AN INTERVIEW WITH

Myrlyn B. Dickerman

By

Harold K. Steen

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Introduction

Dick Dickerman maintains two homes, one in Alexandria, Virginia, and the other in Cooperstown, New York. He was summering in Cooperstown when I caught up with him in 1992 to schedule this interview. He was good natured but firm that Cooperstown was for relaxation, and being interviewed sounded too much like work. We would have to wait until fall. But fall held other conflicts for both of us, and it was not until early January 1993 that we found ourselves sitting in the den of his Alexandria home, working through an interview outline that we had developed by mail.

He has lived in this home since 1966. It is comfortable, sitting at the top of a knoll looking toward the District of Columbia. When he was active in the Forest Service, it was a quick bus ride to work. His den holds much memorabilia, which is dominated by western objects--a mounted antelope head and Charlie Russell paintings. The head was a gift--he doesn't hunt--and the prints he collected early in his career. Our lunch each day was prepared in advance by Mei, Dick's China-born wife. The sandwiches and desserts were so elegantly assembled and arranged that we hesitated before plunging in. We were both well taken care of. Later, Dick reviewed the transcript, correcting errors of fact and clarifying statements.

Murlyn Bennet Dickerman was born on July 29, 1912 in Hamden, Connecticut. He earned a Bachelor of Science degree from the University of Connecticut in 1934 and a masters degree in forestry from the University of California in 1936. From 1937 to 1941, Dick was assigned to the Northeastern Forest Experiment Station and was involved with cooperatives for managing forests, producing and marketing timber.

He transferred to the Lake States Forest Experiment Station and continued marketing studies. Then World War II caused severe civilian budget cuts and reassignments to war-related activities. Dick found himself in Washington, D.C. on loan to the War Production Board and Office of Price Administration. During this period of price and wage control, Dick worked to see that the price of lumber was at a proper level. He was frustrated by the futility of the assignment, and when he had a chance to go as a civilian to liberated Italy to help reestablish a forestry program, he jumped at it. In 1945 and 1946 he was first with the Allied Control Commission in Rome and then with the United Nations Relief and Rehabilitation Administration in Athens.

At war's end, patriotism became less passionate for some, and the chief's office began asking Dick when he was going to report back for work. An especially terse inquiry from Assistant Chief Edward C. Crafts brought Dick home in 1947, but this time he was assigned to the Rocky Mountain Forest Experiment Station. He would stay in Missoula for four years, and it was then that he became an avowed westerner and collected the objects now lining his den

Dick was in charge of forest inventory and economics programs. However, the director was frequently ill, and Dick spent much of his time as acting director. He found that he liked research administration, and he was pleased to move to St. Paul in 1951 to be the director of the North Central Forest Experiment Station. He would remain there for fifteen years. As director he added programs in entomology, pathology, genetics, utilization, watershed, engineering, and recreation. Also, his station was the first to have its own headquarters building.

He liked work and life in St. Paul, but after a decade and a half the time seemed right for a change. Therefore, he was glad to move to Washington, D.C. in 1965 to be a staff member for the Research Program Development and Evaluation Group. The goal was to examine research efforts throughout the Department of Agriculture and develop efficiencies, standards, and coordination. The net effect was production of a long-range research program.

Dick's next assignment came in 1968 as associate deputy chief for research under George Jemison and Keith Arnold. Now he was responsible for a broad program in forest research, including planning, budgeting, and review and inspection. He gave much attention to various specific issues, such as minority hiring and the need for new facilities.

In 1973 Chief John McGuire asked Dick to be deputy chief, overseeing an $80 million research budget with 3,000 employees. Now Dick would testify to Congress and similar responsibilities limited to deputies--not everything can be delegated to one's associate. Research on endangered species and selected species of insects that were far from being rare received emphasis, as did international forestry with the upgrading of the Puerto Rican experiment station into the Institute of Tropical Forestry.

It had been a long and productive career, and Dick was ready to retire in 1975. However, his proximity to Washington, D.C. has made it convenient for him to remain active in professional programs. From 1976 to 1978 he served as science advisor to the Society of American Foresters and also a brief stint as acting executive vice-president. He played a key role in reinvigorating the International Society of Tropical Foresters, as director and as secretary from 1980 to 1983. At this writing, he still goes "into town;" he has yet to fully retire.

Harold K. Steen
Durham, NC

The Formative Years

Harold K. Steen: Somewhere along the line, maybe when you were in high school, you decided you wanted to be a forester. Describe that experience.

Murlyn B. Dickerman: Basically it goes back to my family. They were early settlers in Connecticut. They tried farming, but I guess farming wasn't a part of their makeup, because they never did very well at it. My dad, being the youngest member of the family of nine, became interested in woodlots. He took on the job of supplying the brick yards in southern Connecticut with fuel wood for their kilns. Every year he would take several hundred cords of wood into the brick yards, and that meant cutting, skidding, and hauling timber. That's where I became involved, helping my dad. He was an observing individual and had an interest in how trees grew. That's where I came into forestry. Also when I was a Boy Scout, I had a scout master who had studied plant physiology and was very much interested in plant sciences. He encouraged me to go on into forestry. So when I finished up high school in New Haven I decided to go to the University of Connecticut. In the 1930s, they had a very small forestry department. I spent four years there. I might just say as an aside that some people would say "Well, you lived near New Haven, why didn't you go to Yale."

HKS: Sure.

MBD: The answer is my dad wasn't very enthusiastic about that. He had had some dealings with the people at the forestry school there and he didn't think he was treated too well.

HKS: If you'd wanted to go to Yale, it doesn't have an undergraduate curriculum in forestry. Is there a program at Yale that you could have gone through four years and then gone into the forestry program?

MBD: Yes. At that time there was. I don't know right now what their set up is. I could've gone there, but this was the mid thirties and the financial burden of going to Yale would have been substantial. Anyway, my dad was happy to have me go to Connecticut. As far as I'm concerned, it was a fine choice, at that time it was a small school--five hundred students.

HKS: The whole university or just the forestry program?

MBD: No, the whole university.

HKS: Is that right?

MBD: At that time it was called Connecticut State College. The forestry school had a couple of profs.

HKS: Anyone famous?

MBD: Albert Moss was a longtime member of the faculty at the University of Connecticut, a graduate of Yale, and a highly competent, well-trained forester. He established close personal relationships with all his students.

HKS: Was it an SAF accredited school?

MBD: No.

HKS: With just two faculty members, it couldn't have been.

MBD: No, it never was as far as I know. But they gave the basic forestry courses, so you had to schedule your courses in alternate years. I personally got a lot out of it, because I was sort of a shy individual and going to a small school helped me develop. I spent the four years there and enjoyed it tremendously. I became involved in lots of student and forestry activities. One of the highlights of my entire career was going to the University of Connecticut.

HKS: You took all the basic forestry courses.

MBD: Yes. Dendrology, mensuration, management, silviculture, and many others including a minor in economics. When I graduated in 1934, the country was in a deep depression, things were really rough going. I put in an application for a fellowship out at the University of California, Berkeley. I felt that I needed to go on and get some more training. I didn't hear anything from them, so I took a job on forest land acquisition with the Forest Service in Missouri. I was there for, oh, maybe two or three months, and all of a sudden, I received a reply from the University of California offering me a fellowship. I accepted and went out to Berkeley in the fall of 1934.

HKS: You would have been in school with Keith Arnold.

MBD: Keith was a couple years in back of me I believe.

HKS: Okay.

MBD: He may have been a sophomore when I was a graduate student or something like that. Hank Vaux was at California the same time I was in graduate school. I was interested in forest economics and marketing work, and so Emanuel Fritz became my adviser. He interested me in studying the marketing of redwoods. I spent much of my two years at Berkeley studying marketing of forest products. I thought very much about going on for a doctorate, but by the end of the second year, finances were beginning to get pretty tight, so I decided in 1936 to go back east and see if I could get located in some kind of forestry work.

HKS: So, the East was still where you wanted to be.

MBD: Yes. Primarily because of my family being here.

HKS: I look around your study here, and I see a lot of western stuff. That's later in life?

MBD: Yes, from my years in Montana.

HKS: Would a Ph.D. have taken another three years?

MBD: At that time they said two to three years, because I needed some things that I hadn't picked up at Connecticut. As I recall it Dean Mulford said two more years would be sort of a minimum. That just looked out of the question to me, so I gave up and came back east. I took a temporary job with the Northeastern Forest Experiment Station, which was then located in New Haven, and became well acquainted with Ed Behre, the station director. He was very helpful in getting me placed. I worked for awhile on an experimental forest in Massachusetts. Then I received an offer of a civil service appointment with USFS, Region 9. As an aside, while I was at the Northeastern Station in Massachusetts, my partner was Norm Borlaug, then an undergraduate in forestry at Minnesota.

HKS: Wow. He went on to big things, didn't he?

MBD: Yes. He received the Nobel Prize in agriculture. Norm and I did field work together and we became lifetime friends. He certainly had no thoughts of going on to become so famous.

HKS: Were you surprised that he went on to earn the Nobel Prize?

MBD: I was surprised, although I knew after that summer in Massachusetts that he had tremendous capability--a keen observer and great determination. Norm had a year or more to go at the University of Minnesota, so he went back there, where he did graduate work in plant pathology. Forestry lost a great scientific leader when Norm switched to agriculture. A few years later I ended up out in Minnesota. At that time he was really on the go. It's been a friendship that's continued over the decades. He comes to town

two times a year and we get together. We've had some close family ties as a result of those earlier years. It's a friendship I have valued tremendously. After the work on the experimental forest in Massachusetts, I went on to USFS, Region 9 on the Manistee National Forest and became a technical foreman in the CCC camp. It was a camp that was all blacks and many were prison escapees. It was an experience that I will never forget.

HKS: The stereotype of CCC is white, middle-class, but it wasn't all that way obviously.

MBD: No. There were several all black camps on the Manistee at that time.

HKS: I never heard about prisoners. I know they had black regiments and they had Indians.

MBD: Some were escapees of the state penitentiary I believe at Battle Creek, Michigan. When the Forest Service took over the camp, the state police were there to keep order. Things kind of settled down after awhile--except when the Joe Louis-Max Schmeling fight came along; Joe Louis was defeated, so the boys decided to tear the camp apart, but we intervened. After about six months as a technical foreman, the Northeastern Station offered me a transfer back to that station at Cooperstown, New York.

HKS: So that began your long association with Cooperstown.

MBD: Yes, and it continues to date.

HKS: I've never been there. It must be a nice place.

MBD: It's a beautiful spot. I have many, many fond memories of that area.

Northeastern Forest Experiment Station

HKS: Why did you leave the Region? Forest Cooperatives

MBD: Work at the Northeastern Station with a forest cooperative was tempting. This was a new venture in the field of economics, trying to help the farmers manufacture and market their timber and at the same time practice good forestry on their woodlots. The station's major interest, of course, was the management of the woodlands.

HKS: Is that something that State and Private Forestry would do now?

MBD: No. There is still much research needed on how to organize a forest cooperative to service farmers. What system of forestry is best adapted to farm forests? The organization and operation of a forest cooperative includes many unknowns. Cooperatives, of course, are not new. There were several agricultural cooperatives at that time in the Lake States, marketing farm products: milk, cheese, grain, etc. The thought was that the cooperatives that had developed to serve agriculture might well serve forestry. That's why the station became involved. They helped organize the cooperative, and with federal funds they built a modern wood processing plant including a sawmill, dry kilns, and other facilities.

HKS: Was there any opposition to this?

MBD: Some. Ideologically there was opposition, but the fact remained that there just wasn't a market for timber in that area. There were only one or two small sawmills.

HKS: You were too far from the paper industry there?

MBD: Probably sixty miles to the nearest pulp mill. It was kind of a no man's land from the stand point of timber markets. With so little timber cutting, the second growth stands had a good start. There was more timber volume and better quality timber there than many areas. Another factor was the high tax delinquency. Farmlands were becoming delinquent and there just wasn't a land market. The state had a

small acquisition program, but basically the market was limited. Often opposition would surface but nobody got real anxious over it. Several industrial people would come around and look at things, throw questions at us, but they never got really concerned.

HKS: Farmers are a pretty independent lot.

MBD: That's right, and this organization had some of the best farmers in the area helping out. That's the way the cooperative developed quite a large membership. I was there for about four or five years with the cooperative and was primarily concerned with the manufacturing and marketing of hardwood timber. We had several staff members; others became involved in the forest management activities.

HKS: So, it was a step beyond farm forestry.

MBD: Yes, at least a broadening of earlier concepts.

HKS: Was the project successful?

MBD: It depends on who you talk to. The financial end was very, very difficult because of loan restrictions. These were substantial and made it difficult to use the funds that normally would be available to a private corporation. I left there in 1941 and went on to study other cooperatives in the Lake States area. One of their biggest problems, other than the limitations of capital was how to recruit and keep management. Somebody that knew the manufacturing end didn't know the forestry end. Trying to put the two together made for continuing difficulty. What really got them off and going good were the markets developed during World War II.

HKS: Oh, sure.

MBD: Then of course, you could sell most anything. After that, I don't know just what happened, but sometime after World War II, a fire burned the sawmill, and that brought everything to a close. Now, fifty years later, there are still people around Cooperstown that talk fondly about the forest cooperative.

HKS: So you go back to Cooperstown, but that's only been since you've retired.

MBD: My first wife was from Cooperstown. She passed away in 1970, and I inherited the family home there and have kept it as a summer residence.

HKS: Was that tied into your graduate program, marketing?

MBD: Sort of, but redwoods and second growth hardwoods do not have much in common. What I enjoyed most was the opportunity to work with the farmers and local people. They had lots of meetings to get people to join the co-op. I got well acquainted all through the county with farmers, and most of them were very, very sincere about getting markets for their timber and managing their wood lots. There wasn't a problem of salesmanship with the farmer. They were with us all right. The problem was to make the organization work.

HKS: Somebody had to pay the dues.

MBD: That's right.

