Caltech Announces Environmental Quality Lab

by Roger Goodman

A new Environmental Quality Laboratory (EQL) has been established at Caltech to attempt to solve some of the problems that are out of our control. President Harold Brown announced the creation of the lab last Thursday at a press conference at the Athenaeum.

The EQL, like the Jet Propulsion Laboratory, will be operated by the Institute but kept organizationally distinct from it in order to insulate its programs from direct action and interfacing with government and industry from the basic Institute functions of research and education. It will, of course, involve Institute personnel and will have its headquarters on campus, first in a conference room in Karman and soon in Thomas Lab.

EQL will be staffed by engineers, natural and social scientists, and visiting experts in government and industrial policy-making. The director of the lab is Lester Lees, professor of environmental engineering and aeronautics. Other Caltech professors on the staff will be Dr. John List, environmental engineering, and Dr. Burton Kline, economics. Rounding out the staff are Malthon Easterling, a space communications and information expert at JPL, Dr. Guy Pasquer, a political scientist and senior staff member at RAND Corporation; and Dr. Kenneth Hitters, a research engineer who received a Ph.D. from Caltech in applied mechanics in 1969.

Their research will include another economist, an ecologist, a cultural anthropologist, a social psychologist, and a lawyer interested in legal aspects of pollution. To preserve its informality and to promote constant contact among the specialties represented, EQL will probably limit itself to 50 senior staff members.

There will be a support staff that will also include Caltech graduate and undergraduate students. The EQL will be staffed by governmental, private, and Caltech sources. A three-year, $1.5 million grant is being sought from the National Science Foundation. Several of the groups that have already pledged financial assistance. The initial support for EQL came from the President’s Venture Fund, which enables President Brown to launch worthwhile projects without the restrictions of a large bureaucracy.

EQL was considered important because of the unique contribution it could make toward resolving environmental problems. The Caltech study groups which laid down the groundwork for EQL decided that such a contrivance would require 1) a broad approach to the whole question of environmental quality, 2) a broad range of expertise, and 3) a definite end product of studies, experiments, and policy advice to decision-makers in government and industry.

The EQL will not have labs of its own but will propose and stimulate research at Caltech, JPL, and elsewhere. Close cooperation with the Caltech program in environmental engineering is a given. EQL has already begun to work on two important environmental systems. The first is the interaction between power-generating systems and the environment. The second is the planning of air pollution control in Los Angeles.

Continued on Page Four

Dr. John List, environmental engineer, has been named Head of the Environmental Quality Laboratory.

Volume LXXII
Pasadena, California, Thursday, January 28, 1971
Number 15

News Briefs

Dr. George Hammond, chairman of the Division of Chemistry and Chemical Engineering, will discuss the philosophy of chemistry in a paper he will entitled “Chemist Contemplation: New Directions.” Hammond will speak Wednesday, February 1, in 22 Gates. As usual, this meeting of the Chemistry News Briefs seminar series is open to all interested.

Newsman Club Announces
New Term Activities

The Newsman Club has joined the P.P.C. Newsman Club this year. Unusually active, the club participates in full mass meetings of the second and fourth Sundays in Winsnet Center Clubroom 2 at 7:00. Folk masses are held other weeks at 5:00 in St. Philip’s Roman Catholic Church at Hill and Cordova. Discussions are held following the masses. Gun

John Chemistry Contemplates Navel

A retreat (advance?) is planned for late February. Come and join the fellowship!

Campus Head-Shrink

To Go On the Air

Ian Hunter will appear on a new discussion program on campus station KRLA this Sunday at 10:00 p.m. The topic will be suicide.

Students Reject

By-Laws Change

The Associated Students By-Laws change concerning the jurisdiction of the Board of Control failed to receive the necessary 2/3 vote in the election last Thursday. The vote was 220 for and 135 against.

Hilltel-

Lunch Bunch

Starting this Tuesday, February 2, members of the Hilltel Club will be meeting weekly over lunch in Dabney. The purpose of these meetings is to get members of the club and other interested people together on a regular basis. Interested persons should order a boxed lunch on Monday and pick it up at noon Tuesday.

Israel folk-dancing is still being done Sunday nights at 7:30 in the Student Services Building. Get P.E. credit while being in a crowd of more girls than boys.

The Dark Shadow

Moves West

It has been noted that there may be a very long winter this year: the Frosh physics midterm is on Ground Hog’s Day.

Leakey Lectures in Beckman

in quiet professional tones Richard Leakey, director of the National Museum in Nairobi, Kenya and a student of Dr. Louis Leakey, did a 45-minute lecture on early man titled “Ancestral Man.” Leakey’s lecture was an hour-long, with a half-hour break to allow students to get refreshments. The bulk of the lecture was on the movements of the Rift Valley faults.

