Q. Interview with Donald D. Glower. He is the former Dean of the College of Engineering and was Vice President for University Communications and Development at The Ohio State University. My name is Bernard Bayer. The interview is being done with Dr. Glower who is in Florida and today’s date is October 2, 2001 and the interview will start at approximately 3:00 p.m. And I am in the conference room at University Archives using their equipment for the interview. And as I said, I’m curious how you ended up from Shelby, Ohio and it sounded like from your resume that your wife sent me that you were mainly in agriculture when you were growing up, both on the farm and elsewhere.

A. I graduated from high school when I was 16 years old. This was in the spring of 1943. At that time, the war in Europe was just reaching its maximum. It was getting much, much more intense. All my colleagues were being drafted because they had turned 18, but I had a year before I had to do anything with regard to the war. In that period of time a number of my classmates came back. Some had been wounded. Several of them were killed. They didn’t come back, of course. But those who did come back hated the combat infantry. The war effort needed infantry soldiers and at that time in history almost all who were drafted went into the infantry. It was bad news. Consequently I had time to look at the U.S. Merchant Marine Academy which was just new. They advertised in Ohio. I got a flyer from somewhere that they had a competitive exam in Cleveland to select, I think, seven people from the State of Ohio. I went to Cleveland, took the exam. It was an all day exam and I was fortunate enough to be selected. So I went to Midshipman school prior to my 18th birthday. That was a program very much like Annapolis, only this was to train officers for the Merchant Marine where Annapolis is to train them for the Navy. However, upon graduation from the Merchant Marine Academy at Kings Point I got a BS degree in marine engineering and was commissioned an Ensign in the U.S. Navy Reserve. About half my class went active duty in the Navy. I decided not to do that. Instead, I worked as an engineering officer on merchant ships starting when I graduated in December of ’46. I served as an officer on merchant ships where I made pretty good money and saved it so I could go back to college. At Kings Point it became very clear that I wanted to go on in college somewhere. That was a much, much different perspective than I had when I as sitting there on the farm. My father was very unhappy when I went to the Merchant Marine Academy. He wanted me to stay home and take over the farm. I had a deferment from the draft by that time and so I would not have been drafted. But I decided it looked like an exciting world out there and I just wanted to be a part of it. So that’s why I left Shelby, Ohio and went to the Merchant Marine Academy. But after graduating from the Academy, my aspirations were entirely different from before.
Q. And you went to Antioch College before you went into engineering.

A. Yes, but the reason I went to Antioch is that when I was at Kings Point, my one roommate had completed two years of mechanical engineering at the University of Michigan. I had another roommate who had two years of mechanical engineering at the University of Washington in Seattle. We became good friends on the way through Kings Point. Both of them told me about Antioch College in Ohio, right near my home. It was a wonderful school. They really sold me on it and so that’s why I went to Antioch. At that time Antioch had a very good national reputation. It was compared with Reed, Carlton, Oberlin and Swarthmore. My second choice was Swarthmore, but I decided on Antioch because my colleagues told me it was the right place to go.

Q. And then how did you get to go to Iowa State for your graduate program?

A. Well, graduating from Antioch with a liberal arts degree on top of my marine engineering degree from Kings Point, I took a job at Battelle in mechanical engineering. Keep in mind I had sailed on merchant ships as an engineering officer for three years at sea and found that sailing wasn’t anything I wanted to do for a lifetime. But it also meant that I had three years working with machines and so forth. I learned at Battelle and I stayed there, I guess, a little over a year. Whenever the nice, interesting projects came in, someone with an advanced degree got it and I was their gopher. It became clear to me that I needed to get an advanced degree. I remember talking to my boss at Battelle and I told him, “Look, I’m going back to college to get a graduate degree.” He was just very delighted and enthusiastic about it. He told me how important it was to keep learning and so forth. So that’s why I went back to graduate school. The reason I went to Iowa State is that I had applied to a number of schools and Iowa State gave me a very nice assistantship. This allowed me to go to school and get a Master’s degree simultaneous to being an instructor making enough money to stay alive as I had a wife and baby at that time.

Q. When did you meet Betty?

A. I met her at Antioch College.

Q. Oh, very nice. And so you went to Iowa State and you got your two degrees and then you went industry and then back to academia at that point?

A. Yes. Well, at Iowa State I taught all the time I was there except for 15 months when we were supported by a NSF fellowship. I was there from ’54 to ’60 while I was working on my Masters and Doctorate. Now, I intended to get a Masters and then leave to go back into industry, but things were going pretty well for me there and we enjoyed the life on campus. I had the momentum going and so I just
stayed on and got a Ph.D. while I was there. Then I went to Sandia Laboratory, part of the Bell Laboratories, in Albuquerque, New Mexico.

Q. Right, Right.

A. I stayed there about four years. At that time Sandia was a farm team so to speak for Murray Hill, which is the Mecca of the Bell Lab system. They have a real hierarchy. There’s Murray Hill, then you go down to Whippany and the down to the Columbus Bell Laboratories which is at about the fourth level down. Sandia was sort of a parallel to the Whippany Lab. Sandia was the research laboratory for the Atomic Energy Commission. We focused on research with a group of probably 80 Ph.Ds there and we were doing focused research on topics that were important for the weapons program. So we had a lot of money to spend at Sandia, essentially an unlimited budget. That was really a fun time. I probably spent a great deal of money down there. My boss, who was on leave from the Bell Lab’s Whippany group, told me I had an 18-month bank account. I had to be publishing by the end of that time or I was out the door. But, you see a young Ph.D. could not have found a better situation.

Q. Is that when you published material on piezoelectric devices and radiation?

A. Right. My responsibility was piezoelectric crystals because those crystals had a very important role in the overall weapons program. I looked at the impact of radiation on them and on semiconductors and how radiation might change their utilization in various electric circuits. During my time down there, I published quite a bit. I got to be somewhat known at Murray Hill and other places. The Air Force put General Motors in touch with me. General Motors had the AC Electronics Division. GM had a very large military contract to redesign the electronics in the guidance system for the Titan Missile Program. That was something I knew pretty well by that time. I had decided, though, that I would leave Sandia and go to Ohio State to start their nuclear engineering program. I had talked to Ohio State and we had pretty well worked out an agreement that I would come there in the autumn of ’64. GM then convinced me that I should leave Sandia early and come up to Wisconsin to help them get their program organized. They said if I came up there, I would never leave.

Q. You left.

A. I left. I took about a 50% pay cut when I left to go to Ohio State. But a lot of questions came up. “Why did you go back to a university?” I was having a lot of fun up at General Motors. I liked it a lot. But I had four young kids, four little children, and there’s an entirely different environment on a university campus than there is out in private industry, at least that was my perspective. Others may not agree with that.
Q. I agree with it. I also came out of industry and worked for GM Research Labs in Warren, Michigan at one time, and General Electric. I also had four kids and the environment on campus I always felt was a better place to be. I agree with you.

A. When you work in industry, you go home and there’s generally no carry-over between home and work. I had a lot of colleagues whose kids were older than mine and their children just didn’t go to college. The kids had all kinds of problems. I remembered Iowa State and when I came to Ohio State I found it was much the same. My kids were out in my office on weekends and they never even thought they wouldn’t be going to college. They all knew they were going to college. I thought my family was the most important thing.

Q. That’s good. You’re being commended for doing it. And it worked out terrifically for you.

A. Indeed. My oldest son is a thoracic surgeon at Duke University. He got his BS in electrical engineering at Ohio State. He went to Johns Hopkins for medical school and did his residency at Duke University and stayed on. The next one got a BS in Business at OSU, a MBA at Ohio State and a Ph.D. in finance and real estate from OSU. That was a girl. The next girl got a Bachelors and Masters in mechanical engineering at Ohio State and worked quite a few years before becoming a full time Mom. The youngest one got his BS, MS, and Ph.D. in electrical engineering all at Ohio State. He’s doing just fine teaching electrical engineering at the university level after having first spent time in research in industry.

