Lawrence VonTersch

May 2, 2001

Jeff Charnley,
interviewer

Charnley: Today is Wednesday, May 2, the year 2001. We're in East Lansing, Michigan, on the campus of Michigan State University. I am Jeff Charnley, interviewing Dr. Lawrence VonTersch for the MSU Oral History Project for the sesquicentennial. The university will be commemorating that anniversary of 150 years in the year 2005.

As you can see, we're tape-recording this oral history today. Professor VonTersch, do you give us permission to record his interview?

VonTersch: Correct.

Charnley: Okay. I'd like to start first with some questions about your educational background and personal background. Where were you born and raised, and where did you go to school before college?

VonTersch: I was born in Waverly, Iowa, in 1923. I graduated from Iowa State in 1943, with a bachelor's degree in electrical engineering.

Charnley: What interested you in that field as an undergrad?

VonTersch: I didn't really start to school as an electrical engineer. I started school as a mathematics major because I liked mathematics. Times weren't too good in those days for

mathematics majors, and I decided to switch to electrical engineering because I could take all the mathematics I wanted to take anyway and I might be able to get a job.

Charnley: World War II was going on then. After you graduated, did that intrude on things at the time?

VonTersch: I graduated in 1943, and was direct commissioned in the Navy as an ensign in the Navy.

Charnley: Where did you serve during the war?

VonTersch: I went to school at MIT for a while, learned how to maintain radio and radar equipment. Then I maintained equipment on Pearl Harbor, Johnson Island, Kwajalein, Guam. I was on Okinawa when the war ended. I was going to go to Japan to maintain equipment as soon as the Marines had an air field tamed, which I didn't have my heart in, and when the war ended the way it did, I went to China and I stayed in China until fall 1946, then went back to graduate school.

Charnley: Where you were in China?

VonTersch: Shanghai, mostly.

Charnley: Did you see any direct combat or were you behind the lines?

VonTersch: No, I didn't. I was too close sometimes, but, no, the answer is no.

Charnley: Did your World War II service stimulate your interest in continuing in on graduate study?

VonTersch: I would have gone to graduate school anyway. It delayed it a little bit and, with the GI Bill, made it easier, but I would have gone to school anyway, I think.

Charnley: So you went back to Iowa State?

VonTersch: I went back to Iowa State. It had changed a great deal in the three years I was gone, so I went back.

Charnley: Then you worked on your master's and Ph.D.?

VonTersch: Yes.

Charnley: When did you get your Ph.D.?

VonTersch: 1953.

Charnley: Your dissertation or your primary research, line of study?

VonTersch: I have to give you an explanation, probably. There were very close ties between the physics department and electrical engineering at that time, and I did my dissertation work really in physics, and I had a choice of declaring whether I wanted a Ph.D. in physics or electrical engineering, and I chose electrical engineering. I'm not sure I chose right; I wondered about it ever since, but that's beside the point. But I chose electrical engineering.

My thesis operation and my research had to do with injection of electrons into a syncotron. This is clearly physics.

Charnley: Were you interested in working in the private sector or teaching after you finished the Ph.D.?

VonTersch: I did a lot of teaching as a graduate student, and I decided that's what I wanted to do. I was very happy doing that, and I think I was reasonably good at it. I decided I wanted to do that.

Charnley: How did you first get involved with computers? Was that in the Navy?

VonTersch: No, there weren't any computers in the Navy at that time. Much of the work that we were doing with the syncotron and the accelerators at that time required a great deal of computer work, and I did a great deal of computer work down at the University of Illinois. I never had any formal attachment with Illinois, but I did a great deal of work down there, and that led me on into the computer business.

Charnley: How would you describe the computers, the ones that existed in the early 1950s?

VonTersch: We thought they were pretty remarkable. We wouldn't think so today, of course, but they did their job. They created a new class of people who went on to do great things.

Charnley: Any people that you had in those early years that later went on to be prominent in the field that you're aware of?

VonTersch: I don't know if they went on to be prominent in the field, but they've all done very well. Interestingly enough, I had as an instructor as an undergraduate a man by the name of John Anazoff [phonetic]. I don't know if that means anything to you.

Charnley: No.

VonTersch: John Anazoff by the courts was deemed the legal inventor of the digital computer as we know it. He never made a dime off of it. The courts decreed him as the legal inventor. But at that time I didn't know he knew anything about computers anyway.

Charnley: How was it that you ultimately came to Michigan State?

