

## Anton Potomi

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**Interview with Anton R. Potami**

**Interviewed by Professor Clarke A. Chambers  
University of Minnesota**

**Interviewed on August 7, 1995**

Anton R. Potami                   - AP  
Clarke A. Chambers           - CAC

CAC: This is Clarke Chambers. I'm interviewing in his office on Washington Avenue, A.R. Potami, Tony Potami, as we all know him affectionately and with respect, whose been in the research administration business for a long time at the university. It is August 7, in the morning. Tony, I suggested before we turned the machine on that it's really important for listeners to know where you're coming from and what your background is. So, if you could say something about your early training or predisposition, and how you got interested in things like this, what your undergraduate work was, how you got to the University of Minnesota, Minneapolis Campus, and then we'll be off and running.

AP: Clarke, I am originally from Hibbing, Minnesota, from the Iron Range. I went to two years of college at a community college, Hibbing Junior College, it was called at the time. I went to UM-D [University of Minnesota - Duluth] and got a B.A. degree in accounting and realized . . .

CAC: What years were these?

AP: This was in 1963. I graduated in 1965.

CAC: Was your father a miner?

AP: My father was a miner. Actually, when I was thinking about dropping out of college and went home one weekend and said, "I think I'm going to drop out of college," he said, "You know, you've got to finish this last quarter and if you want to come back up here to work in the mines, go ahead. Buy yourself a house."

CAC: [laughter]

AP: He was a tough Italian miner.

CAC: He knew what the choice was for you?

AP: He knew the choices.

CAC: You probably had the best education in the state Minnesota . . . Hibbing High School and then that junior college at Hibbing was one of the best in the world.

AP: It was always touted as one. I thought it was pretty good.

CAC: I think so.

AP: People came from all over the place to look at that high school.

CAC: Yes.

AP: So, it was good upbringing. I had some parents who knew the value of an education and to work hard at that. When I graduated from college—I really didn't know for sure what I really wanted to be—I knew I made a mistake in being a straight accountant and interviewed at various companies throughout the country. I came to the university one day to check on graduate school and found out that I really didn't have enough money to do it. My grades weren't high enough to get a scholarship. I saw a job posted in the Research Contracts Office as a grant administrator or grant accountant, something like that. I applied for the job, talked to the guy. His name was Dick Elliott who was the director of contracts and grants. He was a wonderful man.

CAC: What year was this?

AP: This was in 1965. He mentored me. I actually took the job to be able to take a Regent's scholarship to give me free tuition to go to Graduate School. I took a few courses but got into the business and didn't . . .

CAC: What field were you going to be in in Graduate School?

AP: I was looking at public administration at the time. Professor George Warp . . . I had some conversations with him.

CAC: Oh, sure.

AP: He sort of started that Public Administration Program at the university and now it's the Humphrey Institute. I started working in the contracts and grants office in 1965 doing, basically, financial reports. There were, probably, twenty people maximum, in that place.

CAC: This would be both professional and backup staff?

[break in the interview]

AP: They probably had twenty people in the office in total, maybe not even twenty people.

CAC: This would include Civil Service?

AP: Civil Service. They were all Civil Service at the time, including the director of the office. It reported to the vice-president of Finance at that time. My job was really doing financial reports. Now, we don't necessarily hire college graduates for those kinds of positions. At that time, one of the requirements was a degree. We now, in our financial reporting, do not require a college degree for those kinds of positions. When I was hired, I was making—I remember the monthly amount because it wasn't so bad—\$506 a month. It was sort of my dream, like a lot of people in those days, if you could make \$10,000 a year sometime, it'd sort of be great. We had this small office. Research was probably at that time, I would imagine, \$20 million.

CAC: In total grants?

AP: In total grants. I'm not sure what the data would show.

CAC: This was university wide?

AP: This was university wide. UM-D really didn't have any in research, I don't believe. It was primarily in the Twin City campuses. NIH [National Institutes of Health] had funding here. NSF [National Science Foundation] was minimal back then.

CAC: Heavens.

AP: DoD [Department of Defense] and NASA [National Aeronautics and Space Administration] was very big. In fact, as I progressed up the ladder at the university, I handled such things as NASA grants primarily, got to know some faculty here who were . . .

CAC: Those were probably among the more sophisticated grants?

AP: Yes, they were. They were some large grants. It was during the era when space research and NASA research was being focused.

CAC: They were still on the way to the moon.

AP: That's right and there were people here doing lunar sample research . . . Professor Franz Halberg who had mice on some spacecraft and monkeys doing some of his circadian rhythm stuff . . . people like Ed Nye and Al Nier who had various data analysis kind of things on those

spacecrafts. There were professors like Walter Vivrett—I don't know if you know that name—who was a professor of architecture who was working with Buckminster Fuller on doing an experimental city, which was to be located out by Jonathan and by Chaska. Actually, it turned out to be Jonathan which was to be a covered city in Minnesota. There were some great stories about those people who made the university so great. That was a huge project that got national attention. I was the grant administrator doing the nitty-gritty work while these people were doing their big thinking of the future.

CAC: Now, was it the case at that time that you assisted these research scholars in designing the requests and then in monitoring them? What was the flow?

AP: Basically, the way research was initiated back then and, in fact, the way it's initiated pretty much today, is based on faculty initiative. Faculty members have ideas of what they want researched. Very seldom do the administrators sort of find the money or help them put that program together. I think very little of that was done in the past. Years ago, thirty years ago, basically, all faculty got their own grants. Now, there's more interdisciplinary . . .

CAC: Excuse me. That meant they had to know what foundations were appropriate to appeal to or your office helped them in that?

AP: Back then there was very little of that assistance.

CAC: I see.

AP: There's more of that today. There's an old story that some professors who had very good reputations could write their proposal on the back of matchbook or a napkin and get funded. I think it was a lot easier. There was better funding. I think NIH was growing. A lot of these places were growing in their research enterprises; so, it was easier to get funding out of places. Today, there is just much more competition. More universities are getting into that. If you took, thirty years ago, the top twenty universities really had the bulk of research. I think now, you might have the top fifty that have the bulk of research. There are many more institutions who have developed medical programs, medical schools, engineering schools, have gotten into the research business that maybe weren't there thirty years ago. A place like University of Arizona, for example, twenty years ago, was not on the map as a research institution. Now, they're probably number twenty in the country; so, there's much more competition.

CAC: And did [Henry] Koffler and [Nils] Hasselmo get credit for that in some part?

AP: I believe it was before their time.

CAC: I see.

AP: Koffler gets credit and blame for a lot of their building programs. He was instrumental in getting more buildings at that institution. Hasselmo is very well liked there. I was just there two weeks ago and he's very well liked at Arizona. I'm not sure that the same kind of problems exist at Arizona as they do at Minnesota.

CAC: Well, he was number two instead of number one.

AP: That's right. I think today the way grants are received and developed are still by initiative of faculty. There's much more assistance and interdisciplinary kind of work where the Graduate School and the vice-president of Research Office might get in to try to convince people to get together. Deans do that more often to try to develop programs. We have some services centrally out of this office to help faculty get grants, giving them more information, more or less. But still it comes up to the folks who have the ideas, who have the knowledge, to write grants. It isn't a big trick to find out where the money is. It's been my philosophy over the years that if I have to help you get a grant in your field, you're in trouble.

CAC: Yes.

AP: If you go to the premier institutions in this country—I think Minnesota is still one—you'll find the stars, who are maybe the top 100 or 200 faculty of any institution, of the major ones, are the ones getting the grants and you don't have to help them. You're left helping people who maybe aren't that interested, don't have the scholarly way about them to get a grant. They don't have a good idea or they're looking for something in an area that's very difficult to get. We have some services to help but as I look through the people who come through and use that service, and then to see whether or not they get a grant, the two don't correlate very well as helping; so, I think that's a lost cause. Outstanding people get grants and that's sort of what the business is.

CAC: Was there, however, decentralized assistance to persons new at the game? I don't want to write my own case large but Jack Darley and John Kidneigh, for example, really mentored me in my first major grant, which was as an historian with the National Institute of Mental Health—which was absurd but they had more money than they could spend. So, they helped me but they weren't part of any central . . .

AP: I think that it still goes on in mentoring younger people, professors mentoring their young assistant professors that come along. I think there are some department heads who know the business well, who know the agencies well. They know the people who they want to get involved more. I think that still goes on but it doesn't go on to the extent that, I think, people like John Darley or Kidneigh were involved with mentoring. The university has changed. I think Jack Darley today would be more involved with trying to figure out how he's going to balance his budget, how to deal with all the other things that the institution now is facing, the change of the undergraduate initiatives, and all of those kinds of things. I think this is a changed place where they don't spend as much time in that kind of an arena.

CAC: What was the correspondence of that office that you came into in the mid 1960s in the Graduate School where so much of the research ideas are channeled? At least in the early 1960s that would have been somewhat the case or not?

AP: The Graduate School really maintains some records of research and that kind of thing but they really weren't involved in the 1960s.

CAC: And that's all?

AP: The administration of research at the university, the sort of *A, B, Cs* of it, haven't changed all that much in terms of . . . We still have to get a proposal into the government or to the foundation and you do certain things with that . . .

CAC: [unclear]?

AP: Yes. You do the certain things with that, you get awards, and you have to set up an accounting system, and you have to administer it according to the terms of the conditions, and you have to do financial reports. Over the years, there have been changing kinds of theories of how best to do that. In the late 1960s, early 1970s, is when there was some thought that the Graduate School should take over the assistance to faculty of getting grants. In fact, there was a reorganization. Several of us went to the Graduate School under the then associate or assistant dean, Luther Pickrel, whose idea it was—I think maybe Gerry Shepherd was still academic vice-president and Hal Chase did come in right after that, I know—that we were to help faculty get grants, do more in that area. We would go to meetings in Washington. We'd get phone books of agencies in Washington and we'd visit agencies; and what I found is that we were not able to communicate very well with these agencies because we didn't know what the university was going to do, what faculty were going to submit. I remember talking to some people at EPA [Environmental Pollution Agency] telling us the latest new programs and some technical stuff that I didn't understand and I was yet to come back here and try to communicate that to faculty. I found that to be difficult. In fact, it didn't work. We were not able to help faculty get grants. To me, I was given an example that was very clear. I came back from NIH one time with some information from someone I knew very well about a new diabetes initiative. The guy gave me this stuff hot off the press. It wasn't going to be published in the *Federal Register* or anything for another week or two. I would be the first one . . . I called Dr. Fred Goetz here at the university who was a diabetes expert and told him about this and he said that he wrote it.

CAC: [laughter]

AP: So, you know, my heads up was . . . I think that's the way it is. Faculty came to almost test that organization, call them and say, "I'm looking for the following kind of things." We'd sort of try to scramble to figure out . . . It just didn't work. In fact, it was so confusing . . .

CAC: It went on for a year or two?

AP: It went on for a couple of years so confusing . . . I left that office at that time. I stayed there for a couple of years maybe. I thought it was going down hill. I thought the university was losing its accountability. There were various regulations at the time that I didn't feel the university kept up with, and I just didn't see my role in that office being right, and I went to work for the vice-president of the Health Sciences in 1972, I believe it was . . .

CAC: I see.

AP: . . . for Lyle French. I worked in that office for a couple of years. During that time, there was a review of the Research administration, prompted by faculty discontent. They had an outside review team come in and they reorganized the office and I was hired without Affirmative Action, without any kind of search committee.

CAC: They found the best person.

AP: I was just selected. Clint Johnson called me up and said, "We're changing this thing and I want you to run it."

CAC: Now, this is about 1973, 1974?

AP: This was 1974. I took the job in September of 1974 and when I took the job, at the same time, the university received an audit report from the federal government that disallowed \$50 million in expenses for the previous two years. So, I took over the place when that was just happening.

