

FIAT LUX

THE UNIVERSITY OF CALIFORNIA

INTRODUCTION

To look at the University of California is to look at California itself—its land, its people, and their problems—into the civilization rushing toward us from the future. There are few aspects of California, or of this civilization, whose first shapes are already sharply visible against still nebulous but galactic potentials, with which the University is not concerned.

When Clark Kerr, then president of the University, asked us to undertake this survey in words and photographs for the University's centennial, he challenged us to project, as far as possible, "the next hundred years." Literally impossible, of course, because you cannot—as yet!—photograph a thought beginning to stir in the minds of a hundred, or a thousand, or a million different men, nor will any responsible scholar allow premature publication of his ideas and theories.

Nevertheless, we took Kerr's challenge as our general directive. Conceivably, there have been or will be more arduous periods in which to photograph the University; this period was difficult enough. On many campuses, the University was being torn down, rebuilt and expanded at a rate unbelievable, perhaps, except by eyewitnesses. Buildings were being demolished and carted away. Bulldozers were excavating new sites and roads, and carving out new landscapes. Cranes were lifting up girders and swinging shapes of precast concrete into place. Saplings were being staked up, and new plantings soaked by sprinklers. In 1964, when we made our first panoramic tour, there was nothing at Irvine but a few skeletal piers, nothing at San Diego but a building and a half, while at Santa Cruz the Chancellor had set up office in an old cookhouse. Visually, the University was in metamorphosis.

Internally, perhaps, there has never been a more illuminating period through which to view the University. The excitement of seeing so many plans, hopes and ideas materializing simultaneously embraced not only the University, from Regents to freshmen, but also the surrounding communities.

In the course of creating this comprehensive survey of the total University and its effect on the people and the land of California, we made many visits to each of the nine campuses and the major scientific and agricultural experiment stations. We wish it were possible to thank individually the hundreds of people who have helped in our search for understanding and the often elusive essential image—the chancellors and information officers of each campus, the deans of the many schools and colleges and of extension, the directors of the great scientific laboratories, the farm advisors of several counties, the professors and students who patiently endured the insistent camera eye and answered innumerable questions.

To penetrate to the central concept expressive of a place or a project was often exceedingly difficult, and finally achieved only after several trials. Neither the contrived, exotic situation nor

the careless "candid" snapshot are compatible with a truthful statement. Most laboratories, no matter how world-shaking their achievements, contain much the same hardware or glassware; classrooms, with a few exceptions, are alike everywhere; conferences and colloquia resemble each other interchangeably. One quickly runs out of visual variety. Yet there is no limit to the depth of human qualities of both faculty and students; the interactions and events are, to each individual, unique and very important. Our problem was to create some semblance of the total effect, the symbol rather than the enumeration.

During the last three years, thousands of subjects were encountered and studied, many hundreds photographed, reams of text written and rewritten. Many sequences and combinations of text and photographs were considered, and rejected as too detailed or too long. A favored photograph or passage of text would often be given up in deference to a more explicit image-and-word statement.

It is not possible to compress the University of California into 192 pages—to depict all aspects of student life, or to record all the popular buildings and vistas! Everyone who has been concerned in the making of this book will regret the inevitable omissions—and none more than the authors. So when you look upon a certain professor or student and wonder, perhaps, why x was chosen instead of y , remember that x , in this book, represents y and perhaps a thousand more, all equally deserving of representation in these pages.

The entire photographic archive will be deposited in the Bancroft Library at Berkeley, where it will serve not only as a record of the University at this period but as a source for future publications and other uses by the University. The present selection represents, to the best intentions and abilities of the authors, a brief outline of what we have seen and understood of the scope, grandeur and quality of the University of California.

