A Century of Achievement
A Tradition for the Future
With this special issue of *Cal Poly Magazine*, we mark Cal Poly’s 100th anniversary and celebrate its academic excellence, its traditions, and the public launching of the $225 million Centennial Campaign.

We vary from our usual format by including personal columns from former President Robert E. Kennedy (1967-1979) and History Professor Daniel E. Krieger, and an interview with President Warren J. Baker. We also include special features on History Day (March 8), the Centennial Campaign Gala (April 21), and Founders Celebration (Sept. 27-28). Our advancement section presents major gifts, and the alumni section includes summaries of Open House/Poly Royal (April) and Homecoming (Nov. 9-11). A historical timeline runs on every page, and for the first time “Class Notes” and “In Memoriam” items will be run on the alumni association’s Web page at www.alumni.calpoly.edu.

At the heart of this celebratory issue are features and history sidebars on all six Cal Poly colleges (Agriculture, Architecture and Environmental Design, Business, Engineering, Liberal Arts, and Science and Mathematics) and major units (Athletics, Kennedy Library, Student Affairs, and University Center for Teacher Education). These entities chose subjects which they felt best represented them, whether a research project, a particular student effort, or a faculty member.

Finally I would like to thank here all the numerous contributors and reviewers of material for this fall 2001 *Cal Poly Magazine*—deans, administrators, faculty, and staff alike. An editor’s job always involves bringing together disparate information and voices, but my task this time around would have been impossible without the aid I received from everyone involved.

Vicki Hanson

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**On the cover:** Nearly 100 brightly colored banners decorate the streets of Cal Poly for the Centennial.
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Shakespeare, contemplating the seven ages of man, once wrote: "Last scene of all, that ends this strange eventful history, is second childishness and mere oblivion, sans teeth, sans eyes, sans taste, sans everything" (As You Like It, Act 2, Scene 7).

For 39 years I woke every morning thinking what I would do that day to somehow make Cal Poly a better place. Then suddenly came the final scene: retirement!

It's "sans" a lot, I would agree. But "oblivion" is not the right word for the new status. It is a transformation that alters, modifies, and revamps one's goals, purposes, processes. Primarily, I was no longer responsible for the welfare of an institution and all the wonderful people who make up the student body, the faculty, the support staff.

During my first 26 years I worked for one boss, Julian A. McPhee. When he hired me in 1940 I was probably the youngest and least experienced of the 60 applicants for the advertised position of journalism teacher/publicity man at a polytechnic school that had just been approved to add a fourth year and give B.S. degrees. But McPhee, who looked over my shoulder for more than a quarter of a century, giving both advice and criticism, saw
something in a 24-year-old kid that caused him to promote me successively into seven positions.

At Homecoming 1999, I was the honored guest at the class of 1949's 50th reunion. Alumni President Wes Witten presented me with a framed reproduction of a two-page layout titled "Dedication" taken from the 1949 yearbook, El Rodeo, featuring a photograph of me with bow tie in front of a typewriter. I was on sabbatical, working on a master's degree in journalism at Stanford and as a reporter for the Palo Alto Times. I'm convinced the 22 years since I retired, I've been tempted on occasion to give President Baker my opinion, but I succumbed only a couple of times. I had concerns when I read that the major program in home economics was to be eliminated. And I met with President Baker when a Mustang Daily article quoted the former academic vice president's avowed decision to eliminate the journalism major. But I honestly believe President Baker appreciated my concern, and I accepted an appointment to the College of Liberal Arts' advisory board for several years.

FOR 39 YEARS I WOKE EVERY MORNING THINKING WHAT I WOULD DO THAT DAY TO SOMEHOW MAKE CAL POLY A BETTER PLACE.

now, although I did not recognize it at the time, that the editorial statement about my "talents, energy, and faith in Cal Poly's objectives" convinced President McPhee that he should start training me to be his successor, as he had done successfully with Byron McMahon for chief of the State Bureau of Agricultural Education in 1945, and Wesley P. Smith for state director of vocational education in 1949.

Some trustees and college presidents in the final days before my 1979 retirement asked, "Won't you be uncomfortable living in the town where Cal Poly will always be in the news and someone will always be getting credit for new ideas and improvements?" They might have added (but didn't), "Will you be able to resist picking up the phone to give President Baker your opinion on every controversial issue?"

I've never been uncomfortable when other people got credit for Cal Poly improvements because in most cases improvements are generated by many people working together—not by one individual. In

During the past two decades, my wife, Mary, and I have attended almost every Retired Faculty/Staff Club luncheon. At many of the early meetings, old-timers often expressed concerns that Cal Poly was "changing," asking, "If you were still president, you wouldn't have done that, would you?" My response was always, "I don't know what I would have done, given the changed circumstances of the present time."

I can honestly say I am very happy with President Baker's team, which is leading Cal Poly to an ever-increasing popularity and improved reputation. It is an honor to be associated as president emeritus with a university that has achieved what I said in my inaugural speech was my most important goal: to make Cal Poly the best polytechnic college in the nation. One of President McPhee's daughters, Carol McPhee Norton, sat beside me on a History Day panel commemorating Cal Poly's Centennial.
Celebration on March 8, 2001. She described her father's "open-door" admissions policy. Julian McPhee had years of evidence to prove that given a chance at a practical, learn-by-doing educational experience, many high school graduates with average records succeeded at Cal Poly and became successful farmers and industrialists with great loyalty to their alma mater.

If he had had a longer retirement, McPhee would have been increasingly upset with my decision to obtain approval from the trustees to create more restrictive Cal Poly admission requirements than those at other CSU campuses. And he also would have objected to my insistence that we get all of our engineering and other professional programs accredited by their respective accrediting agencies. He feared that Cal Poly's unique, sometimes unorthodox, methods would never be accepted by representatives of traditional, conservative accrediting visitation committees. He was wrong. We succeeded in getting more programs accredited than any of the other CSU campuses—even those with twice the enrollment and many more major programs.

But despite these and other differences between us, I told a packed Cal Poly Theatre audience during that March 8th program, "Julian McPhee was the savior of Cal Poly. If he had not become president in 1933, Cal Poly would no longer exist."

During the colloquium I said something about each of the first five chief administrative officers—Anderson, Smith, Ryder, Riccardi, and Crandall—but I failed to mention that I had met the first director, Leroy Anderson, and his wife in February 1941, when they participated in an "unlaying of the cornerstone" with the demolition of the original administration building to make room for the 1942 clock tower building. After the ceremony we toured the campus and farm, and I interviewed Anderson about his establishment of Cal Poly's hallmark "learn-by-doing" educational philosophy.

Finally, while each of those early administrators played significant roles in the development of the polytechnic school, teachers and students made great contributions too. It was the early faculty who implemented Anderson's learn-by-doing philosophy—not always a simple process. And frequently it was the work of students that provided creative and sometimes unusual applications of practical experience in laboratory and field classes. What students did gave teachers satisfaction that their methods worked, and gave inspiration for more experimentation with the learning process.

It began that way in the early 1900s and it continues as a team effort in the 21st century.

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Note: This article by President Emeritus Robert E. Kennedy (1967-1979) is adapted from the last chapter of Learn by Doing: Memoir of a University President, which is being published by Cal Poly as part of the Centennial Celebration and will soon be available at El Corral Bookstore, Cal Poly Downtown, and via mail, fax, and Web orders.

Robert Kennedy, 1999
THE POLY WAY

‘You’ve got to learn to do things the Poly way.’

I heard those words spoken frequently by my fellow faculty members when I arrived at Cal Poly in August 1971.

At that time Poly had just fewer than 10,000 students and 500 faculty members. We knew one another’s faces and within a few months could put names to more than half of those faces. President Robert E. Kennedy (1967-1979) would often walk down the hill from the administration building calling out greetings to dozens of students and faculty.

There was only one option for faculty and staff dining in what is now called the Veranda Cafe. The food was diverse, fresh, and inexpensive in those years of Vietnam War-era inflation. A significant percentage of campus employees ate there daily in shifts between the hours of 11 a.m. and 2 p.m. One day I would find myself having lunch—I loved Biology Professor Dick Krejza’s Poly farm-raised catfish—with someone from Transportation Engineering. The next day I might dine with the late Josie Sterns from Child Development. It was a great way to get to know and understand what made Poly tick.

Most of the younger history and political science faculty had their offices in a series of World War II-era dorms and a small mess hall on the site of what became the Robert E. Kennedy Library. The complex was called “the Jungle,” and for good reason: My office faced the afternoon sun. A previous occupant had mounted a thermometer on the inside wall. Even on “just warm” days during the fall and spring quarters, it “maxed out” at 110 degrees inside.

Yet the Jungle had its advantages too. Our one-person offices gave us more room than the two-person offices in the more elegant buildings. We were close to the library, then located in the Dexter Building, and the old agricultural education building. In the basement of the ag ed building was “the Coop,” a minimal cafeteria with a few food machines where you could share afternoon coffee with friends and students.

Kennedy recalls when the adjacent administration building was being demolished to make way for the present clock tower building in 1941. The building was
THROUGH A GROWING REPUTATION FOR EXCELLENCE AND SUPERB LOBBYING BY (PRESIDEND KENNEDY, CAL POLY WAS ABLE TO GROW ITS INFRASTRUCTURE (IN THE 1970s).

so well constructed that the demolition team, headed by local contractor Alex Madonna, had to use dynamite. A very large chunk of the administration building sailed over the top of the agricultural education building and landed in the ground right next to the president's window.

The aged building was itself demolished in 1973 to make room for the architecture building. The impending demolition played a major role in my becoming interested in campus history and historic preservation. My research revealed that the building had been constructed by William Weeks, a highly regarded institutional architect who had designed nearly half the larger pre-1933 schools along the California coast.

We Jungle residents were also near the campus store with its home-baked bread and Poly-made cheeses. This was important because several of us had arrived at Poly "all but dissertation" for completing the Ph.D. that was required by the end of October of our second tenure-track year. Failing to finish our terminal degree meant that we wouldn't be appointed to a third year. So after a full day's teaching, we would hole up in our offices to work on our dissertations. The Poly bread and cheese kept us going until the wee hours of the morning.

In the fall of 1972, Cal Poly changed its name from "California State Polytechnic College" to "California Polytechnic State University." At first this seemed to be only a cosmetic change. President Kennedy continued to use terms like "emphasized areas" and "occupational training on a college level" in describing our mission. I am convinced that he did so to protect Cal Poly's unique position among the CSU campuses. On university-wide committees however, there was a sense that this charge was evolving into educating California's best public university students.

There was a great deal of anxiety about how the best of Poly's traditions might be retained in this process. The task would require costly new infrastructure for technology beyond the applied levels of production agriculture and engineering, and gaining state funding for buildings and labs had always been difficult. It was especially so during the "stagflation" years of the early 1970s.
The task was further complicated by the election of Jerry Brown as governor in 1974. As governor, Brown preached the policies of “small is beautiful” and “an era of limits.”

The campus desperately needed a new library. The 1940s-era Dexter Library was hopelessly overcrowded. A congressman once complained to me that he had gotten Cal Poly’s library designated as a national depository for books acquired by the Library of Congress, but by 1972 the library was returning some of those books for lack of room. Nor was there room for students to study. Visitors from the Chancellor’s Office would be ushered through the library to witness the impossibly crowded conditions.

Nevertheless, through a growing reputation for excellence and superb lobbying by Kennedy, Cal Poly was able to grow its infrastructure during the Jerry Brown years, and in 1981, two years after Kennedy’s retirement, the new Robert E. Kennedy Library was dedicated in his name.

