

JOHN CANTLON

March 27, 2000

Jeff Charnley,
interviewer

Charnley: Today is Monday, the 27th of March, in the year of 2000. We're in East Lansing. I am Jeff Charnley, interviewing Dr. John Cantlon, for the MSU [Michigan State University] Oral History Project for the sesquicentennial of the institution to be celebrated or commemorated in the year 2005.

As you can see, we're tape-recording this oral history today, Dr. Cantlon. Do you give us permission to do that for this interview?

Cantlon: I do.

Charnley: I'd like to start first with a little bit about your own educational and professional background. Where did you do your undergraduate work? Where did you grow up?

Cantlon: I grew up in Sparks, Nevada. Did my primary school in the public schools of Sparks. Graduated from Sparks High in 1939 and started at the University of Nevada. I completed three years, but by then the war was under way. So I joined the Navy in 1942 and spent four years with the Navy. Then came out and took roughly a year to get things worked out, and I got back to the University of Nevada and finished in 1947.

Then I went to Rutgers University, where I did my doctorate. I had enough accumulated work that I finished my doctorate in 1950. I then went to George Washington University in Washington, D.C., and was on the faculty there in the Department of Botany for two years.

Then I took a leave of absence to conduct the ecology of the Arctic Slope of Alaska. That was an Air Force project, and at the time very hush-hush, because what it was engaged in was getting the ground truth that

would determine the quality control on the camera that would go into the U-2 spy plane. They were doing the optics for that camera, the big folded optical axis. We didn't know that at the time. It was very hush-hush. Our project then lasted, and I went to Boston University for a year, worked in the Arctic.

Then while I was there, Michigan State University recruited me. They had recruited me earlier and I couldn't come because I had committed to go to Boston University. So I came here in 1954.

Charnley: Could you talk a little bit about your war experience, in terms of what were your main duties in the Navy? Where did you serve?

Cantlon: I was a Navy flier. For the first two years of my service, I instructed, first instructed pilots in how to instrument fly, and then in the last part of my instructor experience, I taught fighter pilots. Then I joined the fleet, and ended up in a VF-37. Air Group 37 was the whole group, but the fighter squadron was VF, and another one was VT. It was a joint torpedo fighter-bomber squadron, and I was a fighter pilot with F-6Fs.

We were supposed to go aboard the USS *Sangamon* [phonetic], which had gotten badly damaged in retreating from--let's see, I don't know whether it was Saipan, one of the island battles in the late part of the war. The *Sangamon* was so badly damaged, we couldn't go aboard, so we ended up stationed in Klamath Falls, Oregon, with further training, while a new carrier came off the lines, one of the jeep carriers. I had been qualified in jeep carrier landings in the Atlantic. So we then got on the USS *Sadar* [phonetic], and we were there when the war ended. We were getting ready for the invasion of Japan.

Charnley: Most of your overseas, then, was in the Pacific.

Cantlon: Yes.

Charnley: After you got out of service, what rank did you end up when you got out?

Cantlon: I was a lieutenant, Navy. Captain in the-- [Laughter]

Charnley: Then did you use the GI Bill after?

Cantlon: Oh, yes, and finished my last year at the University of Nevada and then finished three years. I was entitled to four years, so that's why I hurried my Ph.D., so that I could cover it.

Charnley: You mentioned you were recruited by Michigan State. Who did the recruiting?

Cantlon: Bill Drew. Bill Drew was the chairman. He just died recently. He would have been a good one to interview.

Charnley: What department was he in?

Cantlon: Botany and plant pathology.

Charnley: So he was familiar with your published work and research?

Cantlon: Yes. And he knew my major professor at Rutgers, and he knew my professor at the University of Nevada who had gotten me interested in ecology.

Charnley: Would you say that that was a new field at that time or just only a name?

Cantlon: Yes, it's interesting. Ecology, of course, has been around since the turn of the century really, the 1880s, 1890s. There were already a few books in ecology. But as my wife has often commented, "Nobody knew what ecology was, and just about the time it began to be interesting, you became provost, and nobody knew what the provost was." [Laughter]

Charnley: So your early years at Michigan State, when you first arrived, how would you say the campus was different?

Cantlon: Well, I had been, of course, for four years at the University of Nevada, spread over a total of almost eight years, and I had been at George Washington University in Washington, D.C., and the first dramatic thing is the scale and scope of this campus. It's one of the bigger campuses in the country, and beautifully landscaped, and I think in the old days was even better landscaping quality because it was cheaper to do, there was less of it to take care of. So it was a beautiful place, particularly for a person trained in the botanical sciences, ecology. So that was one aspect of it.

The other thing that was interesting is that the graduate program in botany here, while it was one of the older graduate programs on campus, was still very small, so it was a time to recruit graduate students who were thinking about coming here. It was a place that hadn't a long tradition of graduate programs in ecology, in my field, so it was a while to recruit graduate students.

Charnley: So you took part in that expansion in the department?

Cantlon: Oh, very much so.

Charnley: Who were some of your first students that you recall, your graduate students? Do you remember any of those people?

Cantlon: Oh, yes, sure. Yes.

Charnley: From those early years?

Cantlon: Yes. Bill Gillis comes to mind. He was kind of an institution here for a while. And Bill Malcolm, who got his Ph.D. degree here, who is now in New Zealand and is in the cattle business and teaches at a community college, I guess it is, in New Zealand, in Nelson. Bill Overlease, another grad student who got his degree here, Ph.D.

Charnley: Did some of them stay here at Michigan State, or did most of them leave?

Cantlon: No, all of my graduate students left.

Charnley: You came as an associate professor?

Cantlon: Yes. Came as an associate professor.

Charnley: Were you ever department chair here in that department?

Cantlon: No, no. I served for a few days for Bill Drew, but never formally designated.

Charnley: What did you see in terms of your own research when you first came?

Cantlon: Well, the kind of interesting thing was I was interested in getting a major study area to do experimental ecological work, which was not very common in those days. Much of the early ecological research was descriptive, describing communities. I had done my own thesis and I'd done an undergraduate thesis at the University of Nevada on descriptions of vegetation and that sort of thing. But I wanted to actually do some experiments to see cause and effect and that sort of thing. I had very great difficulty getting a research area. Much of the land at that time was under the control of the College of Agriculture. We were in the College of Natural Science. There was a certain amount of--

Charnley: Turf battles?

Cantlon: Oh, yes. Yes, I got into some very interesting turf battles with Agriculture. So it was a long time before I got a really satisfactory research site. Interestingly, I had gone to Michigan State University's biological station at Gull Lake to see if I could get a research area down there. I got no sympathy at all. It was also under control of Agriculture, and they were running it as a dairy farm.

So about that time, the University of Michigan offered me a summer faculty appointment at their biological station at Douglas Lake, which I accepted. Then, for several years taught ecology at the University of Michigan at Douglas Lake and did some research work.

Charnley: Did it open up after you came back?

Cantlon: Yes. We recruited a new director for the biological station, George Lauff, came in. By the way, you might be very interested in getting him to talk to you, because that biological station has now become a national ecological research center.

Charnley: Is he still in the area?

Cantlon: Yes. He's down there. Retired, too.

So I set up and had a research center there and had several other graduate students. John Caruso and Buford Holt both got their research completed down there.

Charnley: Now your specific study at KBS--

Cantlon: What we were interested in is what are the sorting mechanisms that determines how a biological community gets structured. How does that happen? There are two very opposing theories, one based on more the European view that a community is an organized thing like a human body or an individual body, very tightly organized. Most Americans don't really think that way, and we don't have the same tradition that European ecologists have, where ecology sort of came out of taxonomy descriptions. We really are more physiologically or process oriented. By the time we were getting involved in it, the science of statistics and so on, mathematics of statistics were coming out. So the other opposing view is that there's no structure at all; it's just a probabilistic thing. Well, that's not true either. There's a fair amount of structure there, but there's a high level of chance involved in precisely how it gets organized. So we were trying to look at those processes.

Charnley: In those early years in the fifties, how would you characterize the student body here at Michigan State?

Cantlon: Oh, well, it was almost entirely undergraduate in the early fifties, when I came in '54. Very few graduate students. Since the university was in a very, very rapidly growing point in the 1950s, when I came here it was 18,000 students. By the time I came into central administration, it was 40,000. Not quite a factor of three, but more than double.

So the interesting thing is that the legislature never really funded the growth of the university. [John A.] Hannah had a strategy that, "If you build it, they'll come." Meaning the money. [Laughter] Well, in part it was

true, but it wasn't one for one. So the budget of the university became more and more constrained for the size of the student body, and a lot of ingenuity went into improving the quality of how you can instruct students at a lower cost. University College was one of those inventions.

Charnley: Were you involved in that at all?

Cantlon: No. I guess I would be classed as an opponent of the idea. [Laughter]

Charnley: Against the traditional disciplines?

Cantlon: Well, no, it was more a matter that the concept was to bring about the integration. I have a very strong feeling, and still hold it today, that you've got to have something to integrate. So you really need to build your fundamentals early and get your integrating courses later in the program. As they did away with the University College as it was and built it later, I think we eventually brought that about. But those initial general courses, while very good in what they set about to do, tried to integrate before the youngsters really had enough basis to really see what was going on. You could learn what was being presented to you, obviously, but the significance of it and the depth to which you could apply it was very circumscribed over what I think the later model became.

Charnley: In your early teaching, were you primarily involved in graduate education?

Cantlon: No, primarily in undergraduate because there were no graduate students when I first got here. [Laughter] What graduate students we had, we had mostly in undergraduate classes. During my career, we built almost all those graduate courses in the department during the time I was here.

Charnley: Were these large lecture, or small, or a variety?

Cantlon: Well, a mixture. In my ecology class, I had about eighty in the ecology class, and probably about forty in plant geography, systematics, maybe forty or fifty. So they were not big, not multi-hundreds like some of the old instructional courses they had. Beginning psych, beginning business courses, and so on, were monstrous.

Charnley: In terms of administration, how did you first get involved in administration here at Michigan State?