Leakey did on a dare, taking it

He started off by saying that, while no one can state with complete certainty what man originated, Africa appears to be the best guess. It provided places for early man to live during times of climatic change, and more remains in closer chronological order have been found there than anywhere else in the world.

Leakey also broaches the theory that man is descended from Ape-men, as proposed in “African Genesis.” He stated that Genus Australopithecus was not a carnivore, but a scavenger and herbarist. The fact that the implements that they made were primarily tools and not weapons indicates the peacefulness of their intentions. “Early man,” said Leakey, “was like many of his descendents a scavenger and a thief.”

Continued on Page Nine

Leakey discussed the theory that man is descended from Ape-men, as proposed in “African Genesis.” He stated that Genus Australopithecus was not a carnivore, but a scavenger and herbarist. The fact that the implements that they made were primarily tools and not weapons indicates the peacefulness of their intentions. “Early man,” said Leakey, “was like many of his descendents a scavenger and a thief.”

Continued on Page Nine

The CALIFORNIA Tech

Copyright 1971 by the Associated Students of the California (Institute of Technology, Incorporates)

News Briefs

by Philip Maseym

The detention of two youths prompted a disturbance by a group of twenty-five to thirty Mexican Americans outside Throop last Thursday night at 9:30. The youths were detained by Security when a workman saw the youths wandering through Booth carrying tools.

Security notified the Pasadena police in order that an identification check could be made. The youths carried no identification. By the time the police had arrived there was a group gathered outside the security office. Shouts of “They’ve got two of our brothers in there—let’s get them out,” could be heard.

The crowd gathered in front of the police when the police entered. For a while everyone was standing in the outdoor area, and the crowd had come from, and what any connection they had to the two nightclub customers.

A call then came in from Dr. John List, the chairman of the Student Relations, who had been called to the scene.

The EQL was considered important because of the unique contribution it could make toward resolving environmental problems. The Caltech study groups which laid down the groundwork for EQL decided that such a contrivance would require 1) a broad approach to the whole question of environmental quality, 2) a broad range of expertise, and 3) a definite end product of studies, experiments, and policy advice to decision-makers in government and industry.

The EQL will not have labs of its own but will propose and stimulate research at Caltech, JPL, and elsewhere. Close cooperation with the Caltech program in environmental engineering is a given. EQL has already begun to work on two important environmental systems. The first is the interaction between power-generating systems and the environment. The second is the planning of air pollution control in Los Angeles.

Volume LXXII
Pasadena, California, Thursday, January 28, 1971
Number 15

News Briefs

Dr. George Hammond, chairman of the Division of Chemistry and Chemical Engineering, will discuss the philosophy of chemistry in a paper he will entitled “Chemist Contemplation: New Directions.” Hammond will speak Wednesday, February 1, in 22 Gates. As usual, this meeting of the Chemistry News Briefs seminar series is open to all interested.

Newsman Club Announces
New Term Activities

The Newsman Club has joined the P.P.C. Newsman Club this year. Unusually active, the club participates in full mass meetings of the second and fourth Sundays in Winsnet Center Clubroom 2 at 7:00. Folk masses are held other weeks at 5:00 in St. Philip’s Roman Catholic Church at Hill and Cordova. Discussions are held following the masses.

John Chemistry Contemplates Navel

A retreat (advance?) is planned for late February. Come and join the fellowship!

Campus Head-Shrink

To Go On the Air

Ian Hunter will appear on a new discussion program on campus station KRLA this Sunday at 10:00 p.m. The topic will be suicide.

Students Reject

By-Laws Change

The Associated Students By-Laws change concerning the jurisdiction of the Board of Control failed to receive the necessary 2/3 vote in the election last Thursday. The vote was 220 for and 135 against.

Hilltel-

Lunch Bunch

Starting this Tuesday, February 2, members of the Hilltel Club will be meeting weekly over lunch in Dabney. The purpose of these meetings is to get members of the club and other interested people together on a regular basis. Interested persons should order a boxed lunch on Monday and pick it up at noon Tuesday.

Israel folk-dancing is still being done Sunday nights at 7:30 in the Student Services Building. Get P.E. credit while being in a crowd of more girls than boys.

The Dark Shadow

Moves West

It has been noted that there may be a very long winter this year: the Frosh physics midterm is on Ground Hog’s Day.

Leakey Lectures in Beckman

in quiet professional tones Richard Leakey, director of the National Museum in Nairobi, Kenya and a student of Dr. Louis Leakey, did a 45-minute lecture on early man titled “Ancestral Man.” Leakey’s lecture was an hour-long, with a half-hour break to allow students to get refreshments. The bulk of the lecture was on the movements of the Rift Valley faults.