In the spring of 1978, the Jarvis-Gann Tax Initiative took California by storm. Proposition 13 on the June statewide ballot revolutionized tax relationships in California. The major portion of the cost of K-12 education was passed from local districts to the state office of education. This put an immediate freeze on most state projects and did not augur well for the CSU system.

On Feb. 1, 1979, Kennedy announced his retirement. The search for a new president began.

During the winter of 1972, Chancellor Glen S. Dumke, a prominent California historian, had visited the Poly campus and given an hour-long talk on its history. He intimated that at the time of Julian McPhee’s retirement and death (1966-67) there had been much consternation among the trustees over McPhee’s replacement. Kennedy was viewed as someone who knew McPhee’s ways of doing things and would not initiate major changes too rapidly.

With Kennedy’s retirement, a nationwide search would in all likelihood bring someone from outside the CSU system to campus. The search soon centered on Warren J. Baker, vice president for academic affairs at the University of Detroit. Baker had a distinguished record as a researcher and had held a visiting research position at M.I.T.

When Baker’s selection was announced, several of my colleagues in the schools of agriculture and engineering spoke of their fears that he would turn Poly into a research campus. For some, his being invited to join the National Science Foundation by President Ronald Reagan confirmed these fears.

Instead, President Baker has led the campus down a path which has retained and enhanced the university’s “hands-on” approach to education.

President Baker’s use of the President’s Cabinet to generate support in Sacramento and the private sector has brought much-needed infrastructure and program support to Cal Poly.

His promotion of applied research and a curriculum which provides intellectual stimulation over a broad spectrum has elevated our campus to one of the finest undergraduate institutions in the world. I was a member of the Academic Senate’s research and grants committee throughout the 1990s. In that capacity I had the pleasure of observing the building of curriculum.

continued on page 48
'We've established a good foundation for education here over the past 20 years, and the past century. The challenge before us in the next 20 years, and the next century, is building on that foundation for a new and more diverse generation of Californians.'
A Vision for the Future

by Teresa Mariani Hendrix

Cal Poly President Warren J. Baker first walked into his office 22 years ago to continue building a university for the future. Today he heads one of the premier undergraduate institutions in the nation.

Cal Poly is one of the five most selective public universities in the country in its admissions policy. It is a university that's made U.S. News & World Report's "Best Colleges" list for the past nine years in a row. And since the mid-1990s, the university has been recognized for the high number of degrees it awards to African-American, Hispanic, and Native American students.

Cal Poly educates one in every five architects in the state of California. It is recognized by the National Science Foundation as being among the top three undergraduate universities in the nation in agricultural science and engineering. Financial support from alumni, industry, and business is on the rise: in 2000-01, private donors showered the university with more than $42 million (see story on page 22).

In fact, as Cal Poly enters its second century, some might think it's time to relax, rest on some laurels, and go with the status quo.

Not President Warren J. Baker.

"I think we've established a good foundation over the past 100 years that focuses on educating students to be productive and sensitive contributors to society. I like calling this educating the head, the hands, and the heart," Baker says. "The challenge before us in the next 20 years, and the next century, is building on that foundation for a new and more diverse generation of Californians."
THE FIRST 20 YEARS: BUILDING CLASSROOMS AND BRIDGES

During his tenure, Baker has lobbied to bring more than $170 million in state and private funding to add 17 major buildings to the campus, including the Advanced Technology Laboratories (College of Engineering), the Sports Complex, and the Performing Arts Center's Christopher Cohan Center.

"When I came here, I had to play catch-up," Baker recalls. Cal Poly had an excellent reputation, outstanding students, and top-notch faculty and staff. "But we had a deficit of instructional space and inadequate facilities, primarily for agriculture and engineering."

Baker says he spent his first years on the job at Cal Poly focused on "getting more equipment and classrooms."

That meant frequent trips to Sacramento to talk with legislators about funding for capital improvements on campus. "You run the risk of being called an 'invisible president' for being off campus a lot, but it's something that needs to be done" in order to win additional funding, Baker explains.

In Sacramento, Baker found legislators already familiar with Cal Poly and sympathetic to the university's funding needs. The fact that many of them had districts filled with Cal Poly students, parents, and alumni helped, Baker notes with a small smile. "We are a statewide university—we always have been. Eighty-five percent of our students come from places other than the Central Coast."

At the same time, Baker says, the university was looking to the future and the additional planning and building Cal Poly would need to do to stay competitive. "When I came here, I felt that clearly, at some point, we would need to revise the master plan for the university and focus on new areas that would be consistent with our mission. And we've done that," Baker says. "In March of this year, the CSU board of trustees approved our new master plan."

That plan calls for redevelopment and consolidation of academic facilities within an expanded campus core for an anticipated student body of 20,900 students. This redevelopment will take place over the next 20 years, and calls for an ultimate faculty and staff population of approximately 3,200. A key part of the master plan includes creating residential communities on university land to house the additional students, faculty, and staff.

While pushing Sacramento to add classroom space and equipment to campus, Baker also accepted a presidential appointment to the National Science Board. "The position," he says, "helped me be an advocate for undergraduate science and engineering programs."

Baker served on the national board from 1985 to 1994. That meant trips to Washington, as well as to Sacramento. The work regularly took him away from his wife, Carly, and the couple's children: Carrie, Kristin, Chris, and B.J. "Carly has borne more than her share in raising our children while I was away at meetings," Baker
says, noting that her support was "extremely important" to his accomplishments as Cal Poly's president.

In her role as Cal Poly's "First Lady," Carly Baker has participated actively in university fund raising and event planning. She has also worked with the Children's Center Task Force, the Foundation for the Performing Arts Center, and the Performing Arts Center's art advisory board, as well as with community groups such as the Children's Protective Services Task Force, the Women's Shelter board of directors, and the Juvenile Justice and Delinquency Prevention commissions.

Carly Baker also earned her master's in education at Cal Poly. "That was eye-opening," President Baker says with a laugh. "I'd have to say I learned a lot about Cal Poly from the students' perspective."

Some of that learning also came thanks to the Bakers' children, who grew up on campus. Oldest daughter Carrie and her husband now live in Seattle with their four children, and the Bakers' second-eldest, Kristin, also married, just completed her Ph.D. in nutritional and physiological arthritis research at Tufts. Son Chris graduated from Cal Poly with a marketing degree and now works for Cal Poly Athletics. Youngest son BJ graduated from Cal Poly with a degree in political science and is now in law school.

BRINGING INDUSTRY, BUSINESS ON CAMPUS

During his first two decades as president, Baker was also building bridges to business and industry leaders.

"I thought the needs of industry and the role of the university could be brought together in a more formal structure. Cal Poly had a history of working with industry, but my view when I came here was that there was a good deal more that we could be doing in creating formal contacts," Baker says. "I thought we could bring the university
closer to the stakeholders in the state of California."

To that end, Baker started a “President's Cabinet,” inviting industry leaders to campus to give advice and input. He also encouraged Cal Poly's six individual colleges and the departments within those colleges to form their own advisory councils.

Today the President's Cabinet has 45 members, and the college and department advisory councils and boards comprise more than 800 members.

"These boards and councils are bringing into people with industrial, technical, business, and agricultural backgrounds. They are bringing senior executives and CEOs and Cal Poly faculty and staff together," Baker stresses.

"To have these people advising us on how we can best serve our students' needs, and serve California and the economy, is invaluable, and something we've needed and will continue to need."

Bringing industry, technical, and business leaders on campus as university advisers has also benefited Cal Poly students, Baker says. "These are people who are willing to open doors for us for financial support and laboratory development. They are people who are offering internships for our students. And they are the people who are employing our graduates."

CAL POLY: THE NEXT 20 YEARS—AND THE NEXT 100

After two decades of building, it's time to plan for the next century, Baker stresses.

The Centennial Campaign, publicly launched this spring (see stories on pages 19-21), is a major part of that planning. Cal Poly hopes to raise $225 million during the campaign to keep its competitive edge in a world where technological advances occur nearly every day. And the Centennial Campaign is key to addressing one of the biggest issues looming in Cal Poly's future: faculty recruitment.

"I believe the biggest challenge Cal Poly faces during the next 20 years is recruiting the faculty needed to replace the generation of faculty here now, who will be retiring over the next 20 years, and especially the coming decade," the president says.

"Our challenge is setting in motion a process to attract the resources needed to hire faculty. And to do that, we need to address several issues. One is housing.

"The Central Coast is a very beautiful and attractive place to live, but housing costs can be prohibitive here," Baker says. "We are going to need housing for faculty on university land. We hope that will give us a competitive edge in attracting faculty.

"We're also working with industry to help us attract faculty to the university," as well as using other funding strategies, Baker adds. These include endowments for faculty chairs and other partnership strategies.

Finding faculty to fill the shoes of retiring professors wouldn't be easy even without a housing shortage, Baker notes. "We are fortunate to have excellent faculty at Cal Poly. I believe our faculty are concerned not just with the kind of education their students are receiving,
but what kind of people their students are becoming."

The future of Cal Poly students lies at the heart of all President Baker’s efforts, past and present, and he especially relishes frequent compliments about Cal Poly students and graduates.

“I was at a meeting recently, talking with the CEO of a very large technology company,” Baker recalls. “He told me that a majority of his technical employees are from Cal Poly, and he is focusing on hiring graduates from Cal Poly. He told me that our graduates are extraordinary in what they can do—he said they come to the company with abilities and knowledge that they are able to put into practice right away.”

And hearing comments like that, Baker says, breaking into a big smile, “is great.”

(Photos by Jeff Greene)
The first major Centennial Celebration event was held on Thursday, March 8, 2001, marking the 100th anniversary of the signing of Cal Poly's founding legislation. On this day, Cal Poly's 100 years—the years of the 20th century—were relived in both words and images.

Kennedy Library Reception

The day began with a presentation and reception at the Robert E. Kennedy Library. President Warren J. Baker and Provost Paul J. Zingg each spoke, setting the tone for the day and noting the many university accomplishments of the past century. More than 100 people attended this event, which included the release of the retrospective book, Cal Poly: The First Hundred Years.

Assistant Library Dean Nancy Loe gave an overview of the new publication, noting the more than 300 photographs and other images illustrating Cal Poly's rich history. In text and pictures, Cal Poly's first booklength history captures the full span of campus life and academic progress over the century.

Architecture Professor Tom Fowler followed Loe with remarks on the Time Capsule Project developed by College of Architecture and Environmental Design students who created a range of innovative ideas as a class project for a time capsule. The Time Capsule Project, displayed in the lobby of the University Union, featured the works of five students, with votes invited on the form, contents, and location of these envisioned Centennial capsules.

"Celebrating the Century" Colloquium

The development of a polytechnic institution from a high school to a nationally respected university was traced by people who lived through many of those years in the "Celebrating the Century" Colloquium at the Cal Poly Theatre. President Warren J. Baker, former President Robert E. Kennedy, and Carol McPhee Norton, daughter of...
Cal Poly's Centennial Celebration reached the place where it all began with a 100th-anniversary exhibit opening March 12 in the state Capitol Building.

On March 8, 1901, Gov. Henry Gage signed the bill founding the California Polytechnic School, which grew over the century from a technical high school into California Polytechnic State University, a campus of The California State University and one of the most highly respected public undergraduate universities in the nation.

