

①

12-21-89

Dear Chris,

I hope you are having a happy time during the holidays. (Please excuse the messy writing - I'm in an airplane.) I suppose, these days, you're happy to be able to leave campus and go to your home away from it all. I live only 20 minutes away from CU Boulder, but being in the mountains makes it feel like another world.

I felt I should write because I've heard that things have gotten really rough with the undergraduates. I heard that there was a faculty meeting where things got a little ugly, and that generally life is a mess. Maybe the grapevine is making things sound worse than they are, but nonetheless, I feel sad that things have worsened.

I don't want to belabor this letter too much because I'm sure you've heard more than enough on the subject, (in addition to the fact that I, myself, would like to put all the problems of Caltech behind me.) There are two main points I wanted to address. The first is the question of women's issues at Caltech. It is true that women at Caltech have an odd situation to deal with - but this is not due to the school as much as it is due to

(2)

the fact that there are relatively few women in science. (Caltech just doesn't help that.) In spite of their unique situation, one should not think that women are the only ones with problems at Caltech. I personally think (and I have felt this for many years) that the guys suffer more than any of the girls. Why am I babbling about this? Because of the letter that talked about ~~sexism~~ sexism among the undergraduates and said something about the women being pressured into participating in certain acts. Clearly I don't know all the details, since I haven't been around. But, Chris, you and I both know this is baloney. I thought that it was important for a female ^{ex-}undergraduate to put it in writing, (though I hope others already have.) Please don't be fooled; the girls at Tech are not abused. In most cases they abuse the men and take advantage of their much sought-after presence.

The other topic I wanted to touch on is, in some ways, even closer to my heart. That is the Honor System. There are rumors going around that people are considering doing away with the Honor System because the events in Dabney "clearly" showed that it wasn't

working. This would be a heated, rash, and unwise decision. The events in Dabney had little to do with what's at the heart of the Honor System. In fact, our Honor System is absolutely one of the most precious parts of learning and growing at Caltech. When people leave Caltech, the ideas of the Honor System are always with them and play a part in how they interact with the world for, probably, the rest of their lives. The things that are happening now will not be easy to resolve. But it is also not the first time that the values of the students and those of the administrators are in conflict. Please don't let something as fundamental and eternal ^{as the H.S.} be pushed aside by something as unsurprising as a scandal in Dabney. This was not the first, and my guess is that it won't be the last.

I hope I haven't bothered you by going on about these things. However, even from 1000 miles away I feel that I should voice my opinion about issues at Tech. Maybe you'll have some time in your busy schedule to write me a short note ~~or~~ ^{or} give me a ring. Either way, I wish you and your whole family a beautiful holiday.

Sincerely,
Gabriela Cornejo

Sheriff's deputies find two missing cyclists

ANGELES NATIONAL FOREST — Search teams from the Crescenta Valley Sheriff's station were called out to find two separate cyclists Sunday in the San Gabriel Mountains.

Deputies found Christopher Brennan, 48, near Crystal Lake just before 10 a.m. Sunday, nearly 24 hours after his wife had dropped him off on San Gabriel Canyon Road above Azusa. Brennan reportedly misjudged the time necessary to make his trip and was forced to spend the night in the mountains.

Later in the day, the Sheriff's search team was called out when cyclist Gilbert Echterkamp, 37, of La Crescenta, failed to return to his van parked near the Red Box Ranger Station on Angeles Crest Highway by nightfall. Searchers found Echterkamp in good condition at about 10:30 p.m. in the Newcombe Saddle area, according to Deputy Phil Brooks. Brooks said the cyclist had been delayed by a flat tire and would be driven out by Sheriff's deputies.

Small plane lands near freeway

LOS ANGELES — A small plane made an emergency landing on a freeway overpass and struck a car Sunday, but no serious injuries.