CAC: That's a lot of money . . . at that time.

AP: That was a huge disallowance.

CAC: What had happened?

AP: I sort of felt that we weren't a very cohesive unit knowing enough about the rules and regulations about things. It was sort of a thing that nationally there were audits on effort reporting, on faculty salaries, and on transferring costs from one grant to another. What had been a commonly accepted ordeal in the 1960s and 1970s of a program office saying, "Use the money up. Don't give us the money back." You would move money from one grant to another because they didn't want the money back.

CAC: The granting institution was not terribly concerned about how it was being used?

AP: No, it really was not. It was just a different kind of a thing.

CAC: That came later?

AP: Accountability just started to increase and increase and universities throughout the country got caught up in this whole business. The university had a system but it really didn't monitor it that well.

CAC: But it socialized a lot of professors and administrators to a kind of careless form of management.

AP: It did. I think it was a partnership that agencies and universities sort of had. The research was done. It wasn't that big a deal in the early days. We ended up negotiating a settlement, which was really a good settlement.

CAC: But that's what you fell into yourself?

AP: That's what I fell into. We ended up paying the government \$475,000 on a \$50 million disallowance which is pretty good. What was amazing, it hit the papers here but it wasn't, like, how bad the university was. There was an article and I think it was on the front page of the *Tribune*. It wasn't portrayed as some terribly negative thing. It was, here are the facts. There was no hysteria here inside the university. We knew there was a problem. We worked hard to work to resolve it and it was done. In fact then, we put in a new effort reporting system in 1975 to comply with some of these more stringent accountability requirements. We have since now revised that also.

CAC: We're getting a chronological line now that money began to increase at an accelerated pace in the mid to late 1960s and early 1970s?

AP: Yes, the 1960s and 1970s.

CAC: When does it take off? When chronologically does that begin to set in?

AP: There's probably been a 10 percent, or greater in most years, increase.

CAC: Annual increment?

AP: Annual increment . . . if you look back twenty years. Ten years ago—I have some data in some of our records here—we were well under \$200 million in research; we were \$170 million maybe. Now, we're \$300 million. We don't have many more faculty. We don't have new colleges. We don't have any major new initiatives, like a new medical school or anything like that. Our normal stuff has increased to that level. I think it's increased each year almost, like I say, on a 10 percent basis. I will predict next year, no matter what the federal government numbers are of going down, this university will be up 5 to 10 percent. It's happened year after year. I think there's only been one year where we've had a level year . . . in the early 1980s when the Reagan Administration made some cuts.

CAC: If I read you, the materials that your staff provided me with, there is however a kind of 75 or 80 percent concentration of those grants from the federal government?

AP: Yes.

CAC: This is rather consistent over the last twenty-five, thirty, thirty-five years, right?

AP: Yes. While there's somewhat of an increase in the funding that we get from private industry and some foundations, the federal government is still at almost that same level. It doesn't really change much nor do I predict it will be able to change much. I can't see the federal government or the state governments in the next ten years substantially changing the funding.

CAC: For all the rhetoric we hear out of Washington these days?

AP: I don't believe it will change that drastically.

CAC: Okay.

AP: It certainly may change probably in some fields that you're interested in, too. They're certainly not as concerned with Humanities and some of those kinds of things; so, I think there will be possibly less in those areas, less in space research . . .

CAC: Well, we were always a very small percent of the total university.

AP: A very small percentage. If you look at research, most people relate to it in Health, the betterment of mankind and their health, and Engineering where most of the research has always been and where it will remain. I think places like the National Science Foundation and the NIH, which are the two most prominent organizations for university research, will remain that way; whereas, things that can be passing kinds of initiatives of environment, and energy, and space are the ones that one has to be concerned with. At the University of Minnesota, if you look at the ups and downs, it happens in various disciplines.

CAC: Yes.

AP: You can see some of the problems and some of the new initiatives that have come over the years. In the past with the large NASA funding . . . We now have a couple of big army contracts that have helped in the Institute of Technology. Sort of the programmatic stuff of the government can affect the university greatly. It's done that at other universities probably more so than here.

CAC: I want to go back to the early 1970s and make it personal just for a moment. You said that Mr. Elliott was a kind of mentor to help you in your early career. Can you describe a bit

more about how that mentoring . . . ? What did he do for you or with you? Did he do it for others?

AP: You meet certain people over your lifetime that somehow you click with. I've done that since with people who worked with me. When I came here, I didn't know that I wanted to be a grant administrator or have a career in this business. I took this job to go to Graduate School. I remember during the interview he told me I'd be working with P.I.s. I really didn't know what that meant. I didn't even ask.

CAC: [laughter]

AP: I didn't know if they were really private investigators or what.

CAC: For other lay persons, that's principal investigator.

AP: Principal investigator. He was a gentleman. I liked the way he dealt with things. He took a liking to me and I don't think just in a personal sense, I think he saw my work ethic.

CAC: He saw promise.

AP: You know, I liked this business. It was interesting. I was a kid from Hibbing who didn't deal with intellectuals to the extent that was here. It was an exciting thing. I still look back at that and say, "God! this was really something that I . . ."

CAC: You had to learn a lot on the job fast.

AP: You know, I think I did. He gave me some confidence. My first trip to Washington was with him. I saw the way he worked with people. I saw his dedication to the university. I saw his dedication to faculty who he served and who I feel I serve today. My allegiance, in a sense, is to faculty who get these grants. I don't get them for them. I haven't gotten a grant for one faculty yet. I just saw the way he worked. He was honest. He worked well with people and his negotiating style with government grants was right. He gave the university a good reputation and I always wanted to be in his shoes. It wasn't more than a month or two here . . . that's the job I really was looking to do someday.

CAC: This was then the Office of Research, Contracts, and Grants, so-called.

AP: It was called, I think at the time, the Office of Research Contract Coordination. I believe that's what it was called in 1965. He, I think, was the first director of it. I think he had been there for several years but he was the first director, I believe.

CAC: Then the first major reorganization comes in 1974 . . . ?

AP: Yes.

CAC: . . . which is early [Peter] Magrath?

AP: It actually came in . . .

CAC: In 1973, September, I think.

AP: I thought it was 1970.

CAC: That early?

AP: I believe in 1970, the office was split between Research Accounting and the Office of Sponsored Programs. Part of the Research Contract Coordination Office that dealt with proposals went to the Graduate School.

CAC: Okay.

AP: And the financial management side stayed with the finance side.

CAC: It was that division that you were mentioning earlier didn't work very well?

AP: It did not work very well.

CAC: This would have been the early 1970s, 1971, 1972, 1973?

AP: Something like that, yes. In 1974, it was combined again . . . .

CAC: Yes.

AP: . . . into the Office of . . .

CAC: Sponsored Research?

AP: . . . Sponsored Programs, a combined office.

CAC: This is late [Malcolm] Moos?

AP: Yes.

CAC: I'm going to make a statement which is really in the form of a question. There's a sense that in 1971, 1972, 1973, the control of Morrill Hall was lax, to put it in those terms, and that

the difficulties that that division had may be one representation of that laxness of Central control of major programs?

AP: I think when it came to the administration of research, I don't believe they were that interested or that it had that much impact.

CAC: In the president's office?

AP: Right—as it is today.

CAC: The initiative for this combination in 1974, the coordination, came from what offices and what persons?

AP: Well, the initiative to split the office I believe came from the Graduate School thinking that it could . . .

CAC: This was Bryce Crawford?

AP: Bryce Crawford and Luther Pickrel . . . and the thinking that they could somehow affect the university's research enterprise positively.

CAC: The priorities?

AP: Priorities, develop programs. It failed.

CAC: There was something called a Development Office in the Research Center there.

AP: Yes and they simply couldn't develop programs. If someone came to me today and said, "Help me develop a cancer program," I would say, "Go to the Cancer Institute and find out what they're doing." It was no different back then. There weren't people who were scientists who knew the business and you can't communicate with program officers when you're an administrator.

CAC: Who began to sense that this drift wasn't working in the early 1970s?

AP: Faculty, faculty did.

CAC: I see.

AP: There was a faculty group called UMFRO, University of Minnesota Faculty Research Organization.

CAC: How did one get to belong to that?

AP: It was almost an underground group.

CAC: Okay.

AP: It was headed up by Hank Oskam, who was a professor of Electrical Engineering, and several other distinguished professors who decided to get together to see how the university was handling research and how anything they did affected them. For example, they went after the university about the fact that we would charge fringe benefits to their summer salaries but the fact is they never got the benefits. We never over charged the government because we would always figure that out in our rate but it turned out that they got the benefits later on. We changed our policy because of that group. Well, they actually got upset over the Office of Sponsored Programs' office in the Graduate School. They didn't like the way it worked, started complaining to the administration . . .

CAC: Through Gerry Shepherd who was electrical engineer himself?

AP: Through Gerry Shepherd. Right. They decided to have a review and the review came out. They interviewed a lot of people. That Office of Sponsored Programs and the split off . . . this wasn't working. I was out of the office by then. I was over in the Health Sciences.

CAC: Yes.

AP: They decided to put it back together. I think right about then when I took over and for several years, it was fine. We resolved the big audit report. Things were kind of calm again with the federal government, calm inside the university.

CAC: Administratively, you were placed in the vice-president for Finance office?

AP: I was in the vice-president for Finance office.

CAC: What role did the Graduate School play after the centralization, coordination came about?

AP: They were basically out of it. When the human subject stuff started to become an issue . . .

CAC: I want to come to that [unclear].

AP: . . . that's when the Graduate School sort of took that function. They started dealing more with some of the academic administrative issues; so, the human subject stuff sort of stayed in the Graduate School area.

CAC: I see. Again, I'm repeating the question. I get a sense from other interviews and from doing research in University Archives that there was kind of a drift of Central Administration

control in 1972, 1973, in the late Moos years. In part, this led to Gerry Shepherd's resignation together with all of his associate vice-presidents.

AP: Yes.

CAC: I'm wondering whether Gerry Shepherd played a role then in affirming or just in a supportive role, initiating or just a supportive role, in bring about this coordination in 1973, 1974.

AP: I would say he was instrumental in doing that. Gerry was a very strong vice-president of Academic Affairs. I have come to respect him even more now than I did back then. He was very instrumental in supporting technology transfer way back when and continues to do that.

CAC: This comes later and I'm going to get to that.

AP: Yes, even in the 1960s and 1970s, he was supportive of that. He is till this day. He still works with us on some initiatives and is helpful. Yes, I think there was some of that that he was instrumental in pushing back together. Again, I don't think it was so visible a thing in the administration as it would be today.

CAC: Okay. That's an important thing to . . .

AP: It sort of was an office that functioned. It was almost looked at no different that Purchasing or anything else. It wasn't that big a deal. You just did the accounting or whatever it was. It wasn't the kind of focus that I think research has today in the administrative sense at least and almost even in valuing it's importance. We never really made presentations to regents. I never met Malcolm Moos in a setting on any problem, any issue, any presentation about the research enterprise, what the level was . . . nothing.

CAC: Even though the overhead costs for these contracts must have been substantial, even though less so than would later be the case, that was a big income for a general research fund, right?

AP: The university research enterprise is a big income totally to the institution. Even back then, it was probably 20 or 25 percent of the university's activity in total budget, maybe even larger. I cannot recall until Magrath's time, even more in [Kenneth] Keller's time when he started, and this current president, where research has become more of an important part of the university in a more outward way of recognizing it, and supporting it, and all those kinds of things. I have had many more times where we made presentations to the legislature, to regents, to various groups; whereas, in my first years, through almost 1980 I would say, we were sort of in the background just shuffling these grants through, and getting them out, and getting them done. There's much more to it and more value. There's more information about it, more interest by regents even.

