



Winchester Jones

—How It Was

L. Winchester Jones came to Caltech in 1925 as an instructor in English, and he quickly gravitated into the freshman admissions committee. By the time he retired in 1968 as dean of admissions, emeritus, he had had considerable influence on the nature of the admissions process and its product at Caltech. He was interviewed for the oral history program of the Institute Archives by Mary Terrall, and E&S presents here the second of two parts of an edited version of those interviews.

As a number of readers pointed out to us after reading Part One, Winch Jones is one of the great raconteurs, and Caltech anecdotes are his specialty. Fortunately, Mary Terrall was able to record a few samples from the Jones repertoire, one of which begins on page 22.

Mary Terrall: I think we're up to World War II. Were there very many of the humanities faculty members who were involved in war work in one way or another?

Winchester Jones: Not as many as there were in science. We stayed on the job and did pretty much what we had been doing. I don't recall that any of us except Horace Gilbert really was engaged directly in war work, though we were on various boards and things that were trying to do something for the war, independent of our connection with Caltech. Bill Huse was a kind of historian for the rocket project.

MT: In terms of the teaching, were most of the same courses offered even though the enrollment was down?

WJ: The Navy V-12 program left our humanities, and practically everything else, pretty much to us. They said, "We want these boys educated the way you educate your students, so go ahead."

MT: So what was the situation — a certain percentage of the students were in the V-12?

WJ: Yes. Of course, they had to volunteer; they weren't drafted.

MT: But they didn't have to get admitted by Caltech.

WJ: No. The Navy transferred a certain number of students from other colleges that didn't have a science or engineering place, and oh boy, what a headache that was. The first day of the V-12 I didn't go to bed at all, and there were two or three others who never got to bed that night or the next day. These boys poured in from various places with their transcripts in their hot little hands, and we tried to make head or tail out of them, and decide where in the world we could fit them in. Were they partly sophomores or partly freshmen, or all freshmen? Or had they had any advanced algebra? No. What the hell are you going to do about that? Oh, it was a mess.

To make it worse, we had no commanding officer. Here these people all arrived, and there was a little lieutenant who hadn't been in the Navy more than just his basic training period, and he was scared to

death. And no commanding officer. We finally got a man by the name of Mantell who came out here three days late, but he settled things in a hurry.

MT: Did you try to fit the students into the regular Caltech curriculum?

WJ: We tried to, yes. The Navy offered a very few courses — some strictly Navy stuff taught by the commanding officer. For the most part we tried to fit them into just what we had been teaching; that's what the Navy wanted.

MT: How did that work out?

WJ: It wasn't as bad as you might have thought. Some of the students got set back a year or two, but it wasn't all that bad, and the faculty wasn't quite as tough as they had been. It was wartime after all.

MT: What was the feeling among the civilian undergraduates toward the V-12?

WJ: To the best of my recollection, there weren't more than about 75 or 80 of them. And they felt out of it, of course. Except for the freshmen, for the most part they were 4F. So we had very few civilians, and it was kind of tough on them; they didn't get into the activities very much. Of course, the V-12 wanted all the athletic activities it could get — teams and everything. Boy, for three years we had the finest football team Caltech ever had. We had two-thirds of the Stanford football team in the V-12 unit, and the rest of it was made up of Cal and University of Washington football players. We won every game for two years, and one year it

Winchester Jones

was 66-0 over Occidental. Those were great days for athletics.

MT: Were you involved in administering the V-12 thing?

WJ: Yes. They thought the registrar was the logical place to go, so I was the administrator, and I also made some of the feeding and housing contracts that we had to make, not only with the V-12 but also for the Air Force unit we had there, the meteorological people. In fact, more or less unknowingly, I rented Tournament Park to all three services for the same amount each. Somebody found out about it later, and said they were going to sue or something. I believe we were entitled to fifty cents a head and I got fifty cents a head from all three services. As a matter of fact, they were all out there together at the same time.

That contract-making was kind of fun. Jim Page was chairman of the trustees at that time, and when I started making contracts I said to Page, "Look, Jim, I don't know anything about business, or how to make contracts." He said, "Well, we lost our shirts on the last contract we had made by the business office, and you can't do any worse than that." And I said, "Well, all right, Jim; if I'm going to make a contract, I want a case of Scotch and a case of bourbon, and I'm not going to pay for it." And he said, "It'll be there tomorrow." So at the contract meeting we had a captain and a commander, and all sorts of flunkies around, and we sat there in a room and talked, and put things off, and looked up information and so on until about four o'clock, when I said, "It's getting kind of late, let's go have a drink back at my house." Well, finally at about eight o'clock at night, we made a darn good contract.