VonTersch: John [D.] Ryder, who was dean of engineering at Michigan State, I'd had for a great number of classes at Iowa State, and I had a great deal of respect for him.

Charnley: He was here?

VonTersch: He was here as dean.

Charnley: He came from Iowa State?

VonTersch: No, he didn't. He had left Iowa State some years before, and he was department chairman of electrical engineering at the University of Illinois. I think he came here about 1954 from University of Illinois.

Charnley: So he was the main one who recruited you?

VonTersch: Yes.

Charnley: What was the campus like, or how was it different when you first arrived?

VonTersch: There's probably more similarity between--have you ever been on the campus at Iowa State?

Charnley: No, I haven't.

VonTersch: There's more similarity between the campus at Iowa State and Michigan State than probably any other two institutions. They're very similar. They're very well landscaped.

Charnley: They're land-grant schools.

VonTersch: Both land-grant schools. Started out within two or three years of each other and have a great deal of similarity.

Charnley: So there was a strong engineering connection between the two.

VonTersch: Yes. The campus were very similar, and they still are.

Charnley: How would you describe the academic climate here when you first arrived? Those are the John [A.] Hannah years, of course.

VonTersch: I wasn't impressed with the academic content in electrical engineering, but it

improved.

Charnley: Were there very many students in that field at that time?

VonTersch: I don't remember how many. Quite a few. I don't remember what enrollment of the College of Engineering was at that time. I don't know. I don't remember.

Charnley: When you first arrived, was there any main emphasis or strengths, or did those come later?

VonTersch: I think they came later, pretty well. It was strictly an undergraduate school at that time, and it had some strength in undergraduate. Ryder wanted to improve the strengths in all areas in undergraduate and create a research program. He was a little rough in how he did it, but he did it.

Charnley: How were you involved in the computer lab when you first came?

VonTersch: I'm the founder and first director.

Charnley: Tell me more about that. You had to create it.

VonTersch: There wasn't a computer laboratory when I came here. I was hired by John Hannah to create one, and we did.

Charnley: Who funded it?

VonTersch: The university made the original funds on the thing. It wasn't very much by current standards, but it was enough to get us started. We made a copy, to start with, of the Institute for Advanced Study machine, which was at Illinois and at Princeton, and we got an awful lot for not much money. Particularly we got very, very significant software packages from it that we couldn't afford to create on our own. It was a pretty crude machine. It took us about ten months to build it right over here next door.

Charnley: In what is now Computer Center?

VonTersch: Yes. [Jack] Breslin labeled it the Computer Center. That came later.

Charnley: So, ten months. What were some of the major problems you encountered in putting it together?

VonTersch: It took us time to do all that. There were no major problems, particularly. As I say, we got a great deal of software packages from University of Illinois and some from Princeton, but we were worried whether we could create enough programming knowledge on the campus to utilize it effectively.

Charnley: Who on campus was the driving force, in addition to yourself? Who saw the need for it?

VonTersch: A man by the name of Gerard Weeg, who was a mathematician from Iowa State, who had worked for Remington Rand. He knew a great deal about software that we needed very badly. He's not living.

Charnley: He was on campus also?

VonTersch: Yes, he came here at the same time I did, but I didn't know him.

We knew we had to start teaching some programming courses, and we had a little trouble figuring out who was going to teach them. We taught them originally in the Department of Mathematics, but they weren't much interested. I had the feeling they thought we were kind of a passing fad and maybe we'd go away, which we didn't.

Charnley: The other programming, did you develop the computer science department ultimately?

VonTersch: That came much later. We finally took the programming courses and some other relevant courses out of mathematics and put them in electrical engineering. Then eventually that was known to be a temporary thing, and eventually we got courses out of electrical engineering and what we then called the computer science program that turned into the computer science department.

Charnley: Where would you say MSU was in relation to other universities in that development?

VonTersch: Well, we were lagging behind in the development of software, numerical analysis and what have you at the time, but we were gaining very rapidly. I was quite amazed from time to time at the activity that took place, with a little encouragement on a variety of places on the campus. It really came around.

Charnley: What was some of that?

VonTersch: Agriculture, for example.

Charnley: Ag research?

VonTersch: The Ag Experiment Station funded a lot of software operations necessary for agriculture. I was surprised to see that some of the writing programs, which you probably know more about than I do, started to come into existence. Of course, we didn't have lots of programs out of engineering, of course. We had some limited programs originally out of business. But as I say, overall I can't remember the details, but I remember being impressed that a lot of areas on campus were picking up business pretty well.