HKS: Pay the rent or whatever it was. Somebody had to be in charge of it. Was it just you by yourself or was it a large project?

MBD: No, we had a staff of four or five people. A forester by the name of Charlie Lockard was head of the project. I was his number two man. We had three other fellows that did woodlot cruising, timber marking, and mill studies. The station was also responsible for the administration of the loan. That became quite a chore. In fact, for one year I left the Forest Service and took on the job of managing the plant. One year's

experience taught me that it was not the thing for me to do. It was shortly after that that I transferred out to the Lake States Experiment Station in 1941.

Lake States Forest Experiment Station

HKS: I visited a forestry co-op in Japan. The women knitted sweaters and they had a store. The whole community, the whole family, was involved.

MBD: This is the kind of thing that I became involved in out at the Lake States. Raphael Zon was the director there at the time and was interested in co-ops as a social venture. In fact, he had several staff members working with local groups.

HKS: Would you like to spend a few minutes just talking about Zon, the man?

MBD: Let me just complete the co-op. I'll enjoy talking about Zon. We had several co-ops in the Lake States. There was one on the Chippewa National Forest that had been started by a station member named Paul Zanegraf. Paul was from Denmark and had a background in co-ops there. He got several small pulpwood producers organized in a co-op, and I took over working with them. There was another small co-op in East Tawas, Michigan. Gordon Fox, who was a district ranger on the Huron National Forest, had been interested in starting that one. In the Lake States, particularly the northern part, the Finnish people were the real co-op people. The whole community got involved. The families, the communities, all the organizations there--everybody talked co-ops no matter what they did whether it was selling milk or buying clothing or marketing timber. It was all done the co-op way. Co-ops were just a way of living. That was about what it amounted to and has much to say for it. Those fellows in Minnesota did very well in marketing pulpwood cooperatively. I worked with them for about a year and a half. Then the war began to accelerate. Scarcities and shortages here and there of equipment, critical products for the war effort became an interest of the station. The War Production Board financed studies and eventually set up a group at the station. Some station people went on into the military services. Others went on to writing and analyzing, and completing reports.

World War II

HKS: So the Forest Service basic budget was probably reduced, but there were war funds that filled in.

MBD: Yes, the station regular funds were probably cut 75 percent, as I recall. Something like that. Just the hard core of project leaders were left. Then the War Production Board came in. Of course, what they were interested in was trying to increase production of various kinds of timber, pulpwood, other products. Within the station we set up a unit to provide the War Production Board with basic information from all over the region. This was done countrywide. Lake States started earlier, because some of the problems surfaced there sooner. We had a staff of maybe eight or ten people reporting monthly to the War Production Board on production trends and problems; I had the job of summarizing the reports and making a monthly report on significant changes in the production of forest products in the Lake States.

HKS: Was it interesting or was it tedious?

MBD: Some things were tedious. I had questions about some of the answers I was getting repeatedly. But it was interesting, too. I had a chance to do several field studies of production bottlenecks. One that comes back to my mind, I was up in northern Minnesota where I stopped into a lumber mill. I noticed they were setting up a shingle machine to manufacture wood shingles and I said to the operator, "What are you going to use for wood." This was up in the pine country. "Oh," he says, "Jack Pine. We're going to make shingles out of that." At that time shingles were almost non-existent. You couldn't buy them any place. I kind of looked at him, hesitatingly, and he said, "I know what you're thinking, but," he said, "Jack Pine shingles are better than no shingles at all." Those were the kinds of things you ran into.

HKS: I suppose the so-called substitutes like asphalt shingles were just as scarce during the war.

MBD: Oh, yes. The big shortage was in transportation. You couldn't move cedar shingles from the West Coast or from any place. You had to rely upon native woods for all kinds of construction.

HKS: Seems like it would have worked pretty bad...

MBD: I never went back to look. We had several experiences like that. Of course most of the problems frequently were just the red tape, plus some hoarding that one would encounter. At least we felt that we were doing a fairly good job. The war production work kept increasing our funds, they wanted more information. So I spent about a year and a half on that project at the Lake States. There was always a matter of working and living arrangements. In the big cities, you couldn't get places to live; you could get jobs. Up in the north country you could get a place to live and a have reasonable income; a lot of the people were happier that way.

HKS: Were there major war industries in the Lake States?

MBD: There was a huge munitions plant in Twin Cities. There were lots of other industries too, plus, of course, several large pulp mills up in northern Minnesota and even more in Wisconsin. At that time the Lake States was in the forefront as a pulpwood producer.

Raphael Zon and Carlos Bates

You asked for comments on Raphael Zon. I probably learned more from Raphael Zon than any other person I worked for in my thirty-nine years in the Forest Service.

HKS: Did he speak with an accent?

MBD: Always. Always with an accent. He took advantage of it. But I'll say this; he was sure hard to work for, a tough taskmaster. I'll never forget the first article I wrote for publication. It had something to do with trends in lumber and pulpwood production in Michigan. I worked real hard over it for a week or two, then took it down to him. I'd never had such a depressing reply in all my life. He was just ruthless. He took it to pieces. You know, "This isn't right. This isn't right. You should have said this." This is the way he would react. Well, I learned a lot out of it, but I guess I'd have to say that my respect changed a little too.

HKS: Just yesterday, I was scanning through the McArdle interview that we did twenty years ago. Thornton Munger treated him the same way. Maybe it was that generation.

MBD: I think that's right. One thing that characterized Zon more than anything else was his love to have an argument. I remember one time when I was first at the station, Bill Greeley, a former Forest Service chief, came to visit with Zon. Zon would always ask somebody to drive to meet visitors so I took him down to St. Paul to have dinner with Bill Greeley. I was just a young forester, of course, sitting in awe of two great people. All they did that whole evening was argue. [laughs] They got pretty close to calling each other names disrespectfully, but they argued. When it was all over, everybody was happy. That was Zon's way of having an entertaining evening. He was a fluent writer, loved to write. He could sit down and write about anything, and then he'd say, "You check the figures." One thing I remember particularly was an article he wrote for *Encyclopedia Britannica*, and while I was at the station it came up for a five-year revision. He said, "Dick, you have to check this over real carefully. Here's what I've written, and now I want you to check all the facts, figures on area growth and volume." So, I spent many an hour and a weekend--my wife helped me--looking up all data to be sure everything was right. I took it in to him. "Fine. Fine." No question. About three months later, he called me down to the office and said, "I just got a check from *Britannica*." It was two or three hundred dollars. He says, "You did most of the work on it. You ought to have most of it." I said, "No, Mr. Zon, it was just part of my job."

HKS: You called him "Mr. Zon"?

MBD: Yes.

HKS: Everyone did?

MBD: Oh, yes. Most everybody called him mister around the station. Some of the real old-timers would call him Raphael, but most everybody called him mister. Anyway, he said, "You know, while coming to work this morning, I got to thinking about what to do with this check. You know, just previously the word came over the radio that Stalingrad had been taken by the Germans. I think maybe we ought to give the check to the Russian relief." [laughs]

HKS: He was Russian, right? By birth.

MBD: So that's where the check went. Yes, he was Russian. In fact, his wife came to this country before he did. Incidentally, she was a very brilliant and able person. Zon was very much of a liberal, so much that it caused some difficulties.

HKS: He must have had a lot of words with H. H. Chapman and Emanuel Fritz and those kinds of guys.

MBD: I guess so. He was always writing letters to carry on arguments and try out new ideas.

HKS: Henry Clepper told a delightful story about Zon.

MBD: Oh, is that right?

HKS: He interviewed Henry for the job of executive vice president of SAF in '37, '38. Just about the time we're talking about now. At Zon's home. Henry said, "I could tell by the questions the kinds of answers that would work pretty well." He got all through the interview, and Zon turns to his wife, "See, Mama, he's a liberal." So apparently he was famous for being a liberal.

MBD: Oh, yes. As I say, some people differed with him strongly.

HKS: Not in terms of his scientific work.

MBD: No. It was in his political views. To talk about his writings, he frequently made liberal use of material written by others. I don't think he misused it, but he probably used materials from others more than most of us would.

HKS: I can see that could bother in a scientific sense.

MBD: Yes.

HKS: That's interesting.

MBD: He was an interesting person, a stimulating person to be with. He had all kinds of ideas, all kinds of interpretations of events that most of us would not have. He had a tremendous influence on the younger people in the station. You just have to look around to see that some of the people that came out of there and how well they did in forestry to see that his influence was part of their career development.

HKS: I've seen I guess four or five different photographs of him, and in every one he has a cigar.

MBD: Oh, yes. That was part of the image making. The cigar was lighted once in awhile.

HKS: He and Carlos Bates with his pipe must have gotten along fine.

MBD: Carlos was there when I was at the station. We had offices side by side. Carlos used to work nights, and I worked days. [laughs]

HKS: Why was that?

MBD: It was just his preference to work that way. He would get all wrapped up in interpreting shelterbelt data, which was his specialty. And he wouldn't quit. He'd work all night. Maybe go home at two o'clock in the morning or later. Just a very intense person, he would concentrate on something and was not going to give up. In later years, he was working on the influence of shelterbelts on crop yields. He developed a theory that shelterbelts so high had such an effect upon soil moisture and crop yield. He put up several large baffles out on the great plains to work out a wind velocity-moisture relationship. He was still working on the data after retirement. What he needed most was the computer capability we have now to handle his complex data.

HKS: So, he didn't assume that maybe his hypothesis was false. He thought he was screwing up the data.

MBD: Yes. He thought he just didn't know how to work it out. Of course, nowadays we could do what he wanted to do on a computer in a short time.

HKS: Sure.

MBD: He had stacks and stacks of plot data. He just couldn't accept the fact that the relationship didn't work out. Since then, I've been kind of interested in the subject and find the Russians did a lot of similar research about the same time. I assume that he must have had some contact with them through Zon. Anyway, some of the Russian studies indicated a close relationship between crop yields and shelterbelts--the height, width, and densities. In this country, I don't think anybody came up with anything as conclusive as the Russians did. This was an interesting period in my life, one that I look back on as having probably more influence on me than any other assignment, the association that I had with Zon and Bates. When I first went out there, he was working on Pinchot's book.

HKS: *Breaking New Ground*.

MBD: *Breaking New Ground*. He was editing it.

HKS: The book was published in '46 or '47.

MBD: Yes. Zon was working on it in '42. I did some searching of reference material for Zon. He'd use younger staff members as trainees. He used to say, "I will call you in and dictate a chapter or letters." You had to scribble it down the best you could. I remember one day we were sitting there, and he said, "You know, I suppose you think that this is awful to sit here and take dictation from me. But I can't stand dictating to a secretary, 'cause she won't argue with me." Well, to be very frank, none of us argued with him very much either.

HKS: Do you have any sense that he was editorializing *Breaking New Ground* or just checking it over? A lot of people claimed Pinchot didn't really write the book. I don't know.

MBD: Well, I'll say this, my impression was that he did considerable writing. When I was there, he was rewriting, and I'm not sure who had done most of the initial writing. He had a tremendous command of the English language and of several foreign languages. I never could figure out why, this must have been just native ability, because his spoken English wasn't that good, but he could sure put thoughts and ideas into the English language that most of the rest of us would struggle with long and hard.

HKS: Maybe when you learn a language as an adult, you study it a different way than you do if you grow up with it. I don't want to put you on the spot, but ten years ago we ran a two-part biography of Zon in our journal. I don't know if you saw it or not.

MBD: I probably saw it, but I don't remember at this point.

HKS: Okay. I didn't know if it captured the man or not.

MBD: Certainly Zon was one of the more outstanding and controversial people in the early history of forest research. I don't know whether you've seen it or not, but there's a small slip of paper that Zon wrote to Pinchot saying in effect that in order to facilitate research he recommended the Forest Service establish a series of forest experiment stations throughout the country. That I found in the files of the Lake States station.

HKS: Maybe you can't answer this directly, but how come Clapp, the patron saint of research, is in the Washington, D.C. track, and Zon's up there in St. Paul with his career? Is that by choice or the wrong temperament, too liberal?

MBD: It may have been the latter.

HKS: Too liberal.

MBD: The Lake States was the place to be for liberals then. Senator La Follette was active as a liberal then. My impression from working with Zon and others was that his liberalism was better handled out there than it was in Washington.

HKS: Forestry has more conservatives than liberals.

MBD: Yes.

War Production Board

HKS: In part you were becoming more senior through passage of time, but in part World War II took its toll on the other supervisors. What was happening?

MBD: I left the Lake States in late '43 and came into Washington on War Production Board work. My assignment was to work as a consultant on the problems relating to pricing of forest products. At that time, there were ceilings on most forest products, and the question was what was the effect of a price ceiling on production.

HKS: In the history of the Lake States Station, you are quoted saying, price ceilings didn't work.

MBD: That's right. In my opinion they weren't effective except in a very general way.

HKS: Is that because supply and demand can't be taken independently?

MBD: Probably, it's very hard to tinker with prices effectively. Also everything had to be done in such a hurry that you didn't have time to get the price picture on a comprehensive basis. With the computers we have now, you probably could do a much better job. I was on the price work for a year and a half. It was kind of a discouraging job, because just about the time you'd get something worked out, the demand would be shifting.

HKS: Were you working on all forest products?

MBD: Only on a few forest products, mainly lumber and pulpwood.

HKS: Were there any rationed forest products?

MBD: Not that I'm aware of, but if it was it was on specialty products. One of the jobs I had was to study a price dispute on bobbins for knitting mills in Great Britain. Much of the clothing for service men was made in Britain to save shipping space. So, the bobbins and pickersticks became scarce items.

HKS: What are bobbins made of?

MBD: Always from dense hardwoods such as dogwood.

HKS: I don't know what the curing time is, but you could really turn out bobbins in a hurry if you put your mind to it.

MBD: You have to have a quality product. Bobbins have to be made of a very hard wood, as they get a tremendous amount of vibration in weaving.

