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THE CALIFORNIA TECH

IT'S THE PENGUIN!

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NUMBER 17

Deviate with Ed Davis

by Mark Schuyler

Few people at Caltech deviate from their paths of science or engineering while in pursuit of their Bachelor's degree. Last summer, I took advantage of the Beckman Political Internship. This program serves to offer a break from the non-diverse Caltech course load, and to educate one as to the mechanics of government, something most of us know little of.

I interned for ten weeks for California State Senator Ed Davis and received an in-depth education as to the workings of California politics and the California political system. Although most of my work dealt with the interaction between constituents and the California bureaucracy, I also received interaction with the press, the re-election campaign, and other state politicians.

For example, an average day at the district office would involve perhaps an hour reading local papers, 2 or 3 hours spent on casework, 2 or 3 hours spent on special projects, and an hour spent on special items, such as form letters to be sent to constituents. The purpose of reading local papers would be to acquire any article and information of interest to the office, such as those dealing with the state court system, as the Senator is a member of the Judiciary Committee. Special projects might involve compiling a legislative summary, something that I did, involving the impact to the community of bills proposed by the Senator.

One of the most interesting things about a political internship is working on constituent casework. It usually does not in-

continued on page 4



The scene at last Saturday's party with Oxy

Tombrello Paid to Leave

by Tom McKendree

"Why go to a place like Caltech when you can go to somewhere else that has better undergraduate teaching?" Thomas A. Tombrello, who asks that question, is part of the answer.

Tombrello is committed to involving undergraduates in research, and in recognition for this outstanding dedication to the welfare and education of students, he was awarded the 1985 John Navas Foreign Travel Award. Tombrello will be visiting Shanghai next September, and the \$4,000 Navas award will allow his wife and 14-year-old daughter to travel with him.

John Navas, the entrepreneur behind Fittings That Fit, Inc., founded the award in 1982, along with similar gifts to MIT (his alma mater) and Culver Military Academy. Navas and Tombrello have not met, but Tombrello sent a letter of appreciation.

Tombrello, who will be teaching Ph1 next term, has been helping undergraduates do research for nearly twenty years. Among his undergraduate researchers have been Steve Koonin, who enjoyed modeling nuclear reactions in 1971, and found Tombrello "very supportive during the work," and Tom Weaver, now at Lawrence Livermore Labs, who published four papers his senior year. "I believe strongly," Tombrello said, "one of the strengths of Caltech is the chance for undergraduates to be involved in research."

The Shanghai trip is sponsored by The World Bank, which will be sending roughly a hundred consultants to help with and monitor its \$200 million educational loan to the People's Republic of China. Tombrello was selected to go to Shanghai because of his previous visits to Fudan University there.

Tombrello presently has undergraduates studying radiation damage to gallium arsenide and ion-beam enhanced adhesion. He even has a freshman, Michael Provica, studying hydrogen in carbon films.

The Outside World

by Tom McKendree

Last week's news was a monument to the trends and cross-currents in the world.

The lead story symbolized the ambiguous drift of pro-Western authoritarian governments. Kim Doe Jung, a political opposition leader once exiled from Korea, returned, only to be seized by police at the airport. His escort of Carter-Human-Rights Congressmen claim Kim and they were beaten at the airport. U.S. Ambassador to Korea Richard Walker accused the American Congressmen of "provoking" the airport conflict. Afterwards, the New Korean Democratic Party, which Kim helps lead despite being banned from politics, made surprisingly large gains in elections to the Korean National Assembly. The party is now attempting to form a broad loyal-opposition front to the government with the other opposition parties.

Another trend is the growing opposition to U.S. nuclear weapons among the Western allies. New Zealand refuses to allow U.S. nuclear armed or powered ships to dock in its waters, and has warned that U.S. dumping of its National Strategic Butter Reserves (a New Zealand export), or other economic reprisals will only worsen relations. The U.S. and Australia are holding bilateral naval maneuvers until the New Zealand issue can be resolved. Another problem is the recent leak that the U.S. had contingency plans for ten years to move nuclear depth charges to the Azores, Bermuds, Canada, Diego Garcia (G.B.), Iceland and Puerto Rico, and had not told the appropriate governments. The plans called for asking before moving the nuclear depth charges, but many are upset that they had not been asked already.

One the defensive half of the question, President Reagan said that he would continue present work on the Strategic Defense Initiative even if an agreement limiting offensive nuclear weapons could be made with the Soviets. Chancellor of West German Helmut Kohl said that he does not object to U.S. defensive research, but should any defensive system be deployed the benefits must extend to Europe.

continued on page 2

ASCIT Elections

The (almost) final results of the ASCIT elections are:

President.....	Joy Watanabe
Vice-President/BOC Chairman.....	Fred Ferrante
Treasurer.....	Dave Bruning
Secretary.....	Lisa Cummings
Director of Academic Affairs.....	Will Evans
Director at Large.....	Dave Parkinson
Freshman Director at Large.....	Eric Sharin
Activities Chairman.....	Agabra/Aldcroft/Goldstein/Profit
Athletics Manager.....	Michael Keating
ESC Chairman.....	Sam Wang
BOC Secretary.....	Pam Feldman
Tech Editor.....	Matt Rowe

There will be a runoff TODAY for IHC Chairman. The candidates are Peter Ashcroft, Ted George, and John Rostykus.

Social Notes

by Dan Schwartz

Director of Social Activities

The Occidental-Caltech Winter Blowout was a great success, and I'd like to thank the many Caltech students whose efforts made it possible. Rudy Brown, Nick Kledzik, Scott McCauley, Rob Soderberry, and Mickey Spiegel deserve special thanks for the hours they each put in. Since it was also my last bash as Director, and this is the last of my Social Notes columns, I want to thank everyone for their support and encouraging comments the past two years. I've had a lot of fun—I'm going to miss the job.

Seven couples had tickets which matched and they will be rewarded for their superb socializing with an Athenaeum dinner. Congratulations!

I still have a number of photos left from last year's ASCIT Formal, which may be picked up at the Palace, 230 S. Chester, or call x6274.

Finally, please help me welcome Sam Wang of Ruddock as our new ESC Chairman, and wish him loads of success.

Outside World

from page 1

A leaked U.S. Administration White Paper will say that the Soviet Union, using Cuba as a surrogate, is trying to turn Central America into a Soviet Satellite. Soviet officials have publicly stated that Central America is "an area in turmoil... ripe for liberation." Congressional critics of U.S. policy claim that the administration is misallocating funds sent to El Salvador (example, repairing houses blown up by El Salvador rebels is considered "economic" aid by the administration and "military" by the critics). The 9th Annual Review of Human Rights in Latin America finds an overall trend towards greater human rights in the area, with El Salvador making exceedingly large human rights gains. Chile's human rights performance was called "disappointing," and Honduras was found the only nation to regress in human rights.

The trend towards privatization in America is exemplified by the 18 prisons in the U.S. that are run by private firms. The number is expected to double within the year. Congress has been asked to approve the \$1.2 billion sale of Conrail to the Norfolk railroad company. The sale is being opposed by unions and others who would lose if Conrail lost its Federal subsidies.

King Fahd, during his visit to Washington, asked President Reagan to pursue more vigorously peace in the Middle East, and to insure justice to the Palestinian people. Hosni Mubarak, president of Egypt, praised a secret accord between Yassir Arafat of the moderate P.L.O. and King Hussein of Jordan, which Mubarak claimed recognized Israel's right to exist within negotiated borders. Israel is waiting patiently to see the accord. Israel also has decided to allow a U.S. *Voice of America* transmitter within its borders, which will broadcast into the Soviet Union. Israel does not want much attention for this, however, lest the Soviets further reduce Jewish emigration.

The Conservative branch of Judaism has voted to allow women to serve as Rabbis. Orthodox Jews continue to deny the possibility of women Rabbis, claiming that it is a violation of Hebrew law. Reform and Reconstruction Jews already permit women Rabbis.