Cantlon: Well, it's kind of an interesting tale. I took a leave of absence. I'd been very active at the federal level since I had gotten started at George Washington University and ecology was just really beginning to get under way. I had been advising Oak Ridge National Laboratory and some of the National Academy committees, and reviewing papers proposals for the National Science Foundation.

So in 1965, the National Science Foundation invited--I had been on their review committee and panel for quite a while--they invited me to be the program director for environmental biology, which was ecology. So I accepted, with the understanding that I'd only do it for one year, because I was building a graduate program here. Frankly, the department didn't want me to be gone more than a year, and I felt it wasn't wise for the university to give up and have a temporary in for more than a year.

Charnley: So you took a one-year leave of absence?

Cantlon: I took a one-year leave of absence, went to Washington, D.C., and was present as NSF really got the big environmental programs under way. It was very interesting. Had a lot of fun doing it.

Charnley: In the [Lyndon B.] Johnson administration?

Cantlon: Yes. Johnson administration.

Charnley: Who was the head of NSF at that time? It wasn't meant to be a quiz. [Laughter] Or anybody that you worked with closely in the government?

Cantlon: Well, Harvey Carlson was the head of the biology division. Glen Seabourge was head of the National Science Foundation, who was a chemist from University of California-Berkeley.

We had a lot of work going on. I had been on the National Academy's National Research Council Division of Biology and Agriculture for a while before then, so I had been involved in a lot of big national ecological and environmental questions.

When I came back to campus after 1965, '65-'66, when I was at NSF, I was pretty active on campus on the environmental issues. Of course they were very hot as we were coming up to the seventies, Earth Day. First Earth Day was 1970.

Just the year before, in 1969, John Hannah retired. Walter Adams was the acting president. I think it was Walter's view that the provost should also retire, or be relieved, I should say. So Jake Nevel, who had been the provost--and I had been very active with Jake Nevel. I was on the University Committee for the Residential Colleges. I was on the Educational Policies Committee here.

So Walter Adams called me over one day after I got back in 1969, it must have been early in the year of 1969, March, April, somewhere in there, maybe a little later. But he said he'd like to have me come over and be the provost. [Laughter] I said, "I'm not interested, Walter, in being a provost, for God's sake. Jake is doing a great job."

"Did you know Jake is leaving?"

I said, "No, I just wouldn't do it. I'm just getting back on campus. I'm getting my graduate program back up. I've got my research grants now active again, so I don't want to do it." So I left.

I got a call a few days later, and he said, "John, either you take this or I'm going to have to give it--" and he named another name. I said, "Jeez, that would be a mistake." [Laughter]

Charnley: So you were drafted again.

Cantlon: He said, “Take it for a year or two.” He said, “I’m only go to stay in this a year or two. Take it for a year or two, and then you can get out.” So that’s how I got into it.

Charnley: And the irony is, he got out. [Laughter]

Cantlon: He got out and I stayed in because the student unrest, see, took off. I came in July 1 of ‘69, and that fall, things were really getting hot.

Charnley: On those issues of the war and other things that the students were involved in, challenges to the administration, what are some of your recollections about that?

Cantlon: Well, the most dramatic thing is that our son was a Marine and was killed in Vietnam. [Tape recorder turned off.]

Getting back to the issues, the students, of course, were agitated in part about that. But it was a much, much broader set of things, because the blacks, of course, were pressing for more equitable treatment. That was a subset of what was going on. The typical thing, like our big riot last year, there’s a certain amount of chemistry of rioting which has very little to do with what I would call the national psychological importance of the event. Losing a damn basketball game is trivial. [Laughter] So you had that kind of thing going on, which is just the chemistry of youth and mob behavior.

So just about that time, Walter Adams stepped down as president, and Cliff [Clifford R.] Wharton [Jr.] came in. I tendered my resignation to Cliff Wharton, and he said, “Well, jeez, I don’t want to have to replace senior officials right in the middle of this mess.” So I said, “Okay, I’ll stay on.” And I did. Of course, by then the thing

was really gathering momentum and there was damage on campus. The tent city was set up here on the banks of the Red Cedar, and the board was ticked off.

One of the funniest events--and by the way, my text that I've given you there, I've tried to focus on the humorous aspects of my career, entertaining to my grandkids, see, that's why I wrote it, so I keep these humorous ones in. The board had been berating Cliff Wharton, who, of course, was a black, so some of the board members, I think, recognized that there was a racial aspect to some of their thoughts about him. I never felt that; he was far from black, as far as I was concerned.

We were over at the Kellogg Center, and the board was just really beating up on all of us administrators because the tent city was out there. They were getting hate letters from taxpayers and everything, and telling us that we had to clean this up, we couldn't do anything. At the time, they had members of the campus police monitoring what the student activists were doing. It later came out that they weren't supposed to be doing this, but anyway, they did.

So one of the fellows came in and told President Wharton, "The activists have learned that the board is meeting over here in Kellogg Center and they're on their way." He whispered that in his ear, and Cliff Wharton said, "I understand that the student activists are on their way here." Like a covey of quail, the trustees disappeared. [Laughter]

Charnley: Meeting was adjourned, was it?

Cantlon: They didn't want to face the activists. So there were a lot of things like that. Very tense. We had long, long days, because we would try to recap what was going on, get things under way.

But it would be a mistake to say that that period of great unrest was a period in which nothing happened. We got the medical school started during that period, the human medical school. We were doing very well. Most of the students here were not involved.

Charnley: It was a core.

Cantlon: Oh, yes, and a lot of them were off campus. As a matter of fact, see, our worst problems came after the University of Michigan closed its doors the end of April. We went into June at that time with the quarter system. So we get their red-hots plus all of the hangers-on. We had high school kids in. So very much like this riot here, most of the activists and so on were not Michigan State students.

Charnley: Was there any degree of resentment about the way that Hannah--I know that Hannah had been gone, but the students, how did they react to his style of leadership?

Cantlon: Well, Hannah brooked no nonsense. He came out of a time when the president was *the* president, and he had full authority because he had the full backing of the board. Well, you may recall that late in his term here as president, they had the Constitutional Convention. The Constitutional Convention changed the makeup of the board from governor appointees where you could get real statesmen to serve, to elected trustees. You get a totally different class of people, because these are non-paying. In Michigan politics, the Democratic party essentially were controlled largely by the unions. Still are. So you had a very different board of trustees that came in and viewed Hannah's running of the university much the way union people would view an autocratic thing.

Charnley: Labor-management issues.

Cantlon: Exactly. They thought the faculty ought to be organized and all the workers ought to be organized and to heck with this business. Don Stevens, who was one of the real active union-oriented guys, said, "There's no due process here." [Laughter] So anyway, he would have tossed out students that did things of the ilk that later happened here. He would have tossed them out unilaterally.

Charnley: You came to the provost at a really tough time in the university in some respects, but would you talk a little bit about the medical schools? What role did you play in that in bringing them?

Cantlon: Well, I was the provost, came in after the first two-year medical program had gotten started.

Charnley: Two-year?

Cantlon: Two-year. So I presided over bringing them to the four-year and did some of the arguments down at the legislature. I have to tell you a story about that. I don't know whether you've heard the name Jerry Faberman.

Charnley: Yes. He just died not too long ago.

Cantlon: Unfortunately. You should have interviewed him.

[Begin Tape 1, Side 2]

Cantlon: ...for the osteopaths.

Charnley: As a lobbyist?

Cantlon: As a lobbyist. He had gotten his degree at Boston University, where I had been, and so we very early on hit it off quite well. I was down there being thoroughly beaten up by the legislators, who dearly love to tweak academics. [Laughter] Earlier, the president of the University of Michigan was Hatcher, who was, I think, from literature, and he would try to lecture the legislature, which does not work. So they kind of looked at all academics as being sort of other people.

So they had been beating me up for, oh gosh, forty minutes over our getting the medical school going, and so on. Finally I'd gotten to the end of my testimony, and they let me go. I'd gone out in the hall. I was visibly, just absolutely furious at the way I'd been treated.

Jerry Faberman, a big tall guy, about 6'6". He came out, he put his arm on my shoulder, and he says, "Cantlon, when you go to the bank, you pay interest. When you come to the legislature, you pay in abuse. Get used to it! Get used to it!" [Laughter] Which was some of the cagiest advice I'd had. It never bothered me again, all of the time that I've been there. I did some testifying in Washington when I was there, for the NSF budget and later on for some of the other budgets.

Charnley: So the Michigan legislative interviews were a tough one. They were a good preparation for the Washington ones.

Cantlon: Good preparation for Washington.

Charnley: Was there any opposition in terms of organized med schools like at Wayne State and U. of M.?

Cantlon: Ann Arbor especially was opposed to it and fought it tooth and nail, but fortunately at that time there was a great shortage of doctors, and so medical schools were growing all around the country. Later on, they had reason to believe they had overdone it, but at that time, not so.

That's how the D.O.s came on. It was kind of interesting that the osteopaths had had no publicly supported College of Osteopathic Medicine anywhere in the country. They were all private. The State of California, a couple of years earlier, had made the so-called California Solution--and you should interview Mike Magen, who's the dean of the College of Osteopathic Medicine, has just stepped down. He's retired now. But he was the initial dean, and there's some things in my opus there that you'll find.

The D.O.s wanted to get a College of Osteopathic Medicine supported in the public. When the California legislature decreed that every physician practicing in the State of California would have to pass the standard board examinations, nobody could practice medicine who hadn't passed those boards. So the D.O.s could go and take the board exams, and if they passed, they stayed there as licensed physicians. Well the D.O.s felt that that was going to eliminate the D.O. profession in California, so there was a big exodus. Many of them came to Michigan. Michigan had a very high number of D.O.s, and they got into the legislature. I won't go into the details of that.

They eventually got real strong friends there, and Garth--gosh, what was his name? But anyway, chairman of the Appropriations Committee. Garleen [phonetic]. Chairman of the Appropriations Committee, had been badly injured in World War II, a leg injury. He was very derogatory about how the M.D.s had handled his injuries and recovery from his injuries. He had gotten to know a D.O. who had treated him like a person. Military M.D.s--and I have a cousin who was one, and our old family doctor had been a World War I Army surgeon. They're not famous for their bedside manner. Anyway, Garleen liked the D.O., and so he gave them an inside entree, and so they eventually got the D.O. school here. I was involved, very much, in having the D.O.s here.