Q. How many grandchildren do you have?

A. I have ten.

Q. That’s pretty good. You’re doing extremely well in all fields.

A. Well, they’re wonderful, also.

Q. You came as a professor in mechanical and nuclear engineering. And also chair of the Nuclear Engineering Committee and what was that?

A. Well, at that time nuclear energy was just being gathered up for private industry commercial uses, moving out of the weapons programs. I had a pretty good background in mechanical engineering and I had a good background in the sciences. I had gone to graduate school at Iowa State, which had the Ames Laboratory, one of the major atomic energy laboratories where the uranium and the nuclear materials were processed for the weapons programs. When I started work on my Ph.D. in nuclear engineering we held the hope of essentially free energy. Just like you have free air to breathe, free water to drink, we would have free energy. We had a program that was called the Fast Breeder Nuclear Reactor
Program where you generated more fuel than you burned while generating electric power. I remember being at talks in Chicago and in San Francisco where they were predicting zero cost to the consumer for energy. Well, it didn’t work out that way, but that was the expectation when I went into nuclear engineering.

Q. I see. And you continued to do research, but you ended up in ’68, four years later, as chair of the department. I assume that helped scuttle some research and turned you into a major administrator on campus.

A. It’s interesting that when I came back to campus a day in the life of a faculty member would be to teach classes and advise students while research was not a very big component. We did have masters and doctor’s students, but they were very few. At that time in history when I came back, the graduate programs at all the major universities were expanding very rapidly. I came back with a pretty good background in research. I was very comfortable. I knew what it was all about. I built a pretty good research program in the Mechanical Engineering Department. I was doing about $300,000 a year in research back in 1968. I had something like 20 graduate students.

Q. You could have started your own department by yourself.

A. Oh no, I couldn’t do that myself. We did hire some additional young faculty. We developed leaders, team leaders, and Ph.D. students. We got them teaching masters level students and so on. It worked out really well.

Q. What was the secret of your success? That’s an appreciable amount of money at any time, but certainly in ’68.

A. It certainly was a busy time.

Q. You must have written some very good proposals and they were accepted. What was the secret of your success?

A. Well, actually an interesting thing on that. Once of the secrets of my success was Ohio State. I remember one time being in Washington, D.C. I kept all my government clearances when I came to Ohio State. I was at the Pentagon making a presentation on a proposal for funding and we had Marine guards on each side of the doorway with their rifles, a “secured” conference room and all that stuff. I go into the meeting and I’m trying to sell my proposal. We have a little break for coffee and during the break I find that the chairman of the committee, who was a very well decorated Bird Colonel, lots of ribbons, told me he got his Bachelors degree at Ohio State and his Masters in the OSU Wright Field Program. Then I found two others sitting around the table were also Ohio State graduates. So it seemed every place I went I found Ohio State engineering graduates and they were very friendly and supportive. They helped me an awful lot with building a research program.
Q. So then you became Chair and did you start writing more proposals? It seems like you were very good at bringing in outside money when you were a department chair, a Dean of the College, and certainly as Vice President. It was more than dealing with State graduates. You must have a few more secrets of your success than that.

A. Well, I had pretty good training with the Bell Labs. They were, and I suppose are still, the varsity in the USA so far as fundamental research is concerned. But Ohio State really played a very key role. In mechanical engineering, I didn’t seek the chair. And in fact I was pretty surprised when the Dean, Hal Bolz, came over and told me that the faculty wanted me to take it. We talked a while and I said, “Okay. I’ll do it if they want me to.” Well, I didn’t realize exactly what I was getting into. I had to drop a lot of my consulting. I lost a lot of money by taking the Chair, actually, because I no longer had time to do the consulting. Primarily I helped hire faculty who could do research and talked to my faculty colleagues who hadn’t done research to help them get started doing research. We had really good faculty. They were a wonderful group to work with. Together we built quite a good research program in the Mechanical Engineering Department.

Q. And when you stepped up to be Dean of the College, I assume it was based on your appreciable success at bringing in money, motivating your faculty to do research and I assume you expanded the Department along the way. You must have had more people at the end than when you came in at the beginning.

A. Yes, I think what made me attractive to the faculty to become Dean was what happened in mechanical engineering. When I became Chairman in ’68, this was during the Vietnam War. Most students were not interested in technical areas. Engineering enrollments were dropping pretty fast and high school kids were not interested in physics, math or chemistry. I just decided that we really had to go out and vigorously recruit students. So I put together an industrial advisory committee of captains of industry who were mechanical engineering graduates. We decided that we would have a big recruiting program. I put together a letter to the alumni telling them that I needed to recruit National Merit Scholars in mechanical engineering. There were actually three phases of the recruiting program: 1) recruit National Merit Scholars; 2) I wanted to get top women to come into mechanical engineering; and 3) I wanted to get good Black students coming out of high schools and into mechanical engineering. My wife suggested sending a letter to each of our alumnae and including a tea bag with the letter. She said, “We’ll put a tea bag in and invite them to a Stay-at-Home Tea.” Boil some hot water, make a cup of tea, and sit down to enjoy the tea and write out a check so that we can have some money for scholarships for these three areas. My gosh! It worked. We had a very good response to that. With those monies, I recruited. We were getting eight to ten National Merit Scholars a year into mechanical engineering. We got a couple of them that were females, but we were also getting eight or so other good women into
the program. The program hadn’t had any women since about the 1890’s. We were also getting about a dozen good Black students. Some of the Black students were females. This worked out pretty well. I had trouble, however, with my Black-engineering program. I had a terrible time keeping them. At that time I had a secretary named Martha Stinic. She had taught in the Black high schools in Cleveland and had come down to get an advanced degree from the College of Education to help her in her career in teaching. She came into my office and said, “Dr. Glower, you’re doing everything wrong with these Black students.” And so she explained to me what all I was doing that was wrong. I told her, “Okay, Martha, now you’re in charge of my Black-engineering program and I want you to sit down with each of these students, get them in, get them with a faculty member, go over their schedules, and so forth.” Well, to make a long story short, she really understood them. She got them to class on time, got them into the right classes. One of the things I had done wrong was to put them into the History of Art because most of us all thought that was an easy A class. The Black kids were going in and flunking it. It was killing them. That was something Martha understood, but I would never have guessed. Martha explained to me why they should not be in that class. But, anyhow, while all the rest of the engineering programs were shrinking, our mechanical engineering enrollments were going up.

Q. That helped…I assume they recruited you to be Dean. You didn’t seek it.

A. No, I did not seek it. I was nominated and I didn’t withdraw.

Q. I see. Before we get to that part, your wife did send me something that I should ask you about. The solar house at the Ohio State Fair. And I gather it was something that you, not only were involved with, but also were probably the instigator for it?

A. Right. I had a lot of background in piezoelectric materials and this type of material provided potentially a very good portable source of energy. We were looking at alternate energy sources, wind energy, and so forth. We decided that mechanical engineering had a lot of the heating and cooling as part of their curriculum. I had a colleague over there, a professor named Chuck Sepsy, who was a National Leader in home heating and cooling. We talked and he pointed out how we could cool with solar energy. We decided to build the house. I didn’t design it, but Sepsy did along with Gordon Clark from the School of Architecture. We got Homewood Corporation to take it over and build it out at the State Fairgrounds. Everything was furnished without cost to the University other than the faculty time on the project. We were there at the Ohio Fairgrounds for about three years or so and we were one of the most popular exhibits at the State Fair. The solar house being such a prominent feature at the fair also helped in making the public aware of mechanical engineering at Ohio State.