The Dresden Opera has reopened, forty years after the city was bombed by the Allies in World War II. The East Germans stressed this "Anglo-American attack on civilians" in the opening ceremonies.

The *New York Times* noted another trend. Libel and slander suits against individuals have tripled in the last several years. Many fear large organizations are using the laws to muzzle their critics. The trend not broken is farm debt, which has reached \$215 billion, more than total Third World debt. Millions of acres of farmland have been foreclosed upon recently, and most rural banks have more debts than recoverable assets, and thus could not cover savings if liquidated. Margaret Thatcher's popularity has waned with the falling pound. She is less popular in England than in any time except just before the Falklands War.

Union Carbide is reopening its Methyl Isocyanate plant in Virginia, sister to the one which leaked a cloud of poisonous gas in Bhopal, India. The commercial clubbing of white-coated seal cubs has ended. The protest boycott made it uneconomic. Some will still hunt the older seals for "personal use."

This Week's War is in the Moroccan Desert, where Polisario Guerrillas are fighting the government. Since few in America are aware of the War, it has been politically possible for the U.S. to continue supplying weapons which allow the Moroccans to wage a traditional, and largely unsuccessful, war of extermination against the Polisario.

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letters

Gay Grads

To the Editor:

I wonder how many graduate students are gay. Judging by dress and personal cleanliness one might suppose that few have any sexuality at all, never mind that of a bizarre variety. But are there really none? The ten percent formula predicts a hundred or so.

Now, I do not expect gay graduate students to stroll around with bright pants and a pink tie, although I often do myself. After all, gays are ordinary people, are they not? On campus, a gay graduate has his thesis as his sole concern, as do all graduates. Off campus a gay graduate may well be gay, but we don't see this. A private life is private, is it not?

This logic of strict division of time is so compelling that it has killed any chance for graduates to live in a community as such, gay or otherwise.

The main point of this letter is to complain that gay graduates do not participate in CLAGS. The reason, as I state, is so clear and understandable, but it is possible to overcome it. One should lead one's life as a whole: just as it is silly to be a physicist, say, from nine 'til five only, it is silly to be a gay from seven 'til midnight only.

I grant that my remarks are a mere *crie-de-coeur* if I cannot make the advantages of participation more concrete.

Increased membership allows the society to expand its activities. Not just the organiser of an occasional dance, CLAGS can be a resource of information vital to gays: information on health, employment and the law, as well as on psychological and even religious questions. Gaining and using such knowledge will immeasurably improve the lot of gay graduates.

—Brian J. Warr
Grad student, Physics

The Editor replies: CLAGS is not the only campus organization to suffer from this problem. When was the last time you saw a graduate at the Coffeehouse? And of course there are groups of graduates (or faculty/staff) which suffer from a lack of undergrads. Lack of time is an excuse, but no explanation, and I can't imagine that there are some activities which appeal only to undergrads and others which appeal only to grads. If anyone has an explanation for the situation, I'd like to hear it.

Urinals

To the Editor:

I have been disturbed for a very long time, though at a low level, about the urinals in some buildings on campus. Most women probably don't know about this. In Baxter and Noyes the urinals flush automatically every five minutes. All day, all night. In Dabney Hall, the urinals have a constant flow of water from the inlet at the top to the drain at the bottom. All this by design. It seems a funny way to treat water in the desert. But then, we can afford to pay our one-millionth of the court and pumping costs of taking water from farmers and ranchers in Arizona and California. Mono Lake is a gorgeous place; I recommend you visit it while you can.

Sincerely,

—Brian Mapes

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The Caltech Y Fly-by

Friday . . . February 15

Noon Concert, "LoJai" musiques traditionnelles du Limousin, at noon on the Quad.

Sign up for the ski trip which will be next weekend.

Sign up for Philharmonic trip which will be on Wednesday, February 22.

Monday . . . February 18

"How A South African Leader Views America's Role in His Country," Gatsha Buthelezi, Zulu Chieftain, Prime Minister of Kwazulu, Baxter Lecture Hall, 8 pm, free. Co-sponsored by the World Affairs Forum and the Caltech Y Distinguished Speaker's Fund.

Wednesday . . . February 20

Noon Update, "JPL: Planning for the Future." Dr. Lew Allen, director of JPL, Winnett Clubroom 1, noon, bring a lunch and a friend.

Thursday . . . February 21

"Is Pasadena Getting Better?" A panel of candidates for city director in the upcoming city election. Winnett Lounge, noon.

"Tech and Sex," Ron Gottesmund, in the Judy Library at 4 pm.

Friday . . . February 22

Noon concert, to be announced.

Philharmonic trip, the program includes works by Tchaikovsky, Rachmaninov, and Del Tredici, tix \$3.

Ski trip, three days; 2/22, 2/23, 2/24; at Mammoth \$50 covers transportation, food and lodging. This may be leaving Thursday evening.

For more information, contact the Caltech Y at 356-6163, or just drop by.

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Grad Housing, Part III

Greedy Grads Grab Green

by Steve Salyards

In the two previous articles we have discussed student health benefits and Institute owned housing. We now turn our attention to the bottom line, FINANCIAL SUPPORT. Financial support falls into three classes: GRA's, GTA's, and fellowships and other special awards. Since the latter are usually on an individual basis this discussion will focus on the first two. A second part of financial support is the benefits that the Institute provides, primarily in the health coverage. This article is not advocating any position or suggesting any change, but just explaining the process by which financial support is allocated.

The source of funds for GRA's are from the research funding of the professor who is supporting the

work. This pool of money is dependent on the funding of research. The hourly rate is not set, but the Graduate Office sets upper and lower limits on the rates. These limits are adjusted each year to reflect the cost of living and are reviewed every few years to see that they are competitive with other schools. Departments set their levels of support within these limits based upon the available funding and the competition for students.

As examples of the GRA limits for the 1985-86 academic year a 15 hour per week GRA will fall between \$4,235 and \$5,975, while a 12 hour per week GRA will be between \$3,385 and \$4,785. These amounts are for the 34 weeks in the academic year. For summer 1986 the limits are \$3,310 and \$4,690 for a 10 week, 40 hour per week

GRA, and \$2,485 and \$3,520 for a 10 week, 30 hour per week GRA.

The second form of financial support is by GTA's. The Graduate Office sets three hourly pay levels. The departments determine the number of hours per week that a course will require and assign which pay level the GTA will receive. Generally the pay level is influenced by the duties, teaching versus grading; the level of experience, and in some departments by previous performance. But each department is allotted a fixed amount of money to divide between these levels. The stipend levels for the 1985-86 academic year are \$6,285, \$6,570 and \$7,665 for a 15 hour per week GTA and \$5,030, \$5,260 and \$5,730 for a 12 hour per week

GTA. A further consideration of GRA/GTA levels is that they should be in line with each other.

An important source of funding for GTA's is federal work-study funds. We would like to urge those graduate students who have not returned their completed forms to the Graduate Office to do so since this will increase the amount of money available to grad student stipends.

The graduate student benefits and tuition must also be considered here since it is directly linked to the Institute funding. The money for these benefits comes from the overhead that is charged on research grants. So if the amount of finding that a given grant brings is fixed, an increase in benefits will increase the part of the grant that is removed for overhead, leaving

less for the actual research, including the GRA.

The theoretical limit on the size of GRA's is the requirement that a full-time student be registered for a minimum of 36 class and research units and have a maximum of 65 units including the GRA and GTA work load. This means that there is a maximum of 29 hours per week available for GRA/GTA work.

The bottom line on stoppends and benefits is that to some degree they come out of the same pot and so their levels are linked. The level of funding is dependent on the amount of money that is brought in on research grants, what is competitive with other schools, and for benefits, how the administration funds them with the other Institute expenditures.