PASADENA STAR-NEWS, NOV. 13, 1989

Caltech *News*

Volume 23, No. 5
October 1989



In this
issue

Infanticide was practiced in 18th- and 19th-century China as a form of postnatal abortion, a Caltech professor concludes.

Page 1

Thomas E. Everhart shares his views on a wide variety of subjects after more than two years as president of the Institute.

Page 4

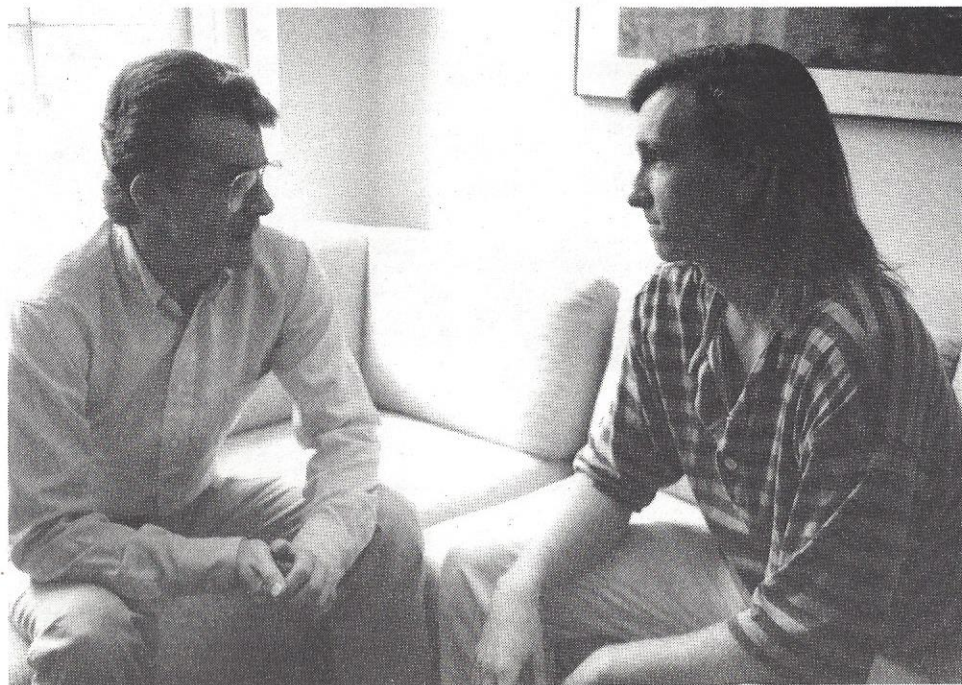
Chris Brennen made a long journey from northern Ireland to Caltech, where he's now dean of students.

Page 8

Warren Emery hands over his keys after 34 years as athletic director.

Page 10

By Winifred Veronda



Chris Brennen counsels junior Dave Geraghty.

Chris Brennen's colleagues describe him as "bright and insightful," "open to adventure," "deeply empathetic and understanding," "full of intellectual and physical courage," "fully giving of himself," "dedicated to the task at hand and to those who need him," and "dedicated to all aspects of education and student life."

All of this is good news for Caltech students, many of whom encounter Brennen through his role, since last summer, as dean of students. Brennen has been a familiar face to Caltech students since 1983, when he was appointed master of student houses. He served in that role until 1987, when he resigned to take a year off from intense involvement in student affairs.

"After four years as master of student houses, I was burned out," he says. "I looked forward to a respite from the daily demands of that job. I was interested to find out how my feelings would evolve during the year that I was no longer in the position, and I confess

Chris Brennen: a winning dean

the family was never hungry. Brennen recalls being given orange juice on Sundays as a special treat.

In 1945 Brennen's father, who was a doctor, moved the family to Magherafelt, near the geographic center of Northern Ireland, where he went to work at a small country hospital. Brennen grew up in this Irish village, attending kindergarten through twelfth grade at the same institution, the Rainey Endowed School—the only school in Northern Ireland where Catholic and Protestant boys and girls were in the

beliefs, and to modes of action that are thoughtlessly passed down from generation to generation. It taught me that hatred begets hatred, and that violence begets violence, and that it's very hard to reverse that process."