Leakey did on a dare, taking it

He started off by saying that, while no one can state with complete certainty what man originated, Africa appears to be the best guess. It provided places for early man to live during times of climatic change, and more remains in closer chronological order have been found there than anywhere else in the world.

Leakey also broaches the theory that man is descended from Ape-men, as proposed in “African Genesis.” He stated that Genus Australopithecus was not a carnivore, but a scavenger and herbarist. The fact that the implements that they made were primarily tools and not weapons indicates the peacefulness of their intentions. “Early man,” said Leakey, “was like many of his descendents a scavenger and a thief.”

Continued on Page Nine

The CALIFORNIA Tech

Copyright 1971 by the Associated Students of the California (Institute of Technology, Incorporates)
Rewrite of BOC Proposal Urged

The amendment proposed by the Board of Control to extend its jurisdiction to matters involving unacceptable behavior by a large group of campus disturbances has been defeated. While we agree that the BOC should have jurisdiction over such matters in some general way, we objected to the proposed amendment on procedural grounds.

We still feel, however, that some change to the By-Laws must be made to give the BOC jurisdiction over campus disruption matters. We hope that the BOC and the ROC will either apply some course other than drafting a tighter version of such a By Laws change which will provide for protection of assured students from the appearance and the actuality of unfairness. We would gladly support such a proposal.

The debate over the BOC's proposal has, we feel, served to strengthen the Honor System. Preservation of the Honor System depends on the awareness and consent of every student, not just the members of the Board of Control. We want the Honor System to be the best possible, and as such feel obligated to speak out against any proposal which we feel would weaken the Honor System or diminish it's value.

We urge all involved to try again to draft a fairer version of an amendment to give the BOC jurisdiction over campus disruptions.
First Exciting Results

From EQL Research

by Mark Peterson

An earlier article discussed whether you should apply for a conscientious objector classification and your chances of being classified a C.O. This article will discuss how to try to get a C.O. classification. The procedure in getting a C.O. is long, difficult and usually unsuccessful. It is essential that you get the help of an experienced draft counselor or attorney.

To be effective, your C.O. application should be filed as early as possible. If you are 18 and have not yet filled out the Classification Questionnaire (selective service form 100) you should sign series VII of that form. This will indicate that you wish to apply for a C.O. and is a request that the draft board send you the Conscientious Objector form (selective service form 150). If you did not sign series VIII on the Classification Questionnaire, you should apply for a C.O. classification well before you graduate or leave school. If you apply after or shortly before you leave school your draft board will most likely think that you are trying the C.O. as a last resort because you will soon be faced with induction. However, if you have not applied for a C.O. before you leave school, wait to apply until you are classified IA. The board will doubt your sincerity anyway and you may be able to use the extra months' delay. Your letter applying for a C.O. should briefly summarize your beliefs and should indicate that you are opposed to war in any form.

When they receive your letter applying for a C.O. the draft board will send you the C.O. form 150. This form must be carefully answered and returned to the board within 30 days of the date of mailing stamped on the front of the form. You must answer all of the questions and can attach additional pages to the form for more space. Your answers should sound personal and sincere; they should not be answered abstractly or like a paper you write for school. Your board will not understand or by sympathetic to sophisticated arguments, so your answers should be simple enough for the typical draft board member to understand them. Do not write a lengthy justification of your beliefs describing how other great religious or philosophical thinkers held similar views. The board is interested only in your views.

In filling out your questionnaire, if you are willing to go into the military as a medic, office worker, etc. sign statement B of Series I. If you wish to entirely avoid military service, sign statement B of Series I. Remember, even if you can avoid military service you will still have to perform alternative service if called for induction.

Personal Moral Code

Question 1 in Series II asks you to "describe the nature of your belief which is the basis of your claim and state why you consider it to be based on religious training and belief." Your answer must state that you are opposed to war. You should oppose war because you are against killing other people and you must state why you are against killing other people. Your beliefs do not have to be religious, but can be ethical, philosophical or part of a "personal moral code". Your objection to war should not be political or economic.

Question 2 asks you to describe how your beliefs developed and suggests almost all the possible sources for your beliefs. Question 3 asks why you cannot perform noncombat military services. Clearly if you are opposed to war you cannot join and in any way help an organization whose purpose is to wage war. Question 4 asks if you have publicly or privately stated your beliefs and asks for examples of such statements. If you have never expressed your beliefs, indicate that you are not the type of person who goes around talking about his beliefs.