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BLOOM COUNTY

by Berke Breathed



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Beckman Internship

Experience Politics

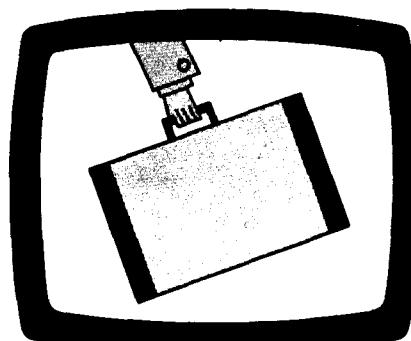
from page 1

resources it takes to get elected, and how one becomes involved in the politics. This I have learned during my ten weeks working for Senator Davis, not only from the Senator, but also from the other people who work for him.

Aside from all the information and experience I picked up last summer, by far the most valuable asset I gained was my experience in dealing with people. This experience will help me in the future, whether I deal with a business executive, a government official, or just someone in the street.

I consider the Beckman Internship to be the source of the most valuable education I have gained at Caltech, and encourage everyone to take advantage of it. It is available to a qualified applicant, someone with an interest in politics and dealing with people, for a ten week period during the summer, and may be served with any politician with whom the applicant will have contact, such as a Congressman, Senator, State Legislator, or county representative.

My knowledge of state politics has been greatly aided by this internship. For example, I know a sizeable portion of the state legislature. I am cognizant of the



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Blacker Dear Abby,

Oh, how I hope you can help me! I have a terrible problem. Let me start from the beginning... Last year, my house was completely infested with frosh. Yes, it's true. They were everywhere, running around, screaming, having water fights, causing all kinds of neat and juicy gossip, building things, going places, you know, froshly types of things. Over the summer, though, they all disappeared. Just like that—POOF!

But then this year I found my house once again bubbling over with them, hordes and hordes of them. My God, what would I do? But wait, I never saw them. They stay locked up in their little holes all day and all night. They don't make any noise, go anywhere, build anything—gosh, Abby, they just don't raise any hell around my house. You must help me, I'm at the end of my rope! What do I do when my house is filled with wimpy frosh?? Sign me...

—Desperately Small in R. I.

Dabney: So the guys were sitting around in the playpens drinking Liebsfraumilch. Someone had painted the fence and a surrounding area of grass in a bright shade of fluorescent orange. It was lucky the guys had no eyes.

The woman had been around. That is, this wasn't her first appearance on the "scene." Whenever she stepped into the courtyard, she made the colors dance. No, the guys could not see, but they knew the colors backwards and forwards. Gerade and ungerade. Hellfire and brimstone. So now there were the colors, the woman, and the Holy Shakespearean Triple. A nice pair.

A complaint went around. Each sampled it in his own peculiar way. These were no scientists. They were plain, ordinary folk. The surveys said so. The complaint finished its round and lapsed into a cold. The cold took weeks to go around and ended up here.

"Am I in Dabney, or are you just glad to see me?"

Those who had no ears had to smile. They had read the subtext and knew what they were missing. Fifty scents to ride the poney and fifty bucks to ride the horse. Each member lived in his own closet. He did his work in pen, would have kept his socks in his brain if the phases were compatible.

Too many levels, man! "Man may only reach completeness when he is incomplete." The guys were into duality. And zero-gee.

—Methylene Muffet

Fleming: Last Saturday was wine and candlelight brought to you by Sean Eddy and your local Social Team. This weekend features the Fleming invasion of Magic Mountain.

Attention Mrs. Suess. Your son just moved off campus. You're not gonna believe who his new roommate is (and I can't wait to tell you). I bet you thought he was a wholesome guy.

Chuck got cookies last night. Pretty decent of him, I must say.

—Al Fansome

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Lloyd: JP is off this week due to illness. Let's wish her a speedy recovery.

—M.

Page: Last Friday, Page House held its elections. Hats off to: President Warren—Goda
Vice-President—Steve Molnar
Secretary—Darin Acosta
Ath Team—Konstantin Othmer, Doug Roberts
Social Team—Christie Cooper, John Lade, John Serapata
Eric Scharin, Rob Soderberg, Steve Winters
Librarian—John Hardon
Most Obscure Frosh—Cynthia A. LePage
Congratulations also for the respectable showing by the Page House track team.

—Cyndi LePage

Ricketts: My, everything hits at once, doesn't it. Okay, here I go, hope I don't miss anything. After last weekend's Oxy bash came midterms, which caused everyone's favorite day to release pent up aggressions (Initiations!) to be postponed to next week. Don't forget, **FROSH!** Now, where was I? Right. This Saturday is Practice Apache, a chance to build your tolerance and numb your tastebuds. In other words, don't miss it. On Wednesday comes Initiations, when we separate the men from the boys, the women from the girls, and the bodies from the survivors. This all of course so that they can fully enjoy Apache (pronounced "A-posh" (short A)) come Saturday, the blowout of the year. See you there.

—Bob

Ruddock Everybody loves midterms week. It's hard to write on that flowered paper, though.

No problem. Blow it off and drink a beer in the sun. Catch a tan. That's what I did this week. Why do you think I came to California?

Feynman says: "Rosie, get silly at the Oxy party." That's what you get for brushing your hair.

In sports this week, "Which Way to the Beach" has had a perfect record of pissing off their opponents. A fine performance, fellas.

Cheers fans: I heard the word about the Coach's death. Not very Cheer-y is it? I mourn with the rest o' fyoo.

Don't despair, though. Instead, get fat at this week's social event—chocolate tasting. Who can deny those delicious pounds?

"Don't look so frightened"

This is just a passing phase,
One of my bad days."

—Andy Campbell

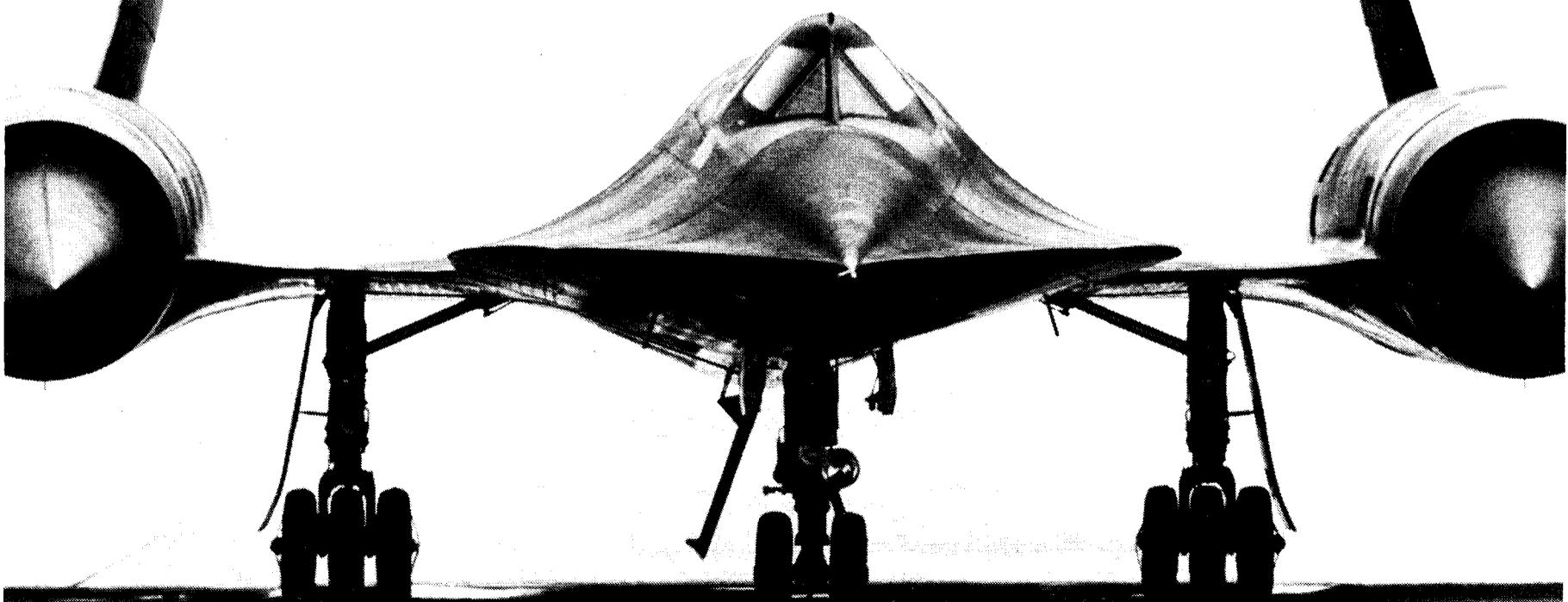
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Pop Review

The Redemption of Instant Composition

by John Fourkas

Future Memories II

Patrick Moraz

PVC Records

Patrick Moraz has done it again. Just a few weeks ago, I marvelled over this prolific musician who managed to release three albums in one year while (at the same time) touring with the Moody Blues. Well, the score has gone up to four: *Future Memories II* has just been released.

