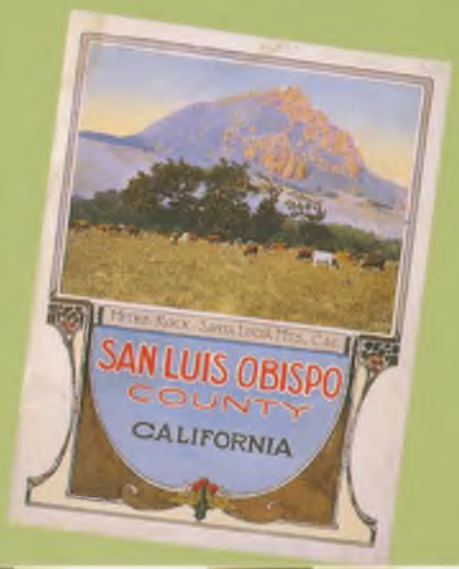
CAL POLY

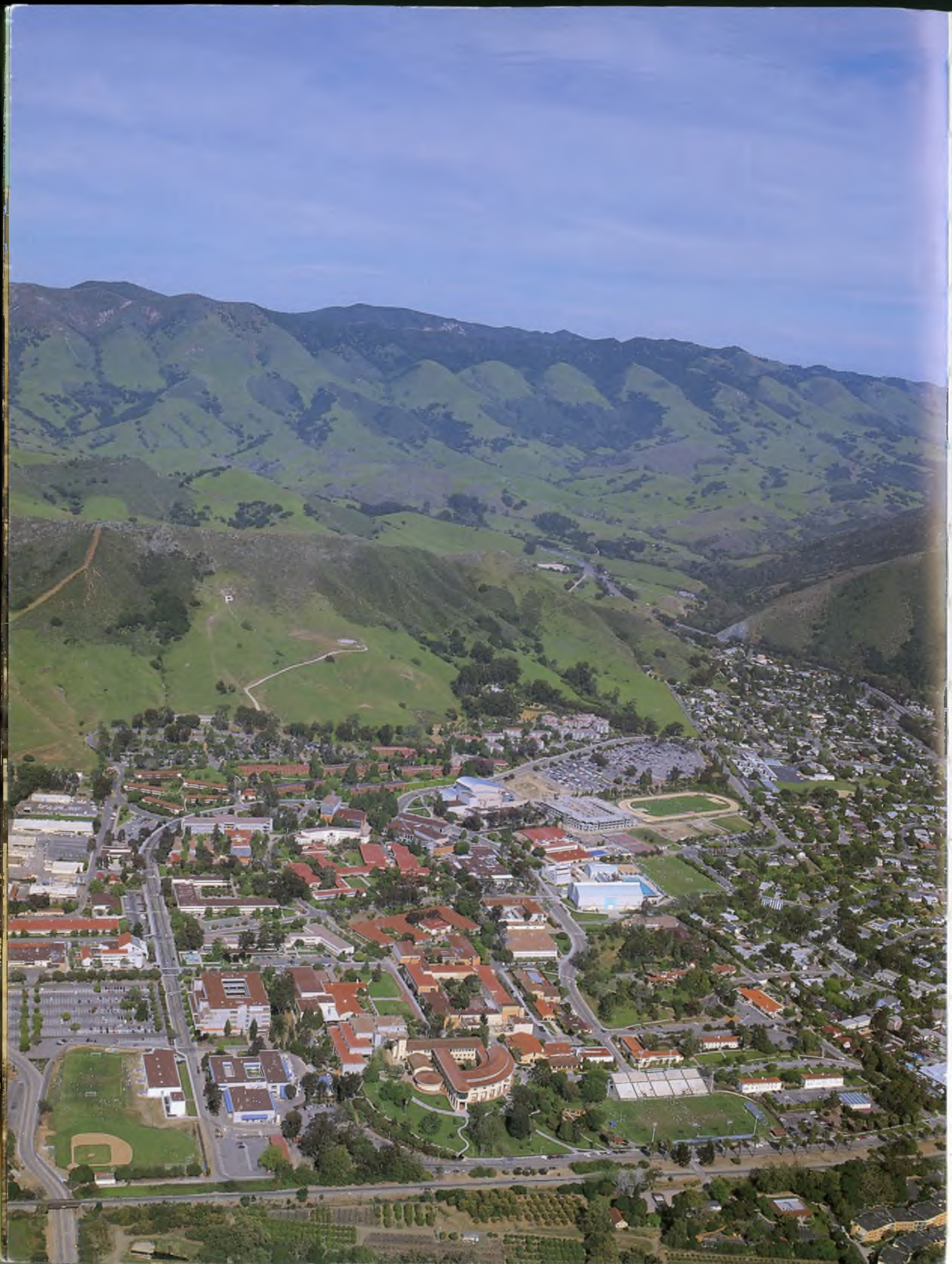
The First Hundred Years



Cal Poly University Archives

The mission of the University Archives, located in the Robert E. Kennedy Library, is to document the history, growth, and development of Cal Poly. Do you have memorabilia from your college years? The University Archives collections help ensure that your days at Cal Poly are not forgotten. Help us preserve Cal Poly history by contributing to the support of the University Archives and by donating your photos, scrapbooks, Cal Poly apparel, and other items. Call us at 805/756-2305 for more information.


Polytechnic School



CAL POLY

The First Hundred Years

San Luis Obispo
California

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from the Cal Poly Foundation.

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Cover image: This watercolor of Cal Poly's second administration building, with its distinctive clock tower, was painted by Lieutenant Harry Bonath, USNR, in 1942, shortly after the building was completed. Bonath was stationed at Cal Poly to teach navigation to cadets during World War II. Page 1: Cal Poly's first administration building (photo by Frank Aston); pages 2–3: hand-tinted panorama of Cal Poly campus, 1929 (Frank Aston); page 4: aerial of campus (Wm. B. Dewey); page 5: architectural detail, Cal Poly Performing Arts Center (Wm. B. Dewey); page 6: Cal Poly student band. Color aerials taken May 5, 2000, by Wm. B. Dewey.

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Contents

Preface

A university is essentially a place of people and ideas. Yet a great university is a place where the *idea* of the institution itself represents a clear and compelling vision that attracts and inspires the people of the institution—its faculty, staff, students, alumni, friends. and supporters—and connects them to each other and the university throughout its history.

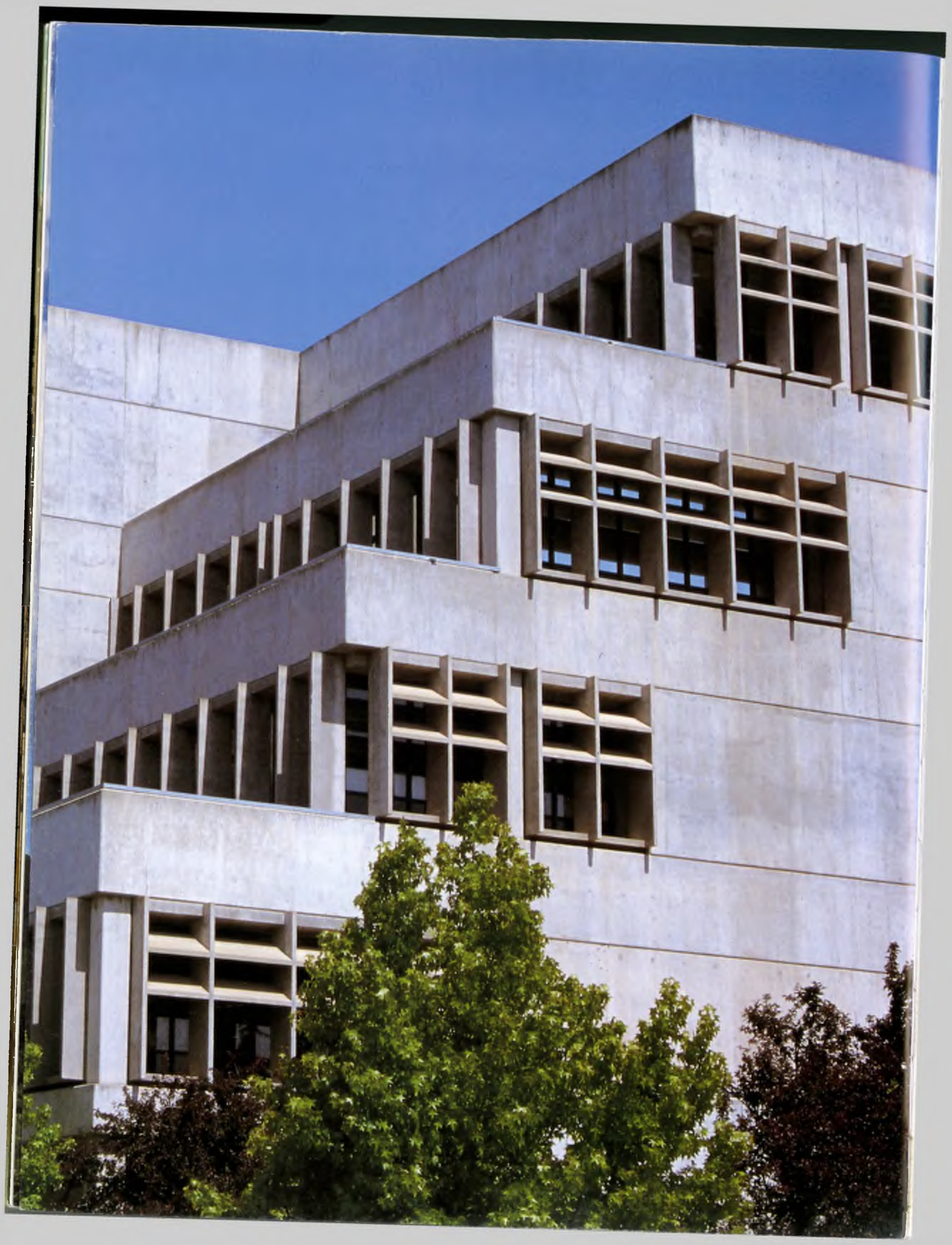
The idea of Cal Poly is captured in the phrase "learn by doing." It is a statement about both the purpose of the university and its educational approach. For a century, since its founding in 1901 as a place "for the practical application of the arts and sciences," Cal Poly has demonstrated understanding not only that the heart and essence of a university is the learning process, but also that the most effective learning communities are those that foster active, engaged learning. Learn by doing, then, is more than a slogan. It defines Cal Poly's identity and charts its future. And just as past is prologue, its manifestation throughout the history of the university underscores the integrity and clarity of this central Cal Poly idea.

This centennial history chronicles the development of Cal Poly and the people who have made it happen. This is a story about commitment and continuity—a century of extraordinary service to the people of California and the nation, and pride in the manner of its delivery. It is a story worth telling and celebrating.

It is especially fitting that the university library has taken the lead in telling this story and in connecting its elements. For no place on the Cal Poly campus is more symbolic of connections—intellectual, cultural, historical—than the Robert E. Kennedy Library. As the center of the learning community that is Cal Poly, the Kennedy Library transcends the academic disciplines of the university just as it serves them. Dean Hiram Davis and his staff, in particular Nancy Loe, head of University Archives, deserve much credit for their initiative and imagination in developing the idea of this book and guiding its completion.

For the members of the Cal Poly community, past and present, who examine this book, aspects of their own stories will be recognizable in the larger university narrative. All who read this book, even those who are unfamiliar with the story it tells, will undoubtedly recognize that it is about a distinctive place in the landscape of American higher education. This is the story of Cal Poly's first century and a celebration of what the university offers for its next.

–Paul J. Zingg
Provost and Vice President for Academic Affairs



Foreword

Cal Poly's centennial provides a unique opportunity to reflect on the university's past achievements and to highlight its aspirations for the future. As Provost Paul Zingg states in the Preface, it is fitting that the Robert E. Kennedy Library undertook the task of compiling the university's 100-year history since the Kennedy Library serves as the intellectual heart of the campus. As the major repository for the university's archives, and by its very nature and mission within the university, the library has the responsibility of preserving the institution's artifacts and history. The University Archives provides a contextually rich corpus of primary source materials for this celebratory book.

These materials—many thousands of photographs, yearbooks, student newspapers, correspondence, architectural drawings, course catalogs, and realia—represent the many voices, ideas, and personal interactions that are the university's lifeline. These materials are the essence of the founding "learn-by-doing" ethic of this polytechnic university.

We hope that while reading this book you will find new insights into the unique aspects of the Cal Poly story. Throughout these pages, we celebrate a legacy, a sense of place, and a century of achievements, and acknowledge those who have been a part of, and contributed to, our teaching and learning community. We especially hope the story being told here will bring back fond memories for alumni of their time at Cal Poly.

I especially want to acknowledge the work of Nancy Loe, assistant dean for Collections Management and head of Special Collections and University Archives. She deserves much credit as the principal author of this celebratory book. We also wish to acknowledge the generous financial assistance of the Cal Poly Foundation.

This book is primarily for members of the Cal Poly community to celebrate our past and our future. We also hope this book will serve as an inspiration to others on campus to add to the university's recorded history, because there are so many aspects of the Cal Poly story yet to be told. We are both privileged and delighted to have the opportunity to make available the story of Cal Poly's first one hundred years for each of us to read, enjoy, and to share with others.

–Hiram L. Davis
Dean of Library Services

CHAPTER ONE

A Great Hope Fulfilled

Creating the California Polytechnic School, 1901-1933

JANUARY 31, 1903

We went out to attend the ceremony of the laying of the cornerstone. It rained the night before and sprinkled that morning. The road to the building was just a wagon trail through a muddy field, but we were seeing the beginning of a great hope fulfilled and sat on lumber piles or stood in the mud and were quite happy.

–ANNIE MORRISON,
San Luis Obispo journalist and early supporter of the California Polytechnic School

On the afternoon of May 9, 1903, President Theodore Roosevelt stood before the citizens of San Luis Obispo and commended them for their "courage ...and common sense." Of the new California Polytechnic School, then under construction on the outskirts of town, Roosevelt said:

> *I am glad to learn that the State of California is erecting here the polytechnic institute for giving all the scientific training in the arts of farm life. More and more our people have waked to the fact that farming is not only a practical, but a scientific pursuit, and that there should be the same chance for the tiller of the soil to make his a learned profession that there is in any other business.*

Waking Californians to the need for a new state school took seven years of hard work by the people of San Luis Obispo. The school's earliest champion, local journalist Myron Angel, arrived in California in 1849, one of thousands of eager, if unsuccessful, gold-seekers. He took up journalism and came to San Luis Obispo in 1883 to write a history of the region. When Angel returned to his birthplace in Oneonta, New York, a decade later, he found that his hometown had flourished in his absence. Angel attributed this new affluence to the State Normal School for Manual Training, founded five years before, which he felt "exerted an influence of the greatest good upon the people of the village and the surrounding country." Angel resolved that on his return he would endeavor to have such an institution established in San Luis Obispo.

President Theodore Roosevelt addresses a group in Santa Barbara on May 9, 1903. A few hours later, he spoke to the citizens of San Luis Obispo, praising them for their support of the new state school.

Opposite: The California Polytechnic School campus in 1907. Established by a state legislative act in 1901, the school opened to students in the fall of 1903.

Top: San Luis Obispo journalist Myron Angel used his oratorial skills to persuade citizens of San Luis Obispo to support a state school.

Above: The Tribune *Building in downtown San Luis Obispo. Angel's articles on the proposed new school were given prominent placement in local newspapers, including the* Tribune.

Top right: San Luis Obispo in 1900.

Blessed with a mild climate and fertile soil, San Luis Obispo at the beginning of the 20th century was a small agrarian village of 3,021 residents. The long-awaited arrival in San Luis Obispo of the railroad from the north in 1894, followed in 1901 by the connecting rail link to Los Angeles, opened the central coast of California to the major cities and economic centers in the state. With a strong farming and ranching economy and greatly improved transportation, San Luis Obispo seemed a perfect choice for the location of a state school.

Founded in 1772 by the Spanish as the fifth of 21 Catholic missions in Alta California, San Luis Obispo de Tolosa was named in honor of Louis, Bishop of Toulouse, a 13th-century saint. The native Chumash people had flourished in small villages along the coast from Malibu to north of Morro Bay in the years before the Spanish arrived. Abundant fish and game, along with native plants and acorns, were the mainstay of the Chumash diet. When the mission was founded the Franciscan padres planted grapes, citrus, and other crops, and raised livestock. Their efforts in this fertile community were rewarding enough to feed their local mission and to provide for others nearby.

Agriculture was still the economic backbone of San Luis Obispo County in 1894, when Myron Angel began building support for a state normal school for training teachers. Cattle ranching, dairying, fruit and vegetable farming, and dryland ranching predominated in the county that numbered 16,000 inhabitants in the 1900 census. Essential support was also found among local merchants in San Luis Obispo, including the influential Sinsheimer family, who owned one of the town's leading mercantile establishments. This local school coalition lobbied newspaper editors, politicians, and educators throughout the state. Angel also secured vital endorsements for the school from State Senator S. C. Smith and State Assemblyman Warren M. John, who both represented San Luis Obispo.

In January 1897, Senator

Smith introduced the first bill for a "Normal School at San Luis Obispo." It passed in the legislature, but as Angel lamented, was "lost...by a scratch—or rather the lack of a scratch of the Governor's pen." Finding themselves in competition with San Diego for California's next normal school, the San Luis Obispo supporters changed their goal from a teachers' college to a polytechnic school. At the suggestion of Senator Smith, subsequent bills introduced in 1899 and 1901 dropped the word "normal" from descriptions of the proposed institution, referring to it as the "Polytechnic School." Recalling his rough-and-tumble Gold Rush days, Angel concurred with the shift to a vocational school, expressing his hope for a place which would

> *teach the hand as well as the head so that no young man or woman will be set off in the world to earn their living as poorly equipped as was I when I landed in San Francisco in 1849.*

Yet opposition persisted. Throop Polytechnic Institute (now the California Institute of Technology) already thrived in Pasadena. The success of three state normal schools and the University of California ("Cal"), founded in Berkeley in 1868, was cited as additional proof that Californians had sufficient access to formal studies.

The defining moment in the nascent polytechnic school had arrived. The unique mission of the school, Myron Angel countered, was the practical application of knowledge, an idea which was eventually refined into the school's "learn-by-doing" motto. In an 1898 editorial in the *San Luis Obispo Breeze*, Angel

Top: Mission San Luis Obispo about 1890. Father Junipero Serra founded the mission in 1772. During the 1880s, its adobe walls were covered with wooden clapboard siding, and a New England-style bell tower was added. These alterations were removed about 1934, and the mission's facade and roofline were restored to their original style.

Above: A promotional booklet published in the early 20th century by Sunset *magazine's Homeseekers' Bureau extolled the virtues of the region and its natural resources.*

further refined the concept of the California Polytechnic School:

> *Without a thought of disloyalty to the great universities, may it not be...better to divide the patronage, divert some of the endowments and taxes and...[make] a place in the country...for the "practical application" of the arts and sciences...a truly polytechnic school.*

Angel chose as models the Pratt Institute in Brooklyn and Cornell University in New York, as well as a similar school in Freiberg, Germany. "They were established in a comparatively small way, and so may be ours. But how eminent have they become and how useful their work," Angel noted.

In February 1901, San Luis Obispo's efforts were crowned with success when a third bill, "An Act to Establish the California Polytechnic School," passed both houses of the legislature and was signed by Governor Henry T. Gage on March 8, 1901. The "Enabling Act" was effective as of January 1, 1902, a strategy by the bill's sponsors to defer state expenditures on the school to a new fiscal year. The legislature voted a $50,000 appropriation for land purchases, construction, and furnishings. As

Top: An early twentieth-century map of San Luis Obispo County.

Above: The Southern Pacific Railroad trestle northwest of campus. The railroad provided the campus and community with essential connections to the north and south.

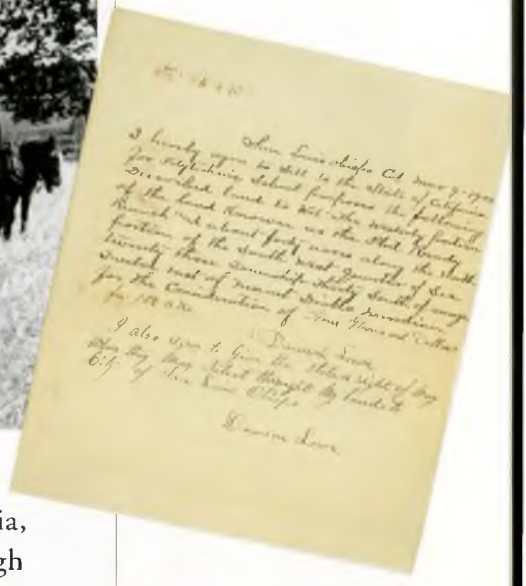
Myron Angel had predicted, the Polytechnic would start in a small way, but true to its original and unique mission of applied learning, it would find new ways to "at all times contribute to the welfare of the State of California."

In February 1902, Governor Gage appointed a board of trustees that included Warren M. John and William Graves of San Luis Obispo, S. C. Smith of Bakersfield, Frederick Hihn of Santa Cruz, and E. J. Wickson of San Francisco, a horticulture professor at the University of California at Berkeley. Trustee Hihn took charge of the selection and purchase of the original site for the school that locals already referred to as "the Poly." Essential to the long-term growth and development of the school, the site needed to be accessible, with abundant pure water and fertile soil, and reasonably priced. On March 12, 1902, Hihn reported to Governor Gage that rancher Dawson Lowe's parcel was the most promising of those offered for sale:

> *A broad Avenue is to be located there so as to connect with Hathway Avenue which leads to the center of the town. The neighborhood is clean, and so far as we can judge, less windy and less frosty than many of the other locations offered. We sampled some of the oranges which we picked from Mr. Lowe's grove on this land. They were the best we saw in the valley and though not equal to the best Riverside oranges, they are good marketable oranges.*

The State of California purchased the site—281 acres on the northern outskirts of San Luis Obispo—for the sum of $7,709.30.

While Frederick Hihn managed negotiations for the site, Trustee E. J. Wickson sought a capable educator-administrator to lead the California Polytechnic School. In May, Wickson asked Leroy Anderson, a University of California colleague,



Top: Harvesting barley on the C. H. Johnson ranch west of the first Polytechnic School building, under construction in 1903.

Above: The first deed for the land for the original Polytechnic School campus.

how he would organize the new Polytechnic. The founder of Cal's Animal Husbandry Department, Anderson believed that practical experience was the superior learning philosophy. This "learn-by-doing" methodology resonated with the trustees, who unanimously appointed Anderson director of the California Polytechnic School, effective June 1, 1902.

Born in 1866 on a farm in upstate New York, Anderson earned his Ph.D. in 1897 at Cornell University. He taught there until 1900, when he joined the agriculture faculty at Cal. Only 36 years old when he assumed leadership of the Polytechnic, Anderson began his tenure with enthusiasm. He embarked immediately on a two-month tour of Eastern and Midwestern vocational and agricultural schools and colleges to observe their work and to consult with their administrators.

While Anderson traveled, Trustee Hihn worked with Watsonville architect William Henry Weeks. A versatile and popular architect who specialized in schools and libraries throughout California, Weeks agreed to submit "rough plans" for the Polytechnic buildings. By October 1902 Weeks produced plans that were favorably received by the trustees. The architect reported to Governor Gage:

> *The plans...call for two buildings—one a recitation and administrative building [with] laboratories, offices and an assembly room. It is 45 x 100 feet and two stories in height with a basement, which will serve temporarily for carpenter shop and dairy room. The second building is of a size similar to the first and is to be used for a dormitory. It contains rooms for about thirty students, kitchen, dining room and parlor. The basement is for laundry and storage purposes.*

A few months later, citizens of San Luis Obispo and visitors from far corners of the state looked on as Orrin S. Henderson, Grand Master of the Masons of California, laid the cornerstone of the first administration building of the California Polytechnic School.

Top: The first faculty and students at the Polytechnic School, 1903–1904. Director Leroy Anderson is pictured at the far right, front row.

Above: Catalogue from the school's first year.

For local supporters and new staff alike, it was a momentous and happy occasion.

A tireless promoter of the school, Director Anderson lobbied the state legislature for support and traveled throughout the state to advertise the school and recruit students. In July 1903, Anderson wrote to the *San Luis Obispo Breeze*,

> *There seems to be a misunderstanding on the part of some as to the admission of girls in the Polytechnic School upon its opening...I trust that this will make it clear to all that girls will be fully welcomed in the school this first year, and I am sure we will be disappointed if no girls attend.*

On September 28, 1903, a local newspaper reported:

> *Mrs. J. E. Flinn and son, F. A. Flinn, were arrivals from San Diego today. Mr. Flinn is a young man who is here to attend the Polytechnic and has the honor to be the first student to arrive.*

Other members of the first class of 20 came from Monterey, Tulare, and El Dorado counties, as well as from the San Luis Obispo area. Male students were housed in the Weeks-designed dormitory; female students found rooms in San Luis Obispo boardinghouses.

Most students were from California, and the Polytechnic's early student body reflected the ethnic diversity of the state. Names like Rodriguez and Carranza appeared in the student rosters along with Biaggini, Pezzoni, Dolcini, and Miossi. Other students had family roots in Japan, China, and the Philippines. The Poly's first Asian-American student, Eizo Kondo, arrived

from Oakland in 1904 and graduated in agriculture with the Class of 1908. Alberto Concepción, from the Philippines, enrolled in 1912 to study mechanics. Three children of San Luis Obispo merchant Ah Louis—Helen, Fred, and Young Louis—were among the graduates of the 1920s.

In 1907, the Poly's first foreign exchange students—Jagot Bonohu Jogadish C. Goswami, and Devendra N. Guha—were sent by the Indian government to study agriculture. Starting in 1912, students from Mexico began to arrive, but foreign exchange students became numerous only after the First World War.

In 1903, Leroy Anderson married and brought his bride, Isabel, to campus. The newlyweds moved into the unfinished dormitory, sharing the quarters with some of the Polytechnic staff and the teenage male students. Privacy was in short supply, for the newlyweds shared a sitting room and meals with the rest of the school.

Isabel Anderson had no official duties at the fledgling Polytechnic, but Trustee Hihn had earlier expressed the hope that the new director's wife be "suitable to make the matron of the establishment." Hihn's wishes were fulfilled, for Isabel Anderson instilled a sense of optimism in campus life and helped establish the school as a success in the public mind. A University of California graduate and former schoolteacher, she shared her husband's genuine concern for the students' welfare. Acting *in loco parentis*, Mrs. Anderson cared for the boys when they were ill, darned their socks, mended clothes, and dispensed advice. She assisted female students in the search for suitable off-campus housing and encouraged them in their studies.

While the director tended to the new school's administrative and academic responsibilities, his wife organized campus social life and activities. Mrs. Anderson befriended new instructors, all of them young newcomers to San Luis Obispo. The dormitory was the center of early campus life, where faculty and students took meals. Social events,

Top: A panoramic view of the Polytechnic campus in 1905.

Above: Director Leroy Anderson and his wife, Isabel, on the front steps of their rented home on Buchon Street, where they lived while their house on Mill Street was being built.

A biplane flies over the city of San Luis Obispo during Independence Day festivities, July 4, 1910.

chaperoned by staff and faculty, included weekly dances and singing around the dormitory piano, often played by a faculty or staff member.

Recreation also extended beyond the campus. Poly students picnicked at El Pizmo beach, barbecued in Poly Canyon, and camped in Atascadero and on the Carrizo Plains. The county's first moving-picture house opened in downtown San Luis Obispo in 1904. The Poly purchased its first audiovisual equipment—a "magic lantern" —in January 1906. A form of slide projector, it was used both for instruction and entertainment until 1916, when the Poly's new moving-picture machine made the magic lantern obsolete.

A Poly student's single greatest expense was room and board—$20 a month in the dormitories, $25 off-campus. Students who needed to earn their keep found on-campus jobs tending livestock, working in the dairy, and operating the power plant. A student mail carrier transported the mail in all weathers—often on foot—between the campus and downtown San Luis Obispo. Janitorial work was done entirely by male students. Both male and female students found work helping with meal preparation and service. Poly girls also earned money as assistants in the library, cooking laboratories, and offices, and mended dormitory and dining hall linens.

Poly's first student organizations were the Athletic Association and the debating team, which won a silver cup in its first series of debates against San Luis Obispo High in 1904. Debate subjects included whether Nicaragua or Panama was the better site for a canal, whether women should have the right to vote, and which course of study—agriculture or mechanics—was of more value. The Horticultural Club first met in November 1906 and attracted considerable student enthusiasm.

Director Anderson said of his

Left: A 1908 color postcard shows the Administration Building, center, with Dormitory No. 1 on the left and the Household Arts Building on the right. In 1908, the California Polytechnic School had about 150 students.

Above: The first issue of The Polytechnic Journal, *June 1906.*

faculty:

> *After all is said and done and after building and materials are provided, it is really men and women with warm red blood running in their veins who are the all important equipment; without their help and sympathy and daily lives of sacrifice our schools would go for naught.*

Anderson recruited the faculty personally, and taught animal husbandry and other agriculture courses. He was credited with having the "unique ability to inspire his coworkers, so that all gave their utmost, yet felt that they were not driven."

When the *First Annual Catalogue of the California Polytechnic School* was released in May 1903, three faculty members, including Anderson, had been appointed. Gwendolyn Stewart was appointed instructor in domestic science, while carpentry was taught by Oscar Heald. Stewart had earned a Bachelor of Science degree from Stanford University and had pursued graduate training at the Pratt Institute in Brooklyn, New York. Heald had just completed his studies at Throop Polytechnic Institute. Nearly all of the subsequent faculty appointees held baccalaureate degrees from major colleges or universities. At least four of the nearly 20 faculty appointed at the Poly in the first five years were University of California graduates; five others had studied at Cornell.

While Anderson continued his administrative work, he also began preparing the agricultural courses and equipping the Polytechnic farm. Gwendolyn Stewart, who also served as dormitory matron, stocked the dormitory pantry and linen closets in the domestic science classrooms. When he arrived in August 1903, Oscar Heald finished flooring, cupboards, tables and benches in the basement classroom. He also installed a generator he had built as a student at Throop; it was Poly's sole source of electrical power

Top: The Polytechnic Journal *for December 1907 featured student articles and artwork.*

Right: The Journal *staff gathered in 1908 for a formal portrait.*

Above: Ben Miossi (Class of 1908) and a booklet of mechanical drawings he completed as a student.

until the new steam plant was completed the following January.

The first curriculum for the Polytechnic was nearly identical to the proposal first submitted to Trustee Wickson by Leroy Anderson, who described the Polytechnic approach as teaching the student "how to do and how to think upon what he does." Lectures were held in the mornings, while afternoons were devoted to hands-on work in the shops and laboratories and on the farm.

In the first year, the planning of the Agricultural Department took precedence over the mechanics and domestic science courses. In 1902 Trustee Hihn wrote:

> *There is no course of study of a high school grade anywhere in the State where agriculture is made a principal feature. The Trustees have, therefore, deemed it wise to establish this institution in such a manner that the courses of study will appeal more particularly to those boys and girls who expect to reside in country communities.*

Agriculture students were expected to learn all the subjects in the program, including animal husbandry, dairy management, plant propagation, and agronomy.

Mechanics courses focused on basic skills, which provided the foundation for more advanced engineering courses in the future. Coursework in the early years consisted largely of iron work, mechanical and freehand drawing, and carpentry, including "house and barn construction from foundation up." Gradually, the curriculum expanded to include physics, electricity, patternmaking, steam and electrical machinery, surveying, and irrigation.

Domestic science courses reflected the country's progressive mood at the time the Polytechnic was founded. The United States needed new methods to disseminate scientific and medical information that improved the lives of its citizens. At the Poly,

domestic science courses filled this need, teaching important aspects of running the family farm. Coursework consisted of home nursing, farm accounting, dressmaking and millinery, laundering, nutrition, and the safe preparation and storage of food.

On June 15, 1906, the California Polytechnic School celebrated as its first class of four men and four women graduated. Irene Righetti led the seniors in the first Class Day festivities, declaring,

> *The peculiar honor which falls to this class of eight is to initiate the customs that will be passed on down through the coming generations.*

One such custom had begun a few days before with the planting of a Class Tree in Poly Grove. Lilian Fox, a graduating senior, presented the spade that had been used to the junior class, saying,

> *When this small oak has reached its greatest size, this little school will be a great institution of learning.*

That evening, the first annual commencement for the California Polytechnic School was held at the Pavilion Opera House in San Luis Obispo. Class president H. Floyd Tout of Tulare County, Director Anderson, and a guest speaker, I. P. Roberts of Cornell University, gave addresses.

Local interest in the Poly was keen, and nothing received greater attention than the school's management. On October 11, 1907, local merchant Aron Sinsheimer wrote to his family that

> *Prof. Leroy Anderson will leave the Poly here as he was appointed Prof. of Agri. at Berkeley with the Davisville Agr. farm under his charge. Prof. Leroy Smith will probably succeed him...*

Although Anderson was reluctant to leave the Polytechnic, being tapped by University of California president Benjamin Ide Wheeler to begin the University Farm at Davis was irresistible.

Above: Graduation portrait of Irene Righetti (Class of 1906), her report cards, and diploma. Poly girls were required to make their own graduation dresses.

Top left: Domestic science classes at the Polytechnic School included bookkeeping and mathematics as well as cooking and sewing. Cooking classes were so successful that local residents visited campus for meals. Merchant A. Z. Sinsheimer wrote to his wife in May 1914: "[Daughter] Gertrude and I will probably go to the Poly tomorrow, and I am for partaking of the lunch prepared by the pupils."

Above: Students making and packing butter, 1910.

Right: A plant propagation student pollinating tomatoes in one of the California Polytechnic's greenhouses, 1908.

As Aron Sinsheimer surmised, the Polytechnic's second director was promoted from the faculty. Leroy Burns Smith, a 1901 graduate of Cornell, first came to the Polytechnic in 1905 as an instructor in English, history, and economics. He shared Director Anderson's "learn-by-doing" educational philosophy and in June of 1907 was named vice director.

When he became director in 1908, Smith inherited a campus totaling 311 acres, with 151 students. The Polytechnic now provided an off-campus home for the director at 1306 Mill Street—a graceful shingle-style residence located in a prosperous neighborhood.

A logical successor to Anderson, Smith directed his attention to improving the "academic" or

Top: A girls' basketball game.

Above: The Songs and Yells *booklet for 1910–1911 included the Alma Mater, sung to the melody "Cayuga's Waters," and other songs for athletic and campus events.*

Left: The California Polytechnic School football team, 1909.

Below: A wool beanie, c. 1912.

Top right: Girls' basketball team, 1909.

Above: Leroy Burns Smith, Director of the Polytechnic, 1907–1914.

Right: The Amapola Club on a boating trip to Atascadero Lake, 1916.

humanities curriculum and enriching extra curricular student life. Smith extended the academic program from three years of study to four, and introduced a series of agricultural and domestic extension courses for local farmers and their families.

In 1910, Smith raised the annual library budget to $750. Of this sum, $152 was spent on books and journals; the librarian's salary was $360.

Student organizations proliferated with the new director's encouragement. A campus YMCA group gathered in April 1908, followed by glee clubs that fall and literary and agricultural groups in 1909. In January 1910, instructor Margaret Chase organized the first campus society for women students, the Amapola Club, named for the Spanish word for the California poppy. "The club is not only beneficial to the girls but has been a great influence in bringing them to know that their interests are one, and uniting them in spirit," stated the 1916 yearbook.

Director Smith firmly believed in student self-government, seldom using his directorial veto with the student body organization, established in 1909, which planned debating, athletics, publications, and social events. Eventually known as the Student Affairs Committee, it consisted of class officers and representatives from every organization on campus. As the school grew, delegates from each of the study areas were added. The Student Affairs Committee arranged Homecoming activities, sponsored a Christmas party and May Day celebration, and helped with assemblies.

Smith resigned as director in

Top left: The student football team in 1907.

Above: A brochure describing "short courses" in vocational subjects, the Poly's earliest extended education classes.

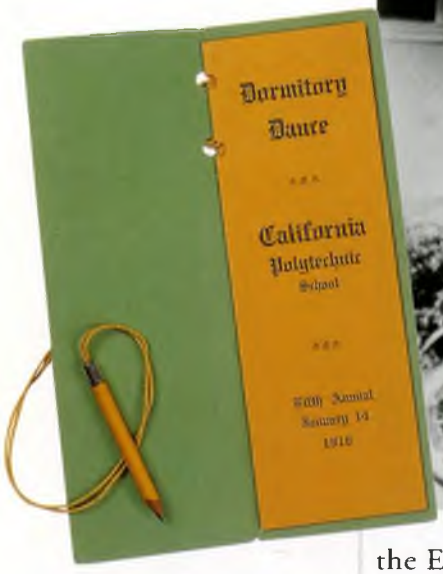
Left: A page from the scrapbook of Francis Pedley, a Poly student from 1908 to 1910.

May 1914 to accept a position at the University of California. The search for a new director again concluded with the promotion of a member of the faculty.

Robert Weir Ryder served as the Polytechnic's third director from 1914 until 1921. A University of California alumnus, Ryder came to the Poly in 1911 to head the Mechanics Department. Ryder's interests lay in the curriculum, which saw many improvements under his leadership.

Until 1916, Polytechnic graduates who wanted to enter college or nursing school had to enroll in high school courses to complete their academic preparation. The history, English, civics, and other humanities classes offered in the Polytechnic's earliest days were designed to make "better citizens" of the students and were not credited as college preparation. Director Ryder worked with faculty member Margaret Chase to improve existing academic courses and add new courses in foreign languages, advanced history, English, and mathematics. A new academic division was created for these courses, headed by Chase, and after 1916, Polytechnic graduates were able to apply directly to colleges.