MT: You were also in the California State Guard at this time. What did that entail?

WJ: That took the place of the National Guard, which had gone into active duty, and so they had to have some organization in case there was a riot or other emergency. We had guard duty and riot training. As a matter of fact, on Pearl Harbor night the company that I was

commanding took over Caltech. They were very much worried about the aeronautics lab and one or two of the other buildings where the beginnings of the rocket research were going on, and they wanted those guarded. They thought somebody might blow them up or that some sabotage or damage might be done. It wasn't an easy place to guard on account of those steam tunnels. Every building could be entered from underground through the steam tunnels.

MT: So what did you do?

WJ: We had guards down there, and we changed them every hour and a half or two hours. You stand there in that steam tunnel, in uniform — it's like being in a Turkish bath. I'll never forget, about six o'clock on the morning of December 8 I went over to the Greasy Spoon to have a cup of coffee and get some scrambled eggs — I'd been up all night. They kept the Greasy Spoon open all night for us. And as I was going over, I heard a guard challenge over in front of the aeronautics building. The word was passed, and the corporal of the guard came up, and I looked across to see what was going on, and there was a poor little Japanese graduate student. He'd just got up and was on his way to work; he hadn't even heard about Pearl Harbor, much less the idea that the Japanese had attacked. And this guard had him nailed right against the door. He said to his corporal, "Can I shoot him now, Corporal? Can I shoot him now, or do I have to wait?" He was really eager. I got over there in a hurry. I said to the corporal, "For gosh sake, take that gun away from him, or he *will* pull the trigger before he's through." It was a nervous moment. It was just lucky he didn't pull the trigger too, by mistake.

MT: Was this guarding of the aeronautics building just for a short period?

WJ: Just two or three days. By that time Caltech got regular professional guards.

MT: So after the war when DuBridge was brought in and Millikan retired, were there obvious changes?

WJ: Not a great deal as far as the undergraduate area was concerned. The transi-

tion was very easy on account of Earnest Watson. Earnest was really acting president — he didn't have any title, but he really was — for the last year or so between the two. DuBridge fitted in beautifully; he had the kind of mind that saw immediately what went on, and there wasn't any need for any immediate change. As far as the undergraduate work was concerned, I don't think he had any great plans. It was going very satisfactorily, and we had good students, and we were doing all right. I think he thought that we might step up our recruiting a little bit, which we did.

MT: What about more general change in the atmosphere on the campus?

WJ: I wouldn't say that the change in administration had anything to do with that at all. Things changed as they do anywhere over a period of time. One of the attitudes that had changed in that period made teaching much less interesting for me. These fellows who came out of high school were now convinced that they ought to know something about the humanities. Instead of saying, "All right, the heck with you," and then finding out what they really wanted, they sat there almost pathetically: "Here I am, educate me." It was a much more passive attitude.

MT: It was after the war that you noticed this?

WJ: That's right. Except for the veterans. The veterans were a prize, really, but after they got through, there wasn't the same feeling about the humanities. The kids had been persuaded somehow or other that taking humanities was like castor oil; it was good for you. We didn't have to work with them and convince them. For me, they were less interesting students.

MT: How did the admissions work then change after the war? Did you have a lot more applicants?

WJ: Yes, the applications picked up. We had much wider interviews and more of them. During the war, we couldn't interview at all, you see. We really didn't have to with the V-12, but we couldn't get transportation and there was no way to do it. So that was revived. In my day we

never did any very heavy recruiting. In a way, the interview trips were recruiting. But I was about the only one who did any recruiting aside from that — in the fall, for example. Peter Miller did some too.

MT: You mean going around to schools and talking to them?

WJ: Yes. I had a little different system from the other colleges. The schools got fed up with the standard recruiters after a while. People were coming in all the time and wanting to see their top ten students, you know. Well, I never went at it that way at all. I wrote them a letter and asked, “Do you want a vocational guidance talk on science and engineering?” “Why, sure, we think that would be a good thing for our boys.” So instead of seeing the top ten students, I talked to a whole class. Often I have talked from eight o’clock — the first class in the morning — until two in the afternoon without a break. I talked to every math class and every physics class that had met through the morning and afternoon. I never mentioned Caltech, but I was always introduced, of course, as being from there, and the students would come up afterward and ask me about Caltech; that was fine, but I never brought it up. And the schools would know that, and they figured I wasn’t recruiting. Well, I certainly was; that was what I was doing it for. But they felt that those talks were valuable.