Those of you who read my last column on Patrick Moraz may remember that *Future Memories* is an album built around the concept of "instant composition," a kind of "spontaneous musical composition and interpretation." Most of this album (with the sole exception of the piano piece "Black Silk") came off as being far too pretentious and experimental, and I decided that instant composition was probably not a very workable idea. I am happy to announce that I have now changed my mind.

There are many reasons why *Future Memories II* succeeds where its predecessor failed. All of the music on the first album tended to be rather aimless, whereas every song on the new album has a definite (if not always well defined) direction. Moraz seems to better understand the capabilities of his instruments—one does not get the feeling of hearing a little boy playing around in a keyboard showroom, this time. The songs on this new volume are also much shorter; we are given enough time to be tantalized by each textural flavor without being gorged with it (or, even worse, forced to eat it). A five year difference in technology may partially explain this improvement (there is simply much more one can do), but it is clear that Moraz has also learned a definite compositional lesson. The new music is thematic and coherent where the old music was lost in the woods.

Only one of the compositions on *Future Memories II* was at all "premeditated": "Video Games (How Basic Can You Get)". The extent of the forethought appears to have been the composition of some extremely tongue-in-cheek lyrics:

*I have got an addiction
And it's my new obsession
It can make an addition
And a multiplication
My pet my pet my computer
And I wanna be your puppet
How basic can you get...*

Moraz explains on the record sleeve:

"How Basic Can You Get" is a song about a "hacker" who has visions and phantasms about his relationship and his highly sophisticated obsessions between him, his computer and the world around him."

Sound like anyone you know?

Another high point of the album is "Flippers", a kind of synthetic ragtime number which is vaguely reminiscent of Rick Wakeman's "Half Holiday" (on *Rhapsodies*). This piece is lively and enjoyably frivolous. The album cover suggests that the listener

Imagine that Patrick holds a Masters degree in pinball

Movie Review

Nastassja Ha

by Ketan Shah

*Maria's Lovers*Directed by Andrei Konchalovsky
A Cannon Pictures release

studies and that the notes from his keyboard are a succession of those small steel balls...

It is amusing to listen to the piece with this thought in mind.

The difference between volumes I and II of *Future Memories* is impressive. While Moraz has always been a mature composer, *Future Memories* convinced me that real-time composition may be too difficult for even the most talented of musicians to do at length. *Future Memories II* has proven, however, what an exciting concept instant composition really is. I can hardly wait to hear what *Future Memories III* will sound like...

The central character in *Maria's Lovers* is sex, or rather its non-occurrence between the other two main characters, Maria (played by Nastassja Kinski) and Ivan (played by John Savage).

With the entrance of Robert Mitchum, as the father of Mr. Savage, it is made clear that marital responsibilities, including love and sex, have prominent, though unusual, roles in the film. Apparently a widower, the father confides to his son that he would have had to make babies all over again

if Ivan hadn't survived the Second World War. Fortunately, Ivan takes this well, considering he was eating scrambled eggs in his father's home in a Pennsylvania steel town.

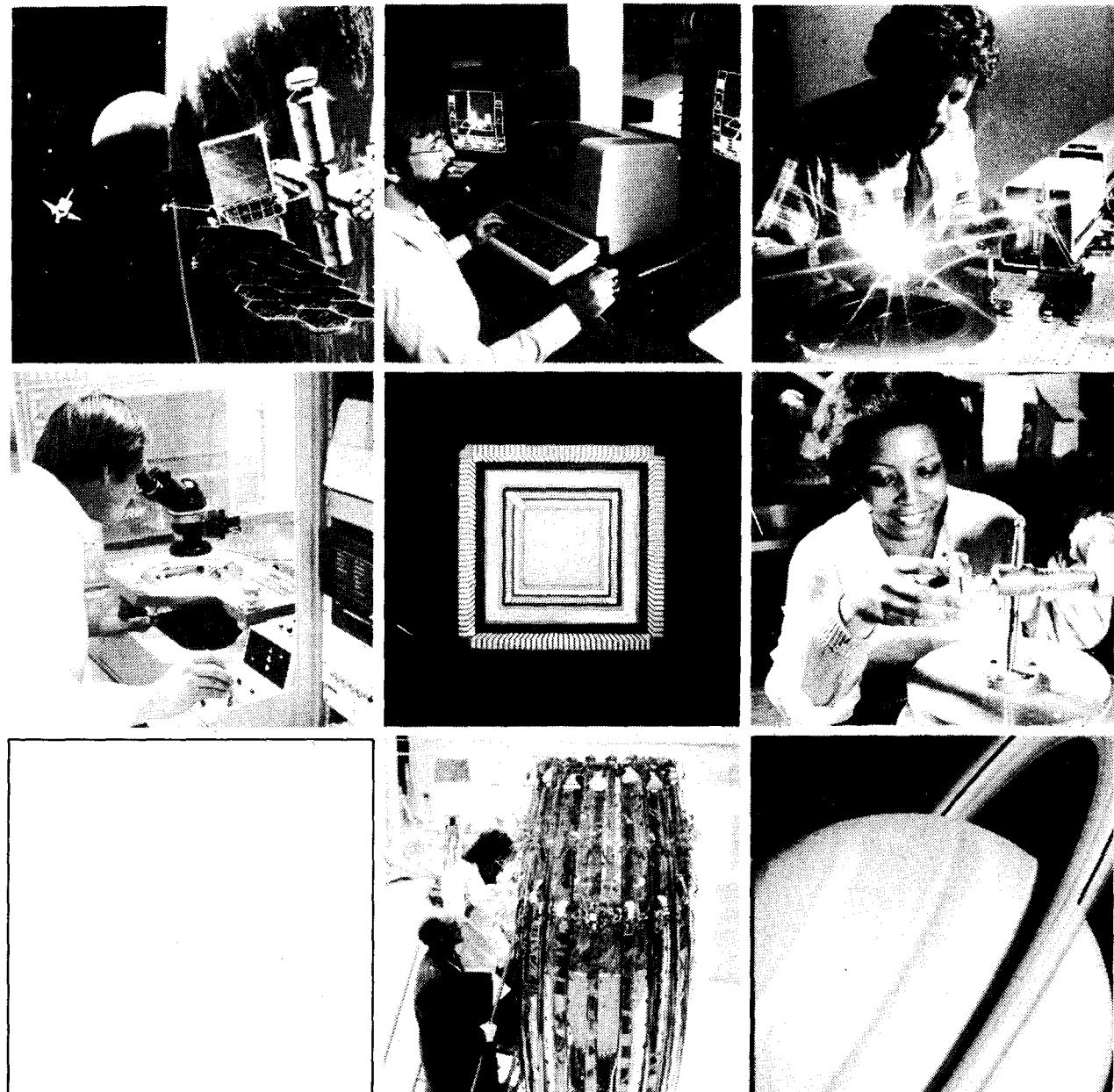
Ivan returns from World War II with psychological scars caused by his experiences in a Japanese prisoner of war camp. Maria is portrayed as a washing and scrubbing dutiful young woman looking after her aged grandmother in a Yugoslavian immigrant community.

Maria and Ivan were, well, not exactly childhood sweethearts, but they were at least good friends. Thus, in this tale of love, they marry. And they do not live hap-

pily ever after. Ivan loves Maria deeply, but this love has its roots in a trauma induced in a rat-infested prison camp. Maria's love for Ivan is a maturation of many years of friendship, beginning with their immigration as young children from Yugoslavia.

