

Who gave
the order

The CALIFORNIA Tech

To tear down
the sign?

Volume LXXVI

Pasadena, California, Friday, February 7, 1975

Number 16

Slow Squeeze

Library Cuts Forced

by Alan Silverstein

The journal subscription cut-back described in a letter to the *Tech* last week was no exaggeration. All of the libraries on campus are slowly being forced to reduce severely on a wide range of services due to insufficient funding and inflation, according to Director of Institute Libraries Johanna Tallman. For as long as the past ten years, but especially recently, the libraries have been reducing staff size, services, subscriptions to journals and magazines, book purchases, and various special programs, because the budget simply would not cover inflated expenses.

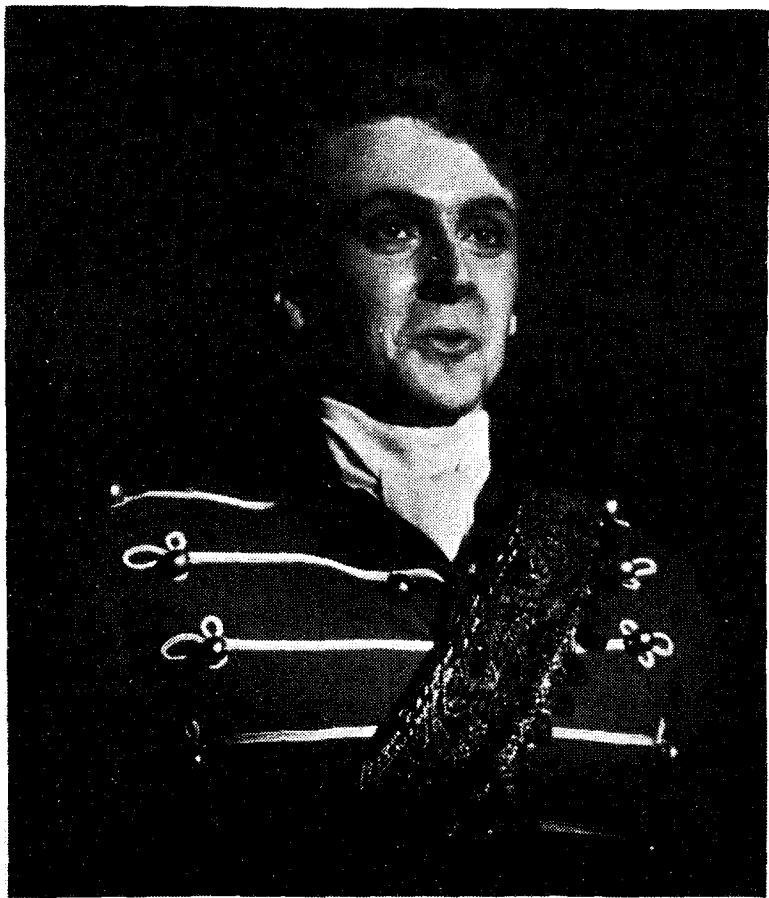
Each of the external division libraries funds its own staff, but books, magazines, journals, references, documents, and the staffing and management of Millikan come from the central

administration. During the last several years the Institute annual allotment for the libraries has been only raised slightly, while expenses have risen 10 to 25% per year. This year a 15% increase was granted for books and journals. However, the main library was requested to cut its staffing still further, on the assumption that the reduction in purchasing *due to inflation* required fewer workers. Mrs. Tallman says that exactly the contrary is true: it takes a lot of man hours to close subscriptions, to choose among the books which can be afforded, and to handle the increasing work load from interlibrary requests.

The library director emphasized numerous current and future adverse effects of the tight money situation. Reference aides and staff in Millikan have always been scarce, compared to other private schools, and with the deletion of 1.5 FTE (full time employees) in the last year, "we are spread very thin." The next step will be closing Millikan at midnight instead of 2 a.m. Gift books and subscriptions may have to be refused—because of lack of personnel to handle them—even though that's where a lot of the library's material comes from. Doctoral theses by Techers will no longer be bound.

If additional card catalogs aren't bought, shoeboxes will be the only substitute. Interlibrary loan and bus programs with other local schools will be discontinued at a time when they will be most needed, because we won't have desired references here. And, once something *isn't* bought and goes out of print, we won't have it in a year, or in ten.

Mrs. Tallman says she is trying to maintain the best library services possible under the circumstances, but that it is getting more and more difficult. Cut-backs are beginning to become noticeable in many areas. "If you have to cut—cut—cut—then pretty soon you're running a third-rate library . . . and Caltech needs one that's first-rate. The library serves everyone here, and it is not the place to cut funding." She is trying now to increase the library allotment for the next fiscal year, which begins in July, and says that much of the faculty agrees with her feelings.



THE STUDENT PRINCE with Ken Underwood in the title role opens tonight in Ramo Auditorium. More photos on page 5. Photo by K. Yoshida

Caltech Hockey Leads Division

by Bob D.T. Hardy

The Caltech Hockey Team (Les Caltech Canadiens) leads its division with a 5-0-0 record. UCLA is next with 3-2-0. Northridge and Oxy vie for the cellar with 1-4-0 each. Among the ten top point scorers in the league, Tech owns five. Joe Sweeney of Engineering and Applied Science is number one, the Phil Esposito of West Coast Collegiate Hockey. "Not bad for a naval academy D.P., eh?" he was heard to mutter in true Mikita form.

Cliff Brown, the regular goalie, came to the rink too drunk to play. So Brian Seed, for the first time in his promising career as a goal-tender, saved a sufficiently high percentage of shots in the Tuesday evening game against Occidental to allow Caltech to win. It was a remarkably high-scoring game: 16 goals. Seed let in six, but the Oxy goalie let ten slip by him, the turkey.

Young Daniel Dobkin shone

like a new star, doubling his career number of goals—i.e. scoring one, for a total of two. He also made two assists. Bob Gardiner, the famed fluid dynamicist and team captain, scored three times (and did pretty well in the game too).

The next game will be on home ice, 11 p.m. Sunday night at West Covina against the much hated Northridge mashers.

*Once more into the breach, dear friends, once more!
Our thoughts be bloody
or be nothing worth.*

Dr. Lee Hood Awarded \$25K Research Grant

The Camille and Henry Dreyfus Foundation has awarded \$25,000 to the California Institute of Technology to support the teaching and research of Dr. Leroy E. Hood, associate professor of biology at Caltech.

The award is one of 16 grants totaling \$440,000 made by the foundation to 16 academic institutions to support programs of outstanding young faculty members selected from 98 candidates nominated for the honor.