Q. Very good. Why did they stop it? I didn’t see it the last time I went to the fair.
A. Yeah. They quit. We were using an air conditioning system that used a very corrosive liquid that would be heated and turned into a vapor and back and forth. It worked very well, but it had very high maintenance. The people out at the fair grounds really didn’t take care of it. We turned the house over to the Director of the Ohio State Fair who used it as his residence. He was busy doing other things and he didn’t pay much attention to the house. Eventually we decided we just didn’t have the resources to continually go out and make the thing function. Besides, we had all the data that we needed out of it. We had proved the concept.

Q. I see. I see. When you became Dean, it sounds like, judging from your resume and the things I’ve read, that you just went on a bigger canvas. Instead of concentrating on mechanical engineering, you expanded to all of engineering and you seemed to have established all these relationships with industry and all these new centers and just expanded.

A. Well, I think that’s true. I guess that when I accepted the Dean’s job I got questions from all the other departments wondering whether I was going to be biased towards mechanical. I must have convinced them that wouldn’t be the case. But the thing that happened when I was in mechanical engineering in the 1968-1969 time frame, engineering was changing. Not completely changing I suppose, but it was more a revolution than evolution. The computers got so much more powerful and the interactive computer graphics just came in about ’67-’68 – ’69. When I put together an Industrial Advisory Committee in mechanical engineering, one of my purposes was to try to get my faculty up to date with what was going on in industry and government. These outside people came in and explained what they were doing in the private sector with computers while we at the University were still using the old batch type mode computer. We were just way behind. On my Industrial Advisory Committee I had a person named Frank Daly who was the Director of the Research Laboratory at General Motors in Michigan. He told me we needed to modernize our labs. Well, we went to work on mechanical engineering and we built what we called an Advanced Design Methods Laboratory. Frank helped us get interactive computer graphics in there. Just as we were getting that set up in mechanical, I became Dean. I explained to the other engineering departments that we had to do the same in each of them. Well, we didn’t have the money to do that. Our equipment budget was almost zero in the College of Engineering. So I argued with Harold Enarson who was President of OSU, and I mean argued. We did argue, but Enarson was a very personable President. He hated to see me go out on a fund raising campaign. Ohio State had really never had a fundraising campaign. I wanted to go out for a $20 million campaign to modernize our engineering laboratories. The debate got extremely exciting and I finally told President Enarson, “Look, either give me money so I can modernize the labs or let me help myself. Let me go out and raise the money.” He finally agreed and said, “Okay, you can go out for $15 million, but you can’t advertise. You can’t have any publicity, etc., etc.” He had brought in an outside consultant from Chicago to evaluate me and what I was proposing. They said they thought I could perhaps raise $5 million. Well, Enarson said,
“You can go out for $15 but no more.” We did go out and the reason we raised money was that I didn’t really raise the money personally. It was the alumni that did. We had an alumnus named Stan Harrison who was Chairman of my Advisory Committee in the College of Engineering and he headed the campaign. And I had Jack Lemon from Cincinnati helping with ideas and contacts. I had a lot of “tigers” from the private sectors and they would open the doors. They taught me how to raise money. You need someone at the bottom and you need someone at the top. You must get your proposal going into the corporation from the bottom and then you need someone from the top that will approve it. So we learned the technique. Anyhow, we raised over $17 million.

Q. I think you were a good student.

A. We modernized our labs. It was a struggle. I gave every faculty member a personal computer for his office. I had a Chairman who said, “Don’t give me one. I don’t want it in my office, I won’t use it.” I said, “Well, put it in your office. You can sit and look at it.” I learned that the faculty was concerned because the students were coming along fast in their computer skills and if you have a bullpen with a bunch of computers, the faculty members won’t go in there because they don’t want to be embarrassed by the students knowing much more than they know. You had to give the faculty their own personal computers for their offices and a good graduate student to help each of them and not embarrass them. Anyhow, it was several years, but the Chairmen got involved in it.

Q. It sounds like you were the right person at the right time in the right position. It took off. Well that brings up, it sounds like you not only worked hard but you enjoyed what you were doing.

A. We did.

Q. I talked to one of your former faculty members. They mentioned that even going into your office you had sort of like a wooly chair that was…

A. I had a sheep. Yes.

Q. And that helped make it seem like a friendly environment where you could relax and talk. I assume you did that on purpose.

A. I had a policy that any faculty member could come in to bitch at me or scream or whatever they wanted to do. If they had a problem, they should talk it over with their own faculty, but if that didn’t satisfy them come in and talk to me. I had a lot of faculty come in to see me. I had a good secretary. She would tell me that so and so was out here and you had better talk to him/her. But you see, I asked each department or academic group to establish an Industrial Advisory Committee. Each academic program put together a ten-year plan and a more detailed three-year plan to look into the future to see where they were going.
What areas of their particular curriculum would be gaining in strength? Which ones would be growing? Which ones would be shrinking? Which ones were going out of style? Out of popularity, and so forth. Each department had an Advisory Committee comprised of department heads from industry to help them on these projections while I also had one in the college office. The committee for the college had primarily the Vice Presidents and Presidents from industry.

Q. Under your leadership, I read the list. It’s impressive how you helped save the Transportation Research Center, began the Edison Welding Center, and other Centers. Was that part of a plan or just kind of evolved as you started raising money and realized that it was needed.

A. Well, I had worked with the Ohio Public Utility Commission and got to know the people and the problems they had. I also got to know Governor Jim Rhodes pretty well. Rhodes had me down on a number of projects. He would call me up and say, “Dean, get down here.” And I knew that meant get down there. So I got to know him pretty well. But anyhow, that got me a good bit of business out of the Ohio Public Utility Commission. Are you familiar with that?

Q. Yes. It was on your resume spotlighted at the beginning and also it’s still in existence and still doing very well.

A. Yes, it’s doing fine. We have almost all the states now contributing to the National Regulatory Research Institute. But the NRRI got me in touch with Rhodes a good bit and with Dick Celeste. Another center, the Transportation Research Center, started with a concept that came out of Civil Engineering in the College of Engineering. A professor named Hans Schwar, proposed this research center. The Dean at that time, Hal Bolz, made a presentation in the Statehouse and Jim Rhodes was there. Rhodes saw; Rhodes had a keen mind for envisioning what might be. He saw the possibilities for the State of Ohio. So he picked up on the idea and ran with it. Rhodes got $32.5 million from the Ohio Legislature to buy the land and so forth. The engineering experiment station director, Robert Tait, at Ohio State bought essentially all of the land. We put it together and the Dean was the Director and that’s how it got started. But what went wrong was that the Dean named a Director for the Transportation Center, but he didn’t clear it with Jim Rhodes. He named an old time Republican as the Director, an OSU civil engineering graduate. But this grad and Rhodes apparently had a disagreement over something. Anyhow, Rhodes got angry and took the Center away from OSU and set up a political committee to run the Center. And run it they did, right into the ground. But along the way I became Dean and got on the Board of the Transportation Research Center. I kept talking to Jim Rhodes about it, telling him it’s bankrupt; it’s got to be a white elephant; it’s going to embarrass you. He finally said, “Okay, Dean, you can have it.” And he turned it over to me to operate out of the College of Engineering.
Q. I don’t want to phrase it too strongly, but you must have been pretty good in politics yourself not to get the President of the University angry that you were making all these good contacts with the Governor and raising money and how did you handle the President. Who was President at that time: Jennings or…

A. Well, it started with Harold Enarson. I knew President Novice Fawcett, but when I got involved it was Harold Enarson. I knew Harold Enarson very well. I kept him very closely informed and after him, it was Ed Jennings. I knew Jennings very well and I was very careful not to get out of line on these things. The Transportation Center was an engineering thing. It didn’t have anything to do with anyone else. And we didn’t really have any problems.

