hall, UCLA, Los Angeles, California 90024.



THE NOVA ENSEMBLE, a group of Pasadena educators, was featured during an Olive Walk concert last week. Photo by R. Gruner

Tuesday's class run-off elections. Procedural protests were received from the ASCIT Excom and Gavin Claypool of Ricketts; a result of the non-placement of ballot boxes in the student houses. A replacement election will be held today.

Candidates for senior class president are Marie Beall and Rick Mitchell. Cary Lai, Claus Makowka, and Alan Shusterman are running for junior class vice

president. For sophomore class president, the candidates are Doug Brandt and Eileen Reeds. Vote early. Vote often.

VOTE TODAY!

11-4 in Flora's Office

11:30-1 in Houses

News Briefs

Anita Lighty Wins Fellowship

Anita Crafts Lighty has received a three-year fellowship to Churchill College, Cambridge University, England, for graduate study in biology.

Mrs. Lighty is one of seven students in the United States to receive Churchill Fellowships. In her graduate program, she plans to conduct research in chemical microbiology with emphasis on the biochemistry of bacteria membrane proteins. After obtaining her PhD, she intends to become a research chemist.

Her husband, Roger Lighty, now a graduate student at UCLA, will go with her to England. Lighty received his BS degree in chemistry from Caltech in 1972.

The Free Ride Is Over

Because of greatly increased costs involved in running the summer recreation program at the Caltech pool, the faculty Athletic Facilities Committee has reluctantly decided to charge Tech personnel who use the pool this summer. Undergraduates and grad students will be levied a \$3 fee for unlimited recreational use

of the pool, while faculty, staff, and alumni (including those getting degrees on June 14) will have to fork over \$5.

Higher fees are assessed personnel whose families also want to use the pool and those who want instruction. Contact the Athletic Office (ext. 2146) for further information or registration forms.

At the Mercy Of a Tholian Web

The Caltech Gaming Chapter will sponsor the last Alien Space

game of the term this Saturday night. Henri Farhi has challenged the two admirals of last week's game to a "grudge match," which will start at 7:30 p.m. The game will take place in Page dining room; charges will be 10 cents for chartered members of the chapter, 35 cents for non-chartered players (WHOOPEE).

Fisher Memorial Award Awarded

Joseph G. Polchinski has been selected as this year's winner of the Haren Lee Fisher Memorial Award in Junior Physics.

In Memoriam

Stig Paul Erlander

UCLA of Schroedlu

Questing for Quality

by Etaoin Schroedlu

An article in last week's *California Tech* reported that the Academic Policies Committee here at Caltech has been considering the question of teaching effectiveness at Tech. Two proposals were considered for evaluating teaching quality, a broad proposal for taking teaching performance into consideration in tenure decisions and placing the responsibility for evaluation on the Institute, and a narrow proposal to continue supporting the student groups in their (intermittent) efforts to evaluate their instructors. The latter proposal was adopted.

The entire question of teaching quality at Caltech is one that has never been handled satisfactorily by anyone. Traditionally the evaluation has been left entirely up to the students (as far as the students are aware, anyway) and takes place only once every *n* years (1967 and 1970-71, for instance), due to lack of time on the part of volunteers to do the grudge-work of reducing data, or lack of money to pay workers. The evaluations have also been primarily designed (especially in the TQFG report of a few years ago) more as a student guide to what professors to avoid or seek out than as a useful document lending itself to consistent, useful comparisons and providing information for improvement. Nor is a new document every three years or so satisfactory at a school where the faculty and courses change so rapidly; the reports are out of date before they can ever be used.

UCLA has a better idea???

The obvious problems with relying on the students for teaching evaluation seem to

suggest a larger role for the Institute, not in co-opting the evaluation task but in facilitating the procedure. At UCLA all instructors are evaluated at the end of each quarter by all students (at least all students who come to the last class and bother to fill out the form), and the quantified results are printed out by computer and made available by sometime in the next quarter. (The UCLA format thus requires the evaluation to be turned in before the student knows his final grade; this is not necessarily the best way to do it, but it does tend to keep crossness over final grades from prejudicing evaluation of teaching ability.) As far as I am aware, this project is funded by UCLA itself, but even if the Associate Students are involved in the expenses, they are a larger and richer organization than those of Caltech.

At UCLA these evaluations are reported to have considerable weight in promotion and tenure decisions. (At many public schools this is the case; I know that the University of Nebraska pays considerable attention to the student evaluations, for instance). Now, Caltech is not UCLA, and, fortunately, Tech is not likely to be taken for a typical public school by anyone with finite discernment; our goals and situation are different. Caltech is heavily tilted towards research and publication (possibly too much so), and is not likely ever to wish to place as much emphasis on teaching as a University of California system. Such an idea is greeted with mild horror here: last year during the controversy over the cutbacks in the foreign languages department

Continued to Page Eight

THE CALTECH FORUM

ASAP File System Again Criticized

I would like to add my voice to those concerned about the use of the ASAP file management system by the registrar's office for storage of sensitive information. I will try to point out some of the weaknesses of the ASAP system, although I will refrain from mentioning how to actually circumvent the security features.

