

The End of the Olden Days

A MEMOIR BY ERNEST SWIFT



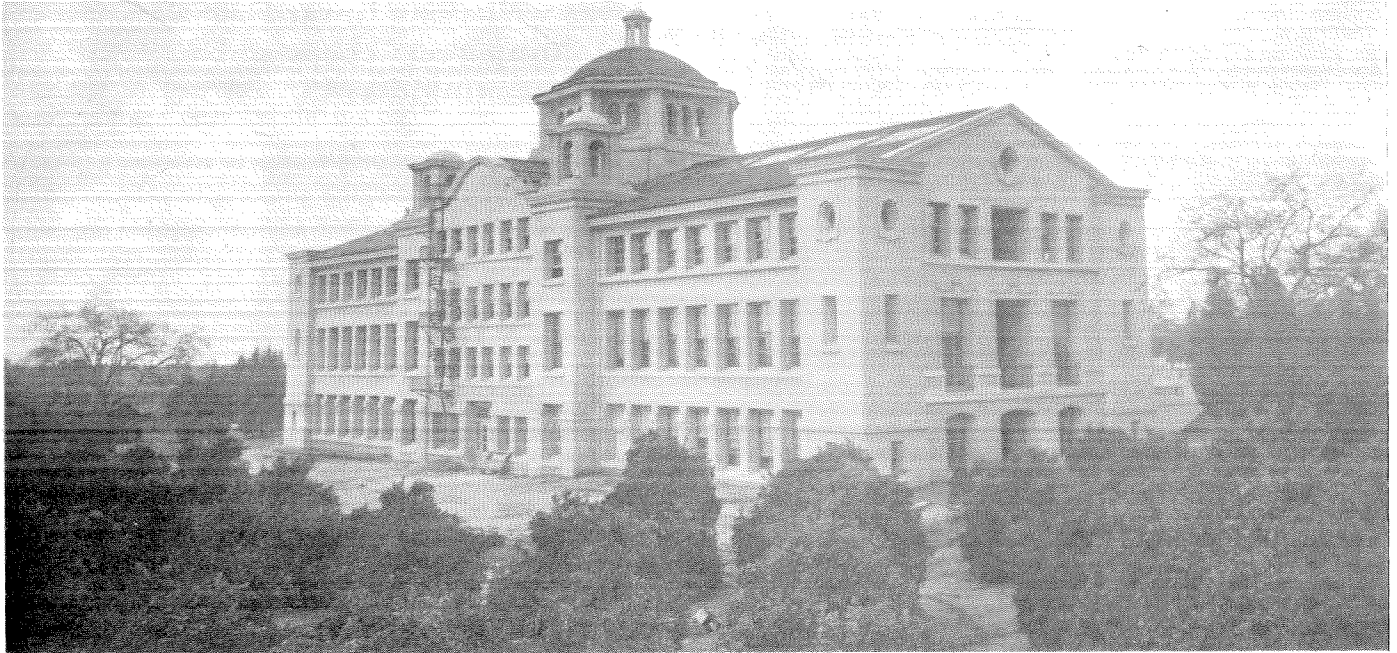
Whenever I reminisce in public about the early days at Caltech, my feelings are similar to those engendered when our daughter was young and when discussion of some past event would cause her to ask, "Daddy, what was it really like in the olden days?" Regardless of these feelings, I will attempt to tell you a little about what Caltech was like in the olden days—or at least when I arrived here.

To begin with, it may be in order to explain how my association with the Institute originated, because it illustrates the informality of administration in those days and the influence of pure chance on one's career.

During World War I, I served valiantly for a few months in an officers' training camp, then in January of 1919 returned to the University of Virginia, where I had been given a BS degree in the previous year. There I began working a wonderful racket toward obtaining a master's degree. The University, in the usual fervor of wartime patriotism, had offered a full year of academic credit toward a degree to any serviceman entering in January and successfully taking a normal course load until June. By May I was well along toward obtaining a very cheap and very meaningless MS.

In addition to the reduced residence time, the chemistry faculty had been so depleted by wartime activities that few remained competent of directing a graduate program. Realizing this, the University had invited A. A. Noyes to visit the campus as a consultant regarding reorganization of the department. During his visit Dr. Noyes mentioned to my research supervisor that he was spending part of his time at Throop College of Technology, and that Throop was looking for graduate students in chemistry. He asked if there was anyone who might be interested. This information was relayed to me.