Charnley: What about the Cyclotron?

VonTersch: The Cyclotron was a big customer, a big user. Henry Blosser. Yes, very much so.

Charnley: It's chicken and the egg with the existence of the computer and the computing capability stimulated the Cyclotron.

VonTersch: Yes. Henry was the big backer of it, a big user, very sophisticated.

Charnley: How would you say President Hannah's support was?

VonTersch: Well, he gave us some interesting support for the next step. The machine didn't last very long. When I say that, it didn't fall apart or anything like that, but we created more business and more need than it can handle. So we asked Hannah for a million dollars to buy a commercial machine, which didn't shock him a bit. And he had an interesting answer that I recall

very, very well, and that is, he didn't know if it was the right place to spend a million dollars on or not. But if I could get half of it from someplace else to prove it was a good move, he'd see what he could do, which meant he'd do it. And I got it, and he did.

Charnley: Where did you get the money?

VonTersch: National Science Foundation. I got half a million dollars from National Science Foundation. Hannah produced the rest, as he said he would. And we bought a machine from Control Data Corporation called a 3600, which was a big step up for us.

Charnley: In retrospect, was that a good choice, do you think?

VonTersch: Yes, it was. It was. As I look back on it, it was probably a fine choice.

Charnley: Had you had much experience with grant-writing prior to that?

VonTersch: No, not much. Well, that's not entirely true. I'd written a number. Not to that order of magnitude, but I'd written a number of small ones, but I'd not written any for--that was a lot of money at the time.

Charnley: Do you remember what year that was?

VonTersch: No.

Charnley: It's not meant to be a quiz.

VonTersch: Must have been close to 1960. I'm not sure.

Charnley: Did you have contacts in the NSF that knew your work or knew the work of Michigan State? Did that help, maybe?

VonTersch: The director of our Division of Engineering Research, a man by the name of John Hoffman, had good contacts at NSF. He knew where to go and who to ask.

Charnley: Dr. Blosser talked about that, developing the Cyclotron.

VonTersch: Blosser's always had superb contacts there.

Charnley: In those early years, what was the impact of that computing on the campus?

VonTersch: Well, as I say, I was impressed, even with our limited capability to start with, what it had engendered all the way around. The new machine which we bought carried on that quite a bit and expanded everything. We had a booming operation.

Charnley: When did they get involved in using the computers for academic records and that sort of thing?

VonTersch: There had always been a data processing unit on campus. It didn't have any academic interactions on the thing. It was a punchcard installation, a very effective one, and it's still there.

Charnley: How did you first get involved with administration at Michigan State?

VonTersch: Well, I suppose there was some administration. You would consider some administration as director of the computer laboratory. I think so. Two years after I came here, the spring of '58, the chairman of electrical engineering resigned and I was appointed chairman of electrical engineering, and I kept both jobs.

Charnley: Were you teaching at that time, too?

VonTersch: As I look back on it, I think I taught one class during that period, and I missed that very much. I may have taught a couple. You might be interested in one of the things I did, that teaching didn't work out very well, and that is, students couldn't get to me. I mean, the administrative demands on both places were such that if a student wants to talk to me, he wants to talk to you now, not make an appointment for two weeks from Thursday. I became very sensitive to that, because that isn't the way I used to teach.

Charnley: Direct contact with the students.

VonTersch: Yes. I had contact with the students and I enjoyed it very much. That's what I wanted to do.

Charnley: How was it that you became dean of the College of Engineering?

VonTersch: I don't know. Ryder left, resigned from the job and went back to teaching electrical engineering about 1957 or thereabouts, I'm not sure, and Jake Nevell [phonetic] was provost or academic vice president, or whatever they called him at the time, and he did the usual thing and appointed a search committee and what have you, and it came out of that.

Charnley: What year did you become dean?

VonTersch: I'm trying to think.

Charnley: Late sixties?

VonTersch: Yes, it had to be late sixties. We had moved. I don't remember dates very well. Electrical engineering had moved out of the building next door. We were over here, too, and gave up the entire building to the computer operation one way or another, and moved them over to the Engineering Building when it was completed.

Charnley: That was completed in the sixties.

VonTersch: Yes. When I first came here, there were the sheep barns.

Charnley: Just south of the river.