Unlike the female readers of Ann Landers, the advice columnist, Maria would rather not be just cuddled. Neither would Ivan, as the male readers of Mike Royko, the Chicago-based columnist, are wont to do, prefer to go bowling. But Ivan is unable to make love to Maria.

Thus, the plot of *Maria's Lovers* has the makings of a tragedy, and a tragedy it is, with



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entertainment

Millikan Meets Mikado

by Alice Cronin-Golomb

Don McNamee defends his *Mikado* collection

photo by Ron Gidseg

You may actually appreciate the interminably slow elevators in Millikan Library for the next few weeks, when you discover the wonders to behold in the glass display cases on the first floor. At the urging of Lynne McGrath of the library staff, some of Caltech's resident Gilbert & Sullivan experts have assembled a gorgeous and rare collection of G&S, and specifically "Mikado" memorabilia, consisting of books, photographs, figurines, swords, costume pieces, and even a facsimile of the program from the premiere performance of *The Mikado*, which opened on March 14, 1885 at the Savoy Theatre in London. TACIT's production of the musical—honoring its 100th birthday—opens on Feb. 22 (next Friday) in Ramo Auditorium and runs through March 3. It is the first time in anyone's memory that Caltech's Theater Arts group and main library have had an opportunity to collaborate on a project of mutual interest, resulting in the handsome display now being featured.

The forces set into motion by McGrath, who plays Pitti-Sing in the upcoming production, include library staff Don McNamee and reference librarian Rod Casper, and William Paul Baker, an art historian at Glendale College. Casper arranged for the display, McNamee was the principal donor of the several rare editions and photographs that appear, and Baker designed the display as well as contributing most of the non-printed articles. Additionally, Janet Casebier, another member of the library staff, is loaning the beautiful gold and orange-toned obi (a broad sash tied in the back, worn by Japanese women and children) which she brought back with her from a recent visit to Japan.

The expertise and interest of these library staff members in the *Mikado* exhibit is a story in itself. Don McNamee has collected books on Gilbert and Sullivan and their works for 20 years. He is a member and past president of the local chapter of the Gilbert and Sullivan Society, which has 20 branches worldwide. The Los Angeles group, comprising 35 devotees, conducts scholarly lectures as well as purely fun events. The former might involve a discussion of operatic structure, or of G&S parodies which regularly emerge in the world of literature—including one time in *MAD* magazine. The more recreational meetings have included masquerade balls where you sing in character, and, of course, Frederick's Birthday Parties (Frederick, a character in *The Pirates of Penzance*, was born on February 29, and so had some difficulty in coming of age.) Singing is the mainstay of the group's activities.

McNamee, through his collections and activities, has become a well-spring of information on the lives of Sirs William S. Gilbert and Arthur Sullivan. G&S were brought together by Richard D'Oyly Carte, an impresario who recognized the potential power of their combined talents, and whose opera company became sole custodian of all G&S works. Gilbert, the librettist (1836-1911), was rather much a failure as a lawyer due to his nasty temper, and wrote rhymes and story ideas to pass the time. He eventually was able to support himself as a dramatist, having produced 71 works for the stage and over 100 published verses, although only his works in collaboration with Sullivan have stood the test of time for popularity. It appears that Gilbert never forgot an idea—the kidnapping which occurs in *The Gondoliers* was in fact based on Gilbert's own abduction from a pram in Naples at the age of 2 (he was redeemed for 25 pounds sterling). He revelled in fantastic plots. Sullivan (1842-1900), however, drew the line at a proposed scenario involving magic lozenges, considering himself a serious com-

Sex

gratuitous self-violence (courtesy of Director Andrei Konchalovsky), by Ivan to underscore his love for Maria. Individually, Maria and Ivan are sexually charged, but the goal of mutual sexual passion is elusive.

Is the marriage ever consummated? Mr. Konchalovsky or the scriptwriter could easily have put the couple's problem within the larger context of some economic or social conditions peculiar to Pennsylvania steel towns. This type of movie is currently in vogue, witness such "farm tragedy" films as *Places in the Heart* and *The River*. The resolution would then probably have been based on rugged individualism overcoming great

external odds, *a la* Mel Gibson and Sissy Spacek. Thankfully, Mr. Konchalovsky spares us with a different kind of development, and that is reason enough to see this story of love. A more compelling reason is the volatile performance given by both Ms. Kinski and Mr. Savage. Also, there is innovative directing by Mr. Konchalovsky, including snapshot effects of a passing train on the background.

Keith Carradine is featured in the film as a personable, later despicable, travelling musician given to cracking jokes about his bulldog. *Maria's Lovers* is playing at the Pasadena Esquire, Mann Westwood, and at the Beverly Center Cineplex.

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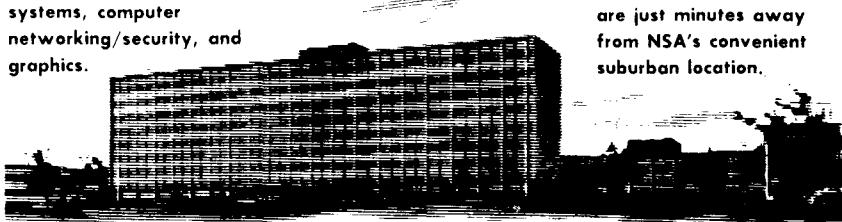
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continued on page 9

entertainment

Buckaroo Reviews

A Weekly Column by Matt Rowe

The Mean Season
Directed by Phillip Borsos
Orion Pictures

"In the future," Andy Warhol said, "everyone will be famous for fifteen seconds." A man can murder a teenage girl and make headlines. But who is *really* making the headlines—the murderer or the reporter?

Phillip Borsos' *The Mean Season* poses just that question. Malcolm Anderson (Kurt Russell) is a reporter for the *Miami Journal*. He is about to quit his job to move to Colorado with his girlfriend Christine Connelly (Mariel Hemingway) when he is assigned to cover the murder of sixteen-year-old Sarah Hooks. He produces a fairly standard story, *almost* tells his boss he wants to quit, and goes home to Christine. In the morning, he goes to work, thinking it will be his last day. The phone rings.

(Producer David Foster admits that Borsos was influenced by 1940s and 50s *film noir*, but says *The Mean Season* was not intended to be part of any particular genre.)

"I liked your story. You really tell it like it happened."

"Who are you? How do you know?" Anderson casually asks.

"I killed her," says the voice.

(The identity of Alan Delour, the murderer, played by Richard Jordan, is built up slowly over the length of the film. The audience can get comfortable with the character only to be violently reminded of his role. "That's the challenge," Jordan said, "to make him look normal—cause if he looks normal then he could be any guy walking down the street.)

The caller, sure enough, knows something only the murderer could: in one of Sarah's pockets there is a note. On it are two words: "Number One."

(*The Mean Season* is a violent story, but not a violent film. One killing is shown in slow motion; another takes place in the dark during a power outage.)

Anderson may have just talked to a killer on the phone, but he is still a reporter. He runs the story. TV news covers him. Delour calls again, thanks him for the coverage, and tells him where he just murdered numbers two and three. Anderson calls the police; they find two bodies there.

(The poers of the media over news is emphasized on both personal and impersonal levels. In one scene, Anderson's editor offers tapes of the phone calls in exchange for 24-hour exclusivity on police information. "Six," the Chief of Homicide offers. "Eighteen." "Ten." "It's a deal.")

It is soon clear that *The Mean Season* is not about the murderers, but about the relationship between Anderson and Delour. Anderson hates the calls, but the police need them; he loved being on the *Today* show, but he is obscuring the real news. Or is he?

The Mean Season asks that question, clearly and repeatedly. It does not, however, offer an answer. To the *Journal's* readers, whatever the paper prints is news; as an audience, we see the whole story, without an editor to decide what runs and what gets cut. The subject seems to be abandoned: Delour predictably kidnaps

Christine, and Anderson stops writing the stories. He is now the news. The story is concluded and the credits roll. As a statement about journalistic integrity, *The Mean Season* begins well only to abandon its goals in the middle.