Charnley: Was there any difference in terms of focus that MSU could offer in that?

Cantlon: Well, we insisted that the students who went into these two schools have all of the basic sciences together. No separate basic sciences. Physiology of human beings is the same, whether you're a D.O. or an M.D. Bill Niesly [phonetic]--I'm not sure whether he is still alive or not, but he left here--Bill Niesly was the director of biology and medicine and was the key point at which our existing veterinary medical school and the two-year program articulated with the D.O.s.

I was committed to keeping the medical schools internal to the university and not allowing them to be separate as they are in all other campuses. This came from Hannah's initial approach to getting the medical schools.

He wanted the Michigan State medical school to be land-grant in its focus. In other words, the central focus shouldn't be on improving the arts of medicine and the science and the technology of medicine; it should be

centered, as the land-grant philosophy said, on improving the health of the people of Michigan. Very land-grant in its orientation.

Now, if you have people coming out of the U.S. medical schools whose training is in the central research focus, you don't have the best preparation for the land-grant approach. Many of them would say, "Hell, that's a public health issue, not a medical issue. It's a public health issue." Well, the reason public health is in the condition it's in is the M.D.s have ignored it all along.

Charnley: The G.P.s and the family practices?

Cantlon: Yes. So that's what we did. We made the emphasis on the G.P.s and the family practice, and I actively resisted getting a campus hospital. There were several attempts to get a campus hospital here. The last thing in the world we need is to have the medical school have its own darn hospital. They should learn how to work with the existing hospitals.

Charnley: So you saw the partnerships being--

Cantlon: Absolutely central to a land-grant approach to medicine. So that was the interesting thing going on while all the high jinks were going on.

Charnley: So your role in that was important, of course.

Cantlon: Well, I was so adamant about not getting a hospital, and making the medical school stay--

Charnley: You took the lead?

Cantlon: Oh, absolutely. Yes, I did. And Bill Niesly did not support me in a lot of it because he felt they needed a vice president for medical affairs, which they eventually got. And I think they cut away too soon. I think they really need more articulation with human ecology, and with public health, and with the social and behavioral sciences, and with the business school, and with engineering. See, a lot of medicine is going out into those directions, and if you go there, then they're going to have to repeat it. So if they are in the university, you can build these interniche, which has been the power of the land-grant universities, is building those interdisciplinary things. School of Hotel and Restaurant Management, no old traditional university would add such a thing.

Charnley: Did that expand significantly under your tenure as provost, the hotel/restaurant?

Cantlon: Well, we helped it along, yes.

Charnley: While you were provost, was the cyclotron important?

Cantlon: Oh, yes.

Charnley: How were you involved with that?

Cantlon: Well, it really got its initial start when Milt Molidor was in, before I got started.

Charnley: He was what, vice president for graduate research?

Cantlon: Research. Vice president for research, and later became dean of the graduate school, after retirement.

The cyclotron, the part I got involved in, was when they went from their initial small cyclotron to the next big one. Then I took an active role, with Hank Glosser. We went to NSF and argued for it, and I wheedled the matching money that the university had to have.

Charnley: So your experience in having done research and been recognized at NSF probably helped.

Cantlon: A little. Yes.

Charnley: Were you involved at all in bringing Dr. Glosser to campus, or was he already here?

Cantlon: No, he was already here. He was recruited by the former graduate dean when he was chairman of physics. He recruited him from Oak Ridge National Laboratory.

Charnley: He was part of a high-energy physics group that was on campus?

Cantlon: Not high-energy physics. Nuclear physics. He designed the most accurately focusable small cyclotron. That was his design. It did a lot of very important work with light elements, when the competition came to build the first superconducting magnets for the big heavier ions to accelerate. See, if you used regular electricity, it generates so much heat that you have to have an enormous machine in order to get the power and the strength that you'd get if you now supercool, so you can get superconducting going on. Then you can have very high current levels, very high voltage levels, without the heat problem. So Hank Glosser took the lead in doing that, and he built some of the very early superconducting magnets. We were successful in winning the first contract, which was to build the magnets for the big heavy ion accelerator, without any idea where they would be located. There was the machine to be designed, and movable.

Then we had to come up with another program, after we proved that the magnets worked, then we had to prove that we could actually run a national laboratory here. So we then got together some more matching money and more people who enjoyed the way Hank ran the little machine. He let everybody come in and put the priorities in correctly.

Charnley: Was that a fight at the national level, to try to get that here, get it west of the Hudson, so to speak?

Cantlon: Oh, yes, you bet it was. Have you interviewed Hank yet?

Charnley: No, not yet.

Cantlon: You should.

Charnley: You've given me seven or eight already. [Laughter] That's great.

Did you have to go to Washington to testify?

Cantlon: Oh, three or four times. Oh, yes.

Charnley: Was it the Department of Energy, or was it NSF again, or a combination?

Cantlon: Both. Department of Energy and NSF. I was at NSF early on, until we won the siting of the machine. NSF had just finished getting themselves in deep hot water with Congress because of a big overrun at Brookhaven National Laboratory on an accelerator they were building there. So the OMB, Office of Management and Budget, decreed that NSF would not have responsibility for any more construction projects.

Since the Department of Energy, the old AEC [Atomic Energy Commission], had built all of the massive national laboratory system and the nuclear weapons facilities and so on around the country, they had great contracting skills and so on, with enormous bureaucracy built in, which is typical for federal projects, which Hank Glosser could not abide. [Laughter] It was an enormous strain to try to get Hank and AEC--well, later on, Energy Department--to go away friends with one another on any given thing.

Charnley: So you again took the lead in terms of some of the administration and the paperwork.

Cantlon: Oh yes. We tried to argue with them what he had to do and what he didn't have to do, tried to get all of the BS out of his life, or at least most of it.

Charnley: Was the cyclotron useful in any of your own research?

Cantlon: No. One little story about it which is fascinating, because it has had a modern counterpart story that just broke here this last year. When the magnets were operating, and we had gotten the assignment to build the actual heavy ion accelerator here, the thing about the heavy ion accelerator is that for the first time, you could move heavy elements like uranium with sufficient velocity that they would interpenetrate. Before then, you didn't have enough capacity to speed those heavy ions to the penetrating speed, because as two identically charged atoms come together, they repel, but if they're moving at such velocity, they'll penetrate. When that happens, you get everything from fission and so on.

One of the theorists in California did some quick and dirty equations and came up with the possibility that when this heavy ion thing was fired up, it would make a mini black hole. That got people's attention.

Charnley: We wouldn't have to worry about Grand River anymore. [Laughter]

Cantlon: Or indeed the country, eventually. Or the planet. So a couple of the physicists came over. I was vice president for research by then. They said, “What shall we do? He has made this statement. Should we refute it, or say that his math hasn’t been reviewed and so on?”

I said, “Jeez, don’t say a word. We don’t want anybody to even know about this. If anybody’s going to know about it, let somebody else. We don’t want to let anybody know about it. Let’s get the best minds in the country busy, try to find out whether his calculations are correct.”

So they did a whole series of other calculations and said it was very unlikely that it would happen. Very unlikely. So I said, “With that kind of assurance, we’ll go ahead and fire it up.” [Laughter]

Charnley: You were provost until what year?

Cantlon: From ‘69 to ‘75. I think my stepping down as provost has a number of elements to it. One, as I told you, I was opposed to the medical schools having their own independent vice president. I wanted them in the university. I was opposed to them having a hospital on campus. So I think the two medical deans would just as soon have a different provost.

Charnley: I see. So you had some opposition there.

Cantlon: Oh, yes. They were pretty active. I wasn’t really fully aware of this at the time, although it was beginning to be a little bit into my ideas, in my head. We had been searching for Milt Molidor’s replacement, who had retired as vice president for research. I had been through all the damn student activism and so on. ‘75, it was just beginning to quiet down. I told Cliff Wharton, I said, “Jeez, we’ve now interviewed three or four people for this job and they don’t want the job. They say it doesn’t have any power, it doesn’t have any funding. It’s just a damn office, very little responsibility, no money, no power to do anything, so we haven’t been able to get anybody.”

I said, “I’d much rather have that job than the provost’s job,” which is the chief nay-sayer on campus, because you’re trying essentially to distribute efficiencies equitably.

Charnley: Interesting.

Cantlon: There’s never enough money to run the undergraduate program, and since my major focus was graduate programs and research, had been since I came here, it was very, very difficult to try to keep things like the cyclotron and the medical schools, and the outreach activity which I was also very interested in, and cooperative extension and so on, because I really believe in the land-grant system, always have. I’m a creature of it. I think it’s the wisest invention that U.S. has made in higher education.

Charnley: Interesting.

Cantlon: Just a lot of reasons that that’s true, and I’ve articulated them in a number of places.

Charnley: So, Dr. Molitor’s retirement.

Cantlon: Retirement had come, and so we needed to fill that position. I told Cliff Wharton I’d much rather have that, because the focus of that job is to go find the funding sources off campus. I said, “Jeez, I’m really qualified in that area because I’ve worked with many of the federal agencies. I know the Washington scene very well. I find it very comfortable to work with business and industry, so I’d much rather have that job.” I think it made Cliff’s day, because he was going to have to figure out how to tell me I probably wasn’t going to be long for the job of provost. [Laughter] But that’s just a guess. He never did tell me that.

Charnley: Who replaced you as provost?

Cantlon: The dean of Agriculture, Larry Boger. He later became the president of Oklahoma A&M.

Charnley: In doing some of the research for this interview, we discovered that you had been a candidate for University of Texas at Austin.

Cantlon: Oh, yes. [Laughter]

Charnley: Do you want to talk a little bit about that? High point, low point?

Cantlon: My wife is a Texan. I had spent a couple of years in the Navy in Texas, so I knew Texas. Had even thought at one time that we might retire down there because she had a lot of family there. Much longer golf season.

Charnley: San Antonio's nice.