Q. Good, good. And, by the way, I did note that congratulations on having an endowed chair in your name.

A. Wonderful.

Q. And I notice that most of the money came out of the Transportation Research Center. It looked like a goodly amount to make the Donald D. Glower Chair in Engineering in your old department.

A. Yes. And that was wonderful that Dean Ashley did that. The first year I took over the Transportation Center, we couldn’t meet the first payroll. I took engineering experiment station, University money, to pay the salaries out there. But by the end of the first year of operation we had made $1 million above expenses. That was above expenses, salaries and everything else and the money I had invested in the center was back in the college of engineering. We started out doing very well out there although we had a few problems as the governorship of the state shifted back and forth from Republican to Democrat to Republican again. By this time Dick Celeste was governor. Fortunately, I knew him pretty well and he had appointed me to a couple of State Boards. When he gave the TRC to Honda, I got very involved in it. I knew the Honda people pretty well. I played golf with them and worked hard at the relationship. When they decided it wouldn’t be right to just take it as a gift, they decided that they would pay for it. In paying for it, they said they would give the State of Ohio a certain number of dollars and of these, $6 million should go to the College of Engineering as an endowment. There were other details and the experiment station was to operate the TRC for Honda and to continue operating it as it had been doing. Our agreement was that if we operated it, any excess money over expenses would go to the engineering college.

Q. I see.

A. But any excesses we had above expenses would be transferred to the College of Engineering Endowment account. The TRC continues to do that.
Q. It’s still being done?

A. Still being done. And this has amounted to some significant money. But it’s best to not make a lot of noise about it.

Q. Right. Right.

A. We had an American Vice President of Honda who got involved and he thought it was too nice a situation for the College of Engineering and he tried to put a stop to it. He got himself fired.

Q. That will teach him!

A. We got right back to normal. I don’t know if you’ve ever looked at the numbers, but we had hoped when we made this agreement that we could keep this arrangement in place until we had built up a multi million-dollar endowment in the College of Engineering. I think we are doing just that.

Q. That’s impressive, very impressive. The other centers. You have a similar story on each? Why did you start the Edison Welding Center or how did you start it?

A. There was money in the Rhodes budget to fund the Thomas Alva Edison Program, which was to start new industries in the State of Ohio. I was on their board under Governor Rhodes and continued on under Governor Celeste. At Ohio State we had a welding engineering program which was a very unique academic program nationally. There were no more than six other academic welding programs in the U.S. Other countries had major welding centers, but the U.S. had none. The British have a big welding center, the Russians have, the French have, and the Germans have. But not America. The Edison Program was funded at about $35 million per year and there was an intense amount of interest on the part of American industry in establishing a center in the U.S. The chairman of welding engineering was a major researcher, Roy McCauley, and he knew the NSF people well. I challenged him to approach the NSF asking for a million-dollar grant from the NSF to establish a Welding Research Center for the U.S. at Ohio State and the Edison Program would match these NSF dollars. The Ohio Edison program did match the NSF money once the proposal had been approved. As usual, along the way, there were problems with other universities trying to grab our idea and our funding. But anyhow, we got the welding center started. It probably was because of the chairman that the got the thing going. But, then, his health failed and Carl Graff took over. Carl was just a marvelous administrator and a politically savvy person. He was able to sooth all of the welding interests across the country and he is the one who really built it. It’s a marvelous operation.

Q. It seems that way. Let me stop the tape now and reverse it, so I can get the rest of the conversation.
A. Okay.

Q. Hang on. Okay. We’re ready.

A. Another center that maybe you haven’t run across in the Net Shape Manufacturing Center.

Q. Okay. Do you want to talk a little bit about that one?

A. Yes. Let me just comment on that. Back when I was dean, I guess in the middle 80’s or whatever it was, the National Science Foundation decided that they were going to set up research centers at a number of universities. I think they were going to set up five of them or some number, small number. The centers would be located at universities and they would have private industry advisory committees, much like the ones that I had put together, and they would be working with the private sector. I had been trying to get manufacturing up and running in the industrial engineering department. They had manufacturing but mechanical also had manufacturing and there was really no good focus. I convinced the faculty that we ought to go after a center from the NSF. So we did a search of the country to find out who we could find to head it. We found a professor in Wisconsin who was probably the head guru in manufacturing. But he was about 60 to 65 years old. The next person was Taylan Altan who was over here at Battelle, just across the street. Taylan was a young Ph.D. from Germany and he was about 40 to 45 years old and he had a lot of personal energy. Anyhow, we talked to Taylan. I knew the Battelle people well. We agreed that Taylan would accept the position at Ohio State. Faculty agreed to these things, of course. You understand?

Q. Right.

A. Taylan came over as Professor with split appointments between Industrial Engineering and Mechanical Engineering. He put together a proposal and we won a National Science Foundation Center in Net Shape Manufacturing. This has been running at about $10 to $15 million a year for a long time. And it’s a very prestigious operation.

Q. The whole array of things that you’ve started or are responsible for starting all sound prestigious and they all sound like they did very well. And it’s a good idea and they’re still going. I notice that you also had these co-op programs where you would want a student to be self sufficient in financing, so they wouldn’t drop out because they didn’t have enough money.

A. Right. A lot of students go that way in engineering. In my Industrial Advisory Committee, we had a mechanical engineering graduate named Phil Bowser who was the general manager of General Motor’s Delco Marine Division in Dayton.
Phil told me we really ought to have a co-op program in Engineering. We debated and debated and we finally decided, okay, we’d start one. After the arguments were over, if you look at the pluses and minuses, the faculty was very strongly in favor of it. It provided another dimension for the students. Some of them don’t want to go that way, but some of them would like to and some of them need to. Anyhow, we did start the co-op program. A funny thing on that one is that I got almost a million dollars from the National Science Foundation to start the co-op program while others who had fledging co-op programs got no support. They called me screaming, “How’d you do that?” Well, they were all trying to get money and got none to help their young programs. I got the money but didn’t have an existing co-op program. Worked out pretty well and I think it’s still doing okay.

Q. I think so too and I know I can’t touch on everything you did when you were a Dean. What other things would you like to talk about.

A. Historically it’s probably forgotten already, but in the 1968-70 time frame, when the interactive computer graphics was really revolutionizing how engineering was practiced in private industry, getting computer aided design and manufacturing started at OSU was a real challenge and a real success story. At that time industry was charging that we were way out of date at the universities. Raising the $17 million to modernize our labs and to get all of our programs moving took a lot of forcing function. There’s a lot of resistance at a university to change, but we did get it changed. I think that had a big impact. We didn’t change the disciplines. We had Mechanical Engineering, but what we did change was how mechanical engineering was taught. And this was true in all engineering college departments. You now use a computer. You have the computer graphics. You have the triple point and water, steam and ice and all of that and you can see it in living color. You can see sound waves and all the natural phenomena that you study. Now you can see it on the computer. Anyhow, it has improved the way engineering is taught and certainly has improved the understanding and depth of understanding of the student. It would have happened eventually, but I think perhaps I got it started three, four, five, six years or so sooner than it would have happened otherwise.

Q. I went through engineering school a long time ago in 1950 and I remember the mechanical drawing thing and the things you can do on the computer now and how much time I wasted just making sure my erasures didn’t show when the two lines got together because I got marked down for it. And I thought what a time wasting thing I was doing. Instead of worrying more about the concept, I was worried more about my dexterity with a compass and a T-square. And it’s a pleasure to know I don’t have to do that anymore. You had to do the same thing when you went through engineering.
A. Yes, I did, too. I got my Bachelor’s from Antioch in ’53 and then I spent a year at Battelle, then to Iowa State and we were still teaching graphics in the same way as when you took graphics.