I took IS 129 (system programming) from Dr. Howard Morgan (the author of ASAP) while he was a visiting professor, and in that class the grades were stored by ASAP on the disk. Dr. Morgan challenged the class to try to beat ASAP, saying that anyone who successfully changed their grade could keep the new grade. This appeared to be a hopeless task until a few months later I found an ASAP deck in the I/O room, and from this deck found enough of the passwords to permit access to the entire grade file. Suddenly it was no longer necessary to dump the diskfile with a utility program, and then try to decode infinite garbage. All that was needed was a short (less than 10 card) ASAP program, to be run after the grades were entered in the file. (We actually never did change any grades, because they didn't go into the file until Wednesday of finals week, and I had 4 other classes to pass at the time.)

In the writing of ASAP, Dr. Morgan has set mutually exclusive goals for himself: 1) ease of system use by non-programmer types (such as secretaries), and 2) high information security. I feel that he was rather successful with the first goal, in that ASAP can be learned in a few days. However, the security features are equivalently easy to learn, and the number of security interlocks and passwords is very small. It is my feeling that the strongest security feature ASAP has going is that the ASAP programming manual is not easily available on campus. In fact, I

Continued to Page Four

Basic Points Claimed Missed by Hantover

There are some basic points I feel Mr. Hantover has overlooked in his article.

The first point I wish to make is that people should be cautious of extrapolating themselves off the deep end of curves. I too have seen population/resource curves in the past, but I was struck by the fact that in most of these curves, a small change in our present population and resource management could avert the "CRUNCH". The other point which must be kept in mind is that all of these population/resource curves are based on models which make many simplifying assumptions.

Secondly, I don't know if one can make such a blanket statement that "every act of cooperation between nations may be directly translated at some time in the future into a savings in human lives". I am sure that anyone who has reviewed the history of warfare can see that nations who are completely in a state of peaceful co-existence have turned on each other and that the degree of fervor in battle had little to do with previous detente.

A very basic question at this point in time is whether all that Richard Nixon and Henry Kissinger (no order of importance in foreign policy implied by sequence) have done for this country is indeed beneficial for the U.S. in the long run. There has been a distinct lack of information from the State Department in recent years. Indeed it could be said that Foggy Bottom is getting foggier! The reasons for the world wide alert of U.S. forces which occurred during the last Arab-Israeli conflict have not been set forward as Henry Kissinger said they would be. What concessions has this administration made to achieve detente with the Soviet Union and the People's Republic of China? How has success been achieved at the SALT talks and

how does the Nixon administration calculate what is parity in terms of armament? "Better Understanding" between the superpowers has been achieved, at least on the surface, but at what price and on whose terms? Before I would place the tag of "genius" on Mr. Nixon's ability at dealing with other nations, I would try to find out more about the agreements, both written and tacit, which he has placed his seal of approval on. Historians may look back on our present period of international relations with praise for the parties involved, or they may find that the terms our embattled President has agreed to were not in the interests of this country, and in fact were suicidal. This is a judgement reserved for posterity.

Should Mr. Nixon ignore domestic considerations in the interest of foreign policy? Should the U.S. be policing the world? I would say that there is nothing wrong with the development of economic ties with other nations, and more specifically with other superpowers. However, I do not feel that weakening this country's internal economic system is wise. Mr. Nixon may set out to cure all of the world's problems and tensions from a strong power base, and find that after all of

Continued to Page Six

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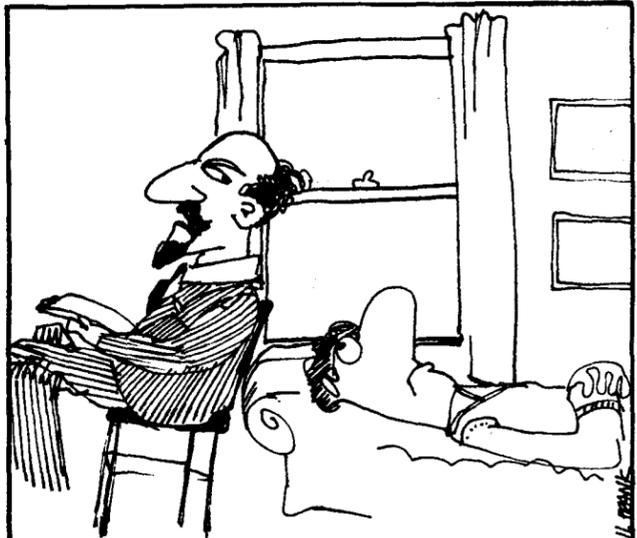
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FRANKLY SPEAKING...by phil frank



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Next Week:

there will be no movie.

Audience III

Dead Dazzle at Santa Barbara

Last Saturday's all-day sun-worshippers' picnic and Grateful Dead concert at Santa Barbara provided a welcome pre-finals diversion for many Techers. The sunshine and clean air along with abundant food, water, wine, beer, smokes and frisbees kept the capacity-plus mob of 25K in a cheerful mood, through long waits and a universal case of sunburn.

The first backup group was Garcia's newest bluegrass offering, the "Great American String Band," which featured a good fiddler, Garcia doing fine and compulsive things with a banjo, and the sound crew techs climbing all over the wall of speakers trying to set up for the Dead.