MT: Was there any discussion back in the fifties about admitting women?

WJ: Quite a bit. And as you know, the main reason against it was, particularly in graduate work, that you put all this time on the girl, and she went out, and maybe she worked at it a year or two after graduation, got married, had children, and never made any further contribution to science or engineering. That was the theory, anyway. And to some extent it’s true, I guess. Caltech was a small place, and we had a limited number of graduates, so we decided it would be better to take those who had a better chance of staying in the field and going on and doing something for the next 20 or 30 years after they graduated. Well, finally it became obvious

that we should admit women to graduate school. As you know, that came several years before the admission of women undergraduates. So there was a faculty meeting, and it was pretty obvious by that time that it was going to be approved.

MT: But were there people who were really vehemently against it?

WJ: Quite a number, as a matter of fact. But there wasn’t any real opposition at that faculty meeting. It had all been said before. I’ve forgotten who it was — maybe Ralph Smythe — who got up and made the motion that we admit women to graduate school, provided they gave every promise of being unusually productive. There was a dead silence. And I rose and asked if the gentleman would kindly define his terms. Well, I wish you could have heard the next half hour. Four hundred serious faculty people tried to decide how you define productivity in women. I never had a better time.

MT: Did they then decide on that?

WJ: Oh, yes, it passed; they finally got a motion that satisfied everybody.

MT: Was there a stipulation that the female graduate students had to be especially qualified?

WJ: As I recall, the motion contained some phrase or other that they had to be people who we thought really would go on and make a life career out of it. Of course, the same thing should have been said about the men.

MT: That’s right. What about the decision to admit undergraduate women?

WJ: From that time on, I said, “You will admit women to the undergraduate school when I either die or retire, not before.”

MT: Why was that?

WJ: I didn’t feel that any of us were capable of picking women students. I wasn’t prejudiced about it; I just didn’t want any more bother. So they said, “All right, we’ll wait for this crazy man to get out.” However, they took a minor revenge, because the last year I was there, they decided they were going to admit women the

following fall. And they made me the chairman of the committee to decide what had to be done in order to admit them — where we were going to house them, where we were going to feed them, what we were going to do about this and that.

MT: Did you get a sense that there was a difference in the overall qualifications of the student body as time went on?

WJ: No, but there was perhaps a little more sophistication. Some of the early students were pretty rugged guys — rugged individualists and everything else. I would say that, on the whole, the later group was — conformist is not the right word; they never were conformists, but they were, I think, a little more housebroken. In the first place, many more of them were theoretical people, even the engineers. In the early days, engineering was a pretty practical matter. I don’t mean there wasn’t research in engineering; there was. But it was not expected that the engineers would go on in the same proportion and get graduate degrees, or that they would be the kind of engineer that was basically a fundamental research man.

MT: So in that sense the type of student changed.

WJ: In that sense, yes. Our admittees in the 1920s were highly motivated, but not all of them could have made it at Caltech in the 1950s. Maybe half of them or more would have fallen by the wayside. They were bright in their own way, but they were not people who could have taken the modern math and physics that are being thrown at students now.

MT: I read something that you wrote in *Engineering and Science* back in 1949 about how Caltech has one of the lowest academic failure rates in the country. And then I happened to be looking at the *Bulletin* from the early seventies and it had some figures about how 10 percent of the freshmen don’t come back as sophomores, and 30 percent don’t graduate. Now it’s obvious that many people just can’t do it.

WJ: Can’t do it, or don’t want to after they find out what it is really like. You see, my figures were failure rate; but the

Have you heard Winch Jones tell this one?

One of the famous people on the faculty was Fritz Zwicky. He was a wild Swiss. And a very controversial figure, a very definite figure. And very amusing. Well, I came into the faculty club one day, and I sat down at the table where I usually sat, a big round table. There were more foreigners, it seemed to me, in those days on the faculty than there were later. This must have been before the 1941 War. It was a rather dull lunch, I thought, so I threw a remark out to see what would happen. I said, "You know, all foreigners are rotten automobile drivers." Three or four mouths opened around the table, and Zwicky got his open first; he usually did. He turned on me and he said, "Jones, that is the kind of idiotic remark you have been making around here now for twenty years. Justify such a stupid statement."