CAC: One of the themes that I want to return to is that of overhead costs. Those are set by the granting institution, NIH, NSF, and so forth?

AP: The whole business about overhead is a very complicated, contentious, misunderstood task.

CAC: Is this a good time to help clarify it? [laughter]

AP: Sure, I'll try. If I can clarify it for somebody, it will be a wonderment.

CAC: Well, if not me, perhaps, someone down the line that will be smarter than I.

AP: And smarter than I. Overhead started after the second world war when research really became more prominent. It was actually recognized that there should be some overhead with these grants through the Department of Navy when they first started. They gave the institution like 20 percent on top of their direct costs to cover such things as heat, light, utilities.

CAC: Of course.

AP: As it got refined, there became some cost principles that were developed. They're now called A-21s . . . OMB [Office of Management and Budget] circular called A-21, which is entitled *Cost Principles for Determining Costs at Higher Education*. It tells you what is allowable as an indirect cost and what's allowable as a direct cost. The difference is an indirect cost is something that you cannot identify with a particular contract; so, for example when you had a contract, you couldn't determine how much heat, light, and utility you were using . . .

CAC: Or library services?

AP: Or library service . . . or services of research administration, or of the accounting system, or of your departmental administrative staff, or your department head's time.

CAC: Okay, that's all indirect?

AP: It's all indirect. Direct costs were those things that you could say, "Yes, this person worked on this contract. These supplies were used. I went on this trip. This equipment was needed," in your time, "this typewriter" versus this computer, our time today when you were having your contract.

CAC: [laughter]

AP: It's amazing that during the early years typewriters were typically not allowable. Today computers are allowable and in some sense used in the same way, much greater use but functionally the same thing.

CAC: I understand.

AP: When you prepare a budget, you prepare your direct cost budget and then you add on this indirect cost to cover these costs that you cannot identify. The government allows you to do this under some cost principles. They're not as precise as . . .

CAC: Have they changed substantially over the years?

AP: They've changed considerably over the years but essentially what you do is you determine from all your accounts at the university, of state funded accounts primarily, the costs of heat, lights, and utilities; and you go through some formula of determining how you allocate those to research and to instruction.

CAC: And you call them overhead in both cases?

AP: You call them overhead in both cases. You have these two functions going on at the university basically: research and instruction. So, you go into a building and let's say that 70 percent of that building is research, then more of your indirect costs will be thrown into research.

CAC: Ah.

AP: So, the trick is if you want a higher overhead rate, you charge as much as you possibly can as an indirect versus the direct and you try to classify as much of your activity as research.

CAC: In the meantime, the granting institutions are on to this, too? They know how you're doing it?

AP: The granting institutions accept what you do through a negotiation with a centralized agency of the government, in our case, the Department of Health and Human Services. In the early years, the Defense Contract Agency would negotiate your overhead.

CAC: It would change from year to year or for project to project?

AP: It would change from year to year. You usually negotiated overhead rates based on the whole institution. We had rates years ago for the Twin City Campus and the Health Sciences by themselves. Now, we basically have a rate for the university totally and special rates for the Hormel Institute and the St. Anthony Falls Hydraulics Lab because they're off campus and have some different financial arrangements. The government accepts your overhead rate and applies that then on their grants. There are some agencies that don't allow it or some programs that don't allow it. Like training grants never have allowed that kind of rate. The U.S. Department of Agriculture has never accepted the rate; so, there have been those kind of anomalies. That has brought a bunch of contention also—the indirect cost that is—to faculty who feel it should be their money.

CAC: Well, that's the point I'm going to raise now. How about the internal distribution? Who makes decisions on that, how much will go to the P.I., whatever it may be, and how much to Plant, and services, and the library?

AP: This has been an area of great discussion and debate throughout the university's history.

CAC: How was it resolved when you came aboard in the 1960s, for example?

AP: I'll tell you how it was resolved. In the 1960s it was less of a problem because, basically, the state required the university to return all of its indirect costs to the state.

CAC: They subtracted it from legislative appropriation?

AP: It was a deduct of the state appropriation.

CAC: I see.

AP: The theory was correct, in fact, because, basically, the state was paying for that in the first place. The heat, lights, and utilities are paid for by state appropriations. The buildings were paid for by the state. Our salaries are paid for by the state. We were simply returning money that . . .

CAC: Ahhh.

AP: Over the years, faculty didn't like not having any money to do things. They saw this money coming in and it was always hard to explain how this worked. If you talked to someone at another institution, say Stanford or something like that, their P.I.s would get some money back sometimes. They were a private university; so, they allocated money back to P.I.s. In the late 1960s and 1970s, the Senate Committee on Research started to push the university to try to get some money back that was related to indirect cost and it really wasn't until, I believe, Ken Keller's . . .

CAC: That late?

AP: . . . time when he was maybe academic vice-president that we went to the state and said, "We should retain some of our indirect cost." We actually developed a position paper, that I was involved with, along with the Minnesota High-Tech Council to tell the state we need this money to invest back into research. The Senate Committee at the same time . . .

CAC: This is when David Lilly was vice- president for Finance, I think.

AP: It may have been around that time. It may have been a little bit before David, also.

CAC: All right.

[End of Tape 1, Side 1]

[Tape 1, Side 2]

CAC: We're talking about indirect costs, and overhead, and its distribution. I hadn't realized that it came that late, that we had access to those funds, because I've interviewed people in the Health Sciences who put it this way: they saw those monies going north of Washington Avenue.

AP: They still say that.

CAC: Yes. They wouldn't have access to it as though there were some kind of a conspiracy. What you're saying now is that it wasn't until, oh, the early 1980s that the legislature permitted the use of this overhead as additional funds to put into the research capital enterprise, right?

AP: That's right. The trouble was back then and why the Health Science people feel that way—they're right because most of it did go the other way—is that even though we had this deduct of funding, we still kept a pool of this indirect cost money and used that money to fund various things at the university.

CAC: The legislature was not insisting upon 100 percent deduct?

AP: They had 100 percent deduct . . .

CAC: All right.

AP: . . . but the money stayed here at the university; so, it was that we still needed to use that money for funding various things at the university. That indirect cost money just became part of our budget process. It became income. So, we used that money and actually showed an allocation of indirect cost to various activities—research related or not.

CAC: Who determined distribution?

AP: That was determined through the budget office at the university.

CAC: In consultation with whom? Was it the Academic Affairs vice-president?

AP: The vice-president of Academic Affairs and the vice-president of Finance. With all of the budget requests that would come in, this would be a pool of money to use to fund some of those activities.

CAC: But it was at the vice-presidential level that distribution decisions were made?

AP: Yes, yes.

CAC: You see, I was chairman of the Senate Library Committee and I would represent the library system in seeking some of that overhead for libraries.

AP: Sure, libraries did get some. This office was funded out of that.

CAC: Okay.

AP: There were various positions around the campus funded out of that money. You know, it was just various decisions. It didn't have to be research related even.

CAC: But some of it would be into underfinanced research areas as the Humanities?

AP: Could be. There were no rules about it.

CAC: So, it's pretty ad hoc?

AP: It was very ad hoc. The Senate Committee said, "We think you ought to take that money that you're giving away to non-research things and give it back to university departments and faculty in a certain way."

CAC: I see.

AP: Keller was the Academic vice-president during that debate.

CAC: Okay.

AP: He did not agree that we should give it back to P.I.s . . . that we should use it wiser in a sense, to give it to institutional kinds of things and get it back to the colleges. It was about that time that we actually then went to the legislature and got it; so, it wasn't a deduct any longer, that we actually could retain this money and use it for research. We now get all of our overhead money back except for \$6 million; so, \$6 million still becomes part of this deduct. We were probably talking back then of \$15 million. Now, we have \$40 million in indirect cost money and \$6 million of that is retained by the state in a sense, or is a part of our offset, and the rest is sent to departments and colleges on a formula basis, and some of it's retained centrally to pay for such things as this office, and larger initiatives for research; so, it's now being distributed back to units for their use. Now, the argument the Health Sciences still makes is, they bring in 60 percent of the research and of the indirect cost and don't get 60 percent of the money back. The decisions for that are . . . you go back to Keller's time with his Commitment to Focus. He decided to invest more money into IT [Institute of Technology] to build that up and that's where a lot of the money went from indirect cost. It may have been the right decision but it's not one that politically has been good or if you look at an equitable kind of thing just on indirect cost, it

caused problems and it continues to be that. I think, Clarke, it's a divisive thing that has happened at this institution between the Health Sciences and the rest of the university . . . this, how indirect costs and how budgets are sort of set.

CAC: I caught it first in this talk about the Grand Canyon of Washington Avenue, which is a nice metaphor. [laughter]

AP: I think the canyon's getting bigger.

CAC: The line of questioning that I had anticipated, and it may not lead productively, is the relationship of the office—when it was created in a coordinated fashion in 1974 and then you became the director of it—to all of these other self-interested groups, the professional colleges and the various . . . I know that different offices in Morrill Hall have a very sensitive . . . to issues of turf. You know, we all do. How did your office relate to all of these conflicting political, academic institutions and offices?

AP: Well, I think from 1974 to about 1980 or 1981, things with this office—hopefully it was partly my leadership of it—were pretty calm. We got along well. I don't believe there were any real turf battles that I can recall with respect to this office. I had a good relationship with the academic deans, and department heads, and with faculty. I've always had a pretty good relationship because of my basic philosophy of why we were there.

CAC: Does this mean that you had to spend a lot of your time negotiating or conferring with faculty?

AP: Well, it's just the kind of business that there are a lot of questions, and problems, and issues that come up.

CAC: And they have to see you?

AP: They have to see me in this office. My first goal was to try to help them with their problems. You build up a natural rapport with that sort of client, in a sense. I've always looked at that as number one, even before my bosses in a sense, which may not be the best thing in the world but I've sort of looked at that part first. I think there wasn't a lot of turf battling at least in the research enterprise. We just got out of this reorganization, the faculty continued to do their thing. I think we were managing things better. There was a level of confidence at the time.

CAC: It was more manageable because there were fewer rules?

AP: More manageable than it is today, clearly, because I think there was just less question about how you do things, less scrutiny. Things went on very well for that period of time.

CAC: This would be through the 1970s and into the 1980s?

AP: Into the early 1980s. The university was well funded. I believe in the early 1980s is when things started to take a turn again. In fact, when we started getting computers and stuff like that, one had to do more with trying to become electronic, in a sense, because you just couldn't keep up. The growth was starting . . .

CAC: You couldn't control the data?

AP: Couldn't control the data, people wanted more information. We actually had some new vice-presidents who came in the early 1980s. Koffler was here. Henry Koffler was academic vice-president. He was more demanding of getting data that he'd always think we'd have, that we scramble to get because we weren't . . .

CAC: What use did he want to make of it?

AP: It was for presentations to regents, presentations for this, that, and the other thing, for his own information. He was more of a hands-on kind of person. We also had a vice-president of Finance that came into the institution, Fred Bowen, who I went to work for a year or so. When the university received this first budget cut of any magnitude during the [Al] Quie Administration, it was, like, a \$50 million budget cut. I recall back then helping him look at where we could cut in the financial area. It was pretty simple because the place was really well funded. We had service organizations that had subsidies so large that they would have a big reserve. They could have operated for a long time. It was pretty simple to cut out various things on the university budget at that time. Now, I think, we're beyond the bone but back then, it was pretty simple. I worked for him for a year. That's when things started to get a little bit . . . started to change . . . with some of the presidents, with the administration. There was more stress put into the system because of budgets and because of planning. I think in the late 1970s and early 1980s is when the University of Minnesota to some extent changed its ways. When I first worked here for the first ten or fifteen years, it was a place of more community. I think faculty and others . . . you worked for the University of Minnesota. Now, I even hear things differently about it. Even people who work here aren't for the university. They're having to deal with their own research programs. They don't have money from the department any longer. They don't have the subsidy that they had. They have to make things do. They have to find out creative ways of doing things. All of that may lead to some of the problems that you see today. Money makes people do different things and you have to be more creative. I think a lot of the things that have happened over the last fifteen years have been influence by the budget cuts and that kind of thing. In my own opinion . . . when I look back at this university, I can't see what's changed in any major way of our sort of academic programs. We have all the same kind of colleges, except for Waseca. We still have Veterinary Medicine the way it is despite . . . I know, people tell me that that business has changed greatly.