Letters of Reference

You should try to send at least five or six letters of reference to your board before you attend your personal appearance. Letters should be from ministers, teachers, doctors, lawyers, businessmen and other people who have high status to draft board members. Letters from current or former military men are especially good even if those men are your age. In general, try to have more than one or two letters from relatives or friends your own age.

A good letter of reference should describe the relationship between you and the author and should mention the "credentials" of the author, e.g. he is a minister or an army private in Viet Nam. If you should emphasize your C.O. position to show that you have discussed that position with the author. These letters need not state that they are in sympathy with your views, only that you have discussed this with them and they believe that you are sincere. Be sure that all reference letters are sent to you before they are forwarded to the board in order that you may screen them.

When you attend the personal appearance with the board to discuss your C.O. application, be continued on page four.

Festival of Classics

Jan. 31
"Dream春节" by W. C. Fields
Lionel Barrymore

Feb. 7
"Madame Curie" by Greer Garson
Walter Pidgeon

Feb. 14
"Twelve O'Clock High" by Gregory Peck
Dean Jagger

Feb. 28
"The Bounty" by Spencer Tracy
Lionel Barrymore

Mar. 7
"The Great Escape" by Spencer Tracy
Lionel Barrymore

KTTV 11 4:30 pm Sundays
Under new ownership
Finest Equipment — Reasonable Prices
2986 Huntington Drive
(3 doors west of San Gabriel)

Would You Believe?

1800' of recording tape for just one dollar? *

That's Right!

San Marino Hi Fi & Stereo

* as long as supply lasts

Continued on Page Four
Conscientious Objection

Continued from Page Three

sure to carefully review all material
which you have sent to the board in
the form 150 answers are long or com-
plex, prepare a one-page summary
of those answers in order that
the board members can have at least
some familiarity with your position.
Usually only one member of your
board will read the entire form. Be
ready to summarize your position
readily for the board and be
prepared to answer challenges to
your sincerity. The type of ques-
tions which you might encounter
are listed and discussed in several
publications: the CCCO stHand-
book for Conscientious Objectors,
and Face to Face with your Draft
Board by Alan Blackman. Answer
the questions as courteously as
possible. Anger and discourtesy
will convince the board that you are
really a violent person who would
make a good soldier. At the end of
your personal appearance ask the
board if there is anything you can
add to support your claim.
After your personal appearance,
preserve a written summary of the
appearance and put a copy of that
summary in your selective service
file. You will get the results of the
application on a new notice of
classification card following the'

If you do not get the classification
that you want you can appeal to
the state appeal board, although this
will rarely bring favorable results.
In fact, the state director of selective
service can and does appeal C.O.
classifications with which he dis-
agrees to the state appeal board.
That appeal board frequently takes
away C.O.s, but seldom grants them.
If you have any questions you
would like discussed in this paper
by a draft lawyer, write:
Mark A. Peterson
1627 West Washington Blvd.

Venus Theatre
2226 E. Colorado Blvd.
Pasadena
Open 11:00 a.m. – 2:30 a.m. Daily
Sundays Noon – Midnight
For Sexy Info Call
"The Voice": 796–8118
Pasadena's most unique, daring,
and controversial theater
The Experienced Adult Theatre
Where everyone can view
the most avant-garde movies ever.

Guitar Instruction
by Tom Brown
ABC-Dunhill Recording Artist
Classes in All Styles:
Beginning, Folk, Jazz, Blues
For information call
(213) 794-6191

The Missing Lead
Students admitted at a special discount rate
Free memberships cards now available
A completely new show every Tues.
Seeing is Believing!
It beat Ferrari, Porsche, Jaguar and Rolls Royce.

The 1971 Capri from Lincoln-Mercury beat everybody.

It was named “Import Car of the Year” for 1971 by “Road Test” magazine.

Here are just a few of the things they had to say about the Capri:

“All of our staff had heavy exposure to the car during the months just passed, along with dozens of other imports, but despite this varied experience, our choice was unanimous.”

“...in some years it’s difficult to pick a single one that’s outstanding. That was not the case this time.”

“Remember that theoretically, Rolls Royce was just as much in contention for this award.”

“To find a match for the car’s roadability, you have to compare it with something much more expensive such as a Porsche 914 or a Datsun 240Z.”

“Now...available as an option the spanking new 100 horsepower, overhead-cam four...and that extra cost isn’t much... $50 surcharge for the optional power. What you get for that modest sum is a Capri that will do zero to 60 mph in 11.8 seconds... without sacrificing much if any of the 24.5 mpg economy served up by the standard model.”

“...the Capri corners like a Siamese cat on sandpaper.”

“The four-speed gearbox with its fully enclosed ‘rail’ shift linkage stems directly from the LeMans-winning GT40 Fords.”