Q. Right. And we all had our slip stick slide rules.

A. And we were good on the slip sticks, too.

Q. Anything else about your Deanship you’d like to mention?

A. I don’t know. One question you had on here was the style of management.

Q. Right, right. I want to get to that.

A. I’d like to make a comment on that. When I was at Antioch, the President of Antioch was a person named Douglas McGregor. He came to Antioch from the business school at MIT. While at MIT he wrote a book called, “The Human Side of Management.” It was a classic. It’s still a classic. It just revolutionized management. Management style evolved along the way, but it was very slow moving in. But anyhow, I knew McGregor well at Antioch and admired him immensely. He took a course with me called Semantics. “Language in Thought and Action” was the text written by a person who became Senator from California later on, Hayakawa. My classmate, McGregor, and I talked a lot; he was an enthusiastic college president, President of the University sitting in on a class. I read his book and it really had a big influence on me. It has influenced most of our business school graduates a lot. It talks about management style in a manner directly opposite of the Kings Point style where, as an officer, you gave orders, which had to be obeyed, or else, without question. Well, here you’re trying to get a group together and find a natural leader of the group and put the natural leader in charge of them so to speak. Find the natural leader, they’ll all follow. Another influence was Desmond Morris and his books “The Naked Ape” and “Men In Groups.” That was my approach at Ohio State. In mechanical engineering I reorganized the department shaping it into three or four sections rather than one large group. First I found the faculty that had the highest respect and were envied by most of the faculty and asked them to lead their sections. I also did the same in the college later on. In this way, people got things done. So that was my style of leadership.

Q. Coming out of industry which was mainly a pyramid organization while the campus is theoretically collegial. Does that work with you or against you when you had to bring people along or is that a part of your style of management? You couldn’t say, as you said aboard ship, “You do this.” You had to have a collegial environment in which people all agreed kind of on the same goal or you could prod them. Was that part of it?
A. In private industry, I found that as a department head at General Motors I had a lot of power. But, to get things done, if you get everybody enthusiastic and pulling in the same direction, you really get things done. Whereas, if you go in and say, “Okay, gang, this is the order of the day,” you don’t get much done. I think modern management works very well in private industry, too. Those who are truly successful managers operate that way. While I was at General Motors I was in one management meeting or the other half the time. Most of the people just sent out little memos or called a meeting to say, “Okay, here’s what we are going to do.” Well, I didn’t do that. I would call a meeting and I would have everybody talk and tell me what he or she thought. We’d discuss it and I knew what the bottom line would be…hopefully before hand. During the meeting I’d get them to arrive at the same point and I would give them credit for thinking of it. Since it’s their idea, they’ll work hard to make it go. That works really well.

Q. That does sound good. Now, when you moved from Deanship to become the Vice President in 1990, how did your approach, or did your approach change again? Was this just a wider canvas from department to college to the whole University raising money?

A. Right. I was within 2½ years of retiring. President Ed Jennings had lost his development director. Ed had debated going outside looking for another development director. He asked me if I would come over and take the job until I retired to give him time to think about what he wanted to do. OSU had just finished a big campaign and was winding down. It was time to think about what direction to take next. We talked about the job. First I told him that I was happy where I was. He called me back and we talked some more. Ultimately I told him I would do it. I think it was an excellent move. But it was a frustrating move because we had an organization that knew I was only going to be there a little over two years. It’s very tough to go in and do a lot of reorganization and fire people and so forth. I had a number two person who was very capable, but he was very sore that he didn’t get the vice-presidency himself. That was a bit of a problem, but we raised more money in those years than we had before.

Q. In retrospect, are you glad that you took that position? It sounded like your final position was less rewarding perhaps that your ones prior to that.

A. I think I had a good influence on development. We had people over there that were unaccustomed to working. I think I rallied them around and built a little greater enthusiasm for the job in them. My predecessor had put a good organization together and he had some really good people. He also had some that were in the wrong place and needed to be reassigned. But it was difficult for me to come in and clean house, so to speak, in that short period of time. I talked with President Gordon Gee many times about that. Gordon wanted to get his own VP in there. I told him I would resign any time. There was no problem there, but he wanted me to stay until I retired. When I retired, then he would reorganize. So we just kept the ship going forward. I had a lot more contact with the private
sector than my predecessors as VP of Development had. Consequently I was able to rally industry around the cause. I started the OSU Foundation with Ed Jennings and put a lot of those private enterprise people on the Foundation Board. I was delighted to see that one OSU law school graduate that I had talked into being on the Foundation Board recently gave $30 million to the law school.

Q. Not bad. You’ve worked with four presidents from Fawcett to Gordon Gee. Without asking inside dope or anything, not how would you rank them, but which are the ones that you were most compatible with and which were the ones you really had to work at to get what you wanted through them?

A. I had to work harder probably with Harold Enarson to get things through him. Harold was a verbally oriented individual. He could talk for an hour, two hours, ten hours, however long you wanted him to talk and he’d sound like million bucks. However, I believe he was a Socialist with a Board of Trustees who was all Capitalists. The two just don’t mix. Harold was not comfortable around the captains of industry. He was very uncomfortable. He didn’t seek them out. He couldn’t relax with them. So he had a continuing problem as he stayed for nine years.

Q. Well, that is a problem that you did not have. You seem to have gotten along very well with all of them.

A. Yes, I knew his trustees. They would confide in me over lunch what was going on and what was going to happen. But anyhow, I think Harold did a nice job given his capabilities. Ed Jennings was a person that the faculty liked. He was the champion of the faculty. He felt he, himself, was a faculty member. He tried to do what the faculty would respect. I think he was a great president. Now, Fawcett, I think, was afraid of the faculty. He did many wonderful things and was in charge of a university when the enrollment was increasing by leaps and bounds. The budget was increasing every year and the only thing he did wrong was he kept getting into trouble with the faculty. But I think he was a good and capable person steering the ship.

Q. Well may have been. The other three that you dealt with had been former presidents of other universities. Dr. Fawcett came out of the Columbus Public Schools where he was Superintendent.

A. Right.

Q. Do you think that was part of it?

A. Oh yes. You see the faculty never forgave the Governor for that. Fawcett just didn’t feel comfortable. But he was a very good individual. He was very astute politically. He worked well with the legislature, the governor and he was very highly regarded by those people.
Q. And he was President and you were on campus during the troubles in the 1970’s, if I remember right. The campus was under, as a result of the protests against the war in Vietnam, it was a kind of closed campus and there were confrontations.

A. Fawcett was more like a military general, and not very soft. He brought a person named Robinson in as Provost and Robinson was a very capable people person. But the turmoil almost broke him. I remember riding up the elevator over in Bricker one time and there was Robinson, a fairly young man, wearing dark glasses and walking with a cane. Fawcett had another person who was one of his Vice-Presidents who was a very intolerant person, who didn’t help. He was a throw them out, bang them on the head sort of guy. That didn’t help. Essentially that’s how Harold Enarson got the job. Harold was president of Cleveland State. He had a reputation up there of being a very soft person, understanding the students’ needs and a person that the students liked very much. The OSU presidential search fell apart. They had searched and come down to four people. Someone on the committee who probably wanted the job for himself leaked the four names to the press. When the four names surfaced, each of the four withdrew from the running to save embarrassment on their home fronts. The search committee got back together again and fished Harold Enarson from the pile. He took the job.

Q. I see. That’s interesting. What about the Provost. Did they interact with you much? Were you able to work around them or through them or what?

A. Oh yes, I got to know them. But I was at a pretty low level in the university initially. I was a professor, but I chaired the Nuclear Steering Committee. Still I got to know John Corbally. Corbally was a real class act. He was very intelligent and made good decisions and had good vision and he was very well liked by the faculty. After him, let’s see, I guess Robinson came in. He was there during all the problems and Robinson left to be President of Macalester up in Minnesota. When Harold Enarson came in, Harold brought in Al Coon from the College of the Humanities. Al Coon was a very likable person. We got along just fine. At least from my perspective, we got along great. After Al Coon, who was Provost next? I’ve known them all pretty well.