VonTersch: There wasn't much south of the river. I think the Education Building had just been completed at that time.

Charnley: That became Erickson Hall.

VonTersch: Yes.

Charnley: How had the curriculum changed in the time that you took over? Had you instituted

any of those changes, shifting away from graduate work?

VonTersch: Graduate programs increased fairly drastically, and they would have had to. There wasn't much to start with. They started to become quite effective. I would say that you could characterize the undergraduate program as changing in this way, and not only here, but nearly every engineering institution in the country, more from hands-on operation to science-based operation, and I think that would describe ours. As I said, I think it described nearly all engineering programs.

Charnley: In that period, what were the areas that developed, where we ended up with a reputation?

VonTersch: Electrical engineering and mechanical engineering were the two largest ones and probably the best answer to your question. Mechanical engineering had always had a lot of influence, of course, in the automobile business in Michigan.

Charnley: Was there an attempt to reach out to any of those corporations?

VonTersch: Very much so. We ran seminars that brought in executives, engineering executives from all the major corporations in Michigan during this period of time, which were pretty effective. They did both a good educational job and made us a lot of friends.

Charnley: Would you say that businesses responded to MSU engineering graduates?

VonTersch: We have always had a very, very good industrial thing. We teamed up with Jack Shingleton for years and really turned out a product and sold it.

Charnley: Jack was placement director.

VonTersch: Yes. You're leading up to the right questions. The proof of the pudding for engineering undergraduates: will people buy them? If they don't buy them, you're dead. You don't care what rating. You look at *The Wall Street Journal*. You see this material on the T_____ school?

Charnley: No, I didn't see that.

VonTersch: It's very interesting. Anyway, if the industry doesn't buy them, it doesn't make any difference what the rating service is saying, so on and so forth.

Charnley: It depends on what the grades on the transcript are?

VonTersch: When we first teamed up selling our students, Jack Breslin was the placement director.

Charnley: Did you have a good working relationship with him?

VonTersch: Very good. Then Kenney [phonetic] was the placement director, and then Jack Shingleton. We probably had more action going with Jack Shingleton. Shingleton kept running into a lot of trouble from other places on the campus because they claimed that he was giving favoritism to engineering students and so on and so forth, and the answer is, he was, and his answer was, he's giving favoritism to anybody he can sell. "If you haven't got a product I can sell, I'm in trouble and so are you."

Charnley: Interesting way to look at it.

VonTersch: They used to give him a hard time. The answer to your question, we always did very, very well on selling. We always had our people and sold extremely well.

Charnley: Were there any graduates from that era that come to mind? Not that you remember them all, but certainly there might be some from that era that were the stars.

VonTersch: I'll tell you something that you might not think is funny. What was the murder case in Boulder?

Charnley: Ramsey. John Ramsey.

VonTersch: He's one of our graduates there. If you look now, that's what happened. Where are these people now from that era? They're the vice presidents and what have you of industrial concerns all over the country now. It takes a little while for them to get to that spot.

Charnley: When you became dean of engineering, did you leave the computer lab at that time, or did you stay on?

VonTersch: I kept it a little while, then got rid of it. I don't mean "got rid of it."

Charnley: Your responsibilities expanded, yes. Did you teach at all when you were dean?

VonTersch: No. I think one or two classes, and one of the main reasons was the thing I gave

you a little bit ago, it just didn't work out well.

Charnley: How did the Department of Computer Science develop?

VonTersch: We originally created, when we brought the courses out of mathematics back into electrical engineering, just to give them a home for the moment, we created a program in the College of Engineering that was not a department, but we called it a program in computer science, and we started teaching. We did hire some people for it, and we started teaching a great number of courses in the area. Then that gradually developed into the consideration of full department status for computer science.

Charnley: Did the MSU pattern fit the national pattern in terms of interest in that field, or were we lagging behind?

VonTersch: I don't think we were lagging behind. I think we were moving with the tide more than anything else at that particular time. I don't know. That's a big department now.

Charnley: A lot of students going into that field. What were some of the other things that happened during the 1970s, during your early years as dean, that you faced either administratively or the college?

VonTersch: We started moving over there in the sixties. We started moving out of space.

Charnley: Because of the interest, you had large numbers of students coming in?

VonTersch: We started running out of space. We did something at that point that Hannah even

called me up and complained about.

Charnley: What was that?

