I'd never work

The CALIFORNIA Tech

for peanuts

Volume LXXVIII, Number 12

Pasadena, California Friday, January 7, 1977

ASCIT Musical...

Has the Dolls, **Needs the Guys**

by Stan Cohn

Early this week, before any problem sets on reading assignments were handed out by professors, the call sheets were delivered and the cast and orchestra of Guys and Dolls, this vear's ASCIT musical, began their long schedule of rehearsals. The cast began their rehersals last Tuesday evening with a reading of the entire play, accompanied by pianists John Gustafson and Kathleen Kong. The cast and orchestra will be following a demanding and time-consuming schedule for the next seven

Heading up the staff responsible for making a unified and enjoyable musical is the director, Shirley Marneus. Organizing the music and sets in the play are music director Steve Goodenberger and technical director Tod Lauer. The producer of the show is John Gustafson. The musical's official faculty advisor is Joyce Penn of the Humanities depart-

This staff is responsible for creating sets, lighting, and atmosphere for the play. They also run the rehearsals for orchestra, and the singing, dancing, acting, and blocking.

However, the spaces in the musical are not completely filled. There is still a need for people to work on the crew, and men are still needed to be crapshooters in the play. For more information on entering into the musical, contact Flora Boyer in Winnett Student Center, ext. 2157.

The play will be held Continued on Page Three

by Bert Wells

The surveying of students for

the upcoming edition of the

Teaching Quality Feedback Re-

port is under way. There's a new

The student committee re-

onsible for this project, the

Educational Policies Committee

(EPC), has devised a new ques-

tionnaire and a new distribution

system. The changes aim to

routine this year, though.

IQFR Changes Procedures

To Increase Student Response

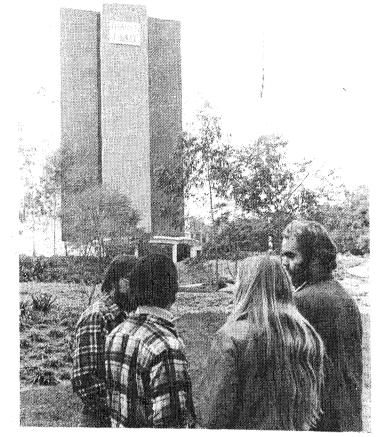


Photo - Dave Wheeler

Darbs show a sign of appreciation for Harold Brown's recent nomination

Brown Set to Leave This Month For Defense Post

Brown will leave the Institute in January to become the Secretary of Defense in the Jimmy Carter Cabinet. His nomination was announced last month in Plains.

Brown was nominated amidst crossfire from military hawks who preferred former Defense Secretary James Schlesinger. Schlesinger, a hard line hawk, reportedly impressed Carter with his expertise and intelligence. However, Brown was widely seen to be his first choice, although

Caltech President Harold Magazine) reported that Carter would have preferred Schlesinger. In any case, liberal Democrats pressed for the Brown appointment and eventually got it.

Brown, who was in the Kennedy Administration as one of Robert McNamara's "Whiz Kids," was nicknamed Childe Harold (after the poem by Byron) because of his young age (33). Brown, now 49, is regarded as too soft by many, but is seen as an efficient administrator with an excellent background in weapons systems. His actual idealogical position seems unclear. According to Edward Teller, a leader in the development of the hydrogen bomb, "Harold is a realistic, nondoctronaire person.' Many people call him a pragmatist, a term which he considers "relatively friendly."

Brown has been in the middle of a recent controversy about the defense budget for next year. In his campaign, Carter promised to reduce the defense budget by five to seven billion dollars. Recently, however, after talking with Brown, he has hedged by

Continued on Page Two

Brown Expansion Proposal Draws ASCIT Protest

A student survey was recently conducted by ASCIT to determine the attitude of the student body toward the proposal of Caltech President Harold Brown to increase the size of the undergraduate class here to 1000. The results were 77% against the proposal, 21% for it, and 2% expressing no opinion. The ASCIT Board of Directors then wrote an open letter to Brown expressing their disapproval of the plan. In particular, they seemed concerned about

fate of the Honor code and the caliber of the students in a larger class. In his reply, Brown stated that his proposal was a little more than a continuation of the present growth rate (about 2% a year) into the next decade. He also indicated that such a slow increase could be halted at any time if negative effects showed up. His reply, along with the ASCIT letter, in which he also enumerates his opinions about the beneficial effects of such a change, is printed below.