“No car at any price except the rare few that are equipped with genuine ZF boxes can compare for shifting ease with the Capri’s so-called ‘rail-linkage’ in the standard four-speed box.”

“...options include a three-speed automatic transmission...”

“Another surprising feature on a modest-cost, volume-produced engine (100 hp) is the use of twin-venturi Weber carburetion. Though probably not the same design, the six Weber 2V’s used on the 12-cylinder Lamborghini cost $1,800 to replace.”

“The Capri...represents a remarkable bargain...it offers outstanding value at any reasonable price—say, even $2,900 in standard form...would be a good buy with just normal handling characteristics.”

“There’s not much fault that can be found with the Capri, a tangible that caused us to choose it as our Import Car of the Year for 1971.”

Unquote.

The Capri. Under $2,500 mfrs. suggested retail price. See your Lincoln-Mercury dealer for his price.
"The last place on earth you want to work" is interviewing on February 3 & 4

The phone company. Not exactly the first place that comes to mind when you think about a job.

Maybe it should be. We've helped build the best communications system in the world. Now we want you to make it work better. Faster. Cheaper.

Your major isn't as important as your ability to get things done. Your willingness to take chances, even if it means stepping on some toes. We'll listen to you. Maybe a little painfully at times, but we'll listen.

We think we can offer you more than most companies. More opportunity, more challenge. More of a chance to find out how good you are.

And we pay. Probably more than you think we do. Talk to our interviewer. We're here to hire.

Representing: Pacific Telephone • Western Electric Company • Sandia Corporation • Bell Telephone Laboratories • A. T. & T. Long Lines and Operating Companies throughout the United States.

EQUAL OPPORTUNITY EMPLOYERS
The acting in *Zachariah* is quite good, especially that of John Rubinstein in the title role. The music is impressive, being the effort of songs by Joe, Doug Keershaw, Elvin Jones, the James Gang, and the New York Rock Ensemble. The photography, especially in the opening scenes, is beautiful. The plot and dialogue are derivative of Forrester Theatre. *Zachariah* is definitely worth seeing. As the ad man pleaded it, he's a head of time, and that's what it's about.

- Nick Smith

**Zachariah**

A western written by the Fire­sign Theater?! Country Joe and the Fish as an outlaw band (in both senses)?? Alice of Alice's Restaurant as Belle Starr?? Elvin Jones as a gunslinger?? The New York Rock Ensemble playing in the nude?? (With carefully placed instruments, of course) Yes, all of the above is true, brought to you in the form of the first electric western. An electric western is different from a normal western in that no effort is made to keep it historically accurate. In addition, allegories and façades are made obvious, and background musicians appear on camera from time to time. Electric westerns are very definitely worthwhile, given the current sample of one.

**Zachariah** is sort of the Fire­sign Theater's response to *Easy Rider*. It is the story of two friends searching for a life better than the one they were born left behind. Outside of that one coherent point, the movie is enjoyable madness.

For those few of you who have never heard of the Fire­sign Theater, it is a group of free-spirited satirical humorists, much like San Francisco's The Committee, the members of the Fire­sign Theater are masters of imaginative humor and the art of the non sequitur. These things all show in *Zachariah*, which often flashes from electric guitars to gas­lights.

**Brewster McCloud**

Put together the same basic crew which hatched M*A*S*H, a completely wild and obviously airborne film. The film's musical score, which is being followed in the L.A. area. This modern day version of the myth of Icarus has something to say with music and1 almost any confusion.

The film opens with an over­stuffed opening scene, and the national anthem in the Astrodome (which becomes the center of the action of the rest of the film) with an all-black band. She fancies herself a songstress but has the voice of a research (and the red-white-and­blue plume of one as well). She has the band stop and start a Higher Key (Francis Scott?), and director Altman obliges by restarting the opening credits higher on the screen.

Such scenes typify the humor of **Brewster McCloud**. Some of the scenes rank with the Keystone Cops for sheer amusement. In one scene, **Brewster McCloud** is being driven by a young woman (played by newcomer Shelly Duvall) with a penchant for hot cars, has her own vision of flying. (Miss Duvall's makeup is about the most hideous I have ever seen on the screen--she is made to appear to have eyelashes growing both above and below her eyes).