The multimedia exhibit chronicling Cal Poly's past and present was housed in the San Luis Obispo County display case on the first floor of the Capitol Building. It was dedicated at a ceremony attended by Central Coast legislators and Cal Poly and CSU officials.

At San Luis Obispo, History Day 2001 included the opening of several exhibits of historical photographs and memorabilia, an array of imaginative time-capsule proposals by architecture students, and a colloquium panel (see main story on page 14). Other major events marking Cal Poly's year-long Centennial Celebration included a special rendition of the university's annual Open House April 20-22 (see story on page 26) and—the main event—a Founders Convocation and Centennial Celebration planned for Sept. 27-28.

More information about Cal Poly's Centennial Celebration, including statewide alumni events, can be found on the Web at www.centennial.calpoly.edu.

former President Julian A. McPhee, recounted aspects of Cal Poly history witnessed firsthand. Three Cal Poly graduates, Robin Baldwin (ASCI '54), John Sweeney (CE '89), and the late Rita Hill (SOC '71) (see sidebar on page 16), joined in the discussion with their insights. History Professor Daniel E. Krieger served as moderator and summarized Cal Poly history. Krieger is an expert on Central Coast history and writes a weekly column for San Luis Obispo County's Tribune titled "Times Past."

HISTORY EXHIBIT AND RECEPTION

Following the colloquium, Cal Poly opened a major exhibit of historical photographs and memorabilia depicting the last century of university achievements. This exhibit, presented in the Rossi Grand Lobby of the Christopher Cohan Center, traces the emergence of Cal Poly's defining features across three broad periods in the institution's history:

1944
War hero and Cal Poly graduate Elwyn Righetti serves as an Army Air Corps instructor before he is lost in action during WWII.

1945
The Collegians, Cal Poly's popular dance band, perform in uniform.
Rita Hill
EXCERPTS FROM EULOGY PRESENTED BY
WILLIAM G. BOLDT
Vice President for Advancement
May 11, 2001, Memorial Service
Visalia, California

One of the greatest gifts of life is being enriched by a person who through his or her kindness, humanitarianism, and enthusiasm forever changes our lives. For me and for Cal Poly, Rita Hill was that very special person.

Rita wasn't just a gifted leader. She was an institution and a true legend. The blood that ran through her veins was not red—never red. It was green alternating appropriately with gold. She loved Cal Poly, where she met her husband, Jim, and made hundreds of lifelong friends, and Cal Poly loved her. She never missed an opportunity to promote Cal Poly's unique learn-by-doing educational advantage.

Rita was a gifted fund-raiser who helped strengthen Cal Poly's educational programs and ensure that qualified Visalia-area students could receive the benefits of a Cal Poly education regardless of their economic circumstances. She was a tireless alumni leader who encouraged hundreds of alumni to join the Cal Poly Alumni Association, and worked for years as an alumni chapter leader, most recently as president-elect of the alumni association. Rita's home office became Cal Poly's branch campus in Visalia.

We have lost one of our most dynamic visionary leaders, mentors, and friends. But as usual, Rita has left a wonderful legacy and a very clear road map for all of us to follow. Her love of people, passion for education, and inspirational enthusiasm are guiding lights for all of us to follow and share with everyone that we touch.

Editor's Note: Rita Hill was a member of the “Celebrating the Century” Colloquium panel during Cal Poly’s March 8 History Day. She died in a car accident on May 4.
The “School Years” (1901-1940), when Cal Poly emerged from the progressive dreams of a handful of San Luis Obispo educational visionaries to become a comprehensive secondary technical school and later a two-year technical and vocational school serving students from across California.

The “College Years” (1940-1972), when Cal Poly rallied to support the war effort, serving as a training site for naval cadets and California farmers; when the campus grew to meet the needs of returning World War II veterans; and when the college expanded in size and program scope to provide access to its polytechnic programs for a tidal wave of students born after the war.

The “University Years” (1972-present), when Cal Poly developed a full university polytechnic educational program, earned national recognition for excellence, and emerged as one of the most selective public universities in the United States.

(Photos by Patrick Swadener)
To herald the 2001-02 academic year, Cal Poly will hold one of its main Centennial events, the Founders Celebration, on Sept. 27-28.

Recognizing 100 years of teaching, research, and public service to California and the nation, the event will open with an examination of the distinctive mission and future of polytechnic education and end with an all-campus, "turn-of-the-century" picnic. On the evening of Sept. 27, Cal Poly President Warren J. Baker will join a panel of distinguished guests for a Founders Colloquium to discuss the challenges of preparing citizens and a diverse workforce for an increasingly science- and technology-based economy.

The colloquium's panel will also include David Baltimore, a Nobel Prize-winning biologist and president of Caltech; Gary Bloom (CSC '82), chief executive officer, Veritas; Rita Colwell, director, National Science Foundation; Richard DeMillo, chief technology officer, Hewlett-Packard; and John Brooks Slaughter, chief executive officer, National Action Council for Minorities in Engineering, president emeritus of Occidental College.

On the morning of Sept. 28, the university will begin an outdoor Founders Convocation with an academic procession of visiting college and university presidents and delegates, the Cal Poly faculty, and Cal Poly class representatives. Caltech President Baltimore will deliver the convocation's keynote address. Honorary doctor of science (Sc.D.) degrees will be conferred upon Baltimore, Colwell, and Slaughter in recognition of their achievements and careers.

In the afternoon, the entire campus community will have a chance to celebrate Cal Poly's past 100 years and welcome the university's second century. Festivities will spotlight two turns of the century: Cal Poly's founding year of 1901 and this year's turn to the 21st century, which launches the university into a new millennium.

To celebrate the university's Centennial, various departments will sponsor Chautauqua-like presentations and entertainment reminiscent of the public celebrations that were a vital part of the intellectual and social fabric of the late 19th century.

"This day of celebration will be memorable and fun for the entire university community," said Provost Paul Zingg. "It will be a day when Cal Poly steps back from its day-to-day activities and enjoys a celebratory moment as a community with a proud past and a bright future."

Students, faculty members, and staff members, as well as alumni and friends everywhere, are invited to mark their calendars and come join in this first-of-its-kind event celebrating a milestone in the university's history. Classes will be canceled Sept. 28 to allow the entire campus community to participate.
CAL POLY KICKS OFF THE CENTENNIAL CAMPAIGN

At a glittering black-tie gala on April 21, President Warren J. Baker publicly launched Cal Poly's $225 million fundraising Centennial Campaign. The Campaign's theme is "Strengthening Our Advantage." Its funding goal is unprecedented in the 23-campus California State University system. To date more than $135 million has already been raised toward the total.

"For more than 100 years, Cal Poly's 'learn-by-doing' philosophy has defined how we teach, learn, and live as a polytechnic university community," said Baker. "More than 100,000 alumni and students have benefited from a Cal Poly education. Their leadership is increasing the state's and the nation's intellectual wealth and

Television newsman and author Tom Brokaw serves as keynote speaker for the Centennial Campaign Kick-Off Dinner on April 21.

1960
The football team, in the last photo taken before the Oct. 29 crash that took 22 lives

1960
A page from the Nov. 14 Life magazine article about the tragedy
fueling society's economic engines. Secured by private support, Cal Poly's advantage will be strengthened into the new century and beyond."

The Centennial Campaign is a universitywide effort that focuses on raising private support for five areas:

**Supporting Students:**
$32 Million
Additional funds are needed to strengthen the scholarship endowment and increase learn-by-doing activities such as laboratory research, fieldwork, internships, cooperative education, and service learning.

**Supporting Faculty and Staff:**
$40 Million
Over the next 10 years, one-third of Cal Poly's faculty members will retire. Private resources will help the university recruit and retain high-quality faculty and staff members as well as provide funds for professional development programs.

**Enriching Learning:**
$32 Million
To continue to offer cutting-edge education, new academic programs will be developed. They include biomedical engineering, a marine science initiative, a business finance institute, an expanded viticulture program, and an applied research and learning center in architecture.

**Enhancing and Developing Campus Facilities:**
$81 Million
Private resources will be combined with state capital funds to develop new facilities and renovate current ones. Capital development priorities include a center for science and mathematics, engineering buildings, architecture studios, a music and theater teaching facility, and new business buildings.

**Developing State-of-the-Art Instructional Technology and Strengthening the Library:**
$40 Million
Campaign contributions will be invested in the renewal of instructional and applied research laboratories, equipment, computing technology, and multimedia instructional resources. The university's Robert E. Kennedy Library will receive additional resources to keep pace with the increasing demand for global knowledge.

Volunteer efforts are extremely important to the success of the Centennial Campaign. Cal Poly alumni Robert J. Cardoza (AGB '65) and R. James Considine Jr. (BUS '68) are co-chairing the all-volunteer Centennial Campaign Support Committee, which comprises more than 15 alumni.
n the evening of April 21 Cal Poly President and Mrs. Warren J. Baker hosted more than 450 alumni and friends at a black-tie gala to kick off the university's Centennial Campaign. "In my more than two decades as president, I cannot remember a university event as exhilarating. It brought Cal Poly and its benefactors together for a common cause to support teaching and learning in a very special environment," Baker said.

Special guests included keynote speaker and NBC news anchor Tom Brokaw, U.S. Congresswoman Lois Capps, California State University Trustees Martha Fallgatter and Larry Gould (chair of the board), and student trustee and recent Cal Poly graduate Neel "Bubba" Murarka (CSC '00).

Centennial Campaign co-chairs Robert J. Cardoza (AGB '65) and R. James Considine Jr. (BUS '68) welcomed the attendees. Cal Poly alumnus Robert L. "Hoot" Gibson (AERO '69), former astronaut and commander of five space-shuttle flights, took the stage and reminisced about his student years at Cal Poly and the meaningful effect of the university's "learn-by-doing" approach in his life.

Cal Poly parent Marie Gallo spoke on behalf of herself and her husband, Robert J. Gallo, and their son, Tom Gallo (GrC '88). She introduced the campaign video, which included remarks by President Baker, scenes of faculty, staff, and students engaged in learning by doing, and interviews with Cal Poly alumni and students describing the value of their Cal Poly education.

President Baker then announced the $225 million fund-raising goal for the Centennial Campaign, stating that more than $134 million had already been raised. Major donors attending the dinner were asked to stand and be recognized by their peers.

Newsman Tom Brokaw presented remarks on the state of American education, ranging from the personal to the philosophic, and discussed the interaction between the liberal arts and the technical professions.

Congresswoman Lois Capps recognized the work of Carly Baker as a host for university guests, a tireless volunteer for the university and community, and a gracious planner of university events.

Videos of the event can be viewed on Cal Poly's Centennial Campaign Web site at www.giving.calpoly.edu. The site will continue to be updated throughout the campaign.
CAL POLY CELEBRATES RECORD-BREAKING YEAR

A 100th birthday and more than $40 million—what a year for Cal Poly!

In 2000-01, an unprecedented 70 percent growth in private gifts resulted in a record $42.5 million being donated to the university and its programs.

One of the year’s highlights was receiving 13 gifts and pledges of $1 million or greater. The three largest gifts were:

- $15 million from Paul and Natalie Orfalea to the Orfalea College of Business
- $3 million from Bert and Candace Forbes to the College of Engineering
- $2 million ($6 million pledged) from Paul and Sandra Bonderston to the College of Engineering

Cal Poly publicly launched its $225 million Centennial Campaign, “Strengthening Our Advantage,” in April 2001 with a spectacular kick-off dinner attended by approximately 450 alumni, friends, and donors. NBC news anchor Tom Brokaw was the keynote speaker, Cal Poly parent Marie Gallo of the Gallo wine family also spoke at the event, and U.S. Congresswoman Lois Capps presented a commendation she had read into the Congressional Record recognizing Carly Baker for her contributions.