Federal legislation in 1915 made military science instruction compulsory for all state agricultural schools. Though some suspected it was a means of preparing for U.S. entry in



Above: A dance card, 1916.

Right: Motto's Taxi was a popular means of local transport for students.

the European war, Ryder's administration saw benefits for the Poly's male students:

> *The physical exercise, the discipline, the habits of promptness and reliability inculcated, are of great assistance in any occupation. To walk straight, to talk straight, to be neat, to respect the rights of others, to learn to obey orders before giving them, and to be decent because it is right and because it pays, are taught in conjunction with the regular drill. No boy can help being benefitted by the discipline.*

The California Polytechnic School organized a battalion, with Director Ryder, now Major Ryder, as commandant of the students-turned-cadets. Uniforms were mandatory, and training included target practice, drilling, and annual inspections by officers of the California National Guard. A military band was formed, and reviews and parades were incorporated in campus celebrations. Military life had the greatest impact on dormitory residents, who experienced pre-breakfast drilling five days a week, unannounced room inspections, and assigned study hours.

On April 6, 1917, the United States declared war on Germany, causing an exodus of students from campuses all across the nation. The following day the student paper, *The Polygram*, urged students at the Polytechnic not only to "do their part" but also to stay in school:

> *In the rush and excitement of expected war, we forget that our best service may not be rendered where bullets are thickest, where death-dealing gases steal upon us, where the treacherous underground mines explode tearing our bodies asunder, but our service, our very best service may be rendered in some quiet place far from all sound of battle.*

A significant number of the Polytechnic's students were below the legal enlistment age. Ryder hoped that on-campus military training would reduce the number of students quitting school to enlist. Those

Left: Students in uniform exhibit their livestock.

Above: Robert W. Ryder, director of the California Polytechnic School, 1914–1921.

students who completed their studies and military training at the Polytechnic received a commission. Nevertheless, in April 1918, Ryder reported:

> *Since the declaration of war in excess of 116 students have enlisted. This is the highest percentage within the Director's knowledge of any school in the country. The war department, through its officials, reports that one of the Polytechnic men by virtue of their training equals ten ordinary drafted men. Fully 90% of the Polytechnic Students in the service are commissioned or noncommissioned officers.*

At the 1918 commencement, Major Ryder read the names of 20 former members of the class who were already in service. He then gave certificates to the 12 male and four female students who were able to be present at the ceremony.

Poly students joined all branches of the service, including the medical and veterinary corps. Former mechanics students were indispensable in vehicle maintenance because of the Polytechnic's learn-by-doing philosophy. Lloyd Nix, one of many mechanics students drawn to the aviation corps, earned the *Croix de Guerre* in 1919 for distinguished service in France.

The students who stayed contributed to the war effort through food conservation campaigns, victory gardens ("Every spud a bullet!"), the Junior Red Cross, and fundraising for war relief. Rejoicing over the war's end was tempered by the Spanish influenza pandemic of 1918–1919. Director Ryder barred the public from campus and made use of face masks mandatory for students and faculty. This vigilance was rewarded as classes continued to convene until the Christmas holidays, although another serious outbreak of the disease in San Luis Obispo meant classes did not resume until February 17, 1919.

At the war's end, veterans were encouraged to enroll at the Polytechnic. Some students returned to complete their interrupted studies;

Above: The view toward San Luis Obispo from under the portico of the Administration Building, 1911.

Top Right: A parade float advertised the Vocational Veterans program for the Polytechnic School.

others were attracted to the rehabilitation and vocational program for disabled veterans sponsored by the Federal Board of Vocational Education. The Federal Board program was a notable success, serving a diverse student population. The California Polytechnic School's first African-American and Native American students, whose names are lost to history, were enrolled in this program.

American veterans with family origins from 22 different nations, including Australia, Russia, Mexico, and most of the European countries, were enrolled. After World War I, returning veterans in particular helped boost enrollment in auto mechanics and aeronautics courses.

The end of the war meant more than shifts in curriculum for Director Ryder and the Poly. Though it would become clear only in retrospect, the California Polytechnic School now entered the two most precarious decades in its history.

The war and the economic recession in its aftermath meant uneven state appropriations, often leaving little room for improvements to the curriculum or facilities. Student enrollment fluctuated as the recession lingered. The Polytechnic now competed for state funding with new vocational programs in high schools throughout the state. Critics emerged who claimed that the school and its curriculum were redundant. Unable to increase salaries or to offer his staff the same pension opportunities available at other public schools, Ryder had difficulty maintaining his faculty. In 1921, he joined the exodus and resigned as director to accept a commission with the U.S. Army Corps of Engineers.

Nicholas Ricciardi was appointed the fourth director of the California Polytechnic School on July 1, 1921. A University of California graduate, Ricciardi was an experienced vocational educator, working for the Oakland school system and heading the Veterans' Vocational Training Board in that district. At the Poly-

technic, Ricciardi emphasized the "vocational efficiency and efficient citizenship" of students. He introduced the concept and practice of vocational testing and guidance to campus.

Shortly after Ricciardi was appointed, the state legislature restructured the state school system, mandating the title of president for Ricciardi and his peers across the state. The Poly's board of trustees was disbanded and President Ricciardi now reported directly to the state superintendent of public instruction.

In 1921, the legislature voted $297,300 for the Poly, the largest biennial appropriation in the history of the school. Ricciardi made many improvements to the campus with this largesse, including paving the road from campus to town, and adding an auto shop, horse barn, poultry houses, and hog units. A four-year course in printing was added as well, where the student newspaper, *The Polygram*, and annual course catalogs were produced by students. By the autumn of 1922, there were 128 students enrolled. President Ricciardi began plans for a campus that would serve 1,000 students.

Those plans faded when former State Treasurer Friend W. Richardson, a strict fiscal conservative, won the governor's race of 1922. Renewed criticism of the Polytechnic accused the school of being outmoded, duplicative, and too costly. Richardson's first budget slashed appropriations for the Polytechnic in half, a "setback from which it barely recovered," notes Morris Eugene Smith in *A History of California*

Top right: Vocational Program for Veterans students gather on the dormitory steps.

Above: Nicholas Ricciardi, President of the California Polytechnic School, 1921–1924.

Above: Margaret Hawthorne Chase joined the Polytechnic faculty in 1908 as an English instructor. In 1924, when the school's future was in doubt, Chase served as acting president, rallying both students and faculty to apply themselves to their studies and extra curricular activities. After 37 years of service in a variety of faculty and administrative positions, Chase retired from Cal Poly in June 1945. Chase Hall is named in her honor.

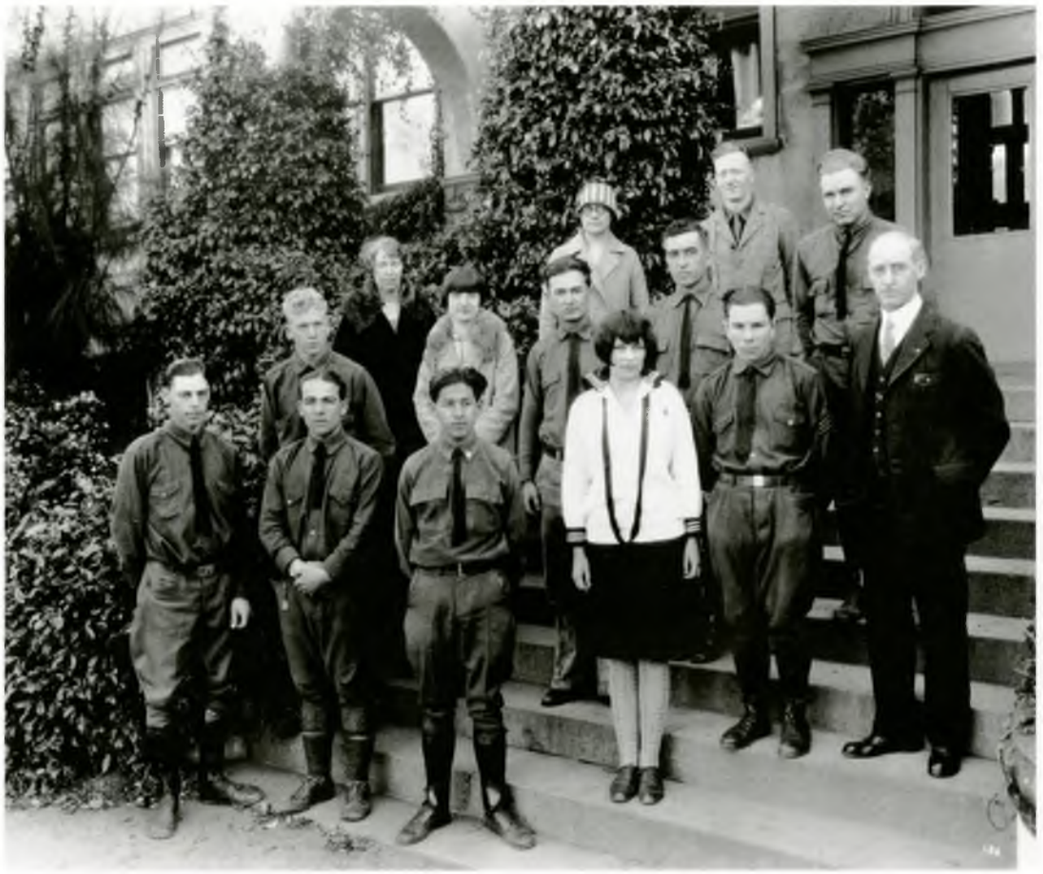
Right: Benjamin Crandall, president of the California Polytechnic School from 1924 to 1933, in the director's office of the old Administration building. Crandall's dog Purp was almost always at his side.

State Polytechnic College: The First Fifty Years.

Although friends and alumni of the Polytechnic rallied support—some funds were restored—the school suffered. The campus that President Ricciardi had surveyed so optimistically was, a few short months later, forced to curtail enrollment, reduce the teaching staff by half, and eliminate programs. Even the campus livestock were sold off at bargain prices. Printing, mechanics, and agriculture were the only subjects that survived the retrenchment. In February 1924, Ricciardi resigned to accept the post of state commissioner of vocational Education. Vice President Margaret Chase served as the Poly's president for the balance of the academic year. Chase was highly responsible for fostering the feeling that the institution would surmount the obstacles it faced and would survive this most crucial year of its history.

Governor Richardson remained critical of the Polytechnic and in 1924 he threatened to close the school completely. A local committee of 15 citizens enlisted by the state director of education was formed to study the school's future. It recommended the reinstatement of household arts, a renewed commitment to the agricultural curriculum, and broader implementation of student projects. The committee also nominated Benjamin Crandall to replace Nicholas Ricciardi as the Polytechnic's new president.

The Board of Public Instruction heeded the local committee's advice and turned to Crandall, a respected educator with teaching and administrative experience at both the secondary and university levels. Crandall held degrees in education from the Universities of Wyoming and Denver, and had additional graduate training at Cornell and the University of California. He had served as school superintendent in several western cities before his appointment



Left: California Polytechnic student Kenneth Waid entered the South San Francisco Future Farmers of America conference in 1931. Showing and judging livestock was an important part of the animal husbandry curriculum.

Above: The Student Affairs Committee of 1926–1927 poses with President Crandall. By 1926, uniforms were required for both male and female students at the Poly. Boys wore a military uniform; girls, a white middy blouse and navy serge skirt.

as professor of agricultural education at the University of California in 1921.

Before accepting the presidency, Crandall shrewdly solicited support from the State Board of Education and from Governor Richardson. Campus historian Morris Eugene Smith credits Crandall's expertise and influence as an educator-administrator for the strides made in the nine years of his administration.

Under Crandall's leadership, the Poly's curriculum was restored and broadened, supplemented by a junior college program in 1927. At the junior college opening ceremonies, President Crandall declared it the greatest day in the history of the Polytechnic. Yet Crandall's implementation of student projects in agriculture, the basis for today's senior projects, had the most lasting impact on the curriculum. Under Crandall's guidance, the campus grew to 1,200 acres, with extensive dryland crops, vegetable fields, vineyards, and orchards. Even so, new investments were sorely needed to improve the existing agriculture facilities and curriculum.

Crandall instituted the Student Affairs Council in 1930, consisting of 20 students and six faculty members, including the president and vice president of the student body, the cheerleader, football team man-

The Crandalls in front of their new home. When the president's official residence was completed on campus in July 1928, the school newspaper, The Polygram, *boasted that "the sunset looks especially lovely from the window of the President's home on the hill."*

ager, presidents of each of the six classes, and one representative from each of the major clubs. The annual Student Affairs Council fee of $7 covered a subscription to *The Polygram* student newspaper and a copy of *El Rodeo*, the campus yearbook, as well as admission to all athletic events and student affairs parties.

President Crandall's wife, Matilda, relished the role of improving campus social life. She founded the Faculty Ladies' Club for faculty wives. Under Mrs. Crandall's leadership the group served as a social club and as a service organization for the entire campus. In addition to organizing the customary parties and picnics, club members took up collections for staff and faculty members who were ill and began an emergency fund for students. On Mrs. Crandall's recommendation, the Faculty Ladies' Club made improvements to the decor of the aging dormitories and donated games and popular magazines to the dormitory common rooms.

President Crandall's early years at Cal Poly—as the school was now popularly known—were a remarkable success. Governor Richardson had visited the campus in 1925 and thereafter he praised the school. The mechanics and aeronautics classes drew record numbers of students, which only increased with Charles Lindbergh's successful non stop New York-to-Paris flight in May 1927.

Despite Crandall's successes, the Polytechnic still received constant scrutiny and criticism. In 1928 the superintendent of public instruction issued a report critical of the agricultural and household arts programs. Five more reports were issued in the next 18 months, each critical of the cost of a polytechnic education, particularly in household arts. Crandall found that few records were

FIRST STUDENT-BUILT MONOPLANE TO TAKE-OFF TODAY OR TOMORROW

Polytechnic Aero Students Eager to Try Craft Christened Last Saturday By "Campus Mother."

Above: Aeronautics students in 1928 with "The Glenmont," a six-passenger plane patterned after The Spirit of St. Louis. *The first aircraft built on campus by students, the Glenmont's name derived from two faculty members, department head H. Glen Warren (standing at left) and J. G. Montijo (standing at right).*

Left: The Polygram *on March 23, 1928, featured the Glenmont, which Matilda Crandall christened using a bottle of Polytechnic grape juice.*

kept regarding graduates, which made it difficult to defend the school.

Farmers and ranchers were the first to feel the effects of the looming Great Depression as market prices for crops collapsed. For the Polytechnic, this meant fewer students were able to leave family farms to attend school, and enrollment in the agriculture program declined.

In 1929 the state legislature and Governor C. C. Young barred women from enrolling or studying at the California Polytechnic School after 1930. Banning women from the classroom eliminated the need to improve the women's dormitory or maintain the household arts curriculum. At the same time, the minimum age of enrollment for males was raised to 18. The San Luis Obispo Parent-Teacher Association, the county superintendent of schools, and city superintendent all petitioned the legislature to reinstate women students, but to no avail.

As the Great Depression lingered and deepened after the stock market crash in October 1929, Cal Poly was at the most precarious point of its short history. The academic courses

Above: Monterey Street in San Luis Obispo in the 1930s.

Opposite: Campus view from the early 1930s.

were eliminated and the junior college was abolished. Julian McPhee, chief of the State Bureau of Agricultural Education, had issued one of the reports critical of the agricultural program, but also offered his help. A frequent visitor to campus, McPhee worked diligently with President Crandall to revitalize the agricultural programs.

At the very depths of the Depression, in 1933, the state again reduced Cal Poly's appropriation. The reduced funding came with a warning that the California Polytechnic School must prove itself in the next two years or the state would shut it down. Benjamin Crandall resigned in frustration, asserting, "The vision of a great technical institute on the Pacific Coast must be abandoned."

The school's salvation now rested on the shoulders of a man who surveyed Cal Poly's dilapidated buildings and extensive acreage and saw not an outmoded school, but the foundation for a statewide network for vocational learning and teacher training. Julian Aeneas McPhee again came to Cal Poly, and this time he stayed for 33 years.


SHELL

Top: Cal Poly's hillside P overlooks the campus, where the Rally Club, responsible for school spirit events poses, 1942.

Above: An enthusiastic group puts the finishing touches on the original rock-lined P, 1921.

Our class this year has quite a few young boys [who] are small in stature, but not in willpower. We held our own in the lining of ... the Block P on the hill. Hauling the lime up the hill is no joke, but we didn't balk, just went right on hauling and lining. Maybe we are little, but we'll grow up some day and make mighty Seniors.

—*1928* El Rodeo

P IS FOR POLY

The Poly P, one of the oldest hillside initials in the West, is the embodiment of Cal Poly's eventful history. Although there are several versions of the Poly P's origins, the first mention of the hillside icon is found in a 1919 issue of The *Polygram*, the student newspaper. Rivalry between the California Polytechnic School and San Luis Obispo High School was always intense, but one fall morning of that year, Poly students awoke to find several large stone H (for High) letters on the hills surrounding the town. The Poly students changed each H to a P; the San Luis High students battled back. Students from the Poly then concentrated on preserving the hillside P overlooking the campus. The P has remained there ever since.

The hastily chosen site was ideal, visible from the highway, the town, and the original Administration Building, where the clock tower now stands. Born out of rivalry, the P now shone as the symbol of Poly students' pride in their campus.

Throughout the 1920s, the freshman dormitory boys, under the "delicate supervision" of the sophomores, maintained the 24-by-40-foot P, tidying up its stone outline and filling it in with a fresh layer of lime. The cleaning of the P, organized by the Dormitory Club, took place each fall before the Homecoming game. After particularly rainy winters, the P's lime coating was renewed by freshmen, usually before the Easter break. Before the 1921 Homecoming game, the Dorm boys lighted a large bonfire and guarded the Poly P through the night from rivals.

Faculty also recognized the P's significance to the school, and supported the students' protective efforts. Alumnus Don Fulwider (Class of 1925) recalled:

One Friday night hours after the lights were out... there were rumors... that the school we were

playing on Saturday was going to deface the P. While trying to wake another friend, I was met by Captain Deuel [the dorm monitor]. He shone his flash[light] in my face and wanted to know what was going on...half the dorm was AWOL. *When I told him...he said, 'Wake your friends and get up there...but spread the word—Don't step one foot off the campus.'*

Eventually the maintenance of the P was determined by an athletic contest between the freshman and sophomore classes. The Freshman-Sophomore Brawl featured a tug of war, greased-pole climbs, three-legged races, wheelbarrow races, and other tests of skill and endurance.

As the school grew, the Rally Club, a spirit organization, inherited the maintenance and added light to the P for their rallies on days preceding football games, dragging a generator up the steep slope. If Poly won the game, the lighted P was replaced with a V for victory.

The original rock-and-lime configuration changed over the years, including a period when the Block P Club used whitewashed barn doors to form the letter. An enlarged concrete P was finished on May 3, 1957, by Delta Sigma Phi, using supplies donated by local businesses and tractors driven by agricultural engineering majors. This 50-by-35-foot P still overlooks the campus today.

Decorating the P to spell out messages is a long-standing campus tradition, often reflecting the temper of the times. In 1964, the P was modified to GOP; in the 1970s POT appeared; and in the 1980s an ambitious group spelled out SPRINGSTEEN.

Above: Students scramble up the steep hillside from campus to re-lime the P, 1960s.

Left: Cleaning the hillside P, 1962.

The P is also frequently altered to the names of fraternities, sororities, and campus clubs, with white bedsheets twisted into letters as the favorite temporary means of expression.

In 1994, the Running Thunder spirit organization assumed both the care of the P and its lighting for games. Four years later, Running Thunder and the local Sierra Club blazed a trail to the P, which is accessible behind the residence halls. Thanks to cooperative efforts such as these, the P on the hill still stands for "Poly."

CHAPTER TWO

A Clear Challenge

Renewing the Polytechnic Promise, 1933–1945

"It has always been considered educationally unorthodox to suggest to a young man ... to plan his schooling in such manner that he can get a job which will pay him a reasonable salary and give him reasonably steady employment."

–PRESIDENT JULIAN MCPHEE,
on the benefits of vocational education, 1939

At the close of May 1933, Julian A. McPhee accepted the position of president of the California Polytechnic School. At a time when Cal Poly's very existence was questioned, a new leader for the campus who was experienced in vocational education was imperative. The state superintendent of schools sought McPhee for the position based on McPhee's familiarity with Cal Poly's campus and curriculum and his influence in Sacramento and throughout the state as head of the Bureau of Agricultural Education. Like the school's first leader, Leroy Anderson, McPhee believed that Cal Poly's primary mission was to prepare its graduates for employment in industry and agriculture. Julian McPhee's career prior to his appointment as president reveals his qualifications for the difficult new assignment of renewing the Polytechnic's educational promise.

Above: Julian A. McPhee, president of Cal Poly, 1933–1966.

Opposite: View of campus, 1940.

Julian McPhee was born in 1896 in San Francisco, one of seven children of Canadian immigrants Charles and Ellen MacDonald McPhee. His father worked as a stevedore, investing his savings in ranchland in Contra Costa, Mendocino, Kern, and Santa Clara counties. Although city-born and -bred, young Julian delighted in the weekends his family spent at their ranch in the foothills of southern Santa Clara County, near the city of Morgan Hill. At the turn of the last century, the valley lands were covered in lush fruit orchards and the rolling hills dotted with cattle ranches. This early exposure to rural life made a lasting impression on McPhee, who went on to earn a bachelor's degree in agriculture from the University of California in 1917

An early livestock exhibition at Cal Poly by students from agricultural clubs around the state.

and a master's degree in agricultural education in 1928.

Following his naval service during the World War I, McPhee gained valuable experience as an agriculture educator. He built a state wide reputation for leadership and innovation, first at the University of California's Agriculture Extension Service and then at Gilroy Union High School, where he held both teaching and administrative positions.

The Smith-Hughes National Vocational Act of 1917, a piece of legislation vital to McPhee's—and eventually Cal Poly's—future, funded his agriculture instructorship at Gilroy. Smith-Hughes funds not only established vocational learning as a legitimate course of study for high schools, but also made it possible for these schools to tailor their curricula to the specific needs of their students. In rural California high schools such as Gilroy, the Smith-Hughes Act meant that new instructors were hired to teach agricultural subjects to students who lived on surrounding ranches and farms.

In 1925 Richard Werner, state supervisor of vocational agricultural education, appointed McPhee his assistant in Sacramento. "As [McPhee] left Gilroy," writes Richard Dale Moody in his dissertation on McPhee's career, "[he] was convinced of the importance of vocational education. He had fully accepted a philosophy of 'learn by doing' and believed it should be extended [from agriculture] to all vocational training."

Werner was convinced that McPhee could meet the challenge of educating the 40,000 farm boys then enrolled in high schools across the state. "McPhee was more of an associate than an assistant," recalled Werner. "We had the entire state to supervise and it wasn't a paper job."

Left: The Sacramento Valley Region of the California Agricultural Teachers' Association met at the California Polytechnic School for its annual conference, June 27–July 9, 1938.

Above: Football coach Howie O'Daniels, who arrived at Cal Poly in 1933, meets with two members of the team.

Top: Football shoes used during the 1933 season.

Within the year, McPhee was elevated to state supervisor himself when Werner accepted another position.

McPhee immediately laid the foundations for his ambitious plans, dividing the vast state into regions, while expanding outreach activities and launching efforts to train the agriculture teachers who were needed by high schools throughout the state. The latter assignment proved to be a challenge, particularly when a joint program with the University of California to educate agricultural teachers failed in 1929.

The year before, Julian McPhee made another visit to Cal Poly at the request of the state superintendent of public instruction, who asked McPhee to review Cal Poly's curriculum. As McPhee spent more time on campus, he began to envision the remedy for his faltering teacher-training program, which in turn would revitalize the struggling school. In an interview near the end of his life, McPhee recalled the ideas his initial visits inspired:

> *We would get the best teachers in here to guide and help our people out in the field...It would be a place to train teachers, a place to get out instructional materials, a place to bring in animals and redistribute [them], a place to have our state-wide judging contests, a place to have our Future Farmers' encampment, and a place to have our agricultural teachers' summer conferences.*

McPhee's report, "Suggested Plan for the Utilization of the California Polytechnic School in the Future Development and Integration of the California Agricultural Education Program," recommended that Cal Poly return to its original and unique mission of vocational education. He recommended elimination of departments, including Household Arts and the academic programs, which

Above: A tent city erected on campus for the Junior Farm Center annual convention in the mid-1920s. President McPhee was instrumental in establishing California Junior Farm Centers through the state, giving students the opportunity to apply what they had learned managing their own agricultural projects. In 1928 the Junior Farm Centers merged with the Future Farmers of America.

Top: First place ribbon won by Charles P. Stone (Class of 1934) for his prize barrow at the first Poly Royal celebration in 1933.

Right: President McPhee at a Future Farmers of America event. MePhee believed the FFA's livestock exhibition and judging events were an important part of agricultural vocational education, complementing classroom learning.

he believed were tangential. He also advocated including the Polytechnic's agriculture programs under his supervision at the Bureau of Agricultural Education. President Crandall was able to implement these suggestions.

By the time McPhee accepted Cal Poly's presidency in 1933, he was a familiar face to the 117 students enrolled there. He was eager to transform the 1,400-acre campus, but he was also reluctant to give up his position as chief of the Bureau of Agricultural Education. His rather unorthodox solution was to retain both positions at one salary, moving the Bureau's headquarters from the Department of Education in Sacramento to the San Luis Obispo school.

McPhee faced the difficult task of guiding both the campus and the Bureau of Agricultural Education through the Depression years. The funds provided by the Roosevelt administration's New Deal programs, including the National Recovery Administration (NRA), the Agricultural Adjustment Administration, and new credit agencies, helped keep the bureau's labor-intensive vocational agriculture programs afloat.

Cal Poly's financial woes during the early years of the McPhee administration and the deepest part of the Depression appeared intractable. Yet the new president was particularly adept at identifying key elements in legislation that emphasized the school's unique nature. Cal Poly's biennial appropriation for 1933–1934 was a mere $150,000, but by 1935 the McPhee administration's lobbying yielded nearly 40 percent more for the school.

The financial picture brightened further that same year when the legislature adopted Julian McPhee's novel idea to devote some of the

proceeds from horse racing to help fund Cal Poly. The California Horse Racing Board managed races at county fairs using pari-mutuel betting, where those backing the first three places divided the losers' stakes, after a percentage was taken off the top by the board. McPhee noted that state legislation already directed the racing proceeds to "vocational education in agriculture, animal husbandry, and kindred subjects."

His persuasive skills were key to the successful passage of legislation to earmark one-third of the state's pari-mutuel proceeds for the exclusive use of the California Polytechnic School. By 1937 Cal Poly's share had been reduced to one-quarter of pari-mutuel proceeds, but the numbers were still impressive. From 1937 through 1939, $580,000, or 55 percent of Cal Poly's funds, came from pari-mutuel receipts. By 1942, when horse racing was suspended because of the war, Cal Poly's share was an additional $1 million, or 94 percent of its budget.

With funding for the school stabilized, McPhee turned his attention to the curriculum. At the time he was appointed, President McPhee firmly believed in three essential and equal components to a sound vocational agricultural education: classroom instruction, supervised "enterprise projects," and participation in the Future Farmers of America.

McPhee addressed agriculture classroom instruction in 1931, while still in Sacramento. Three new agriculture faculty members were appointed with dual assignments to teach at Cal Poly and to act as regional field supervisors of high school agriculture departments. He then required all high school teachers in agriculture to be hired through the Bureau of Agricultural Education and to spend one semester at Cal Poly to study agriculture and teaching methods.

Left: Instructor Lyman L. Bennion and his students with their prize-winning Hereford steers.

Above: The program for a 1937 holiday luncheon on campus sponsored by the San Luis Obispo County Farm Bureau, long-time supporters of Cal Poly's learn-by-doing philosophy.

McPhee's belief in supervised "enterprise projects" —the predecessor to today's senior projects— dated to his days at Gilroy Union High School, but evolved into "the single most important function of the school" during his time at Cal Poly. Launched in 1925 during the Crandall administration at McPhee's urging, enterprise projects were to have both educational and commercial merit, providing students with management experience while earning money for school expenses.

Projects in meat, dairy, and poultry were the most profitable and popular agricultural activities. Students not only sold livestock, but also won prize money at events such as the California State Fair and the Great Western Livestock Show.

The third critical element in a sound vocational agricultural education was participation in the Junior Farm Centers, which later evolved

Poly Royal, 1939: Judge W. E. Lloyd (left) presents the first place ribbon to student Min Nitta (center) as poultry husbandry instructor Richard Leach admires the prize-winning fowl.

into the Future Farmers of America. Not only had McPhee been instrumental in the founding of the FFA in California, he also ensured that the organization had an active chapter at Cal Poly. As with so many McPhee projects, participation in FFA was good for students and school alike. Participants gained valuable leadership and organizational experience, strengthening their self-confidence and providing the Bureau of Agricultural Education with a pool of talented students who could be groomed for secondary and higher education teaching positions.

Given the success of classroom instruction, enterprise projects, and participation in leadership organizations in the field of agriculture, McPhee now worked to expand his three principles to all vocational subjects taught at Cal Poly. "How to do and how to think upon what he does," was founding director Leroy Anderson's succinct mission for the school. President McPhee expanded on the original charge, believing it was imperative that the "know-how" be provided to students first, which he dubbed the "upside-down" approach to education. Adding the "know-how" to the "know-why" was central to McPhee's vision for Cal Poly's students.

Beginning with the 1931–1932 school year, when the agricultural division was placed under McPhee's direction, only vocational students were admitted to Cal Poly. The agriculture program emphasized livestock, dairy, and poultry classes, with additional courses available in horticulture, landscape gardening, and cultivation of fruits and vegetables.

As Cal Poly's sixth leader, McPhee organized the rest of the school's

Top: Mechanical engineering students work in the drafting lab, 1938.

Left: Aeronautics buildings, 1930s.

Below: Student Jim Black, nephew of the late cowboy philosopher and movie star Will Rogers, at the horse unit, 1939.

curriculum into the Trades and Industries Division. Students in aeronautics concentrated on engine work, construction, and drafting. Those studying electricity learned electric machinery repair, power plant operation, contracting, and wiring. Students who completed two years of aeronautics were eligible to be licensed by the U.S. Department

Top: The 1936 edition of the campus yearbook, El Rodeo.

Right: Student Don Schneider at the poultry unit, 1932.

of Commerce as airplane mechanics.

Unlike agricultural projects, student projects in the Trades and Industries Division were group-oriented. During the 1933–1934 academic year, students working under the project methodology overhauled or rebuilt seven airplanes. By 1936–1937 the curriculum expanded when two popular new majors—agricultural mechanics and air conditioning—were introduced.

Students who enrolled at Cal Poly in the 1930s were older and better educated than their predecessors. The average age of students was 19 and nearly 90 percent of applicants had already completed high school, a shift from the Polytechnic's earliest days. Although no exact records were kept, numbers of students of Hispanic, Asian, and African descent were enrolled, continuing the tradition of diversity evident in the Polytechnic's earliest student bodies. By the end of the decade, President McPhee's message to incoming students noted:

> *You are entering your state technical college for the first time. Each of you comes into this institution on a basis of complete equality, without regard to curricula level, previous scholastic accomplishment, wealth or position of family, race or color. You start equally—where you will find yourself in the future is completely up to you.*

Despite the lingering Depression that reduced enrollment at most college campuses, Cal Poly's student body grew from a low of 117 in 1933 to 493 students by the 1937–1938 academic year. By 1941–1942 students numbered 711, with all areas of the state represented on the San Luis Obispo campus.

The tireless Julian McPhee, having secured stable funding and

Left: Famed aviatrix Amelia Earhart at Cal Poly's Aeronatics Unit in 1935, where aero students repaired her Boeing "100" aircraft. From left: Aero instructor M. C. Martinsen (Class of 1917); Earhart colleague and Hollywood pilot Paul Mantz; student Phillip Jensen; Earhart; and student Harley Smith.

Above: The 1938 edition of the campus yearbook, El Rodeo.

improved the quality of instruction offered at Cal Poly, now turned his attention to ensuring that Cal Poly graduates found gainful employment. Six years into his administration, in a California educational journal, McPhee expanded on Cal Poly's unique charge:

> *The plan of California Polytechnic is to so combine vocational and technical skills with a background of science and economics that a graduate is immediately valuable to his employer....*

The first placement service on campus not only arranged employment for students, but also surveyed prospective employers regarding their needs. Industrial and business owners from across the state were invited to tour the Poly campus and to meet students. Recommendations made through this growing network were incorporated into Cal Poly's curriculum to keep it vibrant and relevant to the job market. The placement center also worked with vocational program directors at California high schools, advising them on their curricula and recruiting students for Poly. In his first annual report, McPhee noted that Cal Poly was turning away prospective employers seeking Poly graduates in aeronautics, poultry, and dairy science, despite record national unemployment.

In 1938 Cal Poly received its first million-dollar gift when Charles B. Voorhis, a former automobile industry executive, and his son, Jerry, a future member of Congress, donated their Southern California ranch for use as a horticultural training center. For the past 10 years, the Voorhis family had operated a school for impoverished boys on the Oak Knoll ranch, three miles outside of San

Above: The chapel at the Voorhis unit, San Dimas.

Right: Harold O. Wilson, President McPhee, Charles Voorhis, and Assemblyman Ernest Geddes at the unveiling of the plaque commemorating the 1938 gift of the Voorhis ranch to Cal Poly.

Dimas and not far from the city of Pomona. The site was selected and developed by the Voorhis family for boys to "make their home, learn farming, printing, mechanics, and a number of other vocations; go to school; publish a newspaper; organize athletic teams; and learn the fundamentals of Christian citizenship." Charles Voorhis was quite pleased at the prospect of donating his facility to the Polytechnic, which shared a kindred philosophy stressing practical, vocational training. At the time of the gift, the Pomona Valley was a major citrus-growing region. The 150-acre school site—with its citrus, avocados, and fruit orchards—allowed Cal Poly to expand instruction in fruit tree cultivation and ornamental horticulture.

The acquisition of the Voorhis property also gave President McPhee and his administrators valuable new allies among the legislators representing that region in Sacramento.

In 1937 Cal Poly was granted three-year technical college status by the State Board of Education, making it, in McPhee's words:

> *...the only public institution of college level in the State with the definite objective of training young men for that class of employment which lies between the position of the executive, who can plan but cannot perform the manipulative skills, and that of the workman, who can carry out orders or follow routine but who lacks the training, imagination, or ability for an administrator.*

Yet it was clear that full-fledged college status was necessary if Cal Poly and its graduates were to prosper. McPhee had mixed feelings about transforming Cal Poly into a college, fearing that it might jeopardize the school's vocational mission. Having devoted his life to improving vocational education, McPhee was

Above: In 1942, a new Administration Building was completed near the site of Cal Poly's original 1903 administration hall. The clock tower of this building still stands and came to symbolize Cal Poly. Here President McPhee stands proudly in front of the new structure, which housed the president's office, the library, the State Bureau of Agricultural Education, deans' offices, classrooms, the print shop, and the student store.

Left: Cal Poly's first director, Leroy Anderson, assists President McPhee in February 1941 with the retrieval of the school's first time capsule from 1903. The time capsule's contents were carefully noted, combined with new materials, and placed in the cornerstone of the 1942 Administration Building.

passionate about improving the educational and employment prospects of skilled workers. "We have consoled the hundreds of thousands of college graduates," he noted dryly, "who go to work as grocery clerks and service station employees with the bromide about how much their minds have been broadened and how much their social contacts have meant to them." McPhee also remained committed to the "upside-down" approach, which in the 1930s meant class instruction in the mornings and hands-on work in the afternoons in fields, shops, or labs.

An attempt at a degree transfer agreement between Cal Poly and the University of California failed, in part because of the delayed classroom experience inherent in the "upside-down" approach. This applied additional impetus to transform Cal Poly into a four-year college. McPhee also could not ignore the urgings of alumni, parents, prospective students, employers, and others who favored collegiate status as a way to keep Cal Poly graduates competitive in the job market. One study estimated that nearly 30 percent of jobs that had been opened to Cal Poly graduates were now offered only to those with college degrees.

McPhee and his administrators crafted a proposal for a four-year course of study and sought State Superintendent of Public Instruction Walter F. Dexter as an ally. Together they presented the proposal to the State Board of Education. Dexter and McPhee encountered opposition among board members aligned with the University of California, but in April 1940 collegiate status was conferred upon Cal Poly. A fourth year of study was added in the fall of 1940. On May 29, 1942, Cal Poly granted its first Bachelor of Science degrees to twenty-six graduates.

Top: Cover art from the Homecoming game program, November 1940.

Above: A student handbook from the 1942–1943 academic year included information on how to use the library, how to get a date, study skills, campus clubs and activities, and Cal Poly's songs and yells.

Right: Graduates receive their diplomas at Cal Poly's first college commencement in 1942 from Walter Dexter, state superintendent of public instruction, as President Julian McPhee looks on.

