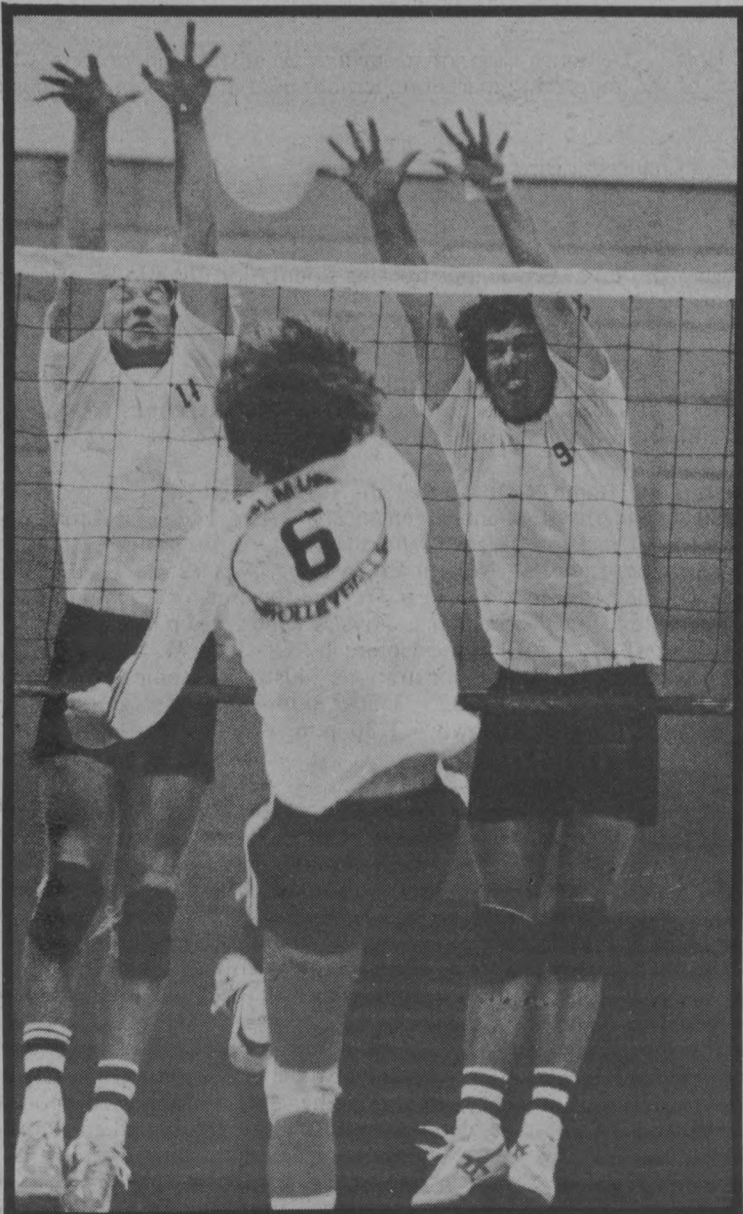
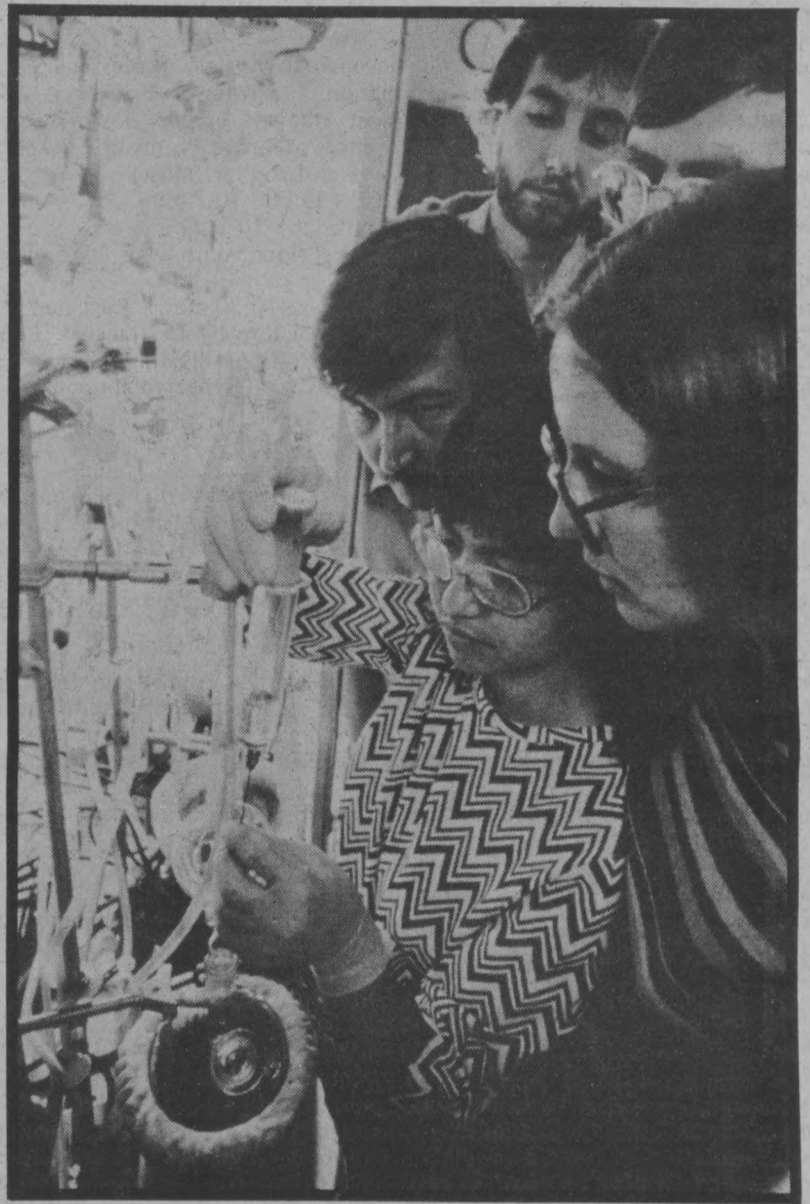
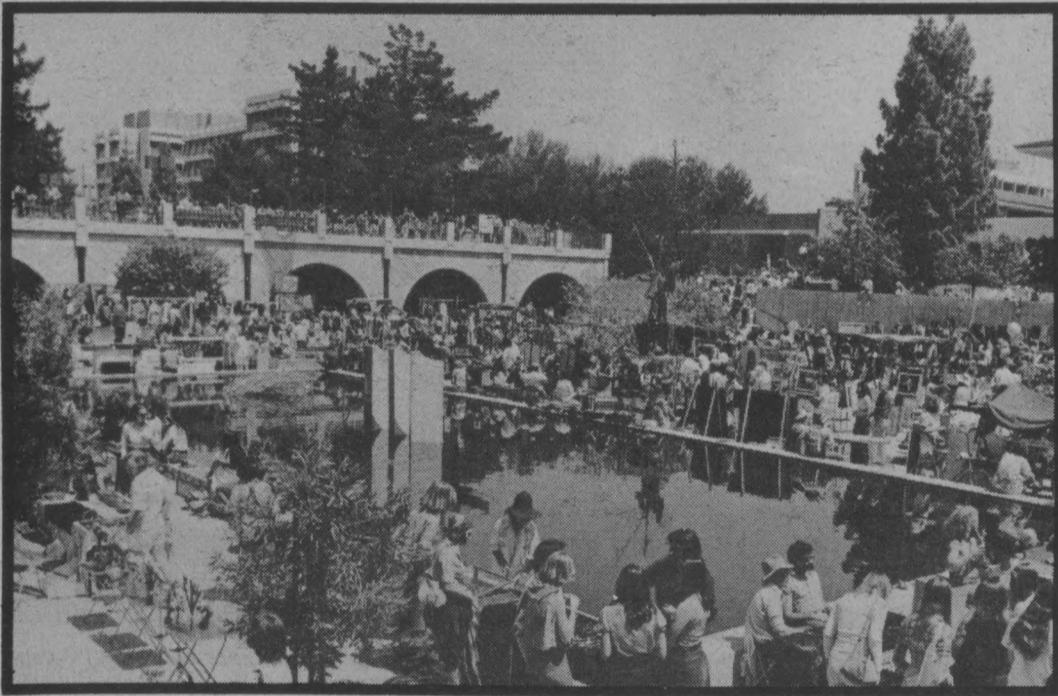