The success of the university’s fund-raising efforts is a direct result of the dedication of Cal Poly President Warren J. Baker, the faculty, and staff, and the generosity of the university’s alumni, parents, and friends. Cal Poly’s $225 million endeavor is the largest fund-raising campaign in CSU history. Through June 2001 more than $135 million in gifts and pledges were received toward the campaign goal.

Cal Poly’s advancement program also received national attention. For the third consecutive year, the university was recognized with a CASE Circle of Excellence in Educational Fund-Raising Award for 1999-2000. Cal Poly was one of only two public master’s universities nationwide to receive a CASE award for the campus’ overall performance in development.
CAL POLY PUBLICLY LAUNCHED ITS CENTENNIAL CAMPAIGN APRIL 21. INDIVIDUALS MAKING GIFTS AND PLEDGES OF $1 MILLION OR MORE WERE ACKNOWLEDGED, AS WERE CORPORATIONS THAT GAVE $700,000 OR MORE. THESE CONTRIBUTIONS INCLUDE:

- IBM: $5,154,785 to the College of Engineering to enhance the industrial and manufacturing laboratories
- CADENCE DESIGN SYSTEMS: More than $4 million to the College of Engineering's computer software engineering program
- BERT AND CANDACE FORBES: $3 million to the College of Engineering to create two endowed professorships in software engineering and an endowed laboratory fund (see inside back cover)
- HAROLD HAY: A pledge of more than $2 million through his estate to create the Harold Hay Endowed Chair for Energy-Efficient Design in the College of Architecture and Environmental Design
- OMAR AND CLAUDIA KING: $1.5 million to the College of Agriculture to support teaching laboratories in the Soil Science Department and student scholarships
- THE JAMES G. BOSWELL FOUNDATION: $1.2 million gift of its kind in the history of the CSU system, to the College of Agriculture to support an endowed professorship in plant genetics
- ROBERT BROWN AND SUSAN PFEILER BROWN: $1.2 million to the College of Agriculture for merit scholarships in memory of Susan Brown’s parents
- DAISY HUDSON: $1.2 million to the College of Agriculture for the recruitment and retention of students in irrigation and water science
- THE CALIFORNIA ASSOCIATION OF NURSERYMEN: $1.1 million to the College of Agriculture to underwrite projects and activities that directly link California’s vibrant horticulture industry with Cal Poly
- WATKINS-JOHNSON: Equipment valued at $1.1 million to the Orfalea College of Business packaging program

- UNOCAL: More than $25 million, including $3 million to the College of Science and Mathematics to establish the Unocal Chair for Environmental Studies, two additional professorships, and research support; $2 million as the lead gift for the new Center for Science and Mathematics; and $3.5 million and the Avila Pier to establish undergraduate and graduate research programs in marine sciences
- PAUL AND NATAKIE ORFALEA: $1.5 million, the largest gift of its kind in the history of the CSU system, to the College of Business, named the Orfalea College of Business to recognize the family’s contribution. This landmark gift will enhance learn-by-doing programs and give students the skills they need to be successful business leaders by focusing on global leadership, entrepreneurship, and technology. The Orfaleas also gave $1 million to the Associated Students Inc.'s children's center, newly renamed the Orfalea Family and ASI Children’s Center. (See the cover story in the spring 2001 Cal Poly Magazine.)
- THE ESTATE OF LORENZO AND JUDITH MCCOMIE: More than $10 million to the College of Agriculture’s Animal Science and Crop Science departments
- PAUL AND SANDRA BONDERSON: $6 million to the College of Engineering to build a new student projects facility and create an endowed laboratory fund (see story on page 24)
- THE CALIFORNIA ASSOCIATION OF NURSERYMEN: $1.1 million to the College of Agriculture to underwrite projects and activities that directly link California’s vibrant horticulture industry with Cal Poly
- WATKINS-JOHNSON: Equipment valued at $1.1 million to the Orfalea College of Business packaging program
COLLEGE OF ENGINEERING RECEIVES $6 MILLION GIFT TO FUND HANDS-ON LEARNING

Paul R. Bonderson Jr. (EE '75) and his wife, Sandra, recently committed to a gift of $6 million to the College of Engineering. Of this total, $5 million will be used with matching funds from Cal Poly to build the Bonderson Engineering Project Center. The remaining $1 million will provide funding for the Bonderson Advanced Software Design Studio.

"The Bonderson Engineering Project Center will provide large, flexible workspaces equipped with the latest technology to be used by every major in the college," said College of Engineering Dean Peter Y. Lee. "This gift truly takes us to the next level of leadership and excellence in engineering and computer science education."

Bonderson is vice president of engineering for Brocade Communications Systems, a leading supplier of open-fabric solutions that provide the intelligence backbone for storage area networks (SANs). A Brocade co-founder, he has more than 25 years of industry experience at Sun Microsystems, Data System Design, and Intel.

"Paul Bonderson provides a wonderful example of an alumnus who has been widely successful and who is motivated to give back to the institution that helped launch his career," said Sigurd Meldal, chair of Cal Poly's Computer Science Department. "The impact of his gift on student learning is inestimable—it will enable us to offer a curriculum that is truly applicable to the 21st century."

* YOSEF AND SHEILA TIBER: $1 million for the performing arts, scholarships, and disabled student services
* BANK OF AMERICA: $1 million to the Orfalea College of Business to establish the Bank of America Community Development Professorship and an interdisciplinary community development center
* AN ANONYMOUS gift of $1 million to the College of Liberal Arts for music education
* AN ANONYMOUS gift of $1 million to the College of Architecture and Environmental Design to support the George Hasslein Endowed Chair, a research center, and the Universal Traveler Program for student scholarships, faculty professional development, and state-of-the-art equipment
* HEWLETT-PACKARD: Equipment valued at $987,026 for laboratory enhancements of technology-based education in the Orfalea College of Business
* SUN MICROSYSTEMS: High-tech equipment valued at $944,826 to the Orfalea College of Business to advance technology-based education. Sun also selected the Orfalea College of Business as one of only seven worldwide partner schools in the Sun Campus E-Business Incubator Program.
* UNITED AIRLINES: $800,000 to the College of Engineering to strengthen the robotics program
* XEROX: $782,435 to the College of Liberal Arts to benefit the graphic communication program
* MICROSOFT: $768,809 to the College of Engineering to enhance classroom technology
* CISCO SYSTEMS: $763,425 to the College of Engineering to establish a computer networking laboratory
A little more than 50 years ago, in 1949, the Cal Poly Alumni Association published its first alumni newsletter, *Green and Gold* Alumni Review, in an effort to keep alumni abreast of events and activities.

However, this was not the first attempt by graduates to keep in touch with fellow Mustangs. It was Cal Poly's first graduating class in 1906 that started the tradition of reuniting after commencement.

As Cal Poly celebrates its centennial anniversary in 2001—and the Cal Poly Alumni Association its golden anniversary in 1999—it is important to note that one aspect remains constant: The purpose of the alumni association is to strengthen ties between Cal Poly and its alumni and to support the university and its unique educational heritage.

As the university has changed, so has the alumni association. It was not too long ago that the association was run completely by volunteers, and the first staff member filled a half-time position. Not until Steve Riddell's arrival in 1970 did Cal Poly have its first full-time director of alumni relations—and the first CLASS OF 1951 REUNION

A committee of 1951 graduates (Ken Savage, Jim Dowe, Kirby Robinson, Robin Baldwin, Doug Thorne, Everett Chandler, Don Coats, Tom Lennon, and Jack Evans) has planned a weekend of activities and time to reminisce for their classmates on Nov. 9-11. Plans include tours of campus, meetings with college faculty, a 50-year reunion dinner, a Homecoming parade, a tailgate barbecue, reserved seating at the Cal Poly Homecoming football game, a veterans' dedication ceremony, and much more. If you did not receive a save-the-date postcard in March, please call Jen Landers at the Alumni Office at 888/CAL-POLY to be placed on the mailing list.

continued on page 27
Open House 2001 presented Poly Royal in honor of the university’s Centennial Celebration. The event, which took place April 20-22, welcomed 50,000 visitors to the campus. More than 200 student clubs and organizations were showcased at various booths, and events included Admitted Students’ Preview Day, a presentation by the Hearst Lecture Series, the annual rodeo and tractor pull, and college-specific events.

The Cal Poly Alumni Association welcomed many of its members back to campus. Some of these included Saul “Monty” Montrose (Pl ’32), the founder of the first Poly Royal; former Poly Royal queens Renee (Ellis) Jones (’68) and Lisa (Dawson) Levering (’69); and alumni chapter leaders. The association hosted a continental breakfast for members, and the CPAA booth served as a center for displaying old yearbooks and photos, providing details on upcoming events, offering information from each of the colleges, and setting up photography sessions.

If you missed Open House, make sure to visit Cal Poly during Homecoming (see story on page 27). You can purchase a copy of the poster from the first Poly Royal (see Timeline, page 10) for $7.00 from the alumni association. Call 888/CAL-POLY to place an order. “Open House Presents Poly Royal” will return next year April 19-21. The alumni association booth will be located on Dexter Lawn again, and all alumni are encouraged to stop by.

Future Farmers of America sponsors the first Poly Royal in 1933.

(Photograph University Archives, Robert E. Kennedy Library)
The Alumni Association continued from page 25

in the California State University system. Following Steve Riddell and Bob Timone, Steve Shockley took the reins in 1985, and Ben Beesley in 1998.

Although today’s alumni staff is quite a bit larger than in 1970, many aspects have remained constant. The association is still governed by a volunteer board of directors, financing for programming comes from alumni and friends, and the CPAA still serves alumni and the university.

Over the years, the Cal Poly Alumni Association has been an integral partner in Cal Poly’s history. Poly Royal, started by the Cal Poly chapter of the Future Farmers of America in 1933, thrived as a focal point for returning alumni. The organizers of the first Poly Royal were Carl “Gus” Beck, adviser of the FFA chapter, and other agriculture faculty and students. The rearing mustang that stands above Memorial Plaza was an alumni association project. And reunions over the years rekindling memories of days gone by are organized through the Alumni Relations Office.

More than 100,000 alumni are now represented by the alumni association, with more than 11,000 active members. As the university embarks on its second century, the alumni association’s goal is to continue to keep graduates in touch with Cal Poly and with San Luis Obispo.

AN INVITATION TO HOMECOMING

The alumni association invites alumni, parents, students, and other university friends to celebrate Cal Poly’s Centennial Celebration during Homecoming 2001, Friday through Sunday, Nov. 9-11. Everyone is encouraged to arrive early for San Luis Obispo’s Thursday-night Farmers’ Market, to visit the campus, and to attend student club activities.

Saturday begins with a Homecoming parade (10 a.m.) that showcases Cal Poly clubs. At 3 p.m. Cal Poly will play CSU Northridge in the Homecoming football game, preceded by a tailgate barbecue at 1 p.m. On Sunday there is a reunion breakfast in Chumash Auditorium at 8:30 a.m. for the classes of 1951 and 1976. All veterans, their families, and friends are then welcome to attend the Veterans’ Memorial Dedication, which takes place in Memorial Plaza (next to the Mustang statue) at 11 a.m. and commemorates the original Armistice Day at the end of World War I, when the 11th hour of the 11th day of the 11th month was chosen for the cessation of hostilities.