Cantlon: So I let them put my name in. I had not allowed many other places to put my name in, although later I did. So they put my name in.

Actually, the fellow who had initially suggested they contact me was Johnny Mecata [phonetic]. He was vice president for research--no, not vice president for research. Anyway, he was dean, and then later got into central administration. I don't remember his title. He's a chemical engineer. Johnny Mecata. He and I had served on national committees together, so we knew one another, liked one another, had a lot of fun together. So he had put my name in as a possible candidate. The board of trustees asked me if I'd be willing to have my name in and would I send my vita and so on. So, after I talked with my wife, she was delighted with the idea. [Laughter] Take her back down to her home.

Charnley: Michigan climate. Escape that.

Cantlon: Right. So anyway, after they had reviewed my vita and so on, I was on the short list. Two of us were on the short list. They sent a committee of the board up here. Lemather [phonetic] was the chairman of the board, a physician, tough old bird, and four other members. So I took them out to lunch at the University Club. In that time, they had orange tablecloths, bright orange tablecloths. We came in there, and they said, “Oh, you decorated for the University of Texas!” [Laughter] No, not exactly.

Well anyway, we talked a while. They were asking my views about things on education, and I talked about research and education, the problem of funding the undergraduate program. When I talked about the outreach, they said, “Well now, you have to remember we’re talking about the University of Texas, not Texas A&M.” I said, “Yes, I understand.” But I said, “Universities really have to look to the publics they support and to make what they’re teaching relevant to what the society is in need of.”

Going along, and finally he says, “Dr. Cantlon, what do you think about intercollegiate sports?”

“Well,” I said, “I have to tell you, when I first came here, I never got to a football game until my department chairman told me one day that he had to discuss another program and he didn’t want to miss that game.” So he’d ask his wife to stay home, and I said that was my only football game I had been to until I got into central administration. I said, “I’ve never been to a baseball game. Never been to a basketball game. I have been over to the hockey.” Well, they didn’t have hockey down there. Conversation at the table just totally changed.

Charnley: Is that right.

Cantlon: Absolutely. That was the end of that. I was no longer a candidate.

Charnley: Academics versus athletics.

Cantlon: Steve Spur [phonetic], who was a friend of mine at the University of Michigan, took the job. Lasted one year. [Laughter] He got into a flap with the head of the board. He was backing the faculty.

Charnley: While you were provost, let's go back to athletics. Some of the difficulties in the seventies happened while you were provost, or that was discovered while you were provost?

Cantlon: Yes. Well, there were several things. The recruiting violations, of course, that came in there. The one that struck me most interestingly was an attempt on the part of the people, in hockey, because they knew I liked hockey. They came over to get me to waive the academic standards for some recruits they wanted. "Absolutely not."

He said, "Other schools do that."

I said, "I'm sorry. When we admit a student to Michigan State University, we admit him to the university and he can go into any department he wants. At Ann Arbor, they can admit them into an athletics program, and they can major and get their degree in athletics, but they're not able to go into arts and letters. It's a different thing here. So we've got to stick by our guns here. If they can't hack the academic things, they just don't belong here. They belong somewhere else." So I held very tough on that. I did that in football, too. I would not let them. They wanted a group of, say, four or five of non-conforming students, in other words, exceptions. No thank you. So I was not a sympathetic academic for waiving academic standards for athletes.

Now, I had a colleague here, Al Ballard, who, unfortunately, you can't interview and you should, because he's dead, Al Ballard John Hannah recruited from the Department of Management and Budget downtown, who knew the university's budget and knew the legislative process. He and Jack Breslin were largely successful for our success with the legislature. Jack Breslin, of course, was a distinguished athlete, and Al Ballard was a political realist and not very sympathetic with the sense of academics. He used to argue with me when I was fighting on these admissions. "John," he said, "these kids don't need to master all of the academic programs." He said, "They

have careers in athletics whether pro or semi-pro, or in some of the support systems in athletics.” He said, “They go out and make more money than most of your academics when they get their degree.”

I said, “I understand that, Al.” But I said, “We admit them with the understanding they’re going to get a degree.” I said, “If they can’t get a degree, I’m not going to let them in.” We just agreed to disagree. We were very good friends. But he just could not understand that approach.

Charnley: Sounds like the approach to academics that you took seems like a pretty interesting, good, solid line to be able to defend.

Cantlon: Well, if you start edging on the end, where do you stop? Is it five, seven, nine, twelve, fifteen, thirty, a hundred?

Charnley: Slippery slope, for sure.

Cantlon: Exactly. Once you start down it.

Charnley: Would you talk a little bit about Dr. Wharton, in terms of your relationship with him?

Cantlon: We are good friends, still. As a matter of fact, I had lunch with him last year. I have not seen him yet this year. He’s also writing his memoirs, and Bob Parron [phonetic] has been helping him. Have you talked to Bob?

Charnley: No.

Cantlon: Anyway, Cliff came. He and I hit it off very well. As I told you, I had offered him my resignation when he came in because I was sure with Walter Adams out of here I had no commitment. I wanted to get back to my research and graduate students and my lab.

Charnley: So you had a good relationship with Walter Adams?

Cantlon: Oh, yes, we got along very well. We politically were very different. He was a strong liberal, pro-labor kind of a guy. I was a management type. [Laughter]

Charnley: Did Dr. Wharton delegate a lot of things to you in terms of management style?

Cantlon: Oh, yes, absolutely. Yes. He delegated, and every president that we've had here delegates all of the authority and responsibility you need to run that and then hold you accountable, which is the way you run an organization.

I have to digress a little bit and talk about my first board meeting after I was appointed by Walter Adams. I came into the board meeting. Steve Nesbit [phonetic], who was a real gentleman, he'd been involved in the Constitutional Convention, he was kind of Mr. Republican in the state, and he came up and he said, "I want to apologize to you, Dr. Cantlon. I was the only board member that voted against your appointment as provost." He said, "The rationale for my voting against you had nothing to do with your qualifications, which I think are excellent."

[Begin Tape 2, Side 1]

Charnley: This is tape two and we were talking with Dr. John Cantlon about his first board meeting and Steve Nesbit, when the tape ended.

Cantlon: Yes, Steve Nesbit said that he had voted against me not because of my qualifications, but because he felt it shouldn't be an acting president appointing vice presidents and provosts. So I assured him that I had already told Walter that he could have my resignation anytime, and I said, "I mean that. When the new president comes in, the first thing he'll see is my resignation. I'll put it in his hand."

"Oh," he said, "in that case, I have no problem."

A little bit later, Clare White [phonetic], who was a former union organizer in the schools over in Flint, came in. Clare came up to me and shook hands, kind of got a hold of my lapel, tweaked it a little bit. He said, "I'm going to unionize your goddamned faculty." I thought he was kidding. [Laughter] But he worked his tail off to unionize our faculty, which, I thought, for a management board that you could have an individual who was working with the union, that just doesn't make sense to have that kind of a board. It was a shock to me that a management board would have a union organizer trying to organize our faculty. I got along well with all of the board members, actually.

Charnley: Blanche Martin was on the board?

Cantlon: Blanche Martin was on the board, yes. Ken Thompson. Later, Pat Carrigan was on it. A whole troop of them. Frank Merriman was on at that time. He was an agriculture guy.

Charnley: In talking about your continuing relationship with Dr. Wharton as president, in your role as vice president for research and graduate studies, we were talking a little about his delegation, his style. How would you assess his overall presidency here?

Cantlon: I thought he did very--for the time and the conditions, we couldn't have had a better president. There are a number of instances in which his presence was absolutely magnificent. I'll give you one example. This was a

little bit later than the hottest part of student unrest, but the board was being importuned by about a hundred Chicanos and Chicanas. One little gal, who was being fairly profane and totally without any sense of proportion to what she was saying, got up and made a number of statements which were not based on facts, of how we were handling Chicano admissions and promotion of Chicano faculty and so on, workers, then would make asides in Mexican Spanish to her audience. She was playing to the audience, clearly.

Cliff Wharton, who was absolutely facile in Spanish--his father had been an ambassador--he then, in impeccable Spanish, tells her that she doesn't know what she's talking about, she ought to be totally ashamed of herself to put on such a performance in front of these good people, and that she was doing no service at all. But it was his style. He was so good at that. See, he had been one of the student leaders at Harvard University in the early student movement, so he understood what the real core of the students who were genuinely interested in improving student relations for a university. He had absolutely no tolerance for the people who were trying to destroy things.

When the People's Park came in here along the river, people somehow assumed it was because we had a black president that that was happening, and he got mountains of hate mail. Well, you know, any lesser person would have just really crumbled under the fact. He had an eight-to-five vote on the board. Five-to-three, I guess it was. There were eight board members, so it was five-to-three votes. So one switch in a vote on any given day, you see, he could have lost his majority vote on the board. So in the years that he was here, he performed magnificently.

Dolores Wharton, what a charm she was. A great gal. During the worst of the student unrest, one of the little gal student activists who was, again, another foul-mouth of a gal, she came over to Cole's house at night, about eight or nine or ten o'clock at night, and wanted to meet with the president. Here's a guy working fifteen, sixteen, eighteen hours a day, trying to get some rest at night. Dolores wasn't about to let anybody. "You make an appointment with his secretary."

"I don't want to make an appointment." Then she goes into this cursing.

Little Dolores Wharton says, "If I was your mother, I'd wash your mouth out with soap." [Laughter] That so flipped this girl, she left.

Charnley: Disarmed her.

Cantlon: Totally disarmed her. She was really a great help in getting the Wharton Center going. That's the reason it's called Wharton Center.

Charnley: Were you involved at all in the planning?

Cantlon: Oh, absolutely. Oh, yes. I appointed the people who were involved. I was one of the big supporters. I was a big supporter of it. Fortunately, we got other officers, but I think I was pretty central getting the Wharton Center. The interesting thing, there's a certain amount of non-history involved in fundraising, for very good reasons. You don't talk about unsuccessful fundraising ventures. Our first fundraising thing was in Cliff Wharton's time, and it didn't meet its targets.

Charnley: That was an attempt to establish an endowment?

