Tech - for

Dedication of the New Behavioral Biology Laboratory Over the Weekend

Members of Fleming House held an unscheduled and somewhat premature dedication of the new Behavioral Biology laboratory over the weekend. The lab is named for a distinguished alumnus.

Since then, several other approaches to building a speaking machine have been tried. One, followed by Alexander Graham Bell in his youth, involved attempting to recreate the human vocal apparatus with artificial materials. Using guta percha, wood, rubber, and some ingen­uity, Bell and his brother pro­duced a machine which could say “Mama!” so convincingly that one woman ran into the room in utter consternation, wondering what her baby wanted.

Other approaches were made to re­produce the human vocal system using bellows for lungs, reeds for vocal cords, and various systems of resonant cavities, whistles, mov­ing orifices and the like to re­present the complicated acou­stical system formed by the throat, mouth, palate, teeth, tongue, lips, and nasal cavity.

Electronic Wizards

More success came in the 1920’s and 1930’s with the application of electronics to the problem. Using oscillators for vocal chords and resonant cir­cuits for most of the rest, Bell Labs produced a device called the Voder for the 1939 World’s Fair. Played by a skilled opera­tor, the Voder’s ten or so keys plus wrist switches and foot­pedals did a remarkable job of creating artificial speech which was at least recognizable.

In work still continuing, com­puters are used to drive more sophisti­cated speech synthesizers.

Machines Can Speak Up

by Phil Neches

The “leprechaun of Caltech,” Dr. John R. Pierce, spoke about speaking machines at Monday’s Tech and JPL people and $6.00 for Techers.

Interhouse Sing

Lives; Changes,

Draft Resistor Harris

Raps on Prison Life

by Schroedla

There’s no loneliness like getting out of prison.”

David Harris, Resistor, activist, speaker, felon, was rapping in Winnett Center.

“You learn that it’s not just a game of words — you’re vulner­able, and you can be hurt.”

David Harris was explaining his trip. Not preaching, not exhorting, not insisting, but describing, telling what he did and how he felt and why he did it.

“I simply decided that I couldn’t be a happy person while the things going on in Viet Nam, for instance, were going on.”

David Harris opposes much of what the American government is doing, and the American govern­ment put him in jail for it. He learned from the experience: “Every American prisoner is a political prisoner — they’re all there not because of what they did but because of the circum­stances under which they did it.”

If the government hoped to rid of David Harris so easily, they were wrong. “In my line of work you have to expect a lack of security from the enforcement agencies.”

“Line of work”: it’s a job, a job he wants to do, a job that he thinks needs to be done, and he’s doing it. With respect for other people and their opinions and problems and trips. Decently, openly, with concern. That’s all.

Two Run-off Today

Joe Morin Elected ASCIT President

Joe Morin was elected the new ASCIT President Friday with a bare 50.7% of the vote. His victory over Ron Horn and Phil Neches produced a three-way runoff (hopefully) to be held today. For the presidency of the ASCIT, the members of ASCIT will have to choose between Lee Zens and Steve Wat for a second time. Due to a large vote for “others” neither candidate received a majority; the first time around. The voters will also have to choose between Jim Hugg and Steve Kelem for the joyful job of running the ASCIT movie.

The races for two offices, Secretary and Treasurer, re­sulted in runoffs which will be held today. For the treasurer the members of ASCIT will have to choose between Lee Zens and Steve Wat for a second time. Due to a large vote for “others” neither candidate received a majority; the first time around. The voters will also have to choose between Jim Hugg and Steve Kelem for the joyful job of running the ASCIT movie.

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Is Drop Day Fair?

About three weeks ago, the announcement came down that henceforward Drop Day would not be enforced. We feel that this decision has already created potential for unfairness. Many professors give midterms after midterms week, and some give them all. In either case, the student who is doing poorly will not get midterms deficiency notice ("blue slip") and thus may not find out that he ought to drop a course or take it pass-fail until his last opportunity to do so has passed.