ASCIT to Brown

We on the ASCIT Board of

Engineering Scholarships

dents in 26 California colleges and universities have until January 20 to apply for \$8,500 in upper division scholarships to be awarded in the spring though the Consulting Engineers Association of California (CEAC), it was announced this week by Wallace L. Donley, president of the statewide organization headquart-

Donley, president of W.L. Donley & Associates, Fresno, said the scholarship competition recently inaugurated by CEAC is open to all students scheduled to enter in 1977 their third year of studies leading to an engineering degree in schools accredited by the Engineers' Council for Professional Development (virtually all of the state's public and

Continued on Page Three

Dear Dr. Brown,

Directors are seriously concerned about your plans to expand the size of the student body. In particular, what are the advantages of increasing the number of undergraduates in what is now, we feel, a fairly workable balance between students, faculty, facilities, and resources; do they compensate for the problems likely to accompany such an increase? How will the figure of 1000 students make Caltech a better place than the present

Second-year engineering stu-

ed in Burlingame.

private colleges and universities).

contact all students and question them quickly, albeit carefully. promptly. Every year the EPC attempts to Questions concerning the surimprove the accuracy of the vey can be directed to the house

TQFR in rating teachers and courses; surveying many students and asking straightforward questions is an important prerequisite With the cooperation of the

Registrar, the EPC is using computerized enrollment information to mail questionnaires to undergraduates for some courses they took last term. The survey encompasses courses including will be mailed to collect information about second and third term courses and especially year-long courses.

Ma 1, Ph 1, Ph 2, and all

single-term courses. Later this

year additional questionnaires

eration, the EPC anticipates the publication of a perceptive, accurate and highly useful report. Please examine your letter carefully and express your opinions

representatives of the EPC:

Blacker: Shrikant Garde Robert Chess Dabney: Tom McDonnell Tough Luck Fleming: Marc Berger Lloyd: Tough Luck Page: Ryn Miake Ricketts: Alan Silverstein Ruddock: John Gustafson

Bert Wells

ATTENTION

There will be a meeting of all people interested in writing, photographing, or laying out The Tech in 126 Baxter at 12:15 today Attendance is required. Contact Al Kellner, Henry Fuhrman or Gregg Brown for further details.

Most importantly, at what point do you feel that "signs of overcrowding" will signal a halt to the expansion? In the opinion of a number of students, shortages in many areas have already reached a point of concern, in particular, in the availability of student housing, the number of chemistry lab facilities, and the level of financial aid, to name a few. Are there plans to increase facilities and resources proportionally with the student body, or will these impending shortages result in a decrease in the quality of life and education at Caltech?

Finally there is the potential impact of an expanding student body on a number of intangibles-those elements which, in the opinions of some, set Caltech apart from and above other larger institutions: the caliber of the individuals, the Honor System, the spirit of the student body as fostered in the student houses, which might be diluted if a large portion of the students are housed off campus, and the degree of personal contact at the

In short, we feel that the repercussions of the proposed increase warrant serious consideration, and we would greatly appreciate your comments on the

> Sincerely, Edward Bielecki Thomas J. McDonnell Robert Chess Ken Rousseau Edward C. Rea, Jr. Bert Wells Kevin Gromley Leroy J. Fisher II

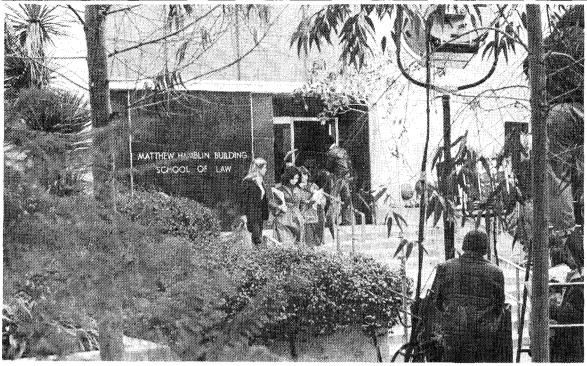
Brown to ASCIT

Gentlemen.