Dr. Hood, 36, is a physician

as well as a biologist and is Caltech advisor for students wishing to take premedical training. His research deals with the evolution and genetics of antibodies and with molecules on the surface of cells. He also is interested in the problems of communication between scientists and society.

Born in Missoula, Mont., Dr. Hood obtained his BS and PhD from Caltech and his MD from the Johns Hopkins School of

Continued on Page Seven

News Briefs

Coops Looking for Inmates

The ASCIT Coop houses are undermanned this term. If you are looking for a cheap place to sleep and cook that is close to campus as well, the Coop is probably your best deal. Rents average to \$42.00 per month, with \$10 to \$15 for utilities. We have mostly doubles, but a few singles occasionally become available. If you would like to move in right away, or even if you're only interested in a place for the summer or for next year, contact Klaus Engelhardt, 290 S. Holliston (796-6881) or 264 Lauritsen,

(x2792); or Vince Fratello, 306 S. Catalina, (792-6638).

Funds Going Fast

Please pick up the funds appropriated to your organization by ASCIT. Any not claimed by Feb. 14 will revert to a general fund to be spent in other areas.

A Sad News Brief

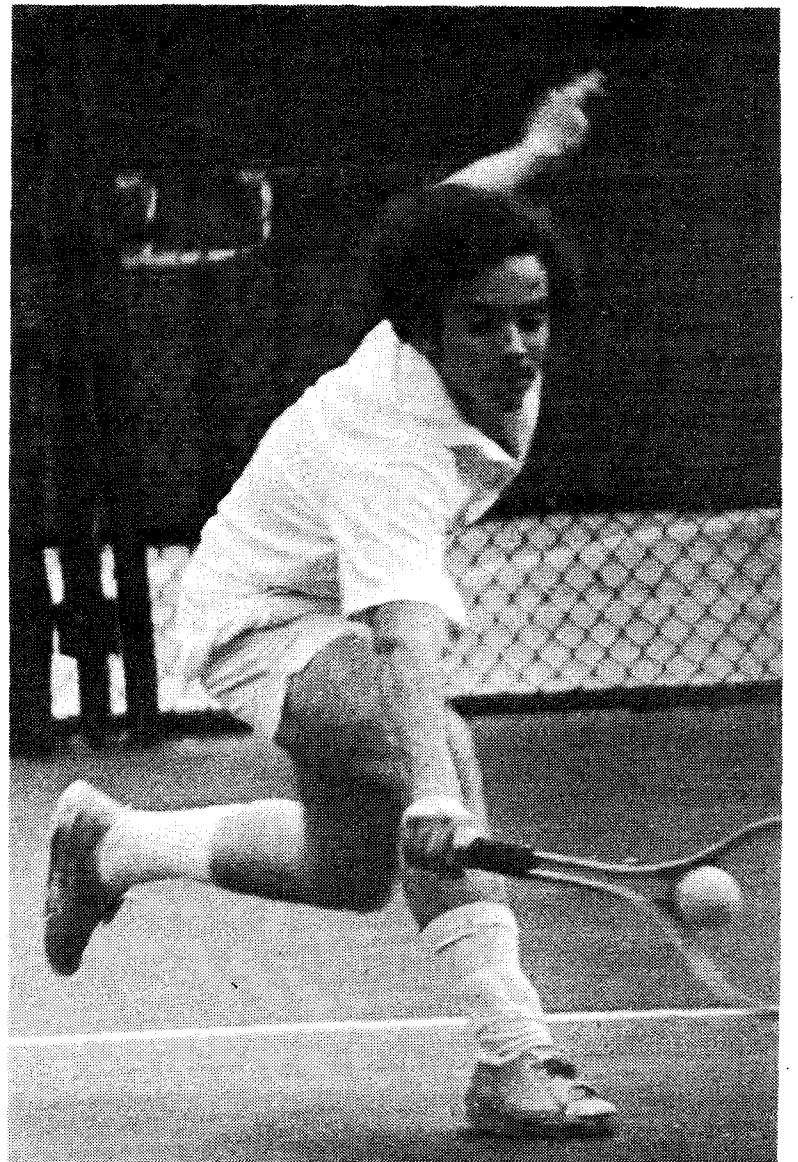
In case you were wondering, while filling out your state income tax form: the Student

Houses are exempt from property taxes. No renter's credit allowed.

Dodecahedral Ships?

There will be a naval miniatures game in Dabney Hall Lounge this Saturday night at 7:30. In addition, persons interested in obtaining sets of 12 and 20 sided dice for D&D and other uses should come to the game for details. There are more sets coming in in the (hopefully) near future.

Drop Day:
Where's your head?
Sure does



TENNIS team member Maurice Zwass during action on the courts.

Photo by Bobby Bus

Editorial

It's Getting Worse

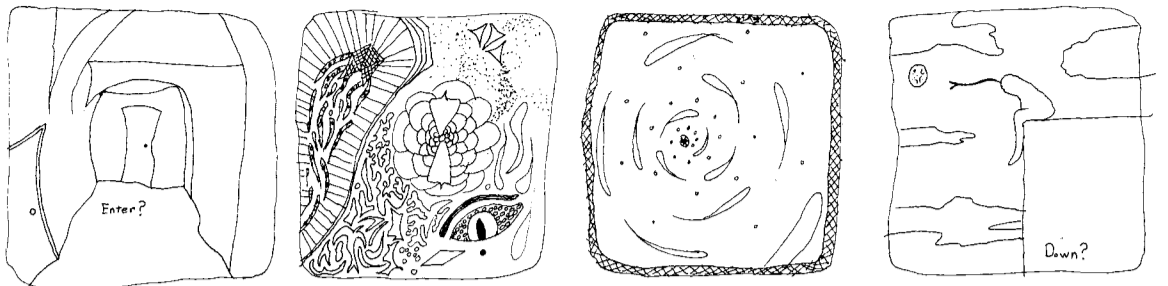
The menu of this past Wednesday's dinner in the student houses is a clear-cut example of the nutritional negligence of the present campus food service. This dinner consisted of:

- fish sticks with a batter crust
- a macaroni and meat dish (with very little meat)
- scalloped potatoes (with a rich, creamy sauce)
- two types of sandwich bread
- cake
- green peas
- tossed green salad

In short, starch with trimmings.

Unfortunately, meals like this are of late becoming the norm. Indeed, although quality food has never been a part of on campus life during recent years, seldom has the content of meals been so consistently worthless. Continuance of such nutritionally foolish meal planning will inevitably result in growing student disillusionment with the present food service and may force the reabandonment of organized food programs for undergraduates. Renegotiation of the food service contract to allow for nutritionally sensible meals would clearly be a preferable solution and would allow the inherent social advantages of the present meal program to be retained.