Not all of the Dead's beautiful (drool) 25 kilowatt system could be used as not enough power had been arranged for at the stadium, but I have it from people a full mile away at the UCSB dorms that it was so clear that far away that they thought for a while that they were listening to a good stereo next store. The only lack felt sound-wise is that later the middle range of Lesh's base guitar didn't carry well enough in the open air—the high end carried along with the guitars,

and the grossly low notes resonated nicely through the metal bleachers.

Maria Muldaur (the featured lead-in) did a few good songs but suffered from too much sameness of style; when she came to her "big hit single", *Midnight at the Oasis*, the general consensus was that she should have kept quiet and let her fine backup musicians play. *I'm a Good Woman* got people on their feet, though.

Meat of the Day

The Dead delivered a good concert, albeit not an earth-shaking one. (This is compared to other legendary Dead concerts; frankly, there are few groups who can play live as well as the Dead when they are just randomly good). They opened with a strong *Wave that Flag* (or possibly *U.S. Blues*; it isn't on an album—yet—so we don't know its official name) followed by a so-so *Mexicali Blues* and a strong *Deal* and *Jack Straw*. They did a new song which has only been heard a few times (something about rings on her fingers and bells on her toes?); it is still relatively unformed but has potential. Several more well-known songs were done joyfully if not exceptionally. *Me and My Uncle* contained some fine and fancy work by Garcia and some nice guitar-weaves with Weir, but stopped tantalizingly short of really letting loose.

Addiction Explained

Perhaps I should stop and explain something to the uninitiated and/or newly converted—the Dead are a live group first and foremost. Their songs emerge from the songwriter's womb into a live-concert infancy, rather than being hatched fully formed and finalized; they grow and evolve *in concert*, and every now and then they are "snap-shotted" for a grooved vinyl family album. [This is in striking contrast with groups who tour to sell their records and perform live nearly

note for note as their recorded hits.] And the Dead really *play*: spontaneously spawning new themes, braiding them back together, subtly cueing each other for changes of style and theme, the guys building on and with each other, questioning and responding to each other's directions as they play. The Dead are one of the all-too-few groups whose members *all* play as virtuoso soloists, while still maintaining their music tightly and consistently *together*. No dum-de-dum base plunker, thump-thump drum or rhythm-only guitars here: each one plays imaginatively and fully. Where else can you find, for instance, two guitars, a bass, a drummer, and a piano all playing separate time signatures but weaving them into an overall repeating pattern of 18 or 48 beats or whatever, *successfully* and on an *IMPROV* yet? And for the crowning amazement, they actually can *remember* those amazing jams you would swear could never be repeated—as witness the evolution of *China Cat Sunflower/ Know You Rider*.

Originally played separately (*Know You Rider* is a traditional song which the Dead have been doing about since their start—1963 or so—and *China Cat Sunflower* dates from at least 1967) they have come to be linked, and the bridge joining them has grown into a multi-thematic time-weave between the two songs, incorporating both in a gradual transition, hinting and teasing at one and then diving back into the other. This internal bridge always seems to culminate in a totally-new-for-each-concert free-form improvised section before finally going into the sung part of *Know You Rider*—but each concert's improv is added (in a cleaned up, practiced version) onto the conserved part of the bridge, so that the internal jam constantly grows and structurally contains its own evolution! And everybody has had a hand in the shaping. (If by this point you still think, like Robert Hilburn of the *Los Angeles Times*, that the Dead are just a good rock 'n roll band, you'd better get yourself over to Dabley or Scurlvelandia and listen to some live concert tapes; either

that or get yours ears/head examined.) At any rate, this concert's *China Cat/Know You Rider* was fine and loose, perhaps a bit too loose for some tastes, but with rewarding depth and sensitivity.

Son of Sunburn

After finishing that set with *Round & Round*, they took a break to go back to their barbeque and beer fest behind the wall of speakers; we went back to SF, picnicking and waterfights.

Second set was good but with not as much drive as I would have liked. *Promised Land, Ship of Fools, Big River* (none of these will you know, who only know their albums) and a strong *Tennessee, Jed* (possibly the strongest driving song in that concert) started off the second set, followed by a nicely woven medley of *Truckin-Weather Report Suite-Wharf Rat*. Garcia was cueing for *The Other One*, and Weir and Lesh had started picking it up, weaving chords and riffs in and out of *Wharf Rat*, building it, hinting at a possibly great jam—and something hooked into Lesh gave an obnoxious "bzzt-fratz", the guys started looking like they didn't like the state of affairs, and they brought the medley to a normal-type close. After a short break for mother nature, beer, and technical assistance, they launched into a lively final medley of *Sugar Magnolia-Goin' Down the Road-Saturday Night* that got the crowd righteously roused and rejoicing. Unfortunately, between the late start and the timbre of the concert, they came back only for an encore of *Casey Jones* (which has had great crowd appeal as a "hit single in the

charts" but is not, let's face it, one of their better songs) rather than a full third set like they did for last year's outstanding S.B. concert.

Enough to Maintain On?