As a *story*, it is excellent. Based on John Katzenbach's bestseller *In the Heat of the Summer*, it achieves a frightening realism. Each scene presents a precise fact, like paragraphs in a news story. Like reportage, *The Mean Season* builds up detail relentlessly yet predictably. We are caught in the story without having had a chance to think. Producer Foster commented that *every* advance review he'd seen featured the word "gripping" prominently.

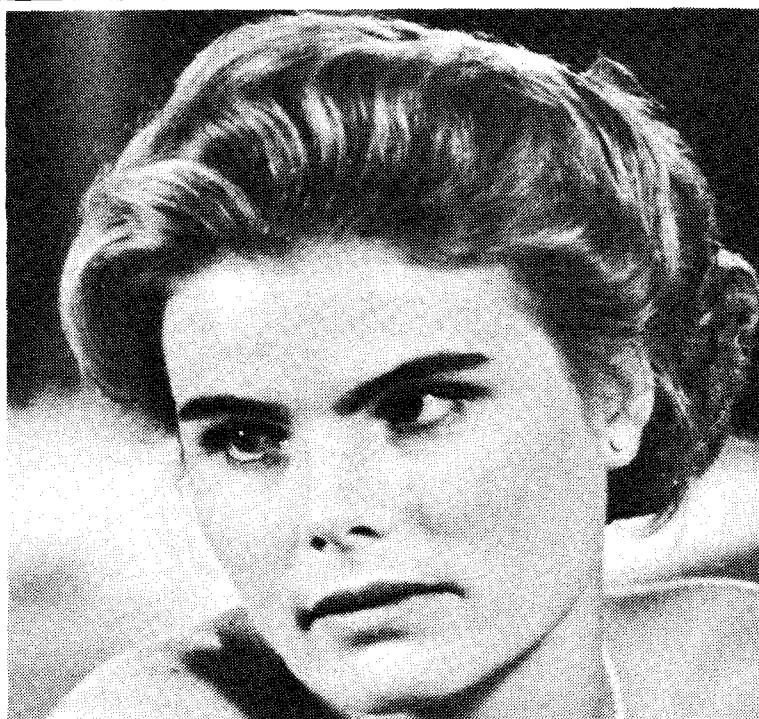


photo James A. Arifield/© 1984 Orion Pictures

Mariel Hemingway as Christine in *The Mean Season*

Only afterwards does one realize just how sparse the film is. Kurt Russell's part is well-developed (if somewhat stiffly played); Richard Jordan's murderer has some excellent lines, but we hardly see him until the final scenes; and Mariel Hemingway's Christine seems to have been tossed in for plot structure (although she plays the part quite well). On paper, *The Mean Season* doesn't look like much—it's not surprising it went through two studios and a director before Orion picked it up. In the theater, however, Phillip Borsos (*The Grey Fox*) makes it a killer.

The Mean Season is not a subtle film, and it is seldom funny. It has weaknesses, but they are much harder to pinpoint than its strengths. It is not a classic, but it is a very well-done film. It is the story of a man who can't break free from another man's life: the movie itself is equally hard to shake.

The Mean Season (rated "R") opens today citywide.

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entertainment**Movie Review****Weir's US Debut**

by Charles Barrett

Witness
 Directed by Peter Weir
 Paramount Pictures

That *Witness* is a study in contrasts is apparent in the opening scene: a procession of horse-drawn carriages wends its way along a small ribbon of road surrounded by lush greenery, cresting a hill and descending toward a farm, complete with barn, windmill, and waterwheel, as the caption reading "Pennsylvania, 1984" appears onscreen.

They are on their way to a wake. The deceased, as well as the congregation, are Amish and thus shun the contrivances of our technological society as immodest. Cars, phones, or electricity are not to be found in their community.

Shortly after the wake, the young widow Rachael Lapp (played by Kelly McGillis) and her young son Samuel (Lukas Haas) venture into the outside world to travel to Baltimore, and while waiting for their connection at the Philadelphia train station Samuel has the misfortune of being the sole witness to a murder.

Enter Harrison Ford as Police Detective John Book, who in the course of his investigation uncovers high-level corruption in his own department, and goes from hunter to hunted overnight. He and the Lapps return to the Amish community, where they can effectively disappear from sight while he plans his course of action. Meanwhile, those responsible for the murder know that only Book and Samuel can incriminate them, and so they set out to hunt them down and kill them.

Thus Book and the Lapps become dependent on each other for survival, working together though both parties are from different worlds. Book is a product of his environment, fiercely independent and used to getting his own way. Now, however, the young woman and her son are his responsibility, a task his bachelor life has not prepared him for. His life among the Amish also brings with it hard work on the farm, to which, after initial difficulty, he soon adjusts.

Rachael, too, is out of her element. She is falling in love, and is torn between her upbringing and her desire for things forbidden to her.

One of the most remarkable aspects of *Witness* is the skill with which these human situations are portrayed. Scenes convey their impact in a highly visual manner, with dialogue at a minimum. This is not to say that there is a self-conscious silence throughout the film; on the contrary it is only after thinking back for a moment that the viewer realizes the important parts of a given scene were all presented visually.

The artful direction is understandable given the director. *Witness* is Peter Weir's debut directing for a U.S. studio, and shows the talent we have come to expect from the director of *The Year of Living Dangerously*, *The Last Wave*, and *Gallipoli*. Weir's direction, the cinematography, and the editing all conspire to convey diverse and powerful human scenarios. *Witness* is fraught with suspense, tension, and growing compassion, and overall presents itself as one of the most powerful films this reviewer has had the pleasure of seeing.

Witness is from Paramount, rated R (more for the violence than for the sex), and is in general release citywide. Locally it can be seen at the Mann 3 at 467 N. Rosemead.

Mikado

from page 7

poser. He studied at the Royal Academy of Music and the conservatory in Leipzig and produced 23 operettas, 1 opera (*Ivanhoe*), and 2 ballets, among other sacred and secular choral works, including a *Book of Songs* in collaboration with the poet Alfred Tennyson.

The Mikado was written well into G&S's artistic partnership. In writing to Gilbert, Sullivan expressed interest in setting "...a story of human interest and probability, where the humorous words would come in a humorous—not serious—situation... There would then be a feeling of reality about it." Gilbert, in turn, is said to have envisioned the Town of Titipu rising up before him, after a Japanese sword (of the type found in the south display case in Millikan) fell from the wall of his study. Though set in Japan, the operetta satirizes the British, rather than the Japanese character, complete with references to pocket handkerchiefs.

As in all G&S shows, there are stock characters, who were actually written for particular members of the D'Oyly Carte troupe. Updating of certain elements occur frequently, including ever-changing lists of people who are best qualified for execution (for example, from the original "lady novelist" to "prohibitionist"), reflecting the time and place of a particular production. Occasionally, the changes amount to an entirely new work, such as *The Children's Mikado*, *Hot Mikado*, and *Swing Mikado*.

The enormous popularity of Gilbert and Sullivan is in part maintained by their loyal aficionados who keep their work and legend alive. Thanks to the generosity and expertise of Don McNamee, William Paul Baker, Lynne McGrath, Rod Casper, and Janet Casebier, we have an exciting and unusual exhibit in Millikan Library. And thanks also to *Mikado* director Bruce McLaughlin, music director Arie Michelson, TACIT director Shirley Marneus, and a committed cast and crew, we have a centennial production not to be missed. Make a point of seeing them both.

Tickets for the TACIT production of *The Mikado* are available now at the Ticket Office (Office of Public Events), 332 S. Michigan.