**YOU ARE CORDIALLY INVITED TO ATTEND  
THE 25TH ANNIVERSARY OF THE UCSB CAMPUS  
AND THE 35TH ANNIVERSARY OF OUR AFFILIATION  
WITH THE UNIVERSITY OF CALIFORNIA  
ON SATURDAY APRIL 19, 1980**

# UNIVERSITY DAY

**A CELEBRATION  
OF THE ARTS,  
LETTERS AND SCIENCES**



## SCHEDULE OF EVENTS 10 A.M. TO 3 P.M.

Under a sidewalk-cafe umbrella, Chancellor Robert A. Huttenback will meet visitors to the campus on Saturday in the same fashion he meets students—relaxed.

The occasion is University Day, UCSB's annual open house and alumni homecoming, a time when walls and doors dissolve so that the general public, alumni, prospective and current students and their parents, in fact anyone, may see and experience the inner workings of this center of cultural, intellectual and scientific activity.

The hosts for the day, in addition to the Chancellor, are students, faculty and staff

who will provide a wide assortment of tours, departmental exhibits, scientific demonstrations, music, drama, multi-media shows, lectures, a laser and light concert, a crafts faire, the annual Spring Sing and more.

Starting at 10 a.m. and running until mid-afternoon, the University Day headquarters will be on the Library Plaza where visitors may obtain programs and plan their day with the help of volunteers in the information tent.

The following departmental "open-houses" are listed under ON-GOING EVENTS: Admissions, Anthropology, Chemistry, Electrical and Computer Engineering, Instructional Development-Learning Resources, Marine Science Institute, Physics, Psychology, Relations with Schools, Speech and Hearing Center.

### TEN A.M.

**Marine Science Institute Series** — "Biology of Blue Water Plankton." A film presentation on diving studies of open ocean plankton by Dr. Alice Alldredge. North Hall 1006-A. Repeated at 1 p.m.

**Tennis Exhibition** — Serving contest. Participants welcome. 10-11 a.m.

**Acting Scenes** — Presented at Old Little Theatre, Bldg. 494 10-11 a.m.

**Self Defense for Men and Women** — Demonstration, discussion. All welcome. Robertson Gym 1270A 10-noon.

**Computer Center** — Demonstration of interactive computer system used in teaching, every 15-20 minutes followed by tour. North Hall 2208 Repeat at 1 p.m.