I said, "Well, how about (Josef) Mattauch; he killed himself up here on the Ridge Route, coming around those curves

picking wild flowers off the side as he drove along."

"Mattauch, Mattauch, he was a congenital idiot before his grandmother was born. Leave him out."

I mentioned somebody else, and he was a congenital idiot even further back. "All right," I said, "What about Epstein?"

"Oh, my God! Must you bring Eppy into the argument?"

"Yes."

"Then I am lost. Only one thing is making me believe in divine providence, and that is the conjunction of Eppy and the automobile lasting for more than 40 seconds. This cannot possibly happen by chance, only by divine interference. Am I ever telling you about the time Eppy and Mattauch — before he killed himself, before you ask a stupid question — is driving back from Azusa in the old days when the road is winding?"

And I said, "No, you didn't tell me."

So Fritz brought his fist down on the table and broke a couple of coffee cups and said, "Shut up everybody, I am talking. In the old days, when the road is winding, we are driving back in the dark, in this ancient Buick Eppy has. This Buick comes from the tomb of Tutankhamen. In about the Middle Ages is the top disintegrating so there is no more top. Comes a big wind blows across, blows the glasses off Eppy, smashing on the road. Well, you know Eppy sees about 80 feet with the glasses on, and not a damn thing with the glasses off.

So I am saying, 'Eppy, better let me drive.'

Very proud fellow, Eppy; he says, 'No it is not necessary.'

I say, 'Eppy, you can see nothing.'

Eppy says, 'That is a vast exaggeration, I can see the tail-light on the car ahead. And when this tail-light has an apparent luminosity of a star of the fourth mag-

Winchester Jones

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dropout, the man who shifted and decided he wanted to go to Stanford to study economics, doesn't have to go to Stanford to study economics now. We lost him, where we wouldn't now. But I wouldn't count him as a failure.

MT: Were there many people who did transfer away from Caltech?

WJ: Well, there weren't many. I've forgotten my figures now on how many actually graduated. Not nearly as many as we wanted to have graduate. We would admit 180 in those days and, as I recall, our senior graduation used to run about 125 or 130. We figured that we wasted our time on an awful lot of people. Now, not all those are failures. Some of them had just transferred to other areas. And we were concerned about it. So then there was a good deal of agitation to enlarge our transfer admission, from the junior colleges particularly, to fill up these ranks.

But that was not so easy. We were beginning to outpace the junior colleges in the demands that would be made of their students as juniors. However, most of the students that we did take in did very well.

What we needed was a recruiting program in the junior colleges, and we just didn't have it. I said I was not fitted to recruit in the junior colleges because by that level they had gone way beyond any math or physics discussion that I could have with them. I couldn't hold my own there at all. So it had to be done by faculty members, and they had already given enough time on their freshman interviews. The Upperclass Admissions Committee never had the same enthusiasm for that kind of thing. Now, I understand, they even have a high school relations fellow, Lee Browne, who does a lot of recruiting. This is what they should have had a while ago.

MT: To go back to the fifties, what was the effect on Caltech of the McCarthy hearings?

WJ: It was just a horror to people, you can imagine. No scientist would have any sympathy with a thing like that.

MT: Was it discussed or was it ignored?

WJ: It was not much discussed, but if the subject ever came up, why — everybody hated McCarthy of course. It was considered a very serious matter. And it did come home to us every so often, when we would find that someone was denied access to certain kinds of information on some hearsay business, that an agency that was giving some research money — scared of the McCarthy attitude — was trembling on the verge of withdrawing it. And it created, of course, a tremendous amount of indignation. Government agencies were terrified.

I think the worst case we had was that of Hsui-Shen Tsien, the excellent aeronautical and jet propulsion engineer. Tsien was a very smart man. The whole McCarthy business was stirred up against Tsien, who was a Chinese — and this was after the Communist takeover, of course.



Fritz Zwicky



Paul Epstein

nitude, I am about 250 feet behind, too far away. When it has an apparent luminosity of a star of the second magnitude I am about 30 feet behind, too close. A star of the third magnitude I must be keeping this tail-light. Shut up, I'll do the calculations.'

