



Caltech's Beckman Auditorium received recognition for outstanding programming early this month when the staff received an "ESTHER" award from the CALIFORNIA JEWISH VOICE. Its editor, Henry Roth, left, made the presentation of the award to Dr. J. Kent Clark, chairman of Caltech's Faculty Committee on Programs. The award acknowledged the Beckman concert of Shirley Verrett, soprano, as the outstanding voice recital in the Los Angeles area last season.

## 'Busted' Tecker Spurs Marijuana March

Ulli Hartman, a Fleming House senior in electrical engineering, recently was convicted on a charge of selling marijuana and sentenced to five years' probation and five weekends in jail. A demonstration both in favor of Hartman and protesting the unrealistic laws against marijuana has been planned by Tom Wilson, another Fleming House member, to take place before the Pasadena City Hall, Wednesday, January 24, at 11 a.m.

Originally Wilson attempted to organize a march to coincide with Hartman's first weekend in jail, which was on Saturday, January 13. On the eve of the projected demonstration, however, Wilson and his friends decided that the effect of the demonstration would be greatly heightened by a week of planning, so the march was postponed to Saturday, January 20, Alas, the Graduate Record Ex-

ams are also scheduled to take place this Saturday! And who is ever around on Sunday?

After two postponements of the final date, Wilson is adamant that the Wednesday post is "ab-

solutely definite." All prospective participants should bring signs, urges Wilson, but he promised that extra signs would be available at Fleming just prior  
(Continued on page 3)

## Faculty Board Grants Approval to Project

by Alan Stein

The Faculty Board voted by a large majority to permit the students of Caltech to go ahead with the ASCIT Research Project. At its Monday meeting, the board also specified that ASCIT should consult with the Ad Hoc Committee on the Research Project and obtain its approval on any project matters involving the Institute.

The resolution produced at this meeting states:

"Whereas, the Faculty Board recognizes the high educational value of the proposals I and II" (the proposals now being prepared for the six-month pilot project) "and wishes wholeheartedly to encourage the student body to proceed with their proposals,

"Whereas the Faculty Board envisages the proposals as an expression of student activity, rather than faculty organized activity, and

"Whereas many administra-

tive rules and policies must be observed in the implementation of these pilot programs;

"The Faculty Board permits the students to proceed on their own, to seek financial support for the proposals, for pilot programs I and II, subject to the understanding that ASCIT will continue to consult the ad hoc faculty committee and secure its prior approval on matters concerned with C.I.T. involvement."

The text of the faculty study committee's favorable reaction to the project appears on page 5.

In general the faculty was in favor of the basic idea of a student project, most of the discussion about it arising from the pilot proposals to be submitted. Mike Garet, chairman of the Coordinating Committee, believes that this resolution will not cause any major changes in the project.

## Twenty Students Visit Ghetto

The Caltech Y's associate secretary, Bert Housman, sent 20 fortunate and not-so-apatetic Teckers off on a unique endeavor Tuesday night as the Phase III Program got underway with a preliminary briefing. Besides covering the technical details of the three-day experience, the meeting exposed some of the whys of the program.

Students, hopefully, will discover that on the topic of racism attitudes alone have been ineffective in the past in implementing an improvement. They will find that there is a dearth of action and personal commitment that is holding back the journey to success. They will see how they have encouraged racism on an institutional level while personally rejecting racist beliefs. In essence, they will look at racism and thus find out where it really is.

Houseman emphasized that the "experience-in" might be the last chance for the participating students to experience a happening such as the planned involvement will be. As participants they will be able to live within the largest sub-culture in American society and observe firsthand the facets of that sub-culture that make it a ghetto generator.

Action during the day will revolve around three hotspots of ghetto life: Westside Study Center, Project Head Start locations, and Washington Junior High School. At night the participants will stay with ghetto residents, thus making the experience a total one. At the end of the session, the Teckers will assess their experience at an evaluation party.

The students, said Housman, will be ignored, resented, or

viewed with suspicion while in the ghetto. Undoubtedly they will sometimes be condemned. Maybe, if they're lucky, they will, by the end of the program, be readily accepted into the alien ghetto society. Regardless they will increase their usefulness in the field of race relations.

## FCAP Vetoes Test Changes Aired by Student Committee

by Roger Goodman

At the end of last term, the Faculty Committee on Academic Policies (FCAP) did not accept a proposal of the ASCIT Educational Policies Committee (EPC) that all finals be made take-home. This proposal grew out of EPC discussion of the possibilities of having a reading period before finals. Additional student suggestions, that Saturday finals be eliminated, and that Friday classes before finals be canceled, were presented later, and were rejected by the FCAP.

Interviews last week provided information on the proposals and the reasons they were not accepted. Bob Enenstein, EPC chairman and student member of the FCAP, had advocated the ideas for three reasons: greater flexibility for students in taking finals, a chance for a reading period between classes and finals, and a chance for students to take all finals early, if desired. Having finals as take-homes would allow all of these, making the other two plans unnecessary.

Enenstein said that members of the FCAP were to poll the faculty on the ideas, and members of the EPC were to poll the students. A large majority of Teckers were in favor of canceling classes Friday, but they were split over Saturday finals, because many did not want finals

running late into the following week.

According to Enenstein, the three main reasons the FCAP did not accept the ideas were that they did not want to tell other professors how to teach their courses, that some instructors wanted to be in class when finals were given in case of errors on the test sheet, and that some faculty members had their reservations about the honor system. He said that one solution would be to have take-home tests but also scheduled times and places for tests when a teaching assistant would be present for answering questions.

Split

Dr. Aron Kuppermann, FCAP chairman, said that the FCAP probably would have approved the plan for no Friday classes or Saturday finals had it not been for the student split over Saturday finals. Just having a one-day reading period on Friday was not felt to be significant, whereas a three-day weekend would be. The proposals could not satisfactorily please both groups of students.

Kuppermann said that the main reason for turning down the EPC proposal for all take-home finals was that the FCAP felt that the faculty would not want to force such a rule on all instructors. He pointed out that

the freedom of instructors was basic at Caltech and was just as important as the freedom and convenience of students. Other reasons for opposition, such as the honor system or errors on test sheets, were minor and were personal reasons why instructors would not want take-home finals imposed on them.

Dr. Jerome Pine had no doubts about the honor system but felt that take-home finals could not be legislated by the faculty. He pointed out that often graders also want to leave for early vacations and that there are sometimes inconveniences to instructors  
(Continued on page 2)

## Political-Military Ploys Feature Mid-East Crisis

by Barry Lieberman

After three years with southern Africa as the focal point, the Caltech Political Military Exercise will this year move to the Middle East for its mid-April "crisis."

Professor Edwin Munger, Caltech's African expert, has served as an inspiring resource person in past games. This year two American Universities Field Staff Middle East experts will assist him in making decisions on the International Control Board. Dr. Robert Rosenstone has agreed to sit with me on the American Control Board.

Stimulating situation

Briefly, for those who know nothing about it, the PME is an exercise in crisis diplomacy. Teams representing real countries exchange diplomatic mes-

sages, make war and peace, and generally simulate the job of running a nation. In addition, the United States is not played by one team, but instead is broken down into branches of government and relevant pressure groups. Thus, domestic American politics is simulated in the course of simulating the international situation. The Control Boards attempt to keep the game within the bounds of realism, and are also charged with the responsibility of deciding certain outcomes.

For most participants, the PME combines amusement with learning. All students, graduate and undergraduate, plus faculty and staff, who are interested in playing are invited to sign up at the YMCA.

### Notices

#### MOBIL ECONOMY RUN

The Office for Industrial Associates is looking for students to assume leadership positions for the 1968 Mobil Economy Run. Seven House leaders and a Chief Observer will be selected.

Interested students should submit their names to the Industrial Associates Office, Room 7 Throop, no later than January 25.

#### PME '68

Anyone interested in participating in the PME should sign up in the Y. The game will be held third term over the weekend of April 12-13.

(Continued on page 2)

**Editorial**

# Marijuana Demonstration Deserves Student Support

A Caltech senior is currently serving a five-weekend sentence in a Los Angeles jail for selling marijuana. He has also been placed on probation for five years.

Many other Caltech students also compromise their positions with regard to the law by using illegal drugs, selling illegal drugs, or merely knowing that illegal drugs are stored in their rooms or apartments. And although a growing number of legislators, judges, and law-enforcement officials realize that the laws dealing with the use or possession of hallucinogenic drugs are unduly harsh and perhaps unwarranted, this does not help those who currently violate the law.

**No evidence**

We recognize that little or no medical evidence exists to substantiate any claim that marijuana (and marijuana only) causes somatic damage; moreover, psychological authorities generally agree that marijuana usage is less of a social problem than is alcohol usage. In short, the only bars to marijuana usage are legal.

In connection with the conviction, a nucleus of several Caltech students is planning a demonstration to advocate the legalization of marijuana. Many others sympathize with this plan, and leaders expect a sizable turnout.

We believe that all Caltech students who feel strongly on this issue should support the demonstration. There is no need for citizens to suffer from an unjust law if enough people are willing to ask for its repeal.