**Innertube Water Polo** — Campus Pool 10-noon.

**Greenhouse Tour** — Biological Sciences. Mr. John Bleck conducting tour. Bldg. 540 10-noon.

**Music Department** — Main office will be open to visitors. Professor Peter Fricker will be on hand with departmental information. Professor Fricker is a musician of international reputation, one of the most eminent of the post-war generation of British composers. Amongst the many honors accorded Professor Fricker, he has been selected as this year's campus Faculty Research Lecturer. Music.

**Coin Exhibit-Numismatists of UCSB** — UCEN Lobby 10-2 p.m.

**Backgammon Club** — Demonstration UCEN Lobby 10-2 p.m.

**Library Orientation Video Show** — Library, first floor, south wing, 1575. Repeated at 11, noon, 1, and 2 p.m.

**Boat Rides-Sailing Team** — \$.50 a ride. Lagoon. 10:30 a.m. Repeated at 2 p.m.

**"Understanding the Senses"** — A 30 minute lecture by Dr. Jack M. Loomis on the nature of perceptual experience with demonstrations illustrating some curiosities of sight, hearing and touch. Psychology 1802. 10:30 a.m. Repeated at noon and 1 p.m.

### ELEVEN A.M.

**Marine Science Institute Series** — "Galapagos Thermal Vents — A View from the Deep Submersible Alvin." Video and film material on recent studies by Dr. James J. Childress and his research group. Presented by Tom Michael. North Hall 1006-A. Repeated at 2 p.m.

**International Food Faire** — A variety of delectables served by ethnic student organizations. Storke Tower, Upper and Lower Plaza 11-2 p.m.

**UCSB Jazz Band** — Storke Tower, Upper Plaza.

**"Demand"** — 21 minute film presented by Dr. Jack Votey from the Department of Economics. Student officers will speak on club activities within the department. Buchanan Hall 1940.

**Tour of Drama Facilities** — Main Theatre, Snidecor Hall 11-11:45 a.m. Repeated at noon, 1 and 2 p.m.

**Library Orientation Video Show** — Library first floor, south wing, 1575 Repeated at 1 p.m.

**On the Green** — Non-competitive sports for "kids" of all ages. Community Affairs Board. Between Physics and Chemistry 11-2 p.m.

**"Keys to Paradise"** — Nova Series Film presented by Richard Goldman, Ph.D. Candidate in Psychology. Film explains internal opiates and how they control pain. Psychology 1824 11:30-12:30 p.m.

### TWELVE P.M.

**Marine Science Institute Series** — "Life in the Santa Barbara Channel." Slide/sound presentation. North Hall 1006A.

**"The World of California Flowers and Fauna"** — Exciting multi-media presentation developed by Dr. Robert Haller. Physics 1610. Repeated at 1 p.m.

**"Understanding the Senses"** — A 30 minute lecture by Dr. Jack M. Loomis on the nature of perceptual experience with demonstrations illustrating some curiosities of sight, hearing and touch. Psychology 1802 Repeated at 1:30 p.m.

**Past Theatre Productions** — Slide presentation. Main Theatre, Snidecor Hall. Noon-12:40 p.m.

**American Indian Dances** — Storke Tower, Upper Plaza. Noon-12:50 p.m.

**Varsity Baseball (double-header)** — UCSB vs Pepperdine Univ. Campus Diamond.

Noon-5:30 p.m. General admission \$2.50, Students \$1.00, Children .6 and under \$.50, UCSB students free.

**"Mask and Scroll"** — One Act Play. UCEN Lawn. Noon-12:30 p.m.

**Frisbee Club** — Demonstration. UCEN Lawn. 12:30 p.m. Repeat at 1:30 p.m.

**Fencing Exhibition** — Storke Tower, Upper Plaza. 12:50-1:10 p.m.



Demonstrations in the practical applications of physics will take place throughout the day on Saturday at the Physics Learning Center.

### ONE P.M.

**Marine Science Institute Series** — "Biology of Blue Water Plankton." A film presentation on diving studies of open ocean plankton by Dr. Alice Alldredge. North Hall 1006A.

**"The World of California Flowers and Fauna"** — Exciting multi-media presentation developed by Dr. Robert Haller. Physics 1610.

**Computer Center** — Demonstration of interactive computer system used in teaching, every 15-20 minutes followed by a tour. North Hall 2208.