Two other actors deserve special mention. Robert Altman, the omniscient, omnipresent, omnithetical boom­box, is not unlike several I have known, provides a running commentary throughout the film. Many of his omnithetical observa­tions provide lead-ins for Altman's gag line of the day. He is the first electric western. An electric western in that no effort is made to keep it historically accurate. The hero, Brewster McCloud, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

Somewhere within the slapstick can be heard a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

**Brewster McCloud** is made to appear to have eyelashes growing both above and below her eyes).

Two other actors deserve special mention. Robert Altman, the omniscient, omnipresent, omnithetical boom­box, is not unlike several I have known, provides a running commentary throughout the film. Many of his omnithetical observa­tions provide lead-ins for Altman's gag line of the day. He is the first electric western. An electric western in that no effort is made to keep it historically accurate. The hero, Brewster McCloud, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

Somewhere within the slapstick can be heard a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

For those few of you who have never heard of the Fire­sign Theater, it is a group of free-spirited satirical humorists, much like San Francisco's The Committee, the members of the Fire­sign Theater are masters of imaginative humor and the art of the non sequitur. These things all show in *Zachariah*, which often flashes from electric guitars to gas­lights.

**Brewster McCloud** is made to appear to have eyelashes growing both above and below her eyes).

Two other actors deserve special mention. Robert Altman, the omniscient, omnipresent, omnithetical boom­box, is not unlike several I have known, provides a running commentary throughout the film. Many of his omnithetical observa­tions provide lead-ins for Altman's gag line of the day. He is the first electric western. An electric western in that no effort is made to keep it historically accurate. The hero, Brewster McCloud, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

Somewhere within the slapstick can be heard a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

For those few of you who have never heard of the Fire­sign Theater, it is a group of free-spirited satirical humorists, much like San Francisco's The Committee, the members of the Fire­sign Theater are masters of imaginative humor and the art of the non sequitur. These things all show in *Zachariah*, which often flashes from electric guitars to gas­lights.

**Brewster McCloud** is made to appear to have eyelashes growing both above and below her eyes).

Two other actors deserve special mention. Robert Altman, the omniscient, omnipresent, omnithetical boom­box, is not unlike several I have known, provides a running commentary throughout the film. Many of his omnithetical observa­tions provide lead-ins for Altman's gag line of the day. He is the first electric western. An electric western in that no effort is made to keep it historically accurate. The hero, Brewster McCloud, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

Somewhere within the slapstick can be heard a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

For those few of you who have never heard of the Fire­sign Theater, it is a group of free-spirited satirical humorists, much like San Francisco's The Committee, the members of the Fire­sign Theater are masters of imaginative humor and the art of the non sequitur. These things all show in *Zachariah*, which often flashes from electric guitars to gas­lights.

**Brewster McCloud** is made to appear to have eyelashes growing both above and below her eyes).

Two other actors deserve special mention. Robert Altman, the omniscient, omnipresent, omnithetical boom­box, is not unlike several I have known, provides a running commentary throughout the film. Many of his omnithetical observa­tions provide lead-ins for Altman's gag line of the day. He is the first electric western. An electric western in that no effort is made to keep it historically accurate. The hero, Brewster McCloud, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.

Somewhere within the slapstick can be heard a thread of plot—just a thread, mind you. The hero, **Brewster McCloud**, seeks to perfect a set of wings with which man can soar into the air with the same grace and ease that a bird does.
by Charles Johnson

The Caltech bridge club is meeting Wednesday nights at 7:30 in Winton Club Room 1. It will be the policy of the club to keep the games relatively short. All interested players are more than welcome, and I would like to have those from those for whom Wednesday is not convenient in case a better meeting time can be arranged. The games will be on a friendly basis with the format of competition chosen to suit the players, e.g., team of four, match points or individual. Novices should be able to learn as well as have a good time—so come on out and get your game in shape for interhouse bridge which will be later on in the year. Admission will be free as long as possible.

The hand shown below provides a good lesson in match point play.

North
S J x x  
H A 1 0  x  
D  x x x  
C A 1 0 x

South
S x x x  
H K O J x  
D A K J x  
C K x x

In a recent duplicate game North-South reached a good contract of 6 ♠ after formidable interference in spades by East-West. With South as declarer, the natural opening lead of a spade was trumped in the South hand. If declarer now draws trumps in three passes and three hearts have already squeezed East; he must throw his last two spades or subject his partner to a club finesse. But this leaves West, who must discard in front of dummy, hopelessly forced to try to guard spades and clubs.

However, with closer inspection South shou notice that he can assure himself of the contract (barring a 5-0 trump split) and even have a chance for seven. At match points the extra trick will probably be golden. If South trumps the first spade with the jack of hearts and then is careful to enter dummy with a heart in order to trump another spade with the queen of hearts and then leads his last trump to dummy in order to play a third and fourth round of hearts, he will assure himself of six even against a 4-1 trump division.

In addition, if diamonds break, he makes seven, and even if they don't, he can literally squeeze seven out of the hand with the actual lay of the cards. The third and fourth hearts have already squeezed East; he must throw his last two spades or subject his partner to a club finesse. But this leaves West, who must discard in front of dummy, hopelessly forced to try to guard spades and clubs.

