Lawton Speaks On Conditions In Red China

Bringing a measure of relief to at least one front from history section, a large group of information to all who attended, the special humanities lecture on Thursday afternoon featured a recent visitor to Red China speaking about his trip.

Dram. Lawrence Lawton passed through Red China and the Soviet Union, his tour to assume the post of Visiting Professor of the monthly U.C.L.A. Lawton is a member of the faculty of the University of Adelaide, South Australia, where he is professor of geography. During his trip, he will document various scientific personnel, and was fortunate to start his trip very shortly before the current "Cultural Revolution." According to Lawton, the trip will be shot during the journey, Lawton revealed several misconceptions about daily life in China.

Stressing the point that he was actually a relative freedom of motion, Lawton described the various companies, appearances of homes and people, lack of violence, propaganda, and the well-being of the citizens. Although most of his discussions that will be given in the English language will be accompanied by English, Lawton compares very favorably with his English.

Lawton sauntered to the audience in the discussion of propaganda directed toward Chinese youth against America. He made the point that all the Open Art attacks are made against American imperialism, not against the American people.

Lawton is an excellent photographer as well as an accomplished speaker, and the slides themselves made the lecture all the more interesting. Several rolls of film were not available for the trip. Lawton, covering the trip from Shanghai to Peking to the Great Wall, made the afternoon a memorable one.

Lawton Denies "Recruiting" Charges

by Hole

"This is definitely not a recruiting stunt," said Charles Newstein, President of the Faculty Committee for Students' Day.

Newstein stated further that the sole purpose of the "Students' Day" is that Caltech has an obligation to show the public what it is doing. "It's the government; however, that about 1020 applicants each year, that they are first interested in Caltech by attending Students' Day.

Students' Day began, according to Newstein, as an "open house" on the Caltech campus, and was rapidly turned back to the days when Caltech was still an "institute" (a complete college) and not an "university." Newstein asked if Caltech would get some help from the student tutoring organization, the Caltech Foundation. Newstein informed him that Shapard was the chairman of that group. For what it's worth, he pulled out and went out to graduate and a scholarship named for him.

Schreiber

Since Schreiber's time, the form of Students' Day has changed little. This year about 1175 students and 217 teachers attended the annual event, up to three speeches (in Beckman Auditorium seating capacity of 1179). Newstein said that he expected some of the students to attend a "five o'clock" lunch. (Wanna see my room, girls!)

"This is the biggest show."

(Continued on page 3)

Prufrock Chosen For Coffeehouse

Schmidt Talks on Quasars in Beckman Aud.

"These quasars should provide us with an exciting tool to study the universe, its formation and its future," proclaimed Dr. Martin Schmidt at this week's Monday night lecture. Schmidt, professor of astronomy at Caltech and a staff member of the Mount Wilson and Palomar (Observatories, is presently studying this exploding part of astronomy.

Disclosed in 1963, quasars are today one of astronomy's greatest mysteries. They are the smallest distant bodies that radiate immense amounts of radio and light waves, and are considered the brightest objects in existence. Quasars shine on it

Schmidt explained that over since the 30's we have known that the quasars, a singular effect in light, is related to both the distance to the object and its velocity relative to the earth (Hubble's Law). Recently, strong radio sources have been found where no galaxies exist; instead, only small objects have been found. The brightness of these quasars is 30 273, which has a red shift of 2.85. This is not too bright for itself.

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Revolution."

The purpose of Students' Day has changed over the years. The high school girls that come are (unfortunately) not prospective students. Rather the purpose is to acquaint the students with the methods of the scientist and engineer.

Pictures at an exhibition

"Recruiting" Charges Over 1300

Controversial producer John Houseman, noted playwright Samuel Beckett, and actress Nina Foch have the talents in a unique stage production tonight at Beckman Auditorium. Entitled "The Honorable Estate," the dramatic anthology takes an intimate look at matrimony through the eyes of twelve noted authors. Spanning three centuries of dramatic literature, the heroines are Shakespeare's wild widow, the beautiful and witty Mrs. Millamong from Cervantes' "Way of the World"; Strindberg's emancipated ladies from "The Stronger"; Nora the stridently告诉大家 "The Doll's House"; Mrs. George from Shaw's "Getting Married" and the formidable Queen Victoria.