At school in Magherafelt, Brennen encountered a teacher who was to change his life. "I was fortunate to be taught mathematics by a rather eccentric individual, a Cambridge PhD, Dr. A. E. Gwilliam," he says. "He found in me a resonance of interest in mathematics and physics. Because of this remarkable

"I think both the faculty and the students themselves underestimate the quality of young people with whom we're privileged to work," says Brennen.

and the couple were married shortly after he graduated with his bachelor's degree.

"I graduated with a first-class honors degree in engineering science—something that I hadn't anticipated," says Brennen. "I thought I was going on to get a job, but because I was awarded a first-class honors degree I was heavily recruited by the faculty to do graduate work."

Brennen acceded to the pressures. He remained at Oxford for another three years, earning both his MA and DPhil degrees. "Doreen and I had a very tough time making ends meet," he says, "but we had a lot of fun, too."

Brennen's work at Oxford completed, the couple moved to London, where he went to work at the National Physical Laboratory (NPL) as a postdoc. There he met Caltech's Ted Wu, professor of engineering science, who was visiting the NPL. After Wu returned to the Institute he wrote Brennen, asking him if he would be interested in coming to Pasadena as a postdoc for a year.

"I was delighted with that possibility," says Brennen, "so on New Year's Eve, in 1968, Doreen and I left the British Isles, after struggling to find the

served in that role until 1987, when he resigned to take a year off from intense involvement in student affairs.

"After four years as master of student houses, I was burned out," he says. "I looked forward to a respite from the daily demands of that job. I was interested to find out how my feelings would evolve during the year that I was no longer in the position, and I confess that I missed the interaction with students. So when I was asked to be dean, I felt that I would welcome the opportunity to play an important role in student affairs at the Institute again."

There is a difference in the level of demand imposed by the two roles, Brennen says. "The master's job is not an easy job. In terms of time and place, its demands are difficult to predict. The dean's job is more prescribed. But I believe I've approached both jobs with the same level of empathy and understanding for what it's like to be a student at Caltech."

The man whom students seek out when they need help with a problem was born in 1941 (four days before the attack on Pearl Harbor) in Belfast, Northern Ireland, at the height of the bombing in World War II. Germany was trying to break the British convoy system, of which Belfast was an important part. Brennen's earliest memories are of being evacuated with his family to the Northern Ireland countryside.

His mother's memories of Brennen's early childhood are even more dramatic. For protection during the German bombing raids, cast-iron tables were issued to members of the local population in Belfast, and she recalls sitting under one of these tables with Brennen on her lap as bombs fell around the house.

Life in the countryside was much more tranquil, and, despite rationing,

doctor, moved the family to Magherafelt, near the geographic center of Northern Ireland, where he went to work at a small country hospital. Brennen grew up in this Irish village, attending kindergarten through twelfth grade at the same institution, the Rainey Endowed School—the only school in Northern Ireland where Catholic and Protestant boys and girls were in the same school together.

It was natural for Brennen to become involved in sports at the school in Magherafelt, because he came from an intensely sports-oriented family. His mother, an ardent golfer and tennis player, was an excellent athlete who had played field hockey for Ireland when she was pregnant with Brennen. His two brothers were athletes, and Brennen found an outlet for his sports interest through participation in the rugby team.

Brennen also enjoyed the theater, and appeared in many productions in high school and college. He spent one vacation working in summer theater at a small Irish seaside resort. His interest in the theater continued at Caltech, where he has appeared in two musicals, *Guys and Dolls* and *Brigadoon*.

Brennen's only sister, Paula, was born with Down syndrome, and Brennen spent many hours during his youth taking care of her and working with other mentally handicapped children. The experience had a profound effect on him, and motivates him to encourage Caltech students to think about community service.