# Finals Policy Unaltered

(Continued from page 1)  
tutors in preparing finals early. He reminded students that they often can go to a professor and arrange for a take-home final.

Dr. Robert Sinsheimer had no qualms about the honor system or take-homes. He did feel that Teckers should display more unanimity before the FCAP could be sure it acted in the best interests.

**Strain**

Different views were held by Dr. Peter Fay, who said that the honor system should not be subjected to undue strain, unless exams were drawn up in such a form as not to. Emphasizing that this was his opinion and not the committee's, he noted that the very fact of the existence of the BOC indicates that there are honor system violations, and that even it is not omniscient. He questioned that plagiarism cases of his and his colleagues on the humanities faculty are never reported by students. Science students might tend to cut corners

in humanities classes and take-homes with mostly objective questions might put undue strain on poor students. He thought that humanities take-homes probably would be drawn up differently, with more essays and less "fun and games" questions; in some ways this could inconvenience students. The honor system must be viewed realistically, and undue strain on it could cause its breakdown.

Fay's poll of the humanities faculty indicated that they would go along with not having Saturday finals, but student opinions and motives were not unanimous on this point.

Einstein said that the EPC still recommends that all finals be take-home. He reminded Teckers that they can often make arrangements with instructors, either individuals for personal reasons, or the entire class. The EPC encourages all professors to give take-homes and urges all students to request them.

**Letters**

# Grad Explains Scientology

**Editors:**

Since your reporter is understandably not familiar with the topic of Scientology, I should like to provide some information which may be of interest to your readers.

Scientology (or the equivalent term, Dianetics) is a method of studying the mind developed by the science fiction writer Lafayette Ronald Hubbard in 1938. According to Hubbard, it was after twelve years of research that he made his discoveries public, first in the May 1950 issue of *Astounding Science Fiction* and shortly thereafter in his basic work, *Dianetics: The Modern Science of Mental Health* (Hermitage House, 1950).

The study of Dianetics shows that the mind is composed of two parts, the conscious mind (or "analytical mind") and the unconscious mind ("reactive mind"). The reactive mind, being a moron, is incapable of thinking. However, when the analytical mind is unconscious or semi-conscious due to pain or sleep or some other cause, the reactive mind begins to make recordings. These recordings are called "engrams." The engrams contain a record of everything perceived by the reactive mind while the analytical mind is not operating.

**Engrams**

Engrams are responsible for all mental aberrations, such as neuroses, psychoses, psychosomatic illness, etc. By means of

the "reactive bank" and the "demon circuits," the engrams cause these problems because the reactive mind is unable to evaluate the engrams as the intelligent analytical mind would be able to. The engrams are definitely responsible for the common cold, and may be responsible for diabetes and cancer.

The engrams which cause the greatest problems are the prenatal engrams, recorded before birth. (The earliest engram, the "basic-basic" or BB, is usually a "sperm dream," consisting of the memory of swimming up a channel.)

In his book, *Dianetics*, Hubbard explains how experiences in the womb may produce prenatal engrams: "Mama sneezes, baby gets knocked 'unconscious.' Mama runs lightly and blithely into a table and baby gets its head shoved in. Mama has constipation and baby, in the anxious effort, gets squashed. Papa becomes passionate and baby has the sensation of being put into a running washing machine. Mama gets hysterical, baby gets an engram. Papa hits Mama, baby gets an engram. Junior bounces on Mama's lap, baby gets an engram. And so it goes." (*Dianetics*, p. 130).

**Stuff**

The manner in which an engram may affect a person's later life may be illustrated by the following example (from p. 208 of *Dianetics*): A pregnant mother is

straining for a bowel movement. This compresses the baby into painful unconsciousness. The mother talks to herself and says, "Oh, this is hell. I am all jammed up inside. I feel so stuffy I can't think. This is too terrible to be borne." Later in life the child has frequent colds ("I feel so stuffy . . ."). An inferiority complex may develop because the child believes he was "too terrible to be born."

Fortunately, the engrams in the reactive bank can be erased and placed in the "standard memory bank," where they can be recalled by the analytical mind. This is accomplished by the process of "auditing," which brings the patient from his neurotic state to a state of "clear." Hubbard has found that persons in a state of clear have higher I.Q.s, better eyesight, and do not get colds.

I regret that I do not have the time to explain the process of auditing. The extravagance of the claims made for auditing is exceeded only by the extravagance of its cost. Interested persons should contact the Hubbard Association of Scientologists in Phoenix, Arizona. They may wish to enroll in the Hubbard College Graduate School, also in Phoenix, which offers a Bachelor of Scientology degree.

Readers may also find further information in chapter 22 of *Fads and Fallacies in the Name of Science* by Martin Gardner (Dover books, 1957). I am submitting this letter because the reading of crackpot science is a hobby of mine.

Cary Lu

**More Notices**  
(Continued from page 1)

**ASCIT CARDS**  
If you live off campus, or have not otherwise received a student body card, they are available in Louise Hood's office in Winnett.

**PICK UP YOUR SENIOR PICTURES**  
On-campus seniors should pick up their senior pictures in Rm. 118 Ru and off-campus seniors should pick up their pictures from Kent Studio.

**LAST DAY FOR PICKING UP BIG T'S**  
is Feb. 4. All Big T's not picked up by then will become the property of the Big T to be disposed of as economically as possible.

**DANCE AT CAL STATE!**  
The Cal State, Los Angeles, Newman Club is sponsoring a dance featuring the "Leaping Lizards" on Friday, January 26, from 8-12 p.m. The admission price of \$1.00 includes live entertainment and free refreshments. Go to the C.S.C.L.A. Trident Lounge on the 26th!

**HOUSING PROJECT**  
Rides to the UCLA-YMCA Housing project will leave from the front of Winnett this Saturday morning at 9:30.

(Continued on page 3)

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Letters

Coffeehouse Set for Brew

**Editors:**  
It has now been almost a year since the Caltech Coffeehouse first opened its doors to weary Teckers seeking shelter from the elements, sustenance away from Student House food, and surcease from the cares of continuous snaking. Since then the management of the Coffeehouse, which underwent a change last term, has been engaged in solving the problems of procurement, service, and financial records, and completion of construction and installation of equipment. They only major project left to do now is the installation of the racks to hold the coffee mugs belonging to the members. When this is completed the Coffeehouse members farsighted enough to purchase mugs last year will be able to reap the rewards of their investment in larger servings of beverages.

Now the time has come for the major attention of the management to be shifted to the provision of intellectual and spiritual stimulation for the patrons of the Coffeehouse. A program of weekly hootenannies, which will be held at 10:00 p.m. every Friday night, got underway last week with home-grown talents Bob Flake, Jim DePauw, Jeff Larson, and Jeff Moller leading a varied program, including a rather unusual version of "When I'm Sixty-Four" arranged for auto-harp and electric kazoo. Tonight the Coffeehouse features the first of a series of discussions on significant social, economic, and political questions important to all individuals at Caltech or elsewhere. Tonight's topic will

be "The Role of the Student in the Modern University: What Are His Rights and Limitations in Dissent?" In the future we plan to expand on the theme of the student's educational role. Proponents and opponents of the planned demonstration against the marijuana laws are especially invited, but anyone and everyone is invited to come and participate at 9:30 p.m. tonight. The Caltech YMCA, the ASCIT Activities Committee, and other campus organizations are currently working with the Coffeehouse management to make the Coffeehouse a focal point of informative and useful student activities.

Anybody who would like to hold a program or meeting at the Coffeehouse is encouraged to contact the managers, James Henry, Ed Schroeder, or Kent Asmussen, in Blacker House at 449-8344; through Louise Hood in Winnett; or by leaving a message for us at the Coffeehouse. All those who would like to see these programs and others continued are encouraged to give suggestions as well as financial support through patronage of the Coffeehouse.

Ed Schroeder

Into the Incinerator

"Campus Strife at Theocracy"

by Jim Cooper

Freshman Edward B. Barrelmaker of the Mythological Institute of Theocracy paraded solemnly up to his hall's UCWAF (Upperclassman Who Advises Freshmen) and said, "Hey! What are you doing?"

The UCWAF, who had been busily nailing sheets of cardboard to long poles, looked up at Barrelmaker and replied, "I'm making picket signs for tonight's torchlight parade on the local television station. Haven't you heard anything about it?"

"No," said Barrelmaker. "Boy, you sure are dumb, frosh," said the UCWAF.

"What's the torchlight parade for?" continued Barrelmaker when he saw that the UCWAF had returned to his work.

The UCWAF sighed the sigh of a man resigning himself to an unavoidable fate. "Barrelmaker," he said, again looking up from his work, "I don't know how low the standards of admission must have been dropped to have allowed someone as dumb as you to get in here, but it must have been some distance."

"I didn't know that they were

lowered," said Barrelmaker with open-eyed innocence and honesty. "Do you have any idea how far they were dropped?"

Before Barrelmaker's gaze, the UCWAF could only snap, "No, I don't know."

"Well, what about the parade tonight?"

