

INTERVIEW with FRED M. TONGE

May 13, 1974

McCULLOCH: Well, Fred, I want to welcome you to this oral history project and ask you firstly, what attracted you about coming to Irvine?

TONGE: Well, I was born and raised in southern California, so I wanted to get back, and a friend and neighbor of mine back at Carnegie Tech, where I was teaching, Jim March, had been hired for some job. It wasn't clear, I guess, at first, whether it was Dean of Social Science or Dean of Administration. He was talking about either or both of those. So he was telling me about the place and asked if I was interested, so I ended up coming out and talking to Hinderaker and Aldrich.

McCULLOCH: What was your initial appointment then, Fred?

TONGE: Well, my initial appointment was going to be in the Graduate School of Administration, but, since there wasn't any Dean for the Graduate School of Administration, then the initial appointment was in social science. And I was getting out of the computer business pretty much; in fact, I left my library and computer stuff at Carnegie to the Computer Facility and a bunch of stuff like that because I thought I was not going to be heavily involved in computers for a while.

McCULLOCH: What did you anticipate teaching when you got here?

TONGE: Use of computers in business and some production management and operations research and that kind of thing--a change, you know, because I was attracted to the notion of a Graduate School of Administration that was across several disciplines, but has the same kind of emphasis on quantitative techniques that the one at Carnegie had in the business and industrial area.

McCULLOCH: I see. Now, I remember your arriving, Fred, in time for the initial conferences which put in motion the Irvine plan, that purple book.

TONGE: Right. I moved out at the beginning of the summer.

McCULLOCH: The summer of '64?

TONGE: Yes. We started classes in September of '65?

McCULLOCH: Yes.

TONGE: Yes, that was the summer of '64, and I worked up in Santa Monica for most of the summer, although I was down here occasionally, and then in September I started.

McCULLOCH: All right, and what are your memories or impressions of the first conferences that we held that resulted in that purple book we put out called "The UCI Plan"?

TONGE: Yes, I remember those. I remember the conferences, a lot of them over in--

McCULLOCH: The old building.

TONGE: In your office building. I guess there are several things that stand out in my mind. One was a lot of excitement in being involved in really laying the ground rules in what it was. I remember one of the things that seemed very strange was that the people from the humanities were far more conservative about the curriculum and things like that than anybody else. One of the things we ended up with was a limit on the number of courses that a division could specify, or a school--

McCULLOCH: Right.

TONGE: My recollection of that is very clear; in fact, I think Jack and I both proposed that as a reaction to history in particular specifying something like 38 out of 45 courses.

McCULLOCH: Well, it wasn't quite that high, but it was high.

TONGE: All right. Well, by all means, have a chance to rebut. Yes, Humanities Tech. It seemed to me, in general, that things went very well in those meetings, compared to an awful lot of things since, just in terms of the level of interaction and--

McCULLOCH: I think, Fred, the interaction was excellent, and the only sad thing is, we don't have minutes. Florence Arnold was supposed to have kept them and didn't. I wish we could have had a tape recorder because, as you say, we did interact well. We argued quite a bit, but always resolved questions, and the 6-3-3 was one of the big compromises that came out, I can recall.

TONGE: Yes.

McCULLOCH: Jim March over on the liberal side and Bernie Gelbaum representing the more conservative element.

TONGE: Right.

McCULLOCH: It worked out very well.

TONGE: Yes. In general, that struck me as being a very good year. I recall Jim McGaugh and I ran into each other at the beach once and were talking, and we ended up putting together a short series of lectures. Maybe you remember. Hazard gave one, and it seems to me Arthur gave one, and a couple other people, because we felt as if we weren't interacting intellectually as much as we were on administrative and curriculum matters.

McCULLOCH: The one lecture series I can remember is the one that Arthur gave over at Collins, in which were six lectures, with the idea of a different person introducing him each time.

TONGE: Right, yes.

McCULLOCH: Is that your idea?

TONGE: No, this was a faculty colloquium kind of thing that was held in the lunches over in the Interim Building.

McCULLOCH: Oh, yes, I remember that.

TONGE: Yes.

McCULLOCH: And then Gerard got very interested in that.

TONGE: Yes.