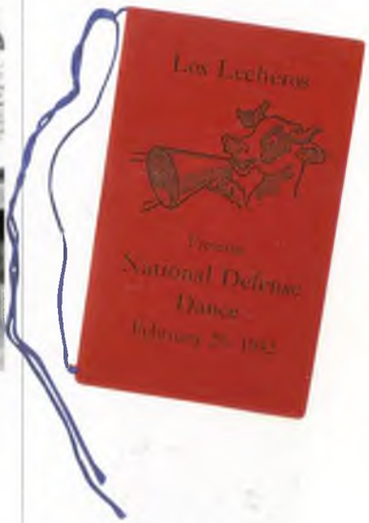
The War Years

World War II came to Cal Poly, as it did to the rest of the mainland United States, over the radio on a placid Sunday. By the end of that tumultuous week, the campus was observing blackout restrictions. Journalism and printing students scrambled to produce the first war time issue of the student newspaper, which was released on December 12, 1941, headlined US Fights Axis and War With Japan, Germany, and Italy; Honolulu Bombed. Student Body President Walter Dougherty wrote:

> *We students of California Polytechnic...are training ourselves with certain specific objectives in mind. Now we will be called upon to turn aside from these objectives and give our training to our country for military defense. There can be no hesitation if we are asked to lay aside our books and papers, but rather a willing step forward to the task ahead. I know that none of us shall hesitate.*

Although results of a national poll in November 1941 had reported that two-thirds of male college students believed they should be allowed to complete their education before they were inducted into the armed services, this opinion swiftly changed with the surprise attack on Pearl Harbor.

At Cal Poly, President McPhee and his administration were faced with the challenge of trying to retain students who might otherwise head for recruiting stations, a situation similar to that confronted by Director Robert Ryder in 1917 when the United States entered World War II. Eligible Cal Poly students had already complied with the nation's first peacetime selective-service law, which required all men between the ages of 21 and 25 to register for the military draft by October 16, 1940.



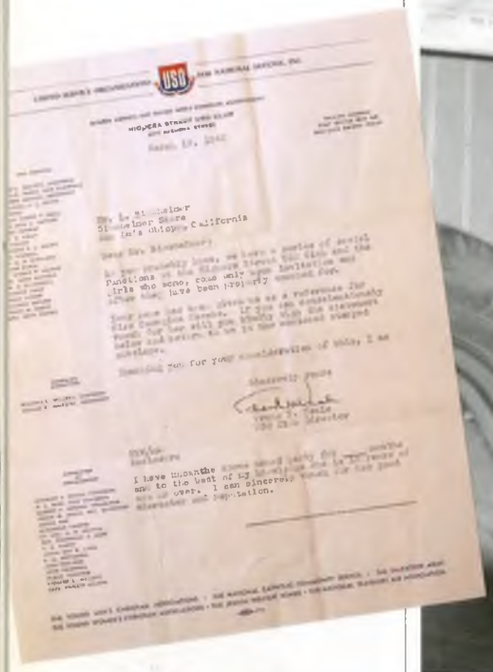
Left: Student journalists hard at work under the supervision of faculty advisor Robert E. Kennedy (front row, second from right), 1941.

Above: A 1942 dance card from an event sponsored by Los Lecheros, the popular student dairy club. Poly's own Collegians provided the dance music.

More than 80 Cal Poly men dropped out of school to join the armed forces in the weeks following Pearl Harbor, but most heeded President Roosevelt's admonition to stay in school until they were drafted so that they would be prepared "for greatest usefulness to their country."

Cal Poly, with its emphasis on applied learning, was preparing in a number of ways long before the Pearl Harbor attack. In 1939 Cal Poly cooperated with the Civil Aeronautics Authority in the nationwide Civilian Pilot Training Program. The program taught at the San Luis Obispo airport included 72 hours of ground school by Poly aeronautics instructors and 35 hours of flight training by local licensed pilots. By January 1942, according to campus historian M. Eugene Smith's article, "Cal Poly's Role in World War II," 118 pilots had graduated and "32 of these trainees had enlisted in the Army Air Corps, 14 in the Naval Air Corps, and one each in the Royal Air Force and Canadian Royal Air Force."

Other pre-war preparation at Cal Poly included participation in three federal war-preparedness training programs for unskilled youths and unemployed adults. The National Youth Authority Resident Project added dormitories, an infirmary, and a dining hall to campus, where 116 to 240 male students were housed while they learned welding and aircraft sheet metal and machine shop skills. The Adult National Defense Training Program provided similar training in 12-week night courses for more than 3,400 unemployed persons referred by the Works Progress Administration. The U. S. Air Depot program brought women back to campus for the first time in more than a decade as they learned radio repair and training, as well as aircraft engine maintenance and sheet metal skills.



Top: In 1942, San Luis Obispo townspeople organized a USO Club on Higuera Street to provide chaperoned social events for servicemen.

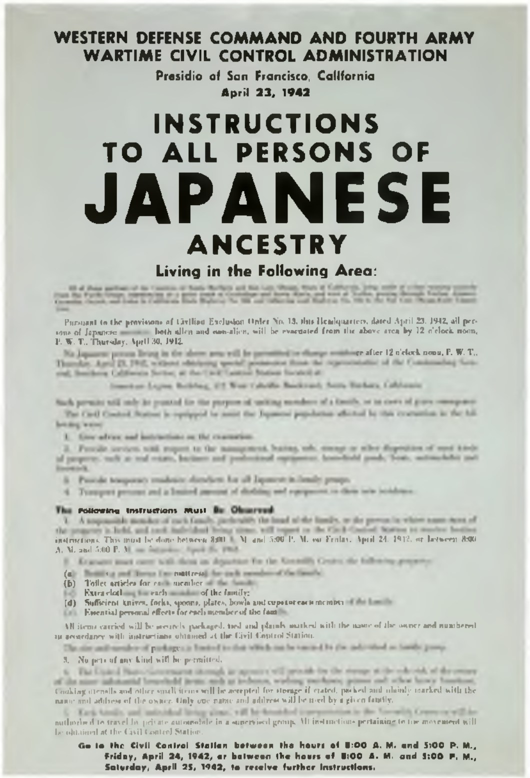
Right: Welding students in Cal Poly's U. S. Air Depot training program on the job, 1941.

Some Cal Poly students had a different wartime experience. The 24 Japanese-Americans listed in the 1941–1942 yearbook majored in both agricultural and mechanical subjects, resided in the dorms, and were active members of most of the campus clubs. They vanished from campus by 1942— forced to relocate with their families to government internment camps in California or Arizona. A May 3, 1942, letter from Seirin Ikeda, who played varsity baseball, was published in the campus newspaper:

> *We arrived in the camp on the afternoon of April 30. There were already 2000 here. The camp is composed of approximately 100 large barracks capable of holding approximately 5000 Japanese. Some of the barracks are made over horse stables, but we're satisfied because it's the coolest place of them all. Rest of them are temporary new barracks. The foods aren't necessarily good, but we are always welcome to a second helping...*
>
> *We are very proud that we are not treated as prisoners although we are confined within the camp area. Have free organization of camp; we also had religious service this morning. As soon as the place gets organized we will have a camp paper. I'm hoping the Americans in Japan are being treated the same.*

The 1942 yearbook staff published this tribute to two fellow students:

> *Jiro Kai's sport write-ups on football and basketball are tops. Jiro and Nelson Akagi, assistant photographer, were two of the unfortunate American Japanese required to evacuate the coastal area early in April. Both boys did excellent work and were missed when they had to leave.*


WESTERN DEFENSE COMMAND AND FOURTH ARMY
WARTIME CIVIL CONTROL ADMINISTRATION
Presidio of San Francisco, California
April 23, 1942

INSTRUCTIONS TO ALL PERSONS OF JAPANESE ANCESTRY

Living in the Following Area:

The Following Instructions Must Be Observed:

Go to the Civil Control Station between the hours of 8:00 A. M. and 5:00 P. M., Friday, April 24, 1942, or between the hours of 8:00 A. M. and 5:00 P. M., Saturday, April 25, 1942, to receive further instructions.

Jiro Kai would go on to serve in Italy with the famed 232nd Engineer Combat Company, an integral part of the 442nd Regimental Combat Team. The 442nd, whose motto was "Go For Broke," was the only company in the United States Army whose entire enlisted ranks were composed of Americans of Japanese ancestry.

Most of Cal Poly's war time contributions were made in cooperation with the Navy to train naval aviators, as well as deck and engineering officers. Army or Navy V-1 programs were found at virtually every accredited college and university in the country. On April 10, 1942, President McPhee received a wire from Secretary of the Navy Frank Knox, authorizing Cal Poly's participation in the Navy's V-1 training program. Freshmen and sophomores between the ages of 17 and 20 served their country as they continued their education and prepared for officers' commissions.

Under the Navy V-1 program—essentially an extended Naval Reserve Officer Training Corps plan—students were rated apprentice seamen. Failing marks earned a V-1 participant a one-way ticket to active duty; good grades and further testing opened admission to specialized training.

Testing in March 1942 allowed V-1 participants to qualify for specific training leading to commissions as aviation or engineering officers. Under the auspices of the V-5 program, also known as the Naval Flight Preparatory School (NFPS), students-turned-aviation cadets were provided with college pre-flight training. Cal Poly naval cadets also participated in the V-7 program, which provided training for midshipman officer candidates for surface ships.

Cal Poly's Naval Flight Preparatory School, one of 20 in the country, opened on January 6, 1943, when the first battalion of 200 cadets "came aboard" to begin 90

Above left: A broadside from April 1942, directing "all persons of Japanese ancestry" in Santa Barbara and San Luis Obispo counties to present themselves for "evacuation" at the American Legion Building in Santa Barbara. Twenty-four Japanese-American students left Cal Poly to comply.

Top: James McDonald, participating in the Naval Academic Refresher Unit, takes a break on campus with his wife, 1944.

Above: A Navy booklet explains how "red-blooded college men who want to win this war!" can attend college and eventually be commissioned as naval officers.

Above: A 1943 course catalog produced at Cal Poly invites students to join the war effort by studying food production, aeronautical or electrical engineering, or architectural drafting.

Right: A 1943 map of the Naval Flight Preparatory School at Cal Poly shows the Navy's nautical rechristening of familiar campus landmarks.

days of pre-flight training. Cal Poly faculty taught NFPS courses in mathematics, history, communications, and physics. Eight civilian mathematics and science instructors completed naval refresher courses so they could also teach navigation. Twenty-five commissioned naval officers were assigned to Cal Poly's NFPS to teach navigation and aircraft/ship recognition. Naval instructors also handled physical training, military drill, and disciplinary problems. The Navy designated Cal Poly as a "Fleet School" in November 1943, which brought 840 Navy and Marine Corps enlisted personnel to campus for aviation training. By the end of the program in October 1944, Cal Poly's Naval Flight Preparatory School had trained 3,600 cadets of 80,000 nationwide.

While Cal Poly's NFPS was still in operation, the Navy established a second program in the summer of 1944. Selected enlisted men participated in the Naval Academic Refresher Unit (NARU), enrolling in physical training and courses in history, physics, English, and mathematics. The largest of the eight similar programs in the country, Cal Poly's NARU enrolled 1,100 men, who were also eligible to participate in music, athletics, publications, and other campus activities.

The Navy asked four things of the V-1 participants: to work carefully and accurately; to study mathematics and physics; to stay healthy and physically fit; and to conduct themselves as leaders and officers would. At Cal Poly, cadets also abided by President McPhee's longstanding edicts, recorded in the *Mustang Roundup*, a wartime student publication:

1. ***No drinking! All liquor must be kept off the campus.***
2. ***All students shall stay away from houses of prostitution.***
3. ***Stealing of any kind shall not***

Left: Members of the "Redlands Gang" were sent to Marine Officer Candidate School in New River, North Carolina, after their Cal Poly naval training. This photo appeared in the October 1944 issue of the Mustang Newsletter. *The brainchild of Public Relations Director Robert E. Kennedy, the publication kept Cal Poly alums in touch during the war.*

Above: The campus newspaper and yearbook ceased publication for the duration of the war, and were replaced in October 1942 with the Mustang Roundup. *The news-humor magazine appeared monthly, edited jointly by civilian and naval students under the direction of Robert Kennedy.*

> ***be tolerated, on the campus or in town.***
>
> 4. ***The school and its faculty will not be involved in any police mixups. Students in bad with police will have to face their own crime[s].***

The article concluded with the observation that "Boys in past years have been seen leaving the campus with bag and baggage only a few hours after their offense."

Without the Navy programs, enrollment and continuing operation of the all-male Cal Poly would have been extremely difficult. The two Navy programs permitted Cal Poly to retain and even expand its regular faculty and staff, but the school's original curricula were offered to a dwindling number of civilian students. Courses in mechanical industries, air conditioning, architectural drafting, and agricultural disciplines were offered when there was sufficient demand and taught between 6 P.M. and 10 P.M. after the Navy classes had concluded for the day.

War and Your Future, a booklet produced by Cal Poly in May 1943, carefully noted:

> *The Naval Flight Preparatory School program does not interfere with the courses of instruction in the industrial and agricultural divisions of the college. There is adequate housing on campus, reserved for several hundred regular students. The cafeteria, reserved for regular students, provides good meals at very reasonable rates.*

The latter was of primary importance to Julian McPhee's new role as head of the state's vital Food Production War Training Program, begun in 1943. With headquarters on the Poly campus, the program offered 120,000 California farmers ("soldiers of the soil") instruction in increasing production, preservation,

"I'm terribly tired of this war and feel very strongly that I can do a great deal more toward ending it where the shooting's going on."

–Elwyn Righetti to his mother, Elizabeth, December 1944

Elwyn Righetti is San Luis Obispo's best-known war hero, although his fate is still unknown. A Cal Poly graduate and son of a long-time Edna Valley ranching family, Righetti joined the Army Air Corps in 1939 and served as an instructor before requesting overseas duty in 1944. Dubbed "Eager El" by admiring comrades in arms, Righetti commanded the 55th Fighter Group, Eighth Air Force. On his 30th birthday, April 17, 1945, he was shot down over Dresden—21 days before the war ended. Fellow aviators saw Righetti climb out of his P-51 Mustang as a crowd of German civilians gathered. The fighter ace was never heard from again. His sister, Betty Righetti Middlecamp, still searches for information on her brother's fate. Righetti attained the rank of colonel and was awarded the Distinguished Service Cross, the Silver Star, two Distinguished Flying Crosses, and 22 Air Medals. Four generations of the Righetti-Middlecamp family have attended Cal Poly.

and conservation of food. The Voorhis Unit, Cal Poly's horticultural training center in San Dimas, halted instruction and converted to full-time food production.

Cal Poly cooperated with county residents on the home front, turning out for paper, rubber, and scrap iron drives; pitching in to harvest "war crops" like sugar beets; and helping with war-bond drives. The Army had sizeable training camps in the tri-county area: Camp Cook in Santa Barbara County near Lompoc; Camp San Luis Obispo on the outskirts of its namesake town; and Camp Roberts straddling San Luis Obispo and Monterey counties. Housing for the families of these men was critical in each of these areas. Renting out rooms in one's house was considered a patriotic gesture.

"After a hard day's work, sweating physics, math, history, English, and P.T. [physical training], relaxation comes in the form of liberty," noted the *Mustang Roundup*. On Tuesday nights, Cal Poly naval cadets joined soldiers on passes from the campus in search of recreation. The sleek new Fremont Theater offered Hollywood's latest and best, while swing bands played at the Pismo Pavilion. "We all know that San Luis Obispo is a 4.0 town for spending one's idle hours," confided W.D. Titus in a 1945 *Mustang Roundup*:

> *There's so much to do there: the U.S.O. Shows, bowling, swimming (in season), dancing, and, of course, the colorful "gin mills." Of course, none of you people are interested in the latter, but to fill space, we thought we would mention it anyway.*

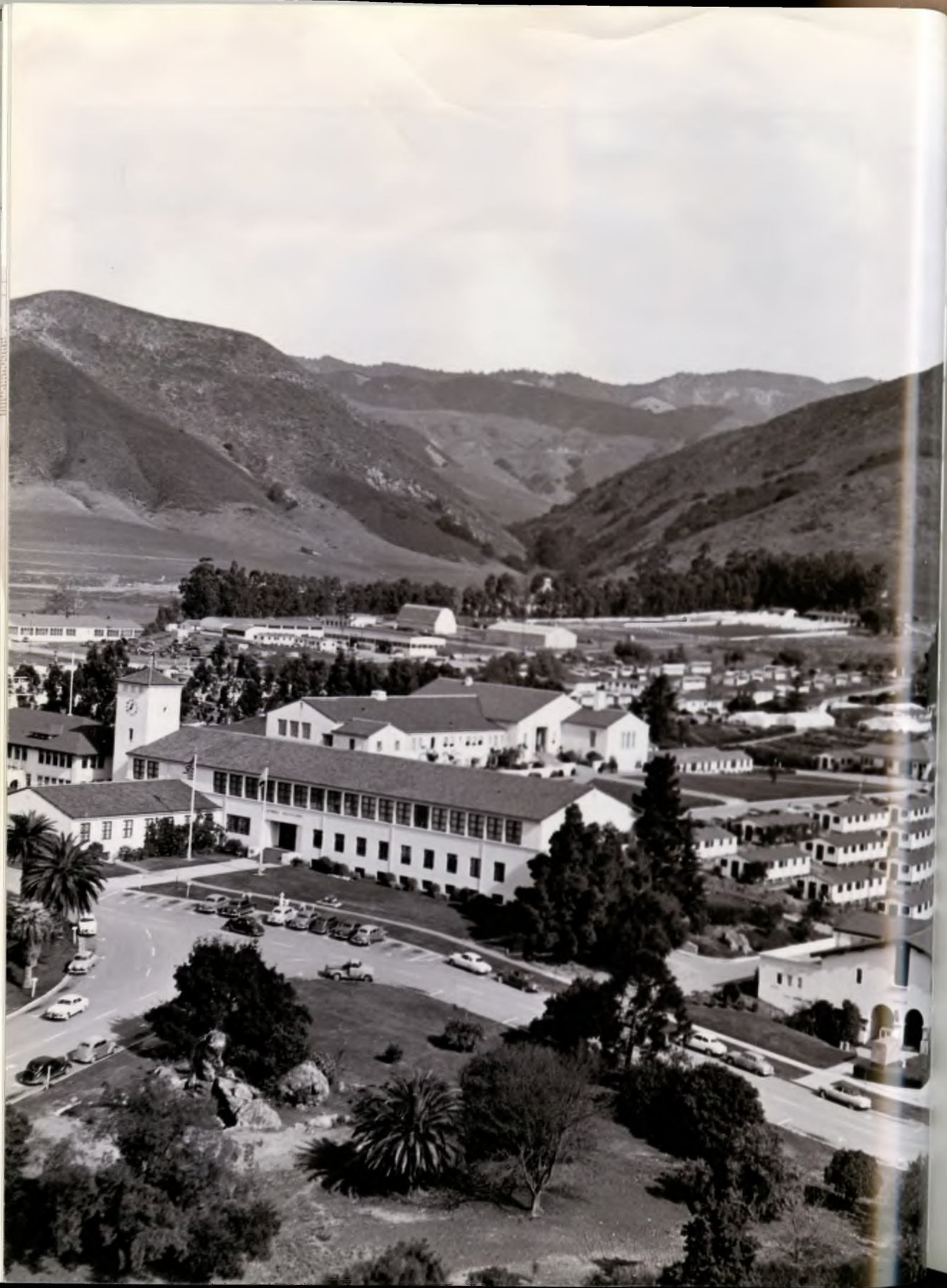
As the Allies swept to victory, the campus rejoiced with the rest of the country on V-E Day in May and V-J Day in August 1945. Cal

Above: The Collegians, Poly's popular dance band, perform in uniform, 1945.

Left: The Cal Poly band, under the direction of Harold P. "Davey" Davidson, performs for graduation, 1945. Davidson, who arrived at Cal Poly in 1936, was a beloved campus figure. He doubled the size of the marching band, rejuvenated the Glee Club, and started a swing band called the Collegians. The Glee Club and the Collegians became very popular, performing both on and off campus.

Poly's jubilation was tempered by the growing number of students who were among the missing or killed in action. The gift of the Class of 1946 was a plaque, placed in the Administration Building and inscribed with the names of 58 Cal Poly students "who paid the supreme sacrifice in World War II."

President McPhee began planning for the post-war development of Cal Poly long before the war officially ended. Administrators worked with a faculty committee to plan new facilities, including a library-classroom building. "The progress of this college is assured, and it will be through the success of you students now enrolled that this success will be measured," said McPhee in the campus newspaper. Cal Poly, with its learn-by-doing emphasis, was poised for unprecedented growth in the new post-war California.



Amazingly Vigorous Growth

Expanding the Polytechnic College, 1946–1966

"We are undoubtedly embarking on one of the most interesting periods in the history of the California Polytechnic."

–PRESIDENT JULIAN MCPHEE,
Welcoming new students, 1945

Above: Major Gus Gibson, a returning G. I., is accompanied by his wife and their child as he signs up for classes. The campus "Hello Girl," Mrs. Olga Martinsen, provides friendly assistance.

Opposite: View of campus buildings and Poly Canyon, 1955.

Cal Poly faced a new challenge as World War II ended: thousands of G.I. Joes wanted to become G.I. Bills under new legislation that guaranteed them a college education. A product of the 78th Congress, the Servicemen's Readjustment Act of 1944—commonly known as the G.I. Bill—provided veterans with reemployment rights, readjustment allowances, and money for education. The educational benefits provided for payment of tuition, fees, books, and supplies up to $500 a year, with a monthly subsistence allowance of $50 for single veterans and $75 for those who were married.

Cal Poly, with its learn-by-doing emphasis, was ideally suited to educate veterans, many of whom were the first in their families to attend college. Even before the war officially ended, Cal Poly offered its first summer session in 1945. Administrators and faculty worked together on other plans to serve a student body that would be growing exponentially.

VETS RETURN FOR OLD HOME WEEK AT POLY ran the headline in the November 30, 1945, issue of the campus newspaper. "So many former students are getting out of the service and returning to campus for short visits and to get details on enrolling for the Winter quarter which starts December 10, that it is beginning to seem like a continuous alumni homecoming celebration," the lead article stated.

In addition to aiding veterans who had served their country, the G.I. Bill also helped avert an economic downturn similar to the one that

Naval Commander Vance Lewis presents President McPhee with a commendation for Cal Poly's service as a Naval Flight Preparatory School and Naval Academic Refresher Unit during World War II, 1946.

followed World War I. Instead of entering the job market *en masse*, World War II veterans flooded college campuses. By 1947, veterans accounted for nearly half of all U.S. college enrollments. Of these veterans-turned-students, it was estimated that 80 percent would never have been able to enroll without the assistance provided by the landmark legislation. In the late 1930s, about 160,000 U.S. citizens graduated from college each year; by 1950, that number had increased to 500,000. The G.I. Bill, at a total cost of $5.5 billion, democratized higher education, transformed colleges and universities across the country, and educated a growing middle class.

Not all college presidents viewed the G.I. Bill favorably. Robert Maynard Hutchins, then president of the University of Chicago, predicted in *Collier's* magazine that "colleges and universities will find themselves converted into educational hobo jungles." Fearing an onslaught of soldiers and sailors who were neither scholars nor gentlemen, Harvard's president, James Conant, labeled the bill "distressing" in his annual report.

Cal Poly President Julian McPhee, however, was far from distressed. Much as he had leveraged the Smith-Hughes Act during the Great Depression, McPhee realized that the G.I. Bill represented stable funding, growing student populations, and unprecedented opportunities for improving Cal Poly.

In the December 10, 1945, college newspaper, President McPhee wrote:

> *It is with genuine pleasure that I extend a welcome to new students who are enrolling for the first time this quarter and to the many old-timers who are returning to us after serving with our armed forces.*
>
> *We are undoubtedly embarking on one of the most interesting periods in the history of the California Polytechnic. Our enrollment of civilian students is increasing rapidly and before long, we expect to exceed our pre-war enrollment figure. This will mean a return to the large-scale operation of all those campus activities [that] make college life happy and profitable for the undergraduate.*

Students on campus returned McPhee's sentiments. According to a November 1945 campus newspaper article,

> *Every student attending Cal Poly meets and knows from the start its President, Julian A. McPhee…Since [his appointment in] 1933… the college has gone ahead with great strides. There has never been a frosh*

Left: Student Bob Pulford was one of more than 5,000 naval cadets trained at Cal Poly during the war who returned for agricultural or industrial educations.

Above: G. I.s learned child care skills in special campus workshops.

Top: The Student Handbook *for 1945-1946 included welcomes from both President McPhee and Lt. G. D. Weigel, Commanding Officer of the Naval Academic Refresher Unit.*

who had to learn to like him; he's just that kind of guy... He works and hopes for greater things at Poly in the next three decades, and wants to see the Polytechnic become a larger and even more modern college, always apace with the times.

Such was the rate of growth at Cal Poly in the months following the end of the war that President McPhee turned down the Navy's request for a new program. The decision was a difficult one, McPhee admitted, because "the Navy programs made it possible to keep Poly faculty intact, which in turn made it possible to maintain a continuous war-time operation of all agricultural and industrial majors..." Though he had "nothing but the highest praise" for the Navy's efforts at Cal Poly, McPhee decided to return the focus to the college's original learn-by-doing mission.

In addition to new summer classes, Cal Poly expanded the agriculture and engineering divisions of the campus. Forty Quonset huts and several prefabricated structures served as makeshift classrooms and office space. A new Science and Humanities Division was created that included a formal Education Department, offering training in professional and general education. By 1948, the State Board of Education had approved a credential program for secondary teachers in eight departments: Agriculture, English, Health, Life Sciences, Mathematics, Physical Education, Physics, and Social Sciences. That same year, the Northwest Association of Secondary and Higher Schools granted Cal Poly unrestricted accreditation as a four-year college.

Fifty-six new faculty members were hired in 1946 alone, many of whom taught in newly created departments, including Soil Science, Agricultural Engineering, Architectural Engineering, Printing, and Maintenance Engineering. The following year, another 34 professors

Right: Jack Spaulding (with megaphone) and fellow Mustang Rally Committee members in 1948.

Above: Letter sweater worn in the 1940s.

joined the faculty. By 1950, Cal Poly had 206 instructors and 24 departments.

An innovation that fall was the addition of an Agricultural Journalism program, developed by journalism instructor Robert E. Kennedy, who had arrived at Cal Poly in September 1940. Kennedy had multiple roles: public relations director, journalism instructor, faculty advisor for the yearbook and campus newspaper, and editor of the course catalog and other official campus publications. George Couper, assistant to the president, talked about this workload with Kennedy on his very first day.

> *We are operating this college on a very thin budget, and we can't afford three people to do the work that needs to be done—but if you can stick with it and succeed, things will get better... You are in on the ground floor.*

Kennedy excelled at the multiple assignments and deadlines, becoming a valued member of President McPhee's administration.

Kennedy and his students produced post-war handbooks designed to orient new students. McPhee's continuing prohibitions against women, alcohol, theft, and firearms in the dorms were explicit. The handbook also lent assistance in the matter of dress:

> WHAT TO WEAR!
>
> *When working wear Levi's or coveralls.*
>
> *You must get cleaned up or "slicked" up for dates or to go downtown.*
>
> *Dress according to theme dances.*
>
> *For sport dances wear slacks or any good pants, a matching or contrasting coat, tie or sport shirt.*
>
> *Clean up for meals as you would if your mother and sisters were going to be eating with you.*

Cal Poly ended its first post-war academic year with an enrollment of over 800 (655 full-time) students.

Left: President Julian McPhee points out the location of the Voorhis Unit to students on a map of California.

Above: Student handbooks published by the Associated Students welcomed new students to campu and provided essential tips on academic topics as well as on Poly clubs, student government, recreational opportunitites, and school spirit.

As predicted, the head count more than doubled to 1,809 students the following academic year, with the college forced to turn students away. By the end of the decade, enrollment would reach nearly 3,000. Cal Poly's 150-acre Voorhis Unit, near San Dimas, California, returned to its educational role when 238 men registered for classes in September 1946. On the San Luis Obispo campus, 80 percent of the student body were World War II veterans, a ratio higher than the national average and one that declined only slightly in coming years.

Cal Poly responded to the veterans on campus, helping with such matters as choosing a program of study or adapting to college life. The Student Welfare Committee, chaired by Robert Kennedy, facilitated these efforts and identified other needs. Members of the faculty and staff—often veterans themselves—served as personal and academic advisors. In 1947, the Counseling Center was established to administer placement tests and provide personal and vocational counseling. Faculty and staff also contributed generously to scholarship and loan funds, helped students find employment, and sponsored presentations and discussions on everything from veterans' benefits to childcare. Major Joseph Deuel, who had served in both world wars, headed the Veteran Affairs Committee and was especially tireless in tracking down housing for new students and faculty.

Housing was in short supply across the country in the post-war years and Cal Poly was no exception. Single men quickly filled the 742 beds in the dorms. The San Luis Obispo USO building and the main floor of the campus gym were converted to residence halls by the addition of 400 cots for students. Former medical units at nearby

Right: Campus view, 1958. The following year saw phenomenal growth in construction, with 11 new buildings under way.

Above: In the 1950s, the campus bookstore sold these miniature photos of the San Luis Obispo and Pomona campuses, cleverly packaged to mail to family and friends.

Camp San Luis Obispo were also modified to house several hundred more students. Another 210 college boys took up residence in the farm machinery shops and the dorm lounges.

Such improvised housing eased some of the shelter shortage, but little housing was available for married students on campus or in San Luis Obispo. The National Housing Authority provided 125 one- and two-bedroom, pre-fabricated housing units, dubbed "Vetville" or the "Cardboard Jungle" when they arose on the site of today's Kennedy Library off Highland Avenue. McPhee promised "a movable house village" would soon follow. More than 200 war surplus trailers were brought from as far away as Oxnard and placed near the Grand Avenue entrance to campus. In December 1945, the first 50 trailers were congregated into a campus community known as the "Silver City." "Each trailer is large enough to house a family of four and will rent to students at cost," related the campus newspaper:

> *The college will provide electricity and hot water as well as necessary washroom equipment. Each trailer will have two beds, an ice box, cooking stove, oil heater, table, four chairs, cupboards, closets and sink. The trailer community will be provided with walks and the college horticulture department is planning to landscape the area...*

Five years after the war had ended, hundreds of students were still housed at Camp San Luis Obispo. When the post was reactivated in 1950 in response to the Korean War, the Cal Poly students were displaced. The McPhee administration secured $1.2 million in emergency funds to complete five men's dormitories, modeled on similar facilities at Claremont Men's College in Southern California. Diablo, Lassen, Palomar, Shasta, and

Whitney halls (the "mountain dorms") were completed in 1952.

As with the rest of California, San Luis Obispo experienced dynamic growth in the post-war era. By 1950 the county boasted 51,417 citizens, 14,000 of whom lived in the city of San Luis Obispo. While agriculture remained its economic mainstay, San Luis Obispo County emerged as a regional government center. In addition to city and county government offices in San Luis Obispo, the area became home to the California Men's Colony correctional institution (1954) and Atascadero State Hospital (1957), both state facilities. Diversification of the county's economic base, along with improved roads and utilities, contributed to the prosperity of both the college and the region.

Cal Poly commissioned its first facilities master plan in 1949, hiring the architectural firm of Allison and Rible. Expansion of the campus from Poly Vue Drive, the horseshoe-shaped main avenue on campus, was at the heart of the approved plan. In addition to the mountain dormitories, other new buildings erected during the post-war period included an aeronautics hangar and shop, an agricultural engineering facility, a central feed-processing unit, and a dairy feed barn. Athletic facilities were also added or improved, including seating renovations in Crandall Gymnasium, practice areas for football, track, and baseball, and a new field house. By 1950 the campus health clinic had 16 beds, two nurses, and a part-time physician. The $700,000 Walter F. Dexter Library was dedicated in October 1948, memorializing the Sacramento administrator who had helped secure collegiate status for Cal Poly eight years before.

Left: Librarian Francis Allen (left) provides instructions for using the card catalog in the new Dexter Library.

Above: Students move books into the new library building, completed in 1949.

W. K. Kellogg with Antez, a chestnut stallion and favorite mount of Kellogg's, in front of the horse stables at his Pomona Ranch, 1929.

Two Cal Polys

In November 1949, cereal magnate W. K. Kellogg's foundation donated his 813-acre Arabian horse ranch in Pomona, California, to Cal Poly. The $4 million ranch—including purebred horses and livestock, residences, and ranch buildings—was a handsome gift in its own right. The new property was even more valuable because it was near Cal Poly's existing Southern California campus. The gift of the 150-acre Voorhis ranch in 1938 had improved the college's course offerings in fruit tree cultivation and ornamental horticulture. With the acquisition of the Kellogg Ranch and livestock, improvements in the horse-breeding program were now possible.

Kellogg—who had other homes in California, Michigan, and Florida—had purchased the Southern California acreage in 1925 for a winter residence. Noted Los Angeles architects Myron Hunt and H. C. Chambers designed a Spanish-style mansion and outbuildings on the rolling hills, with the elaborate horse stable completed first. During the six years that Kellogg actively used the estate as a winter retreat, he had the extensive grounds landscaped with a large cactus garden, groves of eucalyptus, and exotic trees.

After a successful and innovative career managing his breakfast cereal and health food company, the semi-retired multimillionaire Kellogg devoted most of his time to breeding Arabian horses at the ranch. Admired for their beauty and even temperament, and as exceptional for pleasure riding, Arabian horses were uncommon in the United States in the 1920s.

The publicity-savvy Kellogg capitalized on their novelty, initiating a popular Sunday horse show which drew locals, tourists, and movie stars to his ranch, where they also received samples of Kellogg breakfast cereals. Celebrities of the day, including Loretta Young, Clara Bow, Gary Cooper, and Will Rogers, happily posed with the handsome Arabian horses. Kellogg Arabians appeared in local parades and in feature films, most notably as the steed favored by silent screen idol Rudolph Valentino in his last movie, *The Son of the Sheik*, in 1926. The Pomona estate soon became a Southern California showplace, attracting an annual crowd of 250,000 and influencing the bloodlines of Arabians throughout the country.

In 1931, with his eyesight failing, Kellogg decided to give up his cherished horse ranch. He began the search for a worthy successor who would maintain his ranch and the quality of his Arabian horse stock. Kellogg considered various

non-profit agencies, including the University of California, but reactions to his proposed gift were lukewarm, until he added a generous endowment to the offer. The university accepted the property May 17, 1932, and maintained it as the W. K. Kellogg Institute of Animal Husbandry until 1943.

Only a few years into the partnership, Kellogg was unhappy with what he felt to be a lack of attention to his beloved horses and to the ranchlands. With the acceleration of wartime preparations and the onset of World War II, Kellogg deemed the U.S. Army a deserving and more appropriate recipient. The acreage and horses were transferred in 1943 to the U.S. Army; this time the former ranch was renamed the Pomona Quartermaster Depot and served as a remount training station for the cavalry.

As with the university partnership, Kellogg soon felt that his valuable Arabians were not receiving adequate care and attention. In 1948, the property was again transferred, but the U.S. Department of Agriculture decided after only a few months of operation to declare the former Kellogg Ranch surplus property. Plans to auction the prize

Top: The original stables at the Kellogg Ranch, 1926.

Above: Silent screen star Rudolph Valentino poses with Arabian stallion Jadaan on the movie set of The Son of the Sheik, *1926.*

Arabian stock and sell the famed estate resulted in a public outcry. After years of Kellogg's celebrated open houses and Sunday horse shows, the public's affection for the ranch was genuine. The proposed auction of the Arabians drew heated complaints from locals, politicians, the Kellogg Foundation, and the ailing Kellogg himself.

The Kellogg Foundation regained control of the property and began negotiations with Cal Poly for the gift, specifying the continuance of the Arabian breeding program by the college and a revival of the popular Sunday horse shows.

Cal Poly had inaugurated a Thoroughbred horse program at the San Luis Obispo campus in December 1940, in cooperation with the California Breeders' Association. A new Thoroughbred barn, paddocks and pastures to accommodate six mares, two Thoroughbred stallions, and their offspring were added to campus. Members of the California Breeders' Association, including Bing Crosby, donated the first five mares to Cal Poly. These credentials—and President Julian McPhee's persuasive abilities—convinced Kellogg and his foundation executives that Cal Poly was the right choice. On November 1, 1949, the state of California formally accepted title to the ranch as a gift from the Kellogg Foundation.

The cereal magnate had at last found an institution that could meet his exacting standards. At the open house feting the transfer to Cal Poly, a Kellogg Foundation official said, "I expect to see Mr. Kellogg in a few days and I will be happy to inform him that the ranch is in good hands."

Cal Poly's two Southern California properties were operated jointly for several years by the home campus in San Luis Obispo, and were known as the Kellogg-Voorhis Unit. A Voorhis Unit student desiring to earn a Bachelor of Science degree from the California Polytechnic found it necessary to take at least his senior-year work at the San Luis Obispo campus. Once the Kellogg property was obtained, a fourth year was available locally, simplifying college life for Southern California students.

In 1956 the Pomona and San Dimas campuses merged. Some 550 students and 30 faculty members left the Voorhis Unit and moved to the renovated Kellogg property. For the next decade, all instructional programs of Poly's southern branch

Five-year old purebred Arabian twins, Calamyr and Calamyra, at the Sunday Arabian Horse Show at Cal Poly's newly acquired Kellogg Unit, 1950. A brochure encouraged visitors to attend.

operated on the former Kellogg Ranch. The mature landscaping and attractive original structures of the Kellogg estate lent a parklike feel to the new campus. These same facilities served as a nucleus around which the present Pomona campus would develop.

In 1966, after President McPhee's retirement, the Kellogg-Voorhis Unit was split from the parent San Luis Obispo campus and made a separate college, the 16th in the state system. In 1972 university status was granted to the campus. The Pomona campus was named California State Polytechnic University, while the San Luis Obispo campus was designated California Polytechnic State University.

Today, Cal Poly Pomona is a vibrant, urban university offering a full range of academic programs for a student body of nearly 18,000.