In exasperation, the UCWAF catalogued Barrelmaker as a hopeless case, and replied, "It's a torchlight parade to demand that the television station bring back the most outstanding television series to ever present basic theocratic principles."

Warming to his subject, the UCWAF continued. "Yes, through the panorama of action and adventure contained in this series, basic theocratic principles of virtue and honesty come pounding across the screen into the mind of the viewer. It is a crime that this series was ever removed from the airwaves, and now we are starting a movement which hopefully will result in its reinstatement."

"What's the name of the show?" asked Barrelmaker.

"Can't you tell? Can't you figure it out?" screamed the UCWAF who had worked himself into a fiery passion. "I can only be talking about the fantastic *Soupy Sales Show*. Now are you with us or aren't you?"

Barrelmaker, somewhat cowed by the fact that the UCWAF had

yelled his last question only a few inches from his face, timidly replied, "I had planned to spend part of the evening tutoring some elementary school children as part of a ghetto rehabilitation program, and then I was going to do a little work on Theoc's research project of studying the effects of theocratic philosophies on the works of Hugh Hefner."

The UCWAF glared at Barrelmaker. "Look," he said sharply, "things like that are trivial in importance in comparison to tonight's march. Only such trivial organizations like VISTA or the NTF (National Theocratic Foundation) get involved with things like that. Theoc students should be concerned with really important things."

"Well, if you put it that way, I guess I'll go."

"That's fine," said the UCWAF, thinking that there might be some hope for Barrelmaker after all. "You've restored my faith in a part of human nature by agreeing to come along."

"What part is that?" asked Barrelmaker.

"Oh, it's the belief that humans would rather do something important than something trivial, and that they're more willing to work for something important than for something trivial. Isn't that wonderful?"

"Yes, I guess it is," agreed Barrelmaker.

Thorne Discusses Stellar Objects

by Tom Carroll

A standing-room-only crowd at Beckman Auditorium Monday thrilled to Dr. Kip S. Thorne, associate professor of theoretical physics at CIT, as he presented the latest edition of the Caltech Lecture Series. "The Death of Stars," as the hour-long lecture was entitled, encapsulated what astronomers currently hypothesize about the life histories of the heavenly light sources.

As implied in the title, the speech particularly concerned the final stages of a star's life. Thorne, who received his B.S. degree from the Institute only six years ago, explained the four

types of "dead" stars: white dwarfs, supernovae, neutron stars, and puzzling bodies known as "black holes." But the story, as told by Thorne, really began with a "star chronology."

All stars, said Thorne, go through three roughly universal stages. The first of these, known as the main sequence, is that period during which hydrogen is converted to helium to produce energy. The sun is now in this stage. After a period of time that varies with its mass, a star in the main sequence state flares up and becomes a red giant, during which time energy is produced by the conversion of hydrogen to carbon. This process uses up the star's matter at an alarming rate, however, and the star soon begins contracting.

This is the crucial period in a star's life. If the star is one of relatively little mass, it will continue contracting until it becomes a dense, compact body aptly known as a white dwarf. If it is larger, however, it will more probably collapse upon itself, causing violent consequences. It may explode, forming a brilliant supernova; it may suddenly stop contracting and become a neutron star, emitting x-rays instead of light; or it may go on collapsing until its own gravity becomes so great that even light is held firmly within the system.

From here, said Thorne, the life of a star is quite frankly a mystery. Using countless informative slides, Dr. Thorne made the audience feel at home up to this point. After this, though, he startled his listeners with a deluge of currently popular speculation about other universes and time warps. Both these phenomena are possible from current data, and Thorne was content to close his lecture here with hopes that future study will give more positive answers.

Marijuana Picketing Due

(Continued from page 4)  
to the beginning of the demonstration.

Wilson estimates an attendance of about a hundred students, and stresses the importance of "momentum" in the effort. All faculty members who have views consonant with the following statement he urges to attend. Some possibility of police interference with the demonstration is seen by the planners as possible, but no one is anticipating it; this is to be a quiet protest.

The following is an outline of the purposes and aims of the demonstrators:

'As members of the scientific community, the Caltech students and professors assembled here oppose the present laws which prohibit, under severe penalties, the use, possession, and sale of marijuana.

We know marijuana to be a nonaddictive and relatively harmless euphoric which impairs reasoning ability and coordination to a lesser extent than alcohol. Furthermore, marijuana is not a narcotic, and there is no evidence to justify the supposed correlation between the use of marijuana and the use of narcotics. Since there are no compelling reasons that support the marijuana laws, we believe that they represent an abridgment of the rights of the individual.

In addition, we believe that these laws are having a destructive effect on our society. The extensive police efforts to eliminate the use of marijuana have been ineffectual and have resulted in labeling, as criminals, many socially valuable individuals. Under the present laws, hundreds of thousands of college students are guilty of a serious crime. We do not consider these individuals to be criminals, nor do we consider their "crime" to be a serious one. The unrealistic penalties against marijuana have also caused many students to lose respect for the law in general.

We agree with the 1963 White House Conference on Narcotic and Drug Abuse that "... the hazards of marijuana *per se* have been exaggerated and that long criminal sentences imposed on occasional user or possessor are in poor social perspective."

In a country which spends more money on alcoholic beverages than on education, no reasonable argument has been presented for the continuation of the present marijuana penalties. The time has come for a political attempt to change these anachronistic laws, and by demonstrating, we are publicly stating our support of this change.'

More Notices

(Continued from page 2)  
**SCIENCE FICTION CLUB**

Meet fast-rising science fiction author Dave Gerrold — writer of "Trouble with Tribbles" *Star Trek* episode — and learn about breaking into the science fiction writing field. Come to Winnett Clubroom 1, Wednesday, January 24, at 7:30 p.m. Everyone is invited.

**STAGE BAND NEEDS MUSICIANS**

Every Wednesday night, a handful of dedicated musicians tries to rehearse at Beckman. But several important parts still need to be filled. If you play a sax, guitar, bass, piano, or any other instrument pertaining to a dance band, show up in front of Beckman on Wednesday night at 7:30. Brand new stage band music will be played. A drummer is badly needed!

**CALTECH GOES BIG TIME**

The Caltech Sailing Club will present a film on the 1964 America's Cup Thursday, January 18, at 7:30 p.m. Place to be announced. See notices around campus.

**AIR FORCE**

Representatives of the U.S. Air Force recruiting service will be present at Caltech on 25 January 1968 for the purpose of interviewing students for the U.S. Air Force Officer Training program.

(Continued on page 7)



**JACK SEDOVY**

BSMetE, Lafayette, has handled both metallurgical lab and mill assignments since joining the Bethlehem Loop Course. He was recently promoted to Chief, Yield Engineer, responsible for achieving the greatest possible yield of saleable products made at our Lackawanna Plant, near Buffalo.

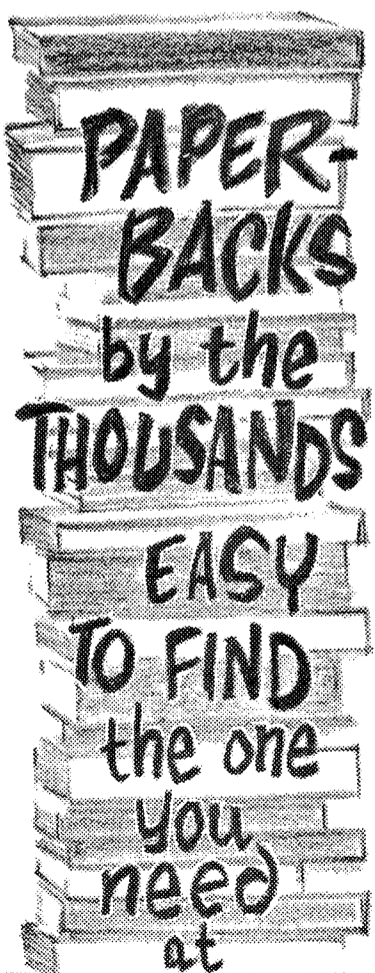
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# The Scientist's Responsibility in the Light of Philosophy

by Alfred Stern  
Professor of Languages  
and Philosophy

From the days of Archimedes to those of Enrico Fermi and J. Robert Oppenheimer has the art of war subsisted on the talents of the scientists. For centuries this work of great scholars for the destruction of human lives—among them Leonardo da Vinci and Galileo Galilei—did not create serious moral problems. In order to exculpate those who dedicated themselves to activities which could be considered as contrary to the scientific spirit, two arguments have been advanced. The first is that every citizen has the duty to defend his country with the best he possesses: the soldier with his life, the scientist with his knowledge and talent. The second argument is that the scientist is a pure technician who resolves the problems which are submitted to him and is not responsible for the use other people make of his discoveries and inventions.

The first of these arguments has been refuted by the invention of atomic bombs, hydrogen bombs and superbombs. Since, as several highly competent specialists pointed out, a nuclear war fought with these bombs would exterminate the whole populations of both the United States and the Soviet Union, the scientist who contributes to the nuclear armament of his country does not defend it, but condemns it to suicide. Pushed to its extreme, every principle is converted into its contrary. **Summum ius, summa iniuria**—the highest justice entails the greatest injustice. The philosopher sees here the confirmation of a dialectical law of Hegel's logic: the **quantitative** change in the destructive power of war alters its **qualitative** character: self-defense becomes self-destruction.

#### Kahn advocates

The second argument mentioned above is likewise not valid, but to refute it, more reasons must be adduced. Its strongest advocate is Herman Kahn, a mathematical physicist and Caltech graduate, for years a leading military analyst of the Rand Corporation and now director of the Hudson Institute in White Plains, New York, which advises the Defense Department. Through his two best-selling books, **On Thermonuclear War** and **Thinking About the Unthinkable**, Kahn won world-wide notoriety but certainly no glory. In these books he tries to convince the American people that thermonuclear war is perfectly feasible and he calls for an American capability to wage such a war and even to wage it first, "if sufficiently provoked." According to Kahn the result would be far less terrible than one usually imagines. It would not mean the destruction of the whole of mankind, but "only" the death of about one hundred and sixty million people and the deformation of the genes of thirty million unborn children.

What price in human lives would the American people be ready to pay for punishing the Soviet Union in a thermonuclear war? "I have discussed this question with many Americans," says Kahn, "and after 15 minutes of discussion their estimates of an acceptable price generally fall between ten and sixty million (people), clustering toward the upper number." According to his inquiries Kahn is also convinced that most of his fellow-Americans would be ready to accept "with equanimity" a shortening of their own lives by ten to fifteen years, as a consequence of radioactive contamination.

Kahn's main thesis is that



Dr. Alfred Stern

—photo by Stein

even if the United States lost half of its population "the survivors would just not lie down and die. Nor would they necessarily suffer a disastrous social disorganization. Life would go on and the necessary readjustments would be made." "If "well planned" the economy of the country which strikes first would recuperate after a few years. What else can one wish?"

#### Neutrality

For this kind of scientifically based advice which Herman Kahn gives the American people and their government he does not feel morally responsible, but declares himself "value-neutral." **The Scientific American** called Kahn's first book "a moral tract on mass murder: how to plan it, how to commit it, how to get away with it, how to justify it," while Vice-President Humphrey insisted that Kahn's views "merit serious considerations by serious people."

There are persons, especially within the "power elite," who agree with the idea of the scientist's "value neutrality." They try to degrade the scientist to the rank of a highly specialized

robot who executes the orders he receives from the government, leaving to the latter the moral responsibility for his doings. Even a man of Winston Churchill's stature upheld this view with his worldwide authority.

Ironically, this principle seems to receive some sanction from a philosophical consideration of values. For values are rooted in the psychic components which are bound up with any object by its relation to the subject. By this relation the object receives its emotional tonality which is the foundation of its value. But systematically scientific thought has to disregard the subject-relation of its contents and to restrict itself to the examination of the mutual relationships among the objects. Only in this way can science constitute an objective world out of the muddle of man's subjective sense impressions and construct the concept of a nature more or less independent of the knowing process. But in disregarding methodically any subject-relation of its objects, science is unable to take into ac-

(Continued on page 7)

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# ASCIT Research Offers Tremendous Potential

## Ad Hoc Committee on the ASCIT Research Project

The Ad Hoc Faculty Committee on the ASCIT Research Project met with student representatives on December 14 and December 18, 1967, to discuss the research project proposed by the students. Members of the faculty who were present at one or both of these meetings are: L. C. Bonner, W. H. Corcoran, F. E. C. Culick, N. R. Davidson, R. F. Humphrey, R. A. Huttenback, R. L. Woodbury, D. S. Wood. Students present were L. Erickson (ASCIT V.P.), J. Freeman, M. Garrett, R. Christ, G. Miyata, D. Perasso, W. Rippel, J. Rhodes (ASCIT Pres.), R. Rubenstein, B. Samuelson.

The committee also met on December 28 to discuss the present report and to hear from ASCIT President J. Rhodes and R. Rubenstein of their recent preliminary contact with the Rosenberg Foundation regarding financial support.

On December 14 the students outlined their proposed program for a "Study of Air Pollution in the Los Angeles Basin." They had provided the members of the committee with copies of their written proposal prior to the meeting. This proposal was for a six month "Pilot Study" at a total cost of \$110,000, for the purpose of determining viable research areas and planning specific aspects of the project. It is contemplated that this pilot study will comprise the initial phase of a two-year project.

While the pilot study itself involves relatively little in Institute participation the longer range implications make faculty review at this time very important. The students plan to solicit the proposed funds from private foundations. They wish to begin such solicitations of funds in the immediate future. Approximately 80 Caltech students have participated in the development of the proposal. In addition, meetings have been held in New York City, Pittsburgh, and the Los Angeles area to consult with students at other universities regarding their possible interest in participating in the project (with affirmative results).

### Naive

The proposed ASCIT Research Project appears to the committee to be naive and impractical in several respects. Nevertheless, it is an imaginative and constructive response of a substantial number of our students to their feeling of a need to be actively involved in problems of current public concern, and represents, in our opinion, an attractive alternative to the type of activist response that has appeared on some other campuses. Both the committee and the students believe that the proposed project would be (and has already been) of educational value to the students.

The committee discussed with the students several aspects of the proposal which appeared to commit the faculty and/or administration of the Institute in

various ways. Several detailed problems of the administration of the proposed project were also explored. Finally, the committee offered several suggestions regarding the wording and content of certain technical aspects of the proposal.

The students presented a revised proposal, with a budget revised upward to \$115,000, to the committee on December 18, and this was discussed. Further modifications have been incorporated in the final proposal, dated December 22, 1967, and marked I for identification, a copy of which accompanies this report.

A modified version of the proposal, also dated December 22, 1967 but marked II for identification, has been prepared by the students for submission to the Rosenberg Foundation of San Francisco, on January 4, 1968. This second proposal is purely a proposal from the Associated Students of The California Institute of Technology corporation and does not involve any commitment on the part of the Faculty. It is for a sum of \$33,100. It is intended as a supplement to and not a replacement for proposal I, although if any portion of the requested sum were made available the budget of proposal I would be affected. A copy of this second proposal is also attached to this report. The remainder of this report is concerned only with proposal I.

The committee recommends that the faculty board approve and support proposal I, subject to the approval of the administration of the Institute, as to fiscal and administrative matters involved. The committee believes that this student activity could be of significant educational value supplementary to the existing formal courses of instruction. It would provide the students with experience in grappling with the whole of a real problem which involves a rather wide variety of individual disciplines.

It may serve to increase the motivation of some students for intensive study of various established academic disciplines by providing specific examples of the value of expert knowledge of those disciplines. The students may acquire valuable experience in dealing with the problems of organizing a group of people for the purpose of accomplishing a specific task.

The proposal, if carried out, would involve participation of the faculty and administration. The committee believes that the proposal strikes a proper balance between the necessary responsibility and control by the faculty and administration on the one hand and the value of leaving as much initiative and responsibility in the hands of the students as is feasible.

Final authority for expenditure of project funds would rest in a "Project Officer" who would be a responsible member of the Institute staff appointed by the President. This committee has voted to recommend to the President that L. G. Bonner be appointed to this position.

A "Fiscal Board" composed of three students, two faculty members, and a person from the administrative staff of the Institute will review fiscal affairs of the project and make recommendations to the Project Officer. Direction of the project operations will be carried out by an "Executive Board" consisting of ten students. A "Faculty Advisory Board," whose members have agreed to serve, will be available for technical advice and will be kept informed of the progress of the project.

### Research Associates

The proposed project contemplates bringing 40 to 75 students from other universities to Caltech under a "Student Research Associates Program" to participate in the Pilot Study. These would be primarily students majoring in disciplines such as poli-

tical sciences, law, etc. which are not offered at Caltech but which are involved in the overall problem of air pollution and its control. Most of these students would be housed in apartments located near the campus. A few, which the Master of the Student Houses states can be accommodated, would live in the undergraduate Student House. The Caltech students would select the Student Research Associates from students in good academic standing at accredited institutions of higher education. It has been agreed between the Caltech students and the committee that our students will provide in writing, the names, addresses, and home university of each such Student Research Associate together with an official statement from the home university verifying the status of the individual as a student in good standing.

Our students have ascertained that the Student Research Associates could take courses for credit at UCLA in order to help them keep up to date with academic requirements at their home universities. It is also contemplated that Student Research Associates may audit some Caltech courses in accordance with the existing Institute regulations as given on page 194 of the 1967/68 catalog. More than one half of the proposed budget for the Pilot Study is devoted to this Student Research Associates program.

The proposal contemplates that the Pilot Study will investigate the desirability, feasibility, and organizational structure needed for a Laboratory Technician Training Program to train young people from the local ghetto areas to be laboratory technicians to help the college students carry out the research to be done during the following phase of the proposed project. A few such people may be brought into the project during the Pilot Study phase to test out the concepts for the proposed training program, but no significant involvement of Institute facilities is anticipated.

### Facilities


It is not clear at the present time just what physical facilities in the form of building space and equipment would be required for the subsequent research project or how and where these facilities could be made available. The development of specific requirements and proposed methods of meeting them will be one of the end results of the Pilot Study.