To list all those to whom we are indebted would require something on the scope of the University directory; our profound gratitude to you all. To those most intimately and enduringly concerned, our appreciation goes first to Verne A. Stadtman, Centennial Editor, and his patient and efficient staff, who have checked facts, illuminated approaches, typed and retyped text, and forwarded it, with celerity, to the authorities concerned, for comment and correction; to Liliane De Cock, for staunch and steadfast assistance in every phase of this project, including the making of three dummies; to Charles R. Wood and his associates for their meticulous care with the printing; and to Adrian Wilson, typographer and printer, whose skill and perception have helped immeasurably in the design and production of this book.

ANSEL ADAMS
NANCY NEWHALL

I THE CHALLENGE

In 1849, the year of the Gold Rush, thousands of people were converging on the huge, wild, still scarcely mapped territory of California. Many died on the way, in the mountains and the deserts, in the swamps of the Isthmus, and in the storms and shipwrecks of the long sea voyage around Cape Horn. Nevertheless, the population was growing by leaps and bounds; in spite of its remoteness, half a continent away from the rest of the nation, California would soon be a state. It was in chaos and confusion. The Constitutional Convention, meeting in Monterey, declared: "We are without a dollar belonging to the people, nor can we raise one without levying taxes, which no population was ever in a worse condition to bear... the laborers have abandoned their ranches and gone to the mines. Hence the owners of property are nearly ruined.... the vast majority of people have no property to be taxed except the gold they dig out of the earth...."

Anticipating, even in the midst of such destitution, the founding of a state university, "with such branches as the public convenience may demand, for the promotion of literature, the arts and sciences," the Convention made provision to protect and improve such lands or funds as might "be granted or reserved by the United States or any person or persons" for its support. "If we have the means here," said one delegate with an optimism destined to become characteristic of California, "we can procure the necessary talent; we can bring the president of the Oxford University here by offering a sufficient salary." They petitioned Congress for public lands, but the two townships eventually granted did not yield sufficient funds.

Meanwhile a few private academies and colleges were established. In Oakland, a group of Congregationalists and Presbyterians, led by the Reverend Samuel H. Willey and the Reverend Henry Durant, founded the Contra Costa Academy, which opened in 1853 in a rented *sandango* house. Two years later it was incorporated as the College of California; it had buildings and a campus of sorts, but its trustees began hunting for a larger, permanent site more in keeping with its

aspirations for the future. Eventually they decided on a hillside, some miles north of Oakland, which looked down on the glittering Bay of San Francisco, across to the city on its many hills, and out through the Golden Gate to the Pacific. Here, one day in 1866, on an outcropping of rock at the base of steep hills, they were watching two ships stand out toward the Golden Gate when one of them quoted the famous lines by the philosopher, Berkeley:

"Westward the course of empire takes its way;
The four first acts already past.
A fifth shall close the drama with the day;
Time's noblest offspring is the last."

The proposal was made that they should call the site *Berkeley*.

Fund-raising was difficult, due to the instabilities and anxieties of the times, first the Vigilantes in San Francisco and then the Civil War and its aftermath throughout the nation. Willey went East on fund-raising tours; Durant went begging to the new tycoons across the bay, and sometimes despaired. "Individuality is carried to an extreme in California... idealism seems lost from the mass of the people. They are sensualists and materialists...."

In 1862, Abraham Lincoln signed the Morrill Land Grant Act, which offered public lands to any state which would found "a college of agriculture and the mechanical arts." California's share would be 150,000 acres. The legislature in 1866 voted to establish a College of Agriculture, Mining and the Mechanical Arts. The College of California then made a remarkable offer: to transfer its buildings and lands to the state on condition that a new institution, "a complete university," be established, in which the arts and sciences should be taught as well as agriculture, mining and engineering. The legislature accepted. The Organic Act creating the University of California was signed by the governor on March 23, 1868, a date celebrated ever since as Charter Day.

The motto chosen for the new University was:
Let There Be Light—FIAT LUX.

"First it is a university, and not a high school, or a college, nor an academy of sciences, nor an industrial school which we are charged to build. Some of these features may indeed be included...but the university means more than any or all of them. The university is the most comprehensive term which can be employed to indicate a foundation for the promotion and diffusion of knowledge—a group of agencies organized to advance the arts and sciences of every sort, and train young men as scholars for all the intellectual callings of life...."