McCULLOCH: And that lunch wagon came around--we used to buy our lunches off the lunch wagon.

TONGE: Yes. I remember Arthur's; I attended several of those, in fact.

McCULLOCH: Did you do one of the introductions, or not?

TONGE: No, I didn't.

McCULLOCH: I got in on one of those. Well, I remember, Fred, towards the end of that year '64-'65 that a computer was put up and that you had responsibility in some way for that computer.

TONGE: Yes. Well, Ralph Gerard had really gotten about the possibility of computers, of structuring the whole campus around the notion of computers and had, in fact, infected Dan quite a bit with his enthusiasm and some of his views. I guess that he didn't really understand a lot of the problems, or, if he did, he chose to believe that the right way to get something done was to blast on through as if they didn't exist and deal with them as they came up. And most of the rest of us didn't either. In fact, I'm not sure that anybody in the country really understood. That is, there were a lot of people saying, "It won't work; none of that kind of thing will ever happen," for the wrong reasons. Some of it did happen, not on the scale that Ralph imagined. But anyway it was clear that Ralph's enthusiasm not only affected Dan and some of the rest of us, but some of the computer manufacturers also thought Irvine might be a great opportunity to do something in a collaborative way to make a real impact on education. And so Ralph and a number of manufacturers got into some kind of a meeting ritual, CDC first, and then I told Dan that IBM--

McCULLOCH: Did you get involved in any way in the negotiations?

TONGE: Somewhat, but not really very much. Julian and I both would get involved in looking at the stuff from a technical standpoint, but this was after there had been a fair amount of interaction. And it turned out that the one with IBM, in fact, was coming along pretty well and looked like some very interesting possibility. And at that point I guess Ralph raised the question, did I want to run the computer operation to begin with?

McCULLOCH: What was your answer?

TONGE: My answer at first was, well, I didn't know, but it sounded as if it might be interesting. And I can remember very well his pointing out to me a number of the problems that would be involved and the ways in which I would be using my time, which didn't sound very interesting, but I thought that he was probably overstating it--the kinds of budgetary and personnel matters, because I didn't know shit about that stuff, about actually having a number of people working for me and so on and negotiating with the Personnel Office on job classifications. I mean there was a whole bunch of stuff that the University didn't even really have in good shape, let alone dealing with them once the ground rules were straight.

So I said, "Yes." That was quite an interesting experience. We had two and a half years, I think, that I did it before--

McCULLOCH: Who replaced you, then?

TONGE: Bob Gordon.

McCULLOCH: Bob Gordon replaced you? And you, then, accepted the first computer that was put on our site. What date was that?

TONGE: I don't know. It was--

McCULLOCH: It was in the spring, because the rains--

TONGE: I was going to say it was shortly after Christmas, like maybe February.

McCULLOCH: February of '65?

TONGE: And we went into some trailers that were not put on a pad initially, but on a level place behind the Interim Office Building.

McCULLOCH: I remember.

TONGE: On some cedars, and they brought in this IBM 1410-1440, and the rains came, and the stuff sank, and the place where the roofs were joined together split open, and we had some very wet machinery.

McCULLOCH: That is a very serious matter, I take it. Is it?

TONGE: That was a very serious matter, and it cost a bit of money to repair, and indeed, when those machines were finally taken away a couple or three years later, the people who took them down to move them out commented on what the insides looked like in part, although they were operating, but they were--

McCULLOCH: That's very interesting. You told me, I guess, when I chatted with you, that the rains had really hurt the machinery.

TONGE: Yes.

McCULLOCH: Well, setting this up now, what did this computer do? Was this in relation to, say, the instruction coming up in ICS, or was it in relation to their registration and the work--

TONGE: Yes. We didn't have ICS specifically in mind as a separate department until maybe a little bit later, maybe about that. We had in mind a fairly broad spectrum of uses of the computer. Some of it was educational-- so they hired five programmers eventually, and the notion was that different ones would be working in different areas, like somebody working with the Library initially to get the jobs on there; there was a fellow hired to work with the Registrar on an initial enrollment system, instructional uses.

McCULLOCH: Was another research, private research?