Q. I remember Dieter Hamicke was in there somewhere.

A. I think Dieter was one of the best. He had his German accent and he would argue about all sorts of things. In the end he would say, “This is the way it is.” But he would make good decisions.

Q. And there was an Acting Provost, a woman. I can’t remember her name anymore.

A. Francile Firebaugh.
Q. Right. Right.

A. I knew Francile very well. She was the Associate Dean of the College of Agriculture under Roy Cottman. She’d come over to the Provost’s office; I’m not sure if she was the Acting Provost or was she a Vice-Provost and then they made her Acting. The problem with Francile was she was “trained” under Roy Cottman who was the Dean of Agriculture. Roy was a giant in his field and at the University. He was a very strong Dean of Agriculture and also Vice President of the Wooster Extension operations. Roy ran everything and everybody in his college; they were all reluctant to make independent decisions. Roy had to approve everything. So when Francile came into the Provosts position and had to make decisions on her own, she had great difficulty making a quick decision on her own. As a result we academics had some major problems there with things getting bottled up.

Q. It sounds like when you were Dean of Engineering, Cottman was Dean of Agriculture, and I don’t remember who the other Deans were, you were two entrepreneurs at the University, doing whatever it took to do good stuff and do it better and to raise money. So I gather the administration let you both go your way, so to speak.

A. Right, they let us; we were kind of like ships on our own bottoms. Now we had meetings with the Provost and they knew everything we were doing. At least they knew everything I was doing. I think Roy once in a while would call in all his extension people and they’d push legislation downtown and the President would get down there and stomp on it. But I never did that. I had some legislation going through the Ohio Legislature as well as the U.S. Congress, but everything I did the President and the Provost and the Research Vice President and everybody involved knew what I was doing.

Q. Do you think that the new breed of Dean is not the same free wheeling entrepreneur so to speak and now it’s more of a consolidator trying to look at the bottom line, keep costs down, and not make so many wastes?

A. I don’t know. The problem that you have when you’re the Dean, when I was Dean, it seemed like every year we had less money. We had a budget cut almost every year. I used to say, “My gosh! The Dean before me, what did he do with all the money he had?” Every year you would get your budget cut. And you still have your classes to meet. You have all of your responsibilities and teaching load but less money. You’ve got your research and so on. So, I think the Presidents that I worked under and the Provosts understood that and welcomed any help that I would give to relieve the budget crunch, as long as I didn’t do something that was counter to their interests. But I was out getting money to equip labs and so they would often cut my equipment budget. Actually, I didn’t have much of an equipment budget to start with so it didn’t make great difference. I was bringing in a steady state $2 to $3 million a year for equipment while I was getting
$250,000 annually from the University for equipment. The University contribution wasn’t much relative to our needs.

Q. Do you think, I wouldn’t call it a punishment, why there’s Dean Glower, heck, we can cut him. He’ll raise the money. Do you think it was kind of that feeling a little bit?

A. I don’t know if there was or not, but if I were in their place I would have felt that way.

Q. Okay. Okay. That’s kind of interesting. After you did retire, it sounds like you didn’t retire completely. You were doing work for UNESCO.

A. I had started with them quite a while ago, a long time ago. I had been asked to work with them on a couple of committees. I guess I volunteered to assist them over about 15 years. After I retired, they made me Chairman of a committee and we met four times a year. This required that we spent four weeks in Paris every year. That wasn’t too hard. But the mission was to help underdeveloped countries find a means of building their economies. In building their economies, my job was to help them build a private sector, build private businesses, so that instead of going to the bank to get money, they could build a business, turn a profit and put some money into the bank. Our number one concern was Africa. All of the underdeveloped countries were on the table. We did work with Lithuania and a number of others, but Africa was the primary target. When AIDS came in, it even made it much bigger, much bigger. Even today, the United Nations makes Africa their number one priority. The argument was if we don’t help them, they could drag the rest of the world down with them.

Q. Are you still involved?

A. No. I resigned. I guess I resigned when I decided to move down here to Destin, Florida. I was still Chairman of the Technology Committee reporting directly to the Director General. When they asked me to come back I told them that I was as close as I was ever going to get to Paradise right now and I’m going to just sit tight and live a retired life.

Q. Do you miss all of the things that you were involved in? I live in a close community in South Carolina when I’m not back at OSU and unfortunately I don’t play golf. But can that take the place of all the things you’ve done here?

A. No, not really. The difference is that your energy level gets less and less every year. I always had a very high energy level. I didn’t mind getting to work at 6:30 or 7:00 in the morning and I’d get home at 6:30 or 7:00 or even 8:00 at night unless there was a dinner or meeting to attend, and then it would be later. I did consulting where I’d leave Ohio State at 5:00 p.m. and get to the airport to catch a plane to Los Angeles and then catch a chopper up to where I was going. We’d
have a team meeting that night and the next day we’d work all day and then I’d catch a chopper back to the airport and fly all night to be back in the office in the morning. Missed one day at Ohio State and have one day of consulting on the West Coast. This was a very enjoyable life and I felt that I was making significant contributions to the engineering profession and to the university. But that takes a lot out of you. I can’t do that anymore. I just don’t have the energy.

Q. But it sounds like you have enough energy to play, if I understand it from Betty, you play golf three times a week and you practice on the other days?

A. Yeah. Yeah.

Q. And you go to about 3:00 in the afternoon which is why we’re talking now and not earlier.

A. Right.

Q. So you still have enough energy to do all that.

A. Yes, but that’s not nearly the level when you’re going all day long and into the evening. There was a lot of pressure functioning and carrying the responsibility of the Dean’s office at OSU.

Q. Okay. By the way, there’s one thing that I think Betty had put in her notes to me. I didn’t realize that she said you worked with Ed Jennings to establish the OSU Foundation. Is that the Research Foundation?

A. No. She was probably talking about the Development Foundation, the OSU Development Foundation.

Q. Okay. What she said was establish the OSU Foundation while you were VP of Development.

A. Yeah, we did that. We set it up and Ed Jennings was the main architect on that. I was the President of it and I had my board of directors, we had lawyers and other professionals helping us. One of my key people was Mel Schottenstein. I don’t know if you’ve ever heard of him.

Q. Yes, right. Sure.

A. He was a peach of a guy, just A#1. He was really a big help on everything. He gave freely of his time. We got the Foundation set up. It was a free standing Foundation that had a President, a Board of Directors, and so on. But in setting up the Foundation, Ed Jennings was always very, very careful that the Foundation be under control. For example, at West Virginia and a number of other schools, the Foundation is a freestanding entity, which the President of the University
cannot control. Their foundations can make the President get down on his knees and beg to get resources transferred to the university for specific projects. Ed Jennings was very nervous about setting up a foundation which he did not have control of. Here at OSU the President has control of it. And if you read the way we’ve got the thing written up, the President has the control because he can appoint the President of the Foundation and even though you have a Foundation Board, it gets a little tricky. I say a little tricky because if the Foundation Board would be of such a mind that they wanted someone to be President of the Foundation and the President of the University said, “No way,” well, that would be counterproductive. So Ed Jennings wanted to make sure he was in loop all the way and I think that’s the way it should be. Otherwise they could go out and hire a million-dollar football coach and do all kinds of strange things.

Q. One more thing. The distinction, getting way back to the beginning of your career and so forth and your philosophy of what engineering should be. Like I gave you that quote about “A scientist wants to understand things and an engineer wants to make things work.” Do you think that’s a pretty good distinction between the two?