Garcia was, as usual, excellent but not overly passionate about playing that day. Weir's voice wasn't too far off, and he, Lesh, and Kreutzmann did fairly good jobs. Donna wasn't featured much this concert, but her husband Keith has been getting better. At first, Godchaux only figured significantly in songs written while he's been part of the group; it's taken him a while to feel his way into the older Dead songs. This concert gave indications, though, that he's starting to be able to make a real creative contribution to the group. It isn't fair to compare him to Pigpen (there will never be another like him, and probably never another *Lovelight* like he could do) but the group is still evolving and trying to benefit from their changes; this is part of what keeps the Dead alive. All you can do about it is to collect as much live Dead concert tape as possible, so you can have all the mutations of Dead. After all, without double drummer there is no way to do the *Eleven*—wouldn't you hate to die without having tasted it?

All in all, it was about a 2 on a 0-10 scale of random to good, but as with every Dead concert, a good time was had by all. Oh, yes—Weir gave special credit to "those responsible for the fine light show."

Parting shots—Garcia's second album and Dead songwriter Robert Hunter's "Tales from the Rum Runners" are out or coming soon (a pink and

Continued to Page Seven

Chemistry, Bio Profs Elected to Society

Two Caltech faculty members, Dr. John D. Roberts, Institute Professor of Chemistry, and Dr. Roger W. Sperry, Hixon Professor of Psychobiology, have been elected to membership in the American Philosophical Society.

Roberts was named to the oldest honorary society in the United States for his investigation of molecules with NMR (nuclear magnetic resonance) and Sperry for his research on the brain.

SWAP MEET

Continued from Page One

a small 50 cent fee to cover publicity the packrats will be given space to display the smaller items of their collections and a chance to sell it directly to other closet-stuffers without any hassling. Here's your chance to buy that EE project ready-made.

The last of this year's Noon Concerts in association with the Master of Student Houses features the Baroque Jazz Ensemble June 6 on the Quad. They play good jazzed up classical music.

Eat your way out of oblivion as Finals Week encroaches with the Finals Decompression Chamber in Winnett. Hours will be the same, 8:30 p.m. to 1:30 a.m.,

but please note that the days will be changed this term in response to student request. The nights will be Saturday, Sunday, and Monday, June 8-10, and there will be no revelry that Friday. As always there will be both munchies and full meals served absolutely free courtesy of the Y and the Caltech Service League, lots of people (including many couples from the League who will be donating their time), music, and a chance to relax. But please note: although the FDC was originated by and at the Health Center and still receives their support, it is no longer a therapeutic exercise by any means; just an opportunity to come and eat and socialize. Everyone is invited to come have a good time no matter how optimistic they (think they) feel about Finals.

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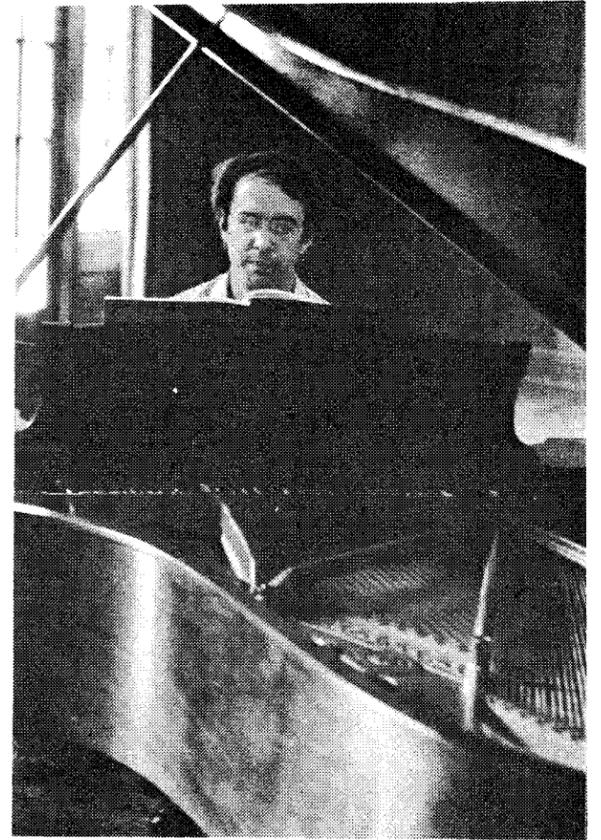
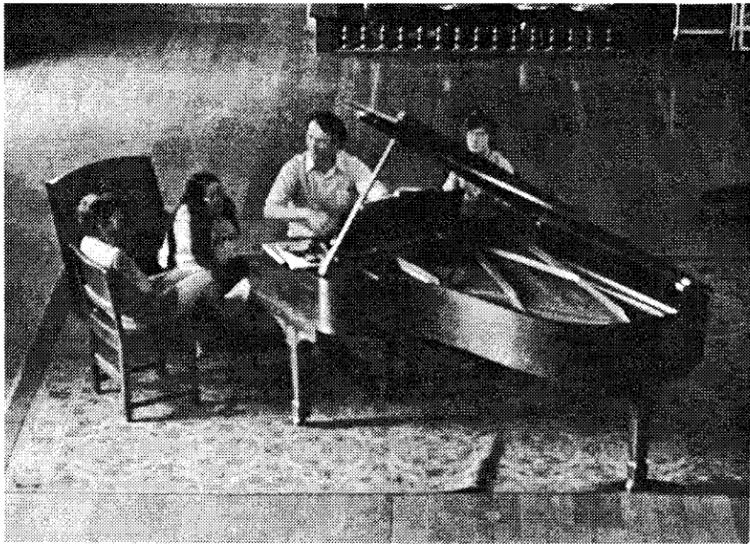
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James Boyk Teaches Piano

Will The Real Van Cliburn Please Stand Up...