TONGE: No. We expected there'd be some research, but we really didn't see that as happening much on the computer the first couple or three years, certainly not big research, because we didn't have that size facilities. We had an access and a tie to Western Data Processing Center at UCLA and several other possibilities, in fact. So, for example, we didn't see the kind of physics research that normally goes on happening on campus initially. This required a much bigger machine than--

McCULLOCH: What is the date, then, Fred, of the ICS program being formulated and put into effect?

TONGE: My goodness! I don't know exactly. What I would do would be to get out the set of initial catalogues. ICS 1, the introductory computer course, was given the first year. I think that the only thing that's listed in the catalogue is that, that the program came maybe two or three years later.

McCULLOCH: Two or three years later! Let me stop the machine and check again. So what we've established, Fred, is that you had a program at the beginning, and the department was set up in 1968.

TONGE: Right, a so-called interdisciplinary program. The first catalogue lists one course, an introductory course.

McCULLOCH: Then you continued to be in charge of the computer until--

TONGE: Well, like two and a half years, and then Bob Gordon, who had been the Associate Director for a year, became a Director.

McCULLOCH: That, therefore, was in 1968 or '69?

TONGE: Sixty-eight--something like that, yes.

McCULLOCH: Now, you taught then from the very beginning (what?) half time or what?

TONGE: Full time; it varied. Usually I taught three or four courses or five. There have been quarters when I--I think I was on half time.

McCULLOCH: And were you a joint appointment between the Division of Social Sciences and the School of Administration?

TONGE: As soon as the Graduate School of Administration was formally established, which means they hired a Dean, they--

McCULLOCH: Yes, Dick Snyder took over at the beginning of the second year, as I recall.

TONGE: Yes, I think you'll find he's listed in the first catalogue.

McCULLOCH: I think he probably is.

TONGE: He'd been hired, but he wasn't here for a bit. Okay, I went on that payroll. I didn't have a joint appointment; I had an appointment in Administration.

McCULLOCH: And the other half time was working in the Computer Facility?

TONGE: Right. And then we started the Department of Information and Computer Science, and it got some budget; then about the same time I quit as Director of the Computer Facility.

McCULLOCH: You went full time with the--

TONGE: No, I went half time, and I've been half time with Administration and half time with ICS.

McCULLOCH: And that's the same appointment you hold now, Fred?

TONGE: Yes.

McCULLOCH: For a year?

TONGE: Right.

McCULLOCH: That straightens that out. Let's return now to your recollections of the first year and the Irvine Plan. Is there anything else that occurs to you during that year or any experiences that you had during that year, besides that terrible flood? Interaction with the faculty? I do recall that notion of those luncheon colloquia. They were excellent.



TONGE: Yes. I was off a fair amount of time on the computer stuff, particularly once we got the equipment in, and that was really taking up almost all my time. We had some interaction with respect to whether we should have some kind of computer science academic program, and we had, in fact, a small conference. We brought three or four people in from various places around the country--academics in computer science--and spent a day or two talking about that. And there was some amount of interaction in terms of what we should do in designing our course. Bob Saunders and Julian and Ralph were probably the most heavily involved in that.

McCULLOCH: Jim March, did you say?

TONGE: And Jim, yes, although he wasn't involved in teaching the course. The first year, instead of teaching it in five different sections, what we did was there were five of us involved, and the ones I remember right offhand were myself, Bob Saunders, and Roland Schinzinger--well, and Dave Isaacs, a fellow who was in Engineering.

McCULLOCH: Yes, I remember Dave.

TONGE: And I think the other fellow was Jim Kearns, a PhD in math, who was working for IBM and who was assigned here and a Lecturer. And we each taught it for two weeks, all sections.

McCULLOCH: That was pretty heavy teaching.

TONGE: It was pretty heavy for a while, but it was kind of fun, too, yes.

McCULLOCH: Did you get good students, Fred? Compare them with the students you had back at Carnegie Tech.

TONGE: You mean just in general? You see, this was sort of a general freshman course.

McCULLOCH: Yes.

TONGE: What amazed me was that some of the best students were always Humanities and Fine Arts students. I guess that's still true, to some extent, although the campus has gotten so big that it's not visible anymore.