"If I wanted to list the factors that most influenced me in my formative years," he says, "this experience would be number one. Number two would be growing up in a society that was fracturing at the seams through the conflict between Catholics and Protestants. This taught me to have little tolerance for unthinking adherence to a code of

begets violence, and that it's very hard to reverse that process."

At school in Magherafelt, Brennen encountered a teacher who was to change his life. "I was fortunate to be taught mathematics by a rather eccentric individual, a Cambridge PhD, Dr. A. E. Gwilliam," he says. "He found in me a resonance of interest in mathematics and physics. Because of this remarkable man, I was disposed to think about these subjects as a career. During my final year in high school he tutored me for the scholarship entrance exams for Oxford University, and no one was more amazed than I was when I actually won a scholarship." Before he arrived at Oxford, Brennen had switched his major from physics to engineering science.

The travel to Oxford University from Magherafelt was about 400 miles, but it was much farther psychologically for a young man from the Irish countryside. "I was somewhat taken aback in that many of my colleagues couldn't understand a word I said because of the thickness of my Irish accent," says Brennen. "But I overcame that and had an immensely enjoyable time as an undergraduate."

At Oxford, Brennen was a student at Balliol College. He was fortunate in that selection. Knowing nothing about the colleges at Oxford, he had chosen Balliol from a list because it ranked first alphabetically. As it turned out, Balliol also ranked at the top, academically.

At Balliol, Brennen says he didn't have to work as hard as most Caltech undergraduates work, although he probably worked harder in high school than most Caltech students do. He "had a wonderful time," taking part in theatrical productions, playing rugby and soccer, and occasionally playing for a "gentleman's cricket team."

The summer before he went away to college he met his future wife, Doreen,

he met Caltech's Ted Wu, professor of engineering science, who was visiting the NPL. After Wu returned to the Institute he wrote Brennen, asking him if he would be interested in coming to Pasadena as a postdoc for a year.

"I was delighted with that possibility," says Brennen, "so on New Year's Eve, in 1968, Doreen and I left the British Isles, after struggling to find the airfare. We arrived in the United States with two children, two suitcases, and \$200."

The rest is Caltech history. Brennen's one year as a postdoc stretched into two. Then he went on to become a senior research fellow, a research associate, and an associate professor. In 1982 he was appointed professor of mechanical engineering and a year later he found himself deeply involved in student affairs.

Brennen finds no major changes in student life since he became master of student houses, although he says some of the changes enacted a year ago by the faculty have made academic demands a little easier. These include a reduction in the number of units required for graduation from 516 to 486, and a change in the definition of overload. The latter step was taken to encourage students to enroll for fewer units and learn the material in the courses they do take more thoroughly.

"Students' long-term interests are best served if they have a thorough understanding of the fundamentals, rather than if they gloss over a lot of information," Brennen says.

Despite these changes, Caltech continues to be one of the country's most academically rigorous institutions. But Brennen doesn't believe the demands are too tough. "In order to be a first-class institution and to provide a first-class education, you have to be demanding," he says. "But those demands should be

accompanied by empathy and understanding, and by a reasonable approach to the entire college experience. It's very important for our students to have a complete college experience, academically, socially, and governmentally. So many issues in science and engineering today require the individual to make judgments that involve social, environmental, or economic factors. And without a complete education, the scientist or engineer isn't prepared to make those kinds of judgments. So we must always work to provide our students with a balanced education.

"One of the great strengths of our undergraduate program is the freedom we give students to govern themselves, both within the context of the student houses and through the review boards that monitor the honor system. These collaborations encourage another strength in our student life—collaboration in study. I remember, as master of student houses, walking around late in the evenings and seeing study groups hard at work. That's a side of the Caltech experience that few Caltech faculty members see first hand."