-R.S. Gruner
Dennis L. Mallonee
SMC Sweeney



Campus Colloquy

Is Time-Wasting Impossible?

by James A. Michener
(A one-time professor, editor, World War II serviceman in the South Pacific, and Pulitzer Prize winner, James A. Michener has brought a whole new dimension to the world of literature. One of the most prolific and exciting writers of the last three decades, Mr. Michener has authored such best-selling novels as Hawaii; Caravans; Iberia; and The Drifters.)

Don't be too calculating. Don't be too scientific. Don't let the shrinks terrify you or dictate the movements of your life.

There is a divine irrelevance in the universe and many men and women win through to a sense of

greatness in their lives by stumbling and fumbling their way into patterns that gratify them and allow them to utilize their endowments to the maximum.

If Swarthmore College in 1925 had employed even a half-way decent guidance counselor, I would have spent my life as an assistant professor of education in some midwestern university. Because when I reported to college it must have been apparent to everyone that I was destined for some kind of academic career. Nevertheless, I was allowed to take Spanish, which leads to nothing, instead of French or German, which as everyone knows are important languages studied by serious

students who wish to gain a Ph.D.

I cannot tell you how often I was penalized for having taken a frivolous language like Spanish instead of a decent, self-respecting tongue like French. In the end, I sacrificed my academic career.

Instead, I continued to putter around with Spanish and found a deep affinity for it. In the end, I was able to write a book about Spain which will probably live longer than anything else I've done. In other words, I blindly backed into a minor masterpiece. There are thousands of people competent to write about France, and if I had taken that language in college I would have been prepared to add no new ideas to general knowledge. It was Spanish that opened up for me a whole new universe of concepts and ideas.

I wrote nothing until I was forty. This tardy beginning, one might say this delinquency, stemmed from the fact that I

Continued on Page Six

Great Nuclear Physics Moments Recalled

Some of the fascination of nuclear physics was conveyed to the audience by the lecture "Great Men and Great Moments in Nuclear Physics", given last week by one of the great leaders in that field, Dr. John A. Wheeler. Dr. Wheeler, who is Joseph Henry Professor of Physics at Princeton, opened the Fifth Annual Charles and Thomas Lauritsen Memorial Lecture (also one of the Earnest C. Watson Caltech Lecture series) with reminiscences of the Lauritsens and their work.

After a brief introduction by Dr. Richard Feynman, who was once his pupil, he began to describe how "Charlie" Lauritsen would go around "knocking on doors" to make the case for scientific research to the government, and how "Tommy" Lauritsen worked on the nuclear reactions present in the sun. He

then said that the lecture would consist of five scenes, each of which was crucial in the resolving of a major problem in nuclear physics.

The first scene opened near the beginning of the century, in Copenhagen. Wheeler said that working with Neils Bohr was quite fascinating, as, as he put it in one of his applications for renewal of his fellowship, "Bohr sees further ahead than any man alive." The first problem involved the soundness of quantum electrodynamics (QED) which was, at that time, encountering difficulties. Wheeler continued "The question was, is QED sound?, and the answers were that at electron energies of 137mc squared or greater 1) QED fails 2) QED still makes sound predictions. Obstructing the theory were the experimental results that were 1) the anomalous

scattering of gamma rays through lead; 2) the anomalous penetration through lead." Wheeler smiled. "To these QED rises triumphant—it explains the first, and predicts a new particle for the second—the meson . . .

"The key people involved in straightening this out were Bohr, Carl Anderson, Seth Neddemeyer, and E. A. Williams." Wheeler continued, "Bohr used to say that he was always the dilettante. In his own modest way . . . this meant always the pioneer."

The second scene opens in October 1934, with the inexplicable power of the nucleus to intercept the slow neutron. "This led Bohr to use the 'liquid drop'

model, rather than the 'open' model to explain nuclear structure."

The third scene is concerned with the discovery of nuclear fission. Hahn, Strassman, and Meitner were astonished at the discovery that slow or fast neutrons would cause fission in uranium, while intermediate speed neutrons did not. "I myself bet \$18.36 to 1 cent that U235 was the answer (the ratio of the masses of the proton to the electron, if you are wondering), and later received a certified check for 1 cent." He also displayed some slides to show the predicted fission in a 'liquid drop' nucleus.

Continued on Page Four

FRANKLY SPEAKING by Phil Frank



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THE ASCIT FRIDAY NIGHT MOVIE

Horsefeathers

7:30 p.m. & 9:30 p.m.
in Baxter Lecture Hall

Admission: 50¢—ASCIT members and their guests; \$1.00—anyone else

NEXT WEEK: THE ONE YOU'VE BEEN WAITING FOR!
Welcome Home, Soldier Boys

Whodunit**British Madames Mystify**

by Blunt N. Strument

Although Agatha Christie and Dorothy Sayers are generally acknowledged as the supreme masters (mistresses, if you will) of the British School of mystery writing, there have been many other competent practitioners of the body-in-the-library genre throughout the century. Many of these are no longer around, but a few are still doing their thing.

One of the most prolific and popular writers in the field is Dame Ngaio Marsh, a New Zealander who has been writing mysteries for four decades and hasn't stopped yet. Her detective, Roderick Alleyn, is very handsome, very clever, very scrupulous, and a bit of a bore, but the plots are often well thought out, and many of Dame Ngaio's secondary characters are very interesting. Alleyn comes from high family (a favorite source for British detectives: Lord Peter Wimsey, Margery Allingham's Albert Campion, and, we gather, Josephine Tey's Alan Grant all are of distinguished birth as well as brains), and finds distasteful much of the police-work required in order to nab the killers. His wife, Agatha Troy, met in the course of a case (the approved manner), is a highly talented painter; glimpses of her at work indicate that the author has known some artists.

Dame Ngaio's own artistic interests lie primarily in the stage, an always-interesting setting which brings us several of her better novels, such as *Night at the Vulcan*. Others of her best include *Artists in Crime* and *Death in a White Tie*, which bring into being and further the

Alleyn-Troy romance, respectively.

Ruritanian School

Another prolific British writer who still apparently enjoys considerable popularity in this country (rather surprisingly, perhaps) is Margery Allingham. Her detective, Albert Campion, as mentioned above, is a younger son of a noble house (the name of which is never divulged; its initial is 'K', but clearly owes some of its ancestry to the Rassendylls) who goes about the world under an alias tending to Adventures. The best of the early Campions are *Mystery Mile* and *Sweet Danger* (or *The Fear Sign*; mystery publishers have an annoying habit of occasionally changing titles), both complete with interesting, though quaint and (I suppose) passe, characters, settings, and situations, and a SuperVillain for each. In the latter story, my favorite of hers, Campion meets one Miss Amanda Fitton, who becomes his lieutenant, Lady Amanda, and (eventually) Mrs. Albert Campion.