In the past, the Registrar's office has bent the rules when the reason seemed sufficient. Apparently, the Standards and Honors Committee feels that this is unfair to students who drop and pass-fail their courses before the prescribed dates, or who are not as apt at making their reasons for not doing so sufficiently convincing. However, we feel that the Committee's decision is unfair to students whose professors give late midterms or do not take the time to tell each student how he is doing before the sixth week.

Either the Committee should force all professors to either give and grade midterms before midterms deficiency notices are due, or in some other manner seek out and counsel all their students who are not doing passing work in their courses, or Drop Day shall be rigidly enforced. Continuing with the present policy raises the possibility of forcing students to continue to take courses in which they will receive poor grades, with the added onus of giving the student no warning.

But further than that, we would like to see the Committee remove the entire notion of a Drop Day fixed at some point in the term. We see no reason to hold a student in a course in which he feels he is making no headway. Many other reputable schools permit dropping courses even up to the final exam. A student gives up a great deal of his time and effort in dropping a course late in the term, if he is willing to make that sacrifice, we find no reason why the Institute should not let him do so, except, of course, in cases of repeated and flagrant late dropping.

Perhaps the Institute should go further. At some schools, among them Stanford, a grade lower than a C is simply not recorded unless the student wishes it so. If a student does not receive a passing grade in the course, he simply receives no credit for the course. Naturally, this does not excuse any student from requirements: if he does not get credit for a course required, for example, in the freshman year, he must make the credit some other time later.

However, more is at stake than the possibility that a few students may have lost the chance to drop or take pass-fail certain courses (we do not even allege that this has actually happened — yet). Rather, the Committee's decision to enforce this and other catalog regulations with a Spartan rigor seems to contradict one of the basic principles of the Institute: that Caltech should be small enough and flexible enough to treat its students as individuals rather than as a faceless mass.

We particularly object to the Committee's pronounce- ment on grades of "pass" in letter-graded courses. The ruling has the effect of prohibiting a professor from grading a course a "A—Pass—Fail", and punishes the students in the course by having the Passes recorded as D's. While the Committee has a valid point in that students who take courses graded A—Pass—Fail have an advantage over students taking courses regularly, we think that wreaking havoc (even if only temporary) with student's GPA's does not provide an acceptable solution.

However, the Committee's action should focus concern on the present state of the grading system. Completely abolishing grades may be unfeasible, but certainly the system can be improved.

It must certainly be:

—Philip M. Neches
—Peter W. Beckman
—Paul A. Levin
—Garin D. Claypool
—Jeffrey J. Mallory

FRANKLY SPEAKING

"Jaundice Pregnancy is a Reasonable Excuse for Dropping a Course — However, in Your Case . . ."

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**Montserrat**

by Nick Smith

It is difficult to write a review about the recognized master of a form of music. There is just no one better to compare the best to. Such is the case with Carlos Montoya, master of the flamenco guitar.

When Montoya walked onto the stage for the first of two concerts at Beckman Auditorium, he spoke no word until the first encore. There was a contrast between cold aloof artistry and the warm flow of the intense flamenco guitar. The music ranged from pure flamenco to other types of Spanish guitar music. Perhaps the most startling of all was “Seita,” a piece of music based on the Holy Week procession in Sevilla, where Montoya produced the sounds of cymbals and drums, using only a guitar.

Montserrat is not, however, just a guitar-playing machine, for he showed a warmth of humor when talking to his audience before his encores. These encores included his own, his last piece entitled “Malagueña de Laguna” (I think that is what he said. My Spanish spelling is slipping) which was short, but moving and forceful. That is what flamенко is all about, since for hundreds of years it was only half of a form of art which included dance. Montoya was the first major flamenco artist who performed in concert without a dancer or singer, a quarter of a century ago. It is very likely that singing or dancing would only distract one from listening to the beauty rushing from the fingers of Montoya. He is the master.