McCULLOCH: Yes. I do direct a lot of students there myself. I'm on the Freshman Corps of Advisers this year, and I've told them to take that elementary course--said it would do them a lot of good and they'd learn a lot. And apparently they still take it. The problem is, Fred, that it isn't counted on the 6-3-3 requirement.

TONGE: Yes.

McCULLOCH: And in some ways it should be, and they're wrestling with it right now, your program and Comparative Culture. Why can't it be? The University Studies, for example, were permitted to be counted on the 6-3-3. Why not ICS and Comparative Culture? I think it will probably be arranged fairly soon. I don't know--

TONGE: The plan was to put ICS in with Physical Science in terms of counting it.

McCULLOCH: Yes?

TONGE: Which makes some sense, but we have a large number right now of double majors with mathematics and physics, and it will essentially destroy their chance for that, if ICS is not, because most of them then won't be able to fit two things in. Well, anyway--

McCULLOCH: Well, I think you've probably exhausted the first year before we started. Then we opened, and there a lot of our effort was turned toward setting up the Academic Senate, and what is your reaction to the way we set up the Academic Senate at UCI?

TONGE: Well, one of the things which surprised me then, to answer a little more generally, that surprised me from the beginning--first, I didn't really believe the campus was going to grow as fast as it did, or maybe I

should say I didn't know what that meant. I think a lot of us didn't know what it meant to grow that fast. I mean there were the numbers, and the experience was somewhat overwhelming. But another thing I had had in the back of my mind and certainly told to me by a number of people, that here was a chance really to start a new place, and I sure found out at least as far as the administration of the Computer Facility. And it turned out to be true when I got more involved in academic planning too--that just wasn't so--that in fact we were really heavily encumbered with all the rules, regulations, et cetera, of the University of California, many of which were adapted to very large campuses. And the University and University Hall were still trying to live with, and meet the needs of, these two small campuses that were suddenly appearing and growing at very different time scales.

Well, it was certainly true of the Academic Senate, also, that the rules and regulations all were really UCIA-Berkeley oriented to their style. So I was quite frustrated many times by that whole thing.

McCULLOCH: Now, you were frustrated here, Fred, by the various procedures that the University of California lays down for appointment and for promotion and for things like that? You were referring to that?

TONGE: Yes. I was referring to that; I wasn't referring to general budgetary and personnel policies and those kinds of things.

McCULLOCH: And having a very strict Budget Committee, having a very strict--what's the famous committee which reviews all our curricula?

TONGE: Oh, the Educational Policy Committee.

McCULLOCH: Educational Policy Committee.

TONGE: Of course, that committee was not that active initially.

McCULLOCH: But the Budget Committee was.

TONGE: But the Budget Committee was. I can't really say I had any complaints about the Budget Committee initially. Most of my contact was not

with the Academic Senate; more with the administration. The thing I found frustrating about the Academic Senate had to do with my general frustration at bureaucracy and such. Take, for example, the Budget Committee. I don't really believe that the Budget Committee is the bastion of quality and excellence of the University of California, as a committee of the Academic Senate, or anything else, and yet that is, of course, in writing in terms of the directions and ad hoc committees and all. That's nonsense!

I don't remember the details of the creation of the Senate. As I recall, Abe was--

McCULLOCH: Abe was one of the committee.

TONGE: And he was the first Chairman, as I recall.

McCULLOCH: He was the Chairman of the Academic Senate.

TONGE: Right.

McCULLOCH: And he was also on the committee that had drafted our Irvine division rules and regulations, and Creel Froman was a second member, and I can't recall who was the third one.

TONGE: Yes, and I don't--

McCULLOCH: Peltason took himself off it because he was an administrator, but I'm thinking more--

TONGE: Sam, I guess I don't have that much interest in constitutionality and constitutional law and all that kind of thing, and so my reactions have been in terms of what can and can't be done and what I view as the Senate as a theater for particular people and personalities to play out their need to control or not to control or try to disrupt or create a lousy or fair environment or a highly structured one or whatever. It seems to me to be mostly a waste of time at present.

McCULLOCH: Well, I think that some share your views and some don't.

TONGE: Right.