The alumni association will soon be mailing a complete schedule of Homecoming events and registration information. For more information, call the Alumni Office at 888/CAL-POLY or visit the CPAA Web site at www.alumni.calpoly.edu.
NO 'JUMPING GENES,' RESEARCH SAYS

Cal Poly students—known for applied, real-world studies—frequently work with professors on projects that touch today’s headlines. One such study in the College of Agriculture sheds new light on the controversial topic of genetically modified crops.

When biotechnology critics argued that genes from genetically modified Roundup Ready® corn “jumped” to the Chico strain of rye grass, multi-national Monsanto Corporation representatives claimed that it could not happen. Monsanto now has Cal Poly student research to back up its claim.

Biotechnology critics claim that a primary threat from genetically modified organisms (GMO) technology is that herbicide-resistant genes can “jump” from genetically modified crops to wild or domesticated species, producing “super weeds” which would resist conventional control methods. Monsanto maintains it would be very difficult, if not impossible, for a weed to mutate under normal circumstances due to the genetics involved.

Under the direction of Crop Science Professor Scott J. Steinmaus, undergraduate students in his advanced weed science class initiated a lab experiment using genetically modified Roundup Ready® cotton, a susceptible variety, and a Roundup Ready® variety of corn, as well as a resistant biotype and susceptible biotype of rye grass, Chico and San Luis Obispo, respectively. Of these test plants, only the Chico strain of rye grass and the Roundup Ready® corn and cotton survived the pesticide application at the highest labeled rate.

The students next set about isolating DNA from both GMO and non-genetically modified organisms (NGMO). Each student worked at an independent lab station to separate the DNA from other cellular contents.
According to Steinmaus, "The students were 'hands-on' in the lab—they weren't just watching me do everything or watching a video about the procedure. They all had the opportunity to actually isolate the DNA, amplify the specific modified gene through the use of a polymerase chain reaction (PCR), and run the PCR products on an agarose gel by electrophoresis. When dye was added to the gel, the location of the gene could be clearly seen under ultraviolet light. We all found Monsanto's altered gene in the GMO crops. We didn't find a single instance of it in any of the other species, including the resistant Chico rye grass."

Steinmaus continued, "Resistant rye grass from Chico simply does not have the same altered gene as the GMO Roundup Ready® crops. Therefore, the altered gene could not have jumped—or transferred—from the crop to the weed. The next step for this year's classes will be equally exciting: to determine the actual mechanisms of resistance in the Chico rye grass biotype."

Steinmaus' study and the class project to investigate herbicide resistance in weeds were funded by the nonprofit Agriculture Education Foundation.

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AG TRADITIONS ESTABLISHED CURRENT DISCIPLINES

One hundred years ago, local journalist Myron Angel and the townspeople of San Luis Obispo knew success when "An Act to Establish the California Polytechnic School" passed both houses of the state legislature and was signed by Gov. Henry Gage on March 8, 1901. Two years later, President Theodore Roosevelt visited San Luis Obispo and commended the citizens for their "courage . . . and common sense" in establishing a polytechnic institute for scientific training in "the arts of farm life."

Those early days saw the establishment of traditions that continue today. From enterprise projects where students "earned while they learned" to the first Poly Royal sponsored by the Future Farmers of America, students actively participated in their education, extracurricular activities, and community events.

Today, as it begins its next 100 years, the College of Agriculture is still showing "courage and common sense" as it prepares students for the challenges facing agriculture in the 21st century.

These challenges are also the college's greatest strength. Its long tradition of a hands-on "learn-by-doing" education and the continued commitment of the university community—students, faculty, staff, alumni, and friends—are what will see the college through the next year, decade, and even century, and ensure that it continues to be "only the best."
ENERGY SUSTAINABILITY FOR THE 21ST CENTURY

Just five years ago you might have had a hard time defining "sustainability." Today, with California's energy crisis, redefining energy-efficient and environment-friendly planning and building techniques has become a necessity.

To meet this challenge, a sustainable society fulfills present needs without compromising the ability of future generations to meet their own needs.

"For several years the College of Architecture and Environmental Design (CAED) has offered courses in sustainable environments, concentrating them into a minor last fall," says Dean Martin Harms. "It's one of the few programs of its kind in the country. Enrollment in the course package is increasing steadily, reflecting the popularity of its fundamental mission—to promote holistic thinking across related disciplines around the concept of sustainability."

The CAED's City and Regional Planning Department is fostering a global perspective to help solve California's and the world's growing problems with appropriate and sustainable design. "The foundation of our teaching is built upon three fundamentals: an area's environmental, social, and economic components, and how they interrelate to sustain healthy communities," says Professor Paul Wack. "Students learn efficient land-use methods that don't overdraw water supplies, that support varied transit systems, and that provide a fair allocation of resources and services to all segments of society." The number of sustainable communities is growing, and Wack believes this is being accomplished "not only with today's decisions, but by teaching future planners to think seven generations ahead."

Energy-saving decisions early in a project's development can produce long-term benefits for occupants. "In the Landscape Architecture Department we show students the value of solar orientation for passive heating and how natural air movement can be enhanced," says Professor Walter Tryon. "Important things such as encouraging appropriate siting and the use of native plants reduce water, maintenance, energy, pollution, pesticides, and cost, while benefiting our health."

Prior to the current energy crunch, members of the CAED created the Renewable Energy Institute in 1984 and The Sustainable Environments Emphasis Group in 1993. Both include interdisciplinary collaborations with other colleges, including Agriculture...
and Engineering. Architecture Department Professor Brian Kesner notes, "In all our teaching, research, and community service work, we promote a balanced solution of ecological, social/economic, and built-environment objectives by integrating the knowledge of human and natural systems."

Well ahead of trends, for decades graduates of the CAED's Architectural Engineering Department have been designing structural systems that "maximize strength using minimal materials and assets," says Instructor Damon Ho.

In the Construction Management Department, students learn to preserve assets by calculating the "life-cycle cost" of a building site. "This often means spending more initially on materials to generate substantial savings throughout the expected life of a project," observes Professor Bill Epstein.

A new project on the horizon is the Applied Research and Learning Center. With the help of private support, the CAED plans to establish a new learning environment in which curriculum and research overlap—a "one-stop" facility to house interdisciplinary collaboration among the college's five departments. Such a center will provide economies of scale and new opportunities to advance sustainability throughout the 21st century.

From the first classes in "machine, architectural, and original design" in 1903 to today's rigorous curriculum, Cal Poly has remained committed to its founding learn-by-doing philosophy through its College of Architecture and Environmental Design (CAED). The faculty—drawn from both professional educators and practicing professionals of the built-environment industry—are dedicated to educating the next generation of men and women to plan, design, construct, manage, and preserve the physical environment.

The CAED comprises five departments: City and Regional Planning, Architecture, Landscape Architecture, Architectural Engineering, and Construction Management. Integral to their development and success has been an ongoing commitment to multidisciplinary teaching, involving all of the professions that create and construct the built environment. As a result, graduates are not only effective planners and designers, but are also well prepared for the actual complexities of professional practice and construction in the field.

Today, with nearly 1,700 students enrolled and nearly 8,000 graduates, the CAED is one of the largest programs of its kind in the nation. Admission is highly competitive, with only one in four qualified applicants selected. The undergraduate programs in each department and graduate programs in architecture and city and regional planning send out high-quality, thoughtful, applications-oriented graduates, creating built-environment professionals who will shape the towns, cities, and open spaces of the 21st century.

The future will see more efficient, alternative project deliveries and design solutions in a rapidly changing global environment. There is no stronger foundation for CAED students to handle such a task than by remaining true to the Cal Poly approach to education: application-oriented and cooperatively multidisciplinary.
'BOOTSTRAPPING' ENTREPRENEURSHIP AT CAL POLY

The Orfalea College of Business at Cal Poly has selected three strategic themes of entrepreneurship, globalization, and technology to define a distinctive niche in the world of business education that fits Cal Poly's "polytechnic" character. These three themes constitute the principal driving forces of business today.

The college chose entrepreneurship for its first programmatic salvo in 2000-01, since it could "bootstrap" many exciting and bold initiatives with little expense. At the same time, it would "role-model" entrepreneurship in the development of its own programs, exemplifying Cal Poly's "learn-by-doing" philosophy.

Entrepreneurship engages students and faculty from throughout the university and provides an excellent bridge to the business community. It provides the Orfalea College of Business an opportunity to play a critical role in leveraging technology-based innovations into the marketplace.

During the 2000-01 academic year, the college launched a suite of activities in rapid succession in the true spirit of entrepreneurship: at little expense but with huge investments of "sweat equity" by supporting faculty, staff, and students.

* The Sun Campus Incubator provides a high-end e-business development environment for graduate and undergraduate students throughout the university. In January 2001, the first three student teams began a six-month project that participated in a global network of eight leading business schools sponsored by Sun Microsystems, where Orfalea College of Business alumnus Marc Loupe (BUS '76) provides enthusiastic support.

* In March and April, Professor David Peach and business advisers selected five student teams from an initial field of 13 to present to a panel of experienced entrepreneurs and venture capitalists at the first Ray Scherr Business Plan Competition. Ray Scherr founded The Guitar Center, the world's largest retailer of guitars and guitar accessories, and provided seed funding for the competition. The three winning teams shared cash prizes of $7,000 and received invitations to the Central Coast Venture Forum in Santa Barbara in May.

* The Cal Poly Entrepreneurs Club, formed in April, welcomes students from all colleges at Cal Poly. Its activities include weekly guest speakers and a full-day "Business Plan Workshop" in May. Professors Mike Geringer and Chris Carr from the college, Unny Menon from the College of Engineering, and Associate Vice President for Advancement Rick Ellison are club advisers.

* The Centennial Entrepreneurs Forum hosted presentations by Kinko's founder Paul J. Orfalea and real estate developer and investor Kenneth Behring, and a half-day workshop on "Winning Ideas" by the Santa Barbara Technology Group.

* The International Journal of Technopreneurship is the world's first initiative to address the varied issues of entrepreneurship in technology-based environments through...
THE ORFALEA COLLEGE OF BUSINESS THROUGH HISTORY

In 1960 Cal Poly created the Department of Business Administration, with six faculty members drawn from the Department of Social Sciences, established in 1947. The curriculum included classes in industrial relations, marketing, typing, and accounting. When the economics faculty left Social Sciences in 1965, economics became part of Business Administration.

In 1970, the School of Business and Social Sciences was initiated with 21 business and eight economics faculty members. At that time, Economics became a separate department within the new school.

The new School of Business Administration emerged in 1980 from yet another restructuring. It included four departments—Accounting, Management, Business Administration (including finance, marketing, and law), and Economics. Under this organization, in 1986 the school achieved its first successful national accreditation by the AACSB (the American Assembly of Collegiate Schools of Business: the International Association for Management Education).

In 1992 Industrial Technology was added, and all schools on campus became colleges. A second successful AACSB accreditation was completed in 1993 with a 10-year approval. A change in college administration brought freestanding "areas" in business administration, accounting, marketing, global strategy and law, finance, and management.

In 2000, Paul Orfalea (founder of Kinko's) gave the largest gift of cash or securities ever made to the CSU. On Jan. 24, 2001, the CSU board of trustees voted unanimously to approve the naming of the Orfalea College of Business. The official dedication on April 20 was attended by the Orfalea family, Cal Poly President Warren J. Baker, Dean William Pendergast, and approximately 200 current faculty, emeritus faculty, and honored guests.