The committee has, to the best of its ability, avoided its natural inclination to try to induce the students to rewrite the technical and other aspects of the proposal in accordance with the committee's view of what would constitute a sound proposal. A number of suggestions have been made by the committee, some of which have been incorporated in the proposal by the students. However, we feel that any attempt at a thorough revision directed by the committee would tend to destroy the initiative and sense of responsibility of the students for the success of the project and is therefore undesirable. The committee has not examined the proposed budget in detail or attempted to have it modified, for the same reason. It will be the students' responsibility to "sell" their proposal and to answer satisfactorily any questions which the prospective sponsors may have regarding technical competence, appropriateness of budget items, etc.

The committee recognizes that many aspects of the proposed ASCIT Research Project are rather nebulous at the present time. This may lead to various

(Continued on page 6)

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# Peace Corps' Vaughn: "... Peace Is a Silent Passion..."

Following are excerpts from the text of a speech delivered by Peace Corps Director Jack Vaughn at Georgetown University's Hall of Nations, Washington, D. C.

... The Peace Corps has been, is, and forever will be the Volunteer and nothing but the Volunteer. If the organization has grown in nearly seven years, it has grown virtually as a non-organization — for which several very fine bureaucrats are growing ulcers. Over half the people running the outfit are former Volunteers. Through them we are building, not an organization, but a framework.

Through it pass the men and women with whom achievement stands or falls.

They are no people set apart; no triumphal happening; no accident.

They are you.

They are you and the thousands of men and women like you come before and yet to come. There is no corporate personality in the Peace Corps, just as there is hardly a chain of command. No general staff; no officer corps. The Peace Corps is where it happens. Volunteers survive on their merits, and serve alone.

They are you; like you they are as volatile as fashion and as immutable as the process of growing older. . . .

Peace, it seems, is in the spotlight. You have some attractive new rivals. There are a number of important new experts in the Peace business.

Let me tell you that there is hardly anyone expert about Peace. . . . This Corps of lovers is just no Peace machine. There is no Peace apparatus; no system. Take a good long look at anything which arrogates unto itself the label of a Peace Movement by that or any other name. Is it studded with eminent signaures and famous personalities? Is it laden with newsprint and guest speakers? With most of my adult life consigned to this service, I think I know enough to tell you to forget it.

Peace is a silent passion. It is a one-for-one relationship, a quiet persuasion. Totally, it is self-discipline and self-control. In the pursuit of Peace you bite your tongue one hundred times for every time you speak a single word. The day-to-day encounter is maddening, not exhilarating. You give all of yourself; you get nothing but seasoning. . . .

Still, they tell us, you stand indicted. Once, like Toynbee's peasant, you had no history. You were in a state of political grace, forgiven in innocence. Now you are nearly seven years old. How to you plead?

Answer: Guilty.

We are accustomed to public trials. The Peace Corps was taking an odd assortment of names from an odd assortment of people before the idea was hardly out of the print shop. Right from the beginning, name-calling was the order of the day. I see it still is. At a conference sponsored by the Students for a Democratic Society, participants called the Peace Corps "low temperature napalm." Well, that's rather attention getting. At least he got mine. I suppose he enjoys sharing the spotlight with a leader of Bob Jones University who ruled us off campus several years ago because we were un-American. . . .

The only thing this nation has to apologise for is that we didn't make it one hundred thousand and begin ten years earlier.

I fail to feel despair when two out of three college seniors in the United States give serious thought to joining the Peace

Corps. I fail to see anything to be ashamed of, when the Peace Corps has grown in its brief beginning years from 60 Volunteers to the largest single civilian employer of new college graduates in the United States.

I fail to feel anything but pride for an agency — especially an agency of my own country — building a framework in which its people are free to grope and plod and grow, one by one in quiet, resolute service. . . .

... Such encounters have afforded me a closer look at our most active resisters, and a chance to assess their qualities against others whose restlessness emerges with more positive character. A number of comparisons suggest themselves — the "reactor" as against the "doer," for example. But I have coined my own headings, more consistent with the qualities we seek and those we avoid in people we send abroad for Peace Corps service. I call them "macro-me" and "micro-me."

## Macro and Micro

Macro-me, like others the philosopher DiMariage has observed, converses only with God, the Universe and the self. Everything is universal in his world — or else it is small potatoes. His ends are so massive that his means have no limitations.

Micro-me allows as universal, the very little his experience justifies and his faith permits.

Faced with a moral issue, micro-me raises an eyebrow and resolves it; macro-me raises a fuss and moves a resolution.

Macro-me carps; micro-me copes.

I trust it is clear, from which rank come the remarkable young men and women who have been Peace Corps Volunteers. . . .

Right from the outset, Peace Corps service required a voluntary act. Merely to apply is an act of self-selection. Merely to accept an invitation to train was yet another act of self-selection.

Every step of the way was an important exercise in volition.

It still is. The will to overcome inertia; the will to overcome fear of strange encounters; such will is not for every person.

It was a hardly lot who volunteered in the early days. Pressures were intensive, for the idea was new and the service untested. Parental pressure and the pressure of friends was applied with a specially powerful leverage in those circumstances.

Yet they came: people of robust conviction and powerful identities.

I maintain that men and women who take the challenge of Peace Corps service today withstand pressures just as intensive as those who volunteered six years ago. . . .

## Hurting

I'll tell you one way we are hurting badly, however. It's in a group of schools we wish had no separate label . . . but they do, for now. I am speaking about a group of schools we euphemistically call "small southern colleges." That means schools that were born in another era and are still overwhelmingly filled with young Negro men and women.

How I wish we could make the opportunity for Peace Corps service clearer there! Students there have plodded a tough course, persevering in circumstances others could hardly recognize as a pre-college existence, and they study because they desperately need their diplomas. The result, of course, is graduates attuned to the needs of people where Volunteers serve overseas — first-class candidates for some of the most challenging assignments abroad.

We keep no records by race; it's a built-in handicap for us. But

we do keep track of applications from those "small southern colleges." Each year we mount special campaigns there. Each year the number of applications grows.

Yet each year the number of applicants from those schools who actually enter the Peace Corps declines. In other words — more and more students from small southern colleges are expressing enough interest in the Peace Corps to fill out an application. Yet we are getting fewer and fewer of them to accept our invitation to enter training.

## Whitey?

Many such students have family responsibilities that make service impossible. But we are aware of other pressures — intensive pressures — to stay out of the Peace Corps because it's "whitey's" affairs.

What shall we say? Shall we ease toward the door like intruders at a funeral? Shall we let studied, self-serving hatred get a half-Nelson on ideals? . . .

Lately, another agency has entered the log-jam. I am speaking of the military draft. And with that, I think it is high time we draw a few conclusions about our university people — conclusions just a little out of line with the battle cries and the newsprint. . . .

We've never had so many active young people. We've never had so much curiosity, so much questioning, so much hope and moving and stirring and leadership. They are giving us a healthy shakedown—and we ought to be proud of them for it. Like no other generation before, they are involved in life off campus, in tutoring younger people and in a host of related community programs previous generations never set their social life aside long enough even to contemplate. . . .

But now the person has before him at the end of each school year, a chilling shadow of uncertainty difficult to ignore. Presumably, that shadow concerns the young men only — but let me tell you I think the uncertainty is contagious and resented by men and women equally.

Moreover I am not convinced that military service per se, or even political decisions by this or any administration, plays so utterly pervasive a role as the headlines might convey.

There is restlessness aplenty;

## Project Report

(Continued from page 5)

problems involving the faculty and administration of the Institute in the future. Furthermore, it is possible that the project may induce some students to neglect their regular studies to such an extent that they fail to maintain their good academic standing. It is also possible that the project will fail from excessive naivete and lack of technical competence. Nevertheless, the potential educational value of the project and the value of encouraging such constructive initiative and enthusiasm on the part of our students makes these risks worthwhile in our opinion.

The judgments and recommendation made in the foregoing have been agreed to by the following members of this committee: L. G. Bonner, F. E. C. Cullick, R. A. Huttenback, R. L. Woodbury, D. S. Wood, Committee members W. H. Corcoran, and R. F. Humphrey express another viewpoint.

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and conscious resentment, too.

But I think a good close look might confirm a deeper restlessness flourishing among our university people — a restlessness with matters far more personal than they are political. . . .

I believe that when you cut away options, you dampen volition. Under modern pressures, you build anxieties as well. Leaving school is anxiety enough. Leaving school unsure of how deep a commitment one can make is worse — and I mean personal commitments, such as engagement or marriage or siring children — commitments just as important as a first job in a new career. . . .

## How much service?

In addition there is simply the practical problem of serving two years and then adding two more years of service to their country — a total of four years young men and most young women can ill afford.

For still others there is the growing awareness that even Peace Corps service is uncertain.

And right now there's hardly another thing the Peace Corps can do about it.

Except first, to make very clear to each of you, our aware-

ness of the personal pressures which assail you — a clearer impression of young people, I think, than some of their own self-appointed spokesmen assert;

And second, to commit the pardonable crime of continuing on our chosen course in the very best way we know. . . .