At this point a digression on the marital habits of famous and well-born British detectives is in order. Despite the idea that women's liberation is an invention of the Sixties, the creations of Harriet Vane, Agatha Troy, and Amanda Fitton, all of the Thirties and Forties, were all portrayed as unusually intelligent and talented, and each had a mind of her own. None fell swooning into the arms of their heroes in the last paragraph; in fact, each took her own sweet time in deciding her fate. Agatha Troy took several years to marry Alleyn (I forget just how many), Harriet took five and a half to marry Lord Peter, and Amanda took eight to settle for Campion (though this might be excused, since she was only 17 when they met).

No Womanly Women

Also, as indicated, each woman had a career of her own: Harriet her mystery writing, Troy her painting, and Lady Amanda

(you probably won't want to know this) became an aeronautical engineer. Clearly women were liberated in print at least where the British school was concerned. (But then this shouldn't surprise us perhaps, since you may have noticed that all of the authors discussed so far are women.) There is no evidence that the mystery reading public, whatever their sex or beliefs, found this intolerable. (Compare to the typical portrayal of women in most science fiction, at that time, or for that matter at this.)

Campion, and sometimes his Amanda, took part in several more novels which are favorites of mine, including *Dancers in Mourning*; *The Fashion in Shrouds*; *The Tiger in the Smoke*; and *The Estate of the Beckoning Lady* (in which is bumped off a tax man), in chronological order. (The order is important in Allingham's work, as with Sayers's, because the character develops and changes over time, and there are often references back which would either be confusing or give away information if the previous work had not been read. You don't start the *Foundation Trilogy* or the Danneel Olivaw novels in the middle do you?) Many of her short stories are also excellent. If you liked Sayers, you will probably like Allingham.

Seven by Tey

One of the best of the British writers, Josephine Tey, was not prolific; her entire mystery output totaled just seven novels, but each was very nearly a work of art. Try any one; if you like it, you'll like the others. My favorite is probably *To Love and Be Wise*, but it's a tough decision. *Miss Pym Disposes* has a particularly interesting background, a women's school. Tey's writing is particularly good, and her characterizations are a strong point. (A comparable, though probably more talented, sf figure would be Ursula LeGuin.)

At last the men's libbers get

their turn: we come now to Michael Innes (not to be confused with Hammond). Michael Innes is the pseudonym of a distinguished British literary scholar, J. I. M. Stewart, and, as may be expected, the Innes mysteries are unusually erudite, even for the British School, which rather tends that way anyway. His detective, one John Appleby, of late Sir John and head of Scotland Yard, often seems to find himself involved in high-class crimes, and swings a mean quotation from the classics in defense. A typical Innes plot (*The Seven Suspects*) features the murder of a college President while seven of his distinguished colleagues are running about the grounds performing all sorts of activities that would be regarded as unusual even at Caltech. (No, I won't tell you. You'll have to read it yourself.) The typical Innes novel is if not precisely dull, at least a bit ponderous for the hasty American taste, though very popular with placid types;

among the better such are *The Paper Thunderbolt* and *One Man Show*.

An untypical Innes is *Appleby's End*, a spoof (I guess that's the right term) of the British way of doing mysteries, which I found absolutely hilarious, and is one of my all-time favorites. Among the conventions parodied are those related to marriage as discussed above. Judith Raven is also intelligent and talented—she is a sculptor (sculptress?)—but the standard n-year wait before marriage is in this case shortened a bit . . . to approximately two or three days. Really a funny piece of work, and anyone who has followed me this far will know and (presumably) love the British School enough to enjoy it. Another more recent Innes work of good quality is *An Awkward Lie*, involving a son, Bobby, in his own romantic concerns. And there are other, less entertaining Innes stories as well.

Shakespeare Film Festival To Run Through May

by Etaoin Schroedlu

The annual William Shakespeare Film Festival will soon be upon us, so if you're interested in acquiring a season or part-season ticket, now is the time to act.

The bill will again be carried in the local area by the Esquire Theater, 2670 E. Colorado Blvd. (and by the Los Feliz downtown and the Royal in West L.A.). The program begins at the Esquire the weekend of March 1 and 2, and continues through May 3 and 4, ignoring Easter week; except for that omission, dates at the Los Feliz are a week earlier and at the Royal a week later, for anyone determined not to miss out. Some of the movies in the series are worth the trouble.

The lead-off film is the Peter Hall version of *A Midsummer Night's Dream* (that's the one with Diana Rigg). It also includes an excellent bunch of clowns, and innovative settings and costumes (or lack thereof).

Lots of Lord Larry Leaping

The first of several Olivier Shakespeare movies in the series comes next, the seldom seen, early (1936) *As You Like It*, with Olivier as Orlando and Elisabeth Bergner as Rosalind.

Number three is Zeffirelli's *Romeo and Juliet*, with the young Leonard Whiting and Olivia Hussey as the title characters. If by chance you've missed it, now is a good time to amend.

For those of you whose interest in *Macbeth* is not satiated by the current Music Center live (?) version, next comes Roman Polanski's version,

starring Jon Finch and Francesca Annis. Also included in the package is a prize-winning 30-minute documentary on the making of the movie (several other of the films have shorts, but this is the only one that seems to be of obvious interest to any but fans of Dr. Frank Baxter).

Fifth is the 1969 *Julius Caesar*, featuring such as Charlton Heston, Jason Robards, John Gielgud, Richard Chamberlain, and, again, Diana Rigg.

The next one is first in many opinions: the 1948 Olivier *Hamlet*, also featuring Jean Simmons as Ophelia and Felix Aylmer as Polonius.

Olivier gives us his *Richard III* next, in an all-star cast including Sir John Gielgud, Ralph Richardson, and Claire Bloom.

Once More Unto the Breach

We again see Lord Olivier in a title role in *Henry V*. He directed all three of these movies, as well as playing the lead in each, during the 1940s and 1950s, an impressive performance of ability and stamina.

The last of the nine movies is Peter Brook's 1970 *King Lear*, with Paul Scofield playing 'Lear' half of the title role; it's not clear about the other half.

A full season ticket is \$18.00 (inflation has taken its toll), or a part ticket for any six is \$13.50 (specify the six); the address to pay is Laemmle Theaters, 11523 Santa Monica Blvd., West L.A., 90025, check payable to the theater of your choice (see above for names and addresses). Single

Continued on Page Six

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82 N. Fair Oaks, Pasadena/449-2838. Closed Mondays.



Undoubtedly this week all of you are getting ready to go and see the ASCIT musical, *The Student Prince*, but there are surely those of you who want to know something which might be done with your gobs of free time. Well, you've come to the right place.