CAC: From large to small animals [unclear].

AP: Yes. It's more herd management and that kind of stuff. We haven't changed. We have the College of Biological Sciences. There's been a debate about Biology there in Agriculture and in the Medical School. Through all of this planning . . . and we have the undergraduate initiatives and all these things now. These are all important things. From where I sit, I haven't seen a major, major change at this institution. It looks the same to me. It feels the same to me.

CAC: But the mood, and temper, and mode is different?

AP: It is. There are more centers that are sort of split off from departments . . . good or bad. I think there's less of allegiance to the institution, more to the department and sometimes not even there. If you're a department head is such that you don't get money from, you go do your own thing. I don't think that was the case before as much as it is.

CAC: Let me respond to that to comment on what I've heard . . . I've talked with seventy, seventy-five faculty. These are scattered all over and some are primarily instructors and have a very modest research program, some are essentially research. They all say that, right? One of the conclusions they reach is that the growing complexity of knowledge required a degree of specialization that was not true in the earlier era so that one identified with a subspecialty of a discipline rather than with the discipline, or the department, or the college, that the increase of knowledge and the fragmentation of research meant a fragmentation and a breaking of collegiality. Now, is that what you're talking about here also from another perspective?

AP: I think that's true. I think there were programs developed just for that purpose of interdisciplinary research. The National Science Foundation did it. The National Institutes of Health did it. I think that caused some of that to happen.

CAC: Individuals, then, seeking to advance their careers identified with a subspecialty nationally rather than with the home team, rather than with institution?

AP: I think that could be the case in some areas. When you cut all of the stuff across though, you still see that most of our grants are P.I. faculty initiated in their own department; so, you can use that for part of the argument. I think that nowadays you get less service, less funding than before and you have to be more creative in getting your work done and getting promoted. To get promoted, you've got to have publications and that kind of stuff. Those who are able to get research grants, you get them however you get them.

CAC: So, you get scholarly entrepreneurs?

AP: Sure. It's much different today in that whole area . . . going to industry to get funding, to foundations, and to the state of Minnesota. We didn't have those kinds of funding agencies before. In 1984, the University of Minnesota received \$2 million or \$3 million in industry support . . . \$2 million, ten years ago. We now get \$20 million or \$30 million. That isn't just the normal [unclear]. There's been a huge jump over the years. Part of that is attributed to our

technology transfer, part of it is industries coming to universities, part of it is faculty saying, "Hey, here's a place where I can get some research money." Before, you'd consult and that was about it. Now, you do consulting, you do research with them, you might even do technology transfer with them. It's a lot different kind of thing. In fact, the government has really encouraged that, too. The state of Minnesota . . . you'll see we have \$10 million or \$12 million in funding. Ten years ago, we had \$1 million. Foundations have increased. That's why you don't need to help these faculty. They're smart, industrious people who if they want to do research . . .

CAC: They'll find a way.

AP: . . . they'll find a way. It's not a hidden thing out there. I've always felt that if you're in your field reading the literature of people who are doing work in your area, you'll find out where they're getting funding, too. You just know the kind of places. You don't have to be some wizard . . .

CAC: [unclear] research projects that are probably fundable?

AP: Sure. You've got to have your own ideas but you certainly can see what people are doing out there and you know what kind of twist to make of it.

CAC: You've used the term several times of technology transfer. That's a related but a separate thing. Let's turn to that now. Reading the documents that your office provided me, I get a sense that it was conversation as early as the mid 1970s but it's not until the 1980s that technology transfer, as such, comes to be a major part of the operation?

AP: The university had a patent office, I believe even in the 1950s. I can't recall the guy who headed it up but I recall looking at some documents where in the late 1950s this person waived an invention to a couple of faculty in IT who started a company called Rosemount [Engineering].

CAC: Yes.

AP: One of the first mistakes that the university made is they waived the invention; although, it created a fabulous company and Vern Heath, who was the president of the company, has been wonderful to the university.

CAC: Was that that high . . . started with the high temperature . . . ?

AP: Yes, the temperature probe on airplanes.

CAC: And then on rockets?

AP: Yes. So, Rosemount became a billion dollar corporation.

CAC: But the university had no control over?

AP: We could have but we just really didn't have the kind of sophistication, the kind knowledge to do that. It wasn't the thing to do in those days.

CAC: Were other universities doing it?

AP: Some universities were doing it. Wisconsin did a . . . There were no real programs around the country of any consequence at all. The government rules about it were difficult. You had to petition them to get the rights. That has always been a difficult process. Will Fornell really brought the patent and licensing into the modern era, and developed a good reputation, and could pick out some of things the university faculty had as inventions, and try to license them. But he even had a difficult time because (1) the university didn't fund it very well and (2) the government still required retained title. If you had an invention, you'd have to go in and ask them for approval to get title and to license it to a company. They would only give you approval to do it on an exclusive basis for a short period of time. In the early 1980s, there was a bill passed by Congress called the Bayh/Dole Act [Birch Bayh/ Robert Dole] which gave universities title to inventions . . .

CAC: Excuse me. This is for the record that it's Senator Bayh, B-A-H-Y, [actually, B-A-Y-H] and Senator Dole, right?

AP: Right, the U.S. Congress . . . Bayh from Indiana . . . passed a bill—that was supported greatly by universities, lobbied a lot, developed by university people—that gave universities title to inventions made under federally funded research. That changed the way universities got into this business. During that time, there was this talk about more industrial partnering and more industrial research; and this was pushed by the Reagan Administration. That's when I asked to take a look at the patent technology, the Patent and Licensing Office. Will Fornell had just retired. I made a report on it and said, "You need to do more with it." The university really didn't do a good job of identifying its technology and doing something to make money. This university has had some of the most marvelous inventions—better than any other university in my opinion—over its history that has not made money.

CAC: Taconite made nothing.

AP: Taconite was the best invention of all and made this state a great deal of money in terms of employment for people. It's the greatest invention of any university for its own state.

CAC: What was the process of . . . did we just give it to the mining companies?

AP: The deal was it would be given to any company doing business in the state of Minnesota royalty free. We, in turn, received funding from the state for the Mining Center, \$100,000 a year or something. That's now even closed.

CAC: The royalties could have been hundreds of millions?

AP: Several hundred million. It would have been the largest royalty of any university.

CAC: I'm going to interrupt, once in awhile, here. When I was at Wisconsin one summer teaching, they talked about the Babcock Separator that they had at the University of Wisconsin—this goes way back to 1910 or something—to separate cream from the milk. They somehow kept the royalties from that because that was built-in, I was told. Now, is that just legend?

AP: Their greatest invention—where they get their notoriety for their Warf . . . their office is called the Warf Foundation—is Warfarin, the rat poison that was invented at Wisconsin that's in D-Con and all these other kind of poisons. They also had various vitamins that they've invented; so, they got a huge amount of royalties in the 1930s and 1940s out of this. The wise people at the institution were going to give that money for research and other things but one of their regents or a businessman in town said, "Maybe, you ought to invest this money." They invested into various things and made tons of money on investments versus royalties.

CAC: Ahhh.

AP: Their history has been great. They've done a good job . . .

CAC: And quite different from Minnesota's history?

AP: Quite different from Minnesota's where we have had big hits . . . If we had had an office and the right mentality here, we'd have captured Medtronic . . . that was two university people essentially. The black box flight recorder is a Minnesota invention. The K-ration actually was a university invention. I'm not sure we'd get much money out of that. The first retractable seat belt was a university invention.

CAC: None of them benefitted their inventors?

AP: None of them benefitted their inventors other than the notoriety that came with it. In the 1980s is when there was this push . . .

CAC: Was it legally possible to have done it before the Bayh/Dole Act?

AP: It was possible. The university had a patent policy that permitted a distribution to faculty. That was permitted.

CAC: Why wasn't it done?

AP: It was one person handling this whole university. It wasn't a big deal. If someone came to you with an invention, you'd look at it and try to do something with it. It just wasn't a progressive kind of thing. It was run by a faculty committee. Gerry Shepherd was on that committee for years and was a positive guy in this area but there was never this thrust for it. There was never an initiative. No one saw it as a big deal. No institution really did. Stanford and MIT [Massachusetts Institute of Technology] did.

CAC: Wisconsin.

AP: Wisconsin did. Very few others did. Even Stanford and MIT did very little. They did licensing but they did very little business start-up. Faculty started starting these companies and started sending their technology to companies directly; so, those institutions even lost out on the fact that they would do a deal with these companies. That has changed a lot over the last years. If you look prior to 1983, there were probably a couple of hundred patents issued to universities. I would say today, you will see that there are thousands of patents.

CAC: Across the country?

AP: Across the country. Most universities have offices now that do this stuff. We now have an office of twelve, thirteen people doing technology transfer. There was another reorganization . . .

CAC: In 1984, 1984?

AP: . . . that combined the Office of Research Administration and Technology Transfer, which I think is the greatest way to go and, now, there's talk about changing it again. When they change it the next time, I'm gone!

CAC: [laughter]

AP: That could be soon. They are looking at changing that now. So, we combine those offices and in 1983, before I took over, the university had thirty inventions disclosed and received a couple, three, patents in 1983. We now do anywhere from 150 to 200 inventions a year and get anywhere from twenty-five to thirty-five patents a year.

CAC: These inventions may be in bio-genetic research, for example?

AP: They can be in anything at the university.

CAC: Okay.

AP: The history of this place on inventions . . . someone ought to really do a history of the university's research enterprise.

CAC: Well, that's a chapter. Whoever is going to do this in the year 2000 has got to do it.

AP: It is fantastic what has been achieved by the faculty of this institution. The university has twenty some varieties of apples. The Regent and the Haralson apple are two of the most famous.

CAC: The Haralson is the best ever made.

AP: Best ever and it was given to the world free by the generosity of the University of Minnesota. We have our first patented apple called the Honeycrisp apple which is maybe even better than the Haralson. This one's a great apple. We've now licensed it throughout the world.

CAC: Ahhh.

AP: Now, it's not going to make us millionaires.

CAC: What will the horticulturalists who developed it get?

AP: They will get one-third of the revenue.

CAC: Okay, for their own person use?

AP: Personally. One-third, essentially, will go back to their laboratories for more research while they stay at the university and one-third to the university to cover the cost of this office . . .

CAC: Now, is that an internal policy?

AP: It's a university policy.

CAC: This isn't the national legislation that would set this?

AP: No, no, but the national legislation requires you to share your royalties in some manner . . .

CAC: I see.

AP: . . . with your inventors.

CAC: Right away, we're into a risk of conflict of interest?

AP: Absolutely . . .

CAC: Say something about that.

AP: . . . if you want to think about it that way. To me, conflict of interest typically is where something good can happen rather than something bad because as soon as you say, "Conflict of interest" are you saying, "Someone's going to be greedy. Are they going to cheat to get this? " Why is it a conflict.

CAC: Or you're going to distort your research in order to . . .

AP: You might distort your research because you want to get promoted.

CAC: It's not uniquely connected with this.

AP: Conflict of interest is not distorting research. That's fraud. That's scientific misconduct.

CAC: Okay.