**Tour of Drama Facilities** — Main Theatre, Snidecor Hall. 1-1:45 p.m.

**Library Orientation Video Show** — Library, first floor, south wing, 1575.

**Piano Class** — Open rehearsal. Janice H. Trilck, Lecturer. Music 1231. 1-2 p.m.

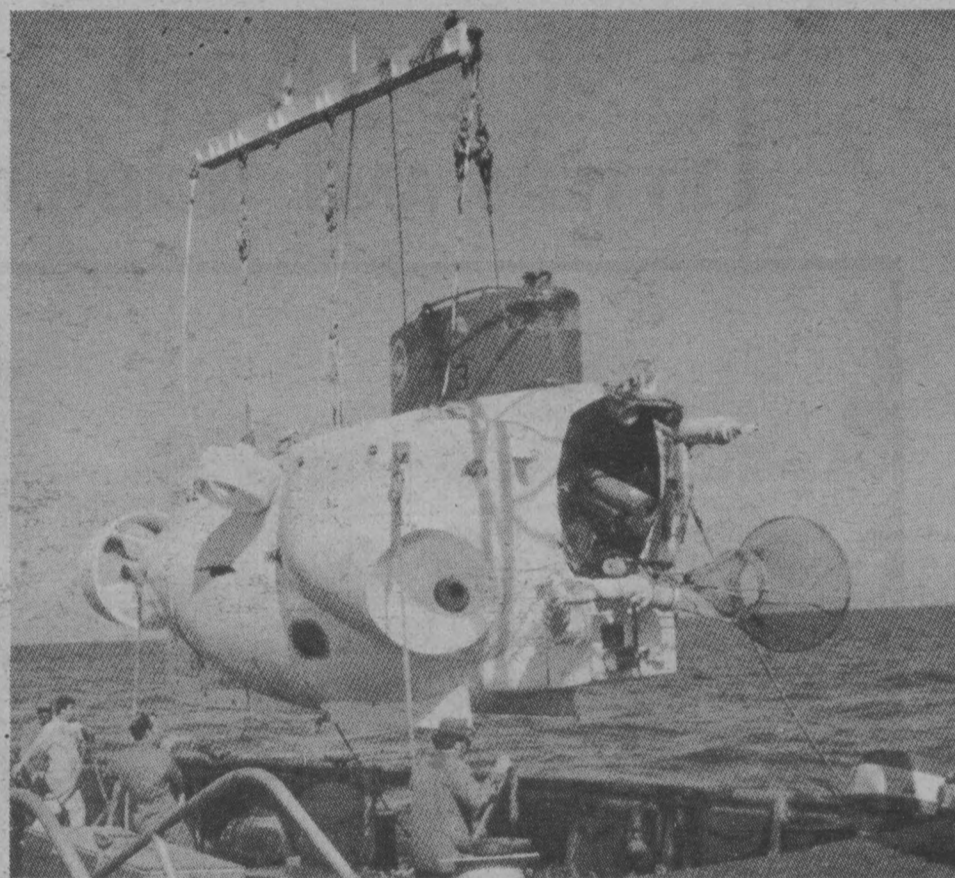
**Priptomaking and Ceramics** — Art Studio, Arts 534. 1-3 p.m.

**Carillon Concert** — With an introduction to the carillon by James Welch, carillonneur. Storke Tower. 1-3 p.m.

**Computer Systems Laboratory** — Demonstration of an interactive computer system, including image processing, games and digital sound. Engineering 3154.

**Ballet Folklorico** — Presented by El Congresso at Storke Tower, Upper Plaza. 1:10 p.m.

**Digital Computer Control of Model Trains** — A system of model trains illustrates real-time control using a digital computer. Chemical Engineering, Arts 1251. 1-4 p.m.



The Marine Science Institute will present a video and film presentation, "Galapagos Thermal Vents — A View from the Deep Submersible Alvin," in North Hall 1006A at 12 and 2 p.m. on University Day.

**Model Distillation Unit** — Demonstration of a small scale distillation process which vividly illustrates one of the important separation methods used in the chemical industry. Arts 1245. 1-4 p.m.

**Insight Program** —

1:00 Welcome by Vice Chancellor Birch.

1:15 Slide Presentation on Campus Life and Services.

1:45 Three 5-minute "lectettes": Financial Aid, Student Life, and Summer and Fall Orientation.

2:00 Focus on Housing Options: On-campus housing orientation (20 min.); Off-campus housing orientation (20 min.).

2:45 Students given opportunity to either take a break or to find out where they are on the on-campus priority system.

3:15 Walking tour of on-campus housing, or bus tour of Isla Vista.

4:00 Second bus tour of Isla Vista for those who went on the on-campus tour at 3:15. (Note: Buses will load and unload in lot No. 29 next to Bldg. 434.)

Lotte Lehman Hall 1-4 p.m.

**Inexpensive Gas-Fired Time Bomb** — Illustrates the fundamental idea of gas mixing which is an important concern of chemical engineers. Arts 1245. 1-4 p.m.

**How Do Materials Fail?** — Crack propagation and the fracture properties of materials are illustrated with laboratory samples. Nuclear Engineering, Arts 1250. 1-4 p.m.

**UCSB's L-77 Nuclear Training Reactor** — Nuclear Training Reactor for teaching students about the design and behavior of nuclear reactors. Physics 1356. 1-4 p.m.

**"Understanding The Senses"** — A 30 minute lecture by Dr. Jack M. Loomis on the nature of perceptual experience with demonstrations illustrating some curiosities of sight, hearing and touch. Psychology 1802. 1:30-2 p.m.

**Frisbee Club** — Demonstration UCEN Lawn. 1:30 p.m.

### TWO P.M.

**Marine Science Institute Series** — "Galapagos Thermal Vents — A View from the Deep Submersible Alvin." Video and film material on recent studies by Dr. James J. Childress and his research group. Presented by Tom Michael. North Hall 1006A.

**Piano Rehearsal** — Professor Betty Oberacker, pianist. Professor Oberacker has been widely acclaimed for her interpretations of both the piano and solo and chamber music repertoires. Honors accorded her include 6 concert tours as visiting artist for the U.S. State Dept., a Fulbright Fellowship to Italy, and listing in "Outstanding Young Women in America." Music 1145. 2-3 p.m.

**"The American Constitution as a Way of Life"** — Delivered by Dr. C. Herman Pritchett, Professor Emeritus in Political Science. The Graduate Students Association sponsor this lecture as part of a new series, *The Last Lecture*. The series is predicated upon the fact that in real life individuals are rarely afforded both an opportunity and an audience to impart upon their sometimes light-hearted, sometimes serious final assessment of themselves and their profession. Dr. Pritchett will explore the dynamic character of the American Constitution which attempts to strike a balance between civil order and individual liberty; stability and change; national unity and individual diversity. Girvetz Hall

1004.