Brennen feels the house system is working well, but says that at the same time "we have to provide alternative housing for students who might not feel comfortable in the seven houses." There are already several of these alternatives, he points out—Institute-owned apartments, rooms in Marks and Braun Houses that provide dormitory-style living, and large Institute-owned houses on Holliston—plus all-female housing. Added to these, Brennen would like to see, "at least as an experiment," housing which included undergraduates, graduates, and young faculty members living together in the same quarters. He hopes a proposed eighth house might become the basis for such an experiment.

The late 1970s saw a change in students as they became increasingly job-oriented and less interested in the environment and social service. This trend has continued, says Brennen, but there are some exceptions. He is particularly pleased when he sees students involved in programs to feed the homeless or paint an orphanage in Baja. "I'd like to see more students involved in programs of that kind," he says, "not just because of the good they can do for others, but because of the good they can do for themselves."

The same era saw an increase in entering students who had been

But at Caltech itself, the opportunity for hands-on research experience for undergraduates has improved, thanks to the SURF (Summer Undergraduate Research Fellowships) program. "SURF is a marvelous program that has increased opportunities for students to become involved in research," says Brennen. "And of course, research is one of Caltech's great strengths."

Brennen feels the financial burden for students is probably heavier than it used to be, forcing them to do more part-time and summer work. "It's not at all clear to me that tuition at major colleges needs to be as high as it is," says Brennen. "One of the consequences of students needing to earn so much money to support themselves, is that most of them have to work during their entire vacation period. That excludes one of the aspects of student experience that I think is very valuable—the opportunity to travel and study abroad. Fred Shair and I have been talking about how the SURF program could be expanded to allow students to do research in Europe and Asia. This would achieve the same end as foreign travel, which provides a student with a very useful perspective."

Caltech offers many advantages because of its small size, Brennen feels, but he adds that one of the difficulties is the limits the size places on extracurricular activities, and the activities' need to attract an adequate number of students. "Currently the student newspaper is experiencing hardships because of the small number of students on the staff, and the extra burden this places on the students who do work on the paper. Many activities fall into this category. Theater arts struggles to find sufficient numbers of students to put on a musical, for example. The Glee Clubs are perhaps among the few organizations with a remarkably high percentage of students involved. The Glee Clubs are a real Caltech tradition, and that tradition attracts students to participate."

Like many on the Caltech campus, Brennen would like to see a higher percentage of women students. As a member of the Admissions Committee last year, he suggested a 25-percent ratio of women as a goal to work for. "I think it would make an enormous improvement in the undergraduate experience here at Caltech if we had an equitable number of female students," Brennen says. "It would improve matters substantially for everyone."

"The problem seems to be that women just aren't applying in large

they go? "Some leave because they've lost interest in science and engineering, and want to study the humanities, business, or some other subject," he points out. "Some leave because they're unhappy at Caltech for whatever reason. It can be as simple as a girlfriend who's going to school in Boston. It's not easy to generalize about reasons for transferring."

Brennen finds that leaves are often helpful for students—although leaves are often regarded as failures by students thinking about taking them. "I spend a lot of time persuading students that that's not the case, and they may merely need a break from the Institute to recover their perspective on what they're doing here," says Brennen. "Of the students who take leaves, a very substantial fraction return rejuvenated, and successfully complete their degree."

One of Caltech's most famous features is its students' reputation for pranksterism. Brennen has misgivings about this aspect of the Institute's reputation. "As dean, I don't encourage pranks," he says firmly.

Brennen believes there are many more constructive ways to relieve academic pressure than engaging in pranks, and he also believes pranks "play a larger role in the eyes of public relations than they do in the eyes of Caltech students."

The Caltech student body suffers from a self-imposed image problem, he feels, and pranks contribute to the notion that the students here are a little strange, and given to participating in rather bizarre activities.