Jones, do you know how to calculate luminosities? Differential equations, covering two blackboards. Eppy is doing it all in the head. Marvelous mathematician. Put the foot on the brake, on the accelerator, on the brake, he is keeping just about the right distance from behind. All of a sudden, what do you think is happening? The apparent luminosity of that tail-light disappears to a factor zero.

I am saying, 'Eppy, Eppy, what are you going to do?'

Eppy say, 'Sh-h-h, the car is going around the corner.' Eppy is counting, one-two-three-four, and then pulls the steering wheel. And we bump over a little

low stone wall into an orange grove.

So we all get out and Eppy says, 'Gentlemen.' Eppy bows from the waist — but that is not strictly true, Eppy's got no waist, but he bows — and he says, 'Gentlemen, gentlemen, not since I was in the gymnasium have I made such a silly mathematical miscalculation.'

And I am saying, 'Eppy, never mind the miscalculation. How do we get out of the orange grove?'

Eppy says, 'Elementary, gentlemen, elementary. Any child knows that the square of the hypotenuse is equal to the sum of the squares of the two sides. The road is turning 90°. When I am pulling the steering wheel, I am about exactly 18 feet too far. On the square of this hypotenuse, I must now go exactly 29 feet and come out on a 35° angle on the highway and there I will be.'

And I am saying, 'Eppy, that is all very well, but there are orange trees in the way

that you're going to hit.'

Eppy says, 'Oh, that complicates the situation. How many orange trees?'

I am saying, 'Four.'

'How big is an orange tree?'

I am saying, 'Well, twelve foot in diameter, six-foot radius.'

'Hmmm, off the hypotenuse I must take one-two-three-four, six-foot radius off. Elementary, gentlemen, elementary. All calculated. Get in, get in.'

So we get in. Eppy starts the engine, and we go. Around the first orange tree, the second, the third, fourth. Not touching a leaf, all by mathematics, Eppy sees nothing. And we come on the highway precisely at the right angle. Marvelous mathematician, Eppy. Only one thing he does not take into consideration in the calculation. At the same time and the same place where we come on the highway is also another car coming. And what a hell of a mess *that* was.'

He was no more Communist than I am and he didn't want to go back to China, but they deported the man. They actually kicked him into the van, by the way, with a foot, and sent him off. You can imagine what he felt like when he got back to China. Of course, he went to work for them. We lost one of our leading engineers as a result of that, and it was just stupid and outrageous.

MT: People on campus were generally outraged about that?

WJ: They certainly were — everybody, whether they knew Tsien or not. Tsien was not the most agreeable character I ever ran across, but there was certainly no reason to suspect him of being a Communist just because he was a Chinese.

MT: I guess not too many people at Caltech really felt threatened by the scare.

WJ: No, I don't think so, not directly, but every so often something would crop up about some friend of theirs who was in

trouble, and there was a lot of indignation about it.

MT: What about the changes that took place in the humanities division over the years? By the sixties, it was really quite a different place.

WJ: Yes, very different. It changed from a service division to more of a research and scholarly division. As I say, Rod Paul was one of the first who ever claimed to be a research man among all of us. But more and more under Hallett Smith, and later, we began to get real scholars, and we also got built up in numbers. When I stopped teaching, there certainly weren't more than a dozen of us in the humanities division. Now, there are 50 or 60 people. Something like that. That was the change. It became a major division instead of a service division.

MT: You were saying that everybody knew everybody, and it was very common to have friendships with people in different divisions. Has that changed?

WJ: I would think so. The new people came in so fast that I lost track of a lot of them. I knew all of the faculty at one time; I knew them fairly well. By the time I left, I don't suppose I knew half of them. I might know their faces and vaguely who they were, but I didn't really know them. How many does the Athenaeum hold at lunch time? In the old days, it held all the faculty that wanted to eat lunch. Now even the private dining rooms to the west are always filled at lunch, and the faculty has spread out to Chandler. We used to have about three big round faculty tables that we sat around — at one one day and one another, and you were friends with everyone. More and more, there came to be a table that you usually sat at — and at lunch was where you really had your social contact, of course. There was the physics table and a chemistry table and a geology table, and there wasn't nearly as much mixing. Then it just got too big. This happened about ten years before I retired. By the mid-fifties, it was getting beyond me, at least, to keep track of them. □