THE REVOLUTION

More than 400 people filed into Beckman Auditorium on the afternoon of April 19 for a general membership meeting of the Associated Students of the California Institute of Technology Corporation. ASCIT had not called a general meeting for years, and the number of undergraduates and faculty in attendance indicated special interest in the agenda.

Members of the student body had assembled to vote on four resolutions concerned with academic reform. As Joe Rhodes, newly elected student body president, explained, ASCIT had traditionally concentrated on athletic awards, finances, and decorations for dances. Now it was attempting to become more relevant to the individual student by representing him in more vital areas.

The ASCIT meeting and the events that led up to it have become known as "the revolution." Its grass roots were in the student houses and the coffee house, wherever groups of students got together to discuss Caltech. The seeds, however, had been planted almost entirely by one person—Joe Rhodes.

As a freshman, Joe's job as ASCIT activities chairman had earned him the reputation of being an exceptional student organizer with unlimited enthusiasm. He ran the student talent show and supervised the completion of the coffee house. When, as a sophomore, he decided to run for ASCIT president—a move which required amending the ASCIT constitution—the student body responded by electing Rhodes by a large majority.

As student body president, Joe was in an optimum position to find out how many students thought, as he did, that the undergraduate environment needed significant improvement. He hoped that he could stimulate students to critically examine Caltech's basic educational policies.

Most students agree that Caltech provides the most intensive technical education available anywhere. Some think, however, that the education is so intensive that it stifles enthusiasm. It forces too many students to "leave" Caltech, either by transferring to another school or by turning into a "Caltech hippie"—turning on to school work, tuning in to abstract technical concepts, and dropping out of everything else.

Many outstanding graduates have been produced at Caltech. But many graduates feel that they learned *in spite of* Caltech, as well as *because* of it. Can't some way be found to maintain the intensity of the education without destroying the student's enthusiasm? Can't Caltech do more to encourage the wealth of creativity in her students, instead of just teaching them to be competent?

BALLOT

1. The Associated Students propose that the Institute
   a) reduce the number of required courses
   b) eliminate the requirement for choosing an option
2. The Associated Students propose that an Academic Reforms Group of students and faculty be formed, consisting of the following groups: Leaders Group, Coordinating Group, Instructions Systems Group, Educational Exchange Group, Research Conference Group, Undergraduate Research Group, Advisors Systems Group, Teaching Techniques Group, and an Options Group, which would investigate into the possibilities of having a general science option and a combination of options. Each group will give a report by June 1, 1967.
3. The Associated Students propose that the students have a one-third representation on those committees concerned with student and academic life, such as Academic Policies, Freshman Admissions, Institute Assemblies and Programs, Relations with Secondary Schools, Undergraduate Student Housing, Undergraduate Student Relations, Upperclass Admissions, and *ad hoc* Divisional Curriculum Committees, and all other relevant *ad hoc* committees. The student members on the two Admissions committees will be liaisons (non-voting members), and the students on the other committees will be voting members. These students should be selected by the faculty from a list compiled by the ASCIT Board of Directors from those who have applied for positions.
4. The Associated Students request a faculty, a grad student, and an undergraduate student liaison (non-voting member) on the Board of Trustees.

Rhodes suggested a way to accomplish these things: Treat the undergraduates with more consistency. Students live in a very "laissez faire" extracurricular environment at Caltech. Few rules govern student behavior—so few that the Institute gives the impression that it is only concerned with the academic growth of the student, leaving him to grow socially and emotionally as he pleases.

This philosophy of letting the student decide for himself could easily be extended into the academic area. One merit of a small school is its ability to tailor the academic program to fit the individual student. Clearly, Caltech fails to capitalize on this ability. The uniform course structure could be deemphasized, leaving a curriculum flexible enough to respond to the individual student. For example, all freshmen are enrolled in a physics class which covers the *Feynman Lectures* at the rate of two

chapters a week. Certainly not all students get a lot out of freshman physics when they have to cover it at such a hectic pace. Some students could be allowed to spend a little less time each week on physics and a little more in something else. Conversely, if a freshman was really thrilled by the big red physics book, it would do little harm to excuse him from one of the two weekly chemistry labs, giving him more time to pursue some of the side topics suggested by Feynman.

Research opens up other possibilities. One of the advantages of attending Caltech is the opportunity for undergraduates to do research or lab work. Currently this must be done above and beyond course work, when in some instances it could provide a profitable substitute.

Of course, not all students are in favor of making such changes in the academic program. They express varying degrees of hesitancy—and a few are opposed to any change at all. Two significant reservations seem to appear over and over again.

First, some students feel that undergraduates are not mature enough to decide for themselves how they will fulfill their academic responsibilities and, therefore, they welcome the Institute explicitly deciding for them. Second, some students raise the objection that these reforms would make Caltech a "trivial" school. They see a less-structured curriculum as a means for letting students get away with less work.

Despite these objections, student response to the idea of a change was generally favorable, and when ASCIT drafted specific resolutions and presented them at the April meeting, everything passed except the resolution to abolish the requirement for choosing an option.

Faculty reaction to "the revolution" was varied. A number were pleasantly surprised that Caltech students had actually worked themselves up over something. Some favored at least the spirit of the thing, claiming that students *should* be concerned about the educational process. But a great many faculty couldn't see why students wanted representation on faculty committees. Committees, they said, demanded hard, time-consuming work, and participation would be an added burden to students. Jesse Greenstein, 1966-67 chairman of the faculty, pointed out that the board of trustees had given the faculty complete control of educational policy and that putting students on committees would upset this arrangement and, probably, the trustees. He suggested "collateral non-voting committees" as a compromise.

Students gave two reasons for requesting membership on faculty committees. First, it would involve them in Caltech on a planning level, encouraging a maturity and responsibility which, it was hoped, would extend back into undergraduate life itself. Second, it would establish formal lines of communication between faculty members and students. Faculty insist that their office doors are open and that they are dismayed because few students drop in. So they resort to discussing academic changes predominately among themselves.

Dr. Greenstein had further reservations about "the revolution." He labeled the proposed changes "massive," and thought it would take many student generations to implement them. He pointed out that, since a student spends only four years here, his outlook must necessarily be short run. Dr. Greenstein also thought that only Joe Rhodes and a few others were generating all the excitement. He still saw the usual detachment and lack of concern among a large portion of the student body.

In the final analysis, however, Dr. Greenstein sees the same problem with undergraduate life as Joe Rhodes—it needs to be "humanized." He just doesn't see academic reform as a means to this end.

The faculty has approved two reasonably significant changes since the student vote last spring. Students now have essentially free choice in selecting humanities courses. Only two requirements remain: A student must take at least 120 humanities units in four years, of which 27 must be in English; and sophomores, juniors, and seniors can now elect to take one pass-fail course per term outside their option.

Meanwhile "the revolution" will probably continue to push its way into other areas. Rhodes is now thinking about a major research project, involving many undergraduates, which would deal with a social problem that requires a thorough technical background. Two problems already suggested are a research project on air pollution, and technical training of minority-group individuals. The student revolution will probably also tackle student house problems. Great changes in the living arrangements may be attempted in the hope that the houses can be transformed into more desirable places to live.

If it is to succeed, "the revolution" must be a revolution of Caltech students against themselves more than against Caltech as an institution. The undergraduate environment can change only as student attitudes and student modes of behavior change. The Institute, however, *can* provide the incentive and begin to encourage a healthy new climate. The result could make Caltech a very different but an even better place to get an education.

—Barry Lieberman, '68