During the 2000-01 academic year, the college faculty and staff formulated a new mission statement: "To foster a dynamic educational environment where quality students 'learn by doing' to create a global business advantage through the integration of business disciplines and technologies with an entrepreneurial spirit."

Students focus on the real-world business environment through team projects, computer applications, case analyses, internships, and cooperative work assignments. The college enrolls 2,300 students in its undergraduate programs and 100 students in its MBA programs, offering undergraduate and graduate degrees in business administration, economics, and industrial technology, and filling a special niche in business education through its emphasis on entrepreneurship, technology, and globalization—the driving forces of business today.

publication of an online journal with a distinguished international editorial board. Professor Mike Geringer is leading this initiative.

* The Woman's Entrepreneur Mentor (WE Mentor) program, launched in May, provides a network of relationships among women entrepreneurs in the business community and students at Cal Poly. Orfalea College of Business Professors Colette Frayne, Lynn Metcalf, and Terri Lituchy have fostered this effort.

* The Mustang Venture Fund will be a student-assisted venture fund to invest in startup and early-stage businesses. The fund will co-invest with experienced venture funders, and students will gain hands-on experience in due diligence and venture investment. OCOB alumnus Tom DeRegt provided seed funding for this activity.

Building on these striking successes in a few short months, the college plans to work toward the creation of a Technopreneurship Center that will provide the infrastructure and staffing to move entrepreneurship education at Cal Poly to a new level of excellence. Like many dynamic entrepreneurial ventures, the college has mined the potential in "bootstrapping" and has reached a juncture when it must institutionalize its programs with a central administrative and financial base.

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SHAPING THE FUTURE

For many research projects in Cal Poly’s College of Engineering, the future is now.

Currently being studied by a multidisciplinary faculty team, for example, are shape memory alloys. SMAs are “smart” materials that can be “trained” to respond to different environmental changes—for instance, higher and lower temperatures—in a predetermined way. They can “deform”—change their form or shape—and then revert back to their original state when the particular stimulus is removed.

Potential applications are intriguing. If used to trigger the deployment of satellite antennae, SMAs could save in transportation costs because the antennae could be “folded” into smaller shapes. Likewise, SMAs have great potential for biomedical applications. Think of the advantage of making orthodontic wire or coronary stents out of material that behaves much like a rubber band!

They may sound like a sci-fi dream of the future, but SMAs are the subject of current research. “Experimental Analysis and Characterization of Shape Memory Alloys” incorporates four complementary avenues of study: Professor Kathy Chen (Materials Engineering) is working on microstructural analysis and materials characterization. Professor Eric Kasper (Civil Engineering) is developing constitutive models for SMAs. Professor Dan Waldorf (Industrial and Manufacturing Engineering) is looking at the effects of processing on SMAs. And Professor Bill Ahlgren (Electrical Engineering) is undertaking atomistic modeling of SMAs. The project is being funded by the college through a grant provided by Lockheed Martin.

Chen notes, “The key focus of the work is to achieve a thorough understanding of both the microstructural and global response of nickel titanium (NiTi), one of the most common SMAs and most interesting because of its compatibility with the human body.”

Waldorf explains, “I’m interested in the smart ‘fixturing’ application of...”
Using NiTi as a clamping material, for instance, could save a lot of time and money in manufacturing auto parts. But I couldn’t have undertaken the research needed on my own. My other three colleagues have opened up this hot, cutting-edge research area by filling the gaps in my own materials knowledge."

While the SMA project lays the foundation for new industrial applications, it also boosts student learning. Undergraduates participate directly in the research efforts, and new information is incorporated into the curriculum. For instance, labs have been developed on the shape memory and super-elastic effect in NiTi, and new algorithmic breakthroughs will be presented in computational mechanics classes involving constitutive theory.

“My fellow researchers and I are very excited about this project,” Chen says. “SMAs have such great potential for application in a variety of important industries—medical, aerospace, automotive, manufacturing. And the multidisciplinary aspect of the study is very significant because the interaction and synergy of the group allow for insight into various micro and macro responses. Each of us brings a different expertise that allows us to approach the problem in a unique way.”
A university known best for its excellence in agricultural, technical, and science disciplines, Cal Poly is also proud of a diverse faculty in its College of Liberal Arts. Their gifts range from practical experience in journalism and graphic communication to talents in the performing and fine arts.

One faculty member who represents the best the college—and Cal Poly—has to offer is Music Professor Craig Russell.

Teacher, scholar, composer, and performer Russell was awarded a Cal Poly distinguished teacher award in 1986 and received an outstanding professor award from the California State University system in 1995. He is the recipient of major grants from the Fulbright Commission, Spain's Ministry of Culture, the California Council for the Humanities, and the National Endowment for the Humanities.

"Music is my life's blood," Russell says. "I want to make the thrill and passion of music available to all Cal Poly students—whether they become dairy farmers or rocket scientists."

Russell started out his college career as a physics major at the University of New Mexico. Between classes he played guitar in the music department's practice rooms. Hearing him one day, renowned Music Professor Hector Garcia told others that he sincerely hoped that that particularly "hopeless" student would never ask him for lessons. Within a week, Garcia heard knocking at his office door. He was dismayed to find Russell standing before him, asking for help.

During the course of the visit the professor's impression of the young student softened and he agreed to tutor Russell. Russell was to learn years later that Garcia was not paid for the lessons, but continued to tutor him because he sensed in Russell his own love of music. By the end of his junior year, Russell changed his major from physics to music performance in guitar and lute.

Russell's artistic career was again furthered by a chance encounter with a second instructor in a general education course—"Just part of the curriculum," he says. Within the first 10 minutes of Susan Patrick's first lecture, Russell began charting an entirely new life course. Patrick brought the year 1105 to life for him and ignited his passion as a music historian—an interest he would develop during his Cal Poly career.

As a graduate student at the University of North Carolina, Russell studied the works of Santiago de Murcia, an early 18th century Mexican composer. From his research, Russell saw that sections were missing from de Murcia's transcripts and documents. A colleague tracked down original works and transcripts to a private attic
archive in Mexico City, and these were made available to Russell, opening up 18th century Mexican musicians to other composers and performers.

After completing international study courses and his doctoral program, Russell came to Cal Poly’s College of Liberal Arts’ music program in 1982. “On a serendipitous note,” Russell smiles, he was introduced to the world-famous performing group Chanticleer. Realizing immediately that their performing style blended perfectly with his new composition pieces based on the 1764 works by Ignacio de Jerusalem, he asked the group to assist him in producing the Grammy-nominated “Mexican Baroque” and what was to become the much-acclaimed “Matins for the Virgin of Guadalupe.”

This spring the San Luis Obispo Symphony performed two of his compositions, “Concierto Romantico” (a guitar concerto) and “Rhapsody for Horn and Orchestra,” at Carnegie Hall in New York City.

Hearing his compositions played there was “a dream come true,” says Russell.

Professor Garcia, now elderly, was unable to attend the concert in person. “But he was there in my heart,” Russell says.

FIFTY YEARS OF LIBERAL ARTS EVOLUTION

The history of liberal arts at Cal Poly mirrors the evolution of the university and of academic disciplines in American society following World War II. During the middle of the century, the humanities and sciences at Cal Poly formed a single division variously titled “Science and Humanities,” “Liberal Arts,” and “Arts and Sciences.” These were classic names for the collection of disciplines once known as the trivium (grammar, rhetoric, and logic) and quadrivium (arithmetic, geometry, music, and astronomy), which characterized the curricula of European medieval universities. The role of the liberal arts at Cal Poly was then what it is, in part, now—to provide instruction in basic skills (writing and speaking) and knowledge known as general education.

At the same time, many interpreted the language of California’s education code to mean that most liberal arts disciplines should never grow into majors in their own right. English was the only traditional liberal arts major in the Division of Applied Arts created in 1962. However, cultural changes in American society in the 1960s created the School of Communicative Arts and Humanities in 1970. Speech and history became majors, and art, foreign languages, and philosophy (without majors) were introduced.

Two important watersheds for the school in the 1980s were the elaboration of the mission of Cal Poly as a polytechnic “and comprehensive” university and the promulgation of more rigorous general education requirements. The first justified more traditionally philosophic liberal arts majors in the school—namely music, philosophy, theater, and modern languages and literatures. The second affirmed the importance for liberal arts students of some advanced understanding of technology and the importance for technical and professional students of advanced understanding of the aesthetic, social, and cultural dimensions of life.

In the last quarter of the 20th century, regional, national, and global demands for cross- and interdisciplinary cooperation toward the solution of complex problems became sufficiently compelling to blur old distinctions between the philosophic and the applied. Today, the College of Liberal Arts includes programs such as graphic communication and journalism, in addition to more philosophic ones. More important, no department is exclusively either.

Finally, the college has evolved into a mature partner for its technical and professional counterparts, which define the uniqueness of Cal Poly but which ignore human aesthetic, ethnical, and social contexts at their peril.
NEW RESEARCH INITIATIVES CHALLENGE SCIENCE AND MATH STUDENTS

Student research is thriving in the College of Science and Mathematics.

Mathematics students are maintaining the database for the California condor restoration project. Biological sciences majors are studying the monarch butterfly, including migration patterns on the Central Coast, nuptial flights of males carrying their female mates, and even the chemistry of the metabolic energy expenditure in these reproductive encounters. And a chemistry/physics double major pursues research on "the second harmonic rotational anisotropy of the <1,1,0> and <1,1,1> faces of silicon." These are among the research topics of more than 100 students, mostly undergraduates, who made oral or poster presentations in the first annual CSM student research conference in May, a Centennial event.

The college is building on Cal Poly's time-honored senior project as it develops a comprehensive and sustainable undergraduate research program. Undergraduate research engages the curiosity, imagination, and critical thinking skills of students in creative ventures directed by faculty advisers. These special teaching and learning experiences are becoming increasingly important for students applying for graduate or professional schools or entering industry. In turn, faculty members have the opportunity to enter into meaningful intellectual and mentorship relationships with their students, and the professional development and research programs of the faculty are advanced by undergraduate research.

The increasing opportunities for sponsored research in the College of Science and Math are also exciting. The Unocal Corporation has funded several million dollars of bioremediation and restoration ecology research to investigate innovative ways to address oil-contaminated land, with more than 100 students participating in these projects. Chemistry and biochemistry students in the polymers and coatings concentration benefit from sponsored...
THE COLLEGE OF SCIENCE AND MATHEMATICS: FROM AGRICULTURE TO ACADEMICS

In the 1940s, Cal Poly's baccalaureate degrees were granted only in agricultural and industrial curricula and only to "boys," and the faculty was mostly male. The 1946-47 catalog indicated that young men responded well to these disciplines: "... (B)y Otis O, who have been required to complete a college preparatory curriculum of the conventional pattern often do not receive the best grades; but when confronted with courses involving the science and techniques of agricultural and industrial operations ... they do very well."

Science and mathematics courses existed to support applied majors. Math was offered through differential equations. There was a full year of general chemistry, one quarter of organic chemistry, a full year of physics, and 18 biology courses, many of which were agriculture-related (diseases of livestock, etc.). Also from the 1946-47 catalog:

"Emphasis needs to be given generally to vocational and technical training at the college level ... (O)ccupational training complements the older concept of higher education as a process of the development of the mind toward creative thinking."

