

# THE ROOTS OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY II

by Imra W. Buwalda

By 1907 Throop Polytechnic Institute was financially solvent. It had a plant worth \$350,000, an enrollment of 529 students, a competent faculty, and an exceptionally strong and able board of trustees. The school had established enthusiastic local rapport, and it had gained national recognition for the quality of its training. Its board was now determined to develop an outstanding college of science and engineering.

The trustees realized, however, that they faced some immediate and major problems in making the change. One was the academic quality of Throop's students. In a frank statement to the board, President Walter Edwards reported that while . . . "there never has been a time when we have not had many students of whom any school would be proud, and some who were really brilliant . . . in the very nature of things a manual training school must attract an exceptionally large number of students of inferior scholastic and literary attainments."

Another problem was the school's location. Pasadena's population had grown from 5,000 in 1891 to 30,000 in 1908, and Throop was now in the heart of the business district, where property was too expensive for expansion and where it had become "too noisy and bustling for academic purposes."

In 1905 the trustees had appointed a committee to find a suitable new location. Two years later they accepted the committee's recommendation to buy 22 acres of the Rancho San Pasqual and appointed architect Myron Hunt to draw up building plans for the new campus.

But the greatest hurdle facing the board was financial—how to meet the enormous expense of developing a first-rate scientific institute, worthy to be called "The MIT of the West."

These concerns must have been on the mind of board chairman Norman Bridge when he called on

his friend George Ellery Hale one evening in the fall of 1906. Hale was not yet a member of Throop's board of trustees; he was elected on August 7, 1907. But the great astronomer and founder of Mt. Wilson Observatory had for some time been serving as ex-officio advisor to the trustees. According to Mrs. Hale, Bridge seemed almost desperate when he asked, "What can we *do* to become a really first-class college of science and engineering?" Hale's immediate response was: "Scrap practically the whole thing and start all over."

Hale's advice had a great impact on the trustees, for although they had decided to feature the College, apparently they planned to develop it as a part of the existing school, with its Grammar, Academy, Normal, and Commercial schools. But the impact on the school's administrative officers and faculty was shattering, and their confusion, resentment, anger, and dismay soon spread to the community in general. It was a time of conflicting rumors that made headlines, and of high-powered lobbying of individual trustees. Everyone agreed that the college should be expanded; everyone fought for the survival of his own school.

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*President Edwards (center) and faculty in 1901.*

*Second in a series of articles on the early years of Caltech adapted from a manuscript by Mrs. J. P. Buwalda.*

## The Roots . . . *continued*

President Edwards was willing to see the Normal and Commercial schools go, but fought hard to save the Academy and the Grammar School. Arthur Chamberlain, dean of the Normal School, would sacrifice all schools except his own, which he envisioned as the future "Teachers' College of Columbia of the West." Both of these men later resigned in disappointment and bitterness as the schools they worked to save became casualties of Throop's gradual conversion into a college.

In April 1907 the trustees took their first official step toward college status when they voted "to make Throop Institute a high-grade technical school." Its first department was to be a college of electrical engineering. A month later they passed a motion that "the elementary school should be removed before next year." Two months later they appointed a new president, James A. B. Scherer, at a salary of \$5,000.

George Ellery Hale was the moving spirit behind all this change. It was Hale who found Throop its new president. He met Scherer on shipboard when they were both on their way to Europe in the spring of 1907. Scherer, an ordained Lutheran minister, was at that time president of Newberry College in South Carolina. He was an authority on Japan, where he had served five years as a missionary. Following his missionary service, he became pastor of the First Lutheran Church in Charleston, South Carolina, and then president of the little Lutheran college in Newberry.

This was an improbable background for a president of a science and engineering college, but Hale recognized in Scherer other qualities to recommend him for the position. He was famous as the greatest orator in the South; he had been a successful fundraiser and builder during his administration at Newberry; and he was a promoter who was willing to take the tremendous gamble to "start all over." According to Hale's widow, Hale decided that since the first goal of the school was simply to survive, it

would do well to have an aggressive young president like Scherer and to recruit outstanding engineers and scientists for the faculty.

Scherer was inaugurated on November 19, 1908. During the next two years, the Institute eliminated all schools except the Academy and the College. On the strong recommendation of President Scherer, the trustees decided to keep the Academy on a two-year trial basis. Their serious intention to continue the Academy is indicated by the fact that they commissioned Myron Hunt to build a student residence hall on the North Los Robles property that, before it was finished, cost \$45,000. (This same building was later moved to the present campus and used as The Old Dorm and The Greasy Spoon until it was replaced by Winnett Center.)