Cantlon: Yes. Well, that, and to build the Wharton Center, to have enough money to build it, and some library, and so on. We didn't have enough money even to build a Wharton Center. We had to borrow money and get it from elsewhere. So they talk about their recent successful first fundraising. Well, it wasn't the first. I don't think you want to necessarily dwell on that, but it's just in the nature of things.

Cliff, in being president at that particular juncture, had all of these negatives on top of him being the first black president of a predominantly white U.S. college. The fact that he weathered that and did well, and we got the medical schools going, the cyclotron going, all these different things went along and the economy went into the

dumpsters, you see, at that time. That's the reason the fundraising thing didn't succeed. So I thought he was very good. He delegated authority, held people accountable.

Charnley: Were you surprised when he left?

Cantlon: No, not really. Typically, if you do any administrative job with any kind of skill and guts, you eventually use up your social capital. He had done that. The sports programs were in the dumpster, had trouble with the basketball thing, had the incident of the blacks and the basketball thing, raising the salutes on the floor, and all sorts of things that alienated a lot of people about the university. There were many people told me they would not drive on the campus because the students were foul-mouthed and wouldn't get out of the road. It was just that kind of a rebellious time. A lot of them weren't students. That's what the people didn't understand. So, no, I thought Cliff, considering where he was and the circumstances where he was, he was absolutely the best choice we could have had at that time.

Now, many of the things that accumulated, it's interesting, they brought in Ed [Edgar L.] Harden as his replacement, and Ed Harden had better relations downtown, because Ed had been a former Michigan State fellow in charge of outreach, continuing education, that sort of thing, and then had gone to Northern Michigan as president, and had retired there and had been a consultant and lobbyist at the legislature, and was the chief lobbyist for the D.O.s.

So when we were assigned the D.O.s, and it's interesting how we got assigned it, the legislature mandated that the D.O.s would have to be in a university with medical programs. They wanted to go to Oakland University, over where they had built their little thing at Pontiac. Since at that time it was a branch of Michigan State University, they thought that would be their thing. They'd be on that campus and away from all this oversight. Oh, no. Has to be on the campus where there's a medical program, because then you're not going to have to duplicate all these basic sciences.

So the choices were Wayne, Ann Arbor, and Michigan State. Three schools had medical programs. They didn't dare go with the M.D.s and their establishment at the U. of M. Wayne, of course, had all of the problems of Detroit at that time, which was in the social dumpster, really. So Michigan State was the one that they chose. They thought they'd be able, with their connections, to make do here, and they could keep their campus over there, we'd have an off-site campus. No way. We were not going to tolerate that. Had to be on this campus. That was a big fight, but we won it.

I have to tell of another fight that we won later. I think I was still provost, but I'm not sure. Had to do with the national sea-grant program. National sea-grant program was supposed to be the parallel of the land-grant program, in which the coastal part of the country would look to the economic development as the land-grant universities had on land, of the coast and sea. Good idea, because it was the big undeveloped resource on the planet at that time, underdeveloped, not undeveloped. So the land-grant universities around the coasts took the initiative and got in there.

Well, I was at NSF at the time this was going on and wasn't paying much attention to what Michigan State was doing. Ann Arbor went in and essentially became the focal point for the sea-grant program. Well, they're not a land-grant university. They didn't have access to the cooperative extension system and the outreach and so on. So they worked out some kind of a deal with our cooperative extension. They were going to use the cooperative extension resources going into coastal issues as match, which was mandated, fifty-fifty match for federal funds.

Well, the only trouble was, Ann Arbor was using all of the money that they were getting to model the liminological characteristics of Travers City Bay, currents. It was a very good scientific program and quite a reasonable thing to do. It had some relationship to fisheries and so on, economic development, but it had little to do with economic development of coastal Michigan.

So I got back on campus. I was in the provost's office. It got so bad that the sea-grant program said that they were going to have to, some way or another, get Michigan State more actively involved in the program. So I went down to Ann Arbor and visited with my counterparts, the provost, the academic vice president down there, and the vice president for research. Gordon Guyer was there with me. I said, "Well, we have to go in here as peers.

We're going to be joint directors of this program. We're not going to provide you with backing and match and so on."

"Oh, no," they said, "we can't do that. We are the initial sea-grant."

I said, "Well, you've got your choice. You can do that or we're going to put in a competing proposal. I know for a fact we'll win." A little silence around the table.

So they said, "Well, I guess you've got the cards." They knew we would win, because I had already talked to them.

Charnley: At NSF?

Cantlon: No, it was sea-grant. I was in NSF when it started.

Charnley: So that forced cooperation.

Cantlon: Forced cooperation, yes. About as much as a shotgun wedding as there's ever been. [Laughter]

Charnley: That developed into something important here on campus, didn't it?

Cantlon: Oh, yes, and I later on became very active in it, and was until I retired.

Charnley: It was still under sea-grant program or water institute?

Cantlon: Yes. Water Institute came, and we developed that. That was our strength in it.

Charnley: One of the things I was interested in finding out, in doing some of the background research, and also this interconnectedness between the science and also human ecology and that sort of thing, obviously the PBP happened during your tenure. My personal background was that I grew up north of Grand Rapids, and one of my relatives was directly involved in McCosta [phonetic] and Reamus [phonetic]. He had just completed a major expansion of his herd and was one of the first that was affected and had to wipe out everything he had just done. So I've had a personal interest in that, maybe as scholarship, as a historian myself. So with you as provost during that time, I'm interested in hearing your views on some of the things that happened here. How we were involved?

Cantlon: Yes, I think this is very enlightening. In the first place, you remember that polybromonate biphenol is a fire retardant. It got mixed in because the bag marking on those bags of fire retardant were very close to the bag markings on the bags of calcium. The two compounds are white in color, so they looked more or less alike. Now, they smell totally different, but when the guys are working, sweaty and hot, all other smells are around, they obviously didn't pick up on that.

But anyway, they got that mixed into the feed, and of course, it was fed out. They saw these chicken flocks, the dairy herds, some of the beef animals, all that were being fed this special feed that had been laced with polybromonate biphenol, were beginning to get ill. Of course, the people who were consuming this stuff, some of them were getting a little bit ill.

But every analysis of the feeds were looking for the things to be expected in feed, so none of the analyses found polybromonate biphenol, which is a very large molecule. So if you're doing mass spectroscopy or some of the other analytical things, you just would not think to look way out there for that damn molecule. Well, Michigan State tried to look at it, couldn't find anything. They sent it to USDA, and they couldn't find anything. They sent it over to Wisconsin, and the guys at University of Wisconsin inadvertently left the sample in the mass spectrometer way beyond the normal time, so that you finally get down to the big molecules, and there was that damn blip way out there. What in the world was that? So when they finally figured out what it was, how in the world did polybromonate biphenol's get into feed? Then they went back and found out.

Well, unfortunately, it was Wisconsin, not Michigan State. We had totally failed, but we had failed in a much more serious way, because we had people in the cooperative extension system who were advising dairy herd operators. One guy in particular was trying to make the case that it was excessive iodine, because of the bug eyes that these cows were getting, which is symptomatic of iodine. It was excessive iodine in the diets of these things and, therefore, not attributable to any feed that had come out of Farm Bureau. They had long since found that only people that had used Farm Bureau feed had this problem. So it had to be Farm Bureau. Well, this idiot was taking money from the Farm Bureau to do this research. He had an absolute conflict of interest. He should have kept his mouth shut. But he was out there making things around. So Michigan State, who should have the giant share of credibility in agriculture in Michigan, had no credibility with this group of people. And I don't blame them. I wouldn't have either.

So we had to build from not only zero, we had to build from a minus number to get back into the thing. We then got our medical school, and agriculture was being stupid in this, in that they were trying to do all of the things and hadn't involved our toxicologists and so on in it. Finally, we did submit proposal to NIH [National Institutes of Health] to look at the human families involved. Of course, our reputation as an institution was zilch at that point, because we had this overt conflict of interest and the people that were involved, like your family, would have none of it, wouldn't have believed anything we would have done. So the upshot of it was that we had nothing really solid to contribute to the thing.

I would have to say that, in hindsight, the final resolution of the PBP problem spent millions of dollars getting rid of the last few grams that remained in the system because they did away with dairy herds. We had already eaten the lion's share of it in the eggs, poultry, milk, and so on. That wave had gone through the population, and of course it put the export of Michigan milk in the dumpster. But nobody would say what these guys had, and had Farm Bureau feed, that came from Michigan. No thank you. So it really perturbed the animal agriculture in the state enormously.

Charnley: Were there any programs that were developed on campus as a result of reaction to that?

Cantlon: Oh absolutely. So I went down to the legislature and said, “Look. Here is an example of what happens when an institution isn’t set up to respond to emergencies. I want to get some funding in an emergency area.” As a result, I was successful at getting the funding for the tox center, the Center for Environmental Toxicology. Then we recruited a director and got that thing going. The idea was that we would keep this fund available pretty much throughout the whole year as an emergency fund, only to respond immediately to anything like that. Instead of having agriculture or anybody who’s got their hands in the problem, it would come back to this center, which was a joint thing with the medical schools, the College of Natural Science, and Agriculture, and Veterinary Medicine. So you didn’t have the conflict-of-interest problems that you get if you were involved in agriculture with their network of relationships in cooperative extension, which is really an enormous asset when it works. It’s an enormous liability when credibility gets questioned. So the tox center came out of that. It eventually became the point from which, now, the Food Safety Center later came along. So there’s big national, it’s a multimillion-dollar operation on campus that followed initially from that PBP incident.

Charnley: So something good coming out of something bad. We learned from the mistake, if nothing else, better prepared for that type of thing. It seems to me, looking at the whole issue, on how simple or how easy that human mistake was to happen.

Cantlon: And how hard to identify.

Charnley: And how devastating. Yes.

Cantlon: Well, how hard to identify. See, it’s so incredible. Why would a thing like that be in animal feed?

Charnley: You mention today PBP, and the students today, they don’t even know what it is.

Cantlon: No, no. Well, we had other things that the tox center got in.