McCULLOCH: I think, however, to go back to that first year and the Academic Senate, the first big issue that came up (I guess it was in the second year, '66-'67) was the question of whether we should have a College of Arts, Letters, and Sciences or whether the divisions should be converted into colleges or schools, and the latter prevailed. And in 1967--I think that June--The Regents all referred to us as schools, the School of Humanities. Do you remember that? And what was your position on that issue?

TONGE: Yes, I remember that, I remember that. I wasn't heavily involved personally, and the GSA, Graduate School of Administration, had not really started yet. I was being in Social Science to some extent, but primarily I was in the Computer Facility, so I didn't have much involvement or see it as directly affecting my immediate life. My reactions were tempered to a large extent by comments by people like Jack that, well, he didn't see any particular need for a College of Arts, Letters, and Sciences. I remember his saying before Ivan quit that he sort of viewed his job as Dean of that College as not really being Dean, but sort of being a, you know, working with Ivan to some extent.

McCULLOCH: Yes, being a staff member to Ivan.

TONGE: Right.

McCULLOCH: Which is right.

TONGE: I wasn't persuaded by whatever the arguments were that we needed that; that is, the College. It seemed to me the most persuasive arguments that I recall had to do with somebody to guarantee undergraduate instruction and the excellence of that.

McCULLOCH: Can you remember Clark Kerr coming down in the first year (it was in the spring of the first year of full operation here, '66), and he was addressing the Senate and saying that he felt we were doing the right

thing. "Don't resurrect your College of Arts, Letters, and Sciences; let the divisions become schools, because at Berkeley," he said, "we have so many departments reporting to a Dean, it's impossible, and when you get bigger, this is the way to go." Do you recall this?

TONGE: I don't recall that.

McCULLOCH: He was supporting Jack, and I think Dan pretty much agreed with Jack. And the Deans--we were all in favor of it.

TONGE: I know Jim was, and I know Bob Saunders was.

McCULLOCH: I was very strong for it--and Fred Reines, before he came, we persuaded Conway Pierce, he was sort of acting as Physical Science Dean--we asked him to sign the statement right after Hinderaker left, asking that Jack Peltason be promoted to Academic Vice Chancellor and that we just do away with the Dean of Arts, Letters, and Sciences and have us report directly to Jack, and that's the way it worked out.

TONGE: Yes. Well, there's one other thing. It seems to me that, for all that and for my qualms about creating another bureaucratic position to take care of undergraduate instruction or something, in fact we have really insulated the various majors and that the campus suffers very often from a lack of communication which I imagine may not be true at other schools which have some kind of function like that.

McCULLOCH: Well, that is the argument--that we will become too professional and too isolated, and to a certain extent I think this is true, though I think this is mostly our own fault.

TONGE: We sure should do something about it.

McCULLOCH: I think Hazard has tried to get at it, thinking about it in terms of an undergraduate Dean or this Dean of Special Programs who is actually going to be charged with the undergraduate studies, and this man is supposed to be appointed fairly shortly (I mean within the next few weeks).

TONGE: Yes, fine, and if he gets the budget to hire the faculty in that and takes care of their salary and things like that, then maybe he'll have an impact.

McCULLOCH: The answer is that he won't, and this position really doesn't have any power because it has no budget.

TONGE: There's something in the wind besides whistling.

McCULLOCH: Except he does have some budget in terms of the Extended University; outside of that, he's got to be a persuader and a diplomat.

TONGE: And how does the man who's going to replace Hazard do?

McCULLOCH: That's another good question, because I would wonder if the man is waiting to hear who it will be before maybe he accepts. I don't know, because there's been no announcement of this Dean of Special Programs.

But anyhow, back to the first year, Fred. It's two years which I'm really trying to cover in these oral history interviews. How did you feel in the first two years your program went? Did you feel it was a successful program? Did you grow at the pace you wanted to grow at? Did you run into special problems?

TONGE: Well, there were two programs I guess I was involved with--one, the Graduate School of Administration; the other, the Computer Facility. ICS really wasn't getting under way then--yes, by the second year it was--we were trying to get that started. GSA certainly had its problems, getting a Dean on board and then hiring a faculty, and it just went very slowly. I'm not quite sure why. I think it was in part the personality of the Dean the personality of the leader.