I had never heard of Throop College of Technology, but upon having been told that it was in southern California, I was interested. I had never been west of the Blue Ridge Mountains of Virginia; therefore, this appeared to be a wonderful chance to see the unknown West. An interview was arranged, during which Dr. Noyes mentioned that he was revising his qualitative analysis text, that he needed a laboratory assistant during the coming summer to help with that work, and that he was leaving from Washington for Pasadena the next week. I think that anyone who, like myself, has agonized over graduate admissions in interminable committee meetings will be quite interested when I mention that within ten minutes I had been appointed, first, a graduate laboratory assistant for the summer, and second, a teaching fellow (equivalent to the present graduate teaching assistant) for the following academic year. Administration *was* simpler in the olden



Pasadena Hall, later known as Throop, amid the orange groves in 1917.

days. (In fact, I have sometimes wondered if that appointment was not *unique* in that it was offered without benefit of application forms of any kind and accepted without benefit of a catalog.)

A few days later I left by train with Dr. Noyes from Washington for Pasadena, and after five and a half days of travel, which included a detour to the Grand Canyon, we arrived in Pasadena around eight o'clock one evening. Dr. Stuart Bates took me to his home for that night.

I still remember vividly that evening. The weather was beautiful, and the air balmy. (Remember that this was what could be called the B.S. era—before smog and before subdivisions.) The southeast section of Pasadena was still predominantly orange groves, and the smell of orange blossoms was almost overwhelming. I thought I had arrived in a veritable lotus land and felt quite smug over my move.

The next morning we walked over to the campus, and with my first view all my smugness vanished. At that time Spiro Agnew could have characterized me as an “effete easterner.” I had been conditioned to the academic environment of the traditional eastern campus—buildings with ivy-covered walls surrounded by shade trees and expanses of green lawns. Naively, I had expected something similar, plus waving palm trees and lush semitropical landscaping.

What I saw was—well, something different. No ivy



World War I view of Gates, with slit trenches where Millikan Library now stands.

anywhere (not at that time), no lawns, and just two permanent academic buildings of uncertain architectural parentage. They were Pasadena Hall (Throop to most of you) and the first unit of Gates.

Extending westward from Pasadena Hall to Wilson Avenue was a dirty, dusty, unkempt expanse of dried weeds, interspersed here and there with strange mounds of dirt which on subsequent investigation I found to be slit trenches from the World War I Student Army Training Corps.

Extending eastward from Pasadena Hall was a run-down, scaly orange grove which terminated in an equally run-down, scaly frame house among some small scrub oaks where the Athenaeum now stands.

When I did obtain a catalog, 1919 edition, I found Pasadena Hall described as “a majestic building comprising 800,000 feet of cubic contents.” I am still baffled as to what was meant by those cubic contents. (I must interject that in spite of my reactions at that time, it was with a poignant feeling of nostalgia that I saw that iron ball crunch against the cupola of Throop and bring it crumbling down.)

I had noticed slightly east and north of Pasadena Hall a brown frame two-story structure which was unpleasantly reminiscent of my army barracks. On reference to my catalog I found it described as “a modern dormitory, of California bungalow type with large, airy, and well-lighted rooms.” I was told that this “modern” structure was in fact temporary and soon to be replaced; it *was* replaced—42 years later, prior to erection of the student center.

I remember being puzzled by not finding in my catalog, even in the index, any mention of either *athletics* or *physical education*. I finally found in the text a short, two-paragraph section entitled “Hygienic Supervision.” The first paragraph stated: “Dr. James H. McBride . . . is the hygienic adviser for students, and will address them during the year on personal hygiene.” The second paragraph stated: “The physical exercise and athletic activities of the college are under the supervision of a physical director; the object of the college authorities being to make the good health of all students a matter of scientific care rather than the specialized development of intercollegiate athletic ‘teams’.”

There *were* intercollegiate teams, and although Tournament Park was then city owned, it was available for college use. I noted with interest that it contained two modern asphalt tennis courts—at least they were the first asphalt courts I had seen; and I mean chemically pure asphalt, not the asphalt-cement composition developed later. They were adequate in winter, but had liabilities in summer. Being jet black they could become so hot as to be sticky and to quickly blister your feet. Then, in addition, some civic group decided that they would be just dandy for dances under the stars. One trial showed, however, that dancing on that asphalt was more effort than fun.

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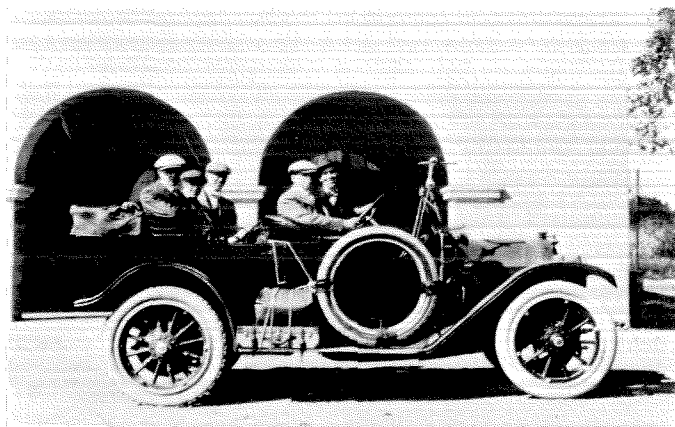
Undaunted, they covered the surface with a slippery powder of some kind and had a fine surface for dancing. But trying to play tennis the next day brought comments from the tennis players that I will not repeat here.