"It is not the University of Berlin, nor of New Haven, which we are to copy...it is the University of this State. It must be adapted to this people, to their public and private schools, to their peculiar geographical position, to the requirements of their new society and their undeveloped resources...."

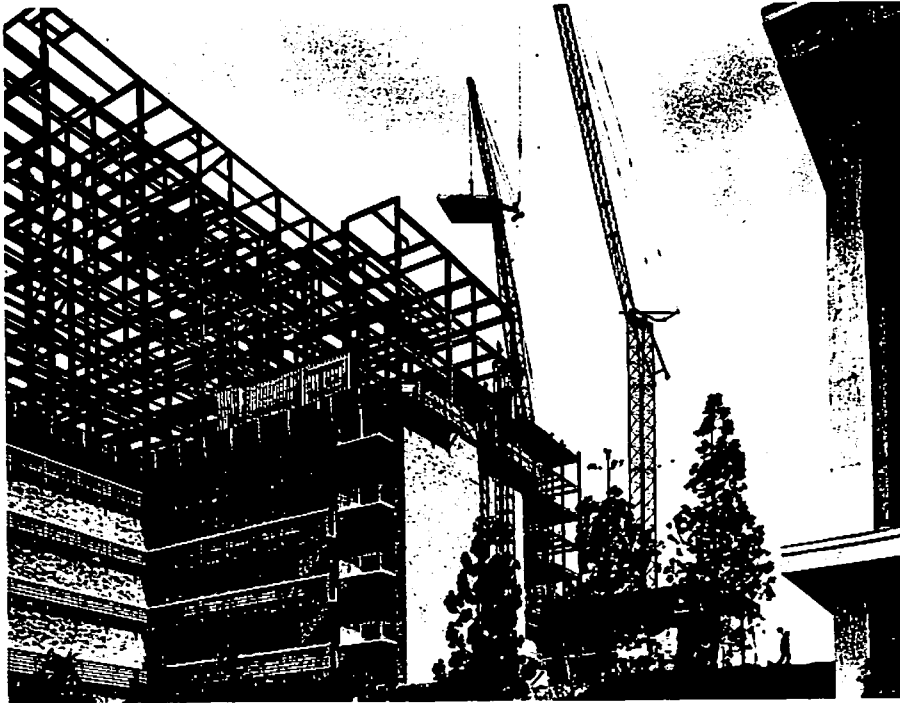
"Science is the mother of California. Give us more and not less science; encourage the most thorough and prolonged search for the truth which is to be found in the rocks, the sea, the soil and air, the sun and the stars; in light and heat and magnetic forces; in plants and animals, and in the human frame; but let us also learn the lessons which are embodied in language and literature, in laws and institutions, in doctrines and opinions, in historical progress...."

DANIEL COIT GILMAN
Second President of the University, 1872–1875
Inaugural Address

In the fall of 1869, the little University opened, still in Oakland, with forty students and a faculty of ten. Three months later its Regents abolished tuition. Thenceforth every qualified student who was a resident of California could enter the University free—an opportunity that, beyond question, contributed to the phenomenal growth of both California and its University. The quality of the education may be judged by the members of its first four-year graduating class, 1873, soon known as "the Twelve Apostles," who were to include a governor of the state, a mayor of Alameda, an engineer, a professor of mathematics, two lawyers, and a bank president; three of them were to serve as Regents.

The first years were turbulent. The income from the land grant funds and other endowments was insufficient; biennially the Regents had to appeal to the legislature for funds. Then a strong agricultural bloc, which had no use for the classical college or the notion that pure science had an important role to play in the future, and wanted immediate, practical results, raised a storm of criticism that threatened to abolish the Board of Regents and extinguish the University except for the Colleges of Agriculture, Mining, and Mechanic Arts. They also charged mismanagement of the land grant funds. The legislature, investigating, returned a clean ledger. The Regents, an able and powerful group of leading citizens, regained control. But dissension over the University's purpose and criticism of its administration lingered. In 1876, the legislature, after passionate debate and by a very narrow margin, defeated a move to detach the College of Agriculture from the University. Further attempts to alter the organic structure of the University by statute were ended in 1879 when a new state constitution, approved by the people of California, declared the University "a public trust... it shall be entirely independent of all political or sectarian influences, and kept free therefrom in the appointment of its regents and the administration of its affairs."