McCULLOCH: You mean Dick Snyder?

TONGE: Yes. It makes a lot of difference, and Dick's strengths were not the strengths of being an entrepreneurial promoter, bringing in some faculty and whipping up enthusiasm and getting lots of things going. Not

that he didn't talk about them, but he didn't have that drive like Ralph, who also provided on occasion a certain amount of push and drive to get things going in addition to talking about them--or Clayton. In fact, I was disappointed in GSA at this point.

In ICS we had somewhat the same problem, but even more so, because there wasn't any established base; it wasn't part of the original charter and all that. How do we go out and get somebody to be the Chairman? I didn't want to be the Chairman and be running the Computer Facility. Julian finally agreed to be the Director. Dick Snyder was Director for a while.

McCULLOCH: Of the Computer Facility?

TONGE: No.

McCULLOCH: Of ICS, I see.

TONGE: Of ICS, but, you know, that was sort of an added thing, and I think only because I was involved with it. Julian was Associate Dean of Social Science, and until he was willing to give that up, you know, he didn't want to be Director of ICS. So that went slowly. As I recall, we had, in fact, a couple of what we thought were pretty good prospects that the Budget Committee was not willing to hire.

McCULLOCH: I remember that.

TONGE: At a pretty high level, which was part of the problem. Both of them were people who had some industrial as well as academic experience, and it was a problem of how to evaluate that and so forth. The Computer Facility, in fact, went pretty well, and the working arrangement we had with IBM went pretty well during that period. It was beginning to get sour toward the end of that.

McCULLOCH: At that point you stepped out?

TONGE: Yes. I was getting sour a little before I stepped out.



McCULLOCH: Bob Gordon really inherited that period when the IBM relationship became strained?

TONGE: Yes. Right, yes. It was very related to what I was saying at the very beginning--we had bitten off more than we could chew in some ways. We also needed some good technical management, and at that point I wasn't willing to do that. I wanted to get back to being an academic, a real academic.

McCULLOCH: All right. The next question, Fred, the computer was right over here, next to what was then called the Fine Arts Building.

TONGE: Right. Right in the school.

McCULLOCH: Then, of course, you planned that building, the building you're presently in.

TONGE: Right.

McCULLOCH: What part did you have in planning that building?

TONGE: I did some of the initial planning of the computer part of that building. The building itself is now called Computer Science, but at that time it was called Engineering--that was Engineering Unit 1, I guess, Buildings A and B. And, in fact, it was Bob Saunders's building. Even though I was on the Building Committee, I never got told when the meetings were or anything like that.

McCULLOCH: Oh-oh!

TONGE: In fact, it sort of happened, and then I was told, "Oh, you have this floor space; what do you want to do with it on the particular floor?" It probably was a mistake, in fact, putting a computer up there, where you have to lug the stuff up and down elevators and all that crazy. You need to be on the ground floor. In fact, there are two ground floors really.

McCULLOCH: What you've told me is that that building was originally planned as an engineering building and the computer was just given a part of it?

TONGE: Right, given some space--now, early enough so that we could lay out the space, so we could have proper air conditioning, floor support, and all that kind of thing. In fact, the details of working out the first part of it was done by a guy named Ray Beeman, who was working for me as a programmer.

McCULLOCH: How do you spell Beeman?

TONGE: B-e-e-m-a-n. And he and I worked together, and he did the detail work, and somewhere in that part Bob Gordon came in as Associate Director, and I sort of handed that to him and said--

McCULLOCH: "Here's your job"? And what date did Julian become the Assistant Chancellor for Computing?

Wow, good grief!! (Something happened to the dictating machine.)

TONGE: Bob was Director for maybe a year. He had at least one severe operation, major surgery--lung--during that period.

There was a committee called the Chancellor's Advisory Committee, which I had been Chairman of, as well as being Director, and I continued on, but it seemed to me it was inappropriate for me to be Chairman after a bit, particularly after stepping out of that job. George Brown became Chairman.

There were a lot of financial problems that had to do with the agreement with IBM which was providing us with financial--

McCULLOCH: Not breaking off.

TONGE: The growth of Physical Science and Math and Computer Science being very large all of a sudden, much more than predicted, in fact.