That, then, was the campus—the physical plant—of that date. Now a few observations regarding personnel. My catalog listed a faculty, professors through instructors, of 34 members. In our current catalog I counted 60 full professors—in the division of engineering and applied science alone. These figures do represent growth, but I must warn Francis Clauser that in certain areas his division has lost ground. Thus I found listed in that 1919 catalog:

- 3 instructors in mechanical drawing
- 1 instructor in wood working
- 1 instructor in pattern making
- 1 instructor in shop forging.

I find no reference to any of these fundamental courses in our current catalog.

That catalog listed three teaching fellows, all in chemistry. This was the title of my appointment and was the equivalent of the present graduate teaching assistant. My annual stipend was \$750 with the annual tuition of \$150 included. Near the end of my first year, George S. Parks, who was teaching sophomore analytical chemistry, accepted an appointment at Stanford. To my astonishment I was assigned his duties for the next year and promoted to the rank of instructor—with a raise in salary of \$150. I found it quite depressing in scanning the personnel of that faculty to note that at the present time only two of those names remain in our present catalog: William Michael and William Lacey, emeritus professors.



Noyes and friends out for a ride in his vintage Cadillac. The car was known as Mossie—short for Demosthenes, because it was afflicted with a sensational stutter.

Quite naturally, my first personal contacts were with the members of the chemistry faculty. (I purposely did not say division because there was no hint of divisional organization shown in my catalog.)

I found the chemists to be very cordial, friendly, and helpful. The senior members, Drs. Noyes, Bates, Bell, Lucas, and Lacey, were—as might be expected—quite conventional in most ways. However, there were two younger members, James Ellis and Roscoe Dickinson, who had been recently brought from MIT by Dr. Noyes. They fascinated me because I think it reasonably correct to say that they were, over 50 years ago, prototype hippies. Ellis had a beard, treated his clothes as a matter of necessity, and was completely functional toward social conventions; but with it all was very friendly, likable, and a promising scientist.

His office was in the basement of Gates and was totally dark unless a light was turned on. One morning the—perhaps I should be more explicit and say the *one*—chemistry secretary started to enter his room to leave a note. She immediately came tearing out screaming that there was a man on the floor of Dr. Ellis's office. There *was*—Dr. Ellis. He had been working late, gotten sleepy, so he spread his sleeping bag and went to sleep.

The board of trustees at that time consisted of only seven members, and the chairman was Arthur A. Fleming. Mr. Fleming, who later had an office on campus, had some rather contradictory traits. Although he had his chauffeur drive him to school in a Hispano-Suiza (the foreign super luxury car of those days) and although he was generous in his gifts to the Institute (these including the original campus and subsequent financial support during the expansion of the twenties), he had a compulsive drive to minimize any inefficiency or waste however minor in the operation of the campus, and he is reputed to have prowled the buildings in this effort.

There is a story, somewhat indelicate and perhaps apocryphal, but so typical that I dare to repeat it. One day on one of his campus surveys he realized that the toilets were equipped with roll paper dispensers. To him that represented a possible source of extravagant waste; therefore, in a short time there appeared in all toilets locked dispensers which bore the trade mark "Onlione!" (Perhaps I should advise Arnold Beckman that not too long ago these Onliones were replaced by *double* roll dispensers.)

There were no female students at that time and a serious lack of feminine personnel. I can recall only four female administrative assistants: Miss Spining, librarian; Miss Howard, secretary to the president (then James A. B. Scherer); Miss Sage, in charge of general accounts; and Miss Allen, secretary to the treasurer (then E. C. Barrett). Miss Allen, who is now Mrs. Swift, tells me that her duties also included balancing the financial books of the college,

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assisting with the bookstore, handling the telephone exchange, collecting student loans, and in her leisure time taking dictation from senior faculty members. She still remembers her embarrassment when, prodded by Mr. Barrett, she had to ask Frank Capra if he could make a small payment on his student loan.

Scanning the student lists, I found three who are associated with the Institute at present: Frank Capra, now an Associate; Arthur Klein, then of the junior class, now professor emeritus; and Howard Vesper, then a freshman, now a trustee.