HKS: You look at what eastern Europe and Russia's going through now, centralized planning doesn't work too well. That's what we were doing.

MBD: We were lucky that the war was over so soon.

HKS: I talked to some lumbermen who were involved in WW II, dollar-a-year types. Was it one big network or was it so bureaucratized that you didn't see the rest of it.

MBD: You didn't see much of it. It's hard to get the full picture. About the time that you'd get a price ceiling worked out for, say spruce pulpwood, some other species would be in short supply. Then another staff member would be brought in to develop another price regulation.

HKS: How many people were there like you in Washington, D.C. working on forest products?

MBD: Oh, I don't have any idea.

HKS: Was it like fifty or was it like ten?

MBD: Oh, probably ten or so.

HKS: Were they all well-trained?

MBD: Various backgrounds. You had a great mixture of people. One of the things that we worked on was stumpage price control. Maybe there were one or two regulations that were put out, but it's almost impossible to put a ceiling on stumpage because of the relationship to harvesting cost, transportation, all of these things that go into a stumpage price. We were just lucky the war was over when it was, because to me the whole price structure was going to cave in.

HKS: You didn't feel that you needed to go over to the Washington office of the Forest Service at all. You didn't feel a part of that. You were with the War Production Board.

MBD: Well, no. We worked out of offices in the Forest Service and made much use of their historical material on production and prices.

HKS: Oh, you did.

MBD: But every day we were over at the office of the War Production Board or some other agency. The WPB and the Office of Price Administration just didn't have enough space for us. Forest Service offices which were formerly occupied by research became available to us. Ed Crafts had the job prior to my coming into the Washington office.

HKS: I didn't know Ed very well. Most people said he was abrasive, but very smart.

MBD: Yes, an exceptionally sharp mind. There were those who would say he wasn't so smart, because he couldn't get along with people. He was abrasive all right. I always got along fine with Ed. I had a few run-ins with him, but you had to respect his ability. After I'd been in Washington about a year and a half, George Trayer, who was heading Forest Products, came in and said, "I'm looking for somebody to go to

Italy. We have to have a forester for the Allied Control Commission. Is anybody interested in going?" I said, "I'd sure like to go to get out of this place."

Allied Control Commission

HKS: Italy had been retaken.

MBD: The Allied armies had occupied much of Italy by that time. The fighting was still going on up in the Po Valley and on up into Austria. But the Allied Control Commission, which was the bridge between military government and civilian agencies, was set up with their own organization in Rome. I was sent over to work in the agriculture forestry section and spent a little better part of a year and a half there. My staff assignment was to get the Italian Forestry Corps operating again.

HKS: Did we worry officially which side they were on--whether they were fascists or not?

MBD: Yes, much so. We could not include any of the former fascists in the new forestry organization. So we had to recruit outside. One of the interesting aspects was that some of the foresters in northeastern Italy were Austrian-background and when the war broke out they went over into Austria. They were not tagged as fascists, so some of those fellows were the ones that we put back in top jobs.

HKS: Were there actual documents, I mean, was the bureaucracy still in a physical condition that you could get names and lists of people?

MBD: Yes and no. They were not complete.

HKS: All the bombing and so forth.

MBD: You did it pretty much by word of mouth. This fellow would say "There's a good man. Get a hold of him." That's about the way you went. My counterpart was a major in the military government, Major Bump. We worked together. Some Italians came back. You see, the many foresters were in an elite group under Mussolini, and they had special privileges. Those people were out completely. We couldn't use any of them. But even in the year and a half that I was there regulations were eased, because there just wasn't any other talent available. The Austrian group across the northern part of the country helped a lot, but down in the south, we just didn't have people to draw upon. Actually, the Italians did very well on their own. I can't claim very much credit.

HKS: Just the thought that there's a major war. The country's all shot up.

MBD: Yes.

HKS: To get the local economy going again; because they have to have salaries, they have to buy groceries. The transition to peace must be quite a trauma.

MBD: It sure is. I would have to say that I had great admiration for how well the Italians got things going again in the short time I was there. I met a lot of local foresters. I particularly got acquainted with the people at the University of Florence where the forestry school in Italy is located. Dr. Pavari, head of the forestry department, was a fine person, high principled, and helped much with ideas on how to get on with the job. One thing we were involved in was bringing fuelwood down from Austria into Trieste. Trieste was a port of entry to the old Austro-Hungarian Empire. It was later a part of Italy. Many ships were sunk in the Trieste harbor. After the war they couldn't get a fuel line in, so we had to bring wood down from Austria.

HKS: Austria was occupied by the Soviets at that time, right?

MBD: The eastern part of Austria was. Austria was split at that time as I recall. But anyway, that was just one of the more specific assignments we had.

HKS: I keep referring that Lake States history. In it you said forestry was a good way of helping control the restless--that's your term--the restless Italian population. I suppose unemployment was a critical problem.

MBD: Oh, it certainly was. Food supplies and jobs were short, so we were sent up to Trieste to get a forestry project going to provide employment for the people. Learning the techniques of reforestation in Trieste was a shock to me. On the steep slopes there was practically no soil. You had to take an ax, a pick, and other tools you could get to make a hole in the ground to put a tree in and then go find some dirt to put around the roots. That was the way we reforested some of the barren slopes around Trieste. I went back there on one of my IUFRO trips, and surprisingly some of those plantations looked pretty good.

HKS: So Yugoslavia was off limits.

MBD: It sure was. There was a lot of local fighting there. There was a zone A and a zone B. Trieste was A, and most of Yugoslavia was B. Anyway, the fighting went on after the war stopped. It wasn't unusual in the morning when we were going out onto the slopes to go along where there had been several hangings.

HKS: It's going on today.

MBD: There is a long, long history of antagonism, bitterness. After Italy I went on a short assignment to Greece. Again we were trying to get some forestry projects going to provide employment.

HKS: Had the war been hard on Greece? Had there been a lot of combat losses?

MBD: Yes, many. After a few months I returned to the U.S. and to the Forest Service in forest economics. Earlier I had a telephone call from Ed Crafts. He said, "Either come home or get out of the Forest Service."

HKS: You were in Athens then.

MBD: I was in Athens.

HKS: Did you cross paths at all with Arthur Ringland? He was in a lot of UNRRA type things out there.

MBD: No.

HKS: It's a big world. I understand that.

MBD: I expect he was up several notches higher than I was. Anyway I decided it was about time to get back home. My wife had received clearance to work to do girl scout work in the displaced persons camps in Estonia, Latvia, Lithuania. When she arrived in London, she couldn't get clearance to go further, so she received clearance to come on down and stay with me until arrangements were settled. So she went to Greece with me and helped organize programs similar to the girl scouts just on a volunteer basis in some of the Greek villages.

HKS: I'm still trying to visualize what it was like for you. You got off the plane in Athens. What currency do you use? You didn't have the infrastructure then that you have now.

MBD: Having currency was the least of your concerns, because currency wasn't good for anything. The day that I went into Athens, the exchange was, I think ten drachma to a dollar. Within two weeks it was ten-thousand drachma to a dollar. So, having the drachma didn't mean anything. It was what you could take in, in terms of physical goods. If you could take in sugar or flour or canned goods, you could buy anything on the open market. That was still the situation when I left Greece in '46. The same thing happened in Italy with the lira.

HKS: I'm still wondering how you got your job done, because you had to eat and sleep and you had to get to work.

MBD: UNRRA, United Nations Relief and Rehabilitation Administration, had set up bases in these countries, so when you came in you always went to the UNRRA office. This was where you received marching orders so to speak. The group I went into Greece with included four or five Americans, and we each helped one another. When I was ready to come home from Italy and was sitting in a hotel one night, Fred Renner, who was a former Forest Service researcher from California, came in with two fellows. Right away, we got together and Fred says, "Why don't you go to Greece with me? The one fellow that didn't come in our group was a forester." And I thought, "I'll go, Fred, if you can get clearance for me." He says, "I'll get on the phone tomorrow." Next morning, he called into the chief's office in Washington and received the necessary clearance for me. So, that's the way I picked up the job at Greece. I was there and knew how things operated, and he was anxious to have a forester with him.

HKS: A lot of improvising.

Northern Rocky Mountain Experiment Station

MBD: That's right. When I came back, I went to the Northern Rocky Mountain Station at Missoula where I was put in charge of the economics and forest survey programs.

HKS: Why Missoula?

MBD: Ed Crafts said, "That's where you're going--Missoula." That's about all I know. I think it was because there was a vacancy. Anyway, that station was one of the smaller ones. They had a few staff people working in timber management research, some in water, fire, and economics. The director was Charles Tebbe. Charlie had only been there a few months when I came. He had come out of the chief's office, I believe. Anyway, he didn't have a background in research, but was an extremely able fellow, very conscientious. Shortly after he got there, he was called off on a detail in some other part of the country. I don't know where. Anyway, he asked me to take over the acting director's job, because I hadn't really gotten involved in project work by then.

HKS: When Tebbe came to the station, was everything in chaos because of the war?

MBD: Yes. You see, after the war, funds became available in various ways. The funds didn't come back the way they were cut off. They were reallotted. I don't know how it all operated, but the effort at the station was largely one of reconstituting a program and putting things together again. As I've said many times in the Forest Service, I was becoming a jack-of-all-trades. I moved into most anything that came along and enjoyed it. I have always enjoyed working with people, and that made it a lot easier.

HKS: Did you ever want, at that stage in your life, to go off into National Forest Administration, or was Research really where you saw your future?

MBD: I enjoyed research administration. It wasn't as complicated and as rigid as national forest system is, and I got into some very interesting things in a lifetime in the research organization with emphasis on research administration. I stayed at the Northern Rocky Mountain Station for about four years. Of all the thirty-nine years I was in the Forest Service, I enjoyed the Missoula years the most. I was at the age that I could enjoy outdoor life--skiing, fishing, camping--and enjoy the association with many local people. My wife was then teaching at the University of Montana, so we had lots of ties with the university staff. Many of things that you see around in the room had their origin in Montana.

HKS: That antelope, is it one that you shot?

MBD: No. I'm not a hunter. A friend of mine in Montana gave that to me. I became interested in Charlie Russell paintings and met some people who had worked with Charlie Russell in Montana. This was just one more thing that added to the charm of living in the area.

Economic Studies

HKS: Tell me a little bit more about the specifics of some of those economic studies. What were the issues?

MBD: One question in Montana was industrialization. Should they have a pulpmill or not? I would say that probably 75 percent of the people would say, "Well we're enjoying life here. Why do we need a pulpmill?" I remember we had a study going at the station by Blair Hutchison that grew out of the Forest Survey, knowing timber supplies, growth, and mortality. So one question was, is there enough timber east of the Continental Divide to support a pulpmill, and if so where should the mill be located. After we drafted the study, we made copies and sent them around to various communities. There were several meetings, one in Bozeman. That one I remember particularly because we presented a draft proposal for a pulpmill, what wood it would require, what employment would come about, and that sort of thing. We sure got roasted. "We don't want a pulpmill here. We don't want the air polluted. We don't want the water polluted."

HKS: So, the chamber of commerce people weren't in favor of this.

MBD: They kind of egged us on to start with, but they pulled back fast.

HKS: So, what do you look for? A wood supply obviously, but transportation, infrastructure.

MBD: Transportation, infrastructure, labor supply, community interest, acceptance and support, that sort of thing.

HKS: Was the mill built while you were there?

MBD: No. A larger mill was built subsequently in Missoula. Such studies were a natural sequence to the forest survey resource analysis.

HKS: Do these kinds of studies always lead to publications, station papers, and so forth?

MBD: No. There were several studies in one form or another, but such analyses can show limitations as well as opportunities.

HKS: I see.

MBD: Economic studies often provide ideas for various industrial developments in the wood industry. I gather the feeling in Missoula now is that there is too much timber cutting.

HKS: There is. The town's almost all motels.

Director of Lake States Forest Experiment Station

MBD: Tourism pays off quite handsomely. Unfortunately my Missoula days came to an end, and in 1951 I went back to Lake States as director of the station at Saint Paul, Minnesota. I remember when I was appointed director, I had to come in and talk with Lyle Watts, who was then chief. Lyle said to me, "Dick, I'm going to give you one instruction: go out to Lake States Station and shake it up." He didn't say it just that way, but it was clear that was what he wanted. By that time Zon had retired. E.L. Demmon followed Zon, and I followed Demmon.

HKS: What was Kotok's role in all of this? He was assistant chief for research.

MBD: He was assistant chief for research.

HKS: I would have thought he would be the one to give you this pep talk.

MBD: No. I remember going and talking with Ed, but he didn't give me any particulars. He was leaving, to be followed by Les Harper.

HKS: Who do you think picked you to be the director?

MBD: I think Ed Crafts primarily. He was on the chief's staff at the time. But Ed, like other people, wanted his men placed in key spots in the organization. When Ed was in charge of Economics and Forest Survey in the Washington office, I was at the Northern Rocky Mountain Station. We worked well together in developing programs.

HKS: Answer this any way that is appropriate to you. Was Kotok a good leader for research--for the time, for the '50s?

MBD: I really didn't know Kotok well enough to respond to your question.

HKS: When did Harper come in?

MBD: Harper came in '51.

HKS: Somebody said in one of the interviews--I can't remember who it was--that Kotok could never forget that he no longer lived in the West.

MBD: I would agree. His whole background had been California. He didn't associate the problems of the Northeast or the southern states with the kind of things he had associated with in the West. Consequently, he just didn't get through to the research organization. At least that was my observation. I was in and out of Washington on the forest survey work, and with many of the top people you just do not get acquainted. Well, with that charge from Lyle, I wasn't sure what I was supposed to do.

New Programs

HKS: Does Lyle say, "I want you to do this, Dick, and here's a bunch of money?"

MBD: No, he sure didn't. "Do it with what you have. Get more when you can." In '51 we had about twenty-five staff members, a budget of $250,000. The Lake States Station had not developed like others. It was next to the smallest in the country. I just started getting acquainted, working with groups around Lake States, the timber industry people, Izaak Walton League, and all kinds of local organizations. We had some excellent research talent, but few on the staff had been interested in public relations. One of our early moves was in genetics work where we felt there were opportunities to improve timber productivity.