AP: A conflict of interest, I think, is where you may be in a situation that's so difficult to sort of just lay out there to say, "This is an honest deal," when you can profit so greatly from your work at the university that maybe you need to have some oversight . . . at some point maybe you don't allow this to happen. The straight doing research, having an invention, licensing it to a company, and getting royalties is not a conflict of interest in any stretch of the imagination, in my view. If on the other hand, the person that is getting these royalties owns the company, then maybe there we have to start questioning it. If they own all the stock, we have to worry about what's going to happen.

CAC: In some of the medical cases the last ten years, that was the case?

AP: Well, the case in the Medical School, the first one that hit the papers . . . Joe Rigert exposed a company called Curative Technologies, is where Joe Rigert had it all wrong, all wrong.

CAC: Okay.

AP: If he had listened to the facts on that case and if he had stop there, too, the university would have been all right because we defended that case properly. There were no wrong doings on that case. It was proven to that extent. We told them about the issues. That was not a company that was started by the University of Minnesota. It was started even before it got here. Everything was above board. If we made anybody go through a lot of review in a process, it was this professor. He left the university because of all of this. What Rigert went on to find in that department was that there were problems and indeed, there were. You cannot operate developing a drug inside the university and that's sort of what happened to the ALG [Antilymphocyte Globulin] process.

CAC: ALG and the depression chemical, the suicide . . .

AP: Well, that was a different deal. That was not, in my mind, a conflict of interest.

CAC: Okay.

AP: That may have been . . . I don't know that it's proven to wrong yet . . . if you're talking about the same one dealing with the Hmong?

CAC: I was thinking of the [Barry] Garfinkle.

AP: Oh, that one. Again, I don't know if it was a conflict of interest because he was getting money. He got a research grant. I don't know that he was getting a consulting payment. He didn't have any equity. He didn't have a royalty. He just shortcut the research. You should not as an historian leave out five years in your research either and say, "Those years are immaterial," when in fact, they may be material.

CAC: Right.

AP: So, I think whatever that case was, that was not a conflict of interest case. It was a relationship with industry but it was, at least according to the courts, proven to be not handling of scientific protocol properly and a violation of those kinds of rules. The ALG case is one that I believe the university should have . . . that kind of thing should not be going on inside the university. People didn't know about it really. It was viewed more as a research program than a drug development kind of thing. No one had the knowledge of that. You know, there's a certain amount of awareness now that we didn't have in the 1970s and the early 1980s about this stuff. Nils Hasselmo is positive toward tech transfer, trying to get stuff out. We have much more knowledge about these things. Sometimes problems breed opportunities and more knowledge. I wouldn't have known if ALG had hit me square in the face in the 1970s that that was anything. We were handling contracts about that but it was a research program. If, today, someone has a protocol, it's gone through human subjects; so, there's just more checks and balances actually along the way and that's what's complicated things . . .

CAC: These checks and balances had to be developed internally?

AP: They had to be developed internally. Some have been imposed by the government, rightly speaking. Animal welfare, human subjects, safety, bio-hazards, all of those kinds of things . . . none of that stuff was there years ago.

CAC: That came from the initiative of federal agency oversight?

AP: Yes.

CAC: Okay. I was going to inquire . . . particularly the use of human subjects because that comes to be a major consumer of bureaucratic time in terms of the university?

AP: It's a very important and time consuming task.

CAC: That came from the initiative of federal agency oversight?

AP: Yes.

CAC: How did the university respond to that? This comes in the early to mid 1980s, too?

AP: No, it comes before that.

CAC: Okay.

AP: It comes in the 1970s. It came out of some of the findings out of research where subjects finally said, "I was not informed about being given this . . ." whatever. I think through the National Academy of Sciences, and the National Institutes of Health, the Public Health Service, they developed the Human Subject Policy, how to treat human subjects. Actually, a person who worked on that is a guy named Dr. Joe Perpich, who is an alumni of the University of Minnesota, who now is the vice-president of the Howard Hughes Foundation, who's the former governor's brother.

CAC: Ahhh.

AP: He's from my home town and a family friend, who's an M.D., a lawyer, psychiatrist, who really wrote the first human subject stuff.

CAC: Again, historians always have to chronologize. This is in the 1970s?

AP: I believe it was in the 1970s.

CAC: We can trace down these facts.

AP: The government initiated the policy and it required universities to have an institutional Human Subject Policy in order to accept grants and contracts; so, it became a condition of federal funds.

CAC: Then you had to develop the bureaucracy to enforce it?

AP: That's right. The current person, Moira Keane runs that office and may have some prospective of the past, at least some historical of when it started.

CAC: It won't surprise you that even my project here, my interviewing you, you're a human subject.

AP: That's right. Yes.

CAC: In my initial inquiry, not to your office but through the department and college, they said, "Oh, you're just going to interview. That's all right."

AP: You ought to test it out with Moira Keane to see whether or not you need approval.

CAC: I did. No, I did. I got approval because I began to get signals that I wasn't on my own at all. I'd better do this, which I did and then, renew it every year.

AP: Right. Those kinds of things have created much more bureaucracy. More issues have come up because of it. More problems have come up because of it but it's an important thing that wasn't there in the 1960s, and 1950s, and early 1970s, maybe.

CAC: For example, when the Minnesota Multiphasic Inventory was done . . .

AP: Another great invention of the University of Minnesota.

CAC: . . . and it grew out of the use of human subjects. They gave this exam and then abstracted the questions that were revealing. There was no Human Subject [Policy] then?

AP: No.

CAC: Where did the benefits from the MMPI go?

AP: That goes partly to the University Press and part to the department. The institution doesn't receive any funding that I know of on this.

CAC: Starke Hathaway and others didn't get a . . . ?

AP: I don't know if they do. I don't know that they did. That's another fabulous invention of the University of Minnesota.

CAC: Oh, yes. But I never see it in a list of these things. The other list I've seen but I haven't seen that one.

AP: I don't know if we have put it in there but it is one of the famous ones.

CAC: Yes. I'm not through with the technology transfer. [laughter]

AP: Okay.

CAC: I was surprised to see myself a member of the [David] Lilly task force in 1983. I have no memory of ever going to a meeting—but that's beside the point.

AP: That was an important group.

CAC: Yes. I am now made aware of the task force and its findings. It was to advance the transfer of technology and to regularize internal expectations and accountability, right? This is in 1983. The Bayh/Dole bill is what year?

AP: In 1982, I thought it was.

CAC: Okay. Well, it may be that this Lilly task force really is inspired or given a green signal by that legislation. Would that be a [unclear]?

AP: I don't know that it was just that legislation.

CAC: Well, it may be other things, yes.

AP: It was a lot of things. That was part of it. That task force was very important for how things have developed since . . . from some business leaders and internal people . . . there were various things the University of Minnesota had to do to take advantage of these new rules, to help the economy of the state; and all of that was very instrumental, in my view, of sort of making this office happen and to give to the University of Minnesota some push that this was a good thing. From Keller to this current president, I have to say, they have been very, very positive about this . . . I think not as generous in funding it as they should to make it even bigger but they have been very positive in their words and support and have talked a lot about it in their various messages.

CAC: I assume that David Lilly, who was out of the private sector, played . . . not only chairing this task force but I assume that he made other contributions of major importance in that?

AP: I reported to David for awhile and he in this area was good, in this business. He was . . . let's do it, let's go with it, let's do these things. He was very positive, very encouraging; so, he was the right person there to sort of launch that. What the university didn't have in the past . . . What I should say is that the patent office reported to the attorney's office . . .

CAC: Okay.

AP: . . . before I took over. Now, I couldn't think of a worse place to have a business, wheeling dealing operation report to than the attorney's office. If it reported to the attorney's office today, we would have attorneys telling us how to do deals and we wouldn't do any deals because . . .

CAC: But you would have to have attorneys in that office under your direction?

AP: We have a very good working relationship, in my view, with the university attorney's office. A couple of years ago I was instrumental in getting them to hire a person who knew something about business operations.

CAC: And patent law?

AP: To know something about patent law but patent law is not as important. We usually hire outside attorneys to do our patents. If we get into some kind of litigation about a patent, you need someone pretty prominent in that area. Now, they just hired somebody to replace the person who has experience in contracts, experience with patents, who can deal in this arena. When we have a problem or a question and we need some help, we turn to that office. But to report to it would be too difficult. There would always be this question about why are you doing this, why are you doing this? That change was made and we reported to the vice-president of Finance; and I think that's what made the difference here. There are no offices that I know of in the country that report to attorneys' offices. It needs to be more of a business orientation than it does an academic thing or anything else. We don't look at, Is this good science?

CAC: It would be beyond your competence [unclear]?

AP: Yes. We're looking at, Does it make sense to be a business or a product? Let's go find a company that will make the judgements as to whether it's worthwhile or not.

CAC: What other officers, other than Mr. Lilly, inside the university were effective in moving this forward and making it function?

AP: Lilly and Keller. Keller was.

CAC: How about the graduate office again? Does that just become irrelevant increasingly?

AP: Yes.

CAC: Even when there was a vice-president for Research [unclear]?

AP: That came a lot later.

CAC: Okay.

AP: The vice-president of Research is only a phenomenon of three years ago. Anne Peterson was the first person there. Bob Holt, as dean of the Graduate School, started taking on more and more things related to research in the sort of academic arena, some policy . . .

CAC: Was he a supporter of technology transfer [unclear]?

AP: Yes.

CAC: Effectively so?

AP: Bob is one of the smartest guys I've met in terms of his thinking about things. Yes, he did but he was at that time not involved in the whole enterprise but he was very much supportive. He and I made a presentation to the legislature about it. Gerry Shepherd . . .

CAC: Still even after he left the vice-presidency?

AP: To this day, he's helpful. He's supportive. He complements us. He was very instrumental. He's been involved with the patent group for many, many years. He was helpful in getting us some money from the Northstar Foundation.

[End of Tape 1. Side 2]

[Tape 2, Side 1]

CAC: We're picking up the conversation of technology transfer and persons internal to the university who were imaginative and supportive and persistingly so. How does one find persons outside the university to work with? How does the university cultivate that community?

AP: Let me tell you one thing, Clarke, when we first took over and decided that we needed to change the university policy on patent distribution, the patent policy, there was a guy at 3M, Jim Smith, who was the patent counsel there who helped us tremendously and various other people in the community—I don't recall the names. There was a positive feeling about the university getting into this business; so, that was really great. We were given some money by Keller to get more patents.

CAC: When he was vice-president?

AP: When he was vice-president. We had sort of some impetus to move forward and started getting more inventions because we went out and talked to department heads and faculty saying, "Here's what we're going to try to do." I didn't know whether we were going to be able to achieve it but we were going to make a good attempt at it. We started getting more inventions right away. We contacted companies here in Minnesota and elsewhere and said, "We have an invention." We'd market it. We'd travel to their companies. We'd invite them here to the university to see the professor and the professor's laboratory. We always kept the professor involved in the discussions, never tried to do a deal that they weren't involved with or weren't happy with to some extent.

CAC: Here was another function for your office to pick up with a limited staff?

AP: It was a major new function. At first, we had two people to do this thing. It finally has grown because we're making a little bit of money. We received \$400,000 back in 1984 by Keller for this operation. Some of that was taken away a few years later.

CAC: With retrenchment?

AP: With retrenchment. It's now been put back at \$400,000 but with that we pay for all of our patent costs, all of our personnel, all of our expenses; and we, basically, break even. They give us \$400,000. Our patent costs cost \$500,000, our salaries are more than \$400,000 a year. We're getting anywhere from \$1.5 million to \$2 million or \$3 million a year in royalties that go back into the college and fund this activity. We now have a staff of six professionals who go out and . . .

CAC: In that field alone?

AP: In the technology transfer area . . . try to get their ideas. They submit their ideas. We get now, like I say, 150 to 200. This year, we had our highest number, 200 inventions.