Photos by John Mayer



audience

The Center Theatre Group at the Mark Taper Forum has some strange habits. One of these is the laudable practice of sponsoring new shows. Unfortunately, these new shows are not always what one might wish. *The Charlatan* had its world premiere last Thursday night, and it is not what one might wish.

Written by Derek Walcott with music by Galt MacDermot, *The Charlatan* is a musical comedy about Carnival in Trinidad. Its characters include two calypsonians (Lou Gossett, Clea-

von Little), an artist (James Woods), a socialite and daughter (Ruth Ford, Dori Brenner), and a white practitioner of voodoo and other arts, the self-professed charlatan (Murray Matheson) and his daughter (Paula Kelly). The interaction of these characters reveals to us the spirit of Carnival. Theoretically.

Although the general level of acting is almost adequate (Matheson providing perhaps the best work), the material is not quite so good. The opening is weak, and the entire show needs trimming and tightening in the dialog. Some of the lines are clever, with good points to make—but they get lost in the rest of the work.

Galt MacDermot (who did *Hair*) seems to have the same problem that he's had for years. It is that his music is almost astonishingly boring. Each song is

very similar to all the rest, and none of them are very good. And for calypso to be lifeless is a great tragedy. When this fact is combined with the fact that the cast does not sing too well, the result is a musical in trouble.

As is usual at the Mark Taper, both lighting and interplay with the audience are good. The set is most ingenious. There is, however, trouble with sound. Most of the cast uses FM cordless microphones, but there seem to be problems with the amplification, making some of the lyrics unintelligible.

The Charlatan is an evening's diversion (but then so was George Putnam's *Talkback*) and at times is entertaining. The reason for this is in this production's staging and cast, only. The show itself just doesn't work.

—Chris Harcourt

And Back in Charleston...

Haywood Robinson, Alan Kleinsasser, and Greg Griffin are getting their first taste of severe thunderstorms with the threat of hail and locally damaging winds in Charleston, Illinois, this week at the NCAA College Division National track meet. Had they decided to attend the NAIA Nationals in Arkadelphia, Arkansas, they might have seen a tornado lift the Porta-Pit off the field.

Presidential Statements

Karen Maples

Haywood Robinson

This is my second year with the Caltech Y. I first served as its Treasurer, "enjoying" most of the running around I did during the week of the Y Student Fund Drive. (Remember me?) I am a bit more relaxed since becoming its President but there is still a lot to be done.

In less than one and one-half years I've seen some significant changes in the Y's program format. This year, especially, you will see an increase in workshop and service-oriented activities as well as the usual general entertainment. I am coordinating the Finals Decompression Chambers, Ethnic Events, Medical Ethics Conference, and the Arts and Crafts Fair.

I hope that more of you students realize that the Y is for you. We're open to almost any suggestion you may wish to consider... USE US.

The Excomm and I have more than enjoyed serving the student body this past year. We really appreciate your participation in Y events and your very generous response to our Student Fund Drive.

We hope you enjoyed entertainers like Mason Williams and the San Francisco Mime Troupe. Or perhaps you listened to interesting personalities like Dick Tuck and Father McLaughlin.

Mark Johnson and I worked well together last year, making possible a number of ASCIT-Caltech Y events. This year, Karen Maples and Liz McLeod are continuing the close relationship that the Y enjoys with ASCIT.

I know Karen will do a fine job. She certainly was a fine treasurer last year. I'm sure you'll extend to her Excomm the same support you did to mine.

ASAP

Continued from Page Two
hope I haven't given away too much information already. I heartily recommend that ASAP not be used for storage of sensitive information.

—John Meador

P.S. I was sorry to hear that Larry Csonka will not be speaking at the commencement, as was previously announced.

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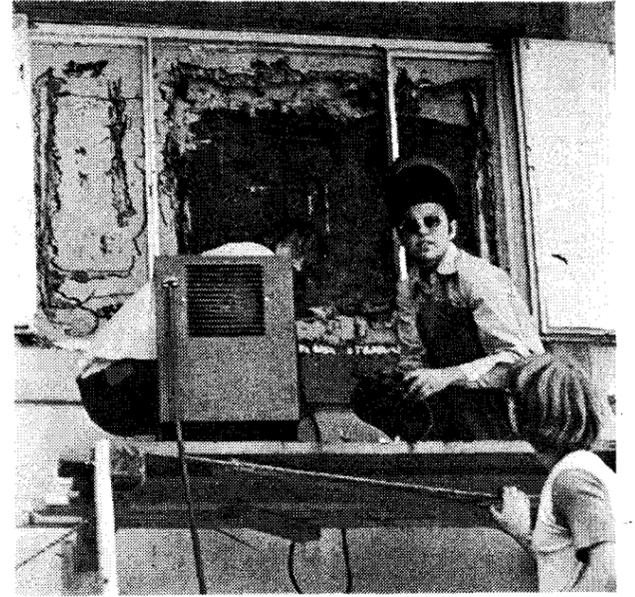
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Close, But Not Quite