In spite of recurring storms, the University grew, decade by decade, college after college and station after station. In the 1870's, on the initiative of private donors, the University acquired a college of medicine and another of law in San Francisco, and the first United States Agricultural Experiment Station and a college of agriculture that would soon have few peers in the world were developed in Berkeley. In the 1880's the University's first great scientific station, Lick Observatory, was built. In the 1890's the college of mines attracted some of the University's first foreign students, and the University began reaching people throughout the state through Agricultural Extension and the University Extension. Toward the end of the 19th century, a halcyon period set in, an era of constructive competition with the new Stanford University at Palo Alto, and of splendid donations, including sponsorship of a comprehensive architectural design for the Berkeley campus. In the



*Additions to the Health
Sciences Center, Los Angeles*

1900's, came the University Farm at Davis, the Citrus Experiment Station at Riverside, and at La Jolla the beginning of the University's second great station, now known as the Scripps Institution of Oceanography. In 1910, Abraham Flexner, in his report on American education, listed the University of California as one of the leading universities in the country.

After World War I, and its aftermath, which shook the universities like the rest of the world, growth continued again. A "southern branch" of the University was established in Los Angeles. At Berkeley the already famous College of Engineering was being consulted on the planning and testing of such huge structures as the Golden Gate and Bay Bridges, and the Hoover and Shasta Dams. The invention of the cyclotron by Ernest O. Lawrence, a young physics professor at Berkeley, opened the Atomic Age and its world-shaking discoveries in high energy nuclear physics, chemistry, medicine, biology, industry, and warfare. Lawrence became the first of thirteen University faculty members who have won the Nobel Prize. In 1934, Berkeley was rated second in distinction only to Harvard. During World War II, some of its most brilliant and creative scientists and engineers were drafted into the vast, secret Manhattan Project, the most crucial of whose objectives was solving, before the Nazis did, the

problems of the atom bomb. In 1943 the United States asked the University of California to administer the first nuclear weapons plant; the site chosen was Los Alamos, New Mexico.

After World War II, population in California boomed as never before. The thousands of workers in the aircraft and shipyard industries, the thousands of servicemen stationed here briefly on their way to the Pacific, could not forget what they had glimpsed of life in California. They returned with their families to settle here. Veterans coming to finish their education under the G. I. Bill of Rights and high school students, whose numbers were growing almost geometrically, deluged the campuses. Along with the population explosion came the knowledge explosion: science was growing exponentially and so was industry. More people needed more knowledge than ever before. To University administrators it seemed as if a whole generation at once was clamoring at the gates for higher education.

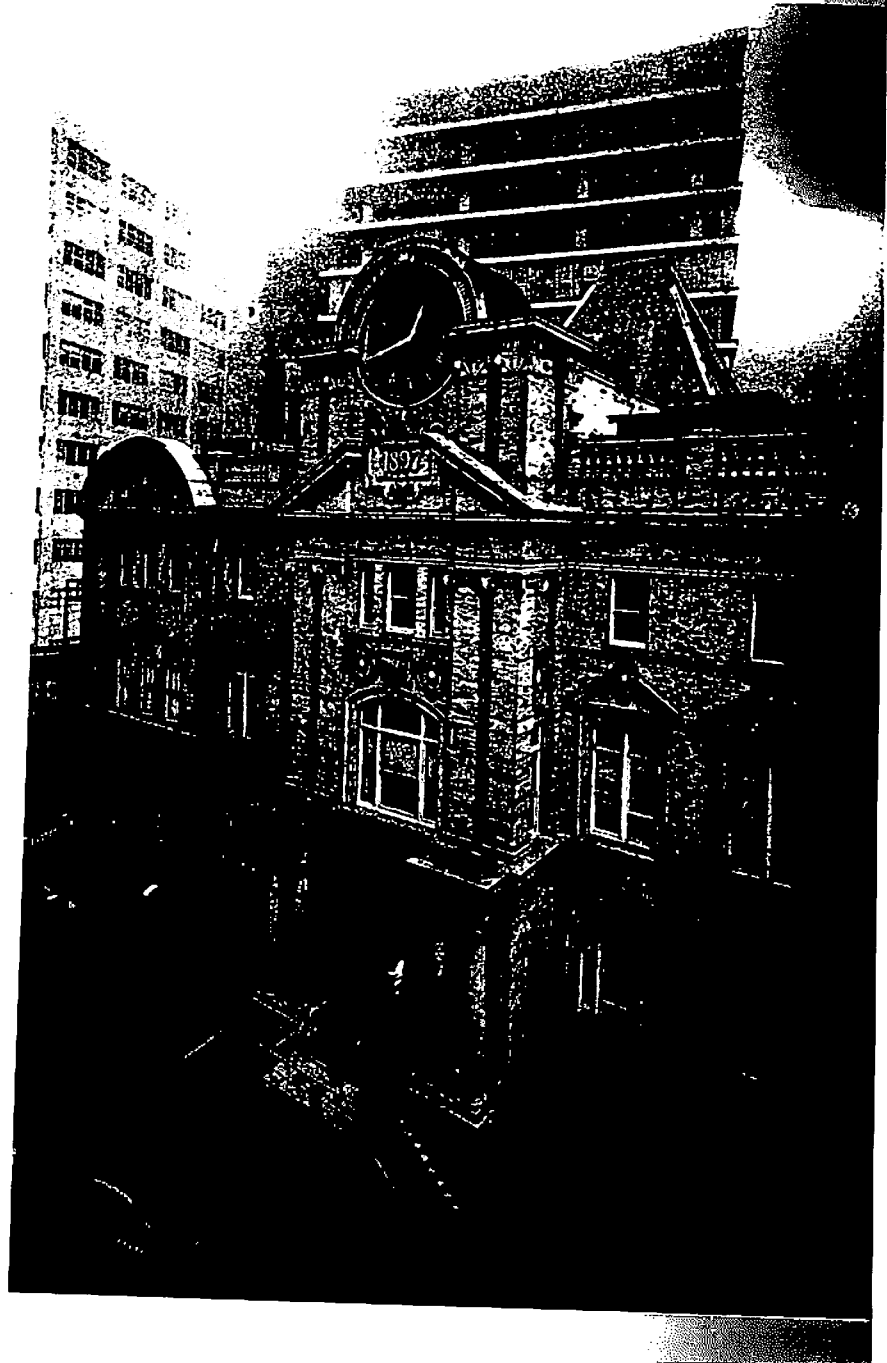
The University, even in the middle of World War II, had begun planning to meet these problems. In 1944 President Robert Gordon Sproul called an All-University Faculty conference at Davis, where delegates talked for three days of the discoveries and developments made during the intensive research projects of wartime—many of course were still secret

and could not be discussed—and what they would entail for the University when the tide of veterans came back again. Specialized laboratories, new classrooms and auditoriums, new research institutes—it took time to plan, fund and build such facilities. War surplus barracks could temporarily serve such purposes, but even permanent construction programs on the existing campuses would prove to be only stopgaps. What was needed was not only new campuses, but entire new faculties and new approaches to education in a rapidly changing society.

"We are just now perceiving that the University's invisible product, knowledge, may be the most powerful single element in our culture, affecting the rise and fall of professions, and even of social classes, of regions and even of nations... Knowledge is now central to society. It is wanted, even demanded, by more people and institutions than ever before. Knowledge, today, is for everybody's sake."

CLARK KERR

President of the University, 1958–1967
from *The Uses of the University*, 1963



Old Medical Building, now
demolished, San Francisco