"I think both the faculty and the students themselves underestimate the quality of young people with whom we're privileged to work," he says, sternness showing about his eyes. "There's a tendency to say, 'Oh, they're just Caltech students.' And this implies that they're not as worldly, not as articulate, not as broad-minded as students at other universities. I think that's a fallacy. This is a marvelously talented group of young people—tremendously talented, not just in science but in many other ways. I think the students themselves should be less ready to accept the implied criticism in such statements as 'They're just Caltech students.' Unfortunately, perceptions can sometimes become as important as reality—in terms of recruitment, for example."

"This is why I feel the way I do about pranks. Sometimes the idea is put forward that pranks are just some-

with a balanced education.

"One of the great strengths of our undergraduate program is the freedom we give students to govern themselves, both within the context of the student houses and through the review boards that monitor the honor system. These collaborations encourage another strength in our student life—collaboration in study. I remember, as master of student houses, walking around late in the evenings and seeing study groups hard at work. That's a side of the Caltech experience that few Caltech faculty members see first hand."

Brennen feels the house system is working well, but says that at the same time "we have to provide alternative housing for students who might not feel comfortable in the seven houses." There are already several of these alternatives, he points out—Institute-owned apartments, rooms in Marks and Braun Houses that provide dormitory-style living, and large Institute-owned houses on Holliston—plus all-female housing. Added to these, Brennen would like to see, "at least as an experiment," housing which included undergraduates, graduates, and young faculty members living together in the same quarters. He hopes a proposed eighth house might become the basis for such an experiment.

The late 1970s saw a change in students as they became increasingly job-oriented and less interested in the environment and social service. This trend has continued, says Brennen, but there are some exceptions. He is particularly pleased when he sees students involved in programs to feed the homeless or paint an orphanage in Baja. "I'd like to see more students involved in programs of that kind," he says, "not just because of the good they can do for others, but because of the good they can do for themselves."

The same era saw an increase in entering students who had been involved with computers almost to the exclusion of other scientific activities. This trend has also continued, Brennen says, and he remarks that "unfortunately, during the same period, there's been a decline in the extent and quality of science education in high schools. So the two phenomena are coupled. It's almost as if the interest in computers has increased to fill a void in science education. Perhaps if there were more exciting science education opportunities at the high-school level, we'd see a wider range of science interests in our entering students."

clear to me that tuition at major colleges needs to be as high as it is," says Brennen. "One of the consequences of students needing to earn so much money to support themselves, is that most of them have to work during their entire vacation period. That excludes one of the aspects of student experience that I think is very valuable—the opportunity to travel and study abroad. Fred Shair and I have been talking about how the SURF program could be expanded to allow students to do research in Europe and Asia. This would achieve the same end as foreign travel, which provides a student with a very useful perspective."

Caltech offers many advantages because of its small size, Brennen feels, but he adds that one of the difficulties is the limits the size places on extracurricular activities, and the activities' need to attract an adequate number of students. "Currently the student newspaper is experiencing hardships because of the small number of students on the staff, and the extra burden this places on the students who do work on the paper. Many activities fall into this category. Theater arts struggles to find sufficient numbers of students to put on a musical, for example. The Glee Clubs are perhaps among the few organizations with a remarkably high percentage of students involved. The Glee Clubs are a real Caltech tradition, and that tradition attracts students to participate."

Like many on the Caltech campus, Brennen would like to see a higher percentage of women students. As a member of the Admissions Committee last year, he suggested a 25-percent ratio of women as a goal to work for. "I think it would make an enormous improvement in the undergraduate experience here at Caltech if we had an equitable number of female students," Brennen says. "It would improve matters substantially for everyone."

"The problem seems to be that women just aren't applying in large enough numbers. We don't know why this is so—whether it has to do with our image, or the image of science and engineering in general, or whether it's a cultural problem that's going to take a long time to overcome. I'm very pleased by the new departures that Dan Langdale [director of admissions] is instituting, and I hope they will prove effective in increasing the number of women at the Institute."

As dean of students, Brennen sees those students who are leaving Caltech—either to transfer to another institution, or to take a leave. Why do

that that's not the case, and they may merely need a break from the Institute to recover their perspective on what they're doing here," says Brennen. "Of the students who take leaves, a very substantial fraction return rejuvenated, and successfully complete their degree."