Science and mathematics evolved to the "Science and Humanities Division" and eventually to the present-day College of Science and Mathematics. The college still provides an academic foundation for the polytechnic colleges but also offers a full array of degree programs in its disciplines. Although the modern curriculum embraces Cal Poly's "learn-by-doing" philosophy, it is interesting to contrast the following statement from the college's most recent strategic plan to the 1946-47 catalog:

"To further explore the differences and relationships between teaching and learning, information and knowledge, training and educating will be essential priorities. Our curricula and pedagogies will engage the student's intellect, curiosity, imagination, and capacity for creative and critical thought."

Other contrasts abound. Almost 60 percent of CSM majors now are women, and more than a third of new freshmen enter with high school GPAs of 4.0 or higher. Of 50 faculty members hired in the past seven years, 40 percent are women and 25 percent come from minority groups. The college boasts the first three endowed faculty chairs ($1 million each) in Cal Poly's history, and supports many industry-sponsored student research projects.

Perhaps the most important project in the history of the College of Science and Mathematics coincides with Cal Poly's Centennial Celebration. The current "spider building" will be razed. Just as science and mathematics is central to the polytechnic curriculum, a new Center for Science and Mathematics will be located at the campus center, next to the planned Centennial Park, a place of comfort and beauty that will surely become one of Cal Poly's defining landmarks. Together, the center and Centennial Park symbolically will integrate the mission and values of the university with the physical campus, and provide a rich and inspiring living and learning environment for the Cal Poly community.

Research and summer internships funded by the California coatings industry. The Mathematics Department has a National Science Foundation REU (Research Experiences for Undergraduates) grant and two RUI (Research at Undergraduate Institutions) grants. Biological sciences students have been involved in other projects, some on the East Coast, funded by the Office of Naval Research.

Finally, new opportunities for student research are on the horizon with the imminent and generous donation of the Unocal Pier at Avila Beach to the college. This 0.6-mile steel and concrete structure will be the site of expanded educational and research efforts in marine science. It is expected that Cal Poly will become nationally recognized in this area and unique with a major marine science research station operated largely by undergraduate students.

(Photos courtesy CSM)
he recent success of Cal Poly Athletics, first among Big West Conference schools in the 2000 Sears Trophy standings, can be attributed to the hard work and commitment to excellence by student-athletes, coaches, and staff. Another contributing factor to this success has been the addition and upgrade of several athletic facilities on campus. The recently completed “Building the Advantage” athletics capital campaign has led to the remodeling of Mott Gymnasium, the resurfacing of the track, a new weight room, the addition of an academic resource center, and the completion of Baggett Stadium (baseball) and Bob Janssen Field (softball) at the new 47-acre Sports Complex.

The $12 million Sports Complex was a partnership between the students of Cal Poly, the Athletics Department, and the university. During the dedication on Oct. 20, 2000, the many capital campaign contributors were recognized for their outstanding support, and co-chairs Bob Neal (ASCI ’55) and Robin Baggett (BUS ’73) were praised for their leadership in helping raise more than $5 million during the campaign. In early 2001, both Baggett Stadium and Bob Janssen Field were officially unveiled with opening-day ceremonies and wins over Stanford and UC Riverside, respectively.

As the athletics program continues to reap the benefits of new facilities, it plans to mount new initiatives as Cal Poly’s Centennial Campaign gets under way. Among these are the renovation and expansion of Mustang Stadium, completion of seven new tennis courts, continued improvements to the academic resource center, and an increased emphasis on building a scholarship endowment. To achieve these initiatives, the Athletics Department will, once again, rely heavily on alumni and community support. The completion of these projects will “strengthen our advantage” and ensure the continued success of Mustang Athletics.
CAL POLY ATHLETES: CONTENDERS FROM THE START

Currently a Division I member of the Big West Conference, Cal Poly’s athletics program comprises a tradition of success and excellence that includes national championship trophies, All-America honors for several hundred athletes, and national academic honors.

Each decade following the first university athletic event in the early 1900s has produced memorable moments, including an undefeated and unscored-upon football season in 1933. In October 1960, the university experienced its greatest loss when 16 football players, the team manager, a local supporter, and four others perished in an airplane accident. The remainder of the season was canceled.

In the tragedy’s aftermath, Cal Poly’s athletes returned to the playing fields as a closer-knit and stronger family. In 1966 Cal Poly’s first national championship was secured by its wrestling team. Coach Vaughan Hitchcock led the Mustangs to eight national titles over the next nine years. Track and field would follow with four national titles in the 1970s. And after an NCAA playoff in 1978, the football team captured the NCAA national championship in 1980—almost 20 years after 1960’s airplane accident.

In the 1980s Cal Poly won 17 national championships, including men’s tennis and men’s and women’s cross country and track and field. Cross country teams dominated during this decade, winning all but one title, while the university’s track teams took home four championship trophies.

Among the most significant events in Cal Poly’s athletics history were moving to Division I in 1994 and joining one of the premier athletic conferences in the nation in 1996—the Big West. These were moves that the athletics program made and adjusted to with little difficulty. Teams continue to shine with conference championships, NCAA appearances, and two individual Division I national champions. In the past two years, the Athletics Department has had more than 50 student-athletes named to the Big West Conference All-Academic team, as well as several to the West Regional All-Academic team that includes all West Coast Division I schools.

Finally, the university has seen improvements, not only with the caliber of competition, but with athletics facilities that have helped Cal Poly recruit top student-athletes from throughout the state.

While Cal Poly’s athletics past may only be a memory stored in record books and the Hall of Fame, the future remains bright with promise, not just for students competing within the conference but at the NCAA Division I level as well.
Cal Poly's University Archives has served as the official repository for artifacts of students, alumni, faculty, and other friends of Cal Poly since it was founded in 1978 by then-President Robert E. Kennedy. The mission of the archives is to document the history, growth, and development of Cal Poly, which is fulfilled by collecting and providing access to materials on Cal Poly's teaching, research, and outreach missions, student life and activities, campus buildings and grounds, and traditions.

The University Archives was originally established to serve the Cal Poly community, but its holdings and services are also available for use by visiting scholars and the general public. Among its diverse collections are more than 5,000 photographs from all decades of campus life; papers from Cal Poly's past directors and presidents; recordings of the Collegians and other campus musical groups; architectural drawings and plans for campus buildings; and complete runs of the student newspaper, yearbooks, course catalogs, and other campus publications.

In honor of the Centennial, the rich holdings of the University Archives have been captured in the university's first published history, *Cal Poly: The First Hundred Years*. The book was

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Student journalists work under the supervision of faculty adviser Robert E. Kennedy (front row, second from right) in a 1941 University Archives photo (*Cal Poly: The First Hundred Years*, page 53).
published on March 8, 2001, marking the 100th anniversary of legislation signed by California's governor to create the school.

Featuring more than 300 illustrations, this 178-page volume chronicles the university's academic progress, campus customs, student life, and other elements that make Cal Poly unique. An essential part of the Cal Poly story is its learn-by-doing ethic, which is recounted in The First Hundred Years in both photographs and personal narratives.

The book begins in 1894, when local journalist Myron Angel gathered a group of citizens to lobby for a state school in San Luis Obispo. The precarious early years of the institution and how it coped with the Great Depression, as well as Cal Poly's "Rosie the Riveter" training programs and the advent of naval pre-flight training during World War II are also included. The volume continues with the years of campus change and growth following the war as thousands of veterans enrolled, the achievements of students and faculty during the 1950s and 1960s, and the last three decades of the 20th century, as Cal Poly has grown in national importance.

The book is available at El Corral Bookstore, Cal Poly Downtown, and via mail and fax orders. For phone orders, call 805/756-1161 or 800/756-1161. To learn more about Cal Poly: The First Hundred Years, visit www.lib.calpoly.edu/book/ on the World Wide Web.

Kennedy Library a Work in Progress

At the heart of Cal Poly's learn-by-doing enterprise is the Robert E. Kennedy Library, named for the university's second president. As a campus leader in information management, the library integrates traditional resources with technology to advance Cal Poly's distinctive polytechnic programs.

Although the library has no graduates, it plays a vital role on campus as a place of learning, discovery, and scholarship. Every day, thousands of students and faculty members pass through the doors of the Kennedy Library to use its collections, attend classes, work in groups, or consult with members of the library faculty and staff. Thousands more access the electronic library, where resources are available 24 hours a day from any location.

The library began in 1903 in one room of the first administration building on campus. By 1920 the library's annual budget was $750, with $152 spent on books and journals. Today's annual operating budget is $5.6 million, with $1.5 million allocated for books and periodicals.

In 1942 the library made its first move to the newly completed "clock tower" administration building. The first building to be completed following World War II was the $700,000 Walter F. Dexter Library. Dedicated in October 1948, the building memorialized the Sacramento administrator who had helped secure collegiate status for Cal Poly eight years before. In 1980, the library moved to its current building.

In the 21st century, the Robert E. Kennedy Library continues to encourage independent lifelong learning. Although its mission and values do not change, how the library fulfills its mission does, as it responds to the changing needs of a dynamic polytechnic university.
So you've carried all those suitcases up to that 10 x 13 dorm room and assured your son or daughter that in no time it will begin to feel like home. You've exchanged goodbyes as new friends begin to introduce themselves. Cal Poly's Week of Welcome has begun, and you're headed home.

Now what?

Like their students, parents and family members face adjustments adapting to the challenges associated with university life. Questions about how parents and family members can become involved in university life are frequent, but uncertainty about healthy and constructive levels of guidance and support for their students during the college years is not uncommon.

The Division of Student Affairs' Parent Program is Cal Poly's parent and family connection. It exists to support and serve parents and families by heightening communication between them and the university and by engaging them in Cal Poly activities and events so that, in turn, their students can be successful in their college experience.

Developed in the early 1980s under the auspices of the Cal Poly Alumni Association, the Parent Program offered, for the first time, a means for parents to stay connected with Cal Poly. In the summer of 1996, the Parent Program became a part of the Division of Student Affairs, where it continued to work effectively to raise parents' awareness about programs that can contribute to and enhance their students' years at Cal Poly. The program continues to benefit today from its history of associations with these departments, as well as with the six colleges and the university at large.

According to Interim Vice President for Student Affairs Robert Detweiler, "The real measure of student success is graduation. We're here to support and ensure student success. The rest is just details." To Cal Poly and its students, parent/family support is an essential part of ensuring this definition of success as well.

Through Cal Poly's Parent Advisory Council and other Parent Program activities, parents have a forum for discussing with the university their concerns on matters that affect their students, such as the safety of off-campus housing, class availability, and changes in majors. Under the past and current leadership of council chairs Tom Wulf, Chellie Powell, Jerry Holcombe, and Ellie Jorritsma, as well as the council's founding and current members, the council shapes the direction and scope of services provided by the Parent Program. Most important, council members and many other parent volunteers have been, and continue to be, important resources of information to other Cal Poly parents.

For more information on the Cal Poly Parent Program, please call 805/756-6700 or view its Web site at www.calpolyparent.org.
The ongoing mission of Student Affairs has been to encourage and advance not only academic learning, but also the personal development of students by providing a broad range of opportunities in experiential learning, collective decision-making, field-based learning, community service learning, and peer instruction. The division strives to foster, within each student, self-respect and responsibility to the greater community by embracing and expanding the learn-by-doing philosophy that is at the core of a Cal Poly education.

Student Affairs comprises the following entities:

**HEALTH AND COUNSELING SERVICES** (campus infirmary established 1934)
- 1958 - First full-time physician is hired.
- 1961 - Accreditation is received from the Joint Commission on Accreditation of Hospitals. The health center remains one of a small minority of university health centers accredited by outside agencies.
- 2001 - Five physicians and more than 30 professional and support staff work in the health center.