For those of you turned on to the theater in general by the ASCIT musical, there are several interesting performances available out there in the real world. The performance of *Macbeth* at the Ahmanson Theatre is reviewed elsewhere in these pages, so I won't even mention it. The Mark Taper Forum still has *The Dybbuk* for a while. This is the last weekend, though, for *All My Sons* at the Huntington Hartford Theatre. *The Constant Wife* is at

Physics

Continued from Page Two

The fourth controversy was the dilemma of nuclear gas vs. liquid, or the shell model of the nucleus versus the liquid drop model. Wheeler noted that "the mean free path (how far a particle travels on the average) was relatively short in the liquid drop model, long in the shell model. Real particles came in between. The problem of how to explain the big electron quadrupole moment of the nuclei was solved by neither, but by a 'collective' model, incorporating features of both. "The combination caused a large deformation of the nucleus, to explain the effect".

The fifth and final crisis, according to Wheeler, was that of solar energy. "The sun must be an energy source," noted Wheeler, "but why?" Wheeler said he believed the answer was fusion, to this and to the question of how elements were formed. He quoted Eddington as saying that you "Don't argue with the critic that says the stars weren't hot enough—tell him to find a hotter place." "The process of converting hydrogen to deuterium requires the emission of a "solar" neutrino, which are being searched for by Ray Davis, of Brookhaven" he continued. "We are not yet sure what the way out is. We are depending on this one man, who is working alone against incredible odds. I think the best thing to do would be to send a postcard to this man with the message, 'Keep at it, pal.'" This drew a ripple of laughter, "... to the Brookhaven Laboratory, New York, New York, zip code 11717." He paused then, "Until the solar neutrinos are found, the story is incomplete..."

He concluded, "Science is a very human enterprise... The one thing that one cannot dispense with is colleagues, and anyone who knew Charlie or Tommy Lauritsen knew what it was like to have a colleague."

the Shubert Theatre. I stumbled upon mention of a production of Kurt Vonnegut's *Happy Birthday Wanda June* at something called the Chamber Playhouse at 3759 Cahuenga. That mention rather bizarrely placed Cahuenga in Pasadena, but I think that you will find it in North Hollywood.

For those of you with transportation and interest, the Eleo Pomare Dance Co. is performing this weekend at the Inner City Cultural Center. For those of you going to the ASCIT musical on Saturday or Sunday, there is a performance tonight of the Vienna Choir Boys at 8 p.m. at the El Camino College Auditorium. If your tastes lean more to rock, the Alvin Lee concert at the Long Beach Arena is also tonight at 8.

If your tastes are more mixed, Kenny Rankin will be giving a performance at the Wins Shed at Santa Anita in Arcadia, between races apparently. He will be performing at 1 p.m. Saturday, and admission to the park of \$2.25 will get you nine horse

races and a concert. Correction, make that Sunday for Kenny Rankin. Saturday is when Andre Kostelanetz and the L.A. Philharmonic perform "A Salute to American Composers" at 8:30 at the Dorothy Chandler Pavilion.

Pierre Boulez shows up with the L.A. Philharmonic at the DCP on Sunday at 3:30 p.m.

More locally, there is the Ice House, on Mentor just north of Colorado, currently featuring Steve Gillette (see review), with Maffitt and Davies arriving next Tuesday.

Leo Smit will be performing at Ramo Auditorium on the 14th. See everywhere for details.

If you really insist on staying at home, there are a few radio and television broadcasts worthy

of note. For example, Bergman's *The Seventh Seal* is being shown at 9 p.m. on Saturday on Channel 28, the local NET station. Radiowise, there will be four hours of Grateful Dead on Monday night on KNAC FM (105.5 and weak), 8 to midnight. And for those whose doctor demento fix isn't enough, there is always the National Lampoon Radio show, on KRLA (1110) at 8:30 on Sunday evenings.

I may even have given you enough things to go to that you didn't even notice that it wasn't Harcourt writing this column.

GO SEE THE MUSICAL! (Saturday and Friday are at least approximately sold out at this time, but there's always Sunday.)

—Nick

Your first job may be your last.

It has happened that way often in the past. Many of the college graduates who join us decide to build satisfying lifetime careers in our organization.

Why this decision?

- Perhaps because of the relative stability of Pratt & Whitney Aircraft over the years. This has resulted from a talent for providing continually more powerful engines for the majority of commercial aircraft operated by airlines of the free-world.
- Perhaps a significant factor has been the planned diversification into non-aircraft fields. For example, we have developed jet engines that now provide power for utilities, high-speed trains, marine vessels, chemical complexes and other applications.
- Perhaps the emphasis on new products with exceptional growth potential. Fuel cell powerplants that do not pollute the atmosphere and are far more efficient in producing energy from scarce fuel typify this aspect.
- Perhaps an important plus has been a competitive salary structure and increasingly more important assignments that lead to attractive futures in management.

- Perhaps most important, for many, has been the challenge of working at the frontiers of the art in virtually every technical and scientific field. Certainly, ability is tested to the utmost in improving powerplants that can lift their own weight plus additional thousands of pounds of plane, passengers and cargo. This ability is tested, too, in the development of new and better ways to utilize the world's energy resources.

We have attractive career opportunities for engineers, scientists and graduates in a variety of other specialties such as accounting and business administration. So see your College Placement Office for our descriptive brochure, requirements and interview dates. Or write to Mr. Len Black, Professional Placement, Pratt & Whitney Aircraft, East Hartford, Connecticut 06108.

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The Student Prince

Photos by K. Yoshida and Rich Feldman



Those City Lights

Palomar Seeing Still Good

The environment for observing at the world's largest, most productive telescope, the 200-inch Hale instrument at Palomar Observatory, remains nearly as good as it was 40 years ago when the site was selected, director Horace Babcock of the Hale Observatories disclosed today.

For helping to preserve the excellent seeing conditions, which are free of dust, smoke, heavy traffic and significant artificial light, Dr. Babcock com-

mended the U.S. Forest Service, San Diego County and neighboring ranchers. The observatory is located atop Palomar Mountain, 135 miles from Los Angeles and 70 from San Diego.

Superb seeing conditions are vital in enabling the great 200-inch telescope to make maximum use of its light-gathering power—the equivalent of a million human eyes—which is greater than that of any other operating telescope. This power is needed

for the observation of very faint, distant stars and of galaxies and quasars at the far reaches of the universe. The telescope's observing time is booked up more than a year in advance (the next sound you hear will be the unified grumbling of dozens of AY trolls) by staff and visiting astronomers.

Conceived by Dr. George Ellery Hale, founder of Mt. Wilson and Palomar observatories and built in the 1930s and '40s at a cost of about \$7 million, the big telescope is expected to have a useful lifetime of at least 100 years. Its replacement cost today would be about \$30 million, Dr.