CAC: God!

AP: We have a group called the Technology Evaluation Council, which is made up of people outside the university.

CAC: Do you select those outsiders?

AP: Yes, we select them. They're from Medtronic, from 3M, from Venture Capitalist. They're people who come in once every two months. We show them our inventions and they sort of give us the thumbs up.

CAC: How large a group is this?

AP: It's about fifteen people. They love it. They love coming to these meetings.

CAC: Oh, I'll bet.

AP: They see the new technology. They're excited.

CAC: You yourself have to keep in personal touch with that?

AP: We keep in touch with that. We make presentations.

CAC: I mean you personally, as director.

AP: Yes, I do. It's one of our most important liaisons really. Our staff make presentations to this group of our new inventions that we think have promise. They give us some advice as to whether we should proceed, whether we should get patents. They give us some contacts with other companies.

CAC: Regardless of whether they're bio-technology or whatever?

AP: Whatever they are. These people sort of have the right feel for things. They've been a tremendous thing for the university. We never had that before. We were always making our own analysis. To have two people one day try to do an apple, and the next day do a genetic marker, or a heart valve, or a [unclear], or something like that, is asking a lot. So now we have more people in different fields. All of our folks here have scientific backgrounds and when we complement that with this outside group, I think we make some good choices of where to go with these things. I think we have a good organization. I think it's looked at as one of the leaders in the country. We were a little bit hot three or four years ago with some of these problems but the university has sort of cooled in down on the national scale. In fact, people want me to come and give talks about what's going wrong at the University of Minnesota, based on the stuff that's happened in the Medical School. I recently came back from Arizona as a consultant there to look at their technology transfer program. That's one thing Nils didn't do much there. I don't think they pushed that effort and maybe it's because the president didn't. We're fifteen years ahead of them, and they're a big institution now, and they should be doing much more in that arena. I gave their president the kind of pitch I gave Ken Keller and others here. They bought it here and maybe their president's going to buy it. I think we have now created a culture with some people inside the university that says, "This is good." There are not many people saying, "This is bad. You're changing the university. We're getting into all these troubles." The deals that we have done with companies in Minnesota and elsewhere, by and large, are very straight forward good deals, good for the company, good for the university, good for mankind. These are products that people use to benefit them. I would say that companies, like Medtronic and others, would say, "The university is better today in doing this kind of stuff." Nationally, companies know that we're in the business of doing this. We have over 200 licenses out there today.

CAC: Heavens.

AP: Fifty of them to Minnesota companies. I can show you successes for startup companies in Minnesota that we have equity in. We have a company located near Stillwater, that has a cystic fibrosis vest, that was about to go out of business until we gave them this product. They now have twenty, thirty employees.

CAC: You say "gave it to them" . . .

AP: Licensed to them. We don't give things away anymore.

CAC: Not in the sense of Taconite? [laughter]

AP: We don't give away anymore. I'm hopeful that my legacy won't be that we gave away the heart drug . . .

CAC: [laughter]

AP: . . . or the cancer drug to society without anything but if we invent it and don't get anything, that's good enough, too. There are some things that are so huge that it's more important that it gets used by people than just the money motivation. I should say one thing about this for the perspective that people need in the future. This business of patents and licensing is interesting. It's necessary to do this. It's not probably a winner in terms of making money. It's more important to get this out to be used. When you think about it, if you could make \$2 million a year, it means that at a 5 percent royalty, you must sell \$40 million a year in university products. That's big business. Who makes a lot of money in this business? Stanford makes \$25 million a year . . . \$20 million of it comes on one patent, on the DNA [Deoxyribonucleic Acid] patent.

CAC: Heavens.

AP: You know, you can't look at this as a way to finance the university. There's been about \$20 million in research that's come in because of our patents. You don't count that as royalties but there's been \$20 million in research. We go out and negotiate a license deal with the company and they say, "We need to do more research with you," and they fund more research with that professor. I've seen students get employed by companies related to that technology. There have been a lot of attributes to it. The institution is looked at by companies in a positive light. But if I were to say, "Let's go into this as a business at the University of Minnesota," I would say, "Don't do it. To do it as a function of the university, as a part of your outreach, part of your Land-Grant mission, it's an critically important thing. In fact, it shouldn't even be looked at as a business thing in any way. We try to look at it that way to make some sense out of deals but it is not where you're going to make a lot of money. If we made \$20 million a year, it would be great but this is a \$1.5 billion budget.

CAC: The example you used as Stanford . . . you say one-half of it comes from one major DNA . . . MIT, Cornell, what other universities have done well?

AP: MIT does about \$6 million a year.

CAC: That's all?

AP: Cornell or Columbia has a big hit on something—I don't recall what it is—that gives them \$20 million. Michigan State does not have an office like ours but had a big invention called cisplatin; it's the major cancer chemotherapy drug. They had a company called Research

Corporation, which is located in Tucson, Arizona, which licenses technology for universities if you want to sign up with them and they take 40 percent of the royalties. Michigan State on that one invention only, about the only thing they make money on, makes about \$8 million a year, \$10 million a year. If we had that same invention here and don't use a research corporation, you'd make \$20 million a year. Florida State did Gatorade. Purdue one year made a bunch of money on something . . .

CAC: Is Gatorade really something that could be patented?

AP: Yes, they did it. They patented that process.

CAC: Oh, my!

AP: The success is not necessarily because you're a great institution. One great invention . . . Now, we have three or four things out there today that could make the university a lot of money. We have a drug that's going into trials now that's very active against the AIDS [Acquired Immune Deficiency Syndrome] virus. We've already made about \$2 million on that through the tests that it's gotten thus far. Our professor has made over \$600,000 on that particular . . .

CAC: Because he has royalties?

AP: Because he has royalties. It's going into the next phase of clinicals and they will pay us \$2.5 million . . . the drug company will. If it works, it will be a huge amount that comes into the university.

CAC: To say nothing if it works what it does for a lot of sick persons.

AP: For mankind is what this is about. While I think we made some bad choices about taconite, look what it's done for the people where I live in northern Minnesota. My dad continued his mining career in the taconite industry. The taxes that it continues to have for the state of Minnesota . . . it's pretty hard to argue that. I argue with the agriculturalists here, too, that we ought to capture more of their stuff. Look at the kinds of things they've done for people with soybean varieties, and corn varieties, and wheat varieties, and potatoes, all this kind of stuff that they've done. It's been tremendous over the years. I'm trying to convince them slowly that some of this, not all of it, needs to be protected and sold to others.

CAC: It may be sour grapes but I hear, again, from interviewing all kinds of folks all around, that there is a feeling also among those who are not in on technology transfer, that is, in the Humanities and many of the Social Sciences, that the consequence of this acceleration has been to distort other missions of the Land-Grant. They aren't criticizing that there are economic and societal benefits but that other benefits that a university might provide for addressing societal problems, housing, poverty, chemical dependency, violence, etcetera, don't get the same kind of support or recognition; therefore, the incentive is not there. I hear people saying that there's a

. . . it all goes into technology . . . that's largely Medical School and IT, plus some of the biological sciences. I've heard that from lots of people and you must have heard it? You aren't hearing anything that you don't know?

AP: I don't think I hear that.

CAC: I see.

AP: I think it's not based on fact. The Minnesota Extension Service does do more in that arena than it used to.

CAC: And CURA [Center for Urban and Regional Affairs] does.

AP: What is the initiative for tech transfer? Giving us \$400,000 to do it? I would say there is more money given in the areas you just mentioned, to do something in those areas, than it is in the \$400,000 that we get to try to promote that. I'm not sure if centrally there is an office for it. What is the mission of the colleges that do those kinds of things, that can have an impact on those kinds of things? I don't know how they're supposed to go and help do that. Are they waiting for a central kind of thing?

CAC: What I hear, you see, is just kind of an inchoate—I won't use the word discontent—uneasiness. Uneasiness would be a good expression.

AP: Yes. I think you ought to look back at how this sort of licensing thing emerged to what it is today. It's required by the people who give you the money. You have to make an attempt at it. The kind of technology transfer you do through licensing of a technology in the Medical School or elsewhere . . . there is only one good way to get a diagnostic kit to the public and that is through a patent and a license. You don't publish that stuff. If you publish it and it never gets to be used. If the institution feels or these faculty feel, in those areas, we're not addressing those kinds of issues, then it's something that they have to get to their deans and to their president to say this should be the initiative.

CAC: Sure.

AP: We have these things called Family, Youth, and whatever. We have housing programs. We have crime things. We have all those programs in various places throughout the university. How they're getting out in the community, I don't know, but I don't think tech transfer is the . . .

CAC: Would it provide a model for them if they were to?

AP: No, I don't think this is a good model. I think this is a very unique kind of model. I think the university needs a thrust in outreach, which the president has articulated. We have a Land-

Grant mission and you're to try to use the knowledge of this university and get it to people. Who needs our knowledge on crime? If we have people here . . . I'll bet you that there are more people at this university working with agencies within this state than there are faculty working with companies in this state on technology transfer. I would bet you a buck on that one, that there is much more with community, much more with state agencies, other non-profit agencies, outstate organizations by this university than there are technology transfer deals. When you narrow this all down, Clarke, we . . .

CAC: But not bringing monies into the university in the major way that this office necessarily has to?

AP: No.

CAC: It's a different game.

AP: We're only doing, maybe, twenty-five licenses a year. That's not like it's so major. The fact that the university has a large research enterprise allows you to do this. If we were just a humanities university, you wouldn't have tech transfer. I don't think it's a comparison thing that should go on. I think that they both have sort of outreach to them in some capacity. I would bet that there's more money and more happening in the area you say is under utilized in that way, or some feeling that it is.

CAC: Which is why I asked the question. I've got tapes on lots of different subjects and perceptions.

AP: Yes. Well, I think there was a perception that working with industry and [unclear] tech transfer was going to change this university. I don't think it's changed because of that. I think that we haven't materially changed the way people do research or [unclear] where the money is or that we have distorted their values. If people have gotten in trouble, they've gotten in trouble not because of tech transfer. They've gotten in trouble for a variety of other reasons. I don't think we have changed their research dramatically. If they don't want to do something, they don't have to do it. I think faculty still have that kind of freedom to it. I believe that looking at the Land-Grant mission . . . are we doing enough? That's an open question.

CAC: That's another question that has to be addressed elsewhere.

AP: Yes. I think we're doing our part for it as best as we can and you can't just do it in Minnesota.

CAC: As best you can . . . That raises another line that I wanted to explore if only briefly. I catch a certain play, this reorganization in 1974, another major one in 1984, and that's really what you're operating under now . . . we never think that we have enough resources to accomplish the task. As I look at the reports that you sent along—they are public reports to the university—I get

a sense that increasing functions have been required of this office, indeed, with an increase in professional and staff persons but apparently not sufficient to meet the increased demand that is placed upon you both internally by the university and externally. It struck me that this seems to be—I hear it elsewhere—the *Minnesota way*. People say that the Economics Department in Michigan handles fewer students than we do with a much smaller faculty. The same thing would be true of other line departments. We're always comparing ourselves with other Big Ten universities. I wonder if this university, generally, to think in larger terms, has done much better than it's resources would suggest.

AP: I think it has.

CAC: I do, too, from talking to lots of people. If that's the case, how does it work then? How can you keep on doing this? My department handles more students with fewer persons than any comparable university history department in the Big Ten.

AP: That's a good question. I think we're running up to the point where we're not going to be able to do that anymore. I think we're very close to that now. I think in the past that we've had some pretty outstanding people and we have them in the present, too. I don't know exactly how because I don't think our systems are any better. In fact, I think sometimes they're worse.

CAC: What kind of systems do you have in mind?

AP: Our student enrollment systems . . .

CAC: Oh, I see.