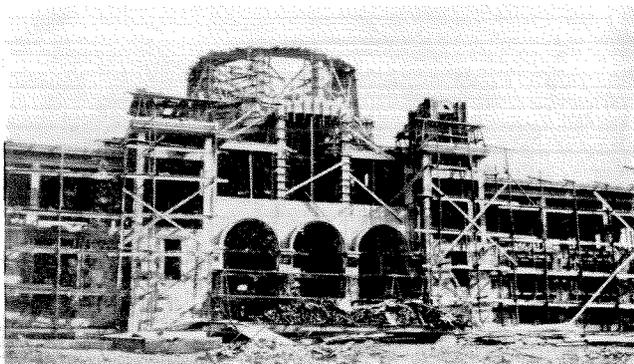
But Throop Academy was doomed, for by 1911 there were 30 polytechnic high schools in southern California. The final blow came when Pasadena voted a \$475,000 bond issue to establish a polytechnic high school of its own. On April 8, 1911, the board voted to discontinue the Academy.

Scherer sincerely believed in the pioneering development of a first-class college of science and engineering in burgeoning southern California, and he was challenged by the opportunity to help create "something entirely new in American education." "Here shall be a school," he wrote, "content with nothing lower than the best; resolved to set itself fixedly toward its ideas regardless of educational tradition when these might hamper its growth, yet eager to conserve whatever may help it forward in fulfillment of its destiny."

The proposed combining of the humanities with engineering and science was the theme of many of his public addresses. "You and I shall see it in our day," he said, "when Oxford shall shake hands with Pittsburgh."

In his first address to his faculty, he said, "It is the ambition of the government of Throop so to correlate and unify a course of study as to add, eventually, something new and vital to educational policies in America . . . It is hoped that every man in the faculty may have time for individual research. Throop will be measured in the educational world precisely as it succeeds or fails in this particular."

Architect Myron Hunt visited 25 American campuses before completing his plans for Throop's building program. On February 21, 1908, the *Los Angeles Times* reported: "Plans for an educational plant to cost between \$2,000,000 and \$3,000,000 and to surpass all existing institutions of the kind in the world will be submitted to the Trustees of



*Pasadena Hall (Throop) under construction in 1910.*

Throop Polytechnic Institute in Pasadena at a banquet tonight in Hotel Green . . .”

Hunt's master plans for the campus featured a central building. He had not only managed to save the 40 beautiful oak trees on the property but had featured them. He had placed the central building at the highest point and planned the grading to accentuate it. The proposed building was a handsome structure, facing a central mall running to Wilson Avenue.

By the fall, however, President Scherer had arrived, and he had very definite ideas of his own regarding the “Electrical and Central Building.” There followed a long and sometimes bitter struggle between the brilliantly talented and temperamental young architect and the aggressively opinionated, and also temperamental, young president.

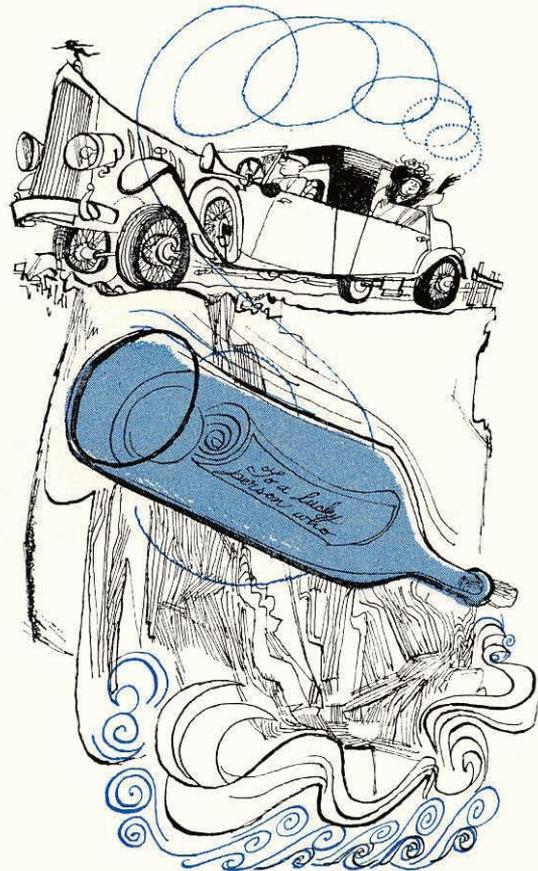
The compromise plans for the central building, as finally adopted by the trustees in 1909, were probably more Scherer than Hunt. Myron Hunt considered the building an architectural monstrosity, describing its style as “Newberry, plus the addition of a ridiculous, hard-to-reach tower room.” The tower-room library, object of Myron Hunt's greatest scorn, “was modeled,” President Scherer proudly reported, “after the Radcliffe Camera at Oxford University especially to accommodate the Library.”

Though he had lost in the struggle for the adoption of his plans for the building, Myron Hunt did succeed in having the talented young sculptor, A. Sterling Calder, retained (at \$3,500) to create “decorative sculpture” over the wide western front entrance to the building.

Three thousand people attended the dedication ceremonies for Pasadena Hall on June 8, 1910. The new building had been financed by prominent citizens of Pasadena, with Throop's trustees—notably Arthur Fleming—the major contributors. Fleming had also donated funds for the entire cost of the new campus. The consensus was that Pasadena Hall was the most beautiful building on the Pacific Coast. “The building is wonderful,” reported the *Los Angeles Daily News*. “There are 62 large class and lecture rooms, with offices adjoining them.”