Babcock estimated

"One of the primary reasons for its scientific productivity is that its site was selected with great care," Dr. Babcock said. "After consideration of a dozen alternate sites, Palomar Mountain was chosen as the best possible location in the United States.

"Furthermore, the Observatory Council of Caltech, which was responsible for guiding the 200-inch construction project, took all possible steps to preserve the unique environmental features of Palomar that made this site outstanding. The mountain not only has a high percentage of clear nights, but the air above the mountain is relatively stable, thus providing the 'good seeing' that is so important to astronomers. These conditions are characteristic of western coastal mountains in preferred zones of


latitude."

Dr. Babcock said the night sky glare from artificial lights from the populated areas in the valleys and coastal plains has worsened somewhat over the years. The observatory director emphasized the importance of the lack of artificial lights at night that contribute to sky glare which would affect the exceedingly sensitive light-measuring devices used on the 200-inch telescope.

"Most significant at present are the metropolitan areas of Los Angeles and San Diego," he said. "But smaller communities closer to Palomar also make their contributions to brightening the night sky. To date, this brightening as seen from Palomar is significant but it has not yet reached a critically severe level.

"It is our hope that communities within a 40-mile radius of Palomar will consider this problem when selecting lighting equipment for streets or other outdoor purposes."

"Because the great Hale Telescope is uniquely important in adding to mankind's understanding of the universe and its many kinds of objects, we must continue to encourage the public's support in protecting its environment," Dr. Babcock said.



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Steve Gillette is the featured act at the Ice House this week, and he is well worth seeing. He is better known for his songwriting than for his singing, and this is unfortunate, for he is a fine performer. His songs have been made hits over the last several years by such diverse talents as Ian & Sylvia and the Sunshine Company. Steve Gillette plays guitar and sings, using several different styles for both. His guitar work ranges from banjo-style flat picking to a supposedly 12/4 version of an old 2/4 time horse racing song of a century ago. He sang songs written by other performers, including Van Morrison's "Brown Eyed Girl" and songs like "San Francisco Bay Blues." He does best on his own songs, though, such as "Darcy Farrow" and "Back on the Street Again." My other favorite of the two sets he did was "The Erl King," with words translated from Goethe of an old German legend.

Kolhain and Candee are a guitar duo with just enough talent to be very good, and not enough to be great. They seem to try and overwhelm the audience with vocal power and enthusiasm. When they calm down and just sing, they do some beautiful music. One such moment was when they did a medley of Arlo's "Coming Into Los Angeles" and It's a Beautiful Day's "Hot Summer Days." K & C write much of their own material, and perform it well, but so far they are still just second billing material. They certainly don't detract from a show, however.

Kip Adotta filled in for an ailing comedian, and quite excellently. Kip Adotta has been appearing on television of late, and is a very funny man. Unfortunately, there is almost nothing about his act that is easily describable in this medium, so you will just have to see him. I hope he returns frequently to the Ice House.

Lily Tomlin did a special guest appearance, while trying out material for a TV special which will be seen sometime late this month. The special seems to involve her teenage memories, and from the samples shown, the special should be hilarious.

For those of you unfamiliar with the Ice House, it is at 24 N. Mentor, about six blocks northwest of the Coffeehouse, easy walking distance. The price of admission is a couple of dollars, with drinks and food available but not forced upon you like some clubs do. The musical style

Shakespeare

Continued from Page Three
admissions are \$2.50. The worst news we saved until last: the showings are at 11:00 a.m. (yes, in the morning) on Saturdays and Sundays, but where there's a will, there's a way. (It's called an alarm clock.)

is mostly folk or folk-rock, with a lot of comedy act visiting. A number of major performers obtained their starts on that stage. Some performers who were there in their early days include: the Association, Pat Paulsen, the Irish Rovers, Lori Lieberman, and scads of others. Cheech and Chong were there at one time, and dozens of people come in to try out material in a friendly setting; witness Miss Tomlin. The Ice House is a very nice place to go for an evening flick, and for the cost of a movie in the real world, you get good entertainment and better refreshments than any movie house. Try it some time. I think you'll like it.

—Nick Smith

Colloquy

Continued from Page Two

had spent a good deal of my early time knocking around this country and Europe, trying to find out what I believed in, what values were large enough to enlist my sympathies during what I sensed would be a long and confused life. Had I committed myself at age eighteen, as I was encouraged to do, I would not even have known the parameters of the problem, and any choice I might have made then would have had to be wrong.

It took me forty years to find out the facts.

As a consequence, I have never been able to feel anxiety about young people who are fumbling their way toward the enlightenment that will keep them going. I doubt that a young man—unless he wants to be a doctor or a research chemist, where a substantial body of specific knowledge must be mastered within a prescribed time—can waste time, regardless of

what he does. I believe you have till age thirty-five to decide finally on what you are going to do, and that any exploration you pursue in the process will in the end turn out to have been creative.

Indeed, it may well be the year that observers describe as "wasted" that will prove to have been the most productive of those insights which will keep you going. The trip to Egypt. The two years spent working as a runner for a bank. The spell you spent on the newspaper in Idaho. Your apprenticeship at a trade. These are the ways in which a young man ought to spend his life... the ways of waste that lead to true intelligence.

Two more comments. Throughout my life I have been something of an idealist-optimist, so it is startling for me to discover that recently I have become a downright Nietzschean! I find that the constructive work of the world is done by an appallingly small percentage of the general population. The rest

simply don't give a damn... or they grow tired... or they failed to acquire when young the ideas that would vitalize them for the long decades.

I am not saying that they don't matter. They count as among the most precious items on earth. But they cannot be depended upon either to generate necessary new ideas or put them into operation if someone else generates them. Therefore those men and women who do have the energy to form new constructs and new ways to implement them must do the work of many. I believe it to be an honorable aspiration to want to be among those creators.

Final comment. I was about forty when I retired from the rat race, having satisfied myself that I could handle it if I had to. I saw then a man could count his life a success if he survived—merely survived—to age sixty-five without having ended up in jail (because he couldn't adjust to the minimum laws that society

Continued on Page Eight

2TPI

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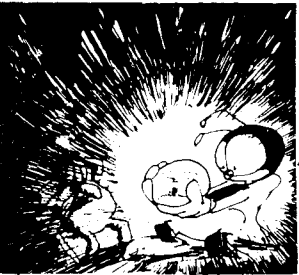
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audience



There is a major advantage to the Star System, a major methodology in L.A. live theater, and there is also a major disadvantage. The former is that people come out to see the play in question. The latter is that they expect the Stars to put on a star showing. Not that I would claim the current *Macbeth* at the Music Center features any black holes, but one or two aspects remind one of Kohoutek, and there isn't a nova in sight.