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sports

Baseball Beavers Take One of Each

by Doug Oute

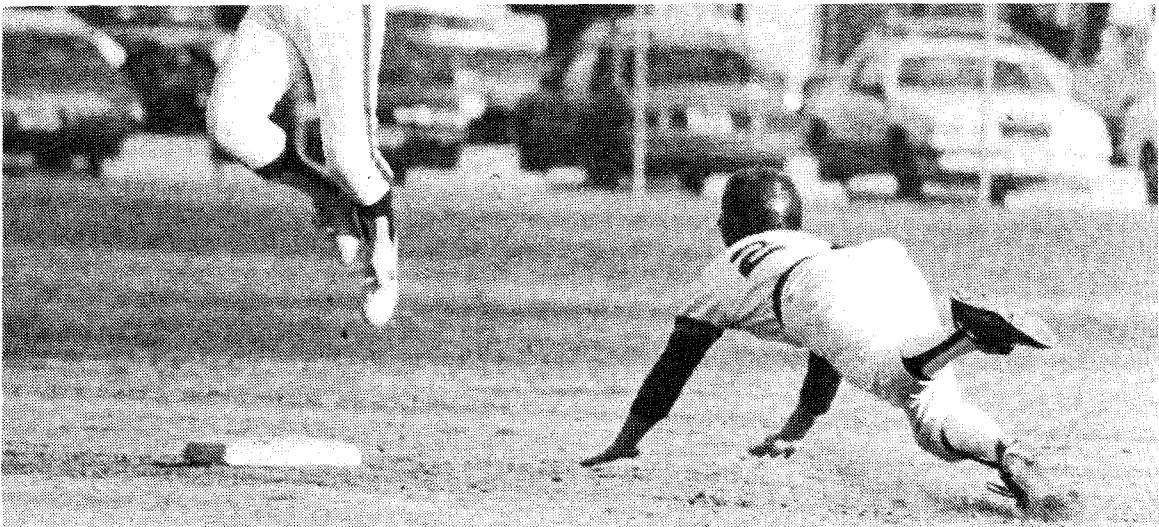
Caltech kicked off the 1985 baseball season by showing steady progress in their first three outings, and finishing their first week of play with a record of 1-1-1.

The Beavers' first victory of the season came on Tuesday the 12th against Pacific Coast Baptist Bible College, and featured an amazing steal of home to win the game. Things started off bad for Tech as PCBBC racked up six runs in the first two innings. The Beavers scored three runs of their own in the bottom of the second, led by Gino Thomas's RBI double. PCBBC added a run in the fourth, but in the bottom of the fifth Caltech struck back. After a walk and a base hit, Min Su Yun stepped up and ripped a triple into left field to drive in two runs, and scored one play later on a wild pitch to make the score 7-6. The Beavers and PCBBC both added a run in the sixth, and in the bottom of the seventh Caltech came up for its last at-bat, down 8-7. Caltech wasted no time loading the bases with one out, and scored the tying run on a wild pitch. PCBBC managed to get another out, and it looked like Caltech was going to end up with a tie, but aggressive baserunning by the Beavers saved the day. With two outs and two strikes on the batter, Ed Casey surprised everyone by stealing home to score the winning run. PCBBC was so shocked that another run scored on the play, and so the final score was 10-8.

Caltech's second game of the season was a hard-fought battle against Christ College on Saturday the 9th. The Beavers gave up a run in the top of the first, but in the bottom of the first answered with two of their own. Caltech played give-away in the top of the second, committing three errors and giving up three runs with sloppy defense. The Beavers redeemed themselves in the bottom of the second, scoring four runs on triples by Michael Keating and Jim Hamrick to make the score 6-4. Christ scored one more run in the third to pull within one [*not bad for a guy who's been dead a couple thousand years!*—Ed.], and that's how it stayed until the top of the ninth inning, when Christ scored two runs to pull ahead 7-6. Facing the prospect of a humiliating defeat, the Beavers rallied back. After a walk with one out, Gino Thomas doubled to put men on second and third. A wild pitch allowed one run to score, and the game was tied at 7-7. Caltech failed to score again in the inning, however, and so the score remained tied 7-7. The game was then called on account of the darkness.

Caltech's first "game" of the season was played on Tuesday the 5th against LA Baptist. (The game was played without the benefit of umpires.) Caltech played tough defense, but was unable to generate much offense, and lost 4-2.

Caltech has a rematch with Christ College here at Caltech on Saturday 16 February. The Beavers are rolling, and this time there won't be any tie, so come out and watch



In the game against PCBBC, Brandon Mymudes steals second base

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sports**JV Shows Up**

by Slam Duncan

In the last two games, even though the opposition dominated, our team played a good game. They gave all they had.

Wednesday's game against Claremont wasn't quite as good. Claremont played a tight press and forced turnover after turnover. Still, our team played their hardest and kept the Stags under 100.

In both games, our JV was much more animated than previously. They showed enthusiasm in the face of adversity and played what looked like their hardest. They should be commended. Now all that remains is practice and more practice for the last couple of games and for next year.

put a few through. All in all, the team played a good game. They gave all they had.

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In both games, our JV was much more animated than previously. They showed enthusiasm in the face of adversity and played what looked like their hardest. They should be commended. Now all that remains is practice and more practice for the last couple of games and for next year.

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Day	Date	Time	Sport	Opponent	Location
Fri.	2-15	TBA	Wrestling	NCAA Western Regionals	Wis. U at Oshkosh
Sat.	2-16	TBA	Wrestling	NCAA Western Regionals	Wis. U at Oshkosh
Sat.	2-16	10:00 am	Swimming	Pomona-Pitzer	Caltech (M/W)
Sat.	2-16	12 noon	Baseball (2)	Christ College	Caltech
Sat.	2-16	1:00 pm	Women's Tennis	Cal Lutheran College	Cal Lutheran
Sat.	2-16	2:00 pm	Men's Tennis	Claremont-Mudd	Claremont-Mudd
Sat.	2-16	6:00 pm	Basketball (JV)	La Verne	La Verne
Sat.	2-16	8:00 pm	Basketball (Varsity)	La Verne	La Verne
Tue.	2-19	3:00 pm	Baseball	Pomona-Pitzer	Pomona-Pitzer
Tue.	2-19	3:00 pm	Men's Tennis	Pomona-Pitzer	Caltech
Wed.	2-20	3:00 pm	Women's Tennis	Whittier	Caltech
Wed.	2-20	7:30 pm	Basketball (Varsity)	Cal State San Bernardino	Caltech
Wed.	2-20	9:45 pm	Hockey Club	U.C. Irvine	Costa Mesa



A valiant, but stuffed, shot by Jed Lengyel (44) in the JV game against Claremont-Mudd

Saber Team Wins Again

by Perry Riposte

Last week at home, the Caltech fencing team had a dual meet with San Diego State University (SDSU) and Cal State University at Fullerton (CSUF). The first match was between Caltech and SDSU, and the second was Caltech and CSUF.

The women's foil team lost 5-11 to SDSU. Phyllis Li did a spectacular job of defeating all four of her opponents. She made the right moves at the right times. Susan Ridgeway won one bout. She did her best to reach for her opponents by making lunges and disengages. Amy Yoshida is a new recruit. Although she did not win any, she did okay. She used the

basic moves of fencing and got a few touches. The team lost 2-14 to CSUF. The only scorer was Phyllis Li, who won both bouts. The rest of the team members did as usual.

The men's foil team lost 1-8 to SDSU. Craig Keller scored the lone point. He deceived his opponents with feints and avoided their blades with disengages. He pressed hard and was able to gain enough touches to win one. Against CSUF, the foil team did a little better by losing 3-6. Keller won two bouts this time. The other scorer was Alex Gilman, who is a beginner. He did well and won his first bout in his second match of the

season. Matt Himmelstein, a saber man, fenced foil. He applied his sabre moves to foil and had fun in this conversion.

The epee team came very close to winning two matches but fell short. They lost 4-5 to SDSU and also 4-5 to CSUF. Charles Todd and Thomas Luke both won two bouts each against each school. They made an effort to touch their opponents' wrists and succeeded many times. As a result they got enough points to win. Joe Beckenbach and James O'Dea also made a good showing by keeping good distances and doing effective parries.