---

**Giotto, Crete, Mycenae and Company, Inc.**

by John Tristano

Giotto and the Pre-Renaissance and Crete and Mycenae, the second of the Museum Without Walls series, were screened last Wednesday and Thursday nights with less than fantastic results. The first film shown was on Giotto, an early Renaissance painter. Giotto painted strictly religious scenes, as was typical of the Medieval period. He was one of the first painters to attempt to break the two dimensional plane paintings that typified Medieval style. Although his attempted portrayals of the third dimension are typically imperfect, where the standards for perfection are Renaissance, his boldness in exploring and experimenting with the third dimension may have opened the pathway to the creative period that followed. The film itself could at best be described as weak and poorly done. It does not emphasize or even mention the growth into the third dimension. Other works of the period that were more typically Medieval were not shown to form a comparative base. The film showed Giotto’s work without any explanation of his motivations or a historical overview of his period.

The second film, Crete and Mycenae was a study of the Archeological findings at Knossos and Mycenae. Although the film showed many items recovered from the ruins that were artistic in nature, the general atmosphere of the film was archeological rather than artistic in nature. For this reason alone the film should not have been included in the series. Tonight at Ramo The Impressions, Cubistic Art in Paris and The Art Conservator will be screened.

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**The California Tech**

**The Critical Ear**

**The Lonesome Picker Rides Again**, by John Stewart; Warner Brothers WS 1945.

This is John Stewart’s most recent album, even though it contains at least one of his old songs. Much of the album was done live, and some of it has interesting passages. For example, the first cut, “Just an Old Love Song,” features Kate Taylor, Peter Asher, Chris Darrow and Jennifer.

“Lonesome Picker” also has “Daydream Believer,” a John Stewart song originally recorded by the Monkees. “Swift Lizard” and “Wolves in the Kitchen” were recorded live last fall, and feature brother Michael Stewart on guitar, as well as Byrd Chairs on an electric bass.

If you like John Stewart and his music, you will like this album as well. It is quality as good as “California Bloodlines,” but it is difficult to have more than one best.

---

**Choice Quality Stuff/Anytime**, by PZL/EAS

**Tech Food Editor**

Sometimes when you feel in need of a good dinner and have $2.25 on you (we realize that the latter is the limiting constraint), try trucking on down to the Old Town Spaghetti Works, on Fair Oaks. Follow the sign up the stairs and to the right, look for the large room decor- inated in Early Corinthian (e.g. unmistakable decor) and order their regular spaghetti dinner.

The waiter will provide you with a trough of salad, dressing your choice, a loaf of bread made the way bread is supposed to be made, and a decent-sized plate of spaghetti topped very good sauce and your choice. After you have made like Loki and eaten your way down the food supply, the waiter will return and ask you if you would like more spaghetti and bread. After you say “Yes” (this column isn’t meant for Mickey-Mouse eaters) you loop down the, the style changes, so that hte style changes. Some of the songs are trifle repetitive in lyric, but in those cases the instrumental work makes more up for the weak points. This album rates listening.}

---

**Grotyna, Grotoua, Columbia C 31033.**

This album was apparently written by someone named Roy Taylor. He is an excellent writer, and the group members are no slouches themselves. Some of the songs are a trifle repetitive in lyric, but in those cases the instrumental work makes more up for the weak points. This album rates listening.

---

**Romar Gardens**

by Nick Smith

Beer & Wine

Italian Cuisine

Pizza

Spaghetti Ravioli

Pizza to Go

Discounts on large orders

1120 E. Green

449-1948

Open 5 to 12 Sunday thru Thursday

5 to 1 Saturday and Friday

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**Thaddeus, Thursday, February 17, 1972**

**BENEFIT PREMIERE FOR KCET FEB. 22**

Special tickets available at KCET and Aquarius Box Office

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**Aquarius Theater**

"...the only rock opera worthy of its billing"

Limited Engagement. Feb. 22 thru Mar. 25

**Monterey**

6202 Hollywood Blvd. Los Angeles, CA 90028

(213) 225-2347

Written by The WHO

in a major stage presentation

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Uncle Sam Wants You
For His Summer Intern Program

The Federal Summer Intern Program will be continued in 1972.