SENIOR Lou Sheffer's window stack withstood attacks by an axe, a carbide saw, and an arc welder but his door yielded to the pressure of a well placed shoulder at 5:15 during last Friday's Ditch Day activities. Photos by R. Gruner

Emery Creates More Work for Secretaries

Caltech's very own athletic director, Warren Emery (no, not Emery Warren, as last reported in *The Los Angeles Times*), has been elected chairman of the NAIA District III for the next three academic years. This appointment probably won't affect Tech athletics too much, except for giving the overworked secretaries more work, and possibly calling Emery out of town more often.

Basic Points

Continued from Page Two
the economic concessions he has made, he is returning to a weak power base—a country with a much weakened economy. There seems to me very little sense in sending wheat, which could be used in your own country, to another country. The second point is that the superpowers have taken it upon themselves to police the world. I think, after talking to people from two other continents, that the rising Third World nations would be willing to argue over this policy. Is it in America's best interest to take all of the world's problems upon its shoulders? This may sound like an isolationist question, and indeed in many senses it is, but the question of whether the U.S. has overextended and over-inflated its ability to direct the course of world events persists.

A final question and/or point I have for Mr. Hantover is whether the attitude of excusing the deaths of a million people in a war they *didn't* all believe in or *understand* because a million die in a drought is a valid way to appease one's conscience. I saw the effect of Africa's worst drought in centuries when I was on that continent last June. This bothered my conscience in many ways (might the wheat that was "sold" to the Russians better have been spent feeding these starving countries?). I find it **hard** to excuse the deaths of a million people because of an act of God. However, I deplore the attitude that mankind has benefited to a large extent because of the deaths of another million people at the hands of their "brothers", and that these people were useful as pawns in a game of foreign policy.

—Daniel F. Muzyka

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Audience II

The Romeros--- A Half-Great Show

The Romero family, the famous father-and-three-sons act of classical guitar, was at Beckman last Saturday. It promised to be an evening of great guitar music, but the first half of the concert, during which each of the Romeros played alone, was a little disappointing. Angel kept time chewing gum through a mediocre *Recuerdos de la Alhambra* (Tarega); Celin got most of the notes to *Barcarolle and Danza Pomposa* (Tansman), but only on his third attempt; and Celedonio, apparently inspired by his muddled and bland rendition of Albeniz's *Leyenda*, played his own *Fantasia*. I wish he hadn't. It was technically inconsistent and the special ornaments seemed to be strained and out of place. Only Pepe retained relative control over his instrument and even he was nothing to write home about. Individually, the Romeros

did not credit to their international reputation this night.

The artists and the audience were well matched, however. After every piece and audience responded with excited applause, rewarding embarrassing unprofessionalism on stage with timely ignorance in the audience.

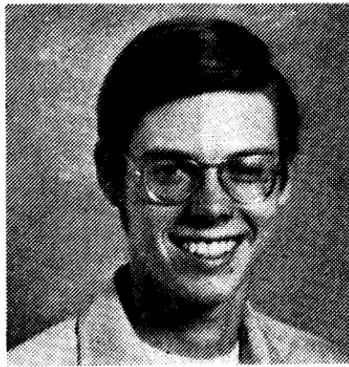
The second half of the concert came close to making up for the dismal opening, as the Romeros played as a quartet, blending beautifully together to create music quite definitely better than they produced separately. After an unscheduled but welcome *Concerto in D major for Four Guitars* by Telemann, the Romeros played an arrangement of Bach's third *Brandenburg Concerto*, which I thought turned out quite well. In this arrangement the Romeros displayed their tremendous discipline, with sometimes all four

guitars playing the same part with no timing problems and few technical errors.

The Romeros finished strongly with three pieces arranged by Pepe Romero. *El Baile de Luis Alonso* (Jeronimo Jimenez) was well arranged and beautifully executed, while the Farruca and a dance from *La Vida Breve*, both by Manuel de Falla, richly deserved the wildly enthusiastic applause following each of them.

The Romeros granted the two encores almost demanded of performers by the audiences at Beckman, playing the *Allegro* from the *Concerto in E major (Spring of The Four Seasons)* by Vivaldi and *Noche Malaga*, written by Celedonio Romero as a showcase in which to display his three sons.

—Lew Proudfoot



Stig Erlander

Audience III

Continued from Page Three
purple-smoking hot air balloon told me; would it lie?). Also, a new Dead album (probably featuring many of the songs they have been inventing? cultivating? recently) should be coming out in 3-4 weeks, supposedly "Ugly Rumors From the Mars Hotel" —and your guess is as good as mine as to what that means.

—Mama Gronkel

it is now
10:30 p.m.
Thursday night

Ruddock Frosh Dies Last Monday After Short Illness

Caltech freshman Stig Paul Erlander died Monday morning after a short illness.

Stig became ill at home last Saturday, and was taken to the Health Center Sunday morning. After his condition worsened he was taken to Huntington Hospital around 5:00 p.m. His illness was diagnosed as an inflammation of the pancreas, and despite the efforts of doctors all night, he passed away the next morning.