A. The quote is correct. But I think it’s much, much too narrow. By the way, my background at Iowa State was very heavy science. So I feel comfortable in this arena. I took the Masters and Ph.D. level quantum mechanics from the Physics Department. I took the Ph.D. level solid-state physics. Most of my work actually was in physics. But I took that because I wanted to understand the engineering materials that I wanted to be working with. And I do understand them. When I worked with the Bell Labs on the piezoelectrics, we needed to know how heat moves about and how an electric charge moves about and how nuclear radiation affects it, and so forth. So, you see the difference, I think from my understanding or all of my experiences, it is that the scientist is very interested in understanding the laws of nature and when nature is behaving in a way they don’t understand, finding the new laws and developing new laws. Really building the understanding of the laws of nature and how they work. Now, that’s a little narrow maybe, but an engineer is interested in solving problems. He’s interested in using the knowledge of the laws of nature and putting them to work to solve a problem. The two intermix an awful lot. You have a lot of applied physics people; they’re very involved and they act very much like engineers. Like Illinois, where you went to school, physics and engineering were part of the same college for a long time.

Q. Right, right.

A. And Bardine, a Physics Professor, was in engineering when he got his Nobel Prize and all that. But the two fit very well together. Engineers are focused on solving problems. When the engineers need to understand the laws of nature that are not fully understood, they will go and do the science that’s necessary to find out what the laws are. Then they will apply them and put them to work.
Engineers try to solve problems that take the labor out of the workplace or that type of thing. But the statement that you have there from Kelby is a good one. The physicist wants to understand the laws of nature and when he doesn’t understand them, he does the research necessary to build the mathematical models and so on to define the laws, while the engineer primarily wants to use those laws to solve problems and make things work. That’s all true.

Q. Did you ever get feedback from industry and others saying you give too much theory and not enough practical stuff for engineers? Did you ever get that?

A. Oh yes.

Q. And how did you respond to that?

A. I understand what they’re saying. For example. I’ve been to professional society meetings where you would have a couple of hundred engineers in the crowd, all engineers at a mechanical engineering society meeting. More so than electrical, but I’ve been in electrical also with the same result. The session chairman would ask, “How many of you have used your calculus lately?” You’d have only about 10% of the audience hold up their hand, but in reality that’s not a fair question actually and the response from the audience is not correct. Much of engineering is pretty routine. You’ve got a problem and you go to a little handbook and the handbook’s got all kinds of information in it and you just put all the information together in a manner that it solves the problem. That’s pretty much what engineers do, that’s probably 80% of an engineer’s activity in private industry. But, to be creative and come up with new solutions or when you’ve got a knotty little problem, to come up with the optimum solution, that takes a little more effort. A little more depth of understanding of the problem and the appropriate application of engineering practice.

Q. And you did rank in one of your papers that I looked at, where you ranked engineering programs. You looked at a different way of doing it. Did that have much impact?

A. Yes, it got lots of debate around the world and I got lots and lots and lots of response. It was fun.

Q. I thought it was an engineering way of doing it. You look at empirical data and you look at “Who’s Who in Engineering” and all this sort of stuff and number of papers, the impact of the papers; it’s all nice quantitative data. You can do it rather than asking somebody, “What do you think is the best school?”

A. Yes. And the thing that comes out of all this, the reason I got into it, is every place I went I found Ohio State engineering graduates as captains out there. The College of Engineering at Ohio State, when I came to OSU, was ranked maybe 30th or 33rd or 34th or whatever it was. In 1970 OSU compiled the history of the
University and my wife Betty researched the history of mechanical engineering department at that time. In looking at this history Westinghouse had Lamme and General Motors had Kettering and General Electric had many Ohio State graduates; a very large number of the department heads in these companies were Ohio State mechanical or electrical or other engineering program graduates. I kept thinking how can we have been so great back there in the late 1800’s and in the early 1900’s, and why aren’t we recognized now when today we’ve got all those captains out there. Well, I didn’t understand it. So I did this study to see where we ranked. In all of the other rankings available, we weren’t the number one school in engineering. MIT always came out so strong, the University of Illinois was always right up there on top, too, the top three or four or five. Ohio State came in down there in the 30th, or 33rd, or 34th or whatever it was. So I put that study together and showed that if you compared who are the captains in industry, who are the movers and shakers out there, where do they come from? Well, that way Ohio State ranks pretty well. That was my motivation on that. And at the same time I was doing that, I was also off on a campaign to raise money to modernize our curriculum. That was when I was shifting to the interactive computer graphics. But an interesting sidelight on that one. We had Frank Daly from GM who helped us put together our program. He gave me $50,000 a year for 5 years out of his budget. And we went to General Motors to try to get a million dollars from corporate GM. One of our industrial grads was Bob Decker who was Executive Vice President at GM at that time, number two or three corporately depending upon how you look at the GMC organization. So we put this all together and got a proposal up from Frank Daly’s office through the system to Bob Decker’s office. He then took it to the GM committee. There was a person who was from RPI who also a General Motor’s Vice President, who said he would support the proposal, but GM also had to give a grant to RPI to get his vote. Well, they kicked it around and so we got $750,000 and RPI got $750,000. But it was interesting to see; we got RPI kind of off the duff. They had a person named George Lowe who was their President and he got this advanced design lab with interactive computer graphics and he recognized it as a powerful tool which should be implemented at the University. He went to his Board of Trustees and got a multi million-dollar loan from the RPI Foundation to modernize all of his laboratories. I got nothing from Ohio State even though I had asked. I had to go out to raise the money and that took five years.

Q. But you did it. I’ve got to change tapes again and we’re almost finished, but let me just stop to change it.

A. Okay.

Q. There’s one last thing that Betty wrote me and she asked me if I had read “Ship of Gold” and talked about your relationship with Tom Thompson. Two trunks of clothing from the Central America, the OSU Historic Clothing Collection. What’s that all about?
A. Did you know anything about that?

Q. No, no.

A. Hey, you missed an exciting story. It’s a wonderful book. When I was Chairman of Mechanical Engineering, I had a young student named Tom Thompson come in to see me. He wanted a marine engineering degree. Ocean engineering was what he meant. I have a marine engineering degree and so we talked and we hit it off pretty well. I convinced him that we could put together a program, as this ocean engineering is nothing more than mechanical engineering. Only it’s in an ocean environment with all the corrosion and all that stuff. Well, anyhow, Tom was a really good student. By the way, I guess I fished him out of the pond because he would get all A’s one quarter, and the next quarter he was a terrible student. And I got him going, got him really revved up. He really did a great job and he finished his degree and says, “Now what do I do? Where am I going to get a job?” I told him all along that there are no jobs in ocean engineering. They don’t exist. What you have to do is going out to Scripps out in San Diego and volunteer and after a while maybe they’ll bring you on board. But you’ll probably have to work as a mechanical engineer somewhere to make a living. Then you can do your volunteer work and ease your way into a job out there. Well, he went to Florida and he volunteered with Mel Fisher.