Zachariah
The First Electric Western

Zachariah

William Challenger

by A. Lee Deady, Pat Quayle, Dennis Johnson

The California Tech

2605 E. Colorado Blvd.
PASADENA 796-2603

THE CALIFORNIA TECH

PREMIERE FRIDAY NIGHT
FEB. 5 AT 12 MIDNIGHT

FRANK D. CLAY & SON CHEVROLET

CAL-TECH STUDENTS AND EMPLOYEES!
For special consideration on your new Chevrolet Car, contact ERNEST HAYWARD, general manager, or JERRY SHEPPARD, general manager.

"SERVING PASADENA SINCE 1922"

PAT'S LIQUORS AND DELICATESSEN
10 a.m. to 9 p.m. daily
796-9671
Fearless Schroedlu Predicts 
'71 Baseball Results

by Schroedlu 
National League West

1. Los Angeles 
2. Cincinnati 
3. San Francisco 
4. Atlanta 
5. Care About Are

1. Los Angeles. There’s a certain amount of risk involved in picking anyone off Cincinnati’s year in 1970, but the Orioles and the medical reports have given heart to the pelvis league, and this is a highly talented, well-balanced group of players. The pitching is a little thin. The club has a good farm system, and there’s no one making his second for a+ consecutive years. It may be a while before they finish that high again.

4. San Francisco. Until 1970, the Giants had finished second for n+ years in a row. Last year, although they did have a good start, they couldn’t catch up.

5. Atlanta. The team’s 1970 ones were swapped to the breaching order. The infield provides a semi-infinite supply of versatile parts to construct an eight-man lineup, from fronting West, to the second-best arms of any group (they probably will), but seems to have the lineup the Cubs have. There’s a trend between six and eight people you can overcome that, and this one will if it gets a bit more pitching. The fault is not that of the hitting: although the team’s infielders run a bit back strong, and the bullpen is a bit "h", but the key arms belong to Brewer is a solid ace reliever, and the rest of the staff is outstandingly undistinguished. The team has a semi-infinite supply of good, but not great arms, enough to make a respectable pitching crew. However, there are three starting pitchers, Jenkins, and a comeback by Gaylord Perry, plus ancient reliever Billingham, and a comback by Dave Guisti who did so well. Otherwise, the team is very unlike last year, although they did have a good start, they couldn’t catch up.

So Who Cares? 
2. Cincinnati. Put it on the line. The Reds won last year, but look lousy last year, and they’re not great. The club has a good farm system, and newcomers Richie Allen and Duke Sims figure to provide more power. The Reds have a semi-infinite supply of versatile parts to construct an eight-man lineup, from fronting West, to the second-best arms of any group (they probably will), but seems to have the lineup the Cubs have. There’s a trend between six and eight people you can overcome that, and this one will if it gets a bit more pitching. The fault is not that of the hitting: although the team’s infielders run a bit back strong, and the bullpen is a bit "h", but the key arms belong to Brewer is a solid ace reliever, and the rest of the staff is outstandingly undistinguished. The team has a semi-infinite supply of good, but not great arms, enough to make a respectable pitching crew. However, there are three starting pitchers, Jenkins, and a comeback by Gaylord Perry, plus ancient reliever Billingham, and a comback by Dave Guisti who did so well. Otherwise, the team is very unlike last year, although they did have a good start, they couldn’t catch up.

3. San Francisco. Probably the best team surprise in the league last year was the Padres’ development into one of the league’s biggest power groups. The team was assembled in 1969, as a young pitching team. Last year the pitching was disappointing, except for the A.L. castoff Pat Dobson (14-15) and ex-Giant reliever Ron Herbel, who led the N.L. in games pitched. Those two are gone now in trades, and San Diego needs more pitching. The starting crew—Coombs, Kirby, Santonti, Roberts and Phebus, picked up from Balti more—is a risk. The three big hitters, Brown, Gaston, and Colbert, averaged in the 30 HR and 85 RBI range, and several others provided back-up. If expert trade buzzin’ Bavian can put together a better infield and pick up some pitching, this team could move up soon, but it looks more like another cellar dwellar in 1971, but I don’t think he’ll ever have luck a second time running.

Some Prefer the Subheds
1. St. Louis. The Cards have slipped badly the last two years, and at this point any relation between this team and the power house of 1967-68 is purely coincidental. Still, this team has Bob Gibson, plus several other good arms, enough to make a respectable pitching crew. St. Louis has a lot of stars can’t lose again—can it?