Throop Institute, now a college exclusively, opened on its new campus on Wednesday, September 21, 1910. Less than six months later, however, the Institute faced one of the greatest crises in its early years. The morning papers of January 29, 1911, reported that the California State Legislature, then in session, would in all probability establish in or near Los Angeles an institute of technology modeled after MIT. The new university would have an immediate appropriation of a million dollars in addi-

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*Mrs. Alexander wrote a will,  
put it in a bottle,  
and tossed it in the ocean.*

*It said, in part,  
“...to avoid confusion  
I leave my entire estate  
to the lucky person  
who finds this bottle  
and my attorney  
to share and share alike.”*

Not only was Mrs. Alexander wishy-washy, so were the tides. By the time her bottle had washed ashore, eleven years later, the courts had some questions.

You may have some questions about providing for Caltech in your will or through a life income trust or annuity. If so, don't be wishy-washy, contact:

WILLIAM C. CASSELL  
DIRECTOR OF INCOME TRUSTS AND BEQUESTS  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
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tion to large gifts of real estate already assured from local citizens.

This was alarming news to the young and struggling Throop, which could ill afford competition for both faculty and students with a tax-supported and tuition-free college of engineering and science in southern California. In an emergency meeting held that evening, the board of trustees authorized President Scherer to offer Throop to the state as the "proper foundation for the new school," if agreement could be reached on its administration and the protection of its high standards.

Scherer acted swiftly and effectively. On the following day, newspaper accounts reported both Mark Keppel's Senate Bill 921, "to set up the California Institute of Technology to be located in or near Los Angeles," and Scherer's proposal "for the state to take over Throop." On the same day, Scherer met with a group of southern California leaders, who enthusiastically endorsed the Throop plan. With this backing, he hurried to Sacramento where he persuaded Mark Keppel, superintendent of the Los Angeles County Schools, and the southern California legislators to meet on February 4 with Throop trustees and local leaders to discuss a substitute measure.

The new bill, drawn up by Keppel and Scherer and unanimously approved at the February 4 meeting, was presented to the state legislature on February 7. Scherer worked hard to gain public and official support for the substitute act. He wooed—and thought he had won—the support of Berkeley's President Benjamin Ide Wheeler and Stanford's David Starr Jordan. He prepared a pamphlet, *Hard Facts*, about "the California Institute of Technology now known as Throop Polytechnic Institute," and had it distributed to the state legislators and the press. He became an effective lobbyist, as did faculty members Clinton Judy and Royal Sorensen, who appeared with him at the hearings in Sacramento.

The bill was enthusiastically supported in southern California. But strong opposition was gathering in the north, for neither the regents, the administration, nor the alumni of the University of California liked the idea of a competing school in southern California. When an attempt to amend the bill in such a way as to put the new school under the university board of regents was firmly rejected by Scherer and the Throop trustees, Berkeley's President Wheeler appeared in Sacramento at a hearing of the education committee to oppose it.

In a brave attempt to dispel opposition at its source, Scherer asked for, and was granted, permis-

sion to explain the bill at an assembly on the Berkeley campus. An inspired speaker, he was warmly applauded by the students. But the university forces were squaring off for battle. The San Francisco alumni organized in opposition to the bill, and more than a thousand Berkeley students attended a mass protest meeting in the Greek Theater.

The Southern California Alumni Association strongly opposed the stand of the alumni association of Berkeley: "We urge the Throop Bill . . . The demand for greater educational facilities in this portion of the State is so insistent that if not met now, public opinion, which is now friendly to our great university, will accept your gage of battle, fight for, and get two."

Scherer received many offers of support from the legislators, he later reported to the Throop trustees, if "we would either surrender the control of the Institute to the Regents of the University of California, or consent to a lowering of our standards."

The measure was finally voted down on March 11, 1911, by the narrow margin of 24 to 21. Although its supporters felt they could round up enough votes to pass a motion for reconsideration, the Throop trustees had had quite enough, and they wired President Scherer to withdraw the offer.

The "Sacramento Episode," distressing as it was at the time, resulted in incalculable gains both to the Institute and to President Scherer personally. Publicity, not only statewide but national in scope, accomplished in a month or so what otherwise might have taken years. Throop Institute suddenly became well known; Scherer was acclaimed in the local press as "hero of the struggle" to obtain a state university for southern California. Throop received a further endowment of \$250,000 shortly after the affair, and by the June 2, 1912, commencement, Scherer was able to announce that "all debts were cancelled."

Throop's most urgent needs at the end of the period 1907-1913 were "the very great need for an increased endowment" and for two new buildings, a chemistry building and a central library, for Pasadena Hall was bursting at the seams.

These were the transition years when Throop established itself as a college. When it opened on the new campus in 1910, it had an undergraduate enrollment of 31 students, of whom 15 were freshmen, carefully selected out of the 33 who had applied for admission. By 1913, the enrollment had increased to 51. On April 30, 1913, the trustees voted to change the name of Throop Polytechnic Institute to Throop College of Technology.