Library Orientation Video Show — Library, first floor, south wing, 1575.

Varsity Volleyball — UCSB vs Long Beach State. Events Center. 2:30 p.m. Reserved seating, \$3.50, General, \$3.00, Students, \$1.00, Children 6 and under \$.50, UCSB students free.

Boat Rides-Sailing Team — \$.50 a ride. UCEN Lagoon. 2:30 p.m.

Crew Team Sprints vs Alumni — UCEN Lagoon. 2:30 p.m.

"Promises, Promises, Promises" — Professor Richard Oglesby's multi-media introduction to the history of the American West. Buchanan Hall 1920.

Speech Synthesizer Support System for Laryngectomees — The Communication Aids Research Project will present a microprocessor-based speech synthesizer in which pitch can be varied via rate of exhalation. This facility is being developed as part of a new speech support system for laryngectomees, people whose larynx has been surgically removed and who thus must rely on an artificial voice source. Professors Andrew Sekey and Robert Hanson of the Computer Systems Laboratory will conduct the demonstration. Ellison Hall 1629. 2-4 p.m.

## THREE P.M.

"Major Monuments, Landmarks and Scenery in the People's Republic of China" — A 45 minute slide show narrated by Dr. Chauncey S. Goodrich, Professor of Chinese and Peter H. Rushton, Lecturer in Chinese. Eastern Languages Section of Germanic and Slavic Languages. Girvetz Hall 1004.

"The Wilderness Experience" — Multi-media presentation developed from an experimental student-initiated course. Environmental Studies. Buchanan Hall 1910.

Innertube Water Polo — Campus Pool (E-4). 3-6 p.m.

"Experiencing Music" — A lecture presented by Michael Meckna. Music 1145. 3:45 p.m.



## ONGOING EVENTS

Refreshments — The Arbor. Ellison Hall Snack Bar. 9-3 p.m. UCEN Cafeteria 10-2 p.m. Market Day — The Central Coast's most diverse crafts faire, with over 100 craftspeople participating. Storke Tower, Lower Plaza. 9-4 p.m.

UCSB Art Museum — Exhibition "In Her Image." MFA Exhibitions. Arts. 9-5 p.m.

UCEN Bookstore — Come browse. Something for everyone. Close to the entrance will be a huge "sale" table. UCEN. 9-5 p.m.

Residence Halls on Campus — Open houses, guided tours, refreshments. All dorms open: Anacapa, Santa Cruz, San Miguel, San Nicolas, San Rafael, Santa Rosa. 10-noon-1-5 p.m.

Library — Special exhibits. Small presses of the Santa Barbara area. Unique library materials (e.g., microforms, foreign telephone directories, Chinese scrolls, relief map). Library, south lobby. 9-5 p.m.

Library Orientation Video Show — Library, first floor, south wing, 1575. 10, 11, 1 and 2 p.m.

Tours and Demonstrations - Maps and Imagery — Library, first floor, north wing. 9-5 p.m.

Admissions — Evaluators will be present to answer questions regarding eligibility for admission to the University. Cheadle Hall 1210.

Relations with Schools and Colleges — Students and staff offer general information to interested prospective students. Cheadle Hall 1234.

Anthropology — Tours through the Archaeological Faunal Analysis Lab. North Hall 1119.

Biological Sciences — Marine animals exhibit. Marine Lab.

Chemistry — A presentation of 8 demonstrations, with one every half hour. The demonstrations will show organic and inorganic chemical reactions which result in brilliant colors, strange noises, or other phenomenal effects. Chemistry 1126. Also featured, an ongoing exhibition which traces the development of the so-called "miracle drug." Chemistry 1132.

Electrical and Computer Engineering — Micro computer laboratory demonstrations. Engineering 4158. Demonstration of the scanning electron microscope, Engineering 4120D. Three-dimensional imaging with lasers, holograms and mirrors. See how the laser and the hologram can produce an object levitating in eerie light. The images are so real, you will want to reach out your finger to touch them. But you will feel nothing because they do not exist. Some of the images even move as you approach them. Engineering 3112.

Instructional Development-Learning Resources — Tours of television studios and related facilities, Kerr Hall 1204. Auto-tutorial tours, Kerr Hall 2160. Kerr Learning Resources Hall.

Marine Science Institute — Displays of marine life in the marine lab. Special diving collections, self-guided beach walks, tours of the seawater system and lab area, fish capture using a beach seine net, display of the capabilities of the MSI Analytical Lab. Bldg. 445-116.

Physics — Tours of facilities and research labs. Demonstrations of physical phenomena throughout the building. Telescopes for viewing sunspots in front of the building. Physics demonstrations and experiments in the lobbies of 1st, 2nd and 3rd floors. Advanced electronic experiments, Rm. 3233. Senior Student Lab experiments, Rms. 3207, 3215 and 3223, Holography, Room 3014. Physics.

Physics Learning Center — Physics demonstrations (mechanics, electricity, magnetism and light). Rm. 3314. Scientific Instrumentation Lab—Computer controlled instruments, Rm. 2209, Research Labs—Surface physics, Rm. 1302. Superconducting magnet, Rm. 1310. Infrared Laser, Rm. 1310. Tunable dye-lasers, Rm. 3513. Low temperature and surface science, Rm. 4207. Molecular Flames, Rm. 4223. Thin film device fabrication, Rm. 6318. Physics.