In 1971, 487 colleges responded to the request for federal agencies and nominated students. Of those nominated, 425 were selected for summer internships. Most of them were assigned to jobs in Washington, D.C., but over 100 were found in other sections of the country.

During the summer of 1972 about the same number of positions is expected. The program will provide opportunities for young men and women to be involved in the operation of their government. They will be assigned duties related to their career interests which will contribute directly to the government's missions.

All interns must be United States citizens. Students who have completed their sophomore year by June 1972, Undergraduates in their junior year, and third of their class and graduate students must be in the upper half of their class. Salaries range from $120.66 to $252.04 per week, depending on the qualifications of the intern.

If you want to apply or want more information, please get in touch with Placement in 24 Thorough.

Applications must be in by mid-March.

Eat Your Heart Out!

by Etoine Schroeder

"Hello, J. Edgar? Sneakily here from Sidaction, Libel & Scandal Publishing House, autobiography division. Listen, J. Edgar, we need your help. We've got a manuscript here which claims to be the autobiography of Irving Washington Clifton, the famous financier, recluse and counter-culture anti-hero, as told to Hugh R. Howard, the fame-hungry former-exwife of the other exwives and are holding auditions for the Other Woman — Vanessa Redgrave may be available, all though we're rather hoping for Royalty.

"No, we just want you to know how much we're counting on you, J. Edgar — we're trying for the biggest hit ever. We've already sold the serial rights to Gnome, Rifle, and the new Face of the Month Club, and TV rights to the Mission: Mendacity series. Now, remember, we're depending on you for good communications and co-ordination with us on this: we have to know just where we stand. The prestige of the entire communications media is depending on us today. OK, keep in touch."
Computers May Just Yet Talk Back to Us Humans

Continued from Page One

A formal synthesizer employs three oscillators which can be adjusted appropriately to simulate the sounds of the human voice itself. The vocal chords vibrate at one fundamental frequency, which can be changed by changing the tension on them, but also produce a number of overtones or harmonics. The throat, mouth, and so on act as a resonator part of the vocal system accentuates three frequencies. Which three frequencies accentuated depends on the resonator, which obviously cannot be changed by moving the tongue, lips, etc.

Or to Emulate

According to Pierce, computers may prove useful in the near future. Already useful in linguistic research, talking computers may prove useful in helping the handicapped communicate (for example, reading to the blind) and in many applications by giving spoken commands signals to the synthesizer. In the near future, the voice that answers your telephone may be a computer. But singing computers ever be able to compete with humans, with the machine commands signals to the synthesizer, "only time will tell."************

Ed. Note – Readers wishing more information are directed to the article on speaking machines in the February 1972 issue of Scientific American.

Graduate Fellowship Competition Announced

The California State Scholarships and Loan Commission announced the opening of the competition for the new State Graduate Fellowship Program with the distribution of applications to every California college, graduate school, and professional school.

State Graduate Fellowships are for tuition and fees at California graduate or professional schools and are designed to assist in the development of the talents of able students in graduate and professional education.

Approximately 740 fellowships will be available for the 1972-73 academic year and available for graduate degree work in the sciences, social sciences, humanities, the arts, mathematics, engineering, business, education and professional degrees in law, medicine, and other fields at the discretion of the Commission.

Applications must be filed with the State Scholarship and Loan Commission by April 3, 1972. Announcement of winners will be on June 1, 1972. All fellowship applicants will be required to submit test scores from either the Graduate Record Examination, the Law School Admission Test, the Medical College Admission Test, or the Admission Test for Graduate Schools of Business, depending on the specific academic competition entered. No test scores will be accepted from tests taken after April 22, 1972, and students must request that scores from previous test administrations be sent to the Commission by that date. Applications may be secured from California colleges and universities or directly from the Commission, 714 P Street, Sacramento, California 95814.

Dear Tech Editors,

About the drop-day date.

I can well understand that no student wants to be held in a course in which he feels he is making no headway.

On the other hand, no instructor wants to drudge over a bunch of papers and exams (that's what really counts, isn't it), as it turns out, the student's doing it for (or do you suppose he does it to gratify himself?) is indifferent and may, in fact, quit before he can turn them back.

Maybe we need a frank and equal bargaining arrangement.

Let the student drop the instructor ("dropping a course" is really just a euphemism for that) any time through exam week.

And let the instructor drop the student any time through exam week.

Neither, of course, required to show cause.

Sincerely yours,

Nick Smith

Letters Continue To Pour In
On Dabney Incident

Continued from Page Two

In closing, it is my belief that the only person who should have originally spoken up about the events in Dabney was Dr. Hunter himself, since he was the injured party, if there were any. I also feel that the reasons for the so-called psychodrama are far more important than the event itself, and that it appears that Dr. Hunter is making a great effort to look into those reasons, and for that I must applaud him.
Swimmers Nipped in Last Event by Pomona 62-51

by Bob Kieckhefer

Last Friday's swimming meet at Pomona was not decided until the final relay had been swum; Pomona took the relay and hence won its first aquatic event against Tech in a long time. Strategy played a major role in the meet, with Pomona evidently second-guessing us before we could read their minds.

This meet marked the return of Steve Sheffield and Bob Coleman to the team; they led Tech's medley relay team to a victory to give Tech a 7-0 lead at the start of the meet. Wins by Tim Hight in the 1000-yard freestyle and Sheffield in the 200-yard freestyle widened Tech's lead to 18-7 before Pomona's sprinters started narrowing the gap.

Two weeks later, Tech's lead was only 22-21. Diver Greg Beall performed well off both boards, and his two first places put Tech 3 points ahead. Pomona tied the score with a victory at the start of the meet. Wins by Bob Pleva and Phil Tristano. All positions are subject to change without notice.

The Sports Beat

"Set It Up, Frosh!"

Interhouse volleyball practice begins Monday in preparation for the fifth scheduled clash of the year. Competition begins at 8:30 p.m. on February 29 to March 8. The current leaders are, Page House, with hopes of scoring their second victory of the season. The team captain is Delmar Calvert, who has coached the U.S. contingent to the Pan-American games.

Caltech's varsity men's foil team enters the Northern Division Championships Saturday, seeking to extend their fine season record. Team captain D.A. Smith, Bill Chia, and Larry November make up the elite squad that has lost only two close matches this year. Also competing will be the men's saber and epee teams, and the women's foil team. This year is the first year that women have been allowed to compete in this intercollegiate sport. The team's coach is Delmar Calvert, who has coached the U.S. contingent to the Pan-American games.

The Sports Beat

ICE HOCKEY Meeting Tonight

There will be another organizational meeting of the Caltech Hockey Club tonight at 8 p.m. in Clubroom 1. Anyone associated with Caltech is invited to attend.

Courses

Continued from Page Six

Another brand-new course even has a brand-new course grouping all to itself: an Art course, Art 101, Art and Technology, with Elsa Garnire, Caltech's expert in laser art. The course is limited to 3-3-3, providing an opportunity to all you lab nuts.

Friday, February 18

1:00 p.m. Track
2:00 p.m. Varsity Tennis
3:00 p.m. Varsity Basketball
8:30 p.m. Varsity Basketball

Saturday, February 19

11:00 a.m. S.C.I.A.C. All Conference Wrestling Tournament at Caltech
3:00 p.m. Swim Meet at San Fernando Valley State College
6:00 p.m. Bocce at Rio Hondo
8:00 p.m. Bocce at Rio Hondo

Thursday, February 17

3:00 p.m. Varsity Tennis
6:30 p.m. JV Basketball
9:00 p.m. Swimming

Friday, February 18

12:30 p.m. Golf
4:00 p.m. Varsity Tennis
6:00 p.m. Swimming

Saturday, February 19

11:00 a.m. S.C.I.A.C. All Conference Wrestling Tournament at Caltech
3:00 p.m. Swimming
6:00 p.m. Swimming