VonTersch: Due to a lack of space, and with the approval of Provost [Clarence] Winder, we started changing the requirements for the entry into junior year fairly drastically. For some years there, we set quotas as how many students we could take, and for some years that meant that the end of the sophomore year you had to have somewhere between a 3.3 and a 3.4 average for entry in the junior year. Hannah called me up one day and told me that was terrible. He was probably right, but with money and space available, that was the only way we could handle it. It was a very popular program. I used to talk to a lot of lawyers, used to come around me. They were going to sue us for something or other.

Charnley: For not allowing a person?

VonTersch: Didn't take their client's son into the thing.

Charnley: It's interesting. That's the first I've heard of the limited facility or limited program. That's interesting.

VonTersch: I don't know if that has happened anywhere else on the campus or not. How do you handle it?

Charnley: I think in College of Education they recently, in the last few years, have raised the bar quite a bit, about that, 3.3, 3.4 level, about the same thing.

VonTersch: Winder wasn't very happy about it, but he let us do it.

[Begin Tape 1, Side 2]

Charnley: When the tape ended, you were talking about--

VonTersch: We got pretty good support from Dr. [Clifton R.] Wharton [Jr.] I don't remember any particular issues that we got into discussion with at this point, but I always felt we had pretty good support from him.

We always had good support from [Edgar L.] Harden. Interestingly enough, Harden came from Montezuma, Iowa.

Charnley: That wasn't far from Waverly?

VonTersch: Yes.

Charnley: So the Iowa connection opened the door to Dr. Harden for you.

In terms of some of the other goals that you had for the College of Engineering--

VonTersch: [unclear] want to do, and I think we've done it. Of course, you always want more and do better. I think we changed the graduate programs fairly drastically. They got to the point where they were reasonably effective. If you look at the total of contract research dollars which [unclear] for everything, that came into the college. I don't know, they must have increased by a factor of 20 or something, at least.

Charnley: Were these private contracts of federal government, or a combination?

VonTersch: Both. The feds provided a lot. National Science Foundation, as I said, we had a good in-road and a good reputation with National Science Foundation, just like Henry, of doing what we said we were going to do.

Charnley: Were there any areas of research that the university excelled in or that developed?

VonTersch: We had some good research going that they supported in the electromagnetics area. As the Computer Science Department came along, they started to get some good research support. I've lost track of what's happening now. I'm not that up to date, but I suspect that's continued. I think we set a good foundation for both of them.

Charnley: How did the research in composite materials develop?

VonTersch: We hired at one point a gentleman by the name of Larry Durzoll [phonetic], who had been quite involved with composite materials at Wright-Patterson. He'd made quite a name for himself at Wright-Patterson and wanted to come back to an educational institution. That fit together pretty well.

Charnley: That's when he was in the Air Force?

VonTersch: He started out as an officer in the Air Force, but I think most of his work down at Wright-Patterson was done as a civilian. I'm not sure. I think so.

Charnley: Then he brought with him that interest.

VonTersch: He brought that interest, and not only interest, capability, both the technical capability and the ability to get some funding for it.

About that time, we were agitating for more space somewhere along the line, and we built these little round things way out on the south side. You know what I'm talking about?

VonTersch: Out by Hagedorn [phonetic], is it?

VonTersch: Yes. Back of the medical school, south of the medical school. I don't know if we still are using those or not. We had a real problem with space there for a while. I bought a building out there once on Mount Hope. I think we still own it. We bought a building out there because we had contract funding and we didn't have anyplace to put the work. Primarily ram-rodded by a gentleman the name of Falco [phonetic]. I don't know if he's still out there or not. I think the university still owns that. But we built all those--I shouldn't say "all those"--a couple of pieces of them south of the medical school complex.

That wasn't the best arrangement. It split people from the Engineering Building. They had lab space out there and they liked the space, and if it had been next to the Engineering Building it would have been superb. But they didn't like it down there.

Charnley: Because it's too remote.

VonTersch: Too remote. Students couldn't get down there. The facilities turned out to be pretty good, but I'd have to say it didn't work out well. I just didn't realize what the significance of splitting the--

Charnley: The physical separation.

VonTersch: The physical separation, yes.

Charnley: Had an impact on the curriculum.

VonTersch: It did, it had a big impact.

Charnley: Some of those things you don't often think about or make that connection.

VonTersch: As I say, I don't know if we still are using that space down there or not. Of course, around this time we were carrying out all kinds of negotiation with various state agencies again on a new addition to the Engineering Building, which eventually we got.

Charnley: Were you involved in that design or in fundraising?

VonTersch: Yes. That was nearly all state funds.

Charnley: State funds?

VonTersch: The last addition of the Engineering Building, which made a pretty good-sized building out there now. I worked with the architect. Whatever good or bad about that, it's my problem. But I understand, in talking to people there, that they like it.

Charnley: What international areas of international students was the College of Engineering involved in? Any areas in particular?

VonTersch: There was an interesting question involved here. I'm not sure what's today. I can

only tell you what was then. You tell me how many Indian students of Chinese students you want, and I can get them. It creates a problem. Some of them are pretty good students.

I'll give you an example of something. This isn't quite the foreign students. We had an alumna meeting in our building once, and a group of our alums went around our building and they looked at classes, and they looked in a classroom and they thought there was an awful lot of foreign students in this classroom. It was back in an era in which we were restricting enrollments. They wrote a letter to President Wharton and wanted to know why I was restricting enrollments and taking on foreign students at the same time. I don't know what Wharton answered, but he sent me a copy of the letter.

Well, he gave us enough information that I could identify the class, and I went back and looked at that, and they may have been non-Caucasians, but the great majority of them were good solid--

Charnley: American citizens.

VonTersch: American and Michigan citizens.

Charnley: That's interesting.

VonTersch: Wharton thought that was quite funny. I didn't think it was so funny, but he thought it was. Foreign graduate students are a big problem. University of Michigan's had more problems--has as many problems as anybody. The old joke is, if you want to learn to speak Urdu or Chinese, go to graduate school at Michigan in engineering. But that's not entirely fair.

Charnley: Were there contacts, professional academic contacts, at the other Big Ten schools that the College of Engineering had that were quite strong?

VonTersch: For example, the Big Ten deans of engineering always met periodically.

Charnley: How often did they meet? Annually?

VonTersch: Much more often than that. At least three or four times a year. And shared all sorts of information. There are a number of engineering schools in Michigan, too, and we met periodically.

Charnley: F____ Tech, Lawrence Tech, some of the others?

VonTersch: Right. And Western, eventually. I think the Big Ten deans met at least three or four times a year. I don't remember for sure. Something like that.

Charnley: Were there efforts to work on similar programs or research?

VonTersch: More than anything else, we shared problems and what we might be able to do about them. Some people had some shrewd ideas. Of course, at the same time they were all competitive, but I always thought I learned a lot more than I gave away.

Charnley: Kept your cards close to the vest.

How about in the organization of the university and the institution, I know the provost is an important role. Some of the provosts that you worked with, how supportive were they of the School of Engineering?

VonTersch: Within the realm of money always being tight, I worked with Winder, I worked

with Jake Nevell.

Charnley: John Cantlon?

VonTersch: John Cantlon. John Cantlon probably in one sense was a little bit more sympathetic. I don't mean that in a derogatory--a little bit more sympathetic. John Cantlon had a technical education, in a sense, that the others did not have, and had somewhat of a greater appreciation for some of those things.

Charnley: How about David Scott?

VonTersch: David Scott, of course, had a total technical education, in a sense, knew a great deal about it.

On the computer operation I worked with Paul Miller. You'll be interested in a little anecdote here. Paul Miller, I don't know whether his title was provost or academic vice president. He was there when we got the money from both NSF and Hannah the first time, which he agreed with, of course. Then he left and went to West Virginia. Shortly after he got to West Virginia, there was some activity at West Virginia to raise some money for a big computer operation, and one of their people called me. He said, "What kind of response am I going to get from Paul Miller when we put the heat on him for a lot of money?"

I said, "My experience has been it's going to work out all right."

It turns out they did put the heat on him for a lot of money, and he said, "Well, that's the way these things are." So we had him all softened up.

I'm trying to think who the first academic vice president was that we worked with on the computer thing.

Charnley: Do you think it was Paul Miller?

VonTersch: No, the first one wasn't Paul Miller. We worked with Erickson [phonetic] at one point. But before that. Tom Hamilton. Tom Hamilton created the University College. He left Michigan State and went to presidency of University of Hawaii. Then he left the presidency of University of Hawaii to become the head of the Bishop Trust. You know what the Bishop Trust is?

Charnley: No.

VonTersch: They own most of the land in Hawaii. Tom Hamilton. I went down with Tom Hamilton one day to the first meeting with Matilda--and what was her husband's name? Matilda Wilson.