Charnley: Who was the first director, do you remember?

Cantlon: He went with one of the big drug companies.

Charnley: He left here then, after?

Cantlon: Yes. Larry Fisher is the current one. Jerry Hook. Jerry Hook was the initial one. He was very good.

Larry Fisher is the current one and doesn't have--because we recruited him very late. Have you interviewed Gordon Guyer?

Charnley: Not yet.

Cantlon: He's got to be on your list.

Charnley: He is. In talking about your work as vice president for research, are there any other areas that you can point to that you think were important?

Cantlon: Yes. The fact that we're substantial in material science here and that eventually we got the state to recognize material science and fund it came out of an interesting interaction. When I was provost, I was managing the academic budget. Of course you've got all of the deans pressuring you for money and all of the department chairmen. Jack [B.] Kinsinger was the chairman of chemistry, one of our strongest departments on campus, and he was berating me, did this in a big, long, single-spaced letter, quite polemic language, and basically was correct in that

we were putting the giant's share of our funds into the undergraduate program, which, of course, is the nature of Michigan State University, and that we were foregoing a chance to build in these exciting areas of chemistry where the future was. No question about that.

Well, he then got an appointment, as I had had earlier, to National Science Foundation, and went there for a two-year appointment to head up the Division of Chemistry for the NSF. Very good man. While he was there, my assistant vice president, John Miller, who had really wanted the top job and didn't get it, partly because I was provost. Don't put that in.

Charnley: No, no.

Cantlon: I didn't think he was appropriate for it. But anyway, he, interestingly, accepted the position, similar position. They call it the dean out there, the dean of research and graduate studies at University of Nevada, my old alma mater. We're still good friends.

But John Miller had gone and I needed a replacement, so I phoned Jack Kinsinger. I said, "Jack, I'd like to have you come back and take over as assistant vice president for research."

"Do you remember that letter I wrote you?"

"Yes."

"You still want me?"

I said, "Sure, I didn't disagree with your letter. I would have chose different language than you used."

[Laughter]

Charnley: Keep your enemies close by. [Laughter]

Cantlon: Speaking of that, I appointed Lee Winder as associate provost, when I was in the provost's office, replaced Herman King who had retired. People asked me, "Well, why would you pick Lee Winder?" I says,

“Well, Lee Winder develops the strongest case to beef up the provost of anybody of all of the deans. He’s got the best data. He’s got the best arguments.” I said, “I want him on the inside.” [Laughter] It turned out to be a good choice. Of course, he eventually became provost.

Charnley: The other president you were dealing with, of course, was [M.] Cecil Mackey. Could you talk a little bit about him?

Cantlon: You bet. Cecil Mackey came in essentially as a replacement for Ed Harden. Ed Harden, remember, was a retiree and had been a lobbyist, so when he came in, he allowed a number of things just to slide, because he didn’t want to make any of the key decisions. We were in the middle of the big economic downturn in the Rust Belt. Rust Belt, Michigan. So we had that, and he had allowed the alumni organization to go off as an independent organization, and it was creating real trouble, not the least of which, they were actively lobbying against existing members of the board of trustees. Now you think about how to commit hari kari, that’s about it.

Well, anyway, a number of things that he hadn’t done, and I don’t criticize him for it, because he had come in as an acting and he didn’t want to be responsible for taking on these things. He did two or three things, really important, and that is he made the tough decision, with our backing, to get Wharton Center going, even though we didn’t have the funds to do it. It called for cutting down the size of the original building, getting the classroom wing out of it, but protecting the core, the guts of it. Worked with Dolores Wharton and John--what’s his name? A seventy-nine-year-old head doesn’t work all that good. Dietrich, John Dietrich.

Charnley: John Dietrich. You’re recalling twenty years ago.

Cantlon: John Dietrich was a former chairman of speech and theater here, and absolutely first-rate.

[Begin Tape 2, Side 2]

Charnley: When the tape ended, we were talking about President Harden's experience and the Wharton Center.

Cantlon: In saying some things he didn't do, I wanted to be sure to put in one of the important things that he did. He also got the athletic program off on track. The year he was here, I think we won baseball, basketball, football, maybe hockey.

Charnley: So after some of the scandals of the difficulties in the athletic recruitment, that sort of thing, of the Wharton years, Harden, you saw some changes in that area?

Cantlon: Yes, and got that cleaned up. New coach, new director of athletics and so on. So he did those things very well.

You were talking about Cecil Mackey. Cecil Mackey, in a sense, was brought in to follow on Ed Harden, who hadn't done things, who didn't want to make those tough decisions. Well, the one virtue of Cecil Mackey is that he had a reputation as president of being able to make the tough decisions. Cecil is trained in the law, which is an adversarial approach to problem-solving, so adversarial approach is just old hat to him. He recognized there would be very, very different ideas, and that didn't bother him. "Fine. We don't agree on that, but this is the way it's going to be."

I think he was probably, of all of the presidents I worked with, the individual with the greatest capacity to handle a complex array of facts in a situation and understand how you dealt with those, and to, in a sense, judge equity in the handling of the different interests and so on. He was very skillful at that. Delegated authority, would leave you to do it, but if you went and asked him an opinion, you damn well better have all of your facts, because he wanted to know everything about it. So you didn't go there when you were beginning to think about a problem; you went there and talked to him after you had it all solved.

Charnley: He was supportive of his administrators?

Cantlon: Oh, very much so. Now, when Ed Harden left, he made some recommendations about who to replace and so on. There was a problem with the student area, because we'd just come out of a long student period. Of course, all of those guys had accumulated all of the used-up social capital. So they replaced all of the student leadership.

Cecil brought in Moses Turner, the first black vice-president that we had. Very good man. He did a very good job. He eventually was replaced, having used up his social capital.

Charnley: One of the things in the sesquicentennial, in dealing with, really, the fifty years since Madison Kuhn's publication of the first hundred-year history, in looking at the last twenty-five years in particular, especially in these good economic times, it's sometimes hard for people to look back at not so long ago when the university was in some tough straits. Could you talk a little bit about how it affected? The early eighties, obviously, the time when Dr. Mackey was here, were really tough times. I was a graduate student at that time, so I remember some of it, but could you talk a little as administrator how the money-crunch specifically affected the university?

Cantlon: It was really bad. We assumed that we needed to get about 15 percent cut in our costs in order to have enough flexibility to handle new opportunities and that sort of thing, because we had absolutely no new initiative money. We had to go off campus to get initiative money.

So the question came, we started kind of at the grassroots, and asked all of the departments, how would you take a fifteen percent cut? When you allow that to happen, you get what you'd anticipate. They figured out, "How, now, could I phrase this so that the administrators clearly would not ever cut this?" So they'd get the highest priority and so on. All their turkeys, which they didn't want to identify, were left totally unarticulated.

So that then became a problem for the provost, working with the president. Since I was the former provost by then, because I had just stepped over to vice president for research, it was possible for me, along with Lee Winder, who inherited the problems.

Charnley: Larry Boger?

Cantlon: No, no. Larry Boger and Lee Winder working as a team, because I had appointed Winder. They were as a team, and now I could support them absolutely because I knew all the numbers, knew the people, knew the program. I had been involved in rating the quality of the programs and so on. So the three of us then could present to Mackey a pretty solid discussion about why the proposals were absolutely not the way we should take a cut. We should actually cut some programs. Well, cutting programs is a way you could terminate faculty, because 80 percent or more, more than 80 percent of the total academic budget is in people, as you can tell by the level of support you get in this place. There's not much else there. You've got your salary. You damn well better scrounge for whatever else you're going to get. So what we were saying is that we ought to have a lot more in the way of support for the people you have. You've got too many people. So, since the people are not without students, if you're going to cut programs, you're going to cut students. So now you've got to pay attention to what the state needs.

So there was essentially a three-tiered process that we had to go through. First was to get proposals from the deans, many of which, not all, but many of which were totally unworkable, because they were managing it from their perspective, not from the university's perspective, and they were oftentimes trying to protect little scroungy graduate programs that were noncompetitive nationally or even regionally, and some of those should be terminated because there was no enrollment in them to speak of. Getting those things out of some departments is pretty traumatic.

Charnley: Were there any in particular of the fights for programs that really came to the forefront?

Cantlon: The one that rings a bell with me was metallurgy in engineering. Metallurgy in engineering, we only had about, I think, ten or fifteen, maybe twenty undergraduate students in it. We had a graduate program in metallurgy which was pretty good. But Michigan Tech had a giant program in undergraduate metallurgy, because they had a very good program there related to mining and that sort of thing.

When we suggested terminating that, the mom-and-pop metal industries of Michigan got together and came in, talked to the legislature, talked to the trustees. We had a hell of a time. We ended up not terminating it that year, but phasing it out. So we phased it out over a two- or three-year period, but we did terminate it. Yes, that was a toughie.

Also we were going to terminate one of the nursing school's programs. Let's see, what was the other one? One of the human ecology programs, which was very small. Those were women's programs right at the time the women's movement was just getting away. The trustees would have none of that. Urban affairs, which was this point of black programming, also we had suggested phasing out. We did, in fact, phase out one of the programs there.

Charnley: In terms of your position as vice president for research, were there any successes right at that time where we got more money from Washington, or had the well dried up there?

Cantlon: No, no.

Charnley: It was the Michigan well that was almost dry.

Cantlon: Yes. We did very well in a couple of areas. The one that I'm proudest of is we built this material science program. I started on that when I was talking about Jack Kinsinger back here. Jack came in, and he had told me when he was chairman of chemistry that in this state there wasn't a substantial program in material science.

Ann Arbor didn't have it. Michigan Tech didn't have it. Wayne didn't have it. So we had an opportunity here, because this is a manufacturing state, to really get into some aspect of material science.

We had earlier, in Hannah's time, put together a science development program, beefing up the departments of chemistry, physics, and mathematics. This goes all the way back to Hannah's last two years. I had continued getting the necessary matching dollars that we were required by our agreement to come up and keep that going, while I was provost. So we said, all right, we have to now look at what aspect of chemistry, physics, and mathematics, because we can't cover the breadth of any one of those three fields. Let's focus on the material science contributions of those three.