## Excitement

We thought the Peace Corps would offer the most intensely personal experience young people could encounter in a demanding, self-disciplined learning process.

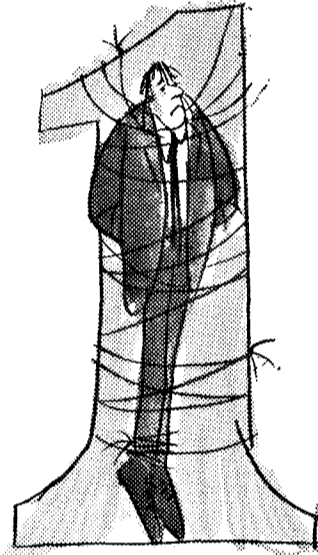
We still do.

We believed we would attract men and women whose peers and colleagues would play powerful roles in the formation of their ideas — yet who would in the end and in any crisis decide alone.

We still do. . . .

We concluded that we would serve them best by building a framework, flexible to movements and moods, supple enough to house restlessness alongside meaningful service — a framework standing then, now and in the future — so long as generations venturesome in pursuit of their ideals, should be at hand.

We still do. . . .



**"I don't have two years' experience. I have one year twice."**

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# Scientist's Responsibility Vast

(Continued from page 4)

count the psychic component which, included in the subject-relation, confers its value on each object. Thus the scientist is confronted with a value-free world, and, in fact, to science the horse is not more valuable than the horsefly. Biology studies them both with the same care.

### Basic, not applied

Yet, all this holds only for basic science, whose project is the uncovering of new knowledge, but not for applied science, whose project is always practical action. When engaged in applied science the scientist is no longer an objective observer of value-free natural facts, but a public agent, oriented toward the realization of definite social or moral values or disvalues.

One may object that it is not always possible to draw a neat line of demarcation between basic and applied science. Although the Manhattan Project was engaged in applied science, it led to such basic discoveries as the production of the two new elements, neptunium and plutonium. Yet, these discoveries were not purposes in themselves but means to practical ends. They were basically important by-products of applied science.

The value-neutrality of the re-

searcher engaged in basic science is necessary to insure the utmost objectivity of scientific research, but it is an artificial attitude and difficult to achieve, as the so-called "sociology of knowledge" has shown. Value-neutrality is definitely out of place in applied science and any other human activity. No free agent can ever escape the moral responsibility his actions entail, and least of all those agents whose actions can have the greatest consequences for the welfare and even for the survival of mankind. One cannot divide artificially human society into responsible agents and agents exempt from responsibility. As Dostoyevsky said, "We are responsible to all for all."

### Extermination

In Germany the community of scholars gave total support to Hitler's scheme of world conquest and the extermination of "inferior" races. One does not know who acted more criminally: the scientists and engineers who forged Hitler's armada, the chemists, who brewed the poisonous gases for the extermination camps or the philosophers, psychologists, jurists and writers who forged Hitler's ideological weapon, which supplied the whole power machine with "spir-

itual" energy. Today, after the disaster, the leading nuclear scientists in Germany have decided as a group to refuse participation in any attempt to create nuclear weapons for Germany. It is a late realization of the scientist's moral responsibility toward humanity.

Our civilization has been called "helenocentric." Let us therefore remember what Greek wisdom had to say about human responsibility: Protagoras, in Plato's dialogue of this name, tells us a beautiful and highly instructive myth about mankind's early times. Zeus feared that the human race would be exterminated and so he sent Hermes to men to bring them the sense of justice and reverence. Hermes asked: "Shall I distribute them as the arts are distributed; that is to say, to a few only, one specialist in the art of medicine or in any other art being sufficient for a large number of laymen. . . ? or shall I give them to all?"

### Said Zeus

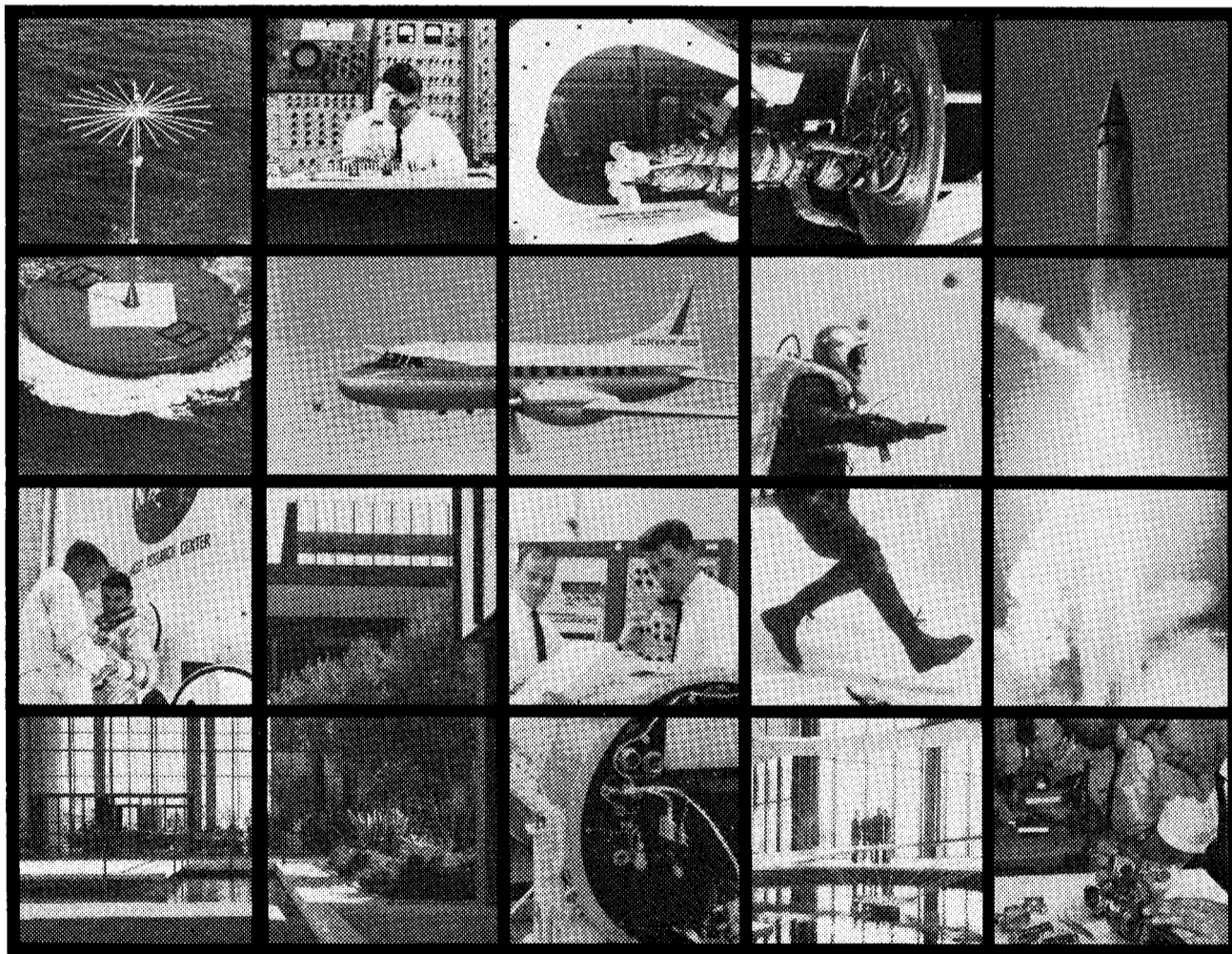
"To all," said Zeus. "I should like them all to have a share; for cities cannot exist if a few only share in justice and reverence, as in the arts." And Protagoras adds "that a man must have some degree of justice, and that if he has none at all he ought not to be in human society."

In his drama *Helen* Euripides shows how a simple attendant, a slave, steps forward to prevent his king from committing an injustice. The king shouts: "It is not for you to judge my actions." But the slave replies: "Only if what I say is best." The king: "Am I king or not? The slave: "For doing good, but not for doing wrong."

In this wonderful scene Euripides teaches us that moral insights are not a monopoly of the high and mighty and that also the humblest of men has a chance to fight for their triumph. Now, when even a slave is co-responsible for mankind's moral values, how could a scientist escape from his responsibility? Let us not forget Linus Pauling's admonition to his fellow-scientists: "We are the custodians of the human race."



TERESA STRATAS, the beautiful and talented Metropolitan Opera star, will give her first Pasadena recital in Caltech's Beckman Auditorium on Saturday, January 27, at 8:30 p.m. Some good tickets are still available. Her program will include music by Mozart, Monteverdi, Scarlatti, Brahms, Obradors, de Falla and arias from operatic roles to which she has added new glamor and excitement at the Met.



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ballistics, dynamics, thermodynamics, guidance, structures, mechanical design, electrical design, reliability, test engineering and materials research.

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### More Notices

(Continued from page 3)

#### MATH CLUB TONIGHT

Tonight the Caltech Math Club will present a film, "The Kakeya Problem," in 151 Sloan at 8 p.m.