And there was another factor--oh, we had some National Science Foundation support to get the facility started, and that was running out,

and Bob, in fact, didn't seem to be able to deal with this, partly because he was exhausted and was off in the hospital and partly because he preferred to take a somewhat longer view of these immediate problems.

George was not very helpful as Chairman of the committee, I think in part because he was also Dean of GSA, and there was just a lot that he was trying to accomplish there and going on, and it wasn't top priority.

But it would seem as if the Chancellor was constantly being bombarded by people upset about how things were going. And finally we had a meeting of the committee, like the third one in three months or something, with once again the same horror story about how many hundreds of thousands of dollars' deficit there was going to be. And Julian said, "This has got to cease! You've got to do something. I'll be home tomorrow, starting at nine in the morning." And he wanted us to come over and work on it, coming up with a reasonable plan or words to that effect. I remember I spent some time there that day, and I think Alfred Bork did, too, and over the week end we put together what seemed to be a reasonable, possible way to proceed.

McCULLOCH: This must be '68-'69.

TONGE: Something like that.

McCULLOCH: I don't think Bork came until '68 is my memory.

TONGE: Yes, yes.

McCULLOCH: I can check all these things out.

TONGE: Right. Anyway, and a number of things seemed to happen and fall into place in the next couple of months, at the end of which Bob had gone on sick leave. I guess he had recuperated, at least, from this operation and then had resigned as Director and stood around, and George, too, had become Chairman of that committee, I guess. I'm not quite sure about the order of those things. And the Chancellor had asked him if he wanted to do that job.

Oh, I remember. This is very interesting. This is the same point in time that Jim had announced his resignation as Dean of Social Science, and there were obviously outside candidates and internal candidates. The two strong internal candidates were Kim Romney and Julian.

McCULLOCH: You're talking now about the year '68-'69, I'm pretty sure.

TONGE: All right. I can remember, in fact--

McCULLOCH: No, '68-'69, I'll bet you.

TONGE: Yes, I can remember a faculty meeting in Social Science--well, students involved and all that--and, indeed, there was a vote by faculty, by graduate students, by undergraduate students, and all three of these bodies vastly preferred Feldman.

McCULLOCH: You see, I didn't know that; that's news.

TONGE: As Dean. However, Jim preferred, as near as we could all tell in talking with the Vice Chancellor who--I guess it was Roger at that point--

McCULLOCH: Yes, Roger Russell.

TONGE: Right--preferred Kim.

McCULLOCH: Kim Romney.

TONGE: And I remember talking with Roger in a meeting on some other business, and he was saying how he and Dan felt that Julian would be of much more service to the campus, running the Computer Facility operation, which was such a mess. And I don't know how that all came out, except I know Julian was really pissed, because it was his feeling that he wasn't given any choice in the matter. And I guess, in fact, he would have taken the job as Dean of Social Science, given the choice. I could bet on that, but he was never asked, you know. He never received official word one about that from the administration. No one asked. It was as if, "Well, that's all very well; the faculty and students, et cetera, could vote that, but what we're doing is--"

McCULLOCH: I'm very interested to hear that.

TONGE: I remember that very clearly. I don't remember why, but I was having a lot of contact with Roger during that time. Maybe it was over ICS.

McCULLOCH: Sixty-eight-'69 was that year, and I remember it very well. One or two more questions, Fred, just to wrap it up.

TONGE: Sure.

McCULLOCH: Though we can go on as long as you want, but I'm just interested really in the first two years, and I'm interested in your program which I understand. Now, you had the Computer Facility, and you had your work with ICS and with the Graduate School of Administration. Now, George Brown came in as Dean, as I recall it, in 1967. Is that correct? Dick Snyder was for two years?

TONGE: Yes, I think that's probably right. Dick asked me to be Associate Dean, and I chose not to do that--to stay with the Computer Facility at that time.

McCULLOCH: At that point, of course, budgetary constrictions took over with Reagan appearing.

TONGE: Yes, it sure did.

McCULLOCH: So I suppose your plans and visions of your Graduate School of Administration began to be very much circumscribed.

TONGE: Yes. Essentially the rules of the game almost became, "Well, you have to have the student growth to get additional faculty."