Much like its sister campus in San Luis Obispo, Cal Poly Pomona still values its agricultural origins and learn-by-doing philosophy. To this day, the breeding of Arabians continues at the W. K. Kellogg Arabian Horse Center and the ever-popular Sunday performances entertain a new generation. The Pomona hills are no longer blanketed with citrus trees, yet glimpses of the rural past have been carefully preserved on the campus. Modern buildings and restored ranch structures are framed by the verdant and exotic landscaping begun by W.K. Kellogg.

President McPhee shows the Arabian twins, Calamyr and Calamyra, to Roy E. Simpson (right), State Superintendent of Public Instruction, Joseph Loeb (left), member of the State Board of Education, and William L. Blair, President of the State Board of Education, at a legislative and press preview of Cal Poly's new Kellogg Unit near Pomona, February 25, 1950.

Above: Commencement ceremonies, June, 1949.

Right: Frank Ross steps up to the dais as one of four candidates who obtained their master's degrees at the June 1951 graduation exercises—the first advanced degrees in Cal Poly's history.

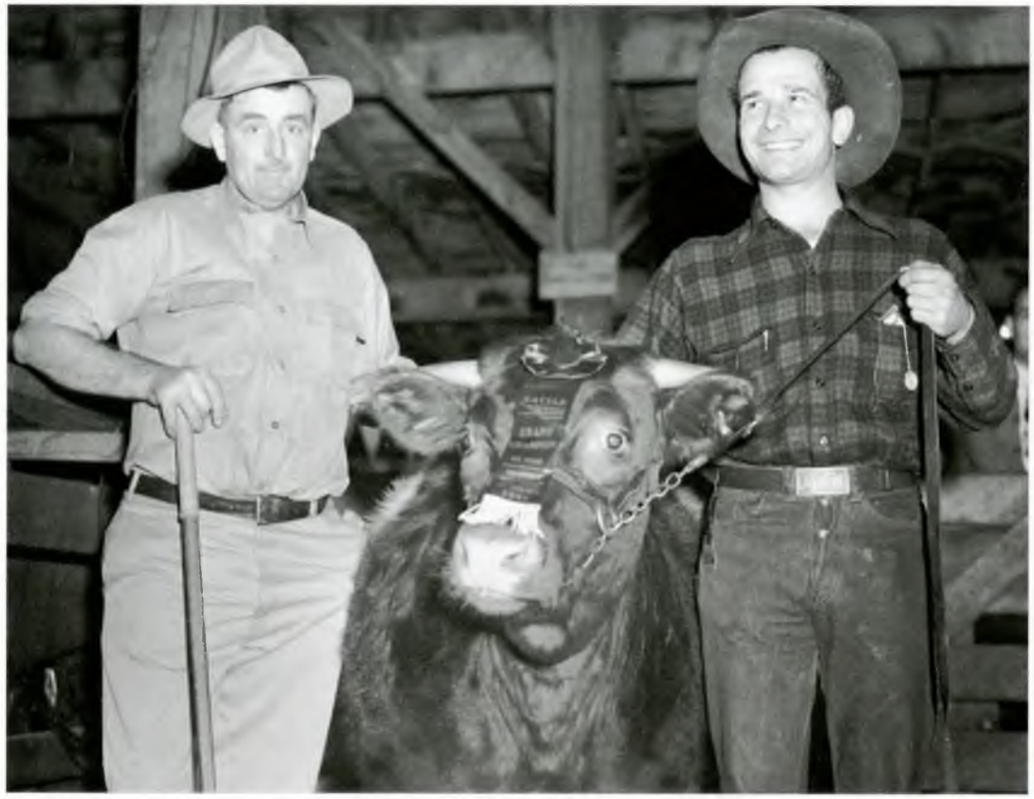
Despite granting bachelor's degrees since 1942, California Polytechnic School remained the official name of the institution. The name rankled with vocal post-war students, who started lobbying in November 1945 for a change. An editorial in the campus newspaper demanded:

> *Why not give the students an even break by changing the name...? It took 39 years to change from a high school to an institution of college caliber. Will it take as long to change the name from 'school' to California Polytechnic College?*

Two years later, the name change was effected when State Senator Chris Jespersen introduced a successful bill to adopt the name California State Polytechnic College.

In 1949, Cal Poly established a graduate school offering master's degrees in education with concentrations in five areas: Agriculture, Biological Sciences, Mathematics, Health and Physical Education, and Physical and Social Sciences.

On August 18, 1950, the college newspaper carried the headline CALL OF NORTH KOREA ANSWERED AS SEVEN STUDENTS REPORT. When the conflict began on June 25 of that year, the college again assisted with student decisions to enlist, be drafted, or stay in school. The campus newspaper interviewed Robert Kennedy, who, in his role as public relations director, said, "Well, we're back where we were, trying to keep track of our students who've



Left: Cal Poly sophomore Bill Marxmiller's 1,000-pound shorthorn steer "Poly Jock" won the top award as Grand Champion at the Great Western Livestock Show in Los Angeles, 1949. Animal husbandry instructor Harry Parker (left) congratulates the proud winners.

Above: A brochure for a 1948 fair in Sacramento. Cal Poly students often traveled to fairgrounds all over the state as part of their livestock projects.

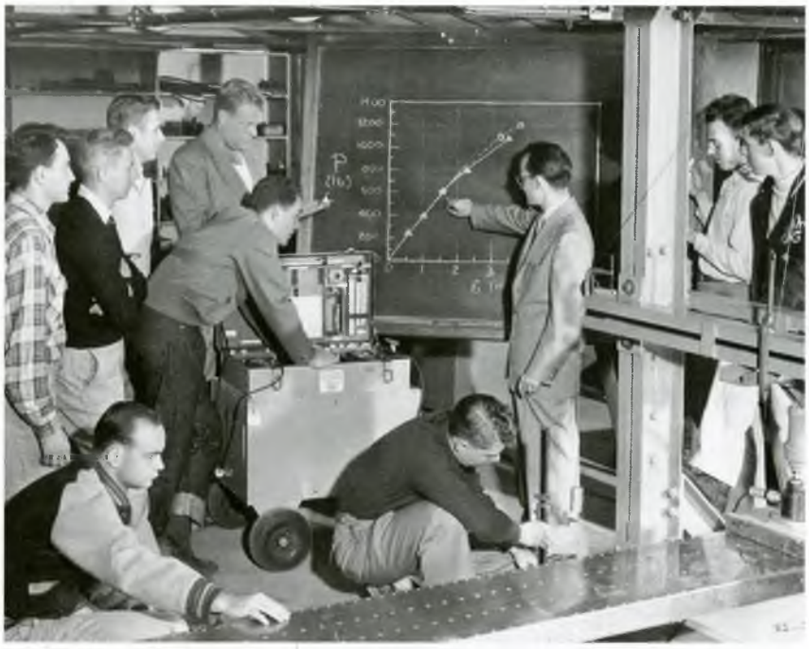
gone into the services. And it's no easy job!" Nearly 600 students would leave school to serve in the Korean War.

Army officers visited campus in 1951 to explain "the types of military programs available to inductees in any branch of service." The following year, a Reserve Officers Training Corps was approved, headed by professors of military science who were active service officers assigned to the campus as a temporary duty station.

As Cal Poly neared its half-century mark, the campus covered 2,233 acres. Students paid $143.50 for fees, room, and board per quarter; students with G.I. benefits paid $80.50. The college had three divisions: Agriculture, offering 12 majors; Engineering, offering eight; and Science and Humanities, offering five.

The post-war decades saw a number of articles in national and international publications lauding Cal Poly's focus on applied learning. The favorable press not only increased campus visibility, but also provided public vindication for McPhee's decades-long crusade to legitimize applied learning in higher education. Articles in agricultural periodicals, such as *Pacific Stockman*, *Western Livestock Journal*, *Harvester World*, and *Pacific Coast Nurseryman* were frequent and soon were joined by features in such mainstream media as *Reader's Digest* and *Christian Science Monitor.*

Cal Poly now had the largest agricultural school in the western United States. The May 1947 issue of *Country Gentleman* painted a glowing picture of life on the rural campus with the learn-by-doing emphasis, where "...a student, before he starts courses in sciences and the humanities, learns a practical skill to enable him to make a good living even if he has to leave



Above: Students "learn by doing" in the aero stress lab with aeronautical engineering instuctor Robert A. Needham.

Right: Members of the Hawaiian Future Farmers of America visited Cal Poly in October 1953. That year more than 60 students from Hawaii attended Cal Poly.

college." Author Frank Taylor was particularly impressed with McPhee's emphasis on student projects:

> *This collegiate free-enterprise system in operation is something worth seeing. The students maintain stores in which they sell eggs, dressed chickens, fruit, vegetables, milk and butter at downtown prices.*

Citing the school's "amazingly vigorous growth" during President McPhee's tenure—from 150 students to an enrollment of 1,783—the article proclaims the president's educational philosophies a success. "I feel that this school's first job is to train a man for his occupation," McPhee was quoted. "That determines where and how he is going to live...Afterward comes his culture."

John Mette, an agricultural journalism senior, published an article in the *American Hereford Journal* from a student perspective. Cal Poly's "administrators believe in the dignity of labor and take rare pride in training men who are competent farmers and craftsmen," wrote Mette. He continued:

> *Actual skills are not enough though! A young man must take allied subjects like botany, zoology and chemistry. To these he adds mathematics, farm economics and accounting. He's taught to understand the world he lives in and is partially aided by his close association with numerous foreign students [who] come to Cal Poly to learn the practical side of American farming.*

The "numerous foreign students" came from Cal Poly's participation in the International Cooperation Administration (ICA), a federal program offering technical training and vocational teacher training to foreign students. Cal Poly became one of the few non-land-grant colleges to participate in ICA, which began at Cal Poly in 1952. By the 1960s, ICA students arrived from Asia, South America, the Caribbean, and Africa to receive teacher education in agriculture and agribusiness, as well as in communications, architecture, and engineering.

Business Week published an article, "Why Cal Poly Men Are Wanted," in February 1956, which prominently features the success of McPhee's "upside-down" philosophy requiring students to declare their majors upon enrollment. "In architectural, air conditioning, refrigeration, electrical, mechanical, and printing engineering, the list of

employers reads like an index of industry," notes the article. "Energy, aircraft, electronics, radio, television, airline industries also clamor for Poly graduates," who "have a more agreeable attitude toward work."

If the state's higher education institutions were plotted as a geography lesson, *Business Week* said, the boundaries would thus be delineated:

> *It is bounded on the north by Cal Tech, the school of pure science; on the south by Cal Poly, the school of applied science; on the east by the schools of pure liberal arts; and on the west by California, the university of complex organization.*

The success of the Manhattan Project had increased both funding for, and public interest in, science. The space race against the Soviet Union that began in the late 1950s lent even more importance to the role of technology in American life. Cal Poly, with its strong science and technology curriculum, benefited from this interest with increased enrollment and funding. Immediately after the war, the Engineering Division had 25 students and 10 instructors. By 1958, the division boasted 2,000 students and 86 faculty. Harold Hayes, Dean of the Engineering Division, was justifiably proud of Cal Poly's "...reputation for providing sound engineering graduates who are capable of producing effectively for their employers as soon as they arrive on the job." Jobs on campus for engineering students now included maintenance of campus electrical systems, refrigeration, air conditioning, and heating and ventilation systems, and agricultural machinery and automotive mechanics.

In 1954, attention returned to the issue of reintroducing women as students at Cal Poly. In 1929, the state legislature had banned female students at Cal Poly after June 1930 to reduce facilities and curriculum costs. The war effort, followed by the post-war accommodation of G.I. Bill veterans, further delayed progress on this issue. During these years, the women on campus were usually veterans' wives, who often worked outside the home, as well as helped their husbands study, kept house in small

Top, left: Student photographers for Cal Poly's newspaper, El Mustang, *and campus yearbook,* El Rodeo, *used a special vehicle for photographing events. Cas Szukalski (seated in jeep, holding camera) took the action rodeo photo on this page.*

Top, right: Student Lem Boughner competes in the calf-roping event at the 1950 Poly Royal Rodeo.

Top: The Collegians and the Glee Club prepare for their Spring Tour, 1952.

Above: Campus music groups produced numerous recordings, including the 1952 Home Concert and an album of records, including "The Whiffenpoof Song."

quarters, and raised children. In recognition of this difficult role, wives of veterans were awarded special certificates at graduation for their contributions to their husbands' college educations. Yet, as the post-war years unfolded, it was clear that both women and the college could benefit from their inclusion in campus life.

Surprisingly, there was no need to lobby the legislature to readmit women. Although virtually unknown at the time, the 1929 "act to limit the registration, enrollment, and attendance [at] the California Polytechnic School to male students" had been repealed by the legislature and signed by Governor Frank Merriam on June 16, 1937. This meant that women were eligible as students beginning in September 1937, but the repeal was not widely known. In 1947, legislation changing the name of the institution from "school" to "college" also reinstated the original "enabling act," under which women were legally permitted as students at Cal Poly.

Robert Kennedy, who served as assistant to the president at this time, remembers McPhee deliberately delaying the readmission of women. " 'When the legislature demands that I admit women,' " said McPhee in Kennedy's recollections, " 'they'll also provide all the financial resources and new facilities that we'll need. If we try to push them, they may give us the girls without any extra funds...' "

By the early 1950s, local women teaching in primary and secondary schools often needed credential courses taught at Cal Poly. A handful of women were able to enroll during the summer session, but the reception was not always cordial. Elizabeth Hanlon, the first woman to receive a Bachelor of Arts degree at Cal Poly, remembers having no difficulty registering for summer classes, "but some of my professors told me, 'You can take the class, but I'd like to see you get credit for it.' " Hanlon and Verna Rogers, the first woman to receive master's degrees at Cal Poly, were able to graduate in the spring of 1956, three months before women were officially readmitted to the college's student body.

Their protests to State Senator Alan A. Erhart were enough to bring the change that President McPhee had both predicted and resisted. The Education Department in the Arts and Sciences Division prepared for female enrollment by adding coursework in elementary education, which gained accreditation in 1956.

Ellen Stookey, the home economics regional supervisor for the California Department of Education, had an office on the Cal Poly campus. She worked with Cal Poly administrators in 1954 to restore the subject

to campus after an absence of decades. The following year, Marjory Elliott Martinson was hired to plan courses leading to a home economics degree and to head the new department. The same "upside-down" method was employed as in the vocational departments, offering technical courses the first two years of the four-year program. Women who completed the four-year program were prepared to enter "occupations closely allied to homemaking, such as nursery school aides, nurses' aides, food service and apparel trades." The first nine women who received their Cal Poly degrees in home economics all taught in the field in high schools around the state. Initially, Martinson planned the coursework to be as broad and inclusive as possible, without specializations. The home economics program, reintroduced in 1956, was so successful, however, that it eventually spun off programs in dietetics and nutrition, family studies, child development, interior design, and textiles research.

ENROLLMENT NUDGES 4000; SKIRTS WILL NUMBER NEAR 250 was the headline of the September 18, 1956, campus newspaper article welcoming women to campus. It pointed out:

> *Elementary education and home economics head the interests of women students. However, records show that the girls are interested in 22 of the 33 majors offered... Among other majors girls are interested in are architecture, physical education, poultry husbandry, electronics, farm management, and printing.*

Providing on-campus housing for women for the first time required planning, which is reflected in an administration memo in June 1954 noting "the relationship between coed housing and the type of girl who comes to college." Administrators resolved the housing issue by using the major portion of a $111,600 state appropriation to renovate the three oldest men's dorms—Chase, Heron, and Jespersen Halls—for the incoming women.

Although Cal Poly had always acted *in loco parentis*, this role intensified with the reintroduction of women to campus life. Women

Top: Julian and Alma McPhee (center) and their six daughters (from left) Carol, Bernadette, Helen, Claire, Jean, and Judy, photographed on Thanksgiving, 1951, at the Beck Ranch in the Carrizo Plains, east of San Luis Obispo.

Above: Season tickets to Mustang Football games, 1956 and 1958.

Women students return to campus, 1956.

students had strict curfews and limitations placed on their off-campus movements, in contrast to male students, who could live off campus regardless of their age. Administrators produced *Cues for Coeds*, a 1956 handbook designed to help women adjust to campus life.

Four years later, the annual issue of *Cues for Coeds* covered 13 pages of rules, advice, and tips. A two-page grid stipulated the proper dress, hat, shoes, coat, purse, and gloves to wear in 14 situations, ranging from class to dances (casual, informal, semi-formal, sport, and Western) to the beach. Hints for studying and academics covered one and a half pages, with the remainder of the handbook given over to behavioral advice and regulations.

SPECIAL PERMISSIONS

When you sign out to go home, your housemother will send a postcard to your parents to let them know you're on your way. To go places other than home, you must have on file a Student Affairs Absence Permission Card signed by your parents, and sign out with the housemother.

COME AND GET IT

...Since guests will often eat in the dining room, it's necessary to watch the way we dress. It's embarrassing to have someone waltz through, hair up and in a housecoat, while you're entertaining a guest. So, be considerate of others and remember, no jeans or slacks, no hair up, no housecoats or bedroom slippers. Slacks may be worn to Saturday breakfasts and lunches, however. The same policy applies to the dormitory lounges.

YOUR HOUSEMOTHER

She's there to help you, and your consideration of her is important. Just as you would treat your own mother, stand when she enters the room. If you have friends visiting or a new date, she always likes to know them... You'll find she's a good person to turn to when you need to "talk things over" in a private way, and she'll respect your confidences.

As the campus grew in the post-war years and the number of students increased, some of the original student activities faded away. Yet President McPhee encouraged the growth of student organizations, firm in his long-held belief that extra-curricular activities imparted valuable lessons in leadership, cooperative behavior, and community involvement. By 1950 there were

Left: Cal Poly campus experiencing a growth spurt, 1960.

Above: Mustang Handbook, *1960-61.*

nearly 20 department clubs, 20 dorm clubs, and 10 social clubs on campus. In addition to launching new clubs, Cal Poly also founded student chapters of national groups, such as the Institute of Radio Engineers, the Society of Automotive Engineers, and the Institute of Aeronautical Sciences.

As Cal Poly entered its sixth decade, the San Luis Obispo campus covered 2,850 acres and had 4,497 students enrolled. The Engineering Division was the largest, with 1,880 (13 female) students; there were 1,192 (67 female) students in the Agricultural Division; and 1,425 (662 female) students in the Arts and Sciences Division. In 1960 alone, 10 new buildings were constructed, including the Home Economics-Math Building, the Health Center, and the Theater. Also included were six new red-brick dormitories: Fremont, Muir, Santa Lucia, Sequoia, Tenaya, and Trinity Halls, which cost $4.78 million to build.

As the 1960s began, Cal Poly administrators were absorbed in planning efforts relating to new public policy for higher education in California. A watershed event in the history of California education, the original Master Plan combined policy and planning for the University of California, the state colleges, and the community colleges. Produced by a joint committee of educators and sponsored by the California Department of Education, the recommendations were submitted to the legislature by Assemblywoman Dorothy M. Donahoe, a champion of the Master Plan.

A special session of the 1960 legislature passed the Donahoe Higher Education Act. Cal Poly was now included in the new California State Colleges system, governed by a new board of trustees and a system-wide chancellor. The Donahoe Act identified the primary mission of the state colleges as undergraduate education and graduate education through the master's degree, with particular emphasis on "applied" fields and teacher education. The

EXTRA

San Luis Obispo County Telegram-Tribune

The Tides

SUNDAY, OCT. 30, 1960

POLY FOOTBALL TEAM IN AIR CRASH; 22 DEAD

Plane Cracks Up At Ohio Takeoff

List of Dead | Survivors

Whole City Saddened By Tragedy

Homecoming May Be Cancelled

ALL REMAINING POLY FOOTBALL GAMES HALTED

Poly Campus Officials Mobilize Quickly to Handle Emergency

Public Service Extra

Front page of the extra edition of the San Luis Obispo County Telegram-Tribune, *Sunday, October 30, 1960.*

Cal Poly Mourns

The news arrived on the last Saturday of October 1960, desolating families, stunning the campus, and shocking the country. The Arctic-Pacific chartered aircraft carrying the Cal Poly Mustang football team had crashed and burned on takeoff at the Toledo, Ohio, airport. Earlier that day the team had played nearby Bowling Green State University.

Sixteen Mustang football players, the student manager, a member of the Mustang Booster Club, and four others perished that October 29th. Of the 48 persons aboard the Curtiss C-46 aircraft, 22 were injured, some gravely. Assistant Coach Sheldon Harden, seated in the tail section of the plane, escaped uninjured and carried other survivors from the burning wreckage. Harden's telephone reports to campus officials in the tense hours following the tragedy provided accurate information on those who had died and the condition of the injured. Dean of Students Everett Chandler left for Toledo immediately.

At 3:30 a.m., Vice President Robert Kennedy and Dean Clyde Fisher began telephoning the parents and wives of those lost. "It was one of the most nightmarish, heart-rending tasks I've ever attempted," Kennedy later recalled. "The worst part of it was calling the parents, most of whom didn't know there was a wreck."

At dawn that Sunday, flags on campus and across San Luis Obispo County were lowered to half-mast. Vice President Kennedy spent the early morning hours Sunday reading wire reports at the *Telegram-Tribune*, whose staff was busy getting out an extra edition. Journalism students began the grim task of reporting on the loss of their classmates for the student newspaper. Two weeks later, *Life* magazine published an article, "Campus Overwhelmed by a Team's Tragic Flight."

The grief-stricken campus reluctantly began another week of classes on Monday morning, October 31. Classes were dismissed at 10 A.M. for a memorial service in Crandall Gymnasium, which was filled to capacity by students, faculty, and townspeople. President Julian McPhee immediately interrupted a recruiting trip in Washington, D. C., to be with

the injured and their family members in Toledo. "I cannot praise the people of Toledo and Ohio enough," McPhee said to a reporter. "And the alumni in that area at the time of the tragedy were truly helpful. We learned where the heart of America is—it is in the compassion of its people."

The Red Cross played a vital role in the aftermath of the devastating accident. On the scene almost immediately, Red Cross volunteers compiled reports from three area hospitals on the condition of survivors. They conveyed personal messages from the bedsides of the injured to parents and wives at home and worked with local Red Cross chapters in students' hometowns to assist family members. Funds for travel to Ohio, for living expenses, and for other necessities were advanced or provided by the humanitarian organization.

Five women were widowed, and nine children lost their fathers in the accident, while several widowed mothers lost their sole support when their sons died. Many of those who survived faced daunting medical bills.

In the midst of their sorrow, the campus community searched for additional ways to honor the dead, the injured, and their families. The Cal Poly Student Memorial Fund, a non-profit organization, was established "to accept and administer charitable funds and contributions to aid survivors and the families of students killed in the airplane accident."

Sympathetic wires, cards, and letters flooded campus mail as news of the accident was broadcast around the country. Cal Poly boosters, alumni, parents, and other friends of the college sent their condolences and financial contributions for bereaved and the survivors. Other colleges, high schools, grammar schools, service clubs, alumni organizations, and fraternal groups contributed to the fund in the months to come. Other support came from individuals throughout the country who had never heard of Cal Poly before the accident, but were moved to share their condolences and make contributions. Benefit events, many sponsored by campus clubs and generous local businesses, included football and basketball games, golf matches, rodeo events, rummage sales, concerts, dances, and movie screenings. John Madden, a former tackle with the Cal Poly Mustangs during the

A page from the Life *magazine article, November 14, 1960.*

Top: The 1960 football team, in the last photo taken before the plane crash on October 29 that took 22 lives.

Above: Special round-trip ticket to the Mercy Bowl benefit game.

1957 and 1958 seasons, arranged a benefit match with the Allan Hancock Junior College team he coached at that time. The National Football League contributed $7,500 to the fund.

Los Angeles County Supervisor Warren Dorn, and his friend, entertainer Bob Hope, conceived the idea of a "Mercy Bowl" to add to the Memorial Fund for crash survivors and bereaved families. The Thanksgiving Day event was organized by Dorn and Ferron Losee, the athletic director at L.A. State. On November 23, 1961, the bowl game matched Fresno State against Bowling Green State at the Los Angeles Memorial Coliseum. The Southern Pacific scheduled a special train to carry San Luis Obispo residents to the game. Roy Easley, captain of the L.A. State team, sent letters to captains of most of the country's college teams, urging them to buy a symbolic 11 tickets. The one-time event attracted a crowd of 33,145 and swelled the Memorial Fund. The Memorial Fund Committee, chaired by Dean Clyde Fisher, disbursed $278,000 before it was dissolved in 1971.

President McPhee, always a strong supporter of athletics, considered eliminating football in the aftermath of the crash. The 1961 season saw 35 players suited up, 10 of whom were crash survivors. Cal Poly and other Cal State campuses restricted travel to FAA-approved commercial carriers and, for a time, authorized athletics travel only to states bordering California.

The 1960 Cal Poly air disaster was also the catalyst for a major shift in aviation policy. Previously pilots could not be prevented by the control tower from taking off in bad weather. In the wake of the accident, the Federal Aviation Authority ordered that air traffic controllers, rather than pilots, would authorize departures. Permission to take off was denied to any commercial airline carrying passengers or property when runway visibility was less than one-quarter mile or visual range was less than 2,000 feet. Although the new

In Memoriam

LARRY AUSTIN, 23
Physical Education sophomore

ROD BAUGHN, 21
Mechanical Engineering junior

JOHN BELL, 26
Physical Education sophomore

DEAN CARLSON, 20
Mechanical Engineering sophomore

JOEL COPELAND, 23
Physical Education junior

VICTOR HALL, 23
Social Sciences junior

GUY HENNIGAN, 20
Physical Education junior

CURTIS HILL, 21
Physical Education senior

MARSHALL KULJU, 20
Aeronautical Engineering junior

JIM LEDBETTER, 19
Aeronautical Engineering sophomore

LYNN LOBAUGH, 20
Social Sciences junior

WENDELL MINER, 21
Journalism sophomore and team manager

DON O'MEARA, 25
Physical Education junior

RAY PORRAS, 27
Physical Education senior

WAYNE SORENSON, 20
Social Sciences sophomore

BILL STEWART, 19
Physical Education sophomore

GARY VAN HORN, 22
Crop Science senior

PETE BACHINO
San Luis Obispo insurance broker and team supporter

order technically applied to all airlines, it now specifically included non-scheduled charter flights such as the one that had carried the Cal Poly football team.

A plaque memorializing the 1960 football team members who lost their lives rests at the foot of the flagpole in Mustang Stadium. A duplicate plaque was placed in the peristyle end of the Coliseum after the 1961 Mercy Bowl game.

Top: Surviving team members with football coach Roy Hughes.

Above: A ticket to the Mercy Bowl, a benefit for the Cal Poly Student Memorial Fund.

In July 2000, a new plaque honoring the team's survivors was dedicated during Cal Poly's All-Sports Millennium Reunion. Al Marinai, a standout sophomore lineman that fateful year, made his first trip to campus in 40 years for the dedication. Marinai sustained severe leg injuries in the crash, ending his hope of a professional sports career. Memories of fallen teammates—star receiver Curtis Hill in particular—were shared that evening by Carl Bowser and other crash survivors. In November 2000, Al Marinai and Curtis Hill were inducted into Cal Poly's Athletic Hall of Fame.

When interviewed on a recent anniversary, Cal Poly President Warren J. Baker said the crash "was certainly a tragic event... and it's a part of the history of the university. It's important to remember them."

Right: President McPhee prepares to tour Pan American World Airways shops near San Francisco airport on his Alumni Tour of Northern California, 1953. Cal Poly alumni (from left, standing): Carol Boots, Jack Aboundara, Earl Lemon, Bob Houston, Bill Jones, John Milsap, H. B. Ehrenborg, Steve Hale, Walter Washington, Claude Curtis, Joe Meyers, Perry McPheeters, and (seated) Al Diehl.

Above: Cover of the El Rodeo *yearbook reflects a growing interest in aeronautic advancements.*

state colleges selected students from the top one-third of the high school graduating classes.

The Donahoe Act was revolutionary for its implicit guarantee of undergraduate access to state-supported colleges and universities for all qualified California citizens. In practice, however, prospective students found that guaranteed access might not be at the campus or in the major of first choice.

The statewide Master Plan initially drew a chary response from President McPhee. He was concerned that the Master Plan would require the state colleges to adopt a liberal arts curriculum, subordinating Cal Poly's unique mission of applied learning. For 27 years McPhee had struggled to keep Cal Poly true to its learn-by-doing origins; to McPhee the Master Plan represented an homogenized curriculum and educational choice restricted by outside policymakers.

As Cal Poly joined the new system in 1961, McPhee used the opportunity of his annual "Alumni Tour" to gauge opinion throughout the state. Robert Kennedy, then vice president of Cal Poly, recalled his primary assignment that year was

> *to see to it that the trustees understood the role that Cal Poly could play in the State of California hierarchy of higher education. The emphasis was already on liberal arts education in a world that needed to have a multiplicity of opportunities for students, not just one route.*

Alumni support and Kennedy's liaison work with new trustees led to a compromise that honored Cal Poly's educational philosophies. In 1963, the Board of Trustees acknowledged that "all colleges cannot be all things to all people," approving additional language to the Master Plan reaffirming that the state colleges were multipurpose institutions offering preparation for a variety of professions and occupations.

The Western College Association reaccredited Cal Poly in 1960, commending the college for "continuing to distinguish itself" in "occupational education in agriculture,

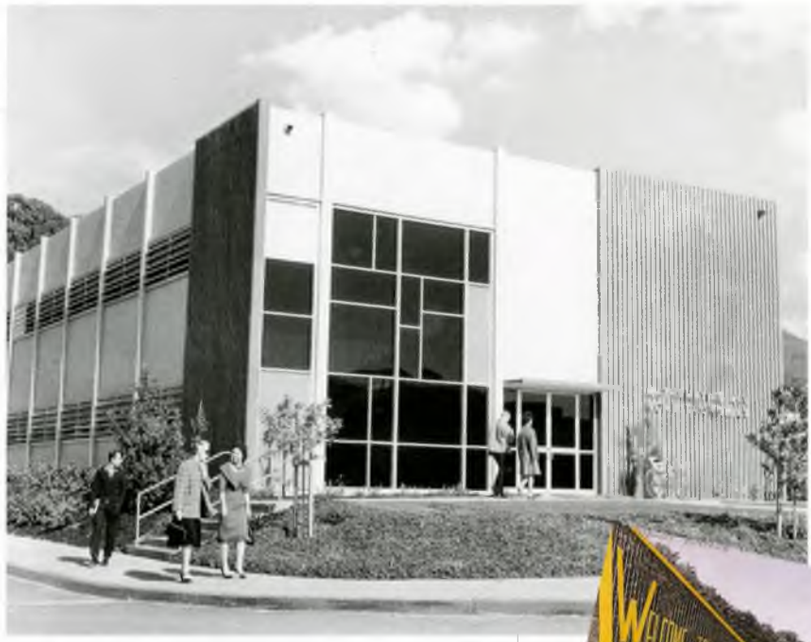
engineering, and applied arts and sciences." The final report also noted Cal Poly's "carefully planned expansion of faculty and facilities" to accommodate 10,000 students at the San Luis Obispo campus by 1970.

The Cuban Missile Crisis in October 1962, a major confrontation between the United States and the Union of Soviet Socialist Republics over Soviet-supplied missile installations in Cuba, is widely regarded as the world's closest brush with nuclear war. In the aftermath of the crisis, Army engineers approved eight buildings on campus as fallout shelters, which were then stocked with food and water. The campus newspaper noted, somewhat laconically, "In the event of an all-out nuclear war, Vandenberg Air Force Base, located 50 miles south of campus, could be a main target area. In the event of this occurrence, Cal Poly would be heavily showered with radioactive fallout." Readers were then instructed to study the list of newly approved shelters.

A more lighthearted campus article ran side by side with the fallout shelter piece on the front page of the campus newspaper for November 20, 1962. Rich Jones, an architectural engineering major, started a competition to break the campus record for continuous telephone conversations. Trinity, Tenaya, and Sonoma "living groups" won the competition, chalking up 603 hours of conversation, an uninterrupted "talkathon" lasting slightly longer than 25 days.

On November 22, 1963, the campus newspaper, *El Mustang*, issued its first "second edition," reporting on the assassination of U.S. President John F. Kennedy in Dallas. Produced only one and a half hours after the president's death was reported, the student newspaper described a campus shocked into silence. "For some, the first inkling of the tragedy came when they noticed the flags near the Administration building being lowered to half-mast." Others gathered at parked cars and transistor radios and listened in disbelief. *El Mustang* coverage noted

> *Business stopped completely in El Corral bookstore as the reports came over the closed circuit radio system. Students with purchases in their hands stood and waited and listened. "I've forgotten what I came in for now," said one student listening to the news. In the* El Mustang *newsroom, students gathered next to a large radio speaker to follow the events as they were reported from Dallas... Outside, in front of the library, grave-faced students from India grouped around a car listening to the radio... Two coeds stood in front of the library patio just looking at each other and wiping their eyes...*



Top: The Mathematics and Home Economics Building, completed in 1959, included facilities for math and for specialized home economics laboratories, 14 general purpose classrooms, and faculty offices.

Above: A campus handbook for the academic year 1961–1962 was sent to all incoming students.

Right: In October 1963, students protested the suspension of women students who had visited fraternity houses.

Top: Campus Cues, *a 1963 booklet outlining campus residence hall rules and regulations for attire at various campus events.*

Above: Slide rules were common tools for engineering students at Cal Poly. On February 17, 1961, El Mustang *announced a lecture by John Gascoyne of C. F. Braun Corporation on programming for the Bendix G-150 computer, which would "impress upon the engineering students the fact that to be able to program a digital high speed computer is a requirement for getting ahead in the engineering world…slide rules, desk calculators and adding machines are no longer the tools of the trade."*

In the Ag-Social Science building, classes gathered as usual but students spoke little of assignments and tests. "I don't have the heart to hold class today," one instructor told his students as he dismissed them.

Classes were cancelled that Friday at 1:30 p.m. by order of Chancellor Glenn S. Dumke. Students, whose "eyes were red and watery with emotion," gathered in silence around televisions in dorms that weekend, following the news from Dallas and Washington. The 15 campus telephone lines for outside calls were swamped as hundreds tried to call outside at the same time. A similar situation occurred in San Luis Obispo, leading the telephone company to broadcast appeals over the radio asking people not to use their telephones.

President McPhee dismissed classes on November 26 for a special memorial service in the men's gym, which he led with Associated Student Body President Roy E. Killgore. Later that week, a joint committee from the Kellogg-Voorhis and San Luis Obispo campuses crafted a condolence letter to widowed First Lady Jacqueline Kennedy.

The San Luis Obispo campus saw a rare protest of administration policies when three female students were suspended on October 15, 1963, for the remainder of the fall quarter. Two of the women had attended an extra curricular afternoon barbecue at an off-campus fraternity, while the third had attended a separate event without permission. The campus newspaper reported,

> *[Dean of Students Everett] Chandler said disciplinary action was taken against the three students, all of whom lived in on-campus residence halls, because they went into a men's residence without their parents or college-approved chaperones… [Dean Chandler said,] "We have tried to get everyone to understand that we do not recognize fraternities and do not approve of them." He*

Top, left: Students break for lunch in the library patio, with the Administration Building in the background.

Top, right: The 1961 flower judging class.

Above: An Apollo space capsule orbits Earth and Cal Poly on the cover of El Rodeo, *1963.*

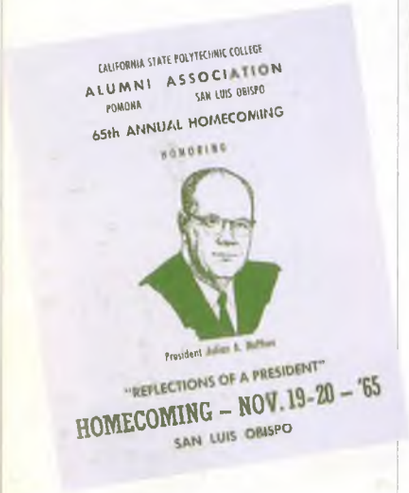
> *noted that all three of the suspended coeds had signed residence hall contracts which contain a clause that provides "that single students should not enter the living quarter of the opposite sex."*

Emotions ran high as students marched and petitions circulated. A resolution was passed and articles on students' rights were published in *El Mustang*. An editorial, calling the suspensions "undue disciplinary action," proclaimed, "There is no reason to suspect any instance of immoral conduct or improper behavior on the part of said coeds... The college student should be allowed to use his own discretion in the matter of his personal extracurricular activities." One student gathered 100 signers for his letter to the editor. Another wrote:

> *Doesn't it feel great to know that our school officials are looking out for the women? After all, most of the coeds' ages are only from 18 to 23. It appears as though some people don't think that these girls are capable of taking care of themselves and that their parents may not have taught them the "right" way to behave around men students... It is a shame that several of our women students have been martyred for a "sin" that is an everyday occurrence here at Poly. A men's residence which has not yet been visited by a Poly coed is indeed unique. Who has the right, other than the parents, to say where Carol Coed can spend her free time?*

The college responded by forming a joint student-faculty committee to study Cal Poly's regulations as well as those at other colleges. After the review, the suspensions were upheld and two sets of regulations remained—one for male and another for female students. Although these protests did not bring immediate changes, they prefigured the student unrest that swept the country by the end of the decade. The campus culture at Cal Poly had shifted, and change lay ahead.

In 1966 as President McPhee approached the state's mandatory retirement age of 70, his health began to decline. The decision to retire was made reluctantly, as McPhee still had far-reaching plans for the college he had guided for so



Right: The President's Cabinet in 1965. Made up of representatives from both the San Luis Obispo and Kellogg-Voorhis campuses, the cabinet formed college wide policy.