I have your recent letter related to the size of the undergraduate student body here at Caltech. The questions you raise are important and continuing ones.

Caltech has a long tradition of being small and also very select. These characteristics apply particularly to the undergraduate student body. I believe they are

Continued on Page Two



Even Caltech couldn't escape the drama of "Family" as the Keck Laboratory was transformed from an innocent sweatshop into the awe-inspiring Matthew Hamblin Building School of Law for the filming of the TV show.

President Brown Answers ASCIT Criticisms

Continued from Page One responsible in large measure for what we see to be a close-knit student group that has promoted such important aspects of student life as a working Honor System and a personalized, supportive society. Surely all of us at Caltech want to retain those qualities in any evolution of our undergraduate program. If you look back at recent history. both the number of undergraduate students and the number of faculty have had noticeable statistical variations. This means that depending on what is taken as the base period, widely varying trends can be found. Taking the last decade, which tends to exaggerate growth because 1966 was a year of abnormally low enrollment, we find that the number of undergraduate students has increased at an average rate of a bit under 2% per year. Of this increase about half corresponds to the addition of women to the undergraduate student body. In that same overall period the faculty has increased less than 1% per year, being almost

Your letter identifies some problems of which I am very much aware, related to that growth in size of the student body. The most substantive of these is the limited student housing on campus, because of which in recent years not all of ur new students who so wished have been able to be accommodated with rooms in the student houses. Of course, there are some advantages to a variety of housing arrangements such or even beyond that which we now have, for not all students find the student houses ideal.

constant during the more recent

part of it.

There have also been changes in the pattern of financial aid which now requires more selfhelp from the student. These changes are principally due to the increase in tuition rates and in living expenses over the past decade by about the same amount as the consumer price index. But if we had been able to bring in as much student aid money from donors without increasing the student body size, the amount of student aid per

student would obviously have chemistry laboratory facilities. risen more rapidly than it has.

Utilization in hours per week for classrooms and by various measures for undergraduate laboratories is very low at Caltech in comparison with other distinguished institutions. However, certain times are preferred by students and faculty even within school day and week. As a result, there exist some problems with class scheduling and in

Aside from these sorts of problems, which are real and need attention, I would be hard-pressed to identify deterioration in the quality of undergraduate life that can be associated with the increase in size of the undergraduate student

A firm decision to continue the rate of growth of the past

Brown Nominated to Defense Post in Carter Cabinet

Continued from Page One

saying that that much could be saved by cutting waste but that the actual budget might not go down. In an interview with Time magazine, Brown had this to say about the defense budget:

"There are issues that need to be looked at--military pay and retirement programs, training programs, the rapid movement of

the military from post to post, the creep upward into higher salary levels, the duplication between ourselves and our NATO allies on different systems. In every case where we are getting less for our money than we should be, there are historical, bureaucratic, political reasons for it. That's the way democracy works. But it means that it's hard to get these things out of the budget."

On other important issues, Brown has not committed himself definitely yet. He favors the resumption of the SALT negotiations, but says the U.S. should not "feel under the pressure that if we don't give in on some things by October (when the original SALT treaty expires) the world will come to an end...' On the question of the B-1 bomber, he made the following statement to Time:

"The manned bomber does have certain advantages--you can raise its readiness, which is a visible sign, and it can be recalled (while a missle, once fired cannot). On the other hand there are air defenses that make its attrition rate high, and it is vulnerable on the ground. Its big advantage is th t it provides a different kind of penetration so that it complicates the other side's problems. The question is: How much can you afford to pay for that, as compared with the other ways you could spend the funds?" Once again, a careful, noncommittal statement

In a letter to Caltech students. Brown expressed his regrets on leaving the Institute and promised to tie up any loose ends before he left. The selection process for a new Institute president can take form six to 18 months and in the meantime Provost Robert Chritie will act as interim President.