#### THE INTERCOLLEGIATE BRIDGE TOURNAMENT

will be held Friday, January 19 at 7:30 p.m. in Winnett Lounge. Everyone is welcome.

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## Cagers Trounced by Occidental, CHM

by Creasy

Coach Ed Preisler's varsity basketball team dropped its sixth and seventh games of the '67-'68 season last week to the Occidental Tigers and the Claremont-Harvey Mudd Stags, respectively. The Beavers have won only one.

On Wednesday the Tigers almost ran CIT off of her home court at Scott Brown Gymnasium with a 93-49 barrage. Oxy exhibited a relentless display of fire power and asserted herself as a very definite contender in this year's SCIAC championship race.

On the other hand the Beavers, last in SCIAC competition last year, could muster no offensive punch. Their shooting was atrocious as they could manage only a piddling 28% from the floor and 58% from the charity line. Frosh Gary Koenig was the only Tecker in double figures with 10 points; senior forward Terry Bruns had nine. Koenig was named "Player of the Game" for Tech.

## Dabney Builds Discobolus Lead

Last weekend, Dabney increased its Discobolus point lead to an almost insurmountable position as they wrested the trophy from Blacker. The Darbs defeated Blacker in basketball, 52 to 38. Everyone played well as the Darbs received a fine team effort.

Dabney was challenged by Ricketts according to the ancient tradition in softball, golf, and pool and billiards. The match will be played in softball next Sunday.

Dabney increased its lead to 16 points and is followed by the Flems in second with eight points. Page is in third with seven points while Blacker is fourth with five points. Ruddock has two points and Lloyd and Ricketts each have one point.

## Coaches' Corner: Needs And Aspirations Voiced

The baseball team needs managers. See Coach Priesler if you desire the job. Also, the track team needs managers. See Coach Barthel about this. Remember, managing a team fulfills a P.E. requirement.

Coach Gutman would like to see anyone interested in wrestling. He would also like to see more spectators at wrestling meets. The next home meet is tonight.

Coach Reck gave a progress report on the swimming team and said that he hopes to finish second in the league. The swimmers are doing 5000 yards a day and working hard. Some are swimming twice a day to get in shape.

Coach Barthel is looking for track men, especially high jumpers, broad jumpers, and triple jumpers.

This Saturday, Caltech goes

## Tech Wrestlers Place Fourth In Tournament

The Caltech wrestling team placed fourth in the All-SCIAC Wrestling Tournament held last weekend. The Beavers finished fourth behind Harvey-Mudd, Pomona, and Redlands with 45 points. They managed to beat an archrival, Whittier.

With only seven wrestlers on the squad, Tech is at a disadvantage as they must forfeit three weight classes. However six of the seven wrestlers placed in the meet.

The matmen were led by sophomore Ken Higgins, who placed first in the 130 lb. weight class. Ken was named "Wrestler of the Week" by Coach Gutman. To place first, Ken had to win all three of his matches. He is beginning a long road because he will now go to the District 3 matches later this year. If he does well, he will then go to the National Championships.

Derry Hornbuckle, 123 lb. class, Bob Crane, 137 lb. class, and Joe Devinney, 191 lb. class, all lost close matches that could have gone either way. Each of them placed second in his respective class in the tournament.

Al Beagle placed third in the 177 lb. class. Tecker John Batchelder took fourth in the 115 lb. wt. class.

The following Saturday night the Beavers journeyed to Pomona for a crack at Claremont-Harvey Mudd, defending SCIAC champions and one of the nation's better small college cage teams. The Stags manhandled the Engineers 91-47. The story here was the same as in the Oxy game — poor shooting. Tech's floor percentage dipped to 23.2%; from the foul line they hit for 70%. Guard Jim Stanley led all Beavers with thirteen points; Bruns had nine. Stanley was named "Player of the Game".

Koenig was honored as "Player of the Week"; Bruns was "Rebounder of the Week". "Free-thrower of the Week" was Lonnie Martin. The Beavers play two road games this weekend tomorrow night at L.A. Baptist and Saturday night at LaVerne.

## Netters Look Forward to Season's Open

The Caltech tennis team is working out daily preparing for the first league match with Redlands on Saturday, January 27.

The following lettermen all have a strong chance to make the Varsity squad:

Roger Davidheiser, senior; Larry Brown, senior; John Healy, junior; Martin Frost, junior; Greg Evans, junior; Giles Duesdieker, sophomore; Craig Tyner, sophomore; Glenn Prestwich, sophomore; and Pete Zassenhaus, sophomore.

Three sophomores who did not letter as Frosh but who are all potential Varsity material are the following: Pete Youtz, Michael Sperry, and Joseph Pendergast.

Coach Lamb is looking for a manager and anyone who likes tennis and would like to help the team should apply at the athletic office in the gym.

into battle against an old foe, Occidental. Last year's game can be remembered more for the thrilling finish than the classic football, so plenty of support will be needed. With a more experienced Caltech team they should have a good chance of winning. The game will be at 2:00 p.m., Saturday, Jan. 15, Occidental's football ground.

## Honors For Aquaman

Henry DeWitt got an early start swimming against strong competition last Sunday at a National AAU meet in Venice, California. DeWitt swam in three events: the 50-yard freestyle, 100-yard butterfly, and 200-yard individual medley.

Henry placed fourth in the fifty in a :22.7 clocking. His times in the fly and medley were 1:02.7 and 2:16.8, respectively — not good enough to place.

DeWitt was not especially happy about his times but said he was pleased that he is in the best shape he's ever been in this early in the year. Swimming coach Lawler Reck also expressed pleasure over Henry's performance.

## Squads Compete This Week

Basketball: games at 8:20 p.m.

Fri. 19, at L.A. Baptist

Sat. 20, at LaVerne

Wed. 24, Pomona here

Wrestling: games p.m.

Thu. 18, 7:30, Pomona here

Sat. 20, 1:30, CHM and UCR here

Tues. 23, 7:30, at UCR

## Interhouse Tennis to Be Decided by Single Match

The Interhouse Tennis Team Championship will be decided later this week when the third singles match between Fleming and Lloyd is played. Fleming and Lloyd are tied for the lead with 35 points apiece. Page will be third as it lost points in the singles and in the doubles matches.

The tennis teams are arranged according to ability with the best player playing in the first singles and so forth. The object is to accumulate a total number of points which prevents teams from stacking their singles matches.

In first singles, Youtz of Page was first with Landy of Lloyd second and Smith of Fleming third. Youtz was named "Tournament Player" as he was undefeated in 48 games. He was the only player to go unbeaten.

Fay, Page, won the second singles and Crawford of Fleming and Hsu of Lloyd were tied for second. Fay scored the second highest number of games in the tournament with 35 victories.

In the doubles competition, the Fleming team of Kubitz and Isaacs took first place. The Lloyd team of Coyle and Whitely was second. Third place is at the moment undecided.

The third singles title is a toss-up among Ruddock, Fleming,

Lloyd, and Dabney. Each of the players is within five games of the other three.

Next on the Interhouse schedule is track which will take place on February 5, 6, and 7. Practice requirements are ten days for distance races and five days for sprints. There are no requirements for field events. Each man may participate in three events.

In Interhouse standings, Fleming is taking a strong early lead on the strength of its wins in swimming, its tie in softball, and a high finish in tennis. Page and Ricketts also have good point records.

## "Sport" Names Top Performers

From Releases

NEW YORK, Jan. 18 — Lew Alcindor of U.C.L.A. and O. J. Simpson of U.S.C. have been named "Top Performers in College Basketball" and "College Football," respectively, for 1967 in *Sport Magazine's* 21st annual selections honoring the top performer in every major sport. Jim Ryun of the University of Kansas has been named "Top Performer in Track and Field" for 1967, also by *Sport*.

Alcindor received his award for leading U.C.L.A. to an amazing 30-0 record and the N.C.A.A. championship. Big Lew averaged 29 points and 15.5 rebounds per game, while intimidating entire teams on defense.

"So dominant a figure was Alcindor," says the article in *Sport Magazine*, "that, except for a 40-35 slowdown win over U.S.C., the Bruins were never seriously threatened by anyone last year."

O. J. Simpson was "Top Performer in College Football" for leading the Trojans to the National championship and a Rose Bowl berth by rushing for 1415 yards, best in the nation. "Despite an ankle injury sustained in the season's seventh game," remind the editors of *Sport*, "the tough, shifty runner, who is also an N.C.A.A. track champion, scored 11 touchdowns and passed for three more."

Ryun received the award for his record-smashing performances as a middle-distance runner against the world's toughest competition.

In the National A.A.U. championships last season, the slightly-built, 20-year-old Kansan broke his own record for the mile with a 3:51.1 clocking. In the United States-British Commonwealth Games last July, Ryun's 3:33.1 broke the world's record by two and one-half seconds, enabling him to breeze by Kenya's Kipchoge Keino by 30 yards.

"Jim Ryun, who holds world records in the only three events that he has ever concentrated on — the half-mile, the mile and the metric mile — is the track champion," conclude the editors of *Sport Magazine*.