Above: President McPhee was honored at a number of events during his last year at Cal Poly, including Homecoming.

Opposite: Aerial view of the San Luis Obispo campus, 1962.

long. The president's speech at commencement for the Class of 1966—his final address to the campus—contained this valedictory:

> *Whenever you are dedicated to an idea and working on it night and day, you do not measure time in hours, days or years, but rather by what is being accomplished toward the goals you have established for yourself. So time, as it is measured on the calendar, can slip by rather rapidly.*

Recuperating in the hospital after major surgery, McPhee was unable to present this speech, which Vice President Dale Andrews delivered on his behalf.

On July 1, 1966, Julian Aeneas McPhee retired from Cal Poly, having served exactly 33 years as its leader. Dale Andrews was appointed interim chief administrative officer, pending the selection of a new Cal Poly president by the California State Colleges Board of Trustees. President McPhee and his wife, Alma, were feted for their long years of service to Cal Poly atseveral events, including Poly Royal, commencement, and a faculty-staff reception.

On Friday, November 10, 1967, the campus newspaper issued a special edition headlined COLLEGE MOURNS DEATH OF PRESIDENT MCPHEE. At a campus gathering six days later, Robert Kennedy eulogized the man he had worked with for 27 years, praising Julian McPhee's "simple but strong belief" in "service above self." In the campus newspaper, Kennedy lauded McPhee's unswerving devotion to Cal Poly:

> *Word of Julian A. McPhee's death brings great sorrow to all of us at Cal Poly who have known him as a dedicated leader and educator who devoted every ounce of his energy and talent to the welfare of the young people of the State of California.... We recognize that the present stature of California Polytechnic State College is but the lengthened shadow of the man.*

With McPhee's passing, the sense that an era had ended was palpable on campus. The search for a new leader would bring both continuity and change to the college as it neared its seventh decade.

CHAPTER FOUR

Campus and Community

Building the Polytechnic University, 1967–1979

"We believe it is not a question of either *occupational* or *broad, cultural training. Education must include* both. *And it should be remembered that differences in emphasis and in ways and means used by different colleges give American education much of its strength."*

–PRESIDENT ROBERT E. KENNEDY

The Board of Trustees of the California State Colleges appointed Robert Edwin Kennedy to the presidency of Cal Poly effective May 1, 1967. The seventh man to lead Cal Poly, Kennedy represented both continuity and a break with the past. A tireless champion of the college and its learn-by-doing educational philosophy, Kennedy at the time of the announcement had served Cal Poly for 27 years in positions of increasing responsibility. At the same time, Kennedy's appointment was a clear signal that new leadership, based on consensus management, was needed to move the college forward as a mature institution.

Robert Edwin Kennedy, President of Cal Poly, 1967–1979.

Opposite: An aerial view of campus, 1969.

Robert Kennedy was born in Portland, Oregon, in 1915. The only child of a restaurant owner and a homemaker, young Robert relocated to Long Beach, California, with his family at the age of seven. When his parents ended their marriage three years later, Robert and his mother went to live with his grandparents in San Diego, where he graduated from Herbert Hoover High School in 1933. Realizing "it wasn't what you'd call a great year to look for a job," Kennedy went to work at his father's restaurant for a year to save money for college.

Kennedy enrolled at San Diego State College in 1934, where his interest in journalism was kindled by an English teacher and work on the college's newspaper and yearbook. He capped his college years by serving as senior class president, even as he worked part time as a reporter for a local Scripps-

Cal Poly's third Administration Building, pictured here in 1967. Completed in 1964, the five-story structure cost $1.6 million to build.

Howard newspaper. After receiving a Bachelor of Arts degree in English in 1938, Kennedy hoped for a job with the *San Diego Sun*, but the paper folded and other positions in journalism did not materialize in the continuing Depression. The day after his college graduation, Robert Kennedy married his school sweetheart, Mary Paxton, who would prove to be a source of sound advice and an able partner in the years to come.

In 1938, Kennedy accepted a position as campaign publicity manager for Daniel Murphy, a San Francisco County sheriff who was running for governor. Though the gubernatorial campaign was unsuccessful, Kennedy's skills had impressed both Murphy and Armistead Carter, a business owner who had backed Murphy's campaign. Both men served on the State Board of Education and were political allies of Cal Poly's President Julian McPhee. Murphy and Carter were essential supporters in the critical board vote conveying collegiate status to Cal Poly in 1940.

Word reached Robert Kennedy that year of an instructor/public relations position at Cal Poly. Kennedy was eager to resume his career in journalism, but neither he nor Mary Kennedy were familiar with Cal Poly. Kennedy's qualms were eased by his mentor, Armistead Carter, who reassured him, "That's the school that's going someplace."

After Kennedy secured the appointment, he and his wife and infant son left their San Diego friends and family and settled in San Luis Obispo, then a town of 9,162 people. Upon Kennedy's arrival, the Poly student body numbered about 700. Midway through Kennedy's first day on campus, "McPhee had me on a Southern Pacific train going to

The courtyard of Dexter Library provides students a sunny and peaceful spot for studying, 1965.

Sacramento...to learn how to lobby the state legislature," Kennedy recalled.

> *It was fortunate that I was interested in and enthusiastic about the political process. It brought out the best in President McPhee, a master of political know-how who was also an excellent teacher. On that day in 1940, and for the next 26 years until his retirement... President McPhee was my mentor, my teacher, and I was his "graduate student..." McPhee was continually testing me in every conceivable situation in which he thought my academic training needed to be beefed up with practical, learn-by-doing experience.*

Although separated in age by only 20 years, McPhee treated Kennedy like the son he never had

> *and was just as critical as a father frequently is to a son in the same business. But [McPhee] also was very supportive, promoting me to Assistant to the President [1950-1957], Dean of Arts and Sciences [1957-1959], and Vice President [1959-1967].*

In 1947, Kennedy obtained Cal Poly's first paid sabbatical to attend Stanford University to complete a master's degree in journalism. As part of his graduate work, he conducted a survey, sponsored by the California Newspaper Publishers Association, to determine the need for a proposed agricultural journalism curriculum at Cal Poly. His efforts led to the establishment of such a program upon his return to campus in 1950. The catalog description for the new program noted:

> *[Cal Poly's] nationally known Division of Agriculture and its active and well-equipped "School for Country Printers" put [the college] in the unusually good position to give training seldom found elsewhere. Graduates not only learn ordinary journalistic tech-*

The 62nd Annual Commencement ceremony, held in Mustang Stadium on June 28, 1968. It graduated the largest class to date at Cal Poly with a record 1,719 students. The ceremony itself was also noteworthy since it included for the first time at Cal Poly a traditional procession of 100 faculty dressed in their academic robes.

niques obtainable at other schools, but gain firsthand experience in production methods and costs in the publishing fields and are able to secure broad, practical experience in modern agricultural ideas and processes.

"Julian McPhee was the kind of pioneer who could ignore criticism, plunge ahead tirelessly, and expect everyone among his troops to do the same for the good of the Mission," Kennedy recalled. "He used to say, 'God, country, family, and job.' Many times I suspected he really meant it in reverse order."

In 1961, McPhee decided to move the vice president's office to the Pomona campus. Kennedy was reluctant to relocate, but acceded after McPhee agreed to his conditions, which included pursuing a doctorate. McPhee, despite his disdain for advanced degrees for administrators, agreed. The Kennedy family relocated to Claremont for four years, where Kennedy was a vice president on the Pomona campus by day and a doctoral student in the evenings. In 1966, Kennedy was awarded a Ph.D. in educational administration from Claremont Graduate School. His dissertation, "An Emerging Model for Effective Decision Making in the California State Colleges," was an implicit argument against autocratic management styles, underlining the need for participatory management in higher education.

At the time of Kennedy's appointment to the presidency in 1967, Cal Poly had 497 faculty members and a total enrollment of 8,370 students, 2,409 of whom were women and 387 of whom were from foreign countries. Cal Poly's four academic divisions had recently been renamed as schools: Agriculture, offering 12 majors; Engineering, offering eight; Applied Arts, offering seven; and

Left: President Kennedy addresses concerned students gathered on the Dexter Library lawn on May 4, 1970. Earlier that day at Kent State University in Ohio, National Guardsmen had opened fire, leaving four students dead, one permanently paralyzed, and eight others wounded. Governor Ronald Reagan closed most California public universities and colleges in the aftermath of the invasion of Cambodia and the Kent State killings, but Cal Poly was able to remain open.

Above: The President's Report for 1968–1970.

Applied Sciences, offering six. Cal Poly remained unique within the California State Colleges system for drawing its student population from all parts of the state, with 57 of California's 58 counties represented.

In January 1968, Cal Poly's largest department, Architecture and Architectural Engineering, was elevated to school status, with a total enrollment of 960 students. The *Staff Bulletin* for January 9, 1968, noted,

> *The School of Architecture will initially offer three curricula. Included with be a five-year curriculum leading to the degree of bachelor of architecture and two four-year curricula leading to the bachelor of science degree in architectural engineering and city and regional planning. The latter course of study has just been approved and will be offered for the first time in September.*

The college catalog for the 1968–1969 academic year noted that students in the School of Architecture were

> *...kept aware that these programs have a common objective and that they are all aimed at the betterment of man's physical environment. These programs endeavor to give the student a set of social values, a technical background, and a training which releases his creative faculties in a way which will make him effective in his profession and as a person... The excellent School facilities include design laboratories, dark rooms, soils laboratories, stress laboratory, shops, construction yard, project yard and grading galleries. An outlying area of 12 acres known as the "Canyon" is available for extensive experimental construction.*

On April 3, 1968, California State Polytechnic College held its first inauguration of a college president. Kennedy and 465 others, including Governor Ronald Reagan, the California State Colleges Board of Trustees, the Cal Poly faculty, and representatives from 133 colleges and universities, marched in the procession in full academic regalia. An inaugural address was delivered by Reagan, who also served as presi-

Above: On April 3, 1968, Robert E. Kennedy was inaugurated as Cal Poly president. Governor Ronald Reagan, as head of the State College Board of Trustees, delivered the principal address.

Right: Faculty lead the procession into the Men's Gymnasium for President Kennedy's inauguration.

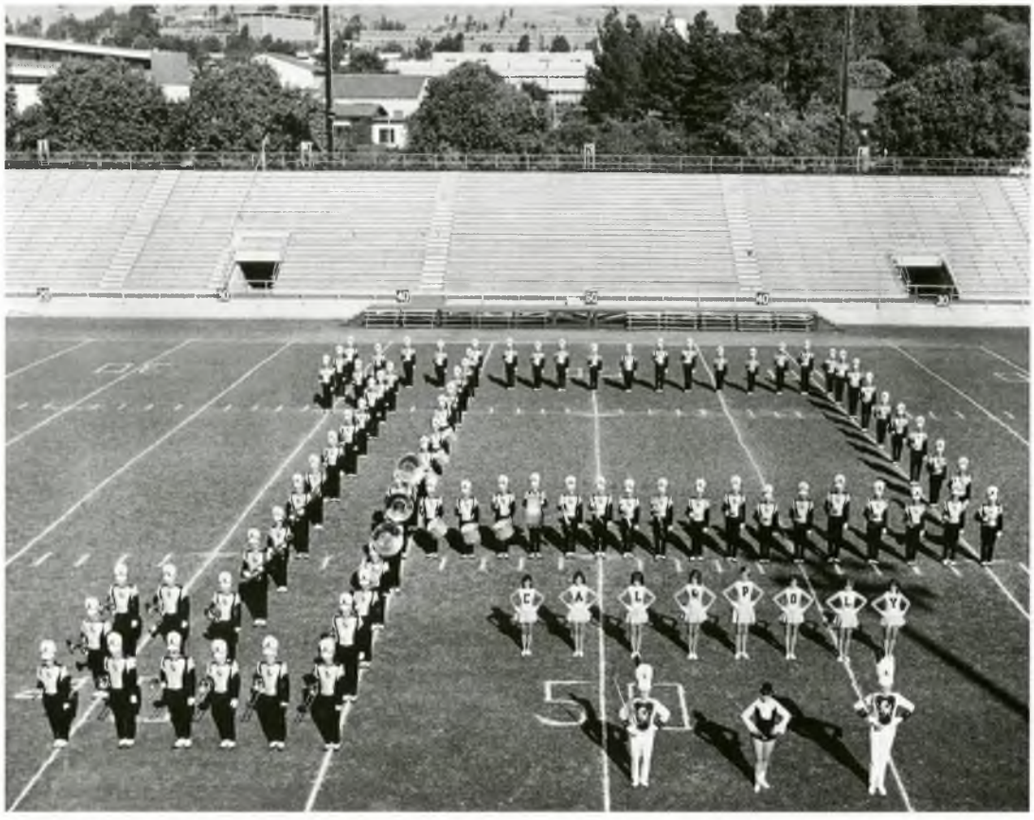
dent of the trustees. The governor said, "Higher education in contemporary America has a sacred obligation to instill not only learning, but attitudes toward growth and learning that in turn will shape society." Members of the state legislature, representatives of the city of San Luis Obispo, and distinguished guests from the Associated Students, the Alumni Association, and the Staff Council were also present.

The inaugural procession was led by mace bearer Edgar Hyer of the School of Agriculture, an honor bestowed upon him by the entire college faculty. The mace, designed by Thomas Johnston of the School of Architecture and made by the School of Engineering, symbolized the eternal flame of education at Cal Poly.

The President's Medallion, representing the authority vested in the office of the president by the board of trustees and the chancellor,

was conferred on President Kennedy by Chancellor Glenn S. Dumke. Designed by Roger Bailey of the Art Department especially for this first inauguration, the medallion bore the seal of the California state colleges and a tree with five branches symbolizing each of Cal Poly's schools.

Mary Kennedy was perhaps the first Cal Poly president's wife whose support, counsel, and contributions



Top, left: Cal Poly's Marching Band and Letter Girls rehearse field drills, 1968.

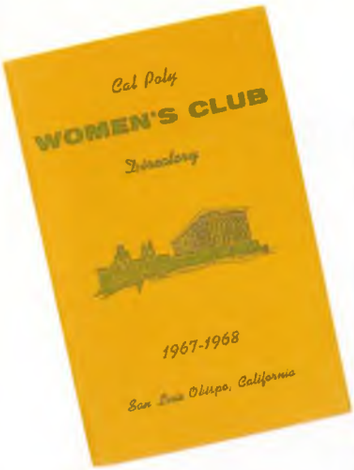
Left: Barrel racer Gretchen Waller competes at the Poly Royal Rodeo, 1967.

Above: Poly Royal Rodeo program, 1967

to campus life were publicly acknowledged, particularly by her husband. She was an active member of the campus club for women, a group whose origins lay in Matilda Crandall's 1924 organization for the wives of faculty members. In 1940 membership was opened to all women on campus and the name was changed to the Cal Poly Women's Club.

During her tenure as president of the group in 1951, Mary Kennedy upheld the club's mission "to provide social and cultural activities for the members and to promote the welfare of the students and to be of service to the University." She stressed the importance of community and mutual support for student and faculty wives, such as child care classes for G.I. students and their wives. In 1968–1969 Mrs. Kennedy also coordinated the reconstruction of the president's house and grounds on campus, using the student-operated Canyon Construction Company from the School of Architecture.

In addition to her formal role as the president's wife, Mary Kennedy lent her skills and energy to civic groups, including the San Luis Obispo Monday Club and the League of Women Voters. A poet, she often presented her work on campus at public readings. She



Right: The Computer Science Building was completed in 1969, with the first classes held in the new facility in September of that year. Along with the addition of this specially equipped building, the college offered a new bachelor's degree in computer science beginning with the 1969–1970 academic year.

Above: Cal Poly Women's Club Directory, 1967–1968.

started a favorite campus holiday tradition during the Kennedy years by designing and distributing original Christmas cards featuring her poetry. Her poem in tribute to personal ties to Cal Poly, "Continuity," appeared in her 1967 holiday card, and was read into the Congressional Record by Representative Leon Panetta in 1979.

CONTINUITY
by Mary E. Kennedy

This place has put up with me
for so many seasons:
Why have I stayed?
Oh, perhaps many reasons.
Existence before essence—
I had to live,
That's the first excuse I'd give.

Then larger pattern grew
from smaller habit,
Conforming ways,
some sheer Babbitt:
And pride, I'd say,
in some little contribution
To this or that local institution.

At any rate I stayed,
And not until now
have I exactly weighed
The reasons this place
may have me 'til I die.
I need not strain
to express the why.

This landscape in shadow or
sunlight's brightest glow,
The seasons of this place
I have come to know.
But most of all, you,
the people and your way,
You comfort me as I move
among you day by day.

With his appointment, Kennedy made it clear that he was dedicated to preserving and improving Cal Poly's unique "learn-by-doing" philosophy. "I had become as much of a missionary in that area as McPhee had been," Kennedy recalled, noting that most of the written material articulating Cal Poly's mission, including McPhee's speeches, had come from Kennedy's typewriter.

What had changed was the administrative style of the presidency, a calculated shift on Kennedy's part. McPhee's autocracy had fit the precarious years of the Great Depression and World War II, but Kennedy rightly concluded that consensus was the key to progress in higher education in California during the later decades of the 20th century.

Kennedy conferred with San Diego State President Malcolm Love soon after his appointment:

> *I wanted his advice on how to be a president, you might say, because I had been a close observer of McPhee, but I recognized that the picture had not only changed, but that I couldn't possibly operate in the same kind of way that Julian had. I didn't agree with him, let's say, about method of operation in many ways.*

One of Kennedy's first steps as president was to reach out to Cal Poly's many constituencies. He held press conferences and began to meet, over a four-month period, with "personnel of every department, academic and non-academic, as well

Cal Poly President Robert E. Kennedy confers with a group of students gathered in his office, late 1960s.

as key community and student body leaders, asking the basic question, 'What can we build if we work together?' " With each of these groups, Kennedy proposed his model for decision-making, in which

> *those affected have... a real voice... Today, it's not a very revolutionary concept, but in 1967 on the San Luis Obispo campus, it was considered a giant leap forward.*

"The first year I spent [in the presidency], I sold the faculty and the staff, and the students, and everybody else, on an attempt to try the overlapping group participation form of administration," Kennedy recalled. "We did it, and I thought it worked quite well."

A direct result of the new president's insistence on "overlapping group participation" was the formal creation in May 1968 of a representative faculty group to advise the president. Although it had origins in the Faculty-Staff Council, the new Academic Senate introduced shared governance to Cal Poly, officially representing teaching faculty, library faculty, and professionals in counseling, health care, and audio-visual services. The Academic Senate was a milestone for the campus, organizing existing faculty committees and creating new ones to work on vital issues such as tenure. "McPhee, under pressure by the faculty, had finally developed a four-year appointment program," Kennedy recalled in an oral history, "which evolved into tenure when Cal Poly joined the Cal State system in 1960."

The Distinguished Teaching Award, begun in 1963, was now administered through the Academic Senate. Cal Poly had also participated since 1963 in the CSC Academic Senate, which was established to represent the California State College faculties on system wide issues. Cal Poly, Pomona, which had

Right: Students absorbed in Bride's *magazine, June 1966.*

Above: El Rodeo, *1968*

been made independent of Cal Poly, San Luis Obispo, in 1966, as the 16th California State College campus, was also represented in the statewide senate.

Kennedy also sought better relations with the town of San Luis Obispo. He selected members of his administration to serve on the board of directors of the Chamber of Commerce. Faculty and staff were encouraged to become involved in community programs and share their expertise with local agencies and organizations. The most pressing town-gown issue related to Cal Poly's growth under the Master Plan for higher education in California, which impacted both housing and water. The inadequate water supply of the region had slowed development of local communities, the college, and agriculture for years. A joint project to supply domestic water to Cal Poly, the city of San Luis Obispo, and the California Men's Colony was planned. When it was completed in 1961, Whale Rock Reservoir—located on Old Creek some 20 miles northwest of the campus—made possible the planned growth and expansion of both facilities and enrollment at Cal Poly.

As the baby boom generation entered its college years, President Kennedy worked with community leaders to prepare San Luis Obispo for the tidal wave of enrollment increases. Kennedy spoke to local service organizations on a regular basis, even bringing Chancellor Glenn S. Dumke to town to articulate Cal Poly's vital role in higher education in California. In a local speech in 1957, Kennedy had said,

> *To understand our housing problem for students, you must realize that Cal Poly is not a regional state college as are the other nine state colleges, but is a state-wide college. Housing, I repeat, is a most serious problem for the future expansion in enrollment.*

The Kennedy administration worked diligently on this issue, setting a record for new on-campus student housing. With new dormitories slated, the need for Vetville had ended. On July 14, 1967, the campus newspaper reported,

> *Vetville is only a memory to the thousands of married students it has accommodated with housing the last 21 years. Vetville opened in 1946 shortly after World War II to accommodate G.I.s and their families. The program was planned to serve the students five years. The structures have remained intact and in full use for 21 years.*

A bonfire reduced Vetville to cinders, which were used to pave the new 754-space parking lot on the former site of the antiquated housing.

Individual rooms, tower units, and the central lounge of Cal Poly's newest residence hall were opened for a public tour on Sunday afternoon, October 1, 1968. The $3.7 million Yosemite Hall was financed by the federal government and housed "590 students in its 10 tower units... Small lounges throughout the building provide privacy and help to create an atmosphere of personal surroundings for residents," noted the *Staff Bulletin.*

A major transformation of San Luis Obispo's center took place in 1971 with the creation of the innovative Mission Plaza. Designed by Santa Barbara landscape architect Richard P. Taylor, the downtown plaza concept had been championed by Ken Schwartz, a director of the School of Architecture. Schwartz, who had also served as a city planning commissioner, saw his project become a reality during his tenure as mayor. The area along the creek near

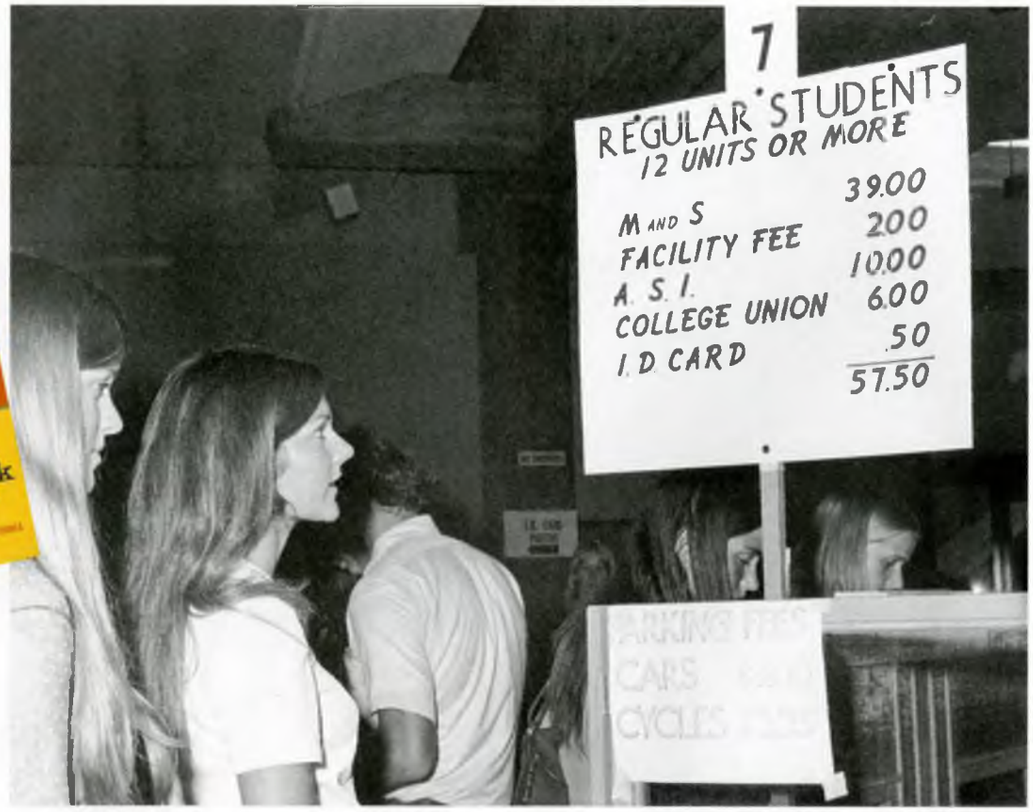
Top, left: A typical student dorm room in one of the "red-brick" residence halls on campus, 1965.

Above: Students at a dorm party playing the popular Twister game by Milton Bradley, c. 1966.

Right: Students examine the fee schedule at registration for the 1971–1972 academic year.

Above: Two participants in Cal Poly's 1971 Week of Welcome, a unique method of orienting incoming students to the campus and the community.

Top: Mustang Handbook *from 1969–1970.*



San Luis Obispo's historic mission had been used as an unsightly dump and was being eyed by some local merchants, who suggested the year-round creek be paved over for parking. In addition, State Highway 101 followed Monterey Street, bringing heavy, high-speed traffic through the heart of town past the mission.

In the late 1960s, citizen support grew for the beautification of the area and the closure of Monterey Street to create a public garden and gathering place. The unique plaza with its shady walkways and bridges, landscaped banks, and sun-dappled creek quickly became the city's focal point for celebrations and cultural and musical events, and a destination for visitors and locals alike.

Other challenges awaited the new president. The student reporter who attended Kennedy's first presidential press conference wrote:

> *Sitting in front of the typewriter for six hours preparing this story gave me time to reflect on this man in charge of such a respected institution. No other college president [on this campus] has had to face the hippie generation, student unrest, and the psychedelic world.*

Kennedy shared the concerns of his colleagues in higher education in the 1960s regarding the rising tide of student demonstrations, sparked by a new generation that demanded to be heard on matters ranging from dress codes to foreign policy. Cal Poly, although historically a fairly conservative campus, was no exception to this phenomenon.

The first demonstration on the Cal Poly campus related to a 1963 suspension of women students. As the 1960s unfolded, it was clear that the role of American colleges as surrogate parents was being challenged by a new generation of students. They questioned the authority of administrators to regulate not only their education, but also their

Top, left: An exchange student in the agricultural program collects eggs in the poultry unit, late 1960s.

Above: The sounds of rock and roll emanated from the campus radio station. Many legendary groups played on campus during the 1970s, including The Grateful Dead, Ike and Tina Turner, Jessie Colin Young, and Bonnie Raitt.

social activities. Consequently, student participation in committees and councils that governed student life began to expand at Cal Poly.

Cal Poly students and faculty alike held widely divergent views about the growing opposition to the war in Vietnam. The *Mustang Daily* ran frequent articles and editorials by student journalists on the issue. The "Mailbag" section of the student newspaper carried letters from readers of all viewpoints. Topics included information on securing conscientious objector status, pleas for letters to be written to those who were serving, demands for an all-volunteer draft, and opinions on the efficacy of various protest methods.

Steven Riddell's dissertation on the history of Cal Poly notes:

> *President Kennedy felt that there were three possible responses to college unrest: it could be ignored, it could be suppressed, or it could be reconciled. Dr. Kennedy's view was that Cal Poly preferred reconciliation. He acknowledged... that some rules of conduct were necessary for all members of the academic community, including students, faculty, and administrators. He went on further to state that the application of those rules must be determined in the light of each college's objectives and with appropriate consultation.*

The nationally organized Vietnam Moratorium on October 15, 1969, "...could not be ignored. Even this conservatively minded campus and this relatively isolated city were witness to conspicuous observances of the event," reported the *Mustang Daily*. The day before the Moratorium, the student paper reported,

> *The Vietnam Moratorium demonstrations planned for Wednesday... received a degree of support from President Robert Kennedy. The college president refused permission for a meeting on the library lawn, but offered use of the Amphitheater for the entire day.*

Right: Students gather during a Vietnam War protest outside the Administration Building, 1968.

Above: The annual Home Concert album, 1969

Kennedy was asked for the two hours to allow students time for "an open discussion of the war in Vietnam." He denied [permission] to close classes, but said the Amphitheater would better serve the interests of those who wished to discuss the war, adding that sound equipment would be made available. "I do indeed support the concept that the war should be brought to a speedy conclusion," said Kennedy. "I have expressed it on many occasions..." Kennedy offered the committee his help in arranging discussions, and said he would contact faculty members who might be interested in assisting [the committee] in "presentations of alternatives to our present course in Vietnam."

Local observance of the Moratorium began the night before with a rally in Mitchell Park in San Luis Obispo, featuring campus and community speakers, folk music, and discussions on issues related to the war. The protesters then held a candlelight march downtown to the mission, where a memorial service, led by clergy from several denominations, honored "all victims of the war, American and Asian" and concluded with another march to local draft board headquarters. The day's events were conducted "with respect for the dead and a hope for 'immediate troop withdrawal.' "

The day of the Moratorium began on campus with protesters erecting 20 white crosses on Dexter Lawn and delivering anti-war speeches to a crowd of about 500. Nearly 250 students then "marched to the Administration building. After yelling a few anti-war remarks, they continued to the Amphitheater where microphones had been set up for the demonstrators," noted the campus newspaper. "The president said he supports the idea of student expression and said that those 'who

peacefully demonstrate' should receive 'due respect and tolerance from their colleagues.' " The paper also noted that the Cal Poly Student Moratorium Committee asked the city council " 'to condemn the continuing American involvement in Vietnam,' hoping to impress their political elders with idealism and guts." Kennedy's tolerant but firm stance, together with increased student participation in governance, were responsible in large part for keeping the peace on the Cal Poly campus during this volatile time.

The 1960s saw a vigorous local campaign to form a permanent junior college to meet the growing and diverse educational needs of the community. With the passage of a successful bond measure in 1963, the San Luis Obispo County Junior College District became official; the new community college was named Cuesta. The first classes were offered in the fall of 1965 in temporary quarters leased from the military in the Chorro Valley, halfway between Morro Bay and San Luis Obispo. Kennedy administrators worked with the new community college staff to expand educational opportunities to county residents.

Top, left: A student protest fills the University Union Plaza during the turbulent Vietnam War years, 1968.

Above: On April 22, 1970, Cal Poly students gathered for the first Earth Day, the largest organized demonstration in the nation's history. More than 20 million people participated in the event that gave birth to the modern environmental movement.

In the fall of 1970, Cal Poly's academic structure was revised into seven schools. Agriculture and Natural Resources enrolled 2,297 students in 13 majors; Architecture and Environmental Design, 1,401 students in three majors; Business and Social Sciences, 1,491 students in two majors; Communicative Arts and Humanities, 905 students in five majors; Engineering and Technology, 2,541 students in 10 majors; Human Development and Education, 1,391 students in four majors;

Right: Cal Poly's internationally recognized Intercollegiate Flower Judging Team reviews specimens of plant entries submitted for Poly Royal, 1972.

Above: Campus Cues, *a residence hall handbook from 1968.*

and Science and Mathematics, 1,384 students in six majors. At the same time, new departments of Economics, Foreign Languages, Philosophy, and Ethnic Studies were created.

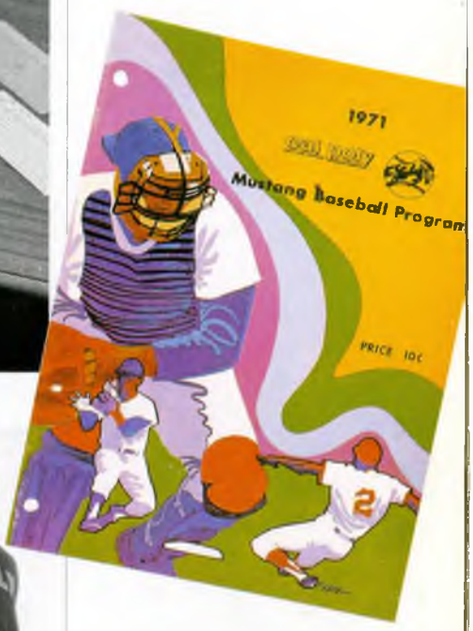
The establishment of the School of Business and Social Sciences at this time reflected many years of instruction in both disciplines on the Cal Poly campus. Business instruction evolved from high school-level bookkeeping and "commercial arithmetic" classes in Cal Poly's earliest days, to the formal creation of the Business Department in the 1960–1961 academic year in the Arts and Sciences Division. Prior to that, economics and business-oriented classes were offered by the Social Sciences Department. Social sciences courses began in the 1920s. By 1977, Social Sciences and business were split and the College of business was formed.

Construction on the Cal Poly campus during the Kennedy years was common. New buildings included Science North (1968); Computer Science (1969); the Julian A. McPhee University Union (1970); the Sierra Madre dormitories (1972); Vista Grande Restaurant and Dining Hall (1973); Architecture and Environmental Design (1973); and the Clyde P. Fisher Science Building (1978).

In 1972, university status was granted to Cal Poly and selected other state campuses. The San Luis Obispo campus was designated California Polytechnic State University, while Pomona campus was named California State Polytechnic University.

Kennedy was adamant about continuing Cal Poly's unique role within the CSU as an institution of applied learning:

> *Cal Poly has established itself as a pioneer in the field of occupational training on a college level. This has not been an easy road to take and Cal Poly has had to fight every step of the way against opposition in many places which would not admit*



Top, left: Computer science student David Cuvelier "key punches" on a mainframe computer, 1977.

Left: Cal Poly's 440 Relay Team, 1968: (from left) Ruben Smith, Le De Winter, Cecil Turner, Jim Edmondson.

Above: A Mustang baseball program for the 1971 season.

then, and still does not admit, there is a need for technical education...

The Kennedy administration was also concerned about maintaining not only the relevance of Cal Poly's curriculum, but also maintaining the high rate of employment among its graduates:

Some educators say we must stay out of the "market place." They say we should ignore any attempt to keep abreast of the times. It is sufficient, they say, to teach only the so-called truths as they were known by the Greek philosophers of the 4th century. In contrast to this arm-chair philosophy brand of education, Cal Poly does go into the market place to find out what industry needs in the way of trained personnel, to get industry's suggestions on how to train those young men and women, and for an evaluation of our product. Our graduates, for the most part, are our best advertising. They are both our product and our satisfied customer.

On February 1, 1979, President Robert E. Kennedy retired, concluding 39 years of service to Cal Poly. When asked to reflect on his legacy some years later, Kennedy responded,

During my twelve years [as President], we had probably the greatest growth that we had in any similar twelve-year period in the history of the institution. We doubled the enrollment from 7,000 to nearly 16,000 and we added more capital outlay projects on the campus than

Top: As a retirement gift, President Kennedy and his wife, Mary, received a personalized license plate symbolizing his years of service to Cal Poly.

Right: President Emeritus Robert E. Kennedy speaks at the April 2, 1981, dedication of Cal Poly's new library, named in his honor.

Above: Robert and Mary Kennedy in 1980.

Opposite: Rainbow over campus dormitories Sequoia Hall (left foreground) and Tenaya Hall, 1979.

they ever had before or ever have since in terms of that period of time.

Three thousand acres of federal surplus land from Camp San Luis Obispo were also added during the Kennedy years, bringing the campus total to 6,000 acres.

During Robert Kennedy's presidency, the university evolved into a mature and respected institution in higher education in California and the West. During his long tenure as instructor and administrator at Cal Poly, Robert Kennedy represented the college on numerous state and national education councils. These included the Chancellor's Council of Presidents and the American Association of State Colleges and Universities (AASCU), where he served as a member of the board of directors, as a representative to the Education Commission of the States, and as a member of the AASCU committees on agriculture, public relations, and state relations. In 1978, in honor of his long and dedicated service to Cal Poly, the CSU trustees voted to name Cal Poly's new library building after its seventh leader.

"If somebody were to say, what was your greatest contribution at Cal Poly," Kennedy reflected, "I would say a transition from the kind of administration style that it was, into the kind of administrative style they can live with for all time."

Right: The Farmers' Picnics provided an opportunity for early visitors to tour the campus and hear lectures by prominent speakers of the day.

Above: A 1912 broadside welcoming the community to the ninth annual Farmers' Picnic, a forerunner to Poly Royal.

Poly Royal

Of Cal Poly's many campus traditions, perhaps the best known and loved is Poly Royal, the annual campus event that celebrates the university's learn-by-doing philosophy. Poly Royal's origins lie in the Farmers' Institute and Basket Picnic, the first open house event on campus, held May 24, 1904. The founders of the California Polytechnic School decided to "hold a monster picnic at the school in early May when noted educators and prominent citizens will address the people." More than 200 visitors attended that first Farmers' Picnic, touring the school's new buildings, eating barbecue, and listening to a speech by Trustee E. J. Wickson, a member of the agricultural faculty at the University of California at Berkeley.

By 1908, the *Biennial Report of the Board of Trustees* noted, "The day is now looked upon as an established feature of the school year, furnishing as it does excellent opportunity for 'extension work' in agricultural education among residents of a large community." Two years later, the Farmers' Picnic was so popular that the Pacific Coast Railway offered reduced fares, luring more than 800 visitors. In 1913, over 3,000 persons attended the Farmers' Institute, which was joined with celebrations of the school's first 10 years of operation. The combined Farmers' Picnic and Decentennial celebration featured a barbecue, a pageant of San Luis Obispo history, and commencement ceremonies for the class of 1913. By the 1920s, however, the Farmers' Picnic had disappeared, perhaps a victim of funding uncertainties during this period.

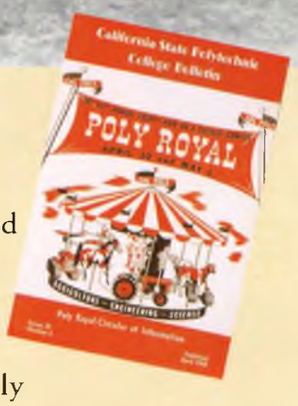
In 1933, plans began for a new campus open house. Although he would not assume the presidency of the school until July of that year, Julian McPhee supported the creation of a new annual event as a

Left: Elwyn Righetti (far right) and five of his classmates at the Stock Horse Class judging event at the third annual Poly Royal, 1935.

Above: Early Poly Royal ribbons.

method of publicizing the school while preparing agricultural students for livestock judging at the state level. The organizers of the first Poly Royal were Carl "Gus" Beck, advisor of the FFA chapter, and other agriculture faculty and students. Various names—Little International and Cal Poly Agricultural Exposition—were considered and discarded; eventually Poly Royal was selected as the official designation. The event was billed as "A Country Fair on a College Campus" and students began preparations to show their campus to parents, friends, and supporters.

On March 31, 1933, "hundreds of visitors from the coast counties and the San Joaquin valley thronged the California Polytechnic campus for the first annual Poly Royal agricultural show," reported the San Luis Obispo *Daily Telegram.* Film star and humorist Will Rogers attended, presenting Cal Poly with a gift from Fox Film Corporation, "Blue Boy," the champion boar prominently featured in Rogers' recent film, *State Fair.* The day began with a stock parade, followed by stock judging and exhibits of farm projects and machinery. Other popular events held at the first Poly Royal included horticulture judging, tours of the industrial shops, a baseball game, and presentations of awards. "A well-prepared barbecue, held in Poly Grove, constituted the noon meal for campus residents and others," according to the campus yearbook. "Climaxing the great day came the Poly Royal dance in Crandall gymnasium. The setting was perfect and the music, by the Paramount Dance orchestra, equally as good."



Left: Local merchants displayed tractors, haybalers, harrows, and other farm equipment to1939 Poly Royal visitors.

Above: Program of events for the 16th annual Poly Royal, 1948.

Top: Billboard on Monterey Street welcomes campus visitors to Poly Royal, 1963.

Above: Poly Royal commemorative buttons.

Poly Royal differed from previous campus events because of its role as one of Julian McPhee's strategies for reinvigorating the college. The early Farmers' Picnics were similar to the Chautauquas popular at that time, with an emphasis on lectures from leading citizens and dignitaries. From its inception, Julian McPhee intended Poly Royal as the popular embodiment of Cal Poly's learn-by-doing philosophy, with its livestock and horticultural exhibitions and student project showcases offered to visitors as proof of vocational education effectiveness.

The second annual Poly Royal expanded to two days of celebration, offering visiting parents, alumni, prospective students, and other visitors an increasing number of the school's programs and student achievements. In addition to its promotional aspects, Poly Royal quickly became a high point in the campus social calendar. "Among the important school events are the annual Homecoming, Christmas party, May Day picnic, and the Poly Royal agricultural show," noted a 1934 student recruitment brochure entitled "Your Vocational Opportunity."

In 1940 one of the original faculty organizers of the event, Carl "Gus" Beck, told a student reporter,

> *From the start the show met with public approval and has grown larger each year. Three years ago the constitution of the Associated Students was amended to enable Poly Royal to be an activity of the entire student body. Each year another event has been added to the list of Poly Royal events. Last year it was the student rodeo and this year came the relays…"*

In 1944 the event was downsized to a single day, while the 1945 Poly Royal was cancelled altogether due to gas rationing and other war-time restrictions.

With the war over, the annual "Country Fair on a College Campus" resumed its full schedule of events. Annual themes were often developed for the event, and guests of honor were chosen from among state officials, emeriti faculty, agricultural leaders, and other supporters of Cal Poly. In addition, as its reputation grew, Poly Royal actively targeted visitors and industry representatives statewide. The 1950 program announcement invited visitors to "come to San Luis Obispo, Heart of the Mission Trails and Home of the California State Polytechnic College" and promised "you'll have a wonderful time." President McPhee wrote,

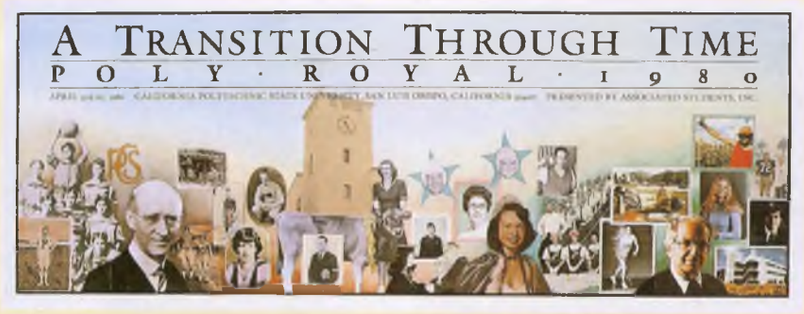
> *For the 18th year it is a great pleasure to invite parents, alumni, and Cal Poly's many other friends to enjoy with us another Poly Royal celebration. I am proud of Poly*

Royal and of our students and faculty whose united efforts so vividly portray the unusual educational opportunities at this college. May we count on your coming?

A popular custom was the selection of the Poly Royal Queen and her attendants, who reigned over the annual festivities. Jane Horton Bailey of San Luis Obispo was voted the first Poly Royal Queen at the second annual Poly Royal in 1934. During Cal Poly's years of all male enrollment, queens were chosen each year from area high schools or other colleges within the state.

Through the years, the exhibits evolved along with the curriculum, adding architectural designs and landscaped model houses, rodeo competitions, home economics fashion shows, and more to highlight the results of student work accomplished during the academic year. In keeping with the traditional theme of a "country fair," Poly Royal has also offered many crowd-pleasing activities that attracted locals and students alike. Cow-milking contests, nail-driving competitions, and the milk-can roll were open to the public, while the famous tractor pull, pole-climbing competition, and rodeo were limited to student entrants. Student organizations, peddling a wide array of food, T-shirts, and other commemoratives to the crowds, used their Poly Royal profits to bankroll their club activities.

In 1990, Poly Royal became a victim of its own success when an unruly crowd of over 1,000 gathered near campus on Friday night, April 27. They threw rocks and beer bottles, overturned cars, and vandalized stores and residences along

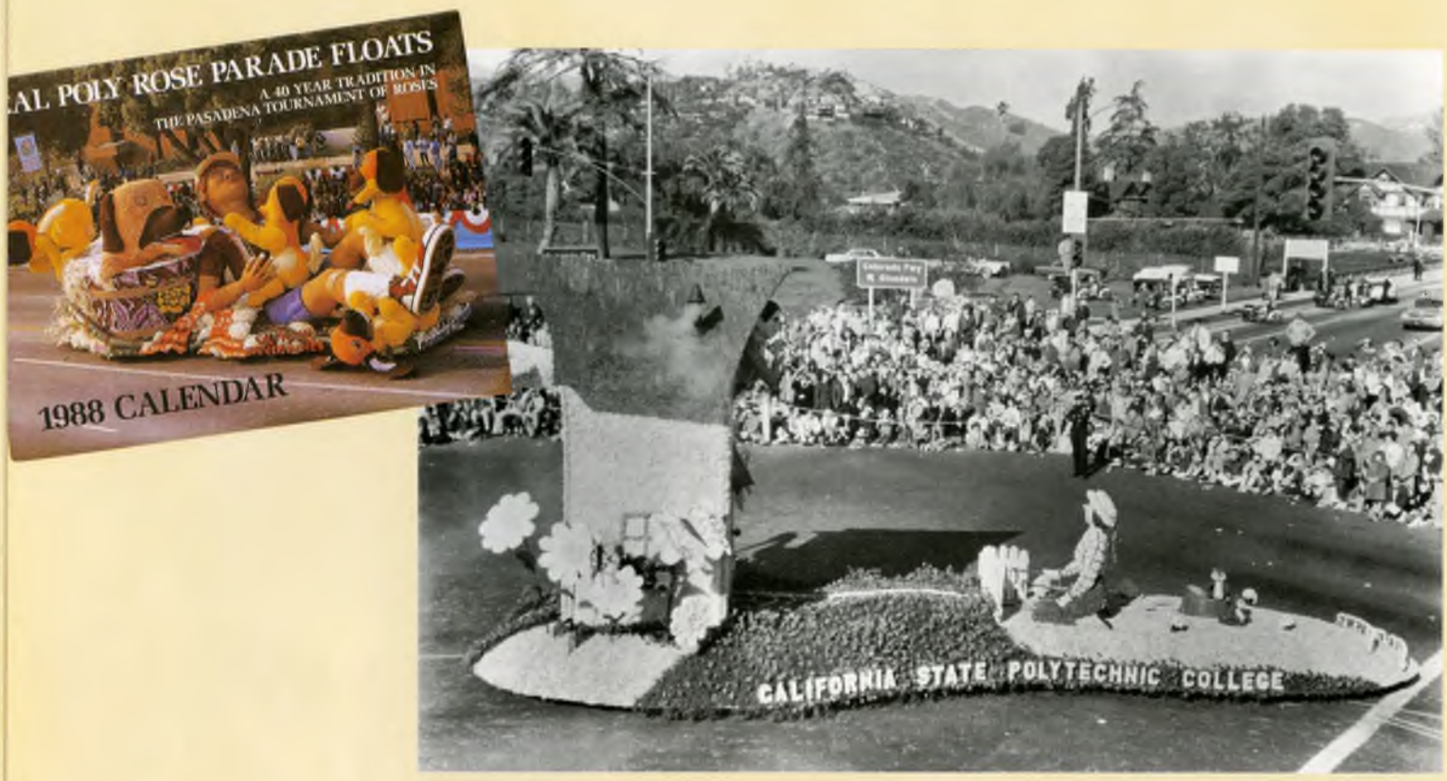


California Boulevard until they were subdued by police. Arrests were made and a re-examination of the event began. Authorities cited out-of-town revelers, alcohol abuse, and the crowds of more than 100,000 swelling the campus and town for the celebration as factors contributing to the mêlée.

After much soul-searching and discussions with police and community groups, President Warren J. Baker called for a reassessment of Poly Royal. Further celebrations were suspended until 1994, when campus and community leaders gave their approval to Open House, a much smaller version of the traditional event that returned the focus to student programs and accomplishments. With the success of six Open House celebrations, President Baker has reinstated Poly Royal in 2001 as part of the university's centennial celebrations.

As Cal Poly looks to the future, Poly Royal is again celebrated as the incarnation of both the university's history and its learn-by-doing educational philosophy.

Student artists submitted their creative designs each year for the Poly Royal poster competition. The winning designs graced commemorative buttons and posters.



Cal Poly's Rose Float Tradition

Above: A commemorative calendar features the 1988 Cal Poly entry, "Bubble Trouble," winner of the Founders Trophy.

Right: Crowds along Colorado Boulevard, Pasadena, cheer Cal Poly's 1965 rose float.

Cal Poly first began participating in the famous Tournament of Roses Parade in 1949, when the Pomona and San Luis Obispo campuses combined their resources and learn-by-doing philosophy to produce their first student-built float. With only $258 to spend that first year, Cal Poly students crafted an entry featuring an oversized rocking horse to illustrate the parade's "Childhood Memories" theme. On that New Year's Day in Pasadena celebrated more than half a century ago, the tradition of an annual Cal Poly entry in the renowned Rose Parade was born.

Today Cal Poly holds the longevity record for collegiate entries, and places sixth in the list of continuing contributors overall. The Cal Poly entry is still produced as a joint effort between the two universities, using flowers grown on both campuses and donations from growers statewide. Cal Poly has also introduced innovations for the benefit of the parade, such as computer-controlled animation, use of hydraulic systems for movement, front-wheel drive, and propane for cleaner emissions.

Producing the float is a year-round effort on the part of three groups. The Rose Float Committee consists of 10 to 15 members on each campus who plan and construct the float. A new committee begins its work each February, with Saturday meetings at the lab for the rest of the year. The Rose Float Club supports the committee's efforts by raising funds, providing lunches in the lab, and helping during "deco week" with shaping, floral preparation, and other decoration tasks in the final weeks prior to the Tournament of Roses Parade. The Rose Float Alumni meet

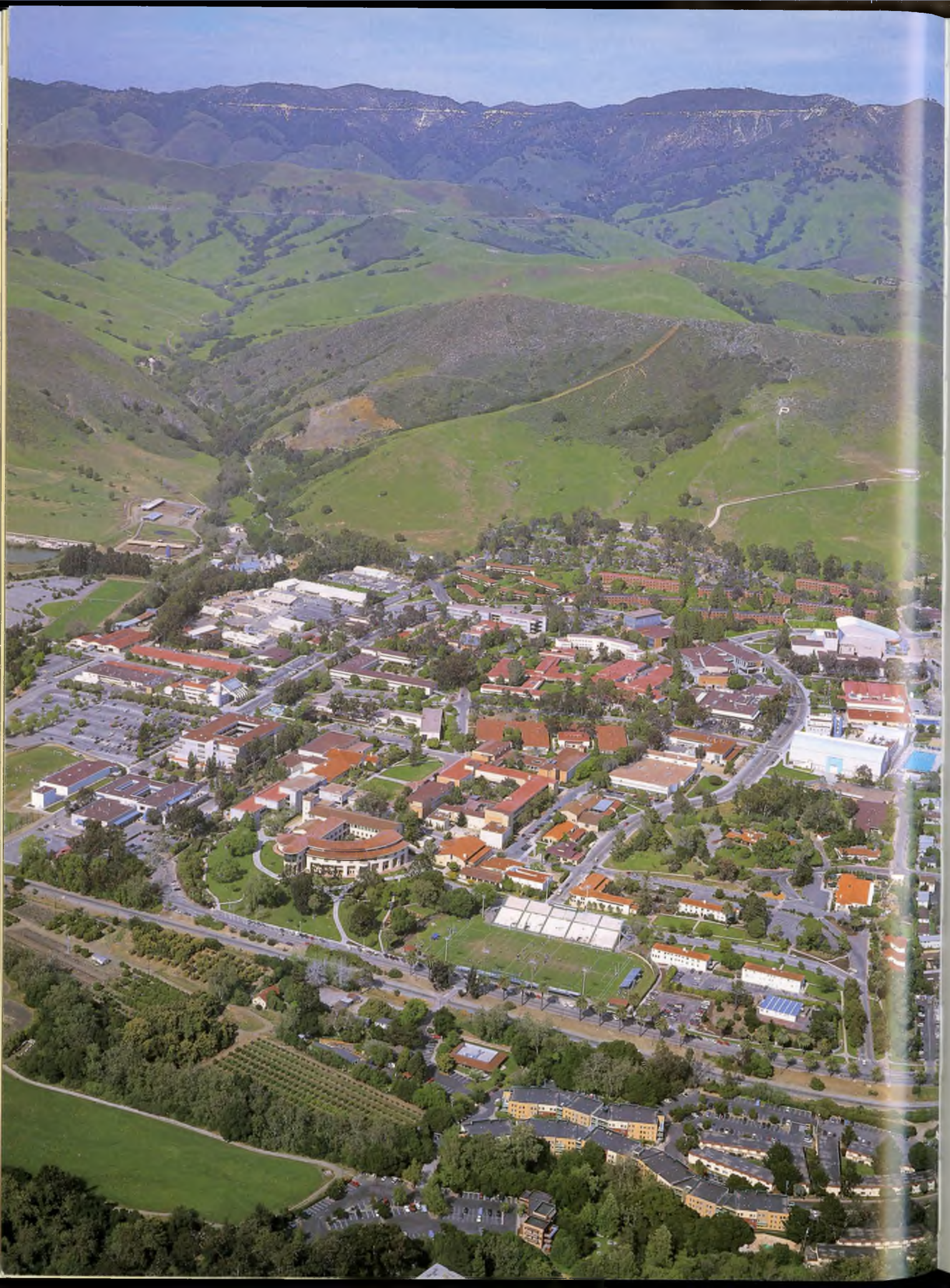
Left: Cal Poly revelers along the parade route, January 1, 1969.
Below: Concept sketch by Robert Reynolds for the 1977 float "Tons of Fun" and matching commemorative button.

three to four times a year to help during major campus events such as Homecoming and Poly Royal and during deco week. Many of the graduating students who participate in the Rose Parade become float operators for other cities and corporations involved in the parade.

In 1998, Cal Poly's Rose Float effort was transformed from a club into an Associated Students, Inc. program, receiving funds from both ASI and the university to produce Cal Poly's entry in the annual parade, which draws 200,000 spectators and an international audience of 500 million television viewers.

Left: Student Elizabeth Swanson crafts a portion of a float frame, late 1960s.

Below: Cal Poly's Rose Parade floats are produced each year as joint projects by students from the San Luis Obispo and Pomona campuses. Colorful buttons echo each float design.



Alliances for a New Century

Securing the Polytechnic Advantage, 1979–2001

"Cal Poly is in a state of transition—a transition that will certainly preserve the character of Cal Poly, but will change the way in which that character is manifested. Not only is this change desirable, it is necessary if we are going to maintain the momentum Cal Poly has gathered and take the next steps to become a truly great university..."

–PRESIDENT WARREN J. BAKER
1979 Fall Conference

The search for a new president for Cal Poly concluded on May 22, 1979, with an announcement by the California State University Board of Trustees that Cal Poly's eighth president would be Warren J. Baker. A professor of civil engineering from the University of Detroit, Baker held a Ph.D. in geotechnical engineering from the University of New Mexico, as well as bachelor's and master's degrees in civil engineering from the University of Notre Dame. While in Detroit, he progressed rapidly through the administrative ranks, becoming dean of the College of Engineering within seven years, and then vice president for academic affairs. He had also held the Chrysler Chair of Engineering and visiting posts as a researcher at the Massachusetts Institute of Technology.

Above: Warren J. Baker and his wife, Carly, meet the press, 1979.

Opposite: An aerial view of campus, May 2000.

Two decades later, when asked about his first impressions of Cal Poly, Baker emphasized, "I had found that Cal Poly's goals were similar to my vision for higher education." Arriving at the campus, he discovered "an institution in transition, founded with a focus on agriculture but expanding into a comprehensive polytechnic university. I also noted that labs and other facilities needed significant improvement if 'learning by doing' was to flourish in the '80s and '90s." Recalling the excitement of those first days, Baker observed that Cal Poly "...seemed like a place where a president could have considerable influence and not just be a caretaker."

Right: Students at work on campus ranchland.

Above: The president's residence, a campus landmark for more than 70 years.

The new president was joined in this challenge by his wife of 17 years, Carly Fitzsimons Baker, and their children, Carrie, Kristin, Chris, and B.J. The family settled into the president's residence, the Mediterranean-style home built in 1928 in the heart of campus, where they began a long and consequential life at Cal Poly.

Early in Baker's presidency, clear themes emerged. Sustaining Cal Poly's polytechnic mission and learn-by-doing tradition while strengthening the general education core curriculum was imperative. New facilities were needed, and emerging information and telecommunications technologies were required to support teaching and learning. It also became increasingly evident Cal Poly could realize its promise only by reaching out to friends beyond the university.

A Leader in Polytechnic Education

Under Baker's leadership, Cal Poly built on the accomplishments of earlier decades and achieved growing recognition as a leader in polytechnic education. The university also continued its commitment to balance the study of theory and method with opportunities for practice in real-world situations. Learning by doing remained a hallmark of a Cal Poly education, cherished by students, valued by employers, and guarded passionately by a growing population of alumni.

In a 1998 essay on "The Future of the University," Baker affirmed the enduring place of learn by doing in a Cal Poly education:

> *Whenever appropriate in most disciplines—particularly those in polytechnic areas—we should*

reinforce classroom instruction with practical, "hands-on" learning in the laboratory, the studio, or out in the field. We should educate students to do what they are reading about, to apply the principles they learn, to act on their ideas.

Cal Poly's founders would readily recognize the enduring learn-by-doing style: one-fourth of all upper-division learning occurred outside the lecture classroom and every undergraduate had to complete an independent senior project.

At the same time, learning by doing—and the upside-down curriculum—entered into a more complex relationship with other elements of a full university curriculum. To keep pace with dramatic advances in science and technology, Cal Poly's curriculum expanded in depth and breadth. These new advances, combined with generous gifts to the university, made possible new ways of learning by doing.

When alumnus Al Smith bequeathed Swanton Pacific Ranch to the College of Agriculture in 1993, a spectacular new outpost for learning by doing emerged in Santa Cruz County. The 3,200-acre ranch (and hundreds of acres of wooded land on the separate Valencia Creek property) gave students a real-world environment in which to apply lessons learned in the classroom.

College of Architecture and Environmental Design students engaged in hands-on learning, whether in studios, in field projects, or in extended international study. During the Baker years, the Collaborative Agent Design (CAD) Research Center, directed by architecture professor Jens Pohl, promoted a new kind of learning by doing. Students in computer science and architecture helped develop integrated software decision-support systems to solve complex problems, from logistics to facilities management to military command and control.

Students at work at the Swanton Pacific Ranch north of Santa Cruz, a gift from alumnus Al Smith.

In the 1990s, students in the College of Business participated in "Integrated Core Programs," analyzing and solving simulated business problems from a company-wide approach. Engaging students in cross-disciplinary teams, these new curricula proved excellent preparation for real-world business challenges.

On December 10, 1989, Cal Poly aeronautical engineering students entered aviation history, with the first certified flight of a human-powered helicopter. Guided by their faculty advisor, mechanical engineering associate professor William Patterson, an undergraduate team

Right: Award-winning microbiology professor and DNA specialist Raul Cano works with graduate student Jody Johnsonbaugh.

Above: On December 10, 1989, Cal Poly students entered aviation history with the first certified flight of a human-powered helicopter. Test director Kyle Naydo (left), pilot Greg McNeil (center), and project manager Neal Saiki (right) with the Da Vinci III, *moments before a 6.8 second record was set.*

achieved a 6.8-second ascent above the hardwood floor of Mott Gymnasium. For this first flight, the Cal Poly team received the Chairman's Award from the American Helicopter Society.

The College of Science and Mathematics investigated new frontiers of learning by doing in the 1990s through studio classrooms, integrating lecture, recitation, and lab work. In this technology-enabled environment the instructor becomes more of a mentor, a "guide on the side," rather than a "sage on the stage."

Extracurricular activities also provided new opportunities for learning by doing. In the 1990s, students in the residence halls gained high-speed access to the campus computer network from their rooms. Students also participated in co-ops and internships, acquiring real-world experience in business, industry, and government settings. In this same period, over 400 clubs flourished on campus.

Outstanding Faculty

As President Baker often emphasized, Cal Poly's growing reputation was the result of outstanding faculty, student, and alumni achievements. The careful attention of faculty to student learning, the diligent work of Cal Poly students, and the accomplishments of Cal Poly alumni consolidated Cal Poly's reputation for excellence. Certain attainments,

Left: UCTE graduate Tony Poncé, a recipient of Disney's American Teacher Award, works with one of his students in the Exploring Technology Lab at Santa Maria's El Camino Junior High.
Above: Music professor Craig Russell is renowned as a musicologist and instructor. The recipient of many teaching awards, Russell is shown using a method that captures the attention of his students.

though, laid special claim to the pride of Cal Poly's extended family.

In the early 1990s, microbiology professor Raul Cano and his undergraduate students gained worldwide acclaim for two scientific firsts: isolating ancient DNA from an insect encased in amber, and later reviving ancient bacteria preserved in amber. In 1997, he was honored with the prestigious Carski Award for distinguished teaching by the American Society for Microbiology. In 2000 Cano was appointed to the Unocal Chair of Environmental Studies.

At a polytechnic university with many outstanding teachers, music professor Craig Russell emerged as a treasured ambassador of the arts. He received virtually every award a teacher can get, including the California State University Board of Trustees' Outstanding Teacher of the Year. He has a remarkable ability to connect with all types of students. Russell has been known to pass out candy bars, stand on his head, or snip off his tie to make a point. His tactics have worked. At one graduation, where he was recognized for yet another teaching award, he received a roar of approval and standing ovation from the graduates. Russell also excels as a classical guitarist, composer, and musicologist. He is a world authority on the music of California during the mission period and cathedral music in 18th-century Mexico. His compositions, *Rhapsody for Horn and Orchestra* and *Concierto Romántico*, will be performed at Carnegie Hall in April 2001.

In the College of Science and Mathematics, exploration of innovative teaching methods engaged a new generation of faculty. Chemistry professor Tina Bailey became an early leader in this field, working with colleagues to develop the university's first studio classroom. This facility for teaching general chemistry to engineering majors is,

Left: Shore-to-ship guidelines for stowing cargo are provided by ICODES (Intelligent Computerized Deployment System). Here a loading ramp video has been called up from a diagram showing optimum stowing on the ship's decks, with multiple-expert icons for variables like access, hazards, doors, stability, etc., displayed vertically at the left.

Above, right: Crop and fruit science specialist James Ontiveros and agriculture student Marta Polley prepare to install protective "grow tubes" around tender young grapevines as part of Cal Poly's viticulture program.

perhaps, the first of its kind in the country, and is based on studio classrooms pioneered at Rensselaer Polytechnic Institute. An exciting new environment for collaborative learning, the facility's success encouraged other colleges and departments at Cal Poly to explore the new studio pedagogy.

In 1994 a new assistant professor of architecture arrived on campus with a passion for exploring novel ways to engage students in design challenges. Tom Fowler collaborated with colleagues in the Computer Science Department on application of "virtual reality" technology that "simulate[s] the impact of... solutions on the environment." Students are figuratively able to "walk" through their designs, viewing them in three dimensions. With student Darric McCormick, Fowler was featured in *U. S. News & World Report*. McCormick, paralyzed from the neck down, described in stirring terms the ability he gained through the new technology to view and move through his designs.

The revolution in information technology also brought new opportunities for hands-on learning and applied research to the College of Engineering. Stanford-educated materials engineering professor Linda Vanasupa, who arrived at Cal Poly in 1991, proved to be a dedicated researcher and creative teacher. With support from the National Science Foundation and industry and university sources, she worked with colleagues to develop the Polymer Electronics Laboratory, a "clean room" offering students hands-on experience in semiconductor processing. Recipient of prestigious teaching awards, Vanasupa has helped blaze new trails for teaching, learning, and research.

Faculty from all of the colleges, working increasingly across traditional disciplinary boundaries, carry forward the university's tradition of inspired and effective teaching. They remain the loyal standard-bearers of a philosophy that recognizes the importance of educating the hand and the heart as well as the head.

Outstanding Achievements

Students brought growing recognition to Cal Poly during the Baker

Left: Aeronautical engineering alumnus Captain Robert Gibson, USN Retired, has flown five Space Shuttle missions: STS 41-B Challenger *in 1984, STS 61-C* Columbia *in 1986 , STS-27* Atlantis *in 1988, STS-47* Endeavor *in 1992, and STS-71* Atlantis *in 1995. He has spent an impressive 876 hours in space.*

Right: Weightless in space, Gibson shakes hands with his cosmonaut counterpart, Vladimir N. Dezhurov, after successfully docking the Space Shuttle Atlantis *to* Mir *for the first time on June 29, 1995.*

years, returning from national and international academic competitions with awards testifying to the success of Cal Poly's educational philosophy.

In 1999 and 2000, student teams continued to distinguished themselves. The College of Agriculture's Landscape Team won the national championship of the Associated Landscape Contractors of America Collegiate Competition, having done so 11 of the last 13 years. A general plan for the city of Atascadero drafted by a City and Regional Planning Department class was named best student planning project in the nation by the American Institute of Certified Planners. College of Business marketing students won two General Motors scholarships for plans designed to increase awareness of an automobile dealership and help prevent child abuse. The Society of Civil Engineers was named the nation's preeminent American Society of Civil Engineers student chapter. Music student Stewart Uyeda won first place in the CSU Student Research Competition. A math student team was awarded first place in the Mathematical Contest in Modeling in 2000. A software programming team topped UC Berkeley, Harvard University, and Harvey Mudd College to capture sixth place in the 23rd Annual International Collegiate Programming contest in the Netherlands.

Outstanding Alumni

As the number of Cal Poly's alumni increased in the last two decades of the century, they provided worldwide "can do" creativity and leadership. Several alumni have captured national media and public attention. Aeronautical engineering graduate Robert Gibson carried the Cal Poly banner into space in 1995, commanding the Space Shuttle *Atlantis* to the first U.S. mid-space rendezvous with the Russian Space Station *Mir*. As chief of the Astronaut Office, Gibson was a lead spokesperson for the NASA space program. He retains close ties to Cal

Right: Aeronautical engineering alumnus Burt Rutan is a gifted engineer, designer, and entrepreneur. His company, Scaled Composites, has designed over 40 new airplanes since 1972, including the record-breaking Voyager, *the first airplane to circle the world non-stop without refueling. Today,* Voyager *hangs in the Smithsonian Institution's National Air and Space Museum in Washington, D. C.*

Above, right: Cal Poly alumnus Jim Considine received an honorary doctorate at the June 1999 commencement, honoring his commitment to Cal Poly and the CSU.

Poly, both as an alumni advocate and as a mentor for Cal Poly students.

Monty Roberts, College of Agriculture graduate and rodeo team veteran, embarked on a lifelong love affair with horses at the age of four, when he began riding. His best-selling book, *The Man Who Listens to Horses*, chronicled his life and development of a pioneering method for training (or as he says, "starting") horses. His gentle methods have won worldwide acclaim. Over the years, Roberts has opened his facility to Cal Poly students who have benefited immeasurably from the opportunity to work with him.

Burt Rutan, aeronautical engineering graduate, made international headlines in 1987, with development of the Voyager aircraft and the first non-stop, non-refueled flight around the world. The Voyager has since found a permanent home in the Smithsonian Institution. Honored with numerous aviation awards for his many innovative designs, Rutan also received the Presidential Citizen's Medal from Ronald Reagan. At the June 1987 graduation ceremony, Rutan's outstanding contributions were recognized with an honorary doctor of science degree.

More than a decade later, Cal Poly conferred another honorary doctorate on R. James (Jim) Considine, a distinguished alumnus of the College of Business. A successful investment executive, Considine has been tireless in helping Cal Poly

students. Appointed as an alumni trustee on the CSU board in 1991, Considine served as vice chair and then chair of the board. He provided leadership that permitted the CSU system to persevere through one of the most difficult budgetary times in recent history. It was a proud day for Cal Poly when, at the June 1999 commencement, President Baker placed the doctoral hood on Considine's shoulders.

As Cal Poly entered the 21st century, a new generation of alumni came increasingly to the fore. The evolving membership of the Cal Poly President's Cabinet, an advisory body established by President Baker early in his presidency, was a telling gauge of the growing influence of this alumni group. Among those who have recently joined the cabinet are alumni from the following colleges:

ARCHITECTURE AND ENVIRONMENTAL DESIGN

Douglas H. Austin,
Chairman and CEO, Austin, Veum, Robbins, Parshalle

Robin L. Rossi,
President, Rossi Enterprises

Ernesto Vasquez,
Managing Partner, McLarand, Vasquez, Emsiek & Partners, Inc.

BUSINESS

Bill Frederickson,
Vice-President, Com-Net Ericsson

Russ Bik,
Co-Founder, Sun Microsystems

ENGINEERING

Richard Bergquist,
Chief Technology Officer, PeopleSoft, Inc.

Gary Bloom,
President and CEO, VERITAS *Software Corporation*

David Fannin,
President and CEO, SBC Technology Resources, Inc.

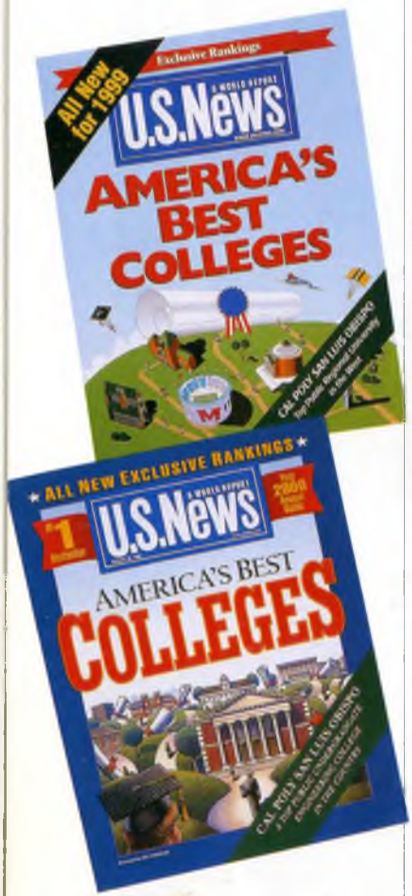
Bob Reding,
Chief Operations Officer of American Eagle Airlines, Inc.

Top and above: Cal Poly students experiencing the joy of graduation.

The movement of this new generation of alumni onto the President's Cabinet signaled the growing success and influence of Cal Poly graduates in the worlds of business, industry, and government.

CAL POLY EARNS GREATER RECOGNITION

Growing numbers of prospective students were drawn to the university in the final decade of the 20th century. With leadership from Admissions Director Jim Maraviglia, Cal Poly used technology to communicate about its programs and give prospective students new ways of connecting with the institution.



Right: Food science and nutrition professor Bob Noyes uses the Web to disseminate course assignments and study guides on food law and regulations.

Above: U.S. News & World Report *has named Cal Poly the best public comprehensive university in the Western United States for the past eight years.*

From 1993, when 11,800 applications were received for undergraduate admission, applications rose steadily to over 20,000 in the fall of 2000, when fewer than 4,000 undergraduate slots were available. Cal Poly was firmly established among the half dozen most selective public institutions in the nation.

Cal Poly received many accolades in the 1980s and 1990s, including repeated recognition in the annual "America's Best Colleges" issue of *U.S. News & World Report.* Each year from 1993 to 2000, Cal Poly has been named the best public comprehensive university in the Western United States. In the 1999 rankings of the magazine, Cal Poly's College of Engineering was declared the best public undergraduate engineering school in the country among non-doctoral universities. The fall 2000 rankings lauded the Cal Poly's computer science program as the best in the nation among its peers. As Cal Poly entered the new century, its "Best in the West" ranking enhanced the university's regional and national reputation.

Educational Programs Evolve

In an era of rapid scientific, technological and social change, Cal Poly's programs were under continuous development. New curricula, instructional programs, and research initiatives were introduced in the 1980s and 1990s and Cal Poly opened its doors to an increasingly diverse student population.

In his first Fall Conference address in September 1979, President Baker emphasized the importance of exposing students to the arts, humanities, languages, science, and mathematics, as well as to the specific content and methods of their major disciplines. While acknowledging that "our purpose is to prepare young people for careers," he stressed that "we must also prepare students to function effectively in an increasingly complex world." General education and a core curriculum have a key role to play in helping students "make decisions, recognize needs, exercise leadership, communicate effectively, and develop a sensitivity to the human condition in our physical, sociological, and spiritual environment." The search for an appropriate balance between career preparation and liberal learning remains a recurring theme of Baker's presidency, reflected most recently in his support for a comprehensive revision of General Education and Breadth, adopted by the Academic Senate in the mid-1990s.

A number of new instructional programs were also developed in the 1980s and 1990s. Among the new

undergraduate majors were Plant Protection Science, Earth Science, Music, Philosophy, Modern Languages and Literatures, Theatre Arts, Computer Engineering, and Manufacturing Engineering. Among new master's degree programs were Forestry, Mechanical Engineering, Aeronautical Engineering, Civil and Environmental Engineering, Electrical Engineering, Engineering/Engineering Management, and City and Regional Planning/Engineering-Transportation Planning. From 1984 to 2000, a total of 49 new minors were also approved, among them Wine and Viticulture, Environmental Design, Integrative Technology, Computer Science, Values, Technology and Society, and Biotechnology.

Applied research became an increasingly important dimension of a learn-by-doing education, extending the educational experience to research projects involving real-world problems of interest to industrial or government partners. New centers and institutes for applied research were founded at Cal Poly, including the Coastal Resources Institute, the Irrigation Training and Research Center, and the Environmental Biotechnology Institute. The Dairy Products Technology Center, the Collaborative Agent Design (CAD) Research Center, the Applied Research and Development Facilities and Activities (ARDFA), and the Brock Institute for Agricultural Communication also found homes at Cal Poly during the Baker years.

A number of new research facilities were constructed, including the Dairy Products Technology Center—made possible by industry and state support. The Advanced Technology Laboratories—dedicated in 1999—was funded by industry, the National Science Foundation, and the Keck Foundation, and provides a new home for faculty and student research in engineering and computer science. A state-of-the art commercial-scale vineyard, established on Cal Poly land by E & J Gallo Winery, also emerged as a real-world laboratory for teaching, learning, and applied research.

Cal Poly's educational programs also became increasingly accessible to students from California's diverse population. In 1980, only 9.9 percent of Cal Poly's students were reported to be from non-white ethnic groups. By fall 1999, 27 percent of Cal Poly's students were from Asian, Hispanic, African American, Native American, or other non-white groups. Responding to the educational needs of California's growing Hispanic population, Cal Poly became a leading producer of Hispanic technical graduates, in 1977 ranking

Top: Computer science graduate students Rama Nadendla (left) and Sufie Seifoddini (right) use the CAD Research Lab.

Above: The Admissions and Recruitment office uses the latest technology to reach out to prospective students. Once enrolled, new students and their parents participate in WOW, the innovative Week of Welcome program staffed by 400 Cal Poly student volunteers.

Right: Students at work in the Vibrations and Rotor Dynamics Lab, sponsored by Bently Nevada Corporation and Solar Turbines, a Caterpillar Company.

Left: Alumna Trudie Safreno with MaxiVision, the new projection system developed by her company, Trust Automation, Inc. Safreno and her husband, alumnus Ty Safreno, own and operate the company, which creates products and software for a wide variety of industrial and aerospace companies.

second nationwide in architecture, third in agriculture, and fourth in engineering.

More broadly, though, it was recognized that work remained to be done to ensure that the university's programs, faculty, and staff were prepared to address the needs of an increasingly diverse state and student population. President Baker emphasized that diversity remained one of the university's top ongoing priorities.

Development of the Cal Poly Plan

Cal Poly's ability to sustain its polytechnic mission and learn-by-doing educational philosophy was challenged in the early 1990s when California experienced its most severe economic recession since the Great Depression of the 1930s. State budgets were cut and higher education was not spared. Cal Poly, with its great concentration of higher-cost scientific and technical programs, was hit especially hard. In the short term, the campus was forced to reduce staff, and two programs, Home Economics and Engineering Technology, were phased out. As Cal Poly looked toward the future, it explored ways to secure its historic educational "advantage" against future economic downturns.

The Cal Poly Plan, initiated in 1995, provided new strategic direction. Among its key goals were enhancement of educational programs, expanded access to classes and academic advising, and other measures to support progress to degree. The plan's goals also included greater efficiency in use of facilities and other resources, including expanded summer enrollments, and development of accountability measures. The Cal Poly Plan built upon the university's Strategic Plan, from the late 1980s, and a series of other university plans and reports. Consultation, oversight, and coordination for the Cal Poly Plan were provided

by a newly established Cal Poly Plan Steering Committee, including student, faculty, staff, and administrative representatives. To fund the plan, the university looked to several sources, including the state, individual and corporate donors, and students and their parents, through a special "academic fee."

Following surveys of student opinion and extensive campus dialogue, a Phase I $45-per-quarter academic fee was implemented in the fall of 1996. Although students supported the Plan's goals, a later student referendum showed a majority opposed to increasing the academic fee. President Baker honored the students' wishes and turned his attention back to Sacramento to help fund the plan. Working with State Senator Jack O'Connell and the new CSU chancellor, Charles B. Reed, Baker helped launch a 1999 CSU system budget initiative. It proposed expanded funding for CSU scientific, engineering, and technical programs critical for preparing students to participate in the state's technology-based economy.

The legislature embraced this 1999 initiative. However, Governor Gray Davis requested an expanded justification. The result was a $10 million supplement to the CSU budget for scientific and technical programs, approved by the governor in the summer of 2000. The CSU Trustees followed up the next year with a proposal to provide additional permanent budget support. Cal Poly and President Baker re-

Top: President Baker (left) traveled to McMurdo Station in Antarctica in 1991 to take part in the dedication of the National Science Foundation's Science and Engineering Lab, designed by architecture alumnus Christopher Smith.

Above: President Baker helps cut the cable for a new phone campus system in 1987. Infrastructure upgrades have been a hallmark of the Baker administration.

The Poultry Science Instructional Center, built in 1995.

mained at the forefront of this CSU effort, arguing for investment in student access to high-quality scientific, engineering, and technical programs.

Landmark New Buildings

During the Baker years, an ambitious slate of capital projects provided new space for campus activities. At century's end, a campus master plan provided a comprehensive vision of the university's future. By fall 2000, 21 significant capital projects had been completed at Cal Poly during Warren Baker's tenure, including 16 new buildings, three major building renovations/additions, and two major infrastructure replacements. A new indoor Recreational Sports Complex (1993), the Performing Arts Center's Christopher Cohan Center (1996), and the outdoor Sports Complex (2000) were among the outstanding projects during the Baker years.

Other noteworthy campus buildings constructed in the 1980s included Engineering (1985); Agricultural Sciences (1988); and the Foundation Administration Building (1989). The next decade saw these new facilities: Student Services (1990); Faculty Offices East (1991); the Dairy Science Unit (1992); Business, Education, and the Children's Center (1993); and the Dairy Products Technology Center and Poultry Science Instructional Center (1995). More recently, the Advanced Technology Laboratories (1999) and the Grand Avenue parking structure (2000) were completed.

Utilidor, a much-needed $20 million upgrade of campus utility infrastructure, was completed in 1998. As the Utilidor marched

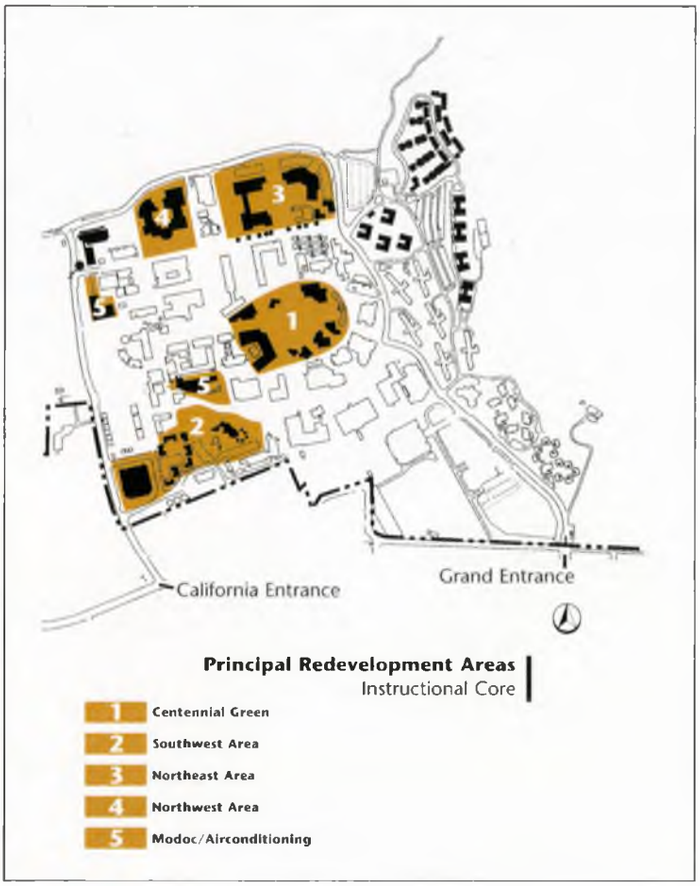
The Orfalea College of Business building, erected in 1993.

across campus, orange fencing blocked customary pedestrian pathways and great yawning trenches were excavated. The deeply challenged but imaginative project public-relations staff cautioned the campus that "Life's a ditch, get over it!" while providing much-appreciated daily advisories to the campus community.

A New Campus Master Plan

At century's end, a new vision for campus development was presented with a draft university Master Plan—the first since 1962. The plan emerged through an extensive process of consultation on and off campus. It envisioned enrollments growing over the next 20 years by about 17 percent, from an existing academic-year capacity of 17,900 students to about 20,900 students, served by about 3,200 faculty and staff members. The Master Plan also proposed other ways to educate more students, including expanding summer quarter, enlarging off-campus programs, increasing use of instructional technologies, and accelerating student progress to degree completion.

The plan was developed at the request of the California State University system to help meet the needs of a projected increase in college-bound students in California. Vice Provost Linda Dalton, an important leader of the effort, said the Master Plan will "help fill California's need for a well-educated workforce, especially in technological fields." After colleges and departments identified areas of program growth in their strategic plans, the Master Plan proposed buildings, laboratories, and technology to meet those needs.



Left: The Advanced Technology Laboratories building, dedicated in 1999, was funded by industry, the National Science Foundation, and the Keck Foundation, providing a new home for faculty and student research in engineering and computer science.

Right: A graphic from Cal Poly's new Master Plan—providing a comprehensive vision of the university's future—highlights five areas for redevelopment.

The Master Plan focuses on redeveloping academic facilities within an expanded campus core, protecting natural environmental features, sustaining outdoor teaching and learning lands, and improving traffic circulation. A central feature of the plan is expansion of on-campus student residential communities to accommodate nearly 7,000 students, up from the 2,900 housed at present on campus. Additional student services, recreational facilities, and parking would be provided. Development of housing for faculty and staff members is also being explored. The Master Plan is timed for review and approval by the CSU Board of Trustees in spring 2001, coinciding with Cal Poly's centennial anniversary.

The Information Technology Revolution

With the dawning revolution in information and telecommunications technologies in the 1990s, President Baker believed the university should explore expanded use of technology to help meet the state's educational needs and to support and enhance teaching and learning.

In a 1996 paper for the American Society of Engineering Education, he suggested that faculty investigate a digital technology mediated learning model, to provide engaging, individualized support for students. This "mediated learning" might also free faculty from some labor-intensive traditional instructional activities to design and facilitate customized learning experiences. With the help of Baker's leadership at the system level, the Califoronia State University committed to the creation of "an integrated electronic environment that enables all CSU students,

The Agricultural Sciences building, constructed in 1988.

faculty, and staff to communicate with one another and to interact with information resources from any place, to any place, at any time to advance the CSU's mission."

Baker was proud of the progress that had already been made at Cal Poly toward development of a sophisticated information infrastructure providing: a networked instructional environment based on universal electronic mail; shared multimedia digital information resources (text, audio, and video) and computerized classrooms; on-campus broadband network access to instructional resources in classrooms, campus offices, and residence halls; and off-campus access to network resources via dial-up modem connections. Baker was particularly proud of the many faculty-initiated technology projects at Cal Poly designed to support learning and teaching. He often cited Cal Poly mathematics faculty, including veteran professor Tom Hale, who helped pilot the "mediated learning" approach to instruction and classroom management in partnership with Academic Systems Corporation and other campuses.

World Wide Web-enhanced instruction was introduced in disparate fields at Cal Poly—from architecture to business to psychology. Path-breaking faculty leaders included English professor Peggy Lant and psychology and human development professor Chuck Slem.

Cal Poly faculty, including management information systems professor Barry Floyd, teamed with Sun Microsystems and SERA Learning Technologies to employ personal computer-based video conferencing on a trial basis in several business, engineering, and architecture

The inviting entrance to the Education Building.

courses. Students and a tutor in different locations viewed videotaped course content in one workstation window, while viewing and interacting with one another through other workstation windows.

The Synthesis Project, part of a National Science Foundation-funded national coalition involving Cal Poly, UC Berkeley, Stanford, and several other universities, used multimedia technologies to support restructuring of essential undergraduate engineering courses. The National Engineering Education Delivery System (NEEDS) made Synthesis course modules available on the World Wide Web.

As the 1990s came to a close, the university prepared for a multimillion-dollar campus network enhancement. President Baker remained convinced that Cal Poly and the California State University must harness technology in new ways to support learning and teaching.

Cal Poly Reaches Out

Reflecting back on two decades of service in a 1999 *Cal Poly Magazine* interview, President Baker emphasized the important role that external friends and supporters had played in the university's development. He and Mrs. Baker, working in close partnership, encouraged these contributions from their first days on campus. As Baker recalled:

> *When [we first arrived] Cal Poly was perceived as not very accessible, so we began inviting people from the community and business onto the campus regularly.*
>
> *Also, this was a polytechnic university. Although our faculty and programs were oriented toward industry needs, and students were involved in learning by doing, we had no formal structure to engage the people who hired our graduates. We were just beginning to think about raising private money for the university, and the idea to create advisory councils served both purposes.*
>
> *We started with the President's Cabinet [the university wide advisory board], which includes leaders from business, industry, government, and the arts, to provide advice and counsel to the university as we planned for our future. We also asked the cabinet to become advocates for Cal Poly at all levels—within the CSU system, with our board of trustees, with the legislature, with the governor, and within their own spheres of influence.*

Through the cabinet's efforts, support has been enhanced for cooperative education, senior projects, and internships, and Cal Poly has gained access to special skills, new technology, and educational partnerships. Cabinet advocacy in Sacramento in the mid-1980s also yielded formal state recognition and support for applied research in the CSU. Baker observed,

> *Today, there are about 45 people in the President's Cabinet, and each college and many departments have*

President Baker (center) cuts the ribbon to open the new outdoor Sports Complex, 2000. Assisting are (from left): Bob Neal, Sam Aborne, John McCutcheon, and Robin Baggett.

very active advisory councils. More than 800 people volunteer their time and expertise, an enormous advocacy and fund-raising resource. We raised nearly $22 million last year. When we first started, raising $1 million was a struggle.

In 1999, in recognition of Baker's 20-year leadership of the university, the President's Cabinet established a substantial endowment to create and fund the Baker Forum. The annual international forum at Cal Poly focuses on the important role of the polytechnic university in society. The inaugural forum will be held in April 2002.

President Baker has made it a point to reach beyond the university in other ways, including active participation on international, national, and regional policy bodies. In the 1999 *Cal Poly Magazine* article, he commented on how his role had evolved in some of these other off-campus activities:

In 1983 I was appointed by President Reagan to serve on the Board for International Food and Agriculture. I thought Cal Poly could make significant contributions to agriculture in developing countries. We had done a lot of international work in the 1950s and 1960s, but it had waned significantly. As a result of our re-involvement, we were engaged by the Kellogg Foundation and ultimately by A.I.D. to establish a college in Costa Rica, modeled after Cal Poly's College of Agriculture. Today that college is very successful. It contributes significantly to countries in the humid tropics, in their pursuit of economically viable yet environmentally sustainable forms of agriculture.

I was later on the National Science Board (NSF governing board) from 1985 to 1994, primarily as an advocate for undergraduate science, engineering, and technology education. Many of the programs we established focused on the renewal of science and engineer-

Above: Al Smith at Swanton Ranch, which he bequeathed to Cal Poly through a trust as a $22 million living laboratory.

Right: Al Smith taught Cal Poly agriculture students informally at Swanton Pacific Ranch.

ing education. We also recognized that undergraduate institutions needed applied research facilities to engage undergraduates in research. A special program was created for predominantly undergraduate institutions.

Cal Poly benefited directly from these developments. The university was, for instance, one of the prime movers in the National Science Foundation's (NSF) engineering coalition program. The College of Engineering's Advanced Technology Laboratories, built with support from the NSF, industry, and the Keck Foundation, provides a unique facility to sustain learning by doing.

Private donors played a role of growing importance as well during the Baker years. Two extraordinary stories illustrate their expanding role. Early in his presidency, Baker learned of a College of Agriculture graduate, Al Smith, who recently had donated funds to the university. Baker's determination that he should get to know this alumnus was the beginning of a long and extraordinary association. Al Smith graduated in the 1940s with a degree in crop science, later returning to Cal Poly for a teaching credential. He worked as a high school agriculture teacher but then went on to build Orchard Supply Hardware, a successful hardware business. Over the years, Smith acquired the 3,200-acre Swanton Pacific Ranch, on the coast north of Santa Cruz, California. Agriculture had long been a part of the ranch, which also encompassed acres of rangeland suitable for grazing livestock and woodland suitable for timber harvesting.

As Smith renewed his acquaintance with Cal Poly, he made the ranch available to students for learn-by-doing educational experiences. In 1986, he donated operating capital to establish an educational program at the ranch. Each quarter since then hundreds of Cal Poly student interns have worked at Swanton Pacific Ranch. During his lifetime, Smith enjoyed greeting them and sharing

Left: The Recreational Sports Complex, funded by student fees, was built in 1993.

Above: Students swim in the Recreational Center's outdoor pool.

his love for the ranch. When Al Smith died, on December 18, 1993, he left Swanton Pacific Ranch to Cal Poly, along with a substantial endowment. His dedication to Cal Poly and affection for its students found permanent expression in this extraordinary gift, the largest in the university's history.

The Performing Arts Center

The increasing prominence of the performing arts at Cal Poly converged with a long-term community dream to establish a regional center for the arts, after a community consultant declared, "It can't be done without the university." This moment was the start of a strong and enduring partnership among the university, the city of San Luis Obispo, and community patrons of the arts. President Baker later recalled,

Key people from the community—Mayor Ron Dunin, John Dunn, the city administrator, and Warren Sinsheimer—signed the original memorandum of understanding with me. The university put in two-thirds of the money, and we agreed on a set of operating principles, recognizing that each of the partners could bring something to this valuable effort.

After support was secured from the state of California and the city of San Luis Obispo, the project partnership was completed with private support through the Foundation for the Performing Arts Center. A lead gift came from Christopher Cohan, for whom the center is named.

Since its opening in the fall of 1996, the Performing Arts Center has attracted world-class performers and provided an impressive venue for artistic, cultural and educational events. Baker viewed the project as

Top: Exterior detail of the Performing Arts Center on campus.

Inset: A student violinist practices for her upcoming recital in the main hall of the Performing Arts Center's Christopher Cohan Center.

an important "step toward the perfection of a polytechnic university." He noted, "It had the fundamental meaning of 'polytechnos' in the Greek sense—the arts and the sciences and technology coming together."

The Centennial Campaign

The growing importance of philanthropy in sustaining Cal Poly's polytechnic mission and learn-by-doing educational philosophy led Baker to position the university for a comprehensive fundraising effort. The Centennial Campaign is a seven-year, $200 million-plus effort to renew the university's vision, expand its offerings, and strengthen its advantage. The far-reaching campaign includes every one of Cal Poly's colleges and units, whose goals are key to fulfilling the university's overall campaign objectives. The campaign is to be announced publicly in April 2001 with the help of "NBC Nightly News" anchor Tom Brokaw. Among the announcements is a $15 million gift from Paul J. Orfalea and Family to name the Cal Poly College of Business the Orfalea College of Business, in honor of the Kinko's founder's parents, Albert and Virginia Orfalea.

Two Decades of Leadership

The success of the Baker presidency in part lies in the extraordinary and enduring partnership of Warren and Carly Baker, to which each has brought distinctive interests and strengths. As president, Warren Baker's CSU system responsibilities and his commitment to expanding external support have thrust him into regional, national, and international leadership roles, for which he has received growing recognition.

An aerial view from May 2000 of the Performing Arts Center's Christopher Cohan Center. Opened in 1996, the PAC was funded by a partnership among Cal Poly, the city of San Luis Obispo, and the Foundation for the Performing Arts.

Some of his many honors as a teacher, scholar, and administrator include serving as the founding chair of the Civil Engineering Research Foundation and presidential appointments to both the Board for International Food and Agricultural Development (U.S.A.I.D.) and the National Science Board, governing board of the National Science Foundation. He is also a charter appointee and member of the board of directors, California Council on Science and Technology, and co-chair of California's Joint Policy Council on Agriculture and Higher Education. He has received outstanding alumnus awards from the Colleges of Engineering at Notre Dame and the University of New Mexico, and, in 1997, the Cavanaugh Award, the highest alumni award for public service at the University of Notre Dame.

In meeting the demands of the university presidency, President Baker has been aided by his wife, Carly, a graduate of St. Mary's College and Cal Poly. Over the years, Mrs. Baker has played critical support and leadership roles on campus and in the community, while raising four children. In addition to managing a busy household, Mrs. Baker worked with many organizations. Prominent among her many commitments are the Central Coast Performing Arts Center Commission, the Board of Directors of the Foundation for the Performing Arts Center, and the Performing Arts Center Art Advisory Board. Mrs. Baker has also served on the Organization of State Hospital Advisory Boards, and the Atascadero State Hospital Advisory Board (as board chair). Her work with women's and children's organizations

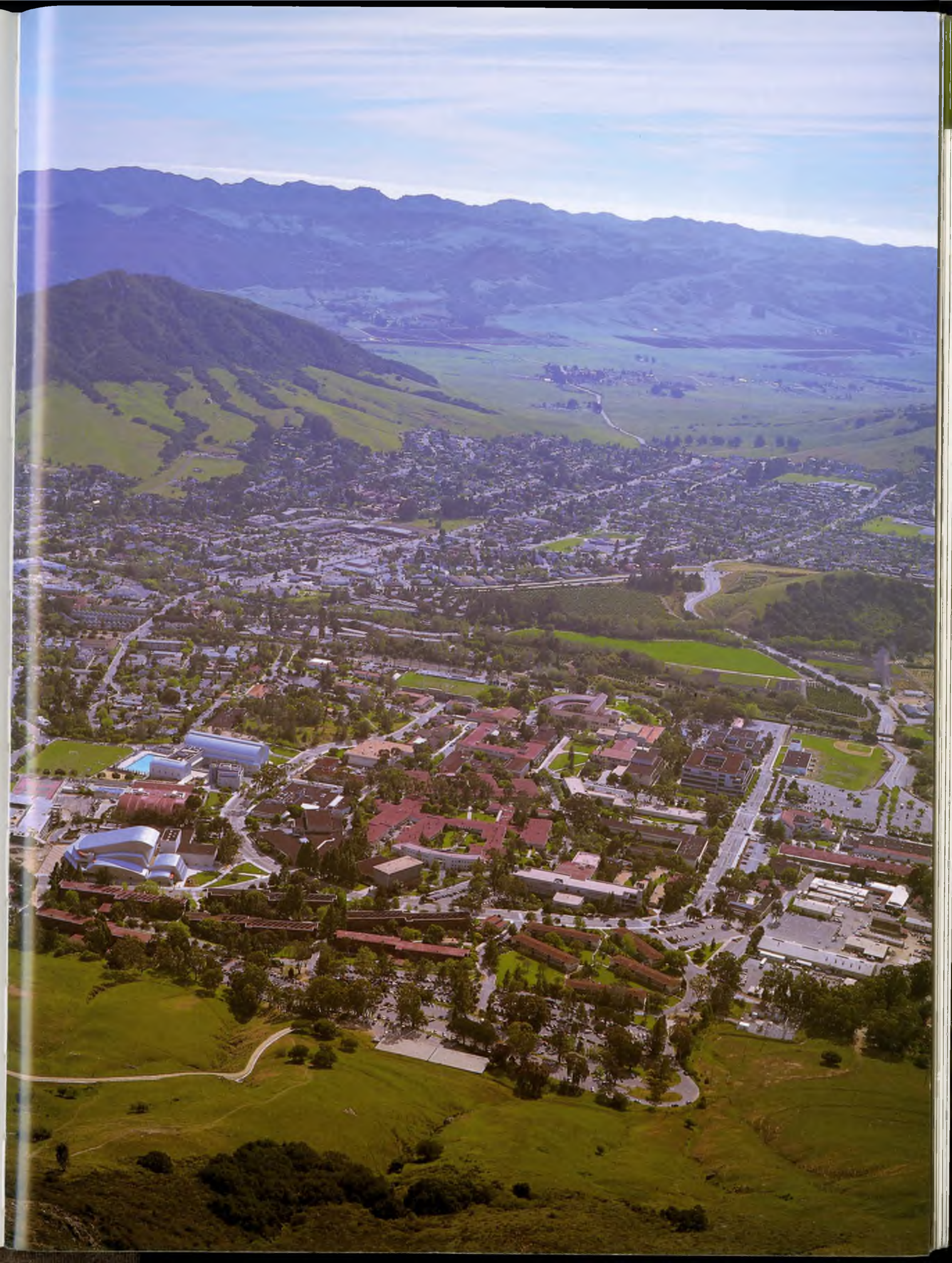
Right: President Warren J. Baker, and his wife, Carly, mark 20 years at Cal Poly by posing in front of the $30 million Performing Arts Center in the spring of 1999.

Opposite: An aerial view of Cal Poly and San Luis Obispo from the perspective of the hillside P, spring of 2000.

includes the Children's Center Task Force, Children's Protective Services Task Force, the Women's Shelter Board of Directors, and the Juvenile Justice and Delinquency Prevention commissions, as chair/commissioner. In Detroit, she served with Focus Hope, an organization formed to promote equity and understanding between the races in the wake of the 1967 riots.

While at Cal Poly, Mrs. Baker has played a central role in the university's efforts to strengthen external relations, planning events and overseeing hospitality for university advisory board members, community leaders, donors, and visiting dignitaries. The positive result has reflected her attention to detail and quality. The welcoming environment she has created has nourished an expanding circle of university friendships, critical to Cal Poly's future.

During the Baker presidency, new academic programs have been added. The student population has become more culturally diverse. More than a score of major capital projects and a university Master Plan have been developed. A robust technology infrastructure has enhanced teaching and learning. Nearly $200 million in donations have been secured. In addition, Cal Poly has become one of the most selective public universities in the country and a national leader in polytechnic education.



Associated Students, Inc.

Above: Brochure detailing the wealth of services ASI offers for the enrichment of student life on the Cal Poly campus.

Right: Students enjoy a physical workout at the campus Recreation Center pool.

Cal Poly students have been active and committed participants in campus life from the time the first student clubs for athletics and debating were formed in 1903 to today's Associated Students, Inc., a non-profit corporation owned and governed by students for students. The mission of ASI is to enrich the lives of Cal Poly students through support and sponsorship of a variety of programs, services, clubs, and organizations. ASI encourages students through leadership participation, social interaction, and the development of individual attitudes and values.

The Julian A. McPhee University Union (UU) houses ASI student officers and members of their staff, who prepare for board meetings, represent their constituents on a number of campuswide committees, and set policy for the annual $10 million budget. The ASI Business Office, which provides support and service to ASI programs and student shareholders, is also located in the UU. The Program Board uses student volunteers to arrange cultural and intellectual programs that reflect Cal Poly's diversity.

Other services provided by ASI include: the Escape Route, an outdoor adventure and education center offering trips and travel planning; the Chumash Challenge, offering team-building and personal empowerment workshops; McPhee's Games Area, offering bowling, billiards, and video games; the ASI Craft Center, offering a wide variety of non-academic craft classes and workshops from bike repair to woodworking; the 2nd Edition Copy Center; and the UU Information Desk.

ASI also operates the Children's Center, a comprehensive day-care program on campus for children of students, faculty, and staff. The center not only provides a safe, stimulating day-care setting for children from 4 months to 6 years, but also offers students jobs that further their skills and education in this field.

Perhaps the most popular of ASI's many offerings is the Recreational Sports program, which provides the Cal Poly community with the opportunity to participate in a variety of fitness, leisure, and recreational activities. Designed to improve personal fitness, teach new skills, reduce stress, and promote healthy living, the Rec Sports program employs more than 200 students, many of whom work in the Recreational Sports building completed in 1993.

Cal Poly Foundation

For more than 60 years, the California Polytechnic State University Foundation, a public benefit corporation, has assisted the university in fulfilling its learn-by-doing educational mission. As the needs of the university and its faculty, staff, and students have changed, so has the Cal Poly Foundation.

Cal Poly was among the first colleges in California to have a nonprofit foundation to assist in the financial and resource management of the campus. The origins of the Cal Poly Foundation lie in the student-project fund of the 1920s, which enabled students to purchase and raise livestock or to finance the cultivation of crops. The proceeds from completed projects went first to repay the loan, with additional profits split between the project fund and the student. Other precursors to today's Foundation were the cafeteria-dormitory fund and a faculty-operated store in the 1930s.

The impetus, according to campus lore, for creation of the Cal Poly Foundation occurred in 1940 when a donor presented Cal Poly with a pair of breeding swine. State law prohibited President Julian McPhee from accepting the gift, and the Foundation was created. The incorporation of the Foundation also provided a single entity for managing the college's academic project funds and the many auxiliary services of an agricultural campus. As President Robert E. Kennedy explained, "You couldn't operate the farm if you used state procedures. You couldn't feed livestock with competitive bids that have to go through a state agency, taking you thirty days to get a load of hay..."

Today, the scope of the Cal Poly Foundation is much broader than ag-related projects. In addition to the Campus Dining and El Corral Bookstore operations, the Foundation helps provide students valuable hands-on learning experience in many disciplines as well as on-campus employment. Profits from Foundation operations provide annual support to the university and benefit students through new programs, services, or facilities. The Foundation also accepts and invests donations on behalf of the university and provides support in the administration of the university's research activities.

Above: El Corral Bookstore is owned and operated by the Cal Poly Foundation. In the left foreground a bookstore display of publications by Cal Poly authors features faculty accomplishments.

Left: On-campus food and beverage services are Cal Poly Foundation-owned operations that employ many students.

Cal Poly Athletics

Above: Kari DeSoto, All-American volleyball player 1996–1999. Gymnast Dave Buettner competes, 1966.

Top: A Cal Poly letter jacket, c. 1960s.

Cal Poly has a rich athletic history dating back to the school's earliest days. During its first decade, the California Polytechnic School was a member of the San Luis Bay Athletic Association, competing in football, basketball, and other sports in intramural contests and against local high school teams. An undefeated and unscored-upon football season in 1933 highlighted the early decades of the school's athletic efforts.

For the first 25 years, Cal Poly's athletic teams were known by a number of monikers, but by the opening game of the 1926 football season, the team was known as the Mustangs. The school's original colors were green and orange, but a change to the familiar green and gold colors was made in 1935.

Before the National Collegiate Athletic Association (NCAA) was formed, Cal Poly was a member of the California Collegiate Athletic Association, playing college teams from San Diego, San Jose, Fresno, Santa Barbara, and College of the Pacific. During this time, Cal Poly won conference titles in baseball, boxing, tennis, and basketball.

In October 1960, the college experienced its greatest loss when 22 persons died in an airplane accident involving Cal Poly's football team. Sixteen players, the team manager, a local supporter, and four others perished, and others sustained severe and lasting injuries. The remainder of the season was cancelled, and for a time President McPhee considered eliminating football at Cal Poly. After a period of healing, the athletic department returned to the playing fields as a closer-knit and stronger family. Thirty-five players suited up for the 1961 football season, 10 of whom were crash survivors.

In 1966, Cal Poly's first national title came in wrestling as coach Vaughan Hitchcock led the Mustangs to an amazing eight national titles over the next nine years. Track and field would follow, with four national titles in the 1970s. Following a playoff appearance by the football team in 1978, the Mustangs would earn their first football national championship two years later. Under the leadership of athletics directors Vic Buccola and Kendrick Walker, 17 national champions were crowned in the 1980s, including men's tennis under Hugh Breem, and track and field and women's cross country under the direction of coach Lance Harter. Harter's cross-country teams would dominate during the 1980s, winning all but one title during the decade, while Steve Miller's track teams took home four national championship trophies during the era.

Director of Athletics John McCutcheon led the transition to NCAA Division I in 1994 and the Big West Conference two years later. In four years against such competitors as UC Santa Barbara, Long Beach State, Cal State Fullerton, Utah State, University of the Pacific, and UC Irvine, Cal Poly has won four Big West Conference Championships and earned six coach-of-the-

year awards through 1999. During the 1990s, the Department of Athletics nearly doubled in size, adding new staff members to assist in NCAA compliance, academic counseling, athletic training, and alumni relations.

Athletic facilities were also improved. Poly's Mott Gymnasium, with a seating capacity of 3,032, is the home of men's and women's basketball, wrestling, and women's volleyball. Recent remodeling of Mott Gym included upgrading to arena-style seating with chair backs, a state of-the-art weight room, team locker rooms, and an academic resource center for student athletes. Mustang Stadium, home of football and soccer, was enlarged with additional seating in the end zone and visitor sidelines.

In late 2000, the university unveiled its new Sports Complex, featuring six new athletic fields and stadiums for baseball and softball. President Baker announced that the baseball stadium will be named in honor of alumnus and former baseball player Robin Baggett. To honor Bob Janssen's support of Cal Poly Athletics, the softball stadium will be named Bob Janssen Field in 2001.

For the 2000-2001 academic year, Cal Poly women compete in basketball, cross-country, golf, indoor track and field, soccer, softball, swimming and diving, tennis, track and field, and volleyball. Cal Poly men compete in baseball, basketball, cross-country, football (1-AA), golf, soccer, swimming and diving, tennis, track and field, and wrestling.

Above: Cal Poly's basketball players at Mott Gymnasium, built in 1960.

Below: Mike Krukow played at Cal Poly 1971–1973.

Distinguished Former Athletes and Staff Members

Robin Baggett
General Counsel, Golden State Warriors, NBA
Bobby Beathard
Washington Redskins & San Diego Chargers, NFL
Eric Burdick
Sports Editor, San Luis Obispo Tribune
Lewis A. Cryer
Former Commissioner,
Professional Rodeo of California Association
Mohinder Gill
Founder of Mohinder Sports, City Rock
Greg Hind
Founder of Hind, Inc. Sportswear
Mel Kaufman
Former Linebacker for Washington Redskins, NFL
Member of 1982, 1983, and 1987 Super Bowl Teams
Mike Krukow
Former Pitcher, Chicago Cubs, San Francisco Giants, MLB
Curent Television Analyst, San Francisco Giants
John Madden
Former Head Coach, Oakland Raiders, NFL
Emmy Award-Winning NFL Analyst, CBS Sports
and Fox Sports TV
Loren Roberts
Current PGA Golf Professional
Ozzie Smith
Former All-Star Shortstop, St. Louis Cardinals, MLB
Current Host of "This Week in Baseball"
Ted Tollner
Current Head Football Coach, San Diego State University
Ernie Zampese
Football Coach, NFL

Town and Gown

A Normal School, if it can be established here, will be the most important institution that we can hope for as an aid to our fame and prosperity. First, the elegant buildings will be an ornament to our city, and when in successful operation, it furnishes us a convenient school of a high class and gathers to our midst professors and families of rank and education with hundreds of pupils of worthy ambition and lofty aims. These will give culture and refinement to our city, making it a nucleus of attraction to many families, tourists and business establishments, and adding millions of wealth to our city and county.

–Myron Angel in the San Luis Obispo Breeze, *December 25, 1896*

The history of Cal Poly and the history of the city of San Luis Obispo are entwined; one cannot trace the growth and development of one without the other. Today, residents of San Luis Obispo, much as early visionary Myron Angel envisioned, play vital roles in campus life as faculty, staff, students, administrators, parents, neighbors, property owners, partners, volunteers, and benefactors.

During most of the last 40 years, the city and the university have been like siblings, growing up together, gaining a better understanding of one another, with the usual set of growing pains and adjustments. This family relationship produces a complex set of economic, cultural, educational, community service, and neighbor relations that could not have been foreseen prior to the growth and maturity of both town and campus.

Four events, among the many city/university interactions, helped to bring about our present positive relationship. The partnership to plan, design, construct, and operate the Performing Arts Center, begun in the early spring of 1987, officially commenced one such event. The city, the university, and the Foundation for the Performing Arts Center have worked together to create a magnificent facility, which none of the partners acting alone could have created. The focus on the end goal, and its ultimate contribution to community life, allowed the participants to rise above the particular concerns of each separate agency. During this long process, trust and a sense of commitment to a higher purpose developed. The bond from this experience has acted as a valuable foundation for many other aspects of the relationship between Cal Poly and the city.

Secondly, the Student Community Liaison Committee (SCLC) was founded in 1987 with the support of then-mayor Ron Dunin to create a communication forum headed by the students themselves. SCLC brings together students and representatives from Cal Poly, Cuesta College, the city and county governments of San Luis Obispo, the Chamber of Commerce, Residents for Quality Neighborhoods, and other organizations. Through SCLC, a common discussion of student life, student contributions to the community, and the impact of students on the city and the city's neighborhoods takes place.

The third event, taking place over the last six years, has been the establishment of regular meetings of administrators from the university and the city, including Mayor Allen Settle. While cordial, the meetings are also forthright, as we identify present and emerging issues, and try to develop solutions to our mutual concerns. Recent issues have included Cal Poly student/staff fares on city transit, student and faculty housing needs, completion of the new parking garage, Performing Arts Center financial support, city/university bicycle paths, sports fields development, and mutual environmental concerns.

Lastly, there has been an emerging belief over the years that what happens at the university affects the city and its citizens, and, conversely, that what the city does can influence the Cal Poly community. Consequently, when the city updated its General Plan Elements in 1994, Cal Poly officials were given an opportunity for review and comment. More recently, the university has been going through a very intensive effort to develop a new long-term Master Plan for the campus. During this process, Cal Poly was very open and accommodating in inviting city review and comment.

Any discussion of the relationship between the city and the university would not be complete without at least brief mention of the "dismal science"—economics. Based on a 1998 study, the total economic impact of Cal Poly on the larger community has been estimated at over $403 million annually, making Cal Poly the largest single source of spendable income in the county.

Over the years, members of the Cal Poly family have contributed to the city in many ways. Our City Council, Planning Commission, and other city advisory bodies usually have Cal Poly representatives. Student senior projects, workdays, and Good Neighbor Day help our community and our non-profit organizations in special ways. Students each year contribute more than 153,000 volunteer hours to community services, the annual equivalent of 75 full-time work years.

Yes, Cal Poly, in addition to the benefits it provides, does provide the community with issues to work on and resolve. Nevertheless, for a moment, attempt to visualize our community without the university. The image projected by that exercise is a very different community than the vibrant one which exists today.

San Luis Obispo and Cal Poly, though born of different parents, were destined to grow up together. As in most families, there have been and continue to be certain stresses in the relationship. However, at the beginning of the new millennium, we can say that the children are safely grown and enjoy a mature and productive relationship together.

–John Dunn,
Former City Administrative Officer
City of San Luis Obispo

Above: The San Luis Obispo Performing Arts Center was completed in 1999.

Opposite: San Luis Obispo's popular Thursday night Farmers' Market draws students, residents, and visitors to the historic downtown setting. Each week, local farmers and Cal Poly student clubs offer a colorful array of seasonal fresh produce for sale.

College of Agriculture

Using Geographic Information Systems (GIS) *and Global Positioning Systems* (GPS) *technology, agriculture students map important characteristics of a campus vineyard to compile a database of unique information.*

"Learn by doing." It is more than our motto. It is the foundation of a College of Agriculture education. It means motivated students working closely with experienced professors and professionals, actually accomplishing in the laboratories and fields what they study in the classroom. It is hands-on experience in real production orchards, livestock yards, and food laboratories, facilities that replicate the environment that students will find when they join the workforce. Through faculty-directed cooperative projects, senior projects, and enterprise projects, students move further into industry to broaden their understanding of real business practices. Consequently, our graduates are known nationwide for the superb quality of their academic preparation and for their practical "can do" attitude. Something has served California agriculture right for nearly 100 years, and we think it is the learn-by-doing ethic at Cal Poly.

Today, the College of Agriculture at Cal Poly is the fourth largest undergraduate agricultural program in the nation, with over 3,500 students. In any given year, we produce half of California's baccalaureate degrees in agriculture and half of the state's high school and community college teachers of agriculture. The college is also the nation's largest non-land-grant institution.

Agriculture students at Cal Poly have a comprehensive selection of coursework in 16 majors and 12 minors as well as applied experiences on over 10,000 acres of production land on campus or at the Swanton Pacific Ranch in Santa Cruz County. These incredible land assets—undoubtedly the most diverse farm operations in America—provide our students with the exact challenges and opportunities facing California agriculture today. At Cal Poly, students still produce and market the food, forage, and ornamental crops, livestock, eggs, dairy products, Christmas trees, compost, and firewood. Students also manage, breed, train, and sell Thoroughbreds and quarter horses, and perform artificial insemination of beef and dairy cattle. They conduct laboratory experiments and analyses which lead to discovery, mastery, and innovation.

These and other student-centered agricultural production activities occur daily on farmland containing extremely sensitive riparian and wetland areas, streams with threatened steelhead trout, over 200 species of endangered plants and animals, all on land adjacent to campus facilities and residential neighborhoods. Without question, our students experience the true meaning of the constraints, opportunities, and vision that define modern agriculture.

Student at work in Cal Poly's Plant Shop.

From the very beginning, the college's 25,000 alumni have been building, leading, and transforming families, businesses, associations, professions, and cultures. They can be found hard at work in Congress, state legislatures, judicial chambers, offices, fields, homes, and community-based organizations. But most of all, they can be readily found in the spirit of Cal Poly agriculture's mission to provide the highest quality education in agriculture through our learn-by-doing philosophy.

What has made this all possible, this wonder-

Students harvest grapes in the campus vineyards.

ful history, this wonderful present, and this wonderful future? Obviously, the foresight of California's taxpayers and our donors are two causes. Another is an unbroken chain of university and college leaders who believed in our special role and responsibility. But most of all, it is achievement of the talented cadre of teachers and mentors, the faculty whose lives are dedicated to each new generation of learners, one learner at a time. It remains steadfastly so today. The college's faculty, from the most senior to the most recent hire, know that the "past is prologue," but they also know new changing times and new eager minds must also be sustained with new action, new skill, new perception, new compassion, and new production.

On the cusp of a second hundred years, the College of Agriculture at Cal Poly is more than ready, willing, and able to serve. Without question and firmly grounded in the past, we echo the words of e.e. cummings: tomorrow is our permanent address.

Gouda, jack, and cheddar cheeses—along with milk, yogurt, and ice cream—are some of the high-quality foods produced by students in the Cal Poly Dairy Science labs. San Luis Lace (a delicate Swiss-style cheese) is an award-winning proprietary Cal Poly product.

College of Architecture and Environmental Design

The Architecture and Environmental Design building houses a variety of learning facilities, including design and computer labs, classrooms, project yards and an instructional resource center.

From the first classes in "machine, architectural, and original design" in 1903 to today's rigorous curriculum, the College of Architecture and Environmental Design remains committed to Cal Poly's founding learn-by-doing philosophy. The college draws its faculty from both professional educators and practicing professionals of the built environment industry. Together, they are dedicated to providing an excellent education for the next generation of men and women who will plan, design, construct, manage, and preserve the physical environment.

The college offers a unique combination of environmental design fields in five departments: City and Regional Planning, Architecture, Landscape Architecture, Architectural Engineering, and Construction Management. Working together, they offer students instruction in:

- the human and built environment at all scales, from rooms and interiors, to single structures and complexes, to site planning, to urban and regional systems;
- the visual and spatial relationships among elements of the physical environment, including open space as well as built features; and
- the natural environment within which the human and built environment must function.

Integral to the development and success of all five programs in the College of Architecture and Environmental Design has been an ongoing commitment to multidisciplinary teaching, involving all of the professions which create and construct the built environment. As a result, graduates of the College of Architecture and Environmental Design are not only effective planners and designers, but are also well prepared for the actual complexities of professional practice and construction in the field. This appreciation for, and understanding of, the collaborative model of professional practice serves both graduates and employers alike.

Today, with nearly 1,600 students enrolled, Cal Poly's College of Architecture and Environmental Design is one of the largest programs of its kind in the nation. Admission to the program is highly competitive, as only one in four qualified applicants is selected. Our undergraduate programs in architectural engineering, architecture, construction management, city and regional planning, and landscape architecture and graduate programs in architecture and city and regional planning, send out high-quality, thoughtful, applications-oriented graduates not only into California communities but also nationally and internationally. We are now preparing the built-environment professionals who will shape the towns, cities, and open spaces of the 21st century.

We take great pride in the knowledge that nearly 8,000 College of Architecture and Environmental Design alumni, educated in accor-

Architecture student Holman Vilchez meets with Associate Dean Richard Zwiefel for an individual critique of his design project.

Students work collaboratively using scale models during an achitectural seminar.

dance with our core principles, have been a major, positive influence within the planning, design, and construction worlds. They have developed the skills needed to create plans for the orderly growth of humane, attractive, and progressive structures and communities in harmony with the natural environment and the values, goals, and concerns of the public.

That future will see more efficient, alternative project deliveries and design solutions in a rapidly changing global environment. Our students must graduate confident in the skills and core competencies necessary to design, plan, and construct in that environment. We believe there is no stronger foundation for them than our current emphasis on remaining true to our long-standing philosophy of an applications-oriented, multidisciplinary approach to their education.

Further, we anticipate that the currently emerging culture of private gift support from alumni, parents, friends, professional firms, and corporations will continue to become part of the CAED tradition. It has become increasingly clear that our supporters are interested in partnering with California taxpayers to preserve and expand the CAED standard of educational excellence

The College of Architecture and Environmental Design's 12-acre "Experimental Lab" above campus in Poly Canyon features student design and construction projects.

through financial investments and contributions.

In the year 2101, future students and faculty will discover the contents of a time capsule currently being completed by our students in celebration of Cal Poly's centennial celebration. It is just one of the many gifts of a legacy we hope to leave for those who will follow.

Orfalea College of Business

Although the newest of Cal Poly's colleges, the College of Business has earned a reputation as one of the nation's premier undergraduate business programs, enrolling only one in every 10 applicants. Concepts such as globalization, entrepreneurship, and technology come to life within the College of Business as students acquire the unique combination of managerial and technical skills that will be needed to succeed in the 21st century.

The College of Business has earned its current reputation in part because of its technology-based curriculum and a learning methodology that emphasizes student projects. However, it is the people of the College of Business—students, staff, and faculty—that distinguish Cal Poly's College of Business. They bring a commitment to the university's traditional values of learning by doing, small class size, extensive student-professor interaction, and educational innovation. The college's technology base includes multimedia kiosks, computer access ports and wireless network for classroom use of laptops, and a computer lab that is the largest within the CSU system.

The unique educational environment at the College of Business is sustained not only by the traditional hands-on methodology, but also by a vibrant curriculum and partnerships attuned to the changing needs of industry. More than 100 business leaders actively serve on the college's advisory councils and boards.

Cal Poly's College of Business was recently selected as one of only six universities worldwide for a Sun Campus Incubator, sponsored by Sun Microsystems, Inc. Under the program, student teams receive the technology, consultation, and, potentially, the venture capital needed to develop their e-business ideas. The College of Business is also developing a privately-funded entrepreneurship program, which provides project-based learning and opportunities for students to work directly with entrepreneurs from all over the world.

The convergence of technology, entrepreneurship, and globalization creates a unique niche for the College of Business. In November 2000, Paul J. Orfalea, founder of Kinko's Inc., affirmed this niche with a donation of $15 million to Cal Poly's College of Business. The gift establishes the Orfalea Family Endowment for Excellence, which will focus on the college's strategic initiatives in entrepreneurship, globalization, and technology through scholarships, faculty development, and program enhancements.

Graduates line the steps of the College of Business on commencement day. Cal Poly's business students are much in demand due to the campus' strong technology-based curriculum and the school's vital partnerships with private industry.

Of the Orfalea gift, President Warren J. Baker said, "The Orfalea family's generosity will make it possible to transform the ideas and talent of the College of Business faculty into broader opportunities for students."

The $15 million gift is believed to be the largest individual gift of cash or securities ever recorded in the 23-campus CSU system, and it brings the first named college to Cal Poly. "Cal Poly deserves recognition for encouraging its

Completed in 1992 at a cost of $13.7 million, the landmark Business Building is a 60,000-square-foot facility located on the west side of campus. This newer structure adjoins the familiar "clock tower" building which houses the Education Department.

students to gain experience through hands-on internships and collaboration with businesses, enabling graduates to be well equipped upon entering the business world," Orfalea commented. "It is our hope that this gift will further endorse the mentoring between teachers and students that provides a lifetime foundation for success."

The Orfalea gift creates new opportunities to accelerate the college's pursuit of distinction. In this effort, our strongest allies are the alumni and friends whose philanthropy ensures the college's progress. Business alumni have an unmatched enthusiasm for their college, giving funds, offering internships and cooperative work assignments in business to students, returning to speak to classes and student organizations, and advising on curricula and employment standards in an ever-changing market. With their support, the College of Business sustains a dynamic educational environment, offering innovative teaching methodologies, up-to-date research, and extensive interaction with the business community.

The mission of the Orfalea College of Business is distinctive in its call to action for integrating technology and entrepreneurial spirit with a global perspective. We stand today on the threshold of enormous opportunity and promise.

College of Engineering

Engineering has been fundamental to Cal Poly from the very beginning, and Cal Poly engineers have been vital to industry and to society ever since the first class of students graduated. Building on Cal Poly's philosophy of the practical application of knowledge, the College of Engineering has successfully prepared 20,000 students for professional engineering and computer science practice. In fact, the college has been so successful in educating engineers using the learn-by-doing philosophy that it has emerged as the nation's number one public, primarily undergraduate engineering school, according to *U. S. News & World Report.*

Today, the College of Engineering reflects a hands-on learning philosophy through its unique project- and design-centered curriculum. The college's many design-centered laboratories and its capstone senior-project design experience recall the days when students actually assisted in building and maintaining Cal Poly's facilities.

The original mechanics courses and five original labs have evolved into 11 engineering degree programs and more than 80 laboratories that occupy 160,000 square feet in eight buildings. The College of Engineering—the largest of Cal Poly's six colleges—has an enrollment of nearly 4,000 students, the largest primarily undergraduate engineering school west of the Rockies.

Environmental engineering students and faculty at work in the Guadalupe oil field.

Laboratory upgrades and cutting-edge, industry-sponsored facilities ensure that Cal Poly's engineering students have the opportunity to work with the most current technological systems. Newest among these is the Advanced Technology Laboratories (ATL) building, which provides labs for biomechanics, earthquake engineering, aeronautics, and solar power studies. Unlike most other engineering schools, Cal Poly makes these sophisticated, high-tech systems available to undergraduates, thus preparing them to launch directly into successful engineering and computer science careers upon graduation.

Indeed, Cal Poly's engineering students have gone from fixing radios to designing computer software systems and award-winning parafoils, wastewater treatment systems, and picosatellites that will be launched into space by NASA. In fact, the College of Engineering students and faculty have brought Cal Poly's learn-by-doing credo to a new level of real-world involvement. Sponsored student and faculty applied-research projects, which are often multidisciplinary, benefit students by exposing them to the most current technology. Such projects are also contributing significant advancements to society and industry.

Under a grant from Unocal, for instance, Professor Nirupam Pal and a team of environmental engineering students are devising a monitoring system to track clean-up of a 9-million-gallon oil leak at the Guadalupe dunes. Another student, Julie Janai in civil engineering, received funding from the National Science Foundation to seek more accurate methods of converting ground motion data into structural design response predictions, which will help provide greater protection from earthquakes. And manufacturing senior Matt Brown has undertaken a senior project sponsored by Andersen Consulting

that will help the cutting tool industry produce inserts that can provide the best wear resistance under the toughest conditions.

These projects represent a small sampling of the design and applied research experience that is integrated into the curriculum of each department in the college, experience that distinguishes graduates of the College of Engineering and places them on the forefront of our technological age. The College of Engineering will continue to provide leadership in engineering education by expanding on its time-proven, project-centered teaching model. Just as engineering has been key to the polytechnic mission of Cal Poly, so will Cal Poly engineers and computer scientists continue contributing to the advancement of humankind and to the continued success of the United States in the global marketplace.

Top: Cal Poly's student chapter of the Society of Automotive Engineers (SAE) won in two categories and finished in the top 10 at the 2000 Formula SAE international automotive design competition.

Above: Students at work in the Solar Turbines/Bently Nevada Vibrations and Rotor Dynamics Laboratory.

College of Liberal Arts

At the cusp of Cal Poly's centennial and a new millennium, the students and faculty of the College of Liberal Arts explore humanity's past, anticipate its future, and help to chart the course between. Discovering meaning in human experience is the mission of the liberal arts everywhere. The uniqueness of this college is a second mission specific to the polytechnic context of Cal Poly—to mediate the claims of vision and pragmatism, timeless truths and timely imperatives.

This college's traditional liberal arts responsibilities include developing students' powers of rational analysis, expressive clarity, and independent judgment as well as enlarging their knowledge of the social, political, and artistic legacies of their own and other cultures. Faculty in the college address these goals in the 70 percent of general education offerings that this college provides to Cal Poly students across the university, as they do in the arts, humanities, communication, social and behavioral science, and interdisciplinary major and minor programs housed within the college's departments.

Simultaneously, the college is committed to emergent fields and technologies and the realignment of traditional fields in new interdisciplinary frameworks. It works with partners inside and outside the university to maintain currency in its curriculum, technology, and pedagogy. For example, very recently the Modern Literatures and Languages Department combined resources from the state, students, and two generous donors to create a new Polylingual International Resource Center (PIRC), enabling the integration of digitized films, slides, music, and other media into courses on languages and cultures. Soon additional software and a consortium including other California universities will enable instruction in important languages not yet represented in the curriculum. Another partnership between the Graphic Communication Department and Apple Computer, Heidelberg Creo, Kodak Polychrome Graphics, Afga, and Xerox has digitized the GrC labs to better prepare graduates from this major for the industry they serve. Art and Design and Architecture faculty have joined to create rendering, animation, and modeling courses for both majors. Ventures like this one, which will expand to embrace Theatre and Music, require students from different disciplines to cooperate on the same projects and develop team skills essential to most work in the 21st century. They also help students to connect the basic knowledge, theory, and investigative methods of multiple disciplines. A similar effort bringing together the geography students and faculty in this college with the landscape architecture and natural resource management students and faculty in other colleges is also under way.

Graphic communication students at work in University Graphics Systems (UGS).

Spirited new technical and intellectual adventures are just as evident in the accomplishments of individual faculty and students. Not long ago, the Public Broadcasting System (PBS) featured English professor Peggy Lant among other notable U.S. faculty in a documentary on pioneers in distance education. This spring, Cal Poly English professor and author of *Shakespeare and the Bible* (Oxford University Press, 2000) Steven Marx will team-teach with the head of MIT's literature department a course for students at both universities. Professor Marx will test software currently in research and development at Microsoft to permit students to access, annotate, and exchange video clips from the Shakespeare Electronic Archive. Ethnic Studies professor Victor Valle, who shared a Pulitzer Prize for a series on "Southern California's Latino Community" in the *Los Angeles Times,* has received accolades and nominations for more national awards

College of Liberal Arts Degree Programs

Applied Art and Design
Child Development
English (BA, MA)
Graphic Communication
History
Journalism
Liberal Studies
Modern Languages and Literatures
Music
Philosophy
Political Science
Psychology
Social Services
Speech Communication
Theatre

Minors in 23 subject areas within the degree programs are also offered.

Music students rehearse for an upcoming performance.

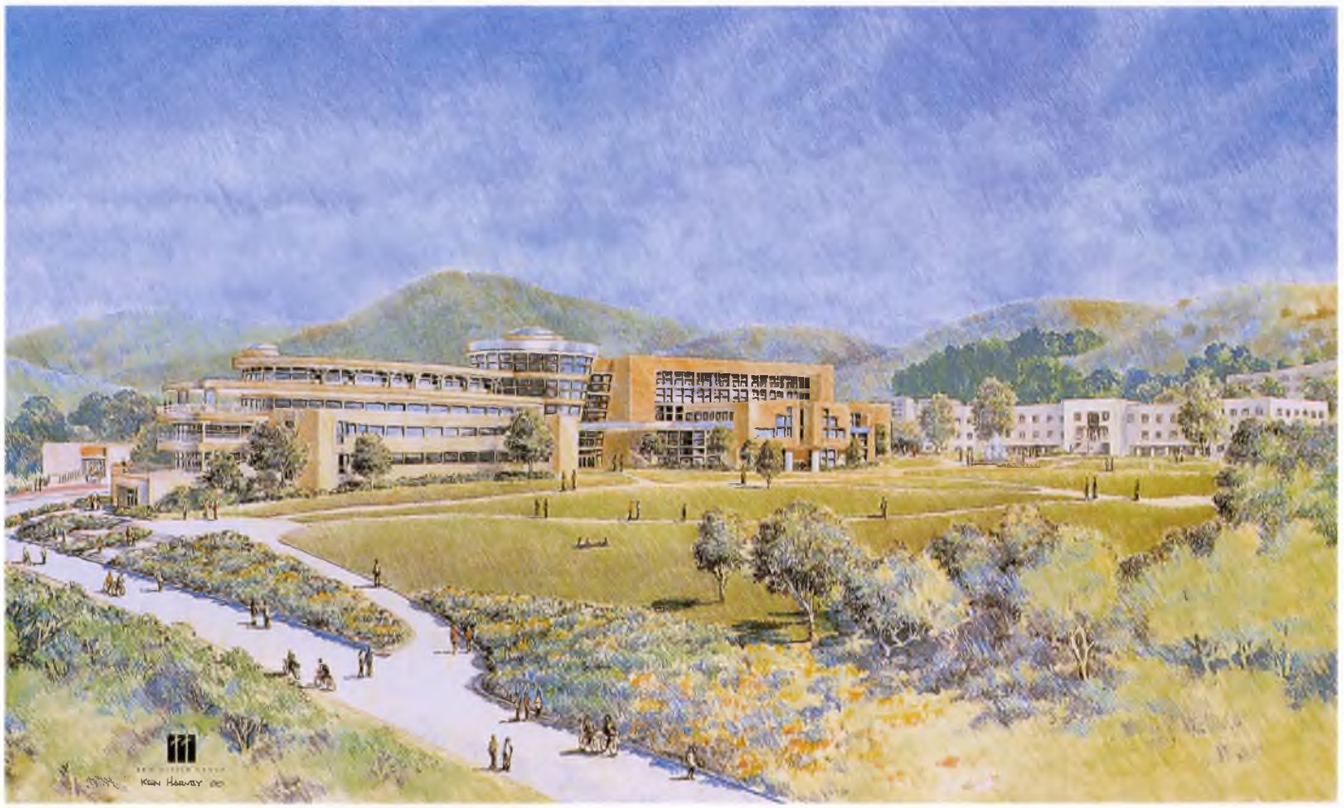
for his *Recipe of Memory: Five Generations of Mexican Cuisine.*

As they always have, students in the college continue to enroll at fine graduate and professional schools, including Boston University, Princeton, and Georgetown. But others are entering very competitive interdisciplinary graduate programs in African studies, cognitive science, and the history and philosophy of science at Yale, the University of California and the University of Pittsburgh, respectively. A recent graduate student in English took first prize in the graduate humanities division of the California State University's annual Undergraduate Research competition for a paper on Emily Dickinson's punctuation and 19th-century mind science. A music graduate from June 2000 earned first prize in the undergraduate humanities division last spring for his reconstruction of music composed by Manuel de Sumaya in colonial Mexico.

Outside the classroom, College of Liberal Arts students participate in student government, perform in musical ensembles, mount quarterly theater productions, dance in Orchesis, show and curate art, staff and print the award-winning *Mustang Daily*, run the campus' radio and television stations, manage an on-campus printing company, succeed in national forensics competition, write and publish a literary magazine, and serve the local community.

The college's pride in the accomplishments of its alumni is also enormous. Their stories inspire everyone on campus. Laura Diaz (English '80), who was a first-generation college student, now co-anchors ABC 7 "Eyewitness News" and maintains a full speaking schedule with community groups in Los Angeles. Mark Coudray (GrC '77) is president of Serigraphic Design, owner of Coudray Graphic Technologies, which he created to investigate, develop, and implement emerging digital technologies for screen printing, and chair of the Graphic Communication Advisory Board. Mary LaVenture (Jour '77) is a highly acclaimed costume designer, consultant to Disneyland, headdress coordinator for Laguna Beach's annual Pageant of the Masters, and a past president as well as founding member of the FANS alumni support group for Cal Poly's Theatre program. What they and so many other College of Liberal Arts alumni share is not only uncommon success in their chosen careers but also sustained contributions to their own and this community. As proud as it is of their achievements, the College of Liberal Arts is just as grateful for their continuing advice and support.

College of Science and Mathematics



Architect's rendering of the proposed Center for Science and Mathematics and Centennial Park.

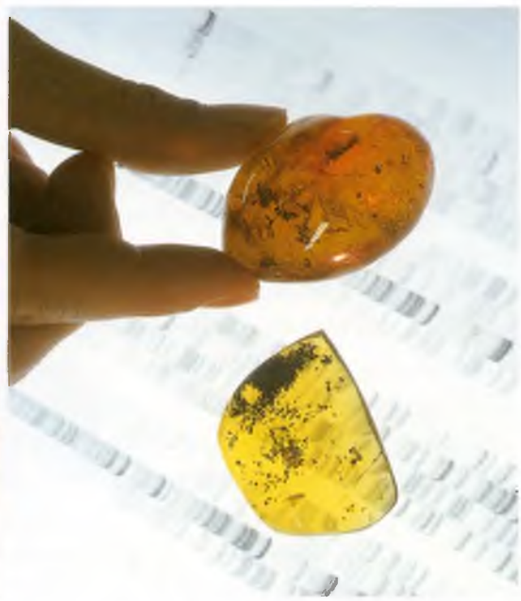
As we enter Cal Poly's centennial year, the College of Science and Mathematics has much to be proud of in its past and has high hopes for its future. Today, our students are among the best in the state and nation. The freshmen entering the College of Science and Mathematics in the fall of 1999 had a median high school grade point average of 3.9 and average SATs of almost 1,200.

The departments in the College of Science and Mathematics are dedicated to Cal Poly's mission as an undergraduate teaching institution. In 1993, biology undergraduate Hendrik Poinar and his research mentor, Professor Raul Cano, became the first in the world to isolate DNA from an insect encased in ancient amber. The journal *Nature* recorded the accomplishment, just as the movie *Jurassic Park*, based on that very scenario, had its world premiere. The result was worldwide publicity for Cano and Cal Poly's Biology Department, including a live report on NBC's "Today Show." Later Professor Cano and other students were the first in the world to revive and propagate bacterial spores recovered from the abdomen of an insect encased in amber for millions of years.

The Departments of Chemistry and Biochemistry, Mathematics, and Physics are known for the quality of their graduates, sought after by industry and graduate schools in large part because of the direct research experience they gain working closely with faculty. Many best-selling statistics textbooks come from authors in our Statistics Department, where two faculty members are Fellows in the American Statistics Association. The Physical Education and Kinesiology Department is recognized throughout the state for the quantity and quality of physical education teachers it produces.

Recently generous donors have honored us with the presentation of three endowed chairs to the college, the first in the history of Cal Poly. The first chair endowed at Cal Poly is the Arthur C. Edwards Endowed Chair for Coatings Technology and Ecology. California's paint industry established the chair to support the new Western Regional Center for Polymers and Coatings in

Physics student Pete Langston conducts an experiment using a Tesla coil for his student project, assisted by Physics Department Chair Richard Saenz.



DNA researchers study bacteria preserved in amber, one of the results of Cal Poly microbiologist Raul Cano's renowned experiments.

the Department of Chemistry and Biochemistry. In July 2000, the Unocal Corporation provided the College of Science and Mathematics with two endowed chairs. The Environmental Biotechnology Institute received $5.6 million from the Unocal Corporation, one of the largest cash donations in Cal Poly's history.

The human face of the College of Science and Mathematics is changing, reflecting the diversity of California. Twenty years ago, the faculty was more than 90 percent white males, as was common in American higher education at the time. The next generation of faculty that we are now hiring represents the diverse and multicultural aspects of our culture. Of the 32 faculty members we have hired in the past half dozen years, 55 percent are male and 45 percent are female. Asians, Hispanics, African-Americans, and a Native American are now present on our faculty. Today, women comprise 55 percent of the students in the Mathematics Department.

The largest and perhaps most important project in the history of the College of Science and Mathematics is being pursued as we enter the centennial year. Our plan is to raze the existing Science Building 52 (the "spider building") and replace it with a modern, multi-story science and mathematics building, while converting the central space into a Centennial Park.

The new Center for Science and Mathematics will influence the way in which Cal Poly's own hands-on, learn-by-doing philosophy is applied. The new center will promote effective use of technology in classrooms and laboratories, while supporting the vibrant partnerships of our faculty, staff, and students in creative activities through undergraduate research. The building will also house special programs and centers in environmental biotechnology, polymers and coatings, and science and mathematics teacher education. The park will be a place of extraordinary comfort and beauty that symbolically integrates the mission and values of the university with the physical campus, and provides a rich and inspiring living and learning environment for the Cal Poly community.

Robert E. Kennedy Library

At the heart of Cal Poly's learn-by-doing enterprise is the Robert E. Kennedy Library, named for the university's seventh president. As a campus leader in information management, we integrate 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 our collections, attend classes, work in groups, or consult with members of the library faculty and staff. Thousands more enter our electronic library, where resources are available 24 hours a day from any location. As the largest library between Santa Cruz and Santa Barbara, the library also plays a critical role in the surrounding community. Each week, more than 60,000 people confer with librarians and staff and use the collections of the Kennedy Library.

From its origins in one room of the first administration building to the present facility housing a collection of nearly five million items, the library is proud of its varied collections of books, journals, multimedia, K-12 learning resources, and government documents. Authors from campuses across the United States and researchers from seven countries have traveled to the Kennedy Library to use our archival collections of manuscripts, rare books, architectural drawings, and photographs. Special Collections materials have been featured on the BBC, CNN, PBS, A&E, and in international print media.

Along with the library's unfaltering commitment to the diversity of cultures, learning styles, and needs of our users, the library faculty and staff are dedicated to bringing new and emerging information technologies to the Cal Poly community. A recent innovation is the Digital Teaching Library, which includes databases with web-enabled interfaces. Here library faculty teach the latest multimedia applications and create digital collections in collaboration with their teaching colleagues. MyLibrary and MySyllabus interfaces allow professors to create their own Web pages of

Students use the library for collaborative learning and research.

relevant online resources and class content without knowledge of HTML. ElectronicCoursepack allows faculty to create electronic reading lists of full-text journal articles with external Web links. Our digital initiatives have been featured in *American Libraries*, *Library Journal*, and at national conferences.

Cal Poly students use the library in numbers that far surpass those of other CSU campuses. So great is their use of workstations, collaborative study space, information instruction, and electronic collections and services that our present resources are exceeded. Consequently, the Robert E. Kennedy Library is working to secure endowments to augment our state funding. We are collaborating with each of the colleges to establish a $1.5 million endowment to sustain college-specific collections and identify new funds for high-cost scientific and technical materials. The library is also working with other campus information partners to raise $25 million in private and public funds for a Center for Interactive Learning, an innovative facility dedicated to collaborative teaching and learning styles. This endowment will fund multimedia and collaborative classrooms, electronic resources, and improved access to off campus users.

In the 21st century, the Robert E. Kennedy Library continues to encourage independent lifelong learning. Although our mission and values do not change, how we fulfill the mission does, as we respond to the changing landscape of needs, ideas, and technologies.

University Center for Teacher Education

The University Center for Teacher Education Building on the Cal Poly campus, where students train as future teachers.

From the time teacher education first became part of the curriculum in 1933, Cal Poly has been committed to producing quality teachers. Today, the University Center for Teacher Education is Cal Poly's academic unit for the education of teachers, school counselors, and administrators.

The UCTE––unique in structure both at Cal Poly and within the CSU system––shuns the isolated ivory-tower approach to education. Based on the educational principles of John Goodlad, UCTE is designed as a "Center for Pedagogy," or a focal point for Cal Poly's university-wide commitment to teacher education. This whole-campus approach is reflected in our faculty, which is divided between full-time education professionals (Unit Center Faculty) and professors from the six colleges of Cal Poly (Single-Subject Faculty and Content Educators.) Goodlad's principle of simultaneous renewal also dictates that improvement of teacher education is dependent upon the concurrent improvement of schools. UCTE therefore collaborates with local public schools in order to foster growth and change within the district schools and within itself.

UCTE offers multiple-subject credentials for elementary/middle schools and single subject credentials in Agriculture, English, Home Economics, Mathematics, Physical Education, Science (biology, chemistry, physics), and Social Science. Specialist credentials include Administration, Agriculture, Pupil Personnel, and Special Education. Master's degrees in education can be completed in tandem with a special credential or with a focus on curriculum and instruction.

The UCTE Steering Committee, an advisory body for the center, is composed of public school teachers, counselors, and administrators, as well as UCTE faculty. The Steering Committee sets directions for Cal Poly's collaboration with schools in the region.

California and the nation are facing a massive teacher shortage over the next decade. Because of the new initiatives for kindergarten through grade 12 (K-12) education emanating from the Governor's office and the implementation of new state standards, the face of education in California is changing. The mandate to reduce class size ––coupled with a growing number of students who will enroll in the next few years––increases the need to graduate more highly qualified teachers. Additional funding from the state for educational initiatives and gifts from alumni and friends will lay the foundation for growth of the UCTE. Along with a growing student population and new funding, the University Center for Teacher Education will start the 21st century with a new dean and new faculty members. After a decade of successful growth and development as the only California member of John Goodlad's National Network for Educational Renewal, the future of teacher education at Cal Poly is bright.

Afterword

Cal Poly's centennial invites pride in a century of distinguished service to California, but also consideration of our future. What will Cal Poly look like in 20 or 30 years? I believe our plans of the last decade, including the new campus Master Plan, provide consistent themes, leading to a clear vision of Cal Poly a generation hence. We anticipate that Cal Poly will grow (to as many as 20,900 students), that it will change and develop with society, but that it will also retain many important qualities, values, and traditions.

Cal Poly will keep its undergraduate emphasis. Cal Poly has a secure identity as an undergraduate, comprehensive, polytechnic university. We know who we are. And we know the value of our contributions to students and society. Nationwide, the average age of undergraduate students is increasing but a new generation of California students, in the K-12 pipeline now, will remain Cal Poly's primary audience. At the same time, our graduate programs will continue to be important. And there is a growing need for terminal master's degree programs. Finally, while we will not attempt to become a national research university, research is an important part of our role under the state's Master Plan for Higher Education. It supports faculty creativity and engages the university in important technical and social issues. Involving undergraduates in research is also an important component of learning by doing.

Cal Poly will remain a residential campus. At our residential campus, undergraduates passing into responsible adult roles are given the time and resources to discover values and interests in the classroom and in the residence halls, and in clubs and through other extracurricular activities. As Cal Poly grows over the next 20 years to help meet the demand for higher education, our Master Plan will ensure that we sustain this residential focus.

Information technology will be applied to support teaching and learning. Cal Poly has emphasized use of up-to-date information technology to enhance teaching and learning. We want students and faculty to be able to access Internet resources, to contact the library and other campus resources 24 hours

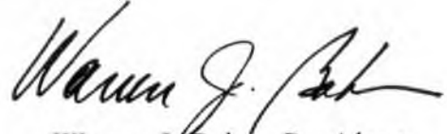
a day, and to use revolutionary software tools. Cal Poly will not become a "virtual university," offering many courses on line to our core student body. The Internet will, however, permit us to offer courses to students temporarily off campus for various reasons (for example, industry co-ops or Swanton Pacific Ranch internships) and to provide continuing education for practicing professionals. Any expansion in distance learning will be guided by faculty, ensuring distance learning will not erode the quality on which our reputation is based.

Cal Poly will retain its polytechnic mission. We recognize that the arts and sciences provide a foundation for all programs, helping to ensure that graduates are skillful communicators, able to reach reasoned and principled judgments, and prepared to work effectively with others. At the same time, we will continue our mission focus on providing a superior polytechnic education for students from across the entire state and emphasize enrollment growth in those areas. Moreover, we will ensure that all students leave Cal Poly with a polytechnic "stamp," providing an added dimension for students in the humanities, social sciences, and the arts.

Cal Poly will build upon its educational philosophy. Cal Poly will remain committed to excellence in teaching and learning, building on our distinctive educational philosophy. In all disciplines we will preserve a student-centered, learner-focused approach that derives from a low student-teacher ratio in classes conducted primarily by full-time, regular faculty. We will sustain the idea of "learning by doing," reinforcing classroom instruction with practical, hands-on learning in the laboratory, the studio, or out in the field. We will encourage internships and service learning. And all graduates will continue to complete a senior project involving research or creative activity.

Cal Poly and the future of higher education. Higher education will look very different in the future, according to many specialists. National research universities will thrive. Smaller regional institutions will face competition from for-profit vocational schools and corporate or "virtual universities." However, another kind of university will flourish—the residential university, offering high-quality, comprehensive education, responsive to societal needs, focused on student learning, adaptable to new technologies, and valued for the quality of its graduates. Cal Poly shares this important educational niche.

Cal Poly has at its core an educational philosophy that will sustain us far into the future. Of course, these values alone do not constitute our greatest strength. That strength lies in the quality of the men and women—faculty, staff, and students—who make up, who indeed are, the University.



Warren J. Baker, President

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University Archives, Robert E. Kennedy Library, Cal Poly: 7, 17 right, 18 bottom, 21 bottom, 22 top left, 23 middle and bottom right, 25 middle right & bottom, 27 right, 28 left, 32 left, 35 bottom, 43 top right, 44 top left, 48 left, 49 right, 52 top and bottom left, 53 right, 55 bottom right, 56 both, 57 right top and bottom, 63 top right, 64 left, 65 top and bottom right, 75 bottom right, 76 middle and bottom left, 77 bottom, 78 right, 79 right, 80, 81, 82 bottom, 83 bottom, 84 left, 85 bottom, 86 top left, 87 bottom right, 88 left, 95 right, 97 top right, 98 left, 100 left, 102 top left, 104 left, 106 left, 107 right, 110 left, 111 top and bottom right, 112 bottom, 113 all, 114 top left, 115 top and bottom right, 127 bottom, 142 left, 144 top, 145 middle.

University Photo Archives, Robert E. Kennedy Library, Cal Poly: cover (Harry Bonath), 6, 7 left, 19 both, 21 top, 23 top right, 26 left & bottom, 27 bottom (Francis Pedley), 22 middle & bottom left, 29 right, 30 right, 31 both, 32 right, 33 both, 34, 35 top, 37, 38 top, 38 bottom (Francis Pedley), 39 both, 40, 41, 42, 43 left and bottom right, 44 right and bottom left, 45 top, 46, 47 all, 48 right, 49 left, 50 both, 51 both, 52 top right, 53 left, 54 right, 55 top right, 57 left, 59 both, 60, 61, 62, 63 left and bottom right, 64 right, 65 left, 66, 67 both, 71, 72 both, 73 left, 74 both, 75 left and top right, 76 top, 77 top, 78 left, 79 left, 82 top, 83 top, 84 right, 85 top, 86 right and bottom left, 87 top right and left, 88 right, 89, 90, 91, 92, 93, 94, 95 left, 96 both, 97 top left and bottom, 98 right, 99, 100 right, 101 both, 102 bottom left and right, 103 both, 104 right, 105 both, 106 right, 107 top and bottom left, 108 all, 109, 110 right, 111 top left and middle right, 112 top, 114 top right, 115 all left, 117, 118 left, 144 bottom, 145 top, 147, 160, 176; (Frank Aston): 1, 2-3, 12, 18 top, 20, 22 top right, 23 top left, 24 both, 25 top & middle left, 26 top, 27 top, 28 right, 29 left, 30 left, 110 right, 115 middle, 115 bottom left (Fran Edwards); (Wm. B. Dewey): 4, 5, 10, 116, 130, 131, 133, 137 both, 138, 139, 141, 153.

Cal Poly Alumni Association: 124 left; Cal Poly Athletic Department: 144 middle, 145 bottom; Cal Poly Public Affairs: 8 (Doug Allen), 118 right, 120 both, 121 left (Marcia Wright), 121 right, 122 left, 122 right (Doug Allen), 124 right, 125 both, 126 right, 127 top (Doug Allen), 128 both, 129 both, 134, 135 (Patrick Swadener), 136 bottom (Ken Chen), 138 inset, 140 (Karen McLain), 142 right, 143, 146, 156; College of Agriculture: 148 both, 149 both; College of Architecture and Environmental Design: 150 both, 151 bottom; Orfalea College of Business: 152; College of Engineering: 132 left; 154, 155 both; College of Liberal Arts: 157; College of Science and Mathematics: 158, 159 left; University Center for Teacher Education: 161.

Additional Resources: Betty Righetti Middlecamp: 58 both; Cal Poly Pomona University Library Special Collections: 68, 69 both, 70 bottom; Karlen Design (Jeff Hamilton): 132 right; National Aeronautics and Space Administration (NASA): 123 both; *San Francisco Chronicle* (Michael Maloney): 119; *U.S. News & World Report*: 126 left; *Watsonville Register-Pajaronian* (Kurt Ellison): 135 top.

Index

Numerals in italics represent illustrations. CPS refers to California Polytechnic School.

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Cal Poly Alumni Association

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