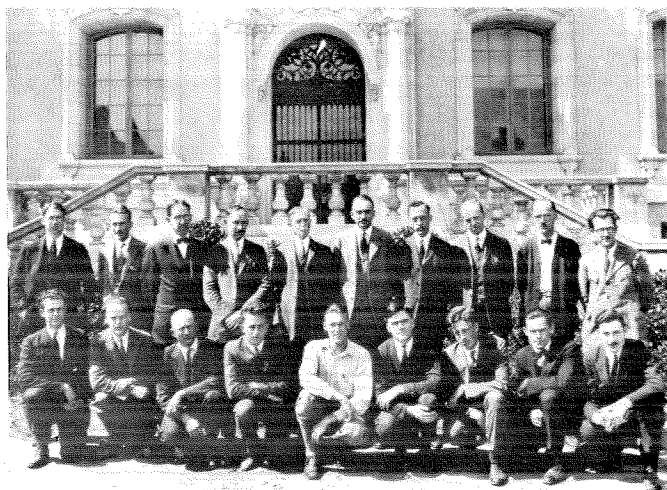
When I read through the section in my catalog regarding student conduct, I could not but wonder if our present director of student affairs and deans have not fallen victims to the terrible permissiveness of the modern age. Summing up several pages of specific rules I found the following statement (said to be "emphatically endorsed as the general policy of the college"): "For the conduct and character of its students a college assumes a far more intimate responsibility than a university. Toward mere thoughtlessness and exuberance of animal spirits it will be lenient. But towards vice in its three dread forms, drunkenness, gambling, and licentiousness, it will exercise a severity unknown to universities. It will not ferret out evil by spies, nor cultivate the acquaintance of the scandalmongers of the town, nor encourage students to testify against each other, nor take unfair advantage of medical or quasi-medical information given in confidence. But though it fights fairly, it will fight these vices every chance it gets. When these evils come fairly and squarely

This was what could be called the B.S. era—before smog and before subdivisions.

to its attention, as when carried to excess they inevitably do, the school counts no cost too high, whether in removing students or alienating families and friends, to pay for keeping its moral atmosphere clean and wholesome.”

I am inclined to attribute that passage, as well as certain others in that catalog, to the influence of President Scherer, who had quite a way with words and who had been president of a small denominational college in the South before being brought to Throop by Dr. Hale.

The definition of exuberance of spirits was evidently more restricted in those days. I am told of an incident in which a group of students became so exuberant that they embellished the statue of Apollo with red paint in a manner any gentleman would resent, especially Apollo, who then stood quite prominently in the main entrance of Pasadena Hall. Their act was judged as *vice*, not exuberance, and they were “removed” forthwith. Three of the group later returned and subsequently became valued faculty members.



Caltech's chemistry faculty in 1923-24. Top row: Charles Prescott, Richard Badger, James Bell, Howard Lucas, A. A. Noyes, Richard Tolman, Will Lacey, Stuart Bates, Ernest Swift, Roscoe G. Dickinson. Bottom row: Linus Pauling, Ernest White, Reinhardt Schuhmann, William Holton, Joseph Mayer, Paul Emmett, Vincent Manchee, Oliver Wulf, L. Merle Kirkpatrick.

Again, in looking through my catalog, I am inclined to wonder if our present catalog as eloquently presents the local attractions as they are set forth in the 1919 edition under the section entitled “Environment.” I quote in part: “Pasadena is not only one of the most beautiful of cities, but it is noted for the morality, refinement, and culture of its citizens. Being notably a residential town—it is surrounded by safeguards and privileges that fit it for the guardianship of youth. Saloons are prohibited by charter. Boys under age are shut out by statute from questionable places of amusement, of which there are few . . . Pasadena is known as ‘the city of churches and schools,’ and is also frequently called ‘the most beautiful town in the world.’ To be surrounded by an atmosphere of purity and beauty is no hindrance to a training in utility.”

The environment of that day, before smog and before subdivisions, did not need such hucksterism. To some of us it was southern California at its best. The deserts were free of people and of paved roads—not to mention off-road motorcycles. Las Vegas was a place with a railroad station where one could obtain food when traveling the desert at night. In 1920 I was part of a two-car caravan that became lost trying to cross Death Valley. One could hike the Sierra for days without seeing a human.

Spiro Agnew could have characterized me as an effete easterner.

Pasadena was a nice small town—even on New Year's Day. I remember my first one. Hearing quite a commotion in Tournament Park I wandered over. I was told that a football game had just begun and that Harvard was playing Oregon, so I walked up to a ticket window, bought a ticket, and saw the game.

Also, even when I first arrived, there were the beginnings of a stimulating ferment within the campus community—intimations of coming changes and developments. These were given substance by the arrival of Dr. Noyes on a permanent basis early in 1920. Later in that year the present name of the school was adopted; and construction of Bridge and Culbertson was started; A. A. Michaelson was conducting experiments on the campus; it was rumored that Millikan would arrive the next year; President Scherer resigned; and the catalog was revised. Then in 1921 Millikan did arrive, and the present statement of educational policies was adopted. I am inclined to think that those events marked the beginning of an exciting new era—but the ending of the olden days. □