AP: . . . our accounting systems, our information systems. I think people at the University of Minnesota have been hard working dedicated people . . . I really do.

CAC: Yes, that's my impression.

AP: It was more so before than now, in my opinion. What happened in this office over the years is we've expanded not only in terms of the numbers of proposals . . . We get 3500 proposals that go out of this office . . .

CAC: Whew.

AP: . . . that have to be reviewed, and packaged, and sent; and hopefully, you don't sent them to the wrong place. You meet all the deadlines of proposals coming in at the last minute and you have much more subcontracting. You have more rules and regulations and many more complex contracts and grants that you have to deal with, with new requirements. The contract right below us here, this army high-performance computer center, is a \$5 million per year contract that includes subcontracts through industry, to other universities. It's a complex thing

that people here had to get up to date on, on how the federal acquisition regulations worked. A person in my office, Mary Lou Weiss, never worked with those before and had to study those. She's an expert.

CAC: She made herself an expert.

AP: She is smarter than the attorney that these companies hired on this stuff, who are [unclear] attorneys.

CAC: But she had to do this on her own with the support of the office?

AP: She did this on her own and she is an absolute expert on that stuff. I was in a negotiation with her where they were quoting clauses that she said shouldn't be in this kind of contract. That's what you have at the University of Minnesota. I really do believe you have some really hardworking people but the complexity of things, the demands on people . . . The university's accounting system has limitations for us. It takes much more effort to get things done with it, to get an account even established with it. We have requested funding over the years for additional people and really haven't received it. Just the fact that you get a contract like this one downstairs with the Center for Interfacial Engineering almost requires a full time person, yet, someone like a Mary Lou Weiss handles a load of 300 accounts. Our computer systems haven't kept up with it. I think that's part of the problem in a sense throughout the university that you start to become creative now in doing things. That's what I think some of the problems at the university are. You cut corners. We're not as effective in this office, I can tell you, today as we were five years ago. We do not review as carefully—can't. That's why we undertook a big review this last year with the Arthur Anderson people, which is why I predict that we will have some more changes in this administration. Maybe things should be decentralized even more, I don't know. The complexity of this business has grown substantially. People want more information. There's more accountability. There's more auditing. There are legal questions. In the last two years, I'll bet I've spent over half my time dealing with legal issues, not dealing with this office so much, but the legal issues associated with audit problems, with things in the Medical School, a project in IT that a faculty member was alleged to have stolen our technology . . . that took a lot of effort. We're dealing with a lot of those kinds of things these days.

CAC: And it's not only in this area. Think of the litigation that goes on throughout the university on all other kinds of subjects.

AP: Yes.

CAC: When I came here in 1951, I think Joel Tierney was the university attorney.

AP: He used to deal in real estate and gifts.

CAC: Yes. Now, what's the . . .

AP: They must have fifteen people.

CAC: And a lot of it's farmed out by subcontract to legal firms. So, the complexity has accelerated the last twenty, twenty-five years at an almost exponential rate . . . as I listen to people saying, "Let me tell you about the litigation," and it's something I'd never heard of. It's all kinds of stuff.

AP: Yes. I hadn't been to faculty grievance, tenure, dismissal kind of things in my first twenty-seven years being here but in the last three, I've been involved in deposition after deposition. I've been involved in trials . . .

CAC: Everybody that raises a complaint has a lawyer now.

AP: Sure. It's a different kind of thing. People here are more worried about approving something for fear of some reprisal.

CAC: Of course.

AP: It's that kind of thing.

CAC: Now, this is a national phenomenon?

AP: I think it is. Yes, I think it is.

CAC: It's has to be.

AP: We're not unique. Other universities are going to have similar problems that we've had here. I think it's national.

CAC: But it may be—I'm coming back to where I started—if not a unique, at least there is a difference in degree if not in kind that the University of Minnesota has had to do lots of things with fewer resources? I'm not asking an accounting question but maybe a cultural question.

AP: I think in some areas, yes, because I've heard the same statistics on the academic side.

CAC: Yes.

AP: On the academic side, I've heard things like at Michigan, their Mechanical Engineering Department has a student/faculty ratio of 1 to 4. We have 1 to 9, or 1 to 10, or 1 to 12. Well, that doesn't compute. It's just not the way it should be. Better facilities . . . how do we still rank? . . . in the top three. I guess we've slipped a little bit. We've got some wonderful people working extra hard in really lousy facilities. How long do you keep that up? I think that's where we're going maybe at the university. In my office, let me tell you that if you look in comparison

to institutions that are similar in research size, Michigan and Washington will have more people. but they even do less than we do as an office. On the other hand, if you look at a place like Illinois or Wisconsin and a couple other places, they have fewer people. The reason they have fewer people is that . . . We should have fewer also. They have better systems. They give better information to their faculty about their research grants. They don't do the kind of checking and rechecking we do here and work with the departments and sort of hold hands a lot of times about this to make it right. I've been more interested in making sure faculty get their cost onto the grants so they can charge the grants. We can no longer do that. We're going to start changing that to say to departments, "Get your stuff on within sixty days of the end of the grant. If it's not on, we're going to send it in." Now, you're not going to like that as a faculty member. You're going to go to your department administrator and say, "Look, here's what Potami is doing. You make sure you get my stuff in on time." This person says, "Well, look, we have ten other people who are here, too. I don't have the staff to do that." Then, you run to the department head who says, "I don't have any money left." That's what's happening.

CAC: At an accelerated pace?

AP: An accelerated pace.

CAC: If funding gives out . . . I can't see new sources of funding. I don't talk with people who see it. What does that say for the university then? One professor spoke of the melancholy of the professoriate. Part of it is what we're talking about now . . . it wasn't the whole part but part of it was that, that we're just asked to do too much with too little.

AP: Yes. I think that's true.

CAC: It falls back to the departmental level, you're right. If your office can't provide that, then someone else has to and they don't have the resources either.

AP: They don't have resources and they don't have the knowledge. What's happened here because of all the reviews that have gone on in surgery and other places . . . We had Arthur Anderson come in take a look at grants management so that we could show the government we're not a bunch of slouches and tell them there are some areas we need to improve. We've gone through all that process and there are some various areas that need to be improved. As we've done that, there are a couple of people who are on the faculty who say, "There's more to it than just this stuff in my office." There's purchasing systems and accounting systems, and student systems and all that stuff. Hasselmo is now establishing a group to sort of revisit all these things, all these systems. Now, I think that's great in some ways but to improve all these systems, it's going to cost \$50 million, \$60 million, \$70 million over the next X number of years. He's going to get himself, I believe, into a position where, yes, you should do these but how are you going to finance it?

CAC: That's it.

AP: Then, what about these academic programs? That's what drives this place. You know, this office doesn't drive anything. The administrators and departments don't. You've got to have these strong academic programs. So, what is it that you need at the University of Minnesota for strong academic programs? Someone's got to take a look, in my view, at all of those things. They're taking a hard look in the Medical School now with [William] Brody and sort of reorganizing and revisiting certain things. Can the university run an effective place given what we have? We keep cutting almost at the fringes in some ways but don't we still have . . .

CAC: But if you cut out a Waseca, that's not a big deal?

AP: We have a few fewer students, few fewer faculty, few fewer administrators but, as I say, I don't see a big difference in this institution. I would say we've added in a bunch of areas here. In order to make the U-2000 really be meaning, in my view, you're going to need to have some really exotic thought about this place. Someone like Bob Holt—he and I have talked about these things—has sort of this big view of where you've got to go and can you keep everything the way we have it? I don't think you can. The big units of Pharmacy, and Nursing, and Dental, and Veterinary, and the College of Biological Sciences, some parts of Agriculture . . . you need to take a hard look at how are you delivering that stuff, how much you can do, how many do we need.

CAC: Can you speculate for the record what lines, what strategies do you perceive, if you were just brainstorming? Your conversations with Bob Holt . . . what strategies can one invent?

AP: I think what one has to do is you need to sit down with some of the good thinkers of this university, faculty people who are in various areas, some of the community people, not just here in town but anywhere. I think you do need to re-engineer the American university. Who's doing it? It's not being done anywhere. I think you have to take a very good look at this. We're not going to exist the way we are today.

CAC: Keller's Commitment to Focus didn't really address the issue in a fundamental way that you're suggesting here?

AP: I think it was a good start. I really do think it was a good start. I think Commitment to Focus was something that was right but you can't have one person's thinking.

CAC: Well, but it wasn't grand enough in its perception?

AP: No, no. I think you really need to see, Is agriculture changed—it has—and should something be changed with that? The Minnesota Extension Service certainly does much more than work with farmers these days, as they used to. They're working in crime, and community, and family.

CAC: You bet they are.

AP: That's great. What priorities would you have? Who are we supposed to be like? Michigan and Washington and places like that? Well, not really like Michigan; they're not a Land-Grant. They don't have to do some of the things we do. If you were a Michigan . . .if you looked at them and looked at us, we have a lot more programs in areas that they don't have programs.

CAC: Of course. Because Michigan State's doing some of them.

AP: Yes. Michigan State is not nearly the institution we are and it's sort of [unclear] and that kind of thing. Planning, to me, is not necessarily just having all the departments sort of plan, what are you going to do . . . and how can you deal with it? Someone has to take this whole institution and sort of tear it apart and start looking at various strategies. They're not administrators that need to do this. It's not a budgetary exercise as we go through. I believe we go through budgetary exercises at the University of Minnesota. There is a lot said about this, that, and the other thing but it comes down to money.

CAC: Persons I've interviewed who have had part of their careers through Morrill Hall—that's a large number of faculty who go there, be an associate, or assistant to the vice-president, or whatever the title may be—they just unanimously report that Morrill Hall has no time to address those kinds of issues. They just stagger from one day and one week to another. No one has this assignment?

AP: No one does have this assignment.

CAC: Those who have other assignments are overwhelmed?

AP: Absolutely.

CAC: I'm guessing that you're overwhelmed, Tony?

AP: I've been overwhelmed the last few years.

CAC: Yes. That's what I hear everywhere.

AP: It's difficult to try to figure out what to do next. It's difficult to even think about doing that.

CAC: I've talked to Nils about this informally—he's an old personal friend—his agenda is forced on him.

AP: Nils has taken on, in my view . . . I'm not sure where he got U-2000 but I think he's doing some of the planning in his mind about where the university's got to go. I think that's great and I give him a lot of credit for it. I like Nils personally and professionally. He's got good values and he's thoughtful. I don't think Nils has enough help who are not sitting around panicking from day-to-day . . .

CAC: Panic is a good word.

AP: . . . what to do with this, how to cut this budget, how to keep this going, how to deal with this law suit, that thing, this thing. The regents aren't there as a sounding board of great futuristic kinds of things. They're worrying about . . . everybody should be able to get into this university that's a Minnesotan. Some of the things they look at . . . remodeling this building and approval of this purchasing thing. They're involved in the management of the university, the day-to-day management, rather than the overall direction as you would have with a major corporation.

CAC: Ah.

AP: So, I think someone needs to re-engineer this institution's academic side. The administrative side, to me, is the minor part of it. You need that stuff. It's a given. That could be done easier if you knew for sure what your product of this place is. I think we had that years ago.

CAC: Yes.

AP: I think the university was smaller, was more controlled in some way, that you could get your hands on it a little bit better.

CAC: And hasn't the nature of the relationship with the legislature to the university on the one hand and of the regents to the university on the other hand changed also during this recent twenty years that we're speaking of?

AP: I think it's changed dramatically and . . .

CAC: And not for the better?

AP: It almost seems like no one's on our side . . . including the public. What have we done wrong? Nothing. We haven't done anything wrong. I don't think we're as prominent a player as we used to be in a lot of different areas.

CAC: Can you reflect on why that is so?