Monday, February 21

2:00 p.m. Swimming
3:00 p.m. Varsity Tennis
4:00 p.m. Varsity Basketball

Tuesday, February 22

2:00 p.m. Baseball
3:00 p.m. Varsity Tennis
4:00 p.m. Varsity Tennis

Wednesday, February 23

2:00 p.m. Baseball
3:00 p.m. Varsity Tennis

Thursday, February 24

3:00 p.m. Varsity Tennis
4:00 p.m. Varsity Basketball

Friday, February 25

2:00 p.m. Baseball
3:00 p.m. Varsity Tennis
4:00 p.m. Varsity Basketball

Saturday, February 26

8:00 a.m. NAIA District III Wrestling Championships at Pasadena College
1:30 p.m. Swimming
2:00 p.m. Varsity Tennis
3:00 p.m. Varsity Tennis

Sunday, February 27

1:30 p.m. Swimming
2:00 p.m. Varsity Tennis
3:00 p.m. Varsity Tennis

Swimming

Late Score:

Swimming Caltech: 55 Santa Ana: 48
NEWS BRIEFS

ASCIT Car Rally Rally
Registration for the ASCIT Searchlight Car Rally will be at the Tournament Park parking lot from 6-7:30 p.m. this Saturday. The rally will be followed by a little shindig at Winnett Center starting at 11:00.
Get your motor running.

ASCITYMCA Thumb Twiddlers
Those involved in the ASCITYMCA hitchhiking trip will be leaving early February 26, and meeting together up at Big Sur. Get your thumbs in shape.

Petition Signing Party
McGovern supporters are invited to a petition signing party to help place Senator McGovern on the primary ballot this Tuesday night in Winnett Clubrooms #1. It will start at 10 p.m. and will last until after midnight. (Petitions cannot be signed until midnight.) Persons interested in coming should confirm with David White (795-6841 ext. 2030.)

Feynman Wins!
Richard Feynman has won the 1971 Ostertag Medal of the American Association of Physics Teachers for "notable contributions to the teaching of physics."

Med School Seminars
Set for Next Week
Dr. Donald L. Stillwell, M.D. of the School of Medicine of Stanford University, will speak to all interested persons on the topic of "How to get into Medical School" on Thursday (24 February) at 3:00 p.m. in 147 Noyes. Dr. Stillwell is chief premedical advisor at Stanford and served for several years on the Admissions Committee of the Stanford University School of Medicine.

After his seminar, Dr. Stillwell will answer personal questions from students who hope to begin medical school in 1973.

New State Fellowship Program Announced
The present California State Graduate Fellowship Program, which has been discontinued, will be replaced by a "new" program for the 1973-74 academic year. Depending on financial need, these awards may go as high as full tuition and fees.

Students who are the "old" program may apply competitively for the "new" program. To be eligible a student must be a U.S. citizen or living in the U.S. on a Permanent Residence Visa. It is necessary that the student will have lived in California for a period of one year as of the beginning of the school next fall.

In view of the uncertainties of graduate student financial support for next year, all eligible graduate students who will be enrolled for 1972-73 are urged to make application. Applications must be submitted to option representatives by March 13, and forwarded to the Graduate Office by March 17. Additional information is available from option representatives. Application forms are available in the Grad Office, 216 Thoep.

North FBK Visiting Scholar
Dr. Wheeler J. North, professor of environmental science, has been named as a Phi Beta Kappa Visiting Scholar for 1972-73. The scholars will spend two or three days with undergraduates at various institutions, lecturing and leading informal discussions.

Marine biologist North has pioneered in restoring the kelp forests along parts of the Southern California coast. In addition to raising kelp spores and transplanting them in ocean beds, he also serves as a consultant to governmental agencies on problems of marine ecology.

AMATEUR RADIO CLUB MEETING
The Radio Club will have a meeting Wednesday, February 23 at 7:30 P.M. in Clubroom Two.

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