Charnley: Matilda Dodge Wilson?

VonTersch: Yes. On what turned out to eventually be the gift to the university that turned into first MSUO, and then to Oakland University, but it was MSUO first. Are you aware of that?

Charnley: Yes. Was she at Meadowbrook?

VonTersch: Yes, we went down to Meadowbrook. I can't think of her husband's name.

Charnley: Horace Dodge, was it?

VonTersch: That was her first husband. No, it wasn't Horace. It was John.

Charnley: Maybe Horace was an earlier one.

VonTersch: No, Horace was John's brother. They built the Dodge Brothers Company. I don't remember her second husband, but I remember going down with Tom Hamilton to talk with them about what eventually turned into that gift.

Charnley: How else were you involved when you were dean in fundraising? Were there problems in terms of lack of an endowment that the university had that you encountered?

VonTersch: Michigan State doesn't have an endowment in the sense that a lot of big institutions have. You know, John Hannah at one time, or for a long period of time, had the position that a lot of people thought as incorrect, that you shouldn't raise money from the private thing; their money came from the state, so on and so forth. Well, he eventually came around a little bit.

Charnley: He stuck with the land-grant concept.

VonTersch: He did. He very clearly, early in his tenure, had that position.

Charnley: As time progressed, when you were dean, were there any problems area or areas that didn't develop or faculty that left in terms of programs, went to other universities? Was that ever a problem?

VonTersch: We had some people leave and there was some turnover. I don't ever remember offhand here of losing a person that I thought was fundamental to the operation. Maybe we did; I don't think so. But we had not a lot of turnover, but we lost people and we gained people from

other institutions.

Charnley: How long were you dean at the College of Engineering?

VonTersch: Twenty-one years. Can you believe that?

Charnley: When did you retire, ultimately?

VonTersch: I think it was 1989.

Charnley: Were you involved in community involvement after your retirement? Were you involved in any special projects for the university?

VonTersch: No, not for the university. I worked for an organization in Chicago for a number of years that was involved in essentially doing educational courses for engineers, called the National Electronics Conference. Eventually I got tired of flying to Chicago and gave that up.

Charnley: In looking back at some of your own scholarship and research and that sort of thing, either in writing or publishing, was there any area that you developed, that you considered to be important?

VonTersch: After I'd been here a couple of three years, my own research, which had been in the computer-related electromagnetics area, kind of disappeared, because I simply couldn't do it and give the response to what I thought my administrative responsibilities were. That didn't turn out very well as time went on. It's a rare individual that turns out well.

Charnley: What would you say, in looking at how computers have changed, did you see any of the things that we have today coming thirty, forty years ago?

VonTersch: Well, it's been a smooth progression, pretty much. The biggest single change, of course, biggest single change was the transition from the vacuum tube to solid state devices. Our original machine was a vacuum tube machine.

Charnley: Like the ENIAC.

VonTersch: But the transition from vacuum tube machines to solid state devices meant, for one thing, that what you built was going to be infinitesimally smaller, and then that meant at the same time that not only were they going to be smaller, but you could have a lot more of them, and having a lot more of them meant that you could do tremendous capabilities in small volumes again.

I think we may be approaching the point very rapidly where we're not going to miniaturize things very much more because we're down to the atom size now, and there's some fundamental rules here.

Charnley: Computers can't be smaller than an atom.

VonTersch: But the big change there was from vacuum tube devices to solid state devices.

Charnley: How would you assess the school today?

VonTersch: I have to beg off, because I don't go over there very much. A young lady over there calls me if I get any mail she thinks I ought to look at, and I simply don't go over there. That's by

design.

Charnley: I understand. In your recent retirement, have there been any contacts with the university that you've been involved in? Sports?

VonTersch: I go to all the basketball games.

Charnley: You like the basketball.

VonTersch: And I hold football tickets, but I usually give them to my son.

Charnley: In looking back at your career, is there anything that maybe you think is important you want to say for the record, reflecting on your experience? You obviously had two main schools, Iowa State and Michigan State. Did you anticipate when you came to Michigan State that you'd be here almost all your career?

VonTersch: Obviously I never thought about it. Michigan State's been very good to me. I have no regrets in that sense at all.

Charnley: I want to thank you, on behalf of the project, for your insights and the time that we've spent.

VonTersch: Think we got what you wanted?

Charnley: Absolutely.

VonTersch: All right.

Charnley: Thank you.

[End of interview]

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