More and more and more
2. Pittsburgh. If my skill of last year repeats, Atlanta and Montreal will win in ‘71. Pittsburgh fooled me most of the way down the line last year, although they did have hitting and Dave Guisti did so well. Otherwise, the team is very unlike Chicago. The Cubs have several superstars and several holes behind them. Pittsburgh has no superstars at all, unless Clemente or Stargell come back from injury-prone years (they probably will), but seems to have a full roster of_regulars. This doesn’t look like a winner: the pitchers are mostly 300-400 out, and the lineup is hit and high just fine, but not great, the defense is less than outstanding. But all this was true in 1970 and they won anyway, and the division may be tighter yet in 1971. They made a good trade, picking up future star Bob Johnson from K.C. for three useful but unnecessary players. Casey Danny Mustarga may be able to juggle

Catsich Hooper goes up for the ball in last Saturday’s game against Cal State L.A. —Photo by Fish

* Student travel discounts
* Off-peak travel for over 2000 inter-European student charter flights
* International student ID card
* 2 weeks in England for $135
* 3 weeks camping in Russia and Czechoslovakia $156
* 5 weeks in Spain, Portugal and Morocco $330
* London-Copenhagen 7 week African Safar $641

CONTACT:
SACA
11687 San Vicente Blvd., No. 4
Los Angeles, CA 90049
(213) 826-5669

EXCLUSIVE ENGAGEMENT STARTS
FRIDAY, JAN. 29

THE CALIFORNIA TECH

Page Ten

Thursday, January 28, 1971
Swimmers Find Rside Has Improved Team
Lose 74—39
by Bob Kieckhaefer

Last Friday the swimming team traveled to Riverside where it encountered conclusive evidence that UC RCR ranks third highest team in the Pacific, in many years. (In simpler language, OCR beat Tech 74-39). Bob Cole-
man was the only Tech swimmer defeated that night, as, in the 133-yard individual medley he beat OCR's All-American by the length of his fingers. Bob also received close seconds to the same super-swimmer in the 200-yard freestyle and the 200-yard butterfly.

Tim Hight picked up seconds in the 1000- and 500-yard freestyles and Bob Hall received Tech's only other second place in the 200-yard breaststroke. While winning ten swimming events, OCR swimmers set school records in the 66-yard freestyle and the 200-yard back-
stroke.

Tech's divers saved the team from an even more defeat because of their consistent performance. Roger Zieve and Walker traded loss for win, first in both diving events, while Alan Rice took a second off the 3-meter board and the other two divers were not a factor.

The team is optimistic about the coming of the league season, opening Saturday against UC Santa Barbara at Irvine. With the return of Tony Collings to action Sunday, Tech has all the potential it seemed to have last year. The returning divers, plus a few new arms; the Mets don't seem to have any. Sorry 'bout that.

As for the lineup, Clendennon, Agee, Shamsky and sometimes Sage, tend to keep the score from being higher.

The team is optimistic about the coming season, opening Saturday against UC Santa Barbara at Irvine. With the return of Tony Collings to action Sunday, Tech has all the potential it seemed to have last year. The returning divers, plus a few new arms; the Mets don't seem to have any. Sorry 'bout that.

As for the lineup, Clendennon, Agee, Shamsky and sometimes Sage, tend to keep the score from being higher.
Continued from Page Eleven
The starters are targeted: 22-game winner Clyde Wright, coming off Andy Messersmith, respectable Rudy May and Tom Murphy, and two sore-arm-ed re-treads, Mel Queen and Jim Maloney. Maloney says he's all right, and Queen had an excellent year, but there are only really only one truly reliable starter is Jim Perry, with 44 wins the last two years. A good move, but an arm that broke last year, while Dave Boswell had a miserable year. Only rookies Bert Blyleven and Bill Zapp (yes, Virginia, baseball has fake names) saved the Twins' last year. There are two big bats, Tony Oliva and Harmon Killebrew. Rod Carew, 1969 Bat Champ, was having a great year, but lost an arm to a bad hurt last year. Richard Stweezy's the player of the year, but there are extra lines there. Even Minnesota's the greatest, and somehow I don't figure this team to be good enough to win the American. baseball's the greatest, division's weakest.

3. Oakland. Finley's Folks did almost as well as anyone ever could, except they'd have to be looking for a much better team to be close to winning, and still weren't very close to winning. The only men really close are the right-handed toughy outfielder Reg Jackson and sore-armed starter Blue Moon Odom. The A's should be a good team this year. But Reg Jackson, Bando, Mincher, Alou, Monday. There are also several good arms: Pacific the offense, and good pitching, you can expect a good year, or in at least one. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine. Bobo Knoop was a disappointment again this year. The A's were at their catcher last year, and the undercard as a whole is fine.