Counseling Services includes five counselors, two interns, and two administrative support staff.

**CAREER SERVICES**
- 1942 - The Cal Poly Bulletin-Catalog states: "The primary purpose of all instruction at (Cal Poly) is placement ...."
- 1989 - Cooperative Education and Placement programs merge.
- 1991 - Career counseling function transfers to Cooperative Education and Placement to form the current Career Services.

**STUDENT LIFE AND LEADERSHIP** (begins as the Activities Planning Center 1951)
- 1964 - First Week of Welcome orientation program is held.
- 1981 - Multicultural Center opens.
- 1993 - Women's Center opens.
- Currently oversees more than 400 campus clubs and organizations.

**HOUSING AND RESIDENTIAL LIFE**
- 1952 - North Mountain halls open.
- 1966 - First co-ed housing established in Santa Lucia Hall.
- 2001 - Groundbreaking held for 804-bed student apartment complex.

**ASSOCIATED STUDENTS INC.** (incorporated 1964)
- 1971 - University Union construction completed.
- 2000 - Grand opening held for the 47-acre Sports Complex, including baseball and softball stadiums and soccer fields.
- 2001 - Poly Escapes new climbing wall installed.

**DISABILITY RESOURCE CENTER** (opens 1975, initiating Annual Disability Awareness Day)
- 1985 - The only volunteer reading program in the CSU system is initiated, providing materials on tape for print-reading-impaired students.
- 1995 - Partners for Success created (the first DRC career-mentoring program in the CSU system).

**STUDENT ACADEMIC SERVICES** (formed in 1981 as an umbrella for the Educational Opportunity Program (1968), Disabled Student Services/Student Community Services (1969), the Learning Assistance Center (1978), and Student Affirmative Action (1980))
- 1983 - Upward Bound program begins, a college prep program for low-income or potential first-generation college students-funded by the federal government.
- 1984 - Student Support Services (designed to increase retention and graduation rates) and Summer Institute (an academic transition program) established.
- 1999 - College Bound founded as a program to motivate and prepare local middle- and high-school students from low-income, first-generation college families for application and entrance to Cal Poly or other CSU campuses.

**CAMPUS STUDENT RELATIONS AND JUDICIAL AFFAIRS** (formal office opens 1990)
- Upholds the California State University (CSU) Standards of Conduct regarding student discipline in cases such as cheating, abusive behavior, vandalism, computer systems misuse, and sexual misconduct.
ucte AND OCOB PROFESSORS COLLABORATE ON
ALTERNATIVE CREDENTIALING RESEARCH PROJECT

University Center for Teacher Education (UCTE) Professor Elaine Chin and Orfalea College of Business (Management Information Systems) Professor Barry Floyd have been awarded a research grant from the U.S Department of Education. The $1,022,000 grant by USDE’s Office of Educational Research and Improvement (OERI) will fund a three-year study (2001-04) of alternative teacher credential programs in California.

Forty-six states have adopted alternative programs as one way of meeting the teacher shortage. Students in these programs work as full-time teachers in internships while learning how to teach from university and school district personnel and faculty. However, the effectiveness of alternative credential programs in resolving the teacher shortage remains a question.

Chin and Floyd will gather and analyze data from 600 teacher candidates drawn from a subset of the 77 California state-sponsored programs. From this data, they will test their theoretical model to predict the graduation and subsequent retention rates of students participating in these alternative education programs. The findings of their study will help inform decision-makers about the design and implementation of these programs in the United States.

OERI grants are extremely competitive. Chin and Floyd’s proposal was among only 20 funded from a field of more than 300 applications nationwide this year. Joining Chin and Floyd as consultants to the project will be Professor John Young of Rutgers University and Mike McKibbin, Ph.D., of the California Commission on Teacher Credentialing.

Chin has undergraduate and graduate degrees in English and education from the University of Chicago and her Ph.D. in education from Stanford University. Her fields of expertise are literacy education, curriculum and teaching methods, assessment, and research. Previously, she earned a promising researcher of the year award from the National Council of Teachers of English and was named a Carnegie Scholar for 2000-01. She joined the UCTE faculty in 1996.

Floyd has undergraduate and graduate degrees in mathematics and systems science from Michigan State University, and his MBA and Ph.D. in business information systems from the University of Michigan. With his extensive expertise in management systems, he has previously consulted on a number of industry and school district projects, including the development of an integrated information system for the San Luis Coastal Unified School District that stores student demographic, enrollment, program participation, and test performance data. He joined the management faculty in the Orfalea College of Business in 1990.
TEACHER EDUCATION AT CAL POLY:
THEN AND NOW

It is a little-known fact that Cal Poly was first envisioned as a teachers college. Myron Angel (the “Father of Cal Poly”) proposed the establishment of a “normal college” in San Luis Obispo in 1894. He had visited his hometown, Oneonta, N.Y., and been impressed by the culture and enlightenment he found there. Convinced that these characteristics emanated from the local teachers college, Angel returned to San Luis Obispo dedicated to founding such an institution here.

Angel enlisted the support of State Sen. Sylvester C. Smith of Bakersfield, who agreed to shepherd the idea through the legislature. Smith discovered in 1897 that there was strong resistance to the idea of putting a teachers college in such an isolated spot. He suggested to Angel that they establish a polytechnic school instead, and the new institution was signed into law on March 8, 1901.

Teacher education became a formal part of Cal Poly’s curriculum in 1933. President Julian A. McPhee selected Cal Poly as the coordinating center of the Bureau of Agriculture, which was the division of the State Department of Education responsible for all agricultural education in high schools statewide. A training program for vocational agriculture teacher cadets had been ongoing at Cal Poly since 1931, but it was the placement of the bureau here that centered all state agricultural education at the California Polytechnic School.

By the early 1980s, Cal Poly’s Education Department and education faculty in the colleges (then schools) of Agriculture, Liberal Arts, and Science and Mathematics offered elementary and secondary teaching programs in all the major fields, plus professional education programs in school administration, counseling, and special education. In 1990 the Education Department and teacher education faculty were reorganized into the University Center for Teacher Education, reflective of Cal Poly’s “learn-by-doing” philosophy and its universitywide commitment to teacher education.

New professors on the UCTE faculty include: (top back, left to right) Mike Ruef, Alice Tomasini, Rita King, David Duran, (middle, left to right) Roberta Herter, Anita Hernandez, and (front) Elaine Chin.

President Baker (center) cuts the ribbon to open the new outdoor Sports Complex. Assisting are (from left): Bob Neal (ASCI ’55), ASI President Sam Aborne, Athletics Director John McCutcheon, and Robin Baggett (BUS ’73).
The Poly Way continued from page 7

and infrastructure ranging from the creation of new majors in music, philosophy, and drama, and programs in wine and viticulture, environmental design, integrative technology, and biotechnology, to the construction of the Dairy Products Technology Center, the Poultry Science Instructional Center, the Advanced Technology Laboratories (built with support from the National Science Foundation and the Keck Foundation), the Christopher Cohan Center (built in conjunction with the city of San Luis Obispo and the Foundation for the Performing Arts Center), and a new campus communication, electrical, and heating system.

Major gifts during President Baker's tenure have included the 3,200-acre Swanton Pacific Ranch near Santa Cruz, bequeathed by alumnus Al Smith (CRSC '44, AGRI '56) to the College of Agriculture in 1993 as a living laboratory that provides students with hands-on instruction in agriculture and environmental education. Smith also established an endowment to support educational programs at Swanton Pacific and in the College of Agriculture—an endowment valued today at more than $17 million. In November 2000 the Orfalea College of Business became the first named college at Cal Poly in recognition of the Paul J. Orfalea family gift of $15 million, one of the largest individual gifts of cash or securities ever recorded in the 23-campus CSU system.

Cal Poly still has to resolve difficulties ranging from availability of classrooms and electronic learning environments to student and faculty housing and the (national) problem of student alcohol abuse. The master plan submitted in the spring of 2001 addresses many of these issues.

During my 30 years at Cal Poly, four things have kept me going: my commitment to my family; my sense that I had colleagues who were working equally hard; my love of studying and teaching a subject which embraces all human activity; and the enthusiasm I picked up from students.

I'm still not sure what "the Poly way" is, but by now I must be a part of it. Our unique university is a wonderful place to have spent half a lifetime.

NEW SUBMISSION MODE FOR "CLASS NOTES" AND "IN MEMORIAMS"

Because of the large numbers of "Class Notes" and "In Memoriams" we receive for each issue of the Cal Poly Magazine, both these items from readers will now be run on the Cal Poly Alumni Association Web site at www.alumni.calpoly.edu.

Please mail "Class Notes" and "In Memoriam" information to the Alumni Relations Office, c/o Jen Landers, Cal Poly, San Luis Obispo, CA 93407, or e-mail jlanders@calpoly.edu.

For "Class Notes" include your name (first, last [maiden]), major, graduation year or years attended, address, phone number, and employer/position.

For "In Memoriams" please follow the format used in earlier issues of Cal Poly Magazine.

The Cal Poly Alumni Association reserves the right to edit content and does not print or return unsolicited photos. All items become Cal Poly property for the purpose of Web publication.
For more than two decades, Bert and Candace Forbes’ history in San Luis Obispo has defined the term ‘community.’

In 1979 they chose San Luis Obispo for their company, Ziatech (an applied computing solutions supplier and manufacturer), and established a working team with graduates recruited from the Cal Poly community. (Bert Forbes is an electrical engineer educated at M.I.T. and Stanford who spent 10 years with Hewlett-Packard, and Candace Forbes holds a bachelor’s in philosophy from Stanford and an MBA from Santa Clara University.)

The Forbeses have now continued their community support by giving $3 million to the College of Engineering, one of the largest cash gifts Cal Poly has ever received. Bert Forbes also currently serves as the president of the board of directors of the Foundation for the Performing Arts Center.

The College of Engineering gift will provide two endowed professorships and an endowment for computer engineering, computer science, and electrical engineering equipment and laboratory upgrades. “Our business was high tech,” Bert Forbes says. “We chose San Luis because we knew that Cal Poly would provide a pool of high-quality employees. And if it’s worth doing, it’s worth doing right.”

Over the years, the Forbeses have obviously done a great deal right. Ziatech grew to more than 200 employees and secured its reputation as an industry pacesetter. In 1994 the Small Business Administration named Ziatech “Central California Small Business of the Year,” and in 2000 it was acquired by Intel.

Throughout Ziatech’s growth, the Forbeses always thought of their business as a family-oriented and civic-minded enterprise. “People want to stay in San Luis Obispo because of the vibrant quality of life here,” says Candace, “and that allowed us to develop a working team and community within the larger community.”

Some of the company’s first employees are reaching retirement age now. “One person gave us the ultimate compliment,” says Bert Forbes. “He said Ziatech was a positive place to work because of its family atmosphere and ethical standards.”

And those are surely the highest standards in any community.

For more information on creating an endowment that could benefit Cal Poly, please contact the Office of Planned Giving and Endowments toll free at 800/549-2666 or via e-mail at taxwise-gifts@calpoly.edu. Or visit our Web site at www.giving.calpoly.edu.
Mustang Stadium was transformed on April 21 by a series of high-rise tents, sparkling decorations, and a catered dinner to open the public phase of Cal Poly's $225 million capital campaign. NBC news anchor Tom Brokaw was the featured speaker as the university welcomed 450-plus major donors and friends. 

(See story on page 19.)