Stig graduated from Imperial High School in 1973. At Tech he was an off-campus member of Ruddock House and was active in the Glee Club. Recently he joined the Caltech Christian Fellowship. Stig is survived by his parents and a younger sister and brother, all of Pasadena. He was interred Thursday at Mountain View Cemetery.

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Family Life Styles Project at UCLA is looking for prospective parents to participate in a longitudinal child development study. We want to contact Caucasian expectant parents who are (1) Single mothers planning to keep their babies, (2) Unmarried couples, (3) Parents living in Communes or other alternative style living arrangements. The first interview is before the child's birth with follow-up studies at approximately six month intervals. Confidentiality and anonymity are guaranteed. Compensation of \$5 per visit and \$80 per year toward pediatric care. For further information call Bernice T. Eiduson, Ph.D., Project Director, (collect) at UCLA (213) 825-6216.

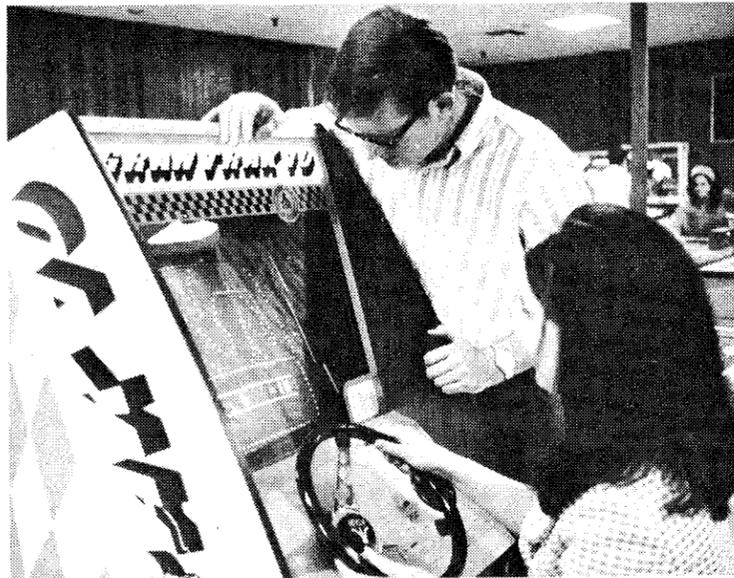
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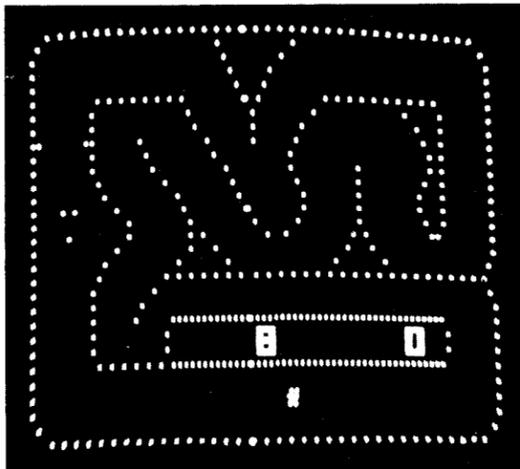
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THE STORY BEHIND the Gran Trak 10™ Nolan Bushnell, developer of the Gran Trak 10™, became interested in machine games during his college years. While he was an undergrad at the University of Utah, he worked part-time in the gameroom of a local amusement park. At the same time, he was designing and playing games on the school's computers. After graduating with a B.S. in electrical engineering from U. of U., Bushnell went to work for a small company called Nutting Associates. He developed and later sold to them the rights to the "Computer Space" game, one of the first of this types of games to appear. On his own time, he developed PONG™, the computer-run ping-pong game, and captalized his own \$500 to get Atari™ and PONG™ off the ground. Off it went—the company grossed \$3.5 million in its first six months. The Gran Trak 10™, is the latest from Atari™, the Innovative Leisure people.



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The CALIFORNIA Tech SPORTS



Page Eight

Friday, May 31, 1974

Tech Does It Again!

Masters Swimmers Win Big

The Caltech Masters Swimming Team has won the Southern California Masters Invitational Swim Championships. The meet, held at the USC pool on April 20, 21, and 22, was won by the Tech team, which built up an early lead and was never severely challenged.

The masters team is composed of Caltech faculty, staff, and ex-swimmers from the Pasadena area. The program is open to any adult age 20 or over, who expresses an interest in health,

physical fitness, and/or masters competitive swimming. Coached by Scott MacCluer, the team works out three or four times per week in the evenings and on weekends.

Another National Record

Sparking the team to the Southern Cal victory was Bill Damm of Ambassador College, who established a new 25-29-year-old national record in the 1650-yard freestyle. Other outstanding performances were turned in by Tech professor Brad Sturtevant (first in the 200 free, seconds in the 1650 and 100 free), prof Dan Kevles (first in the 200 free, seconds in the 200 and 1650 free, third in the 100 free, and fifth in the 200 IM), research fellow Paul Dimotakis

(second in the 400 IM, fourth in the 200 IM, fifth in the 500 and 1650 free), and Burt Kanner, swim coach at San Marino High (first in the 200, 500, 1650 free, 200 fly, and second in the 100 free).