HKS: What else was going on in genetics other than at Placerville?

MBD: There were a number of individuals in stations. There were no other institutes like Placerville. Paul Rudolph, for example in the Lake States, had been doing much on selection of superior trees, and he had plantations that were very useful in providing seed sources for further study. Others involved were Leo Isaac in the Pacific Northwest, Phil Wakely in the South, and Ernie Schreiner in the Northeast. Anyway, what we finally did was to set up an institute at Rhinelander, Wisconsin, where the Lake States had some cooperative work with the state of Wisconsin. We set up this institute with limited funds and grew as we went along.

HKS: Are there significant battles over turf? You have Placerville, the preeminent genetics place that Congress gives money to each year. Now comes along some competition for the genetics dollar. Is that an issue?

MBD: To some extent, although I think generally additional institutes were supportive of one another. The strength of an organization is always the regional and local ties.

HKS: I can see you at the appropriations committee testifying. "Why do you need all these labs?"

MBD: No, station directors do not testify. The chief and deputy chief for research handle congressional testimony.

HKS: Would Congress ask these kinds of questions?

MBD: Sometimes. Once in awhile we would be asked questions like facility needs, more as justification than as criticism. The origin of the Placerville Institute was different than the southern and northern institutes.

HKS: Mr. Eddy.

MBD: Mr. Eddy. I don't know what his part in Placerville was.

HKS: It was privately owned, and he gave it to the government.

MBD: That was a little different than the other two institutes. Then one of the other things that we started was recreation research in the Boundary Waters Canoe Area. Much controversy was going on up there over recreation use. Fortunately we had a very able research scientist trained in the social science studies. Through his own initiative, he started interviewing people to get their perspective of recreation problems.

HKS: Bob Lucas?

MBD: Bob Lucas, he had the capacity to understand that there were many social implications in recreation and forestry.

HKS: Was this novel in research at the time, to have someone who wasn't trained as a forester to do research?

MBD: Yes. This approach was questioned by some people. I became well-acquainted with Bob before we brought him into the project. I had confidence that he could do it. Recruiting staff for recreation research is a challenge, because you don't know whether you want more of a forester or more of a sociologist or what you want. It kind of has to develop around what the parameters are of the particular project. Bob's studies really paid off. The people who were involved in administration and research programs came to respect Bob very much. I remember one of the studies early on, when the staff was trying to define wilderness: where does the wilderness begin? Often they listed Duluth, although the BWCA was many miles north.

HKS: You've talked about genetics and recreation research. You've given me a list here on the outline. You want to talk about one of those other projects?

MBD: Let me mention watershed research. That was a project we started at Grand Rapids, Minnesota. We were interested in the movement of the water in large swamp areas of northern Minnesota. That is where the water comes from that supplies the Mississippi and other rivers flowing out of northern Minnesota. Not much is known about the quantity and quality of this water.

HKS: How do you trace how water moves? Do you put dye in it or something?

MBD: Yes. We had locations where we would put dye and then go half a mile or so and get a reading on water movement. There had been no previous watershed studies in the Lake States of this type. Zon had been interested and he had received some material from Russia on similar conditions there. Engineering research was another new venture. Along with a few other stations we initiated engineering research to lessen harvesting costs and to use more of the low quality second growth hardwoods.

HKS: Is this timber harvest type engineering or road building engineering?

MBD: Mostly timber harvesting. Some manufacturing equipment, too. But very little relating to roads. There were other projects studying harvesting under conditions much different than in the Lake States. Each project had a distinctive mission. The one that we drew on at Houghton--Michigan Technological University concentrated primarily upon harvesting small timber and uses of chipwood. We started a small engineering unit at Houghton, two engineers. One is now director of the Forest Products Laboratory, John Erikson, a highly competent engineer. Wildlife habitat was another new activity we started, studying the vegetative cover requirements for different wildlife. This was part of meeting Lyle Watts' challenge to shake things up. What we were doing was to reduce the emphasis on timber growing-silviculture and shift to some of these other research areas. This was quite timely from the standpoint of the Lakes States, because their potential for growing timber in terms of national supply is limited. But their potential from the standpoint of general, multiple use is high. So I was quite pleased and quite energetic in pursuing some of these new areas. We had much interest from groups around the Lakes States. Like recreation, a lot of the forest industry people, particularly, were interested in this.

HKS: How about the universities. Did you have a lot of co-op work with them? Was the diversity better for them?

MBD: Universities had rather limited research activities. We put some funding into research cooperative projects both directly and indirectly--Universities of Michigan, Wisconsin, Minnesota, Michigan State, Michigan Tech. Most of these schools developed cooperative projects with us. We benefited from the standpoint that it helped us train and develop people for advanced degrees. This was one of the activities that we got into with the universities, to get a well-trained staff through the funding of student research. It worked out to the advantage of both. One of the things I'm proudest of is the number of highly competent and successful people that we were able to recruit in this expansion activity during the '50s. I mentioned John Erikson, director of Forest Products Lab. Three station directors came out of our group--Bob Buckman, John Ohman, and Roger Bay.

HKS: You were director of that station longer than most directors are at stations, right?

MBD: Yes. I was director at the Lake States Station for thirteen years. Zon was there a little longer.

HKS: I haven't made a study of this, but just looking at a Charlie Connaughton type. They put him as director of a station as part of his seasoning for higher leadership. So there's a lot of rotation in directorships.

MBD: Yes, to some extent.

HKS: But maybe that's just an impression I had.

MBD: I have to say though I resisted moving.

HKS: It might give you a real advantage if you got to know your congressional delegation.

MBD: Well, that's right, it helps. In fact the last time when I moved, Les said, "You had it too good too long."

HKS: I asked this question before, but in a different way, about turf. Your program was growing faster than others. Is there any jealousy? Is there ever a problem?

MBD: Oh, sure.

HKS: How come he gets this and I don't get that.

MBD: I remember I used to be jealous of the Southern Station, because that was a time when the congressional delegation was strong in the South. We were able to get things turned around at least to some extent. We had several congressional members that helped us tremendously. Senator Humphrey was one of our best and closest friends, a good one to have on your side.

New Facilities

HKS: As long as you're talking about this, let's go right into that. Congressional delegation.

MBD: All right. Senator McCarthy was there at that time and he was interested in our research work at Grand Rapids.

HKS: Humphrey--I want to dwell on him a little bit, because he's so important in the broader Forest Service. Was he a creative guy or did he absorb other people's ideas and make them work? What was his genius in getting things done?

MBD: I would have to say he had lots of imagination no matter what he got into. He was creative too. But even more than that, if you gave him just a hint of an idea, he would pick it up. I recall one time in northern Minnesota, we'd had a timber management project near Cass Lake for many years. Our facilities were just a small office on the second floor of a local building. Anyway I saw Senator Humphrey in Grand Rapids one day, and he said, "Dick, how are you doing up here now?" I said, "Well, pretty good, senator, but we sure could use laboratory facilities." "I'll remember that," he said. And it wasn't long before things started to happen.

HKS: Now, theoretically you're not supposed to do that, right? You're going around the budget process. Congress doesn't like you to do that.

MBD: You should keep others informed of what you are doing and what you see as problems ahead as well as long-range needs. I don't think this is going around the budget process.

HKS: The location of these labs in Rhinelander and Bottineau, did they result primarily because that was the logical place to have them or because you had congressional support there? What makes things work?

MBD: We had a master plan for development of research facilities. We had ongoing research at both Rhinelander and Grand Rapids back in the '30s and continuing on into the '50s. This plan identified locations and research projects. The implementation of these was guided by long-range program needs.

HKS: They had to have the favor, but they're looking for projects.

MBD: They're looking for high priority needs. At least the ones I mentioned like Rhinelander.

HKS: I realize that a lot of your research was physically in cooperation with the university. That's where the physical plant was. The story we're going to talk about right now is where you're beginning to build your own laboratories. What are all the advantages of having your own structure? Other than adding space. That's an obvious one. Is being off campus good?

MBD: Many kinds of the research you need have to be located near the forest. If you go back some years in research, everything was centralized at station headquarters. In the summer the staff would move, and they'd be gone for three or four months and then come back to headquarters. This was costly and disruptive. I think there were many advantages of having facilities located near where the field work was located.

HKS: So location is a major consideration.

MBD: Location is certainly a factor. You know, from the standpoint of people, many of the forestry families are happier in a community like Rhinelander than they are being in a large metropolitan area like Twin Cities. This varies family by family, but it's a factor in recruiting staff. I've often heard Bob Buckman say that the happiest years of his life were at Grand Rapids. That's where he and his family settled and grew up, and that is where he did his most productive research.

HKS: Your station was the first to have its own headquarters building.

MBD: That's right.

HKS: How significant is that? Other than the physical convenience. Were your people scattered around the campus?

MBD: Yes, the forestry building at the University of Minnesota had a third floor that included space for headquarters offices for the Lake States Station. The station kept growing, and we located staff in other campus buildings. We had groups off campus. We also had groups at some of the field locations. So there were several factors involved in getting an organization together at one location. At Minnesota, the university was always very cordial and receptive to the station, we had fine relations over the years. When we talked about having our own facilities there, I remember the dean saying to me, "I couldn't be more supportive." We were proposing a building right alongside their forestry building. They had the land. He said, "That's the way that the universities and federal government ought to work together--having a major unit at a central location." They were very supportive.

HKS: The universities are growing too, during this period. They probably want space.

MBD: They urgently needed the space we were occupying.

HKS: They want to get you out of there.

MBD: They did. In fact, they rebuilt that whole building after we moved out. And they added another building too.

HKS: Frank Kaufert was dean.

MBD: That's when Frank was dean. Frank was a wonderful fellow to work with. He came there a little before I did, but we were there together over the thirteen years I was at the station, and I don't think we ever had a major disagreement.

HKS: He was our president a couple of times. I knew him.

MBD: I had a very high regard for Frank and the good relationships that we had.

Staff Recruitment

HKS: Staff recruitment. If you're going to shake things up, then you're going to recruit some people.

MBD: Sure enough.

HKS: Did you have a good selection? I mean, the universities are starting to turn out Ph.D.s in large quantities.

MBD: Part of the reason they were turning out more Ph.D.s was because of the support that the Forest Service was giving to them. At one time at the Lake States Station we had the highest number of Ph.D.s of any station in the country. About half of our professional staff was involved in graduate work.

HKS: It seems to me that the other stations would be competing for the same Ph.D.s for the same reasons you were.

MBD: They were, but we had early contact with undergraduate students. We'd hire them for the summer. Some of them would continue working for us part time. This is one of the advantages of a station being located on a university campus, you have frequent contact with the students. Roger Bay became director of two stations. I got acquainted with him when he was an undergraduate and worked at the station. When we set up our watershed project, I happened to be in Green Hall and ran into Roger. I said, "What are you doing now, Roger?" He said, "Looking for a job." I said, "You want to start in watershed research?" "Yeah, I'd love to." We recruited him through this contact. Just that kind of informal contact made the station attractive. One of the professors said "Where did you get all these good men?" "Well, we just keep looking around."

HKS: The hiring of Ph.D.s, this is really significant in terms of, for lack of a better term, maturity of research as a rigorous operation. As opposed to being descriptive, it's now more theoretical.

MBD: That's why you have to have fellows who have had good scientific training, people who have the training and background to carry on independently in research.

HKS: You recruited Bob Buckman.

MBD: Yes, I recruited Bob. He was up at our Grand Rapids laboratory for some years and did some very good research.

HKS: What was there about Bob that made you appoint him director of the Northern Conifer Lab, whatever it's called?

MBD: The Northern Conifer Lab then.

HKS: You have all these guys. They all have Ph.D.s and so forth.

MBD: He did an excellent study on management of red pine. But beyond that, Bob was a great fellow for reaching out to the community and making friends. That's all part of the job of a research forester, making friendships, contacts, working with people in the community, not just on forests--especially if you want others to know and use your research.

HKS: Was that unusual?

MBD: Bob was stronger at it than some. That's essentially why he did such a good job later as a station director. He could reach out to people, and he had excellent scientific training. This is the kind of scientist that you try to get to head up programs.

HKS: The pioneer units. Did you have any of those?

MBD: We had one at Rhinelander. Phil Larsen, a plant physiologist, a highly competent physiologist.

HKS: Did those things evolve or did you have a plan, you really wanted to have a plant physiologist?

MBD: Yes. There were different ways such units came about. Basically when you identify outstanding competence in a particular subject area that fits into your program, you consider ways to give him responsibility. It's the individual that you're interested in, you set him up with much freedom to select his studies. He has to be an outstanding scientist. There were not very many of these units nationwide. I don't know whether they still have them or not. But at one time there were several around the country. I think Phil Larsen, at the Lakes States, was one of the most productive. I understand that now he's retired, he continues to do research.

HKS: Buckman made a comment about pioneer units. He grew to think that they weren't a good idea, because what do you do when the guy retires and you have this whole infrastructure built up?

MBD: That's only one way to look at it. If you have a competent man and you want to give him an opportunity, let him do what he can in the years that he has to do it. And if the study folds up afterward, so what. Much has been gained already.

HKS: Universities go through this all the time.

MBD: That's right. That doesn't bother me particularly. Sure, you just don't hire another scientist to take his place.

HKS: Talk a little bit more about recruitment. Obviously there's salary and there's location. People have families, schools and all the rest. Was it hard to get talent? I mean, were you really competing with universities or could you go out and pick good people without any difficulty?

MBD: No, there was a scarcity of good, well-trained scientists. By and large, in research, you have to recruit on a personal basis. You go to the schools and get acquainted with the graduate students. You get leads from the faculties. You take students on for summer periods, temporary employment. This is the way you get acquainted with the capabilities of an individual.

HKS: At the same time, were you losing good people to universities?