The CALIFORNIA **Tech**

Volume LXXVIII Number 12 Friday, January 7, 1977 Published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Incorporated. The opinions expressed in all articles are strictly those of the authors and do not necessarily reflect the views of the editors or of the corporation,

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The California Tech publications offices are located in Winnett Student Center (105-51) California Institute of Technology, Pasadena, CA 91125. Telephone: 795-6811. X2154. Printed by News-Type Service, 1506 Gardena Avenue, Glendale, CA. Second class postage paid at Pasadena, CA.

> Subscriptions term - \$1.50

year - \$4.00 life - \$100



So You Want to be in the Movies?

by Etaoin Schroediu

"How'd ya like to be in the movies?" Here's your chance.

No, nobody said that old line to me, but then I don't look like Lana Turner either. Nevertheless, I was in a movie this month, as an Extra, and you can be, too. It all started one evening in late December when I walked down into Westwood Village to get something to eat. A lot of weird things go on in Westwood, and that night was no exception. A woman was standing on a street corner holding a poster saying "Movie Extras Wanted For Cassavetes Film." That's John (Rosemary's Baby, Faces, A Woman Under the Influence) Cassavetes, the actor-turnedactor/director/producer/etc. Cassavetes puts out low-budget films, and so does not use union member actors for the extra, faces-in-the-crowd parts. This explains how ordinary people can get such "parts," when most of the time only the large number of unemployed professionals can get them. Another reason is that we weren't paid ("All you get is lunch and the experience."), which limits the potential competition.

"All of Your Mugs . . .

Anyway, I spent most of Jan. 3 and 4 being in the movie. The cast included Cassavetes, Gena Rowlands (who deserved the Academy Award for her performance in A Woman under the Influence, which was directed by

Cassavetes), Joan Blondell, and Ben Gazzara, all of whom were very much in evidence. The script called for a play-within-amovie – the extras were the New Haven audience for the play – and for most of the two days we got to watch various parts of the play being acted on the stage of the theatre we were in (which was not in New Haven, but at Wilshire and LaBrea in Los Angeles) while the cameras shot the actors, us, and the actors and

Actually, most of the time not much was happening, except for occasional rearrangements of audience - there weren't enough of us there to fill the theatre, so whenever a camera angle was changed, we got moved around to make it look like 'a full house.' If you look carefully, you may see me, for instance, in several different parts of the audience.

...Will Be In It." -J.C.

The tentative name for the movie is Opening Night, and the real (i.e., New York) opening night scenes have not yet been filmed. This is where your chance comes in, dear reader. Mr. Cassavetes told us that these scenes would be shot in the Pasadena Civic Auditorium on Jan. 19-22. "The Pasadena Civic seats 3,000; we couldn't find a theatre in New York seating that many, so we're using it." People who want to be extras are welcome to show up, "at 9 a.m.,

ary 13, at 7:30 p.m. in Sloan. The topic of the lecture will be "The Triangulation of Manifolds." Refreshments will be There will be a meeting of all

Guitar Classes

News Brief News Brief News

Classical and flamenco guitar classes with Darryl Denning, guitarist, will begin for the winter quarter on January 11. Classes will meet each Tuesday in Fleming Music Room with the Beginning Class at 4:30 PM and the Intermediate Class at 5:30 PM. Classes are free to Caltech students. Private instruction can also be arranged with Mr. Denning. For further informa-

served after the talk.

old members on Saturday, Jan. 15 at 1:00 p.m. People wishing to take on a project (there are a number of them) instead of participating in the general clean-up may see a committeeman. The lock will be changed and new keys issued. People wanting to join for the first time should meet at the Student Shop, next to the game room, at 2:00 p.m. the same day.

Triangular

Student Shop

Meeting

Refreshments?

There will be a meeting of the Math Club next Thursday, Janu-

tion, please call 650-1692. THE ASCIT FRIDAY NIGHT MOVIE

THE IPCRESS FILE

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

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

10 a.m., or 2 p.m." to take part. Since this is supposed to be a real theatrical opening night, men are supposed to wear dark suits; Cassavetes said "The women can wear anything," but I presume that semi-formal attire is demanded. No pay will be involved, no makeup will be involved, no fame is likely to be

involved, but the experience is

available for all.