Charlton Heston and Vanessa Redgrave are the particular stars in question here, an odd pairing most likely possible only in Los Angeles. One is tempted to expect a *Macbeth*, Son of Earthquake, or something; it's not clear just what one gets. Lots of interesting ideas in directing,

an excellent and fluid set that maintains action well, some penetrating music that might have been stolen from any of several Interhouses I've known, nice costumes, one gets those, but not a truly gripping performance from anyone onstage.

Those Really Were

Ms Redgrave performs capably enough, but this is one of the richest parts in the field, and she doesn't do much with the sleepwalking scene. Another comment concerns some of her physical interpretations: whatever Lady Macbeth is, she probably isn't a cheerleader. Still, *Macbeth* is the key figure; after all, his Lady is brushed aside well before the end. It is from Heston that the cast needs strong leadership, and his major weapon in the interpretation struggle seems to be to stand transfixed. I hope this is a temporary aberration (or else the Ten Commandments were delivered to him insured).

One rather kept waiting for a pigeon.

Perhaps all this is a bit harsh. After all, the play itself is a noble creation, there are the abovementioned assets, names are names, and many (at least) of the audience seemed to be enjoying themselves. Perhaps I am just getting old and crotchety. (I can tell I'm getting old because my feet shuffle enough on the Music Center rugs to give me awful shocks at the water fountains, and the ushers have started directing me to the escalators instead of the stairways. My crotchets you needn't bring up.) Certainly some of the innovations with the *Weird Sisters* (well, would you believe androgynes?) are effective, especially turning them into the murderers of Banquo, in such a way as to further both *Macbeth's* rise and his fall. And other moments are memorable.

Very Weird Sisters

But the disappointments are considerable, beginning with the unreasonable disappointment of having dashed one's high hopes, nurtured on the Stars. (L.A. theater must learn that the Star must be hitched to the right vehicle. Instead, we soon get Glenda Jackson in *Hedda Gabler*.

My God.) For one thing, if battle scenes can't be done at least moderately convincingly, they ought to be left out or put mostly offstage (which is easy to do in *Macbeth*, where many of the momentous happenings are there). Having a tyrant brought down by a crutch has to be near the all-time low. (I understand that this bit of business was unplanned, the result of a bad fall by Macduff, Richard Jordan, and the crutch will presumably

be dropped when no longer needed.) There are some other minor annoyances too: late patron seating distractions again, a program full of rotten photography with a red cover that apes the hand-wringing scene by smearing, some lost lines.

It is to be hoped that everything pulls itself together, because I do believe that a good performance is lying inside this one, waiting to be let out.

—Etaouin Schroedlu

The Critical Ear

McLean Mixes Moods

Homeless Brother by Don McLean, United Artists Records.

In 1913 a one-legged old hobo fell off a freight train in Central Texas. He lost his remaining leg in the fall, and died there in Marlin. He was taken to a funeral home, where his body remained unclaimed, and so was mummified. No friend or relative ever came forward to claim his body and lay him to rest. Eventually, a carnival came through town, and left with the body as one of their sideshow attractions, the "Amazing Mummy Man, Eighth Wonder of the World." For reasons as yet obscure, a nurse in Dallas bought the mummy from the carnival many years later and kept him in her basement. In a somewhat belated attack of conscience, the nurse found out a couple of years ago who the mummy was and decided to bury him. And so, sixty years after his death, Anderson McCrew was buried.

Don McLean's new album is about this man and others wanderers. There are still the typical Don McLean love songs, but this time there is more of a Woody Guthrie overlay. The cover shows a man and a dog sitting in a shack by a railroad line. Old shoes and railroad ties appear throughout the album. Pete Seeger guests on the album on the title song. Everything is there to convince the listener that here is a new album in the Lonesome Hobo genre from the last Depression before this one. The music is technically good for that sort of thing, and everything is all smooth and greasy. In fact, too much so. The album is just not convincing. Considering the way the song comes out, "The Legend Of Andrew McCrew" just doesn't come across as a singer concerned about the neglect of a man for 60 years. It more comes across as Don McLean trying to write a song about a pitiful man, and just not being able to write a sad song.

Grant

Continued from Page One

Medicine. He served as a senior investigator at the National Cancer Institute, Bethesda, Md., from 1967 to 1970, and joined the Caltech faculty in 1970.

The Camille and Henry Dreyfus Foundation, founded in 1946, established the teacher-scholar grant program under which the award to Dr. Hood was made. It is designed to give the recipients maximum freedom to develop their potentials both as teachers and as scholars.

There is excellent music on this album, don't get me wrong on that. The author of "Vincent" and many other beautiful songs still has the talent to write and sing beautiful songs. The problem is that *beautiful* is the wrong adjective for a hobo song, and that's what these come across as. The music is very good, it's just that the "mood" songs are not convincing.

Don McLean wrote most of the songs on this album, but he includes the old "Crying in the Chapel" and a George Harrison song, "Sunshine Life For Me." He does excellent jobs on these, but the best is probably "Winter Has Me In Its Grip," which has Yusef Lateef doing flute in the background as well as the type of soft lyrics that are a part of McLean ballads. "Wonderful Baby" has been played to death on the radio. Were that not so, I might find myself able to enjoy it, but right now I can't. Overall, *Homeless Brother* is good, but by no means the best thing that Don McLean has done.

—Nick Smith

Whittier Edges Without Referee

The Caltech wrestling team had its plans for a league championship seriously disturbed on Wednesday with a narrow loss to Whittier College. The official referee failed to show up, so Caltech coach Tom Gutman, and Whittier wrestler-coach Dave Navarro split the judging duties. When it was all over Whittier left with a 27-21 victory.

At 126 lbs. Willy Moss managed a one point win for Tech, almost losing out in the closing seconds. At 134 Rich O'Keefe was sent out to combat Navarro. Moving right along, Bob Loveman almost scraped out a win for the Beavers at 142 lbs. At 150 lbs. Chris Russell was pinned by Whittier's Jim Behrens. At 158 lbs. Steve Vik was burned by the referee, and his opponent received penalty points to scrape out a win. Tom Snyder and Vince Fratello collected two more pins for Tech, giving the Beavers a three point lead. Art Gooding was bounced (literally) at 190 lbs. for a loss, leaving things all tied up going into the heavyweight match. There Jeff Kelber, making a desperate effort to win it all, made a mistake and was pinned to give Whittier the meet.