McCULLOCH: And that was very bad for your graduate school?

TONGE: And since the school had not really started the first year--it was just beginning to start, it was too small--the faculty was too small to provide the base to build the students.

McCULLOCH: Yes, and you had no critical mass, did you?

TONGE: Right. We didn't even have the smaller mass you need to build a critical mass.

McCULLOCH: Right.

TONGE: So GSA has always had the problem of pretty low faculty-student ratio or whichever (what?) low student-faculty ratio, right?

McCULLOCH: Student-faculty ratio.

TONGE: Right.

McCULLOCH: Well, tell me, if you had it to do all over again, Fred (this is the last question I'll ask you), if you had it to do all over again, what would you do, assuming you had the same conditions up to '67 when we had a pretty fair amount of money and support?

TONGE: Yes, the same conditions up to '67. I would have not got into the business or gotten out much sooner over in the Computer Facility. I would have put a lot of energy into getting the Computer Science Department started initially from the beginning.

McCULLOCH: By that, you mean building up a faculty?

TONGE: Building up a faculty and getting a separate department set up. You know, I heard from our esteemed Vice Chancellor within the last two months--no, from the Chancellor, by God--some statement about how ICS isn't a quote regular program, or something like that, not part of the campus academic plan in comparison with another school on campus which happens to have fewer faculty, although a couple more FTE, far fewer students (Engineering) and a hell of a lot more money per faculty or student member poured into it. And yet his argument was, "Well, but that's just part of the campus academic plan and established something-or-other, and so it makes sense in this case to talk about ICS being merged under it."

McCULLOCH: ICS merged under Engineering or Physical Sciences?

TONGE: Engineering.

McCULLOCH: Under Engineering?

TONGE: Yes, That's the current rumor, which maybe isn't part of your oral history.

McCULLOCH: No, it's not.

TONGE: Well, anyway, what I would do now, looking at all this after all that's gone on, is put a lot of that energy into getting ICS started. We sort of argued, well, we'll get the facilities here because there are people around who want to cooperate with us and supply money and equipment, and then the rest of it will come along later.

Given what happened on the budgetary side, plus a number of other organizational constraints, I'd say it was a mistake not to put a lot more emphasis on getting ICS started as a department.

McCULLOCH: You certainly would have got the monetary support at that particular time. We did get it for the first two years, and then it began to dry up.

TONGE: Yes.

McCULLOCH: Anything else you'd like to add? I'm not terribly sophisticated, Fred, in understanding some of the computer work, and I'm going to have my interview with Julian next week.

TONGE: Yes.

McCULLOCH: And this is the sort of part I have to learn the most about. I learned some of it from Jim March. I taped him up at Stanford last summer. I had about an hour and a half, a very good talk with him.

Anything you'd like to add about the start of our campus?

TONGE: Yes. You keep using the term, Irvine plan, and I think one of the things that is a problem is that Irvine really hasn't had a plan or an image outside of Instant University or something like that side, and I guess I would certainly see University Hall and The Regents looking at it from the outside. There really isn't anything to grab hold of and say, if that's what it is, as there is at Santa Cruz or with the campus built around Scripps Institute or something like that.

McCULLOCH: I suppose it was up to each school to try to make an image, and I suppose, Fred, that the Biological Sciences made the biggest splash because of the innovative organization and ideas of Ed Steinhaus and the way they recruited a faculty which, overall, I would say is the best faculty at Irvine. Whereas you have a picture of Irvine with Biological Sciences, you really don't have them in the other. Now, it is true that there was a time when Ralph Gerard was talking about this as a computer campus, and I can remember Time writing an article, and I know in the Humanities we were appalled at the thought, and I suspect the computer people were, too, in a way.

TONGE: Yes.

McCULLOCH: We tried to--

TONGE: But there wasn't, yes, there wasn't the money to do that, and I'm not even sure that's the image. Yes, that would have been an image, right, but--

McCULLOCH: It wasn't the image; I wouldn't have wanted that. Well, I think that's about all, Fred. Some of the other questions I sent over to you don't really pertain to your work and program. And I want to thank you very much for coming over, Fred.

TONGE: All right.