One last note: since most of the day's 'work' consists of waiting for something to happen, a warning is in order for those who have low patience thesholds. (That's not a problem I have anymore; a tour in the Army and a lifetime of being a student have cured me.) Take along a book to read, or something. (Not Feynmans; they're too large, and

I won't try to describe what went on, or the plot of the movie/play (actually, it was very confusing); try it yourself, if you're intrigued - for the experience, if not the fame and fortune. At least it'll give you something to write about in your letters home.

Guys / Dolls

Continued from Page One

February 25, 26, and 27, and tickets are now available at the Caltech Ticket Office, ext. 1652. These shows are usually sold out, so buy your tickets early, and you can see the gleaming product of two months of polishing. We bet you'll love it.

Steel Grants Tech \$100 K

United States Steel Foundation, Inc., has authorized a grant of \$100,000 to the California Institute of Technology's "At the Leading Edge . . . " campaign to raise \$130 million, it was announced by President Harold Brown. The grant, which may be used at the Institute's discretion, is part of the Foundation's \$1.25 million program of aid to higher education during

A check for \$50,000 – the first of two payments on the pledge - was presented to Brown by Ralph W. Seely, vice president and general manager of the Western Steel Division, U.S. Steel.

In acknowledging the grant, Brown stressed its importance in helping Caltech to continue to play "a unique role in education and research."

"Caltech's vitality as a leading private institution stems to a great extent from our success in attracting significant funding from the private sector," he said. "The Foundation's decision to make this investment in research and education at the Institute reinforces our confidence for the future."

Brown said the Foundation has recently supported two additional programs at the Institute. In one of these, the Foundation made a \$10,000 grant to establish the U.S. Steel Foundation Loan Program at Caltech. This program aids stu dents working toward PhD degrees in physics, engineering, and chemistry.

In the other, the Foundation funded the first annual U.S. Steel Foundation - National Association of College and University **Business Officers Cost Reduction** Incentive Awards Programs. In this competition, sponsored by NACUBO, Caltech won the \$10,000 grand prize for the invention of a "phantom tube" for double-socket fluorescent light fixtures. This tube produces no light, but it replaces one of the fluorescent tubes in a standard fixture. This invention makes it possible to maintain a relatively even level of illumination while decreasing lighting levels and energy consumption.

Engineering Scholarships

Continued from Page One

Students will be judged on scholastic as well as extracurricular attainment. They must indicate an interest in the possibility of entering the private practice of consulting engineering.

CEAC will award up to four \$500 scholarships in March and then enter the winners in a national competition sponsored by the American Consulting Engineers Council (of which CEAC is an affiliate), where they will compete for a \$3,500 scholarship and at least three \$1,000 awards.

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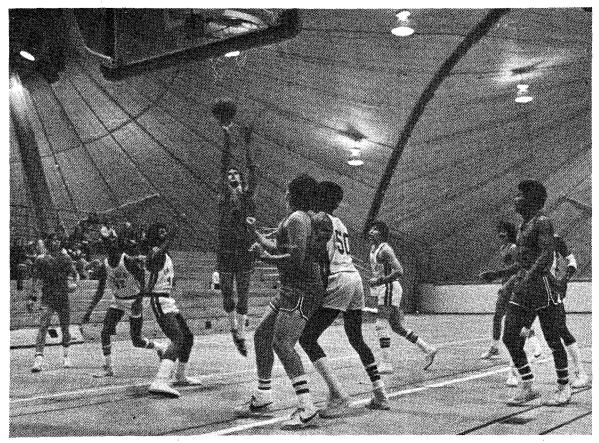


Photo — John Loo

Spectacular play by Joe Zasadzinski helped the cagers keep the finals final score within 50 points of LaVerne.

Brown Answers ASCIT Criticisms

Continued from Page Two

decade for another decade into the future would require careful thought. But no such decision is now needed. My own previous comments have been meant to indicate that I believe the problems we can forsee in such a course are not insoluble. With my responsibilities for the institution as a whole, I see some advantages to the prospect of a gradual increase through a continuation of the recent growth rate in the undergraduate student body of less than two percent a year, while carefully monitoring the effects of this slow growth. If experience shows negative effects sufficient to stop, we can do so before a severe effect occurs. If not, such growth would produce an undergraduate student body size of about 1,000 in another decade.

Some of the advantages I would see from such a course are economic-in particular the economics of scale. With a larger student body, we would be likely to utilize a number of available facilities that are at present not fully used. Furthermore, our case for obtaining funds for various purposes in the interest of undergraduate education and life here, from private sources in particular, is better if our student body is growing, at least slowly. Some very small classes could well be improved with a few more students in them to provide more interaction. Some of the present student activities, which now suffer from too small a student involvement, would profit from being able to draw on a larger student body. And I do believe that Caltech has a societal responsibility to offer a Caltech education, which I am convinced has no equal elsewhere, to the maximum number of qualified students consistent with our maintaining the exceptional quality, in both academic and nonacademic terms, that characterizes our present offering

As long as the Admissions Committee, making their best judgment on ability and interest, finds a pool of applicants sufficiently large, as long as the changes are made very slowly and with a careful eye to their effect and as long as, in balance, the effects appear positive, then some modest increase in Freshman admissions and/or upperclass transfers seem to me to be worth considering. We will continue to solicit inputs and comments on these ideas from all segments of the Caltech community.

Sincerely, (s) Harold Brown



Cagers Lose to LaVerne 98-51

Despite a markedly improved performance by the Caltech varsity cagers, LaVerne College easily outdistanced the Beavers 98-51 last Wednesday night at LaVerne. Greg Sharp led the attack for LaVerne with 27 points, as he scored at will from the center position. Dill and Vasquez also hit double figures as they scored 14 and 10 points respectively.

The game began well for the Beavers. Ponder and Blaisdell each hit their first shots, and Tech led 4-3. The two teams then exchanged the lead until two straight baskets by Tech gave them a 10-7 edge. The LaVerne defense then stiffened and Ruffian tallied a three-point play to put LaVerne back ahead 12-10. Croes scored for Tech to tie the game, but LaVerne then

News Briefs

The Deep Space Team

Last term, a model rocket society was started in Lloyd and we are now ready to go campus wide. It is an informal group of Tech students who enjoy building and flying model rockets. Some advantages of joining are a 10% discount on Estes orders, use of the Caltech field (finally!), and access to an ever growing engine stockpile. Launches generally occur every week or two, weather permitting. All are welcome; for more information see Jose Helu in 117 Llovd.

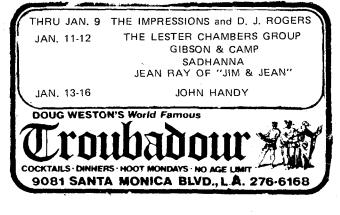
Naval Game

Saturday, Jan. 8 the Caltech Gamers will refight the battle of Mers-el-Khebir. The action will start at 7:30 PM in Dabney Hall Lounge. All are welcome.

Boodbye Childe Harold



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ripped off 10 straight points and the game was never close again.

The improvement for the Tech team stemmed from a change in offensive formation that put Joe Zasadzinski at the high post and freed Greg Blaisdell to the forward position. John Pender also drove well to the basket as he scored 15 points. The team as a whole shot 40% from the field and only committed 11 fouls.

The major problems for the Tech squad included an inability to beat the press consistently, shut off the fast break, and control the defensive back boards.

The game was very physical and rain leaking through the roof caused some treacherous footing on certain parts of the floor. Fortunately, no major injuries were incurred by the Techers. In addition, Ernie Louis is back in action as his wrist took only half as long as expected to heal. The team's next game is tonight at L.A. Baptist.

In the JV game, LaVerne romped to an 81-24 victory. Doug Brandt led Tech with 6 points in his first game with the JV. LaVerne was paced by Gracey with 16 points.

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