Psychology — Visual displays, tours of building. Undergraduate advising. *Understanding the Senses*, a 30 minute lecture presented by Dr. Jack Loomis on the nature of perceptual experience with demonstrations illustrating some curiosities of sight, hearing and touch. 10:30 a.m., Noon and 1:30 p.m. Psychology 1802.

Speech and Hearing Center — The clinics, laboratories and Autism Project are open, including demonstrations of equipment, research and clinical facilities. Snidecor Hall.

Community Housing Tours — Privately owned student residences in Isla Vista. Fontainebleau Apts., 6525 El Colegio Rd., Tropicana Gardens, 6585 El Colegio Rd., Francisco Torres, 6850 El Colegio Rd., 1-4 p.m.

Women's Center — Tours through the center; printed information available on personal and educational goals of women. Bldg. 434.

## ALUMNI EVENTS

For UCSB Alumni, University Day is an annual Homecoming celebration. But it is more than a mere day full of memories. It is a chance to assess their contributions to the University and the community. It is an opportunity for alumnus to renew their aspirations for the campus and reaffirm their commitment to the generations that follow.

The Alumni Association Board of Directors will meet from 8:00 a.m. to 12:00 p.m. today to discuss alumni affairs. Since it is a regular business meeting, all Alumni Association members are invited to attend. The meeting takes place at the Cliff House on Devereaux Point.

This year the 1970 class holds its 10-year reunion at the Faculty Club; the 1960 class is having its 20-year reunion at the new UCEN II Pavillion; and the class of 1955 — the first class to graduate from this campus — celebrates its Silver Anniversary at the De la Guerra Annex. All three reunions are scheduled from 11:00 a.m. to 2:00 p.m., so naturally lunch is included.

Most fraternities and sororities are holding open houses today for returning alumni from 2:30 p.m. to 4:00 p.m. Among the open fraternities are Lambda Chi Alpha, Phi Delta Theta, Phi Sigma Kappa, Sigma Alpha Epsilon and Sigma Phi Epsilon.

Chi Omega, Delta Gamma and Kappa Alpha Theta are all open to represent the sororities on campus. In addition, two sororities are holding special celebrations: Pi Beta Phi is inviting Santa Barbara alumni to join them for a barbeque at 4:30 p.m. and Alpha Delta Pi is holding a wine and cheese reception just prior to Spring Sing.

## SPRING SING

Culminating the events of the Day, the Alumni Association and the Associated Students Program Board are sponsoring Spring Sing this year, which commences at 7:00 p.m. in the Events Center. While the annual choral competition is generally a manifestation of the Greek rivalries here, a number of other campus groups have entered this year, assuring visitors that the event will be anything but tame.

Directly following Spring Sing, the Alumni are hosting a "Coming of Age" dance for the general public at the ECEN. The dance will feature two contemporary bands whose talents span the twenty-five years since UCSB moved to its present location.



Advance tickets for the laser light special, *Light Years: Twenty-Five Years of Gold Music*, are still on sale at the Arts and Lectures box office. The *Laserium* concert is being presented in commemoration of UCSB's Silver Anniversary Friday at 6, 8 and 10 p.m. and Saturday at 2:30, 4:30 and 6:30 p.m.

## LIGHT YEARS TRIBUTE

As *People Magazine* observed, "It is neither a rerun of the birth of the universe, nor a warning of the Second Coming—but the facsimile seems more than reasonable. Across the darkened sky... a pinpoint of intense colored light explodes into clusters of jewel-like webs, fiery pinwheels, whirling lariats. As the images build, so does the music until both are moving together in a cosmic ballet."

This is *Laserium*, a laser light and music concert which will be presented three times on April 19, University Day, UCSB's annual open house and alumni homecoming, in commemoration of the campus' Silver Anniversary. The event will take place at UCSB's Campbell Hall. Entitled *Light Years: Twenty-Five Years of Gold Music*, the show will feature pop and rock music from the fifties, sixties and seventies.

Music by performers such as Elvis Presley, Bill Haley and the Comets, Chuck Berry, the Beach Boys, the Beatles, the Rolling Stones, the Who and Yes will be featured during the concert along with the sounds of many other artists who have influenced rock and roll.

*Laserium* was developed by filmmaker-photographer Ivan Dyer, a veteran of more than 40 documentary and experimental films. After attending a 1970 lecture on laser imagery at the California Institute of Technology, Dyer struck out on his own. He produced two films on laser effects before coming to the realization that laser images could not be fully experienced in a two-dimensional medium such as film.

Further experiments resulted in *Laserium*, which held its audience spellbound during its 1973 debut at the Griffith Park Observatory in Los Angeles.

"Through conventional film we can explore all things—ideas and emotions—which make up our world and the space it occupies," says Dyer. "*Laserium* can be a more direct way of exploring other spaces and other worlds that exist inside us all."

The *Laserium* effect is achieved by refracting and reflecting a beam of light which emanates from a one-watt krypton laser through optical filters, prisms, and electronic scanners. The images are projected in a three-dimensional array of form and color. They evolve into ethereal shapes and stunning geometrical patterns which seem to spill off of the projection surface.

Every concert is distinguished by the individual nuances supplied by the laserist on hand. The UCSB shows will be augmented further by the powerful argon laser system which will make its debut on campus.

In addition to the three performances slated for University Day at 12:30, 2:30 and 4:30 p.m., there will be three performances on Friday, April 18, at 6, 8 and 10 p.m. Admission is \$3.50 to the general public in advance and \$4.00 at the door. Tickets are available at the following outlets: the Arts & Lectures Ticket Office, Morninglory Music in Isla Vista, Turning Point Records in Santa Barbara, Fancy Music in Ventura, Cheap Thrills in Santa Maria, San Luis Obispo and Atascadero, and all Ticket Express Outlets.