AP: I'll tell you, I think we've had internal strife for whatever reasons . . . turnover of presidents. We went through the Moos, the Magrath, the Keller, the Dick Sauer, the Hasselmo, and regents who have had this problem, that problem and issues . . . we've had some internal things . . . and governors who haven't liked us or we didn't do something right. [Rudy] Perpich got mad at Keller because . . . all this kind of stuff. Legislators who in the past were more passionate about the university now are more questioning about the university. If you had legislators like Gene Merriam, and Lyn[don] Carlson, and Rick Krueger, and Bob Vanasek . . . these people had some bigger thinking about the university.

CAC: [unclear] people, Senator [Gordon] Rosenmeier from Little Falls.

AP: There are some who just have it out for the university. There's no amount of good you can do. It's a big drain on the state budget for some people. I think that relationship has been difficult; although, the university, and with Nils in particular, has done a lot to try to deal with that and to try make it better. It's a difficult kind of thing. We're in the papers about difficulties with regents and the university administration. It's not just one regent. There are issues with regents that come out. The way they're elected becomes a story. Something is wrong when you hire regents that it becomes a story. It becomes a competition at the legislature. One day a person thinks they're in as regent and under the table somehow, they make a deal that the person is out, like the [Pinky] McNamara thing. Whether that's good or bad, I don't know. How do you start this thing right by hiring your regent in the way that it is controversial to start with? I just think all of these things have made it very difficult for the institution to operate as effectively as it can. I'll tell you, I'm amazed that we do as well as we do given all of these problems, that the key people stay.

[break in the interview]

AP: I think we have a lot of problems in that regard. I think the academic side is what needs to be looked at in my view. Do you know what we're looking at now? Our thrust is, we're looking at the administrative side, the information system. While I'm today having to deal with that—I could be wrong about this—in my view someone needs to take a hard look at what we're doing as an institution. Putting in a new accounting system is easy in comparison to saying, "We need to reorder the way we deliver our undergraduate or our mission to outreach or to redo Biology at the University of Minnesota. If it made sense budgetarily and technically to close the Duluth Medical School, to absorb those few students into the University of Minnesota here, but it was politically disastrous, what would you do? You do the thing that's right politically not what's right intellectually or budgetarily. I would believe there are a lot of those kinds of things that the university has to deal with.

CAC: The university has less autonomy now in making those decisions than they did thirty years ago.

AP: Sure. What would the University of Minnesota be if you had a benefactor that gave this place the state budget as an endowment? Would we deliver the same programs?

CAC: Yes, yes, right.

AP: What would you deliver if it wasn't political, if you still had a Land-Grant mission but it wasn't political and you didn't have to worry about a vote to get your budget? I don't think we would have a lot of the programs that have been created over the years to deal with a lot of social things that have come up. A lot of that stuff has value but would you do it if it comes to a point of whether you're going to exist or not? How do you change the . . .

[End of Tape 2, Side 1]

[Tape 2, Side 2]

CAC: . . . we are speculating but it's good speculation to have on record. This is what I do with all the interviewers and I think it helps flesh in for people trying to understand this strange, sprawling beast that we are.

AP: We are a strange, sprawling beast. [laughter] That's what I was saying was about departments like Economics . . . there's only a couple ways of changing those kinds of things, to either have fewer students or to have more faculty, more administrators, something to make this equal to other places that you say are as equal. The only way of doing that—we're not going to get any money anyplace—is you've got to make some changes elsewhere to still deliver that level of excellence. You can only do that by cutting something pretty drastically.

CAC: In which many people have a vested interest?

AP: It's difficult. I don't know what the answer is to that. I can only say this, from when I started working here in 1965 to thirty years later, I think we are getting more like a corporation in some ways. I'm not sure that's good or bad but there is certainly less sense, I think, of what we are now than what we were in 1965. I think the university's whole image was different, inside and outside. All the events that have occurred from national budget pressures, accountability, the recruiting effort that universities went through a few years back have made a tremendous change in the way the whole culture is. I'm not sure it's for the better. There's some room for some major change in my view and major change in the way we administer, also. That needs to come to attention but I think that's the easier part of it.

CAC: Well, this has come to be a theme as I've done more and more interviews. This is what historians do, you take evidence here, and here, and here, and here, and pretty soon you begin to get themes. What we've shared this morning, what you've shared with me so generously, helps fill in flesh on very serious and persisting problems, which have their counterpart in many other segments of the university, as you know.

AP: The other thing I would say that somewhat has dropped off at this institution, in my view, over the last ten years is sort of the visibility, the connection that deans have and how they're used. I think department heads are doing their thing there and I don't know that the deans have connected as well into the administration, and have been utilized, and have brought forward some of the ideas. I think, to some extent, there's been a little bit of a top kind of planning and stuff.

CAC: It's the middle management, the decanal level?

AP: I'm not saying that the deans are bad necessarily but I think that's deteriorated to a point where there's not as much connection. You can't have a Morrill Hall running this university. That's not where it's run. It's run in these laboratories and classrooms.

CAC: The provinces, yes.

AP: I don't think that we know what that is anymore. I really don't think that we know that that is how it's run.

CAC: And the provinces feel distantly separated from the empire.

AP: There's a faculty member who calls me at home all the time and talks to me about the evil empire and that I'm a part of that.

CAC: [laughter]

AP: I really think there is a disconnection.

CAC: There is a disconnection.

AP: What are we doing to connect? In fact, in my view, this reorganization to provosts, is disconnecting it more. I don't understand that whole thing that well because I wasn't involved in the discussions. It may prove to be the saving grace of pulling it all together but . . . I think the academic leadership part is what's so critical to the institution and it's critical at most institutions. You know deans and provosts have always been the top people at those institutions. You don't care about who's in charge of tech transfer or research administration or who the vice-president of Finance is or institutional relations. It's the provost thing . . . that's where you push . . . the people who are the academic types.

CAC: The larger and more complex the institution, the more important is that kind of management?

AP: Absolutely, it's critical. I think presidents are very, very important for our image and our dealings with the outside world. They don't have to be brilliant academicians to decide this month the Medical School should be teaching this kind of program or that kind of program. I think they need to be leaders, someone you look up to, and someone you have confidence in, who can deal with the future and deal with fund-raising.

CAC: Tony, what we're describing is almost every institution in this society right now. The Congress doesn't work very well. The White House doesn't work very well. Labor unions don't work very well . . . a lot of corporations, etcetera.

AP: I think it's somewhat of a perception that they don't work well. They've been working the same way. I think it's that there are other demands now of these places.

CAC: That's what you were describing for this university, the demands that we don't have the resources to meet.

AP: This place, in terms of its organizational stuff—we've made some changes here and there—basically, works the same way, how classes get taught and all this kind of stuff. I don't see a different place. It feels different but if you look at the departments . . . look at our phone book today and look at it before, I'll bet you'll find the same departments.

CAC: That's right. Well, we're talking about [unclear], and theme, and morale.

AP: The morale needs to be good.

CAC: People say, "Well, the morale . . . we haven't had a salary raise for awhile." I think that's part of it but I don't think it's the central part, Tony.

AP: I don't think that it's the central part at all. I think there are these other things.

CAC: Many of which we've shared this morning.

AP: It's uncertainty. It's more difficult to get things done. It's a tougher time. I've been at other universities around the country as a consultant or know colleagues at those places . . . I just got done with the Big Ten meetings in Chicago with people who offices like mine and some of their staffs. Everyone has some of these things and everyone is going through something of looking at responsibility center management or re-engineering, whatever. It's sort of bell bottoms yesterday and today it's something different.

CAC: Yes.

AP: Everyone's looking at ways of doing their stuff. I think what we're doing at the university, and most universities, is doing the selling the same product essentially, the same way, without as much money; and I don't think you can do that. I think what Nils is hammering at is that the U-2000 can't do that.

CAC: Find a new way.

AP: It's got to find a new way. You do that through technology, and through this, and through that . . . [sigh] That's the right road map but I don't see how we're getting there.

CAC: I understand.

AP: I think that's what's frustrating to a lot of people as they wonder about whether they're going to have their job tomorrow and whether or not they can say anything to someone because they're going to get sued, some faculty feeling that the university is against them, the lawyers are going to be up against them because in some cases we've had to do it that way. There are just a lot of things that are tugging at this place. As you say, Joel Tierney was there. I never dealt with the attorney's office until 1980 something. I never really basically dealt with them. There was just never a lawsuit that I knew about. There was never any need to. Now, I know five or six of the lawyers very, very well because we deal with them. I think that is part of the problem.

CAC: It eats away.

AP: Yes. The society has changed greatly. There's a president or the CEO [Chief Executive Officer] of Motorola Corporation—I'm on the Council of Competitiveness, a national . . . One of the issues I think that you find with people who are having problems at the university, in terms of their own work loads or how they feel about the place, partly is attributed to some of the problems we've had to deal with, and some of the complexities, and some of the hard work you've got to put in to get things done. Really, what has happened, I think, in the last few years, is it is difficult to get things done. You have not real clear channels at times to who has authority, who has responsibility. Sometimes the attorneys will say, "You should have checked with us." Well, should have checked with us . . . you need to be able to work on some things and you can't be thinking about whether this one should go to the attorney or this one shouldn't. I think there is a lack of understanding and appreciation of that sometimes of how that hampers work flow and how hits on people. I think in the last few years, it's almost impossible to see your work [unclear] new get achieved. If it is, there's almost always some sort of second guessing by it. Assignments are given to people who shouldn't even be involved with something that you're involved with. This happened recently in a situation where we'd been working with an organization in Minnesota, helped them draft a plan. Obviously, we'd be the office that should be working with it. Even the person who was at one of their meetings knew we did that and yet gave the assignment to someone else in the administration. Now, those are the kinds of things that you start to say, "Why do they do that?" I think some of us have become kind of worn out with that. I think that's what's happening. It's difficult to get things done. And there are some awfully good people throughout this institution.

CAC: I've certainly learned that in this project.

AP: Maybe this is the national phenomenon. I have to say that some of colleagues at other universities are sort of worn out as I am about this kind of stuff. You don't seem to be in control and I don't mean that I should be able to do my own thing.

CAC: Lines of accountability have to be clear.

AP: They have to be clear and . . .

CAC: Consistent.

AP: And consistent. People have to understand who knows what about what. Because you might be a vice-president doesn't necessarily mean . . .

CAC: Think what the vice-president has to learn from scratch coming into the office.

AP: Yes, a lot.

CAC: Of course, very few of them go into the office they [unclear] but still the number of issues that they have to address.

AP: I think the staff in the academic enterprise at this university is not sufficient. I think the academic vice-president ought to have more staff helping him do the things they have to do to bring this institution to U-2000. It's clearly not this office . . . cut out half the people . . . big deal. What are you going to do with it? Distribute them to the departments? That would be fine. That's not the answer. I think they need to have more work on that whole planning of the academic enterprise.

CAC: Well, that may be a good note to end on.

AP: Okay.

CAC: It's a down note but an informed note.

AP: I don't want to be totally down because the institution still in research . . .

CAC: You were still clearly loyal to the institution and to what you're doing for it.

AP: Yes. The institution still ranks in the top ten in research.

CAC: Yes.

AP: We're doing a good job in technology transfer but most of all of that speaks to faculty. I think that's where somehow this focus has got to be . . . on the faculty and what they can do to bring this place up again. The leadership and the faculty have to do that; so, maybe we'll be positive and gung ho in another month or two if something changes. Right now it's difficult for people.

CAC: These kinds of materials I'm collecting are useful—they won't be for three or four years—and whoever takes on that assignment has got to go back over a lot of ground and see what's happened in the subsequent four years. We've covered thirty years, Tony, and that's about the best we can do today.

AP: It's been a pleasure.

CAC: And a pleasure for me.

[End of Tape 2, Side 2]

[End of the Interview]

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