The saber team got another victory. They defeated SDSU 5-4. It was a very close and exciting match. At one point the team was trailing 2-4, but they fought hard and won it. Scott Lewicki and Chien-Wei Han won two bouts each. They made beat-attacks and cuts quickly. Matt Himmelstein won one bout because the team demanded it. Jeff Greason made strong parries and ripostes. He got some touches against his opponents. Against CSUF, the team lost 2-7. Chien-Wei Han had the two winning bouts. He defeated a guy who ranks first in the league and believed he won it by luck.

For the next game, the Caltech fencing team will meet U.C. Santa Barbara and UCLA. The matches will be on February 23 at Cal State Long Beach.

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announcements

Material for the announcement section of the California Tech must be submitted typed on or with the Announcement Form available at the Tech office by the Tuesday before the Friday of publication.

Political Internment

The Beckman Internship will be available for the summer of 1985. This internship, supported by friends of Dr. Beckman, pays a stipend of \$2,600, plus travel expenses. It allows a selected Intern to spend the summer working in the office of a politician and to see from the inside the process of government. The Intern is expected to make arrangements with the appropriate political persons. It is open to any Tech who intends to be a Caltech undergraduate next year. If interested, contact the Dean's Office, ext. 6351, by March 1st.

PA 15 Meeting

There will be a meeting of the PA 15 class, which is the student newspaper, at 12:15 pm today in 127 Baxter.

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If you would like to place an ad in the classified section of the California Tech please send your ad along with your name, address, and telephone number to: The Tech, 107-51 Caltech, Pasadena CA 91125. Ads must be received by Tuesday before desired publication. Ads cost \$.40/line with a \$2.00 min. and prepayment is required.

Capra Ranch

The Organization for Women at Caltech is sponsoring its annual retreat at Capra Ranch, from Fri. evening March 1—Sunday afternoon March 3. Cost is \$25, with subsidies for those with need. Call one of the co-chairs, Alice-Cronin-Golomb (x4935) or Margaret Liggett (x3914) for more information or a registration form. The program will include psychologist Madeline Mark on "Power", a drama workshop, and more. Registration forms (with \$10 deposit) are due by Feb. 20 to either co-chair.

Bach and Handel

The Division of Humanities and Social Sciences will offer a special music history course during the spring quarter entitled, "Bach and Handel: a 300th Birthday Survey of Keyboard and Choral Masterworks." Professors David Britton and Donald Caldwell will be co-instructors for this unique presentation.

In addition to two weekly classes (Monday and Thursday, 2:00-3:30 pm), attendance of selected concerts and field trips (to an organ and/or harpsichord building workshop) are planned as part of the course. No special music knowledge or skills are required for enrollment, however, any students who have the ability and interest to perform should contact Dr. Britton, Dabney Hall, Rm. 11, ext. 4027, as soon as possible. The first class will be on Thursday, April 4, 2:00 pm in Baxter Hall, Room 25. The requirements of the course will be discussed at that time.

Registration code is Mu 101, *Selected Topics in Music*.

For further information contact Dr. Caldwell, ext. 6197, or Dr. Britton, ext. 4072.

Fowler Talks

Dr. William Fowler will be the speaker at the next Society of Physics Students meeting, this coming Tuesday (Feb. 19) at 4:00 pm in 269 Lauritsen. The subject of the lecture will be: "The Four Forces of Nature and the Sun." Refreshments will be served before the talk.

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ACS Meeting

The UCSD chapter of the Student Affiliate of the American Chemical Society is hosting an informal ACS Undergraduate Regional Conference on April 12 and 13, 1985. Activities planned include several seminars as well as tours of the UCSD chemical laboratories. Interested undergraduates should contact Bill Sharpe at 449-2540 for further information.

New History Course

H 161 — "The Nuclear Weapons Issue: 1945 — Present" will *not* be offered in the Spring Term. Instead, Dan Kevles will be teaching H 153 — "America Since WW II." The class will be offered Tuesday from 2:00 to 5:00 p.m.

Seen Our Book?

Anyone with information concerning the whereabouts of the bound book of back issues of the 1975-76 *California Tech* should call, write, or telegram the *Tech* office as soon as possible.

Money! Money!

How would you like to be able to invest nearly \$100,000 of someone else's money in stocks and bonds for the fun of it? The Caltech Student Investment Fund is accepting applications for its new Board of Directors until the end of the term. If interested, send your name, mail code and phone number to the SIF, in care of the Dean's Office, 102-31.

Pasadena BOD

Social and economic issues of Pasadena, some possibly bearing on Caltech and its relations with the surrounding community, will be examined next Thursday in Winnert Lounce by challengers and incumbents for the city's board of directors. A panel discussion among the candidates is set for noon, February 21st, in the Student Center. Caltech Professor Robert Oliver, himself once a member of Pasadena's Board of Directors, will moderate the discussion. At least five of the six candidates for the March 5 election are expected to participate, and the question each will be asked to address is: "Is Pasadena Getting Better?" The program has been put together by the Excomm of the Caltech Y, and is open to students, faculty, and the public.

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IBM Users Group

The IBM Users Group will meet at 7:30 pm on February 21 in Basement Room 74, Jorgenson. Pacific Data will raffle off their new software accounting program, "Money Track."

Psych-Lit Course

Lit 180—Creativity and Depression: a psychoanalytic study of the frequently-encountered relation between depression and artistic creativity. Readings in contemporary psychoanalysis and world literature. It will be taught Tuesdays at 1:00 pm.

50 Years of Halmos

Paul R. Halmos, Professor of Mathematics at the University of Santa Clara, will speak on Monday, 18 February at 4:15 pm in 22 Gates. His talk, the Leonidas Alaoglu Memorial Lecture, is entitled "Fifty Years of Linear Algebra — A Personal Reminiscence." Dr. Halmos, the author of ten books and almost 100 articles, has concentrated his research on measure and ergodic theory, algebraic logic, and operators on Hilbert space. The Leonidas Alaoglu Memorial Lecture is an annual mathematics lecture at Caltech established by friends and family of the late Dr. Alaoglu to honor his memory.

Jazz Band Concert

The twenty-piece Caltech Jazz Band will play a concert this Sunday at 8:15 pm in Baxter Lecture Hall. The Caltech Jazz Band is one of Southern California's best college Big Bands, having won a recent award at a local jazz festival. This band is HOT!! Hear Mike Rigler play some great solos, and hear original music by Doug Priest. There will be refreshments after the concert.

Medieval Coinage

The February 20 meeting of the Caltech-JPL Numismatic Society will feature a talk by Walker Carlton on medieval coins.

Drawings for door prizes will be included in the activities and refreshments will be available. The club meets the third Wednesday of each month at 7:30 pm in the Church Laboratory building on campus. All Caltech/JPL personnel and their families are cordially invited to attend.

Alumni Assoc. Talk

The Alumni Association will present a free talk on Tuesday, February 19 from 7:30 to 9:00 pm at the Alumni House (345 South Hill). The talk is a career counseling program entitled "Careers in Engineering Management." Come find out what some alumni are doing with their engineering backgrounds—in management! For more information, please call x6592.

Soloists Wanted

Attention all musicians! Here is your chance to solo with the Oxy-Caltech Orchestra. The competition will be held on March 2 at Occidental; winners will perform on the concerts in May. This competition is open to students and staff with the exception of professional musicians; both instrumental and vocal entrants are welcome. The entry should be a concerto or other suitable piece for orchestra accompaniment. A piano accompanist will be available for the audition. Entry forms should be requested via Campus Mail from Oxy-Caltech Orchestra, 104-31. Call Dr. Allen Gross at (213) 259-2574 for more information.

Women's History

Dr. Judy Raftery will be teaching a new course this spring entitled "U.S. Women's History from Colonial Times to Modern Times: A Study of Private and Public Roles." Three themes will be considered: women's relationships to the economy, family, and politics; changing ideals of womanhood; and class, race and ethnic variations in the female experience. The goal of the course will be to present women's history both as an integral part of American social history and as a unique subject of historical investigation. The course will have an organizational meeting Tuesday, April 2nd at 7:30 pm in 128 Baxter.



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