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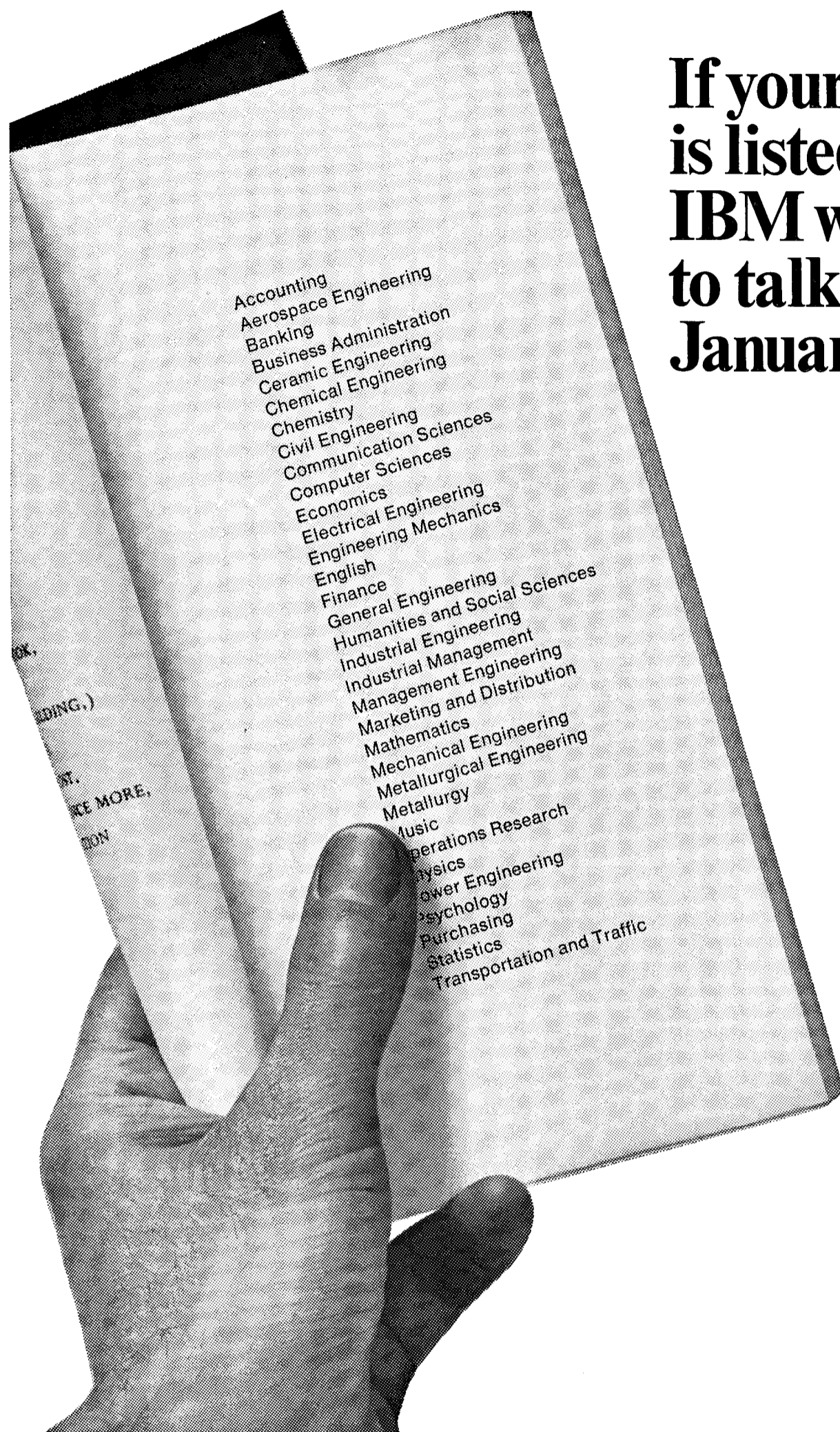
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We'll be on campus to interview for careers in Marketing, Computer Applications, Programming, Research, Design and Development, Manufacturing, Field Engineering, and Finance and Administration. If you can't make a campus interview, send an outline of your interests and educational background to Mr. E. C. Purtell, Jr., IBM Corporation, 3424 Wilshire Blvd., Los Angeles, California 90005. We're an equal opportunity employer.



# CALTECH SECOND-TERM CALENDAR 1968

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
Legend: A—Athenaeum ALF—Athenaeum Luncheon Forum B—Beckman C—Culbertson D—Dabney T—Tournament Park CFGWS—Caltech Film Group Winter Series				*—Includes Student Discount All Others: \$1 off for Students (No discount on films)		<b>JANUARY 18</b>  Shelly Manne Jazz Concert 8:30—B—Free	<b>19</b> <b>Add Day</b>  Go Club & Instruction Y Lounge—4 p.m.  CFGWS: "Hiroshima Mon Amour" 8—C—\$1.25	<b>20</b>
<b>21</b>  Pasadena Symphony Orch. 3 & 8—B—\$1.75, \$1*	<b>22</b>  Jerome Lettin, M.D. "The Significance of Protective Coloration in Animals" 8:30—B—Free	<b>23</b>	<b>24</b>  ALF: F. Roy Lockheimer "Japanese Nationalism & the Postwar Generation" Noon—A—\$1.75  Walk-in-Seminar, Lockheimer: "Prerequisites Recaptivity, & Change: Government & the Devel- opment of Science in Japan." Y Lounge—2-4	<b>25</b>  Sack Lunch: "Science & Social Change in Japan" Noon—Y Lounge	<b>26</b>  Dr. L. S. B. Leakey: "The Present State of Our Knowledge of Human Evolution" 8:30—B—Free	<b>27</b>  Teresa Stratas, Soprano 8:30—B—\$5,4,3		
<b>28</b>	<b>29</b>  F. Roy Lockheimer, M.A., M.A.L.D., "From Rifles to Rockets: The Development of Science & Technology in Japan" 8:30—B—Free	<b>30</b>	<b>31</b>  ALF: Daniel J. Kevles "The Anti-Democratic Politics of Science" Noon—A—\$1.75	<b>FEBRUARY 1 2</b>		<b>3</b>  ASCIT Searchlight Rallye & Party TP—7:30-??—FREE  CFGWS: Relativity 8—C—\$1.25		
<b>4</b>  Beaux Arts Trio 3:30—B—\$4,3,2	<b>5</b>  Gerald J. Wasserburg "The Ages of Planetary Objects in the Solar System" 8:30—B—Free	<b>6</b>  Thom Gunn Poetry Reading & Reception 7:30—D—Free	<b>MIDTERMS</b>			<b>9</b>  Personal (Thurs. Evening)	<b>10</b>  Drop Day  Encounter  Lab Week- John Williams, Guitarist 8:30—B—\$5,4,3	
<b>11</b>  <b>End</b> (Sun. Lunch)  International Quartet for Piano & Strings 8:15—D—Free	<b>12</b>  Carver A. Mead, Ph.D. "Quest for the Historical Transistor" 8:30—B—Free	<b>13</b>	<b>14</b>  ALF: Charles F. Gallagher "Problems of Social Change for the Arab World" Noon—A—\$1.75  Walk-in-Seminar "Islam & Nationalism" Y-Lounge—2-4	<b>15</b>  Sack Lunch Seminar "Problems in the Modern- ization of Thought & Be- havior in the Arab World" Noon—Y-Lounge	<b>16</b>  Univ. of Utah Repertory Dance Theatre 8:30—B—\$5,4,3	<b>17</b>		
<b>18</b>	<b>19</b>  Albert R. Hibbs, Ph.D. "The Moon" 8:30—B—Free	<b>20</b>  Silent Film Series: The Thief of Bagdad 8:30—B—\$1.50, 50*	<b>21</b>  ALF: Robert A. Rosenstone "The Radical Right Revisit- ed: Some Perspectives" Noon—A—\$1.75	<b>22</b>	<b>23 24</b>  <b>Drop Day</b> <b>CALTECH-SCRIPPS CON-</b> CFGWS: "Bicycle Thief" 8—C—\$1.25			
<b>25</b>  <b>ERENCE</b> L.A. Brass Quintet 8:15—D—Free	<b>26</b>  Frederick H. Shair, Ph.D. "Cool Plasmas Aglow" 8:30—B—Free	<b>27</b>	<b>28</b>	<b>29</b>  Lecture on Contemporary American Art by the Curator of the Jewish Museum, Alan Solomon. 8:30—B—Free	<b>MARCH 1</b>	<b>2</b>  Interhouse Sing 8:30—B—Free		
<b>3</b>  Coppin Ensemble 8:15—D—Free	<b>4</b>	<b>5</b>  Silent Film Series: To'able David, and Double Whoopee 8:30—B—\$1.50, 50*	<b>6</b>	<b>7</b>  Marian Anderson "The Artist's Responsibility to Society" 8:30—B—\$3	<b>8</b>	<b>9</b>  CFGWS: "Eve Wants to Sleep" 8—C—\$1.25		
<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>		
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