# Fight for Control of Army in China Recounted

Imagine an American political group engaging in a bitter fight with the top generals for control of the U.S. Army, and upon losing, creating a rival army.

An analogous struggle did occur in the People's Republic of China between the high command of the People's Liberation Army and the radical wing of the Communist Party of China, now known as the "Gang of Four." The contest culminated between 1974 and 1976.

Writing in a recent issue of *Asian Survey*, a monthly review of contemporary Asian affairs published by UC Press, political science professor Alan Liu of U.C. Santa Barbara observes that the radicals disliked and distrusted what they viewed as the exclusiveness and middle-class conservatism of the officer hierarchy.

They also were philosophically opposed to attributes which Liu says characterize professional military organizations everywhere: dedication to achievement criteria in promotion, rationality in decision making,

## Dr. Mills Honored

Dr. Glen E. Mills, professor of speech, emeritus, at UCSB, received a Distinguished Alumnus Award from Delta Sigma Roh-Tau Kappa Alpha, the combined national undergraduate honor societies in speech competition, at the concluding banquet of their annual conference at the University of Denver on March 22.

Dr. Mills was active in the chapters at the University of Michigan and Northwestern University prior to coming to UCSB in 1968. His research and writing in the speech field have resulted in ten books and dozens of journal articles and convention papers.

## Two Guggenheim Fellows Named

Anthropologist Paul J. Bohannon and David Gebhard, historian of architecture and director of the Art Museum, have been named recipients of fellowships by the John Simon Guggenheim Memorial Foundation of New York City.

Recognized as one of the most prestigious honors in the academic world, the fellowships allow recipients to pursue their research at a place of their choosing for a number of months.

Bohannon will continue his study and writing on changing patterns of divorce in various cultures and Gebhard will pursue his interest in the revival of Spanish colonial architecture of the 1920's.

(A later story will give the details on each professor's research plans.)

## Malecot Elected Fellow of Phonetic Society

Andre Malecot, director of the Phonetics Research Facility and professor of French at UCSB, has been elected a fellow of the International Society of Phonetic Sciences in recognition of his "outstanding scientific contribution" to this field.

The most recent of the Paris-born phonetician's projects is a computer-assisted analysis of the pronunciation of the Parisian professional class. He has demonstrated that the French spoken in everyday life by this group is in sharp contrast to assumptions made by the authors of textbooks.

Malecot also has conducted research in speech synthesis, articulatory phonetics and descriptive linguistics.

He came to UCSB in 1969 from the University of Pennsylvania where he had been a professor of Romance languages. For 14 years he headed the phonetics department of Ecole Francaise d'Ete of Middlebury College, Vt.

## Chemist Little Receives Sloan Research Fellowship

R. Daniel Little, assistant professor of chemistry at UC Santa Barbara, has been selected as a 1980 recipient of a two-year research fellowship by the Alfred P. Sloan Foundation.

Little, an organic chemist, is one of 78 scientists working on problems in chemistry, physics, mathematics and neuroscience to receive the awards this year. The fellowship program, known as the Sloan Fellowships for Basic Research, is 25 years old, and the awards are regarded as among the most prestigious a young scientist can receive.

autonomy and expertise.

Additionally the radicals believed that if the army were under their control it could become a powerful instrument for propagating the programs of the Cultural Revolution, Liu writes.

In turn, the career military establishment viewed such a use as a perversion of the army's missions of defense of country and guardian of the party. And quite naturally they regarded the radical aims as a threat to their job security and an invasion of their professional turf.

The radicals waged their campaign by infiltration of the ranks and by spreading dissent and indiscipline under the guise of "criticism campaigns." They also did their best to destroy respect for the high command and its traditions.

As an example, when the the army prepared films, plays and operas designed to glorify the history of the People's Liberation Army on the anniversaries of its founding, the radicals made films of their own designed to defame the veterans of the Long March. One film depicted conflict between forward-looking young officers and the intransigent old generals.

The radicals first gained access to the army in 1965, "and though their fortunes waxed and waned over the next decade," they did succeed in cultivating some "client units" whose activities they gave priority treatment on the pages of the People's Daily, described by Liu as "China's Pravda."

The radicals went so far as to oppose arms expansion, modernization and development of military expertise. They even prevented publication of two books edited by the Academy of Military Sciences because they stressed the importance of military technology over political ideology.

The radicals insisted that 60 percent of the training time in a year be used for political education of the troops, and what was left over for military training, a demand which was repugnant to the professional military men.

Eventually realizing that the army could neither be effectively captured nor subverted, the radicals turned to the worker's militia, which originally had been under the army's command. Giving urgency to this decision to create an "alternative army" was a conference of top military leaders in 1975 to cope with serious indiscipline in the armed forces and the resolution (unpublished) of the top brass to get rid of all radical influence in the army.

As the size and strength of the

militia grew, the radicals attempted to usurp from the People's Liberation Army the role of guardian of the party and director of political activity. The army was ordered to content itself with defense and nothing else. In contrast, the workers' militia was ready to launch a coup in order to install the "Gang of Four" in the position of topmost party and state power.

But with the death of Mao Tse-tung and the downfall of the "Gang of Four," the army resumed its former role and the militia was downgraded. And the army's penchant for order and normalcy has dovetailed with the present needs and mood of the public.