Over 1200 Visitors Planned

Cought in a candid pose on the hallowed steps to Throop Hall, a student visitor at last year's Student Day enjoys the Palaue that Rosbode. Honors of his fol­lowel will return once again this year at this great event! If we Institute.

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To Our Visitors

To those faculty, students, and other distinguished members of the multitude of high schools represented this Saturday, the California Institute of Technology cordially invites you to come to Caltech. Whether you are devoutly interested in science, moderately enthused over it, or even just plain skeptical about the entire bookbag, this campus has something for you.

The exhibits which you see are typical examples of the research and technical hardware to be found here. Although it is impossible to demonstrate properly the thousands of hours of work varying from fruit graft to the most thought ever conceived in the mind of mortal man, these exhibits are a reasonable representation of the lifeblood of this Institute. However, there is more to be found on this campus than the thrashing beetles and the synchronron horn or the conception and gestation of the PhD thesis.

Take a look at the Student Houses after lunch. Corner a few still-sleepy Tackers and talk to them about Caltech. You will be rewarded with the undergraduate's typically wary, but enlightened view of science and scientific education. Even though most of his waking study hours are spent on science, no one, not even the super-lucidating Tacker, spends all of his time studying. It is indeed one of the unique aspects of Caltech that the undergraduate population is practically forced to become diversified, paradoxically, for its own lack of diversification. For example, we have such non-studious players who are grids in high school, Glee Club members who never sang before, and newspaper and yearbook editors similarly without previous experience in secondary school. These and other activities make life fun possible by breaking up the leaden timidity of required scientific academy.

Caltech is still very far from the vast polyvocultural university; but it is also a fact that the other fields of the humanities and life sciences cannot be understimated in their contribution to the total student and faculty of noted esteem.

If you happen to be seriously considering Caltech for your next four years, be sure to get the lowdown about life here from the students . . . for no one, after all, starts out with his stomach is upset easily, with the Negro Revolt in the United States, the universalist, Utopian outlook has been lost, gone for good, certainly. The cry is for self-interest, for Black Power. Freedom for All! . . . Everybody Rights! Right Wrong? brings a smile or even a laugh to today's Americans.

So if we look at the old methods of finding meaning in life and we realize that they no longer apply to us, we can proceed to attempt to study only our own small system of vital values. The foundation then is: Study for the joy of learning. It varies from the goal of achieving anything: we need not produce something significant with our lives. We do need to find our ramifications in modern theology, philosophy, and psychology.

Stated simply: Must we Caltech students buckle down and pick a field of work, or can we have enough interest and self-motivation to do this for purely aesthetic reasons? How much can we raise our own taste and standards? Can we have the same interest, the same enthusiasm, the same longing for the unattainable, the same moral fervor and aesthetic indignation as the famous naturalists who made the Peking airport? When they passed the Declaration on the Western War, with the Catholics chanting "God Science" and the Protestants bellowing "A Mighty Fortress Is Our God." West- emers don't sing when they go into battle any more. Stephen Leacock says that the first exploration of the entire 2,000 miles of the Congo River. Goddard started at the instruction of his father, John Middleditch Jack Jowell, but the Briton later drowned in a quick whirlpool when his boat capsized.

The Choice Is Yours

Because the horizons of science have expanded so greatly since the Renaissance, it is no longer possible to do as Leibnitz did and name all disciplines. Specialization is necessary for a man to achieve anything in the highly developed scientific world of today. On the other hand, specialization restricts the development of a well-rounded, broadly-educated man.

So the question at hand is whether a man must produce something significant with his life (you know, find a new particle or build some bridges or find a new antibiotic), or whether he can become a professional student. It's a wider question than just studying, really, and we can find its ramifications in modern theology, philosophy, and psychology.

The choices include: Must we Caltech students buckle down and pick a field of work, or can we have enough interest and self-motivation to do this for purely aesthetic reasons? How much can we raise our own taste and standards? Can we have the same interest, the same enthusiasm, the same longing for the unattainable, the same moral fervor and aesthetic indignation as the famous naturalists who made the Peking airport? When they passed the Declaration on the Western War, with the Catholics chanting "God Science" and the Protestants bellowing "A Mighty Fortress Is Our God." Westerners don't sing when they go into battle any more. Stephen Leacock says that the first exploration of the entire 2,000 miles of the Congo River. Goddard started at the instruction of his father, John Middleditch Jack Jowell, but the Briton later drowned in a quick whirlpool when his boat capsized.

Adventurer To Narrate Films

On Exploration

The contract of the four South American countries, Venezuela and Brazil, was put up to auction and will be brought to the full color screen by the eminent explorer John Middleditch Goddard, who landed in Brazil today. In Beikman Auditorium at 4:15 today, Goddard will narrate the films of his own making which cover the wild, natural geographical and ethnographic cultures and primitive cultures of the four countries.

Tucker wihels in pool

Goddard, after going out two years ago for exploration before he was 22 and winning distinction as a combat flier in World War II, first gained international recognition with his expedition across the 4,000 mile Nile River. He also conducted the first exploration of the entire 2,000 miles of the Congo River. Goddard started at the instruction of his father, John Middleditch Jack Jowell, but the Briton later drowned in a quick whirlpool when his boat capsized.
Relativity Assailed As “Inconsistent” By Forces of Darkness; Saved By Lowly Freshman Reviewer

(Thea note: This is a review of a recently-published paperback book, Relativity Is Dead, by Otto Luther. The book is published under the name of a fictitious author, Thea. 

by George Bernard Shaw)

The arguments used by Mr. Otto Luther to refute Einsteinian Relativity are consistent. This new book will order this...
CHM Defeats Caltech in Loser’s Bowl; May Replace SC in New Years Game

The football squad overcame its last obstacle in the season when Claremont Harvey Mudd and finished the season with a perfect record for the first time in 20 years. The team’s record two years ago was the best in school history, second when the visitors were defeated by a victory over L.A. Pacific, which promptly allowed its football team to merge with Antioch. The team’s record this year was 9-0.

The fit bite... Even though the score was a low 3-2, Caltech looked good for 28 minutes of the first half. The team scored touchdowns for a while until midway in the second period when the visitors began a march from deep in their own territory. Shortly, after crossing midfield, John Frazzini, junior halfback, was taken out with what was diagnosed later as a cracked ankle. He was hurt after the play.

As he left the game so did the drive, and Caltech gave up the points. This was as close as scoring to the team. With only a few minutes to go in the half and Claremont with the ball on its own territory, it looked as though the ball would still be on hand-offs or passes. Even though it was certain Kaval would have had the ball every time he still managed to pick up yardage.

Confirmation of Big Bang

(Continued from page 1)

exceptional, that galaxies with the same red shift, and hence at the same distance from us, are only one-fourtieth as bright as 3C 273. In general, quasars seem to be from ten to 1,000 times as bright as galaxies.

Because quasars are so much brighter than all systems, with very distant (and fast-moving) ones may be detected and studied. Yet 70 quasars with red shifts ranging all the way up to 200% have been found. In the laboratory, such a large red shift indicates relative velocities of 80% of the speed of light.

Throu! Throu! Throu! Throu!

In the three years since their discovery, it has become recognized that quasars change by factors as large as 20 or 30 in luminosity over periods of time as short as six months. If a quasar were to instantaneously increase its emission of light, we would see observers at a distance, would see this as a gradual change because the increased light on the edge of the light would reach us before the increased light from the far edge. Thus, because light intensity fluctuations with periods of less than one are observed, we can infer that quasars change about one year light, years across.

Galaxies are about 100,000 light years across.

This view is supported by the fact that quasars do not subtend a measurable angle (1° of arc), even up to its twenty-inch telescope, with galaxies similar red shifts and of the same order of arc.

The Reels are coming! Certain problems are encountered with red shifts of 200%. Consider the light line at 4,000 A; in our frame it will be shifted to 12,000 A, way out of the visible range. Light from quasar 3C 9 has red shift of 200%, and has been traced to us for 3 billion years. The estimated age of the universe is ten billion years. With such remoteness of time and space, "there is some objection to talking about the concept of distance," said Schmidt.

Howl; Howl; Howl!  In relation to the seemingly radically expanding universe, Schmidt offered the following analogy. Consider a bunch of flies on a balloon, but think that the flies are on the rubber as well as the balloon. If someone blows up the balloon, one thinks that the others are moving away. Perhaps we are in an analogous situation in four space time dimensions, because "I don't think that we are allowed to imagine this type of space," speculated Schmidt.

The lecture was excellently presented and well appreciated by the audiences.