So Jack Kinsinger and I put together what we wanted to do, went to Washington, got some support for further development in the science development program, on those aspects of it. We eventually got the State of Michigan--remember there was the three institutes which the state started, research institutes? One was--let's see. What did they call the damn thing? University of Michigan. It was focused on automated engineering, computerizing engineering. I'm trying to think what the name of it was. It's in my thing there. You'll see it in my opus. But anyway, they got that first.

Then the second one was supposed to be based in the broad area of agriculture, which was Michigan's second largest. Manufacturing first, agriculture second. So Ann Arbor and Michigan State and Wayne all put in proposals to site a center in some area of biology. Well, Ann Arbor wanted to have a protein center, which is a good choice, because a lot of things are coming out of protein chemistry. We said, "No, what we really need is a center that would focus on making commercial products from agricultural surpluses, get focused in that area." So the Michigan Biological Institute, MBI, which is out here on College Road, are you familiar with it?

Charnley: Yes. Out by the post office.

Cantlon: Yes. MBI, we won that in a shootout with Ann Arbor and Wayne.

Then the third one was in material science, and that came along much later. Michigan State worked a deal to support siting it up at Midland, where you have a lot of material science capability. Central Michigan got involved in it and we got involved in it.

We built a Center for Material Science here, which I finally got a building built. That's another story I'll have to tell you. The building that's out behind Baker wood lot, and behind the clinic center, that engineering facility back there, well, I had wanted to put an extension on the engineering building, which they have now done, by the way. What I wanted to do was to do it in cheap construction, steel and so on. And here the athletic department had just put this giant practice field, or had gotten plans to get this giant practice thing out here on--what's the name of the road going through here?

Charnley: Shaw.

Cantlon: Shaw Lane. Ted Stevens, who was head of physical plant at the time, assistant vice president, I guess it is, for physical plant, "Absolutely not!" He'd been through the Quonset area on this campus, and they become giant money sumps where you can't afford to heat them or light them, and you have to repair them, and they just eat up your maintenance budget. Can't afford that. Not going to have any temporary buildings. "Well, why the hell has athletics got it?" "Well, I couldn't win that battle." [Laughter]

So I finally said, "Well, we've got to have it, because we've got to get a place where this thing can go on. We can't have it in the existing engineering building. It's going to be too noisy and so on."

"Well, all right." Finally, Ted retired. His replacement, Tom--anyway, Ted's replacement.

Charnley: We'll look it up.

Cantlon: Head of physical plant. Anyway, I finally persuaded him, "Well, we'll hide it. We'll put it behind the clinic center, behind the wood lot over there. Nobody will ever see it." But in scientific structures, it costs more to

modernize an existing building than it does to tear it down and build new, and scientific research requirements are moving so fast in terms of safety issues, communication issues, power demands, and so on, and the need to consolidate all of these things, very expensive equipment. You cannot build these big expensive buildings, and keep building that. It just doesn't make any sense. Build a building that you can razz, and start over and redesign it for the new concept. Okay. Well, I finally persuaded him, so that's how we got that building out there. And lots of parking.

Charnley: Which is a premium. That's for sure.

Cantlon: Absolutely. Well let's see, where were we?

Charnley: We were talking about material science.

Cantlon: Material science. Well, eventually, we got this center, this institute, located at Midland. Then we got a Material Science Institute out in this new building. Then we got a big grant here, just after I retired, as a matter of fact, from Dow Chemical Company, partly of our support for getting that up there, for building this broader. So Michigan State really is the material science presence in the state. In particular, they are in the plastics more than in the exotic mineral end. You get places like MIT [Massachusetts Institute of Technology] or Caltech.

Charnley: Is Michigan Tech involved at all in that, or not? You don't think so?

Cantlon: No, I don't think so.

Charnley: We go back to discussion of the presidents and your work. Was John [A.] DiBiaggio the last president you worked with?

Cantlon: Yes.

Charnley: Maybe go back to Dr. Mackey's leaving. Obviously he's still at the university.

Cantlon: Well, Mackey had a number of things. (A), as a person trained in the adversarial area, he didn't mind an occasional argument. He had to solve two problems. He had to make the budget cuts, that were extremely unpopular and irritated a whole number of constituencies around the state, the women's group, the black group, the metal group. Then he had the addition of the new problem in athletics. Athletic recruiting problem came along. Then came the alumni organization that had been free and on its own, and Cecil took the extremely gutty job of just absolutely withdrawing all of the resources from that group, firing the director and the head of their publications, just cleaned them right out. And they had created alumni groups all over the United States. Of course, you now get all of that coming in to the board of trustees. Clearly he had used up his social capital, but he had done an absolutely essential thing for this university.

Charnley: Made the tough decisions.

Cantlon: Made the tough decisions. He is very good. He is as good an administrator, willing to make the gutty kind of decisions, of any of the presidents I ever worked with. He and John Hannah. John Hannah had that ability too, but he had it at the time when he had the backing of the board. Cecil had to make it when we did not have a management board. We had a board that had its own agenda.

Charnley: The last president that you worked with, DiBiaggio.

Cantlon: Dr. DiBiaggio. John DiBiaggio. It's interesting, it's a gross oversimplification, but there's an element of truth in it. Cecil was the fighter and enjoyed it. He liked to take on tough jobs and solve it. It doesn't bother him that a lot of people take umbrage at it. John DiBiaggio is the lover. John was a warm, just an absolutely delightful human being. I enjoyed working with both of them. I found both of them absolutely first-rate guys.

As a matter of fact, I didn't have a criticism of any of the presidents. Individual decisions I disagreed with, but in terms of their overall thing, I think universities typically recruit presidents who are the antithesis of what the current president is. If you think about John Hannah, he ran the university the way old land-grant universities were run, a president who had both the authority and the responsibility to run the damn place. He had a supporting board before the Constitutional Convention. The Senate of Michigan was run by rural Michigan. The rural Michigan politicians came up through cooperative extension. These were people out there that, we had a political constituency that was absolutely ideal. So he did very well in that period.

Then when he got this new board, which was elected, and with the political dynamics of Michigan with the unions so powerful in the nominating process, they actually unseated, in subsequent elections, members of the board that did not vote the way the union wanted. So it's very real politics.

So if you take Hannah now, with the kinds of decisions he makes, then they brought in Walter Adams, who was almost the antithesis of that. Adams was liberal, pro-labor, kind of anti-big corporations. He saw a lot of his academic work. A good man. I enjoyed working with him. But just totally different, so he's the antithesis of Hannah.

Then you bring in Cliff Wharton, who in a sense was a very different thing. This almost was a case where they wanted to get back to an agriculturally focused guy. He had his degree in ag economics. He been in international programs over in Malaysia and so on, had been with the Rockefeller Foundation, understood all of that. So they brought him in, very different from Walter.

Then you brought in, as an interim, you brought in Ed Harden, who, in a sense, didn't make any solutions. So they now brought in Cecil Mackey to make all the tough decisions that Harden didn't, after he's now alienated a

wide thing, they have to go into fundraising. They don't want Cecil Mackey representing the university on fundraising because he's irritated a number of people out there.

Charnley: Hat in hand to the alumni. Wasn't going to work.

Cantlon: Right. So they bring in the lover, John DiBiaggio, who had done great work in Connecticut where he had been. He, again, was an excellent president for that period, made an absolutely fantastic fundraising thing, got way over the prospect.

Charnley: In going up to the present, how would you characterize President [M. Peter] McPherson?

Cantlon: Oh, again, ideal.

Charnley: For the times?

Cantlon: For the times. We needed to have a solid financial person who understands the fiscal nature of Michigan State University. We also need to get back the kind of international thing that Hannah epitomized. Hannah, remember, after he left here headed up USAID. He built, and thought about, the role of the land-grant concept enabling people. See, that's the guts of the land-grant idea. You design a system to create knowledge, to dispense knowledge, skills, and so on, to enable people to succeed. That's the land-grant magic. So if you think about developing countries, that's absolutely what's needed. I've made this observation a number of times, that idea of enabling people in the kind of repressive governments that exist around the world is very destabilizing, because you're enabling those guys out there to get along without you, by God.

Charnley: A revolutionary concept.

Cantlon: Absolutely. If you look at the places we've had, there have been revolutions following us. The biggest one, and the most dramatic one, is Nigeria. It started at Ensuka, which we created. That was an interesting thing. There's a little vignette in my thing there.

Charnley: On Nigeria?

Cantlon: Yes, on Nigeria. I won't go into the details of that.

Charnley: So that President McPherson's experience in AID also--

Cantlon: AID. And the fact that he's a solid money man, understands all of the financing, has credibility with the business and industry community, since he comes out of the banking area. Grew up on a farm. He's a Michigan native, believes deeply in the land-grant approach.

Charnley: And an alumnus.

Cantlon: And an alum. So, absolutely. Every one of the presidents, I like the way the succession has taken place.

It's perfect for the time that we're in. We've been very, very lucky.

Charnley: In talking about some of your own research, were you involved in teaching at all after you became an administrator?

Cantlon: I tried for a short while, but that was the middle of the student unrest. I missed three Ph.D. exams. I insisted that I would take no more than four graduate students to supervise their thesis. That's the maximum I

allowed myself. But I served on sixty other graduate committees because of my interdisciplinary interests: agriculture, a number of the departments there; and human ecology; in natural science, entomology and zoology.

Charnley: So even as an administrator and provost, you were sought out to serve on committees?

Cantlon: Right. And I stopped accepted those assignments after I had missed, because that's a very critical part, as you know from your own thing, to have a person--and writing, going over theses, I can't edit unless I edit. And I edit with a heavy pencil.

Charnley: When I wrote my dissertation, Fred Williams had just taken on faculty grievance officer. I gave him the chapters, and I know he was really busy. So I understand that.

Cantlon: I gave it up. When Cecil came on, he said he would like to have all of the administrators continue with some kind of faculty appointment. I said, "Well, I only have a little bit of time left." I guess that was when John DiBiaggio came. Anyway, I did lecture, occasional lectures in entomology and zoology and botany. I worked with a number of--well, human ecology, I worked very hard getting the name change of that college.