"The 'learning experience' of

the 'gang' in China has unintentionally benefited students of Chinese affairs in the West," the political science professor writes, "because this intense struggle for power has exposed the People's Liberation Army's corporate interests in their entirety and the PLA's role in Chinese politics.

"Consequently, the 'myth' of the PLA as a unique army in the world in terms of its ideological commitment, is dispelled once and for all," Liu concluded. "The PLA high command and the majority of its officers are no exception to the universal pattern of 'soldiers in politics': conservative, bureaucratic and jealous guardians of their autonomy and privileges."

## UCSB Scientists Spearhead Deep-Sea Research Planning

An interdisciplinary group of scientists from four U.S. institutions including UC Santa Barbara has started planning the next stage of research into the ocean's geophysical processes.

Scientists consider further study of the mid-ocean ridge system crucial because of discoveries last year at two spreading centers in the system.

Divers have found hydrothermal vents and animal communities at spreading centers near the Galapagos Islands west of Ecuador and off the west coast of Mexico at the East Pacific Rise. The expedition to the Mexican location also observed for the first time the formation of hydrothermal sulphide mineral deposits on the sea floor. Here, hydrothermal waters blackened by sulphide minerals were found jetting out of the sea floor at temperatures exceeding 350 degrees C.

Scientists representing geophysics, geology, and chemistry have met at UCSB to map a 1981-84 program of underwater exploration, according to Ken C. MacDonald, UCSB associate professor of geological sciences.

Before coming to UCSB last fall, MacDonald was at Scripps Institution of Oceanography, where he was co-chief scientist of the East Pacific Rise expedition carried out under funding from the National Science Foundation.

Funding for the present series of dives runs through 1980. Purpose of the UCSB meeting not only was to organize the next stage of the program, but also to plan a proposal for multi-million-dollar funding from NSF which will be submitted at the end of March.

In addition to UCSB and Scripps, there were representatives at the UCSB meeting from Stanford University and Woods Hole Oceanographic Institution. There also was French representation.

A steering committee was formed to direct research in the various disciplines. The members and their areas include: MacDonald, geophysics group; Robert D. Ballard, geology group, and John Edmond, chemistry group.

In addition to MacDonald, six other UCSB geologists are participating in planning the new



Hydrothermal vent blackened by sulphide minerals is shown at East Pacific Rise off the west coast of Mexico. An interdisciplinary group of scientists from four U.S. institutions including UC Santa Barbara has started planning the next stage of research into the ocean's geophysical processes.

program: Tanya M. Atwater, Michael D. Fuller, Clifford A. Hopson, Bruce P. Luyendyk, Steven Miller, and William A. Prothero.

The program being submitted to NSF envisions continued use of the research submersible Alvin as well as the development of sophisticated towed, deep-sea packages.

One area the scientists are especially interested in is learning how the mineral deposits being formed on the ocean floor at the East Pacific Rise are presumably transferred to the ring of mountains that surround the Pacific Ocean.

Another is the nature and size of

the chamber of molten magma beneath the ocean ridges which must be the source of thermal energy for the hot springs and mineral deposits and also the source of new oceanic crust.

The scientific community as well as the public have become interested in deep-sea geologic research since the first diving expedition was conducted in 1973, according to MacDonald. This interest, he said, is reflected by recent media coverage which included a National Geographic Society program on PBS television as well as a cover story in the *American Association for the Advancement of Science* journal *Science*.

## Harnessing Solar Energy Has a 2500-Year History

There's very little new under the sun, including solar architecture, according to a just-published book titled "A Golden Thread: 2500 Years of Solar Architecture and Technology" (Cheshire Books, Palo Alto).

The authors, solar energy historians John Perlin, a graduate of UC Santa Barbara, and Ken Butti, drew in part upon the scholarship of UCSB classics professor Borimir Jordan to document the widespread adoption of solar architecture for houses and even entire cities by the ancient Greeks and Romans.

The ancients turned to the sun in response to a crippling fuel shortage caused by deforestation of their homelands over the centuries, requiring the costly importation of wood and charcoal over increasingly lengthening distances.

Jordan and Perlin were co-authors of a paper on this subject several years ago which Jordan presented at a national meeting of the Archaeological Institute of America.

The new book, whose 289 pages are liberally illustrated, reports on uses of the sun for heating and power throughout history, including mirrors to ignite fires, hothouse horticulture, hot boxes for scientific experiments, solar motors, solar water and space heaters and the development and uses of solar cells. Victorian newspaper ads promoting solar water heaters for a gentleman's bath enliven the pages.

In their last chapter, titled "Full Circle," Perlin and Butti state that in view of the 2500-year history of the use of solar energy, "there is little reason to consider it as an 'exotic, unproven' technology whose practical application is years away."

They write that though the ships which navigated the Mediterranean with wood to heat the villas and baths of Rome have been replaced by oil tankers bound for the Persian Gulf, their quest remains the same.

"But the sun still beats down upon us even though the forests of North Africa have long since disappeared," they conclude. "And it will beat down on future generations long after all the oil and gas wells are depleted."

## Kohn Gives paper in Belgium

Walter Kohn, director of the national Institute for Theoretical Physics at UC Santa Barbara, presented a paper last week at a meeting in Antwerp, Belgium.

The subject of the paper was "Density Functional Theory — An Approach to the Structure of Condensed Matter."

Kohn presented the paper at the first plenary session of the three-day annual conference of the condensed-matter division of the European Physical Society.