Q. Oh! That ship of gold, where they went deep sea diving.

A. Yeah.

Q. Oh, okay.

A. He then went with Mel Fisher and he was Mel Fisher’s Vice President for a while. Tom developed. Tom has the ability to invent anything. He’s a real gadget man. But when Tom came up with directing the prop wash to blow holes in the bottom and go down and look for stuff it gave the Fisher search a real boost. He was with Mel when they found quite a bit of gold from the Atocha. Tom would come back to see me every couple of months. He’d just pop up on campus. And we’d have him out to the house for dinner and we’d chat. My kids really loved hearing his stories about pyramids under the water down here in the Gulf and roads down on the bottom that don’t go anywhere and all that. But, anyhow, Tom and I talked a lot about how we ought to get a big shipwreck and do it. There was one shipwreck on Lake Erie that had some gold on it, but Tom said anything that’s in shallow water has already been salvaged. You can just assume that people have done that. But one day he came back and he says, “I’ve got our ship.” He gave me his presentation and all that. And I told him, “Boy! That’s the darnedest story, Tom.” So I got a colleague up there, I don’t know if you know Herb Lape. Herb is an old Columbus boy who knows everybody in town. He’s good friends with all the people that have money. And I told him, “Herb, I want you to have lunch with me and have you meet Tom and listen to him.” So Herb comes out
and said that’s the darnedest story he’s ever heard. And so I said, “What do you think?” Herb said he’d like to get some of his buddies together for lunch with Tom. So I told him, “Okay. I’ll pay for lunch. You get them together and I’ll have Tom make a presentation.” Well, and we had much of the money in Columbus sitting around the table. Had about 15 guys there. And it’s really an impressive story. Anyhow, this group around the table met a couple of times more and then one of them decided to take it upon himself to see whether they could raise enough money. It took a while to find this ship. Well, to make the story real short, they did raise the money. My role was to assure them that Tom was honest and wouldn’t take the money and run. But I wouldn’t guarantee they were going to find anything. They all understood that it was a real crapshoot and anybody putting money in was probably not going to get a thing back. But anyhow, he built a very unique apparatus that he and I had talked an awful lot about beforehand when we were in class. How are you going to work in the ocean? How are you going to work down there? You can’t send a person down there in a little sub. You can’t get any work done if you do that. But anyhow, he built a robot and he put it on the bottom of the ocean where the robot could work continuously for several days at a time and he picked up about three tons of the gold bullion. And this is what the book “The Ship of Gold” is about.

Q. And the clothing?

A. The reason for that, Tom would come up and he’d tell me that this ship is down in about 8500 feet of water, okay? And the temperature down there is almost 34 degrees Fahrenheit. And the current is probably less than a knot or maybe a knot, very small current. A little bit of a current, though. And he said that the trunks and all from the ship are all sitting down there. He said they took one of their robot arms and they lifted the lid on one of the trunks. They could see the clothes are in there folded just like they were when they were originally packed. We talked about that. I talked with the Lena Bailey, Dean of Home Economics who was terminally ill with cancer, about this at one of the Deans’ meetings. She just went crazy. She said, “My gosh, Don, can you bring me one of those trunks?” The ship was a hauling passenger from California round through Panama over to the Atlantic side and then up to San Juan and then on up to New York. On this trip they had on board returning “madams” from the establishments out there during the Gold Rush and they had miners returning, socialites and so forth. But anyhow, she asked, “Can you get me a trunk?” Well, I talked to Tom about it and Tom replied that it was awfully expensive and involved a lot of work. Well, at that time Tom’s father came down with cancer and died. Tom was really shaken by the loss of his father and he was aware that Lena, too, was ill with cancer.

Anyhow, I talked to Tom about it and talked to Lena about it. Tom said that he would bring up a trunk. So the next time they went out, he brought up a trunk. They really did a nice job on that trunk. They brought it up and the built a container for it so that they could keep seawater in it, the same seawater that it
was sitting in when it was on the bottom. They got it up top and they brought it up at the last, just before they headed for shore. On shore he got it on a refrigerated vehicle and brought it back to Columbus. They had a little warehouse down there on the South side of Columbus. The Historic Clothing Collection in Home Economics was Charles Kleibacher’s area. Charles is a great and nice guy. He used to be a clothing designer in New York and so forth. Anyhow, we decided we were going to have the great opening. We invited Charles out since the clothing would end up in his care eventually. It was really interesting. We lifted the lid. Now we had already decided how we were going to do this. We were going to freeze the clothes immediately. We had dryers, screens that we laid all the clothes out on. And we’d put them in boxes and we had arranged to take them over to the University’s cold storage out there on Kinnear and freeze them right away. We’d leave them frozen as a way of drying them. You keep vacuum pumping on them and you get all the moisture out of them. Anyway, Lena Bailey’s textile people had recommended that. You should have seen Charles when we opened that trunk and he saw those clothes laying there folded as they had been more than a hundred forty years ago. He exclaimed, “Look at the seams! Look at that needlework!” It was really exciting. Well, it turned out that this particular trunk was the wedding trousseau of a wealthy young couple that had gotten married in San Francisco and they were headed for New York City when the ship went down. She was taken off and he was dropped into the water, but he was picked up by another boat the next day. But, anyhow, they both survived and returned to California where they were part of the family that founded the Bank of California.

Q. Oh goodness!

A. A very big name out there, the Eastmans. The family is still out there. She had a lovely leather jacket in there and we got lots of other clothes out of the trunk. They came out beautifully.

Q. Did the family, the descendants of these two people, realize you had the clothing and come out to look at it?

A. Yes. They have been to Ohio State. I don’t know that for sure, but I’m told they have. And they were very nice. They didn’t say, “Give it back.”

Q. Not like people say about the gold.

A. They were told the contents were going to be in the OSU historic collection and so on. The were very, very nice about it. But with that success Lena said, “Can you get me another one?” I told Tom, “We’ve got to have another one.” So he said, “Alright.” Tom brought up another trunk during another dive while recovering additional treasure. This one wasn’t as glamorous. It turned out to be the chest of a fat peddler. It had his water logged Cuban cigars in it and a book
titled, “The Lady Leaves Widowhood.” But we got more clothes out of it. It’s over there in the historic costume area.

Q. You’ve had your hands in an awful lot of pies. If you were to sum everything up, what would you say, like advice to younger people coming up. You’ve done extremely well. What advice would you give to the younger generation?

A. I’ve thought about that a lot and I just think, one of the things I feel good about my tenure at Ohio State is this: I feel that Ohio State is better for Betty and me and my family having been there. I feel good about that. I would say for the young people, when you get old and look back on your life, I think you ought to be able to say that your life hasn’t been in vain. I hope that you can say that you’ve done something that’s good, that people are better off that you lived than if you hadn’t lived. I don’t think one person has that much influence on the ultimate overall scheme of things, but I don’t think I was a negative presence at Ohio State. I think I was positive. I think this is a question that all young people ought to think about now as they prepare to begin their careers.

Q. Well, I would certainly agree to that and I’m sure many others would as well. We’re getting close to the end and we’re going to close up shop here pretty soon. Is there anything else you would like to add?

A. I don’t think so. I would just say that we had a very wonderful experience at Ohio State and we hope that we left Ohio State in as good a shape or better than when we got there. It’s not that we made enormous differences, but we did make a contribution. We feel really good about that. I think we’re moving into old age and we are comfortable that we haven’t been parasites on society. We’ve done okay and Ohio State was a very good environment. We raised our four children there. All four graduated with at least one degree from Ohio State, mostly more. The children have a good sense of values and great ethics. We’ve told them that they need to have a life that’s not just me, me, me and take. Give something back. You’ve got to give more back than you take away. The children are living up to expectations.

Q. Well, thank you for agreeing to do the interview and for spending all this time with us. What will happen next is that I’ll send you a release form which says that you have 60 days to review the transcript. When you have it, make any corrections or changes you want, so it’s still in your hands. But you’ll get that paper first and then you’ll get the transcript. I don’t know how long it will take to do it, but from the time you receive it, you’ll have 60 days to make any changes or additions.

A. It will be no problem for me to do that. And I would just say to you, feel free to do any editing, to make it sound intelligent anyhow.
Q. Oh, I think you sounded very intelligent and I appreciate it on behalf of those of us who came after you, even though I kept coming back, I am glad you were here and there are many others. I was talking to Mary Jo Arnold and she even mentioned that you and supplemented the library travel budget. And she said you had even furnished money for her to go to the ASEE.

A. She, I think, is a real class act.

Q. And that you had provided the funds so she could go and even pressured her to join it, among other things. So you’ve made a lot of good waves and even minor ones that have been good for the University and the people who work there.

A. It’s been nice to go back and reflect on the University. They’re all good feelings from our point of view.

Q. Okay. Thank you very much. Enjoy your golf tomorrow.

A. Okay.

Q. Bye.