One of Caltech's most famous features is its students' reputation for pranksterism. Brennen has misgivings about this aspect of the Institute's reputation. "As dean, I don't encourage pranks," he says firmly.

Brennen believes there are many more constructive ways to relieve academic pressure than engaging in pranks, and he also believes pranks "play a larger role in the eyes of public relations than they do in the eyes of Caltech students."

The Caltech student body suffers from a self-imposed image problem, he feels, and pranks contribute to the notion that the students here are a little strange, and given to participating in rather bizarre activities.

"I think both the faculty and the students themselves underestimate the quality of young people with whom we're privileged to work," he says, sternness showing about his eyes. "There's a tendency to say, 'Oh, they're just Caltech students.' And this implies that they're not as worldly, not as articulate, not as broad-minded as students at other universities. I think that's a fallacy. This is a marvelously talented group of young people—tremendously talented, not just in science but in many other ways. I think the students themselves should be less ready to accept the implied criticism in such statements as 'They're just Caltech students.' Unfortunately, perceptions can sometimes become as important as reality—in terms of recruitment, for example."

"This is why I feel the way I do about pranks. Sometimes the idea is put forward that pranks are just something these strange Caltech students do. And I certainly want to avoid that kind of characterization because of the extent and variety of the talents of our students. Pranks just aren't a major part of what Caltech students do. In fact, pranks are somewhat uncharacteristic, at least in terms of the way they're portrayed."

With those firm words, Brennen pauses. Outside, students are beginning to queue up, waiting to talk with their mentor, the man from Magherafelt who made the long journey to Oxford, and the even longer journey to Pasadena.

Office of the President
CALIFORNIA INSTITUTE OF TECHNOLOGY

Memorandum

November 17, 1989

TO: The Caltech Community
FROM: Thomas E. Everhart *TEE*

At a recent party some undergraduate students voluntarily engaged in activity that was inappropriate, that offended some persons present, and that necessitated disciplinary action. Many among the administration, faculty, students, and staff believe that the students involved in this incident showed a lack of respect for the feelings of others that is inappropriate, and unintentionally did take unfair advantage of other members of the Caltech community. The considerable freedom afforded students at Caltech must be exercised with judgment and responsibility. Mistakes will inevitably be made. Individually and collectively, we should learn from them. In this way we can grow individually, and as a community.

Most long-term solutions to problems at Caltech involve thoughtful discussion, followed by action supported by a substantial majority of those affected. These solutions must be acceptable to society as well, i.e., they must satisfy the laws of Pasadena and California. The event mentioned above triggered several letters to the campus community, which appeared in the November 17 issue of the *California Tech*. One thoughtful letter states reasonable expectations: "At Caltech, each of us hopes to find a congenial atmosphere to work and live, an atmosphere in which we are treated with dignity and honesty." It then describes certain aspects of campus life which the writers find incompatible with a congenial atmosphere, and which they believe show a lack of dignity, of honest, or both. Their letter has wide support. We should ponder and discuss the issues they raise. We should also realize that there are other minority members at Caltech who may have somewhat different problems, but who also deserve to live in a congenial atmosphere, and to be treated with dignity and honesty.

Every member of the Caltech community should be treated with respect by every other member, regardless of race, religion, sex, age, and a host of other characteristics, including perceived status. I call on all members of the Caltech community, but especially students, to consider thoughtfully the topics raised in the letter mentioned above. Broad discussion of these topics will increase our understanding of the concerns of others. Such understanding will, I am convinced, lead to increased mutual respect.

I thank those who spent the time to thoughtfully draft letters concerning these issues, especially the letter with such wide-spread support, regarding gender problems on campus. These problems need to be addressed. Let us move forward together to make Caltech a more hospitable and congenial environment for *all* members of our community.