Charnley: Oh, you did?

Cantlon: Oh yes. Bea Palucki and I had served together on the Educational Policies Committee, so we were colleagues. She had been interested in the household as an input-output system. Of course, that's one of the key aspects of ecology, dealing with a community or an area as an input-output system. So when I was at NSF, I met with her back on campus and talked about it. Then when I got back on campus, I helped bring about that change.

Charnley: Was that change completed before Lois Lund became dean?

Cantlon: Yes. I'd have to say--and I wouldn't want you to write this--but Lois Lund was not the best choice for continuing that, because she was too much in the groove of old human ecology, which is kind of women's studies. And that's not what the opportunity was. The opportunity really was to do human ecology. I talked to national groups, gave a number of speeches. If you think about trying to get at the key problems, family problems, sets of environmental problems and housing the homeless, all of those, they've got essentially the mandate to do that. Furthermore, they've got a deployed system of cooperative extension agents out there in all of the key county offices around the state. So, (A), they have the disciplines. They have access to all of the basic disciplines here on the campus. They have a delivery system out there. Why not put it to work, do the right thing? If you could start that going, then tapping into the new funding. Well, it turns out that--

[Begin Tape 3, Side 1]

Charnley: This is our third tape. We were talking about human ecology and how the college was changed to that at Michigan State University.

Cantlon: From home economics to human ecology. I was stating that trying to bring about the opportunity that that college has, which has not happened anywhere in the United States to any extent, the reason I think that that's the case is that the cooperative extension system has been largely a creature of agriculture. The commodity groups, the animal and plant commodity groups, essentially are the lobbying force behind that. They view the resources of cooperative extension as a zero-sum gain. They don't recognize the fact that the United States has become less and less rural. Larger and larger shares of the population are urban, don't care too much about the problems of agriculture, and even if they cared about it, it would not hit very high on their priorities. So it's not surprising that they have been working with a diminishing resource. But if you look at where resources have been going, it's into the problems of urban family environment. Those are the domain of the College of Human Ecology.

If that were deployed properly, it could, in fact, draw in a totally new funding system, but it's been violently opposed by all of the power structure of commodity agriculture. They simply do not understand. Now, the weird thing is that food stamp program is administered by the Department of Agriculture, and that gives them a kind of urban constituency. Having understood that, you'd think they could understand this broader aspect of it, but they're using it to defend disposal of surplus food products, a narrow subset of the challenge. It's remarkable, the blinders that this group has had. It surprises me that it's been so difficult to get the cooperative extension system and many of the old home economics colleges to move in the direction that they should be moving.

Charnley: That's very interesting. Your own research, since your retirement? What year did you retire?

Cantlon: I retired in '90. I gave you a recap there. Herman Kanig [phonetic] and I have been working on that.

But after I retired, I just have to comment one little bit here. It was before I retired, when President DiBiaggio was here, I was contacted by the National Academy of Science, where I had chaired the Environmental Studies Committee for the National Research Council and had gone to Europe with the international program working between Russia and the U.S. on ideas of cooperation and so on. So when the nuclear waste issue began to get maximum torque in the disposal of nuclear waste, I had a telephone call asking me if I would consider having my name placed for a presidential appointment to the Nuclear Studies Board that Congress was creating, to, in a sense, to provide an independent voice to credential the quality of science being offered by the Department of Energy on the safety of what they were planning for the disposal of nuclear waster.

I had been an advisor to the old AEC for many years, knew the subject fairly well, and I said, "Sure, it would be all right, but let me contact my president, because nuclear waste is not exactly priority number one for a lot of activists. If he has a problem, I'll not do it."

So I contacted John DiBiaggio, and he says, oh, he didn't have any problem. "Just keep it out of the university." So I agreed to have my name in.

Every year we take a vacation to Hawaii, so we were over there in January. This condo that we were in doesn't have a telephone in each of the apartments. There's only a public phone on the outside, and then the manager's thing. The manager came over, says, "I had this strange call wanting you to call the White House. Is that some kind of code?"

I said, "No. They're talking about an appointment."

Well, it turned out that I did get an appointment from President [Ronald] Reagan, one of the first members of the initial nuclear waste, and then later spent four years chairing the Nuclear Waste Technical Review Board, and testified in Congress for our budget, and did all of that.

Charnley: Was this before Chernobyl, or had Chernobyl already happened?

Cantlon: Long after Chernobyl. This started in 1987. The Nuclear Waste Technical Review Policy Amendments Act came in in '87. '88, I got appointed, and I guess we did our first meetings in '88 or '89, one or the other. Then I was appointed by [George H.] Bush as chairman of the board. Stayed on because [Bill] Clinton was slow in all of his appointments. They couldn't find enough women, Chicano, blacks, who knew anything about these esoteric disciplines, so it took him a long time to get that done.

Charnley: So you're not involved in that now?

Cantlon: No. I stepped down in--let's see. '98, I guess.

Charnley: In terms of your retirement, you've obviously stayed active as a scholar. You've stayed active in many ways.

Cantlon: Yes. I chaired the Woods Hole Research Center board up until the year before last. I'm still on that board, Woods Hole Research Center. I was the vice chair and one of the founding board members of World Resources Institute in Washington, D.C., doing global resources, that sort of thing. So I've had a fair number. At one point I was on I guess five or six boards. Those were the key ones. Nuclear Waste, World Resources, and Woods Hole. I got on the Superconducting Super Collider Site Selection Committee for the Academy. Talk about politics.

Charnley: You were interested in that? My house would have been displaced by that down in Lesley, where I live. [Laughter]

Cantlon: Oh, yes.

Charnley: I had just moved to the area.

Cantlon: Michigan had two proposals in. That was interesting. One little vignette was funny. I had agreed to serve on the committee and had gone to the academy and had the first initial briefing. They said they'd be sending out all the proposals, to evaluate them. They said, "We anticipate somewhere in the order of thirty proposals."

I had been on selection committees for research grants for twenty years or more. Irene, my wife, had seen me grading proposals and so on. So I had to go to California for one of the nuclear waste things, I think it was. No, it was before that. I've forgotten. I was in California for some reason.

This delivery guy came up. He said, "We have a shipment of proposals for Dr. Cantlon."

She says, "Oh, fine. Just give them to me."

He said, "Madam. It's seven hundred and fifty pounds." Great big boxes like that. And each proposal was a group of tomes.

Charnley: So it was more than thirty?

Cantlon: There were thirty-two of them. So she had them put it on the garage floor. [Laughter]

Charnley: Your work was cut out for you.

Cantlon: Oh, yes.

Charnley: In looking back at your career at Michigan State, obviously, for most of your career, you were here at Michigan State. Why did you stay here?

Cantlon: It's interesting, because when we came here from Boston University, I had been at George Washington in Washington, D.C., at Boston University, and had spent time at University of Nevada. I had done some assisting of my major professor at Rutgers, had been at Rutgers for three years. I had assisted him. He was on the faculty in the summers at the University of Minnesota biological station. So I had taken some courses there, been a teaching assistant for him.

I had been all of those places, but I had never really been in this part of the eastern deciduous forest. So I was very intrigued with having an opportunity to study in this region. Ecologically it's very different. I had been in the South, South Texas, been down to Washington, D.C. and done research work in that area, all through New Jersey. I said, "Well, it would be good to be kind of out here in the western Great Lakes."

Murray Buell and I had started some research when I was at the University of Minnesota biological station. We published a couple of papers on it. So I came here to do that. I said, "Well be here about three years, and then we'll probably go back East, because that's where most of the action is."

We got here, and we just liked the place. We liked John Hannah. He was running a university the way it ought to be run, looking at what the university does. I just am a deep believer in the land-grant approach. As I say, it's the best invention that the United States has made in higher education.

Charnley: Can you think of, in terms of this project, you've mentioned several along the lines, but others that come to mind in terms of staff members? We ultimately will interview faculty, and also even some staff. Are there staffers that you worked with closely, that are still living and you think would be interesting to interview?

Cantlon: I think, if you haven't interviewed him, Bill Cooper would be a candidate. Bill Cooper's another ecologist, so you see my bias.

Charnley: And he's in the area, too?

Cantlon: Yes, he's in the area. He's had a lot of involvement nationally.

I think it would be very interesting to interview [S.] Tamir Cavusgil from the College of Business, on foreign marketing and the role of the land-grant universities in international markets. Tamir Cavusgil, I recruited him at a time when the business school was not doing--in my view, they were training middle managers for big corporations here, that was their central *raison d'être*. In my view, entrepreneurship was in the ascendancy back in the late seventies and early eighties, and I worked my tail off to try to get them to really look at that area. They still don't. So I think it would be interesting to look at him.

I would also interview the director of the Material Science Center. And you've already got Hank Glosser down. You've got Gordon Guyer down, who I think is an ideal one to look at, again, the land-grant university.

I wish Bea Palucki were around, so that you could really get somebody in human ecology who understands the promise there. For the life of me, I don't know anybody over there who really is willing to work, to make that

happen. I think it's doable, but it would take real dedication and real administration backing to make it happen, but it could happen.

You should probably interview at least one board member. I would suggest Russ [Russell G.] Mawby.

Charnley: He was director of the Kellogg Center?

Cantlon: Russ Mawby was the director of the Kellogg Foundation.

Charnley: Foundation, not Center. Okay.

Cantlon: But he was also an MSU board member. He was a faculty member here at one time, and I think he's a graduate of here. He understands deeply the land-grant system, and the Kellogg Foundation really looks at the deployment of knowledge. I think he more than anybody is responsible for our having the current president.

Charnley: I want to thank you for the time that we spent, and your contributions.

Cantlon: Take a look at that. If there are other things you want to get, I'll be happy to come over and do another, a much shorter one, on any individual. Otherwise, you can paraphrase that if you want.

Charnley: Thank you very much.

Cantlon: Then I'd like to have that back. You could make a copy of it. I'd be perfectly comfortable with you having a copy.

Charnley: Okay. I'll give it back to you. I'll give you the master. Thank you very much.

[End of interview]

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