Prufrock Proposal (Continued from page 1)

house and not lease it to the university of intellectual interest. A vigorous, free society invites you to meet its Admissions Representative, Mr. Paul R. Johnson, on FRIDAY, DECEMBER 7, 1966, to discuss the Stanford M.B.A. and Ph.D. Programs in Business Administration. Appointments to meet with Mr. Johnson may be made through THE OFFICE OF DR. DONALD S. CLARK 24 THROOP The M.B.A. Program is a two-year general management course particularly designed for students who have majored in liberal arts, humanities, science, and engineering. The purpose of the Doctoral Program is to train scholars for the stimulating challenge open to business educators, researchers, and innovators.

Frosh Team Gone; Now J.V.

The varsity basketball team is out to try something new this year in an effort to stay close to a league that is rapidly moving away from it. This year there will be a junior varsity and varsity team, thus enabling fresh players to get in on the action. So far it appears that three frosh will be playing varsity, with the ball on its own twenty

The team’s record two years ago was the best in school history, second when the visitors were defeated by a victory over L.A. Pacific, which promptly allowed its football team to merge with Antioch. The team’s record this year was 9-0.

Doug Hofbold, class of 96, has been awarded a $1,000 grant to do his thesis at the Harvard Law School. He was the only member of a class of 13. The scholarship was given by the Na- tional College Athletic Association (NCAA) for Doug’s prowess in basketball. He is captain of the Caltech team in his junior year.

Doug is the second member of this year’s graduating class to get an NCAA grant. Peter Wyatt, now at Yale, also received $1,000. He ran 400 intermediate hurdles.

... the spinning ban

The second half was only slightly better for the junior varsity. Les Fishbone is a 6'2" forward; the name of Finkenseder, whom supposedly can cram his arm through the basket up to the hippo! For Caltech, Terry Bruns will be frozen in time for the next 20 million years. According to Prislers, Bruns is the best he’s seen at Caltech in 10 years. Jim Pearson, another senior, is the key player for the second year in a row. Brun is fitting the ball back right now. But is expected to play the whole season.

Does beer improve with age?

Some people have the notion that the longer beer aged, the better. But ask our brewmaster and he’ll say, “Only up to a point.”

He puts it this way: “Just continuing to store beer in lagering tanks at a brewery will make it continually older. But not continually better. Storing a case of beer in your basement for a couple of months won’t help it any either. What’s really important is how fresh the beer is aged.”

If it’s Beechwood Aged, it’s beer that can’t get any better. Of course, that rather limits the number of beers that qualify. In fact, you can count ‘em on one finger.

Budweiser
Cross Country, Soccer Finally End Seasons

Cross Leads Team Through Finals

The cross country team finished the season in a rush of large meets last week. On November 19, in the NAIA district meet, Pete Cross finished 21st and Mike Mees was 30 places behind him in the four-mile run. Celias of Oxy finished first with a time of 20:32; Cross’s time was 22:44.

Thirteen days later, on Thursday, November 22, Cross was an 8th place at 20:42. Cross was Celaza of Sac’s time of 21:32 and Lane Mason was right behind him in 21:37. Cross did not run scratch and also won the Miller Trophy, was all Caltech.

The ref beats his wife

The open team played the UCLA varsity, which is composed mostly of grad students, on Saturday, November 19. The game was a see-saw battle for about three quarters, but Caltech had more energy left at the end and managed to win 5-4. It would have been 6-4, except for a much-disputed call by the referee.

Like a broken record

For instance, Mason had a 5-second handicap while Dave Kolb and Tex Schneringer each had handicaps of sometimes around half-a-minute. Pete Cross ran scratch and also won the team on a misreable note, the position of the Miller Trophy, was all Caltech.

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be a Hero...

or "How to practice your one-upmanship on industry". We do it all the time at LTV Aerospace Corporation—dreaming up big shiny things like a plane’s plane or a missile’s muscle. In fact, our Hero engineers have come up with some of the nation’s superest Super Stars. The word is out that there are some great star gazers spots open now (some earthy ones, too). So whether you’re a circles, waves or angles engineer, you, too, can be a Hero in such areas as aerodynamics □ avionics and instrumentation □ airframes design □ systems analysis □ reliability □ dynamics □ systems design □ propulsion □ stress analysis □ industrial engineering □ technical administration . . . and others.

Get the whole story. Ask your Placement Office, then write College Relations Office, LTV Aerospace Corporation, P.O. Box 5907, Dallas, Texas 75222. And when you write, be sure to ask, "how’s your LTV bird". LTV is an equal opportunity employer.