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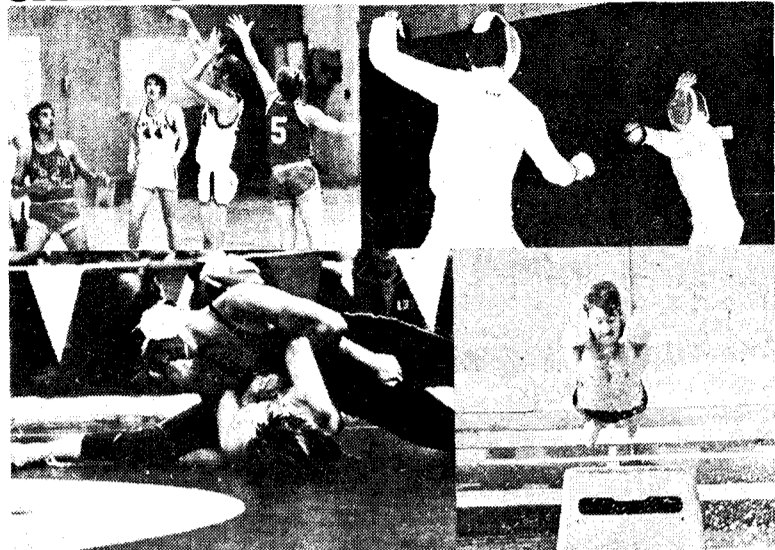
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Page Eight

Friday, February 7, 1975

Baseball Revving Up

by John Dilles

Spring is coming and with it baseball season. Already at Caltech the Beaver squad has been practicing for three weeks now and is preparing for its first scrimmage (scrimmage???) that is scheduled for late February.

The prospects for the team look particularly bright this year for the Beavers. As well as having a number of seasoned upperclassmen ballplayers returning to the team, there is also one of the largest and most talented group of freshmen ballplayers that coach Preisler has seen for several years. Among the freshmen are Steve Eckman, first baseman from Ricketts; Richard Gayle, a catcher from Page; and Doug Roundtree, a pitcher from Dabney; as well as Josh Rothemburg (Ri), Dean Sanzo (Fl), Jesse Slater (Fl), and Chris Wheeler (Ru). Also among the new recruits are upperclassmen Rennaye Johnson (Jr., Da), Rick Kahler (Sr., Ru), and Mark Swanson (So., Ru).

These new players will be joining lettermen Rick Mitchell (Sr. Ru), a seasoned pitcher, Ed Rea (So. Pa), one of the best pitchers and hitters that Tech has seen, John Dilles, (Jr. Fl), a good fielding shortstop, and Larry Bridges (So. Ru), a veteran outfielder. The team also has Cindy Duckert returning as manager; she will be assisted by Dan Rader (Fr. Ru) in the job.

The promise of the team is very high according to coach

Preisler. This year's team will have a complete pitching staff, catcher, and infield, something that past teams have been sadly lacking. The large crop of freshmen will make Caltech baseball competitive and exciting in future years. Of course, any of you baseball buffs out in the undergraduate world who are reading this and have a desire to play are invited to come down to the baseball diamond and try out.

Discobolus Basketball

Dudes Outlast Cold Flems

by NS

The long winning streak of the Big Red Flems has come to an end in Discobolus, true to their own foreboding in last week's issue. They lost in basketball to Page by the amazingly low score of 34-29. I have been told that the score is not very amazingly low for Discobolus action, but it is low, all the same.

The way it came to pass was thusly: In the first quarter, Page made three free throws and five baskets for thirteen points, while the Big Red Machine managed nine points. The second quarter was where things started getting strange. Page continued reasonably with ten points, but the Machine ground completely to a halt, being shut out. This left the halftime score at 23-9 Page, with only five fouls on the White Horse squad, and eight on the Red. The mind boggles at a shutout quarter. 23-9 is an acceptable halftime score in football, but in BASKETBALL?

The third quarter was almost as bad, with both teams forgetting which end of the basketball was up. Page managed five points in the third, outscoring Fleming's four. This made the third quarter

score a rousing 28-13, still well in football range. In the fourth quarter, the Big Red Machine finally turned over its ignition a bit, managing eight baskets in the quarter, holding Page to one basket and four free throws. It wasn't enough, however, as Page staggered along with a shrinking lead until the final buzzer. Final score, Page 34, Fleming 29.

In the stats column, it seems that the difference in the game was the fact that Fleming managed to convert only 1 free throw, to 10 for Page. When you consider that Fleming only finished the game with two more fouls (15) than Page (13), this might be somewhat indicative of a lack of free throw shooting. Any statistic in which the difference is an order of magnitude in favor of the winner has a good chance of being important.

Leading scorers in the game were: Crumpton (Fl), 13 points, 5 fouls; Cooper (Fl) 8 points, 3 fouls; Lee (Fl), 6 points, 4 fouls; Pender (Pa), 8 points, 5 fouls; Locanhi (Pa) 8 points, 1 foul (clean playing and clean living); Mark Bandhauer (Pa), 10 points, 1 foul; Mike Bandhauer (Pa), 5 points (all on free throws!), 3 fouls. You may notice some

similarity between the Page scorers and the varsity starting lineup. This might give a clue to why Fleming seemed a bit fatalistic about the match. So it goes.

Blacker House is the next challenger.

Colloquy

Continued from Page Six

requires) or having landed in the booby hatch (because he could not bring his personality into harmony with the personalities of others).

I believe this now without question. Income, position, the opinion of one's friends, the judgement of one's peers and all the other traditional criteria by which human beings are generally judged are for the birds. The only question is, "Can you hang on through the crap they throw at you and not lose your freedom or your good sense?"

"I am now sixty-four and three-quarters, and it's beginning to look as if I may make it. If I do, whatever happens beyond that is on the house... and of no concern to me.

[CAMPUS COLLOQUY. All rights reserved]

Smith-Schroedlu Sports Menu

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Saturday, February 8		
All Day	Wrestling	Biola Invitational Away
10:00 a.m.	Swimming	Pomona-Pitzer Home
1:30 p.m.	Tennis (var)	Occidental Away
1:30 p.m.	Tennis (jv)	Occidental Home
2:30 p.m.	Track	Azusa-Pacific Away
6:00 p.m.	Basketball (jv)	La Verne Home
8:00 p.m.	Basketball (var)	La Verne Home
Sunday, February 9		
11:00 p.m.	Ice Hockey	C.S.U. Northridge West C Covina
Monday, February 10		
12:30 p.m.	Golf	P.C.C. Home
Tuesday, February 11		
3:00 p.m.	Tennis (var)	Point Loma College Home
Wednesday, February 12		
6:00 p.m.	Basketball (jv)	Redlands Home
8:00 p.m.	Basketball (var)	Redlands Home
Thursday, February 13		
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8:00 p.m.	Fencing	P.C.C. Home

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