Based on the team's performance thus far, Coach MacCluer feels that the team has a "good shot" at the National Championship to be decided this September in Santa Clara.

Title Defense Sunday

As a warm-up for that meet, the team will be swimming this Sunday at Mission Viejo and at the Lakewood Aquatic Club next Friday.

Want to have some fun and lose some weight? How about the Caltech Masters Swimming Program?

The Critical Ear



Sound of Silents Angel S-36073. If you saw any of the silent film screenings in Beckman Auditorium, you realize that organ music adds tremendously to the feelings in the film. Now, Angel has released a recording with the best of this music.

Called *Sound of Silents*, this album recreates nine famous motion pictures in a pageantry of sound. Lee Ervin, one of the most famous theater organists still alive, recorded it.

Having overwhelmed audiences in the thirties and forties, he came back to play the Fox-Capitol Theatre Wurlitzer Pipe Organ for this record. But this is no ordinary organ. When the theatre was razed in 1963, Dick Kline saved the organ and combined it with another organ he had obtained. In addition, he added two metal harps, two xylophones, a marimba, a glockenspiel, and a remote controlled grand piano (!!!) to the works, transforming the organ into a veritable orchestra.

The result is magnificent. From the mysterious music of the far east in *Thief of Bagdad* to the haunting lyrics of *Phantom of the Opera*, each piece

accurately describes motion pictures of a lost era.

The music is different. It is not similar to either classical or rock or even the light classics... it takes time to get used to it but then it is a delight.

When you are studying or just sitting around, this recording might be just the thing if you are looking for something out of the ordinary. As proof, there's an out-of-the-ordinary *Sound of Silents* poster on the Tech office door.

—Dave Peisner

Duwez to Receive Awards in Europe

Dr. Pol Duwez, professor applied physics and material science at Caltech, is receiving two awards in Europe this month for his work in developing unique alloys that are expected to be widely used in industry.

He has been awarded the Priz Gouverneur Cornez, given annually in Belgium to a man whose objective has been "to serve society in the fields of science, literature or art, or in promoting social progress or international peace." Former recipients include several Nobel Laureates.

In Paris Dr. Duwez is receiving the Paul Lebeau Medal, the highest award of the French Society of High Temperature.



UCLATQFG

Continued from Page Two

here, I did some research which indicated that the language instructors' classloads were not under par, at least by comparison with the rest of the Humanities and Social Sciences Division, as had been claimed. Although I carefully worded my argument to refer to this one point only, in some circles my article was treated as an attempt to undermine Caltech's traditional instructor retention policies, and to destroy the quality of intellect here, or something. (One Committee chairman was pleased with the research, but it is possible that he had ulterior motives.)

Up the Teachers!

Obviously teaching ability and performance should never be the sole criterion for retention-promotion-tenure decisions, but there is a good deal of room for a larger role for them. After all, Caltech has a whole series of Research titles for the benefit of persons who belong in a lab rather than in the front of a classroom; it is not necessary to create professors out of inadequate material.

Much of the above may sound (to the professors anyway) more strident than the situation really warrants. After all, it is true that the average level of teaching quality and enthusiasm at Caltech is very high. (Anyone doubting this might compare situations with veterans of other systems, and probably will not remain in doubt long.) This is no reason for complacency, though. There are still enough individual

cases that could be remedied, and in any case I believe that most instructors who are sincerely interested in providing quality teaching would welcome frequent and well-constructed critiques of their performances. And there is the perennially vexing questions of the T.A.s. Another potentially desirable result of such ongoing evaluations would be to provide a vehicle for assessing student needs for courses and fields not currently offered (and perhaps to find

some currently offered that needn't be), a function which is not satisfactorily handled now.

An ongoing evaluation process handled under the auspices (i.e., budget) of the Dean's Office or Lyman Bonner's Office, the results of which are taken into some account by the mysterious forces determining academic decisions, and providing two-way communication for the students thus offers many benefits to the Caltech community. I believe it should be adopted, soon.

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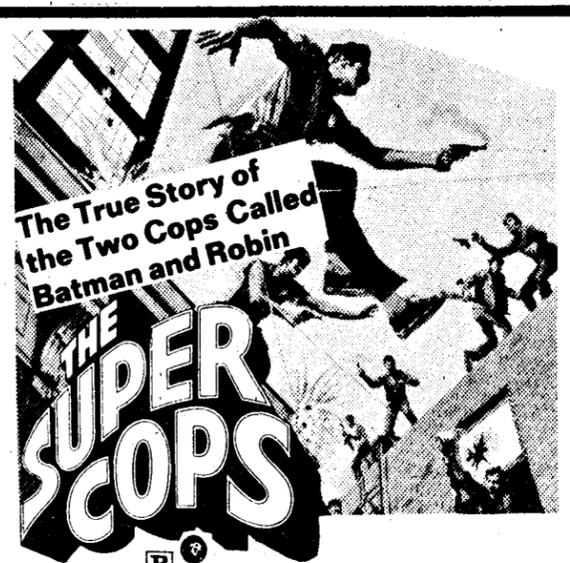
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