MBD: We lost some to universities. We lost some to industry. We lost some to other stations.

HKS: I don't know how you can generalize this, but what kind of questions did they ask you about? Academic freedom? I don't know what they might ask you other than the cost of living sorts of things.

MBD: The cost of living was always a question. Beyond that each individual had his concerns--location, education for children, community life, etc.

HKS: Did they want to be able to design their own projects?

MBD: I don't think this was of much concern. They wanted most to get into a particular subject matter area. That's what they were after. If they wanted to, say, get into silviculture versus genetics, they would make it pretty clear, that's the direction they wanted to go, and if that isn't what you were looking for, you look elsewhere.

HKS: So they wanted to make a career of research.

MBD: Yes, most were thinking of a career. And another thing, the university professors generally have a tremendous influence on their students and particularly on graduate students. Often what the professors have encouraged them to go into is what they're looking for.

Improving Station Publications

HKS: One of the things that caught my eye while reading the station history is that you upgraded the appearance of the station publications. My question is, what audience were you trying to reach? What was the rationale? Now, I don't know how ugly they were to start with. They are pretty jazzy things these days, the color and all that. You're obviously going beyond the scientific community.

MBD: Probably, one never knows.

HKS: Review by the station editor. I can see that, that it should be intelligible. But the aesthetics of publication, that certainly is...

MBD: If you look at some publications back in the thirties and even the middle forties, they didn't have much appeal. What good is a publication if it's not used?

HKS: If you were fully successful in transmitting your knowledge, who would be your audience? The field forester? Who?

MBD: Generally, it's a group. It's the supervisory personnel, and it's those on the ground, field people. A publication on management of northern hardwoods. Who's going to use that kind of a publication? The supervisors, state foresters, industry foresters. They are the ones who should be interested in the publication. You know, nowadays the pile of paper that comes across your desk in terms of publications is substantial, and if you've got one with an interesting title, a good layout, and easy to read, that's probably going to catch your eye.

HKS: Was this, changing the appearance, agency-wide?

MBD: It was going on elsewhere, there was much variation.

HKS: It costs a lot of money to make attractive publications.

MBD: It sure does. But there's a lot of money wasted if they are not used.

University Relationships

HKS: Relationships at the universities. Start with some general statements.

MBD: When the McIntire-Stennis program got under way, it was obvious that there was going to be a larger research effort at the universities and desirably so. We sensed the need to develop more cooperation and coordination. Unfortunately the McIntire-Stennis program did not develop anywhere near as rapidly as was hoped. Consequently the universities were often in difficulty when entering into a cooperative project. Eventually, as McIntire-Stennis started to take off, that problem was overcome. Certainly back in the 1950s as the Forest Service was expanding rapidly, it was difficult to have a meaningful and productive relationship between the universities and the stations. Not that the desire wasn't there, but if you don't have the wherewithal to do it, then it's pretty hard to progress.

HKS: Were you involved in the passage of the bill itself?

MBD: No, I wasn't. To the extent that we could be supportive we certainly were willing but most of the initiative had to come through those who handled contacts with congressional committees.

HKS: I'm not sure the best way to ask this question. You worked with forestry faculty and also the graduate students. Were you ever concerned in any significant way that the professor might be more interested in getting money for the grad students than turning out quality research? I mean, students can flunk out of school. Universities have a little different mission than the Forest Service. Was that ever an issue as far as you were concerned?

MBD: Not as far as I know.

HKS: Forestry school research was good quality.

MBD: Yes. The biggest difficulty with the universities was that the research had to be pretty much within the confines of the period of time that the particular graduate student would be there. When he leaves everything goes, so your choice of projects is circumscribed a little more. In contrast, our station research might continue for ten or fifteen years. This made it hard to put the two together.

HKS: So an extensive degree of reliance on graduate students was a factor for project assignment.

MBD: Yes.

HKS: I hadn't thought of that. I asked that question, because when I was a very junior scientist in Portland, there were some complaints that some of the money the Forest Service was spending on campus was being used to fund graduate students first, getting research second. So, I always wanted to ask the question, and you answered it thoroughly.

MBD: It varies somewhat from school to school, but I think that's a fair generalization.

Other Federal Research Programs

HKS: Are there other examples of a federal agency being on a campus the way Forest Service is?

MBD: The Forest Service and the Agricultural Research Service both had people on campuses, but generally in ARS their staff is attached to individual departments, in contrast to the Forest Service. My observation was that the Agricultural Research Service found it difficult over the years with that kind of a tie. An individual loses his affiliation with the Agricultural Research Service. I can't speak for today, but that was the case several years ago.

HKS: I would suppose when it comes to recruiting talent, for some the chance of teaching a course once a year or sitting on a graduate committee would have a great appeal.

MBD: I'm sure it did with certain individuals. The Agricultural Research Service also had several field laboratories just like the Forest Service. They have got some large installations too.

HKS: The only Forest Service facility that I've seen on a campus is the one at Corvallis. Is that typical? Is that on a more elaborate plane?

MBD: It's more elaborate than most of them. Another one that's on a campus is at Fort Collins. The Rocky Mountain Station has a very nice facility. It is also a station headquarters building like the one we have at Saint Paul in contrast to the Corvallis one. I have always felt that the PNW station ought to be up at Corvallis, not down at Portland, but that's a personal opinion.

HKS: Many of the scientists that were there in the sixties when I was there are now senior scientists, but they're now in Corvallis, so it's almost happened.

MBD: That's right. That's almost happened. Right. A lot these things just take time. They shift around.

HKS: What is the significance of the creation of ARS, the Agricultural Research Service, and I don't know what CSRS is?

MBD: Cooperative State Research Service.

HKS: How were these functions performed before these agencies were created? Was it sort of ad hoc?

MBD: Generally the ARS is a consolidation of many research groups in USDA.

HKS: Some of that came over to the Forest Service. Entomology came over.

MBD: Only forest entomology and pathology. This was back in the early fifties, around '53 I guess. There was a general shake up at that time in Agriculture, trying to recombine and get units of like subject matter into the same organization. There was a group in the Bureau of Entomology and Plant Quarantine centered on forest entomological studies. That's what came over. There was still the Entomology Bureau that went into ARS at that time, but there was a part of it that came to the Forest Service. Same way with pathology. The bigger part of the pathology organization went to ARS, but some forest pathology work came to the Forest Service. CSRS is a different organization entirely. This receives and administers

appropriations for research at state agricultural experiment stations. The money is passed on to the state agricultural experiment stations. CSRS sets the standards and criteria under which funds are allocated to the individual agriculture experiment stations. CSRS as such did no research.

HKS: Sort of like McIntire-Stennis, but for agriculture.

MBD: Yes, McIntire-Stennis is administered through CSRS. It's under a separate law, but it's administered within the CSRS organization.

HKS: I don't want to trivialize this, but in a sense, it's housekeeping. They create a little better bureaucracy, so that there's better control and consistency and all that.

MBD: True.

HKS: Do you think the forest research model may have somehow influenced the need for that or did the time just finally come after the war and all?

MBD: I can't talk with much authority on that subject. In one form or another, the functions of CSRS have been carried on in USDA for many years going back before the Forest Service research legislation.

HKS: Is the Forest Service the only agency that has a major research program of its own?

MBD: There are a few small research units in other agencies.

HKS: I remember Ed Crafts argued against putting the Forest Service and the BLM together. He said, "Look, the Forest Service is not like other agencies. There is research, and it makes it unique. You don't just move it around like you do other agencies." I didn't know if that was a valid argument or not that he made.

MBD: It's valid all right. I think that it's probably the reason for the strength over the years of Forest Service research. It is a strong, well-organized, central organization. When you look at some of the problems that some of the other agencies have had, you were kind of glad you were in Forest Service.

Research Quality

HKS: Shortly after I got to the station in the early 1960s, there was a major study by the National Academy of Sciences, or some prestigious group of that stature, that had evaluated all federal research and had characterized Forest Service research as second-rate and pedestrian. Do you remember that study?

MBD: I remember that very much.

HKS: We went over to some auditorium in Portland, and we had a pep talk about it. It was not true, but we had an image problem, and I don't remember the details. You were a station director when that thing came down. You must have paid attention to that.

MBD: To some extent we did have research of that type. It was largely a result or an outgrowth of studies that were started in the thirties.

HKS: Lots of descriptive studies.

MBD: That's right. Lots of descriptive work. I remember a case in fire research at the Lake States. The staff member had all kinds of data on fire behavior. He was trying to make something out of it. The data had accumulated over the years in a certain pattern, and he couldn't analyze it. This was prior to the computer age. Later we learned how to design studies to get something out of all such material. This was much the same type of a problem as I mentioned with Carlos Bates.

HKS: This was an observation I made being fresh out of grad school. We had a course in experimental design at Washington.

MBD: Yes.

HKS: I saw that several of the old-time studies had no hypothesis. You just collect data and write it up. But this was changing, because of all the Ph.D.s that were coming in who were trained in research.

MBD: That's true. What was happening at that time by and large was shifting from a lot of empirical studies based on field plots to doing research in laboratories. Having to go through some of these situations helped to get the emphasis away from just collecting data and get it into the laboratory. Design what you're going to study and carry it out. There may be some necessary field work too, but the whole nature of research has changed over several decades. More time is now spent on analyzing what the problem is. What are you going to study? Why are you going to study it?

HKS: The primary reason I was hired; we were closing down a twenty-year descriptive study on the effect of slash fires on vegetation. This was the early 1960s, and the project started in the late 1940s. I looked at the project file, the names didn't mean anything to me at the time, but there was a critique of the project when it was proposed, we'll say 1940, about that time, from the Washington office. "This study should not be undertaken because it might show the Forest Service policy for slash burning is incorrect." Was that a generational thing? Did you ever run into that?

MBD: I've heard of a few instances like that. But certainly they grew less as research was strengthened and accepted.

HKS: It really wasn't an issue?

MBD: No. There were some people who felt that way. But you know, in any organization you are always going to have some discontents.

HKS: So, the regional forester didn't get on the phone and say, "Dick, God damn it, you have been publishing this stuff and it embarrasses the hell out of me"?

MBD: No. More often than that, the regional forester called me and thanked me for having done something. I remember the head of timber management in Region 9, he was having problems in getting rangers to adopt certain procedures in silviculture. The station had been doing research on this, and I said, "Herb, well, why don't we just take the scientist, and for a month or two just have him go to each national forest in the problem area and let him put on some training sessions." Herb said, "Well, I'm willing to try anything. I've tried to write dissertations, orders, and everything, and I've never gotten anyplace." We did that, and about a year later, when Herb was retiring, he came over and I've never seen a person as thankful for what we did in putting the scientist on the ground to work with his people. Now, you can't do this with every problem. Obviously, you'd get no research done. But there are times when this should be done.

HKS: So, the field people basically were receptive. They didn't think researchers were weird somehow.

MBD: No, they were receptive, very receptive.

HKS: I imagine you could extrapolate this to complaints about the *Journal of Forestry*: too damn technical, it means nothing to me.

MBD: Yes.

HKS: But you're saying Forest Service research was well received by the field.

MBD: Yes. I think so. Very much certainly in the Lake States. And I think it was generally in each region.

HKS: That's part of your rationale for making it more attractive and more readable.

MBD: Yes, that's right.

Contentious Issues

HKS: We haven't talked about contentious issues. How independent is research really from what's going on in the real world? Talk about Ashley Schiff's *Fire and Water*.

MBD: I met Ashley Schiff once on a field trip.

HKS: Prescribed burning was part of your research. So how did you feel about that?

MBD: We argued, traveled together, and disagreed. He was poorly informed and had a very limited background in biological science.

HKS: He's a political scientist?

MBD: He might have been a political scientist. Where he had gotten his information from I don't recall, but his basic problem was that he just wasn't well informed. Some of the things were kind of, as you say, half-truths. But you've got to separate them out.

HKS: You knew he was writing a book, or the book was already out?

MBD: I'm not sure if it was out, obviously he'd done considerable work on it. He was quoting things, and I was aware that some of his references were to fire research that Harry Gisborne did at Missoula. Harry was one of the original fire researchers in the United States. He probably had the best basic knowledge in his years as anybody might have in terms of fire behavior and control.

HKS: Schiff takes Zon to task.

MBD: Well, Schiff was an interesting chap. He just hadn't taken the time to sort things out and to understand them. I would like to think, if he had more days like I had with him, he would have done a much better job in his book. There's certain areas that he could be critical of, but the way he stated them was always inflammatory.

HKS: I'm not trying to be falsely naive here, but Harvard University Press certainly gives peer review to manuscripts. How does he get this book through peer review? Maybe they didn't send anyone who was involved in the subject.

MBD: I don't know. Every once in a while, a book like that comes along and you just wonder how.

HKS: So, in your experience in research, Ashley Schiff's and similar books and their criticism generally of resource management and forestry, you didn't see that as a scandal or something?

MBD: No.

HKS: You didn't feel you had to defend against these books?

MBD: No, those kind of books put you on your toes, make you look a little closer at what you're doing.

HKS: Congress reads it or staff does. Do you ever get questions?

MBD: I never had questions about Schiff's material.

HKS: Another contentious issue is wilderness. Bob Lucas was working on this. Wilderness certainly was a controversial issue nationwide.

MBD: That's right.

HKS: What was going on in wilderness research? The Wilderness Bill was passed in '64. You were still a station director. Supposedly, that resolved at least some of the controversy by having that bill go through. Was Lucas on the speaker's circuit? I mean, what happens in a situation like that.

MBD: No, we continued to study emerging problems.

HKS: You need a working balance.

MBD: You can't spend all your time on one study. Just having a free exchange between people puts you on your toes a little more. I think it's good for researchers to get out and have to talk about their studies. On the other hand, as I've always said, you can't talk about something unless you've done something to be well informed.

HKS: Did Lucas have five sociologists working for him? What was going on by this time?

MBD: At this time, Bob was pretty much a one-man show with a few temporary helpers. He had helpers doing the interviewing, but he was the scientist in charge and designed his studies. He was an exceptional individual, he had very good judgment about how far do you pursue problem; is this worthwhile or am I wasting my time? These are decisions research people have to make if they are going to come up with some answers to problems. He had good judgment as to what areas to explore in order to solve the questions he was looking at. This judgment varies from individual to individual. Some work far better when they've got two or three others right with them that are taking issue. Forest recreation research, this was a new field, wide open. You could go in any direction. You had to pick certain spots that you thought would give you answers to the critical problems that were facing the administrators of public lands. That essentially was the direction we were working in the Boundary Water Canoe Area. You're dealing with a limited resource. You've got so many acres of water, trails, and campgrounds. How are you going to use these in order to maintain the quality of the areas and meet the needs of the people? That's in essence the crux of recreation research.

HKS: Was Lucas collaborating with Canadian scientists?

MBD: Yes. He had many contacts with them. I don't know how often. The Canadians had a lot of controversy too. Of course, part of it was a different historical background, different laws, and a different form of government.

HKS: The provinces have a lot more to say about it.

MBD: Yes, sir. A lot more. The provinces are stronger. I am under the impression that the Boundary Waters management programs have pretty well settled down. Now, maybe they're boiling again. That's the history of the Boundary Waters. It goes along about ten years, and then things blow up again.

HKS: I suppose you had experiences with newspapers.

MBD: We had some of that. But you just take it as it comes.

HKS: How about newspapers? That's really a marvelous entree for you to the public, and yet everyone complains about journalists.

MBD: Sure enough.

HKS: Do you complain about them, too?

MBD: Oh, sure.

HKS: But isn't research a little safer, less controversial?

MBD: Less controversial just by nature of the fact that research tends to be more factual and less governed by daily emotions.

HKS: Would the editor tend to call the regional forester or you about some controversy?

MBD: I guess I'd have to say, if the editor was in Milwaukee he'd call the regional forester, if he was in Minneapolis he'd probably call the station. We had many contacts with the press in the Twin Cities area and generally had very good treatment. They would ask some peculiar questions, but once we would get a staff writer out on a trip to see what was going on, we'd get a much better story.

HKS: Did they jump at the chance, or did they worry you were going to co-opt them? Were they cynical or what? Or a little of both?

MBD: Oh, I don't think you could generalize one way or the other.

HKS: We joined the Society for Environmental Journalism. And the biggest problem they have--this is in their own bulletin--is "We don't understand the environment; we're journalists and we worry about it now. How can we trust the sources? All the special interest groups are feeding us data." And there's conference after conference these guys are going to to try to learn what's going on about global warming and ozone layers and all this stuff. I imagine it's much more sophisticated now than it was a generation ago.

MBD: You can do so much better when you have a person in a staff writer who has been exposed to a lot of these things. We used to try every year to get somebody from the press out on a field trip for a week or so. Over a period of years after that, you would get questions back from them by phone.

HKS: Whose job was it at the station to issue releases? Does the station editor do this, or did you do this?

MBD: We had an editor in the later days--but earlier anybody in the station might draft a release and then talk it over with me. We tried to have writers develop their stories based on discussions.

HKS: Jim Sowder was in charge of administration. Would it be one of his responsibilities?

MBD: Yes, Jim just naturally gravitated to public relations. He was good at it. People had confidence in Jim, whereas others would have difficulty. "Well, who was that fellow we talked to last week?" Pretty soon you'd say, "Jim Sowder." "Yeah, I want to talk to him again." That's the way it would go.

The Washington Office

HKS: We're about to move you to Washington, D.C., to stay. What was the mechanism by which you wound up going to Washington?

Program Development and Evaluation

MBD: Several things were involved. One is I was getting to the stage in my career where moving was probably a good thing for me and for the organization. An opportunity came along to participate in a USDA research planning team which would include representatives from Agricultural Research Service and Economic Research Service, the Cooperative State Research Service, and the Forest Service. We were set up here in USDA to project a long-range program for research in the department. There was the continuous questioning in congressional committees about the direction the department was going and

the magnitude of the program that we could foresee as being desirable. With that interest, particularly in the Congress, the department felt that it was desirable to set up a group once removed from affiliation with agencies. That's the way that the job originated. This appealed to me, because we had been involved in developing programs and recognized the need for continuing coordination.

HKS: Do you hear of an opportunity like that, you get on the phone and you call someone? How do you actually get notified, selected, and accepted?

MBD: Selection was done by each agency. Harper called me and asked if I would be interested and I said, "Yes." So after further discussion, he went ahead and moved me in here. Within a month after I was here, other representatives from the department were selected. We had a group leader who came from ARS. I might add this comment as an aside. The Forest Service had been involved in research long-range planning from way back in the 1930s, ever since the Copeland Report came out. That early report, mostly by Earle Clapp, gave direction to future research. Since that time, there have been a series of studies and research projections of program needs. This type of undertaking continued on over the decades. During the 1960s there were several revisions. The other agencies in the department had not been involved so continuously and as completely as the Forest Service had. ARS had had several studies for special subjects such as livestock, crops, etc., but these had not been tied together as a comprehensive plan. With continuous reorganization going on in the department, it was difficult to get continuity in the planning effort. Consequently when we started I probably had the best background information available of any of the groups. The main question was, how do we evaluate our needs in relation to the others so that there is a comprehensive plan that's balanced between all of the particular subjects in USDA. This was the main subject we had to confront early on. Largely you rely upon judgment. There isn't much more that you can draw upon. Take the ARS for example. They had programs for corn, for wheat, for livestock, and so on. In forestry, how do you structure a parallel program? Is it just only trees or is it timber, water, range, recreation, engineering, disease, insects, etc.? Or do you go by forest types? There are many categories that you can use. This was a continuous source of difficulty in projecting a program in forestry in contrast to agricultural research. We either did an aggregation at a higher level or a lower level. It depended upon what classification was used. We just used the judgment of everybody concerned. Each agency presented their comprehensive views and projections for a ten-year period. We worked by projecting what we called SMYs, Scientist Man Years. Now, it would be Scientists Years.

HKS: You betcha.

MBD: Then we converted the scientist years into dollars and came up with cost estimates. I recall we worked on five and ten-year periods for programs and consulted with various specialists as to needs. We eventually came out with a plan which was recommended by the work group. There's an awful lot of education that goes into one of these studies. Fellows who were in there from the other agencies had no background in forestry, and I had little or no background in the agriculture. We also had discussions with the congressional staff people to be sure that we were directing the program development in a way which would be useful to them. They made several helpful suggestions, but generally they were willing to be guided by our judgment.

HKS: Intellectually this is a little bit like RPA.

MBD: Sure enough. It's the same kind of a thing.

HKS: You assess it and you approve it.

MBD: That's right.

HKS: Congress is involved in this, so supposedly there's some compatibility at budget time.

MBD: That was what everybody was shooting for--both the agencies and the congressional committees. Budget-wise the plan would be a guide for developing programs and for priorities in building laboratories.

Then, you would inevitably ask, "Well, what's next?" We ended up with a massive amount of material and put it into several smaller reports hoping all this would be useful in guiding the budget process.

HKS: This was published?

MBD: Yes. The subject became somewhat controversial toward the end from the standpoint of individual agencies. The department's budget requests generally were lower than the study projections. The result was that the plan was never implemented fully. It was used only as a guide.

HKS: How about people in the field, the scientists. Do they think this is good or do they think you're just fiddling around?

MBD: I don't think they were too concerned, too interested one way or another. It was mainly an exercise from the standpoint of the agencies involved, although we did bring in some of the field people for consultation.

HKS: Are the stations as autonomous or not as the regions are to the Washington office?

MBD: I don't know how to answer that. I would say that the stations are fairly autonomous. You have to stay within certain guidelines, but individual studies are selected at the field level. Major new projects are cleared with the Washington office. I don't know what the arrangement is at this time, but I know that approval of studies then were the responsibility of the station directors.

HKS: The stories I hear about Charlie Connaughton, he's sort of legendary.

MBD: Oh, yes.

HKS: Larger than life I'm sure by now, telling Ed Cliff, "You do your job and I'll do mine."

MBD: Well, I'm not quite sure of this. I don't remember ever telling Harper that. [laughs]

HKS: Let me go back. Harper invited you, but he was getting close to retirement.

MBD: He retired about a year after the long-range study was finished.

HKS: When you came back here in 1965, did you buy this house then? Did you see yourself staying in the District one way or another?

MBD: I didn't particularly. I bought this house.

HKS: I guess you have to. The IRS makes you buy a house within two years or pay capital gains on it.

MBD: That's right. I bought it when it was about half built and have lived here twenty-seven years. And it turned out to be a pretty good investment.

HKS: Having been involved in this study must have been very valuable to you in the subsequent years.

MBD: Yes.

HKS: You have a sense of what's going on and what ought to be done. You did a lot of your thinking in advance. What kind of a workday did you have? People at your level don't work forty-hour weeks. Yet with car pools, how do you work those extra hours?

MBD: That was one reason why I located where I am, because I was going to have irregular hours. At that time we had a good bus service, so you could go back and forth with little trouble. As for work

schedules, we adhered pretty much to the eight-hour day except when you get into the final push on some of these office jobs, and then it gets a little hectic about what time you work and don't.

HKS: My mental image is that at four o'clock your phone would ring and it would be a congressional staffer saying, "Stop by for a drink. We want to talk about..." Did this really happen?

MBD: The congressional people seldom came to us. We had to go to them when we discussed things.

HKS: They wanted to talk things over with you?

MBD: No, no. At least not with staffers at my level. They undoubtedly may have with Jemison and Harper. That I don't know. I'm sure that they kept informed of what was going on.

HKS: They had to car pool, too, I guess.

MBD: Oh. That's right. Of course, car pools often control your activities.

HKS: Doug Leisz was telling me an interesting story a couple of months ago when I was in Placerville.

MBD: Oh?

HKS: That he had bought a home up behind the Supreme Court. He walked to work.

MBD: He walked to work, few of us could.

HKS: McGuire would call him and say, "Would you go to this banquet tonight as a Forest Service representative," because John had to car pool, he had to go home. Doug said it was great for him, because he was able to do all these things, meeting members of congress and what not, and he really enjoyed the afterhours part. He couldn't have done that if he had lived out.

MBD: That's part of the reason why I located out here. Having lived in Washington once before, I realized the importance of transportation facilities.

HKS: Okay. To summarize, you don't really know how to measure the effect of this study.

MBD: No, I don't really have any idea. One of the principal benefits of it was that it developed an organized plan that the budget people in the department and the budget people on the Hill could refer to and use and consider in evaluating the overall progress of the various agencies.

HKS: Also it was a marvelous way for you to be introduced to the process.

MBD: Yes.

HKS: What was your title then?

MBD: Frankly, I don't remember, probably staff assistant or something like that.

HKS: You saw what was going on and you liked it here.

MBD: Yes. You know, one of the really good things that came out of that effort was the contacts that I developed in the other research agencies in the department.

HKS: So, those contacts really hadn't been routine in the past? They were hit and miss?

MBD: They were hit and miss. Every day for the best part of two years we were meeting and working together. And some of the people that were most helpful in subsequent years are those that I met from other agencies, particularly ARS.

HKS: So this mechanism--I don't want to call it the social mechanism--but it did remain in place.

MBD: Very much so. Particularly with the people in ARS, which we had more in common with than the other agencies because of the type of research that we were involved in.

Associate Deputy Chief for Research

HKS: Is there more than one associate deputy?

MBD: Today there are two associates. Back in the mid-1960s there was one. I'm not just sure when we shifted to two, but it was probably in the late sixties.

HKS: Is the relationship to the deputy in any way similar to the associate chief to the chief? What was your function when you became an associate deputy?

MBD: Certain areas were considered the area for the associate, such as the details in developing budgets. Allocation of funds to the stations were pretty much handled by the staff under the direction of the deputy. That was one area, the associate had to take a pretty strong lead. The other included the details of operating with the stations. This often channeled into the associate rather than the deputy. There wasn't any clear cut line as you suggest between chief and his associate. For example, I was the associate for Jemison. He was heavily involved as president in the IUFRO organization and was traveling much. Then the Food and Agriculture, Committee on Forestry, and several other broad areas required that the deputy chief be in travel status. So, the associate just moves in and carries on. And when the stations have to have a decision, you make it instead of the deputy. That only happens once in a while, but you're the man behind the plate when the deputy's out of town. That's the way it operated.

HKS: Jemison had been Harper's associate.

MBD: Yes. The pattern was well-developed when I came along.

HKS: So Jemison must have had a job description in his head, what the associate did. He probably wanted to change some things.

MBD: Oh, yes. One thing that I would emphasize is that Jemison made a tremendous contribution while he was associate to Harper. In all the years that Harper was developing activities, George was carrying on. In fact, as a station director, my calls as a station director were probably more frequently to Jemison than they were to Harper. Harper was off with this and that, and George knew the details of the problem. He was a fine person to work for, always helpful.

The Harper-Jemison Legacy

HKS: Let's talk about Harper. It may have been as much the time as the man, but research really grew and matured during his administration. More, in a sense, than it did under Earle Clapp, who we all think of as one of the great leaders.

MBD: There's a difference there. Clapp was cutting a path through the forest that nobody had gone through. When Harper came along there were a lot of paths out there. He had to decide which ones to improve. Policies that Clapp developed have carried on and are basic to the organization today. Harper was involved policy-wise, too, in terms of trying to implement a broader program, trying to strengthen the organization so that the scientist had more opportunity to pursue his interest. Harper gave the scientist a lot of encouragement with his general philosophy that the scientist at the project level should be the key person in research. He wanted to keep administrative levels at a minimum, so that there was not a lot of

dictating on how and where research should be done. He followed that principle very well. He also had good acceptance and a recognized stature in the department working with the other research agencies. I think that helped a lot in getting ahead with the total program, getting funding, and in attracting scientists.

HKS: Characterize him as a person if you could.

MBD: He was a person with a great capacity for work and to look ahead. These I would say were his outstanding characteristics. He had a certain amount of reserve, and if you didn't know him well, you might consider that as being sort of self-centered. But I never found Harper that way. He was always a personable individual with those that he worked as far as I was concerned. He had some very strong convictions, things that he wanted to do, and he worked at then. I think that's good to have, some objectives in mind, specifically what you want to accomplish.

HKS: Do you think you had an easier job as associate than Jemison had being an associate?

MBD: I had a different kind of a job, but yes, I think it was probably easier just because the pattern had been cut out to some extent. But also you have to recognize that times change, and during the Harper period there were many kinds of expansion going on in research. Research was the fair-haired boy in Harper's time. Not that monies and people came easily or quickly, but compared to other periods when research was just kind of brushed aside. Harper would say, "Take advantage of this period of growth and influence growth along certain channels that are important." By the time I came to work with Jemison, the growth of programs had pretty much crystallized into a certain pattern. From there on it was a question of trying to give more effective direction to what we had. One of the big items when I was working with Jemison was the laboratory construction program. We had many, many requests for laboratories in various parts of the country. This took a lot of time, consultation with the people on the Hill, identifying where the most urgent needs were. Some of this started back late in Harper's term, but it really snowballed during the Jemison period.

HKS: Congress was aware that you had this list of say, fifteen. Did they say, "Get real. You're only going to get two."?

MBD: They would say, "You know, you're not going to get all these." We'd say, "No. We're not." But these reflected current and future needs.

HKS: The Corvallis lab was built in a couple of stages. Apparently there was a master plan.

MBD: One thing that happened that influenced funding was a ceiling on costs for laboratory construction. If we had put in funding for the whole Corvallis laboratory, there wouldn't be funds for other locations. So we developed several of the laboratories on a staged basis. That was good. Maybe it cost a little more, but it certainly made people realize you weren't going to get a million dollar laboratory just by having a number of scientists at one location. You had to have a long-range view as to what the research requirements were going to be for facilities. The second phase you wouldn't need for several years hence, so it gave pause to think about future needs.

HKS: You mentioned earlier that Lyle Watts asked you to be station director, shake the place up, but didn't give you any money. What's the role of the chief in research? Did you ever really work with the chief much? You worked under Lyle Watts, McArdle, Cliff, and McGuire as chief.

MBD: You attend the chief's staff meetings every day, every morning. If you've got some problems that you want some advice on you bring them up in the staff meeting, and it gives the other members of the staff an opportunity to offer suggestions. Once in awhile the chief would give you guidance on priorities.

HKS: McArdle came out of research, didn't he? Did that make him more sensitive or less sensitive?

MBD: I think McArdle was easier to work with because he knew research, and he knew the ways of research people. You didn't have to spend time backgrounding him on the particular problem. He sensed

right off what it was. Mac was a most unusual person to work with. He made you feel that you were good at your job and gave you lots of encouragement and advice. He was very helpful in that respect. Mac did a lot for Forest Service research, not just in building research, but in giving encouragement to scientists. He often spent time in stations when he was on a trip. He would talk with the scientists and talk their language. Also, I think it's worthwhile to note that because of his knowledge and background in research he probably didn't spend as much time on research as some of the other chiefs would. Mac was always most supportive.

HKS: What was the process by which you became associate deputy chief? I mean, were there candidates for the job, or did you just move into it? George said, "I'm going to be deputy, and I'd like you to be my associate"?

MBD: I really don't know.

HKS: It just happened.

MBD: All I know is that I was selected. Nowadays, there's a much more formal process of having to put names in and make recommendations.

HKS: McGuire tells a hilarious story about how he became associate chief.

MBD: Is that right?

HKS: He didn't know. I mean, they had never talked to him about it.

MBD: I heard that. The only time I talked with Harper was about coming in here. From then on up I was never a party to decisions and discussions about me. Probably just as well. [laughs]

HKS: Jemison I know slightly.

MBD: George pretty much continued the policies of the Harper-Jemison team, that's the way I like to refer to it. And he was confronted with a slowing of program growth. About that same time there were several retirements on the Hill, changes of key senators. Senator Humphrey became vice president, so he moved out of the Senate area. Then several of the senators in the South retired. I can't remember all the individuals, Senator Russell was one.

HKS: Is that why there is a fire lab in Macon?

MBD: I suppose so. That decision was made before I was in the Washington office.

HKS: But Russell would've been very supportive of it.

MBD: Yes, I expect Russell would've been supportive. As I mentioned already, Jemison was heavily involved in IUFRO which took much of his time.

HKS: How did that happen? Do you know? Harper was, too. He was vice president, I think.

MBD: Harper got to the point where he was confronted with the retirement policy of the Forest Service. Age was a factor then. When Harper retired, it was natural that Jemison, who had done much of the staff work for Harper and was well acquainted with the IUFRO organization, would take over from Harper. The plans for the IUFRO congress in Munich were well advanced.

Minority Hiring

One of the more difficult things he encountered (and the others of us subsequently) was this push to employ more minorities in forestry. The (L.B.J.) Johnson era came in, and assistant secretaries were

given the job of rapidly boosting minority employment. The message was: you don't take anybody else on in the higher grades until you get some minorities in there. Well, I can appreciate the need for a strong approach, but when you start out to hire in upper grades with no background in forestry, you have second thoughts about how far you should go. We did locate a few minorities, particularly where you had a need say, in a fire laboratory, for a physicist. Then you didn't need a forester.

HKS: I'm not minimizing the problem, but it seems to me, research had an easier job than the rest of the agency.

MBD: Yes, but even then it wasn't easy.

HKS: Towns like Corvallis are larger, and you didn't have to hire foresters. You could hire a physicist or hire a pathologist or you could hire an entomologist. The kind of skills that women and minorities might tend to go into as opposed to forestry. But you are saying, still it was difficult.

MBD: It still was difficult because minorities just were not coming out of the forestry schools. Even though a meteorologist, a physicist, or a social scientist, you could hire in research, still the hardcore of research needs required forestry-trained people. We started making grants to Tuskegee and other black schools for people interested in coming into research. Sure, we made progress, but to do it as fast as was wanted was another thing. On the whole, Jemison was exceedingly conscientious in trying to do the best he could. Department people, I think, recognized that, but they just kept pushing.

HKS: Did you have to file a report every year with someone in the White House on how you were doing?

MBD: I don't remember how that was done.

HKS: I suppose it would go through the secretary's office.

MBD: Probably it would go to the secretary. And agriculture was pretty low on the list of departments in terms of percentage of minorities employed.

HKS: What I read today, this is manyfold more difficult now.

MBD: Oh, yes.

HKS: The thrust is to make the Forest Service the employer of choice. That's the fundamental problem. People don't want to work for the Forest Service. It's not that the Forest Service won't offer a job; you can't force them to come to work for you.

MBD: Nowadays I understand there's the hang-up on forestry. Some people think forestry is destructive and not the kind of an organization that they want to be affiliated with. This is a hang-up that the profession is contending with, and I hope we're making some progress. And also, what was started back in the 1970s and 1980s working with the various schools and encouraging minorities to get into forestry is paying off now. It did in the late 1980s, and you see more signs of it now.

HKS: Maybe this will emphasize the difficulty you had in the 1960s. When I was a graduate student at the University of Washington, in the Puget Sound section of SAF, we had a speaker after dinner from Congress. His wife wasn't allowed to sit in the room at the head table. She had to wait outside. SAF did not allow women. This is in the 1960s.

MBD: Today I'm impressed with the progress that's been made when I go to a SAF convention, the number of tremendously able women that are there and presenting material, doing even better than some of the men are.

HKS: I guess there isn't much more to say about minority hiring other than you worked on it.

MBD: You just worked hard recruiting.

HKS: Is that something you did as opposed to George?

MBD: No, George pretty much took the lead on this. Sure, we handled the details, but that was a subject that George personally felt needed his attention.

HKS: I can't put the date on it, but it'd be in the mid-1970s. I had a good friend in the experiment station in Portland, and I dropped in to chat on my way through town one day. He showed me a letter that he had written to someone at the station at Bend about minority hiring. If you don't hire them, you're going to lose your job. It was a pretty tough letter. I was amazed.

MBD: You know the top people in the department were just plain tough. They realized that they had to make progress. When you look at the history of the 1960s and social problems that were rising country-wide, you realize why they were that way. It was probably good for all of us to have this pressure. We certainly wouldn't have made the progress that we have today, if we hadn't had the pressure we had then.

HKS: You build up a momentum.

MBD: That's right.

Training Program

HKS: The only one thing that I think we haven't touched upon is the extensive training program that started under Harper and accelerated under Jemison.

MBD: This was both retraining of older members and of younger graduates--sending them back to school under various training arrangements and assisting graduates so that we got a much better trained group of scientists than previously. By the time we got into the late 1960s, early 1970s, we had more Ph.D.-trained people than any of the other agencies in the department. We made a lot of progress rapidly. Both Harper and Jemison recognized that the level of scientific capability in Forest Service research had to be raised. Training was about the only answer. We had a tremendous program going on. One time in the Lake States, I figured that over half of our professional people were involved directly in graduate work. That was made possible to a considerable extent, because we were located on the campus at a major university. But we were also bringing people in, moving them around from field locations, so that they could get on in their training. This was a subject that George spent considerable time on while he was deputy, trying to facilitate training activities.

HKS: When I was preparing to interview John McGuire, he gave me his personnel file. In it was a rather strongly worded letter from Keith Arnold, "McGuire, if you want to amount to something in the agency, you're going to have to finish your Ph.D." [both laugh]

MBD: Mac put the pressure on all of us for more training. It was part of building a research organization, a scientific group with much capability.

HKS: In 1964 or 5, I was authorized--I'm not sure if that's the right word--to leave the station and go to Yale for a Ph.D. It was very tempting. They even found a job for my wife in New Haven. Instead I resigned, went back to school, and studied history. A three year free ride as it were--tuition, salary, fringe benefits, if I would get my Ph.D. I understood that for the three-year Ph.D. program, I would be obliged at least morally to work for the agency nine years afterward. Is that-?

MBD: I'd never heard that, it is new to me. When you select people like that for special training, you talk with them, and they're cognizant that they are expected to come back, but there's never anything binding.

Contentious Issues

HKS: We talked about this earlier, contentious issues and whether or not they effect research priorities. I jotted some thoughts down and you didn't cross them out. So let's talk about the clearcutting controversy that was really getting to be rather heated about in the late 1960s.

MBD: The first one I recall was the Bitterroot controversy in Montana. That became very much of an issue, because the timber harvesting there was followed by furrowing of the steep slopes and planting. It looked kind of barren after it was all done. A few years later I went back out there, and I was impressed by the extent of the forest cover that had developed in a few years. The people who were upset by the clearcutting on the Bitterroot had shifted their concern to other areas by that time. But the research group was not often directly involved in such controversies. There was one in Wyoming also.

HKS: So, you or George didn't call up the station director in Missoula and say, "Hey, have one of your guys go take a look at that"?

MBD: No, I didn't, a station director in the area was more likely to take an interest.

HKS: What would the regional forester say if you'd done that? Would that have been a turf problem?

MBD: No. Usually in that kind of a situation the request for help would come from the forest supervisor. Our researchers often worked with the rangers and supervisors. One thing I think you have to keep in mind is that there were other criteria that were developing in the minds of the American public. For example, landscape viewing became a value, and back a few years before that, it wasn't a concern.

HKS: We had the so-called Church guidelines on clearcutting. Here you have a heavy hitter, a senator, who's high-profile on clearcutting. It must trickle down into the agency somehow that this is a priority. The U. S. Senate is on our tail on this thing.

MBD: Oh, surely. You know there were a series of hearings held by Senator Byrd on Monongahela clearcutting. I recall that Ed Cliff spent one whole day, testifying. One person he took along with him was Carl Ostrom, who was then in charge of timber management--silviculture research. I was always proud of Carl being selected for that job. He was one of the best silviculturists in the U.S. He went up to the hearing and gave a scientific perspective to a controversial subject. The reason I bring up this changing of views and attitudes on clearcutting involves a question: is your primary interest growing timber, maximum sustainable volume, and to what extent and how do you take watershed yield and landscape viewing into consideration? These are values that were not so prominent fifty years ago. So, the question of clearcutting is not just one of how do you grow the most timber through clearcutting or shelterwood or selection systems. But other values that must be considered.

HKS: It's interesting how times change. When I worked for the Forest Service on a ranger district in the late 1950s in Region 6, we laid out clearcuts. I did, day in and day out, and we left strips along public highways to screen them. And in our minds, in our heads, this was done to enable us to carry on what we thought was appropriate silviculture, but also being sensitive to what the public wished. But when I read about this now, it's always put in the most cynical light, that we're trying to hide something.

MBD: Oh, yes.

HKS: There's been a shift in public perception. NEPA, the National Environmental Policy Act, with its requirement for impact statements. Scientists must have been involved in that, because of all the impact statement requirements. The field people didn't know enough for certain things, right?

MBD: I don't know. We were not directly involved in preparing NEPA statements. This was the responsibility of another group in the Service, but research people participated in discussions by providing reference and background material. After all, we wanted to have as good a job done by the national forest staff as was done by research. It was never a contentious subject as far as research was concerned.

HKS: There's a lot going on about this time, around 1970, with Earth Day and creation of EPA and Council on Environmental Quality. Overall there was a tangible increase in awareness on the government level.

MBD: There certainly was and increasingly so.

HKS: We had to change the way we did things.

MBD: We just had to change and recognize new values.

HKS: But in effect, doesn't this help you in Congress. You need more money and Congress is more sensitive to it, or did Congress not react?

MBD: The standard answer was to stop what you're doing and do the new job instead.

HKS: I see.

MBD: You just change your priorities. I'm not sure how well that can be done, you don't just change an assignment of an individual. You've got to be concerned about what the individual's capabilities are.

HKS: We obviously need a lot more science in order to, not repudiate, but at least deal with the accusations that we didn't know what we were doing. But to some extent they were true, right?

MBD: Sure, but one also must give adequate recognition to what has been accomplished.

HKS: We just didn't know.

MBD: And there are a lot of things we still don't know today, too.

HKS: Jemison retired sooner than expected? Is that true?

MBD: Well, sooner than many of us expected.

HKS: I mean, you look at someone his age, you figure they're going to retire at age sixty-two or something.

MBD: Of course, George was getting up there. I think that he felt he had put in about as much of a career that he should, and at that point, he decided to move on.

Keith Arnold, Deputy Chief

HKS: So, Keith Arnold becomes deputy.

MBD: Keith Arnold becomes deputy for research.

HKS: I understand that you asked not to be considered for the deputy position because of your wife's illness.

MBD: Yes.

HKS: Keith was dean at Michigan. You must have heard some of this through the grapevine or maybe directly from Keith. Ed Cliff was calling, and he had a real problem. MacNamara was playing volleyball or swimming or something with--who was the secretary of agriculture?

MBD: Oh, Orville Freeman.

HKS: Orville Freeman. I guess they played handball every Thursday night or some such thing. And Freeman was saying, "You know, I need a new deputy chief of research, and I don't have one on-line. The heir apparent has deferred." MacNamara says, "I've got fifty guys, any one of them which could be your deputy chief of research." Ed Cliff heard about that and he got on the phone and said, "Keith, you're the only one that's qualified at this moment, at that level you have all the civil service requirements met." Is that a true story?

MBD: I don't know.

HKS: Keith wasn't opposed to the idea, and he was happy at Michigan.

MBD: He had some difficulty moving in, because he had left the organization earlier.

HKS: He had been station director at Berkeley. Had he been in the Washington office?

MBD: Yes, he was in the Washington office. At that time we had division directors.

HKS: Oh, that's right.

MBD: He was the head of forest protection research which included insect, fire, and disease research. That was a new combination which Harper and Jemison put together. The only part I had in Keith's coming back was that he called me and said in effect, "Dick, if you want that job, I don't want it." He understood my reason, and we left it that way.

HKS: There is a lot to that job. The fact that he was out of the agency for a half a dozen years was significant.

MBD: This was part of his problem in getting back into the organization. You know, many of the station directors had known him earlier and figured he'd had his shot at the job and had moved on.

HKS: Was there any sense of lack of appropriate loyalty to the agency, because he had left?

MBD: I don't think so.

HKS: I mean, being dean at Michigan is not chopped liver. It's a pretty high ranking job.

MBD: It sure is. After Keith got here and settled in, he soon had the support of all concerned. He moved along quickly.

HKS: He what, operated at a more theoretical level than Jemison? I don't know how to characterize the difference.

MBD: There's a difference in the individuals in the first place. Keith is a person who makes decisions and moves on with them quickly and effectively. He's not one to spend a lot of time rationalizing pros and cons. He had to continue minority recruitment which was still pressing us in the late 1960s. He was also involved in international activities with IUFRO, FAO, MAB. Those things took considerable time. The big subject that he was involved in was the question of the organization of research. We had been through a period of tremendous growth. We had a structure with strong scientific leadership here in the Washington office. At the station level, under the director, we had station divisions. At the Lake States, as I recall, we had six station division directors because we had six functional programs, some large and some small. Harper had developed a concept that the project leader was the one who should be the key scientist in the organization. He should have the freedom and the liberty to carry on his research activities. Then, there was a great imbalance. You know, the organization kind of grew like Topsy for ten or fifteen years. Big expansion in fire research for example, that's when the fire labs came in. Then there was forest entomology and pathology which had come over to the Forest Service from ARS. Some of the stations

had only two scientists in a project, others had a dozen or so. There was obviously a need for reconsideration of the organization structure. This was the job that Keith took on. The staff in the personnel office made several rather complete analyses of the workload in the station division organization. Some had two or three projects; some, twenty projects. How to get this back to a more even workload was a problem. Keith spent the best part of a couple of years on this particular subject, while the rest of us were carrying on the day-to-day activities.

HKS: He has a great deal of confidence in his ability to be a quick study.

MBD: Yes.

HKS: I could see that that would be a little nerve wracking, working for someone like that. I don't know how you judge someone's grasp of the situation. Is that a fair characterization that I made?

MBD: Yes, I think so. This is what I was touching on earlier, he made decisions rather quickly. I couldn't fault the decisions. It's just that was his make-up. He wasn't going to spend a lot of time mulling things over. He had it well fixed in his mind where he wanted to go, and that's what he did.

HKS: You've been involved in the history of research off and on for many years, writing letters to people. Someone characterized Keith, who left the agency in '73 to go to Texas, as not--what was the term--not willing to put up with the hurly burly of federal research.

MBD: I expect that the Texas job had its attractions compared to the daily demands of the Forest Service organization.

HKS: It sounded like it's a pretty hard-nosed operation, and you get beat up a lot.

MBD: Working in the federal service is a lot different than university life, that's for sure.

HKS: Who beats you up besides Congress?

MBD: Well, the work load first, and second the large organization that you're working with. You have to sort out, shall we say, the small issues and the big issues. Those decisions are not made easily or quickly at times. You have to decide when a problem here needs attention. Some things inevitably fall by the wayside.

HKS: So Harper and Jemison, in terms of the growth of research, were pragmatic. They took advantage of opportunities.

MBD: Yes.

HKS: The growth wasn't uniform. So their legacy was a greatly expanded research program. And was Keith's role to try to start stabilizing and balancing it out?

MBD: Yes. I would say that his main role in the three or four years he was there was trying to get organization responsibilities at the stations clarified and placing some scientists in other assignments. Either one of those is a big task in itself. Particularly the latter one, and of course, that question of getting people functioning in a new assignment is one that you don't resolve over night. It takes some time, and some people never do quite make it.

HKS: I've been so impressed interviewing two chiefs and now three deputies, how much time you guys must spend on personnel matters.

MBD: Sure enough.

HKS: Of making sure there's people in line, as station directors retired and moved on.

MBD: Several alternates must be available and trained. The importance of this has developed more and more as time has gone on. In the 1930s, 1940s, and 1950s, we were not getting the large number of retirements. The big recruitment period in the Forest Service was back in the 1930s during emergency programs. Those people began to retire in the 1960s and 1970s. So the importance of getting people in line to fill vacancies accelerated during the 1960s and 1970s.

Deputy Chief for Research

HKS: Keith resigns fairly abruptly.

MBD: He resigned and left for Texas in a few weeks.

HKS: I guess Steve Spurr put on the pressure to get him down there.

MBD: Yes, I understand that is what precipitated it.

HKS: So, were you made deputy immediately or were you acting for a while?

MBD: The usual procedure is to be designated as acting until department approval is received. I don't where such appointments go for approval.

HKS: Were you interviewed by anyone at the secretary's level?

MBD: No, I wasn't.

HKS: So, McGuire decided to appoint you deputy chief although officially the secretary did it.

MBD: I guess that's right. I believe John was the one that made the decision with the approval of the secretary.

HKS: You wrote a letter to Bob Buckman recounting this era. John asked you to "let things cool off" following Keith Arnold.

MBD: Yes, reorganization was well along and the staff needed to settle down.

HKS: Anything specific?

MBD: No. John was talking about the job. I told him I wasn't going to be there for too many more years, I was getting near to the retirement age. He said, "As I review the research organization, the thing that we need most is to get settled down and get on with our job." We're still getting the impact of reorganization which Keith implemented in terms of getting people into the spots where we wanted them. We had, as I mentioned, six or seven division directors at some stations. The combinations we made in the reorganization just didn't have so many division jobs. The other thing was to get adjusted to another concept of how this new organization was to function--that the project leader was to be the scientist and leader. We were eliminating one organizational level. In place of the division level we had two assistant directors for continuing research. We had two assistant directors in a station in contrast to six or seven before. These were largely administrative and not scientific positions. When we put in an assistant director for research planning, this was a new concept. Also we set up assistant directors for administrative services. There was not only physical placement of people, but getting mental adjustment to a new kind of functioning in an organization in which we wanted to have the scientists be in the forefront. I think that's what John had in mind mainly in this settling down. We had had tremendous growth. We had had reorganization. We had new programs. All three things needed to get settled down. In some situations this settling down came quite easily, others I don't think ever did. Having been in the Washington office there for some years, I knew the key people at all the stations, which was a big help in making staff adjustments.

HKS: John came out of research. He was certainly sympathetic with research. We've talked about this with Cliff and McArdle--did that help you any to have a chief that had been in research?

MBD: I'm sure that made it easier. Yes. I guess one of the things that impressed me was that Ed Cliff had always been in the National Forest System, and we never thought he had much interest in research. When Ed got into the chief's job, he promptly became interested in research. It wasn't just a passing interest. He dug right in to what some of the problems were that we were confronted with and this helped out a lot. McGuire didn't have to go through that phase, because he was already there, but it sure helps when you a get a chief who is interested in research activities.

HKS: You'd been associate for quite a while.

MBD: Yes.

HKS: So now you're deputy. Were there any surprises? You changed offices and secretaries.

MBD: No, I just moved to another office and had worked with the same secretaries. No, there weren't any big surprises.

HKS: But there was essential responsibility that you didn't have before. The buck stopped with you.

MBD: You just kind of go along with it. That's it.

HKS: Who was your associate?

MBD: There were several changes. Most of the time, Bob Youngs, who later became director of the Forest Products Laboratory, was the associate. By that time we had two associates. Carl Ostrom was in there for a while, and Herb Storey, plus several others acting.

HKS: Where's Buckman?

MBD: In research, we had two or three staff assistants. They were the ones that took a hold of a specific job. Bob Buckman had one of these staff assistant jobs. He had been in a staff position in Washington for some time. Later he moved out to PNW station as director.

HKS: Was he ever your associate?

MBD: For a short period.

HKS: But he became the deputy when you retired.

MBD: He became the deputy when I retired.

HKS: Did you have a hand at that selection?

MBD: Oh, sure.

HKS: I mean, when you were getting close to retirement, you sat down with McGuire...

MBD: I sat down with McGuire and his staff. At that time they had quite a complete list of prospects for all deputy positions. Bob was one of the candidates, and as I recall, the staff was much in favor of his selection as deputy of research. I started to get on with this settling down business. I was kind of surprised when John mentioned this as the first thing he wanted. He's a very keen observer. Apparently he had felt this need and realized that Keith had been pushing fast and hard to get reorganization in place before he left. John sensed that there was a need to slow up. Some of the stations never did quite take

on the standard reorganization pattern. Some of them went for one deputy director instead of a series of assistant directors, and the total number of staff was the same, but the setup within a station had variations within. John said, "Fine. Let's do that, and we will work toward the standard pattern as we go along rather than trying to jump from this stone to that stone at once." Which was an astute way of keeping things going but not stirring them up.

A Typical Day

HKS: Describe a--I know there isn't one--a typical day. You're fifteen minutes from work. You get in your car, you drive in, you park, and you go in. What do you do?

MBD: The first thing each morning is the staff meeting in the chief's office.

HKS: Every day?

MBD: Every day. If the chief's out of town and the associate is tied up, once in a while you don't have one. But generally every day you had one. It's kind of a show and tell activity. What are the bugs that are bothering you today and what should we do about them?

HKS: You go around the room.

MBD: You go right around the room. There are always two or three contentious issues. I'd say that about 80 percent of them involve national forest activity. Research doesn't have, or didn't have at that time, much to bring up at the staff meeting.

HKS: Did your associate attend also?

MBD: Not unless you were detained otherwise. I know one thing, you learn never to miss a staff meeting. [laughs] Strange things happen at times, and you want to be there or you sure want to be represented.

HKS: This was what, a half hour every morning?

MBD: Oh, sometimes fifteen minutes and sometimes two hours. You never knew. You keep every morning open for a staff meeting, and generally you didn't make any appointments until after eleven o'clock. That system worked very well. We tried for a time to have a research staff meeting right after the chiefs' staff, but the timing of it was difficult, because you never could know when you were going to get out of the chiefs' staff. Your staff had to make their appointments for the day, so we finally gave up on it.

HKS: I find that amazing. If you count up the salary hours. I realize that it's important and all that, but when you think about that.

MBD: I don't know how else you'd do it.

HKS: Were the minutes taken and distributed?

MBD: No, there were never any minutes taken that I knew about. On some specific issue, somebody might take them, but there were never any minutes that were written up for circulation.

HKS: So John would lead off and say, "This is what I am doing today"?

MBD: Generally.

HKS: Is there a hierarchy? Would people sit around the table in a certain sequence, always in the same chair?

MBD: [laughs] I guess it depends on who you talk to. I never felt that there was a hierarchy, but I noticed certain individuals always went to the same chairs.

HKS: The deputy chief for national forests strikes me as a pretty high-profile job.

MBD: It kind of depends. Individuals are individuals. Tom Nelson was in charge of the National Forest System as deputy while I was a deputy for research. Tom had come up through the research organization and he was always supportive. You're kind of a minority in the outfit because you've got a deputy there for state and private and national forest, and other deputies who had come up through the National Forest System. Tom was a big help to us in research, and his attitude passed on out through the whole National Forest System. You could see that where we were getting help in the regions it was an outcome of the interest and support that Tom Nelson was giving us. We tried to do likewise to the National Forest System.

HKS: One of the most valuable archival records that I have encountered is called the "Minutes of the Service Committee." In these minutes you can see, in the early 1920s, wilderness coming across the stage, and all the debates in chief and staff. Wilderness, was it good or bad? That's why I was asking if there were minutes of these meetings.

MBD: I think maybe the general content of the staff meetings changed over the years, because the subject matters are always the things that were under the gun and had to be taken care of that day or week. It wasn't always a long-range perspective. It's who's going to do what today.

HKS: Okay, so the chief and staff meeting's over. Then, what, do you have mail to catch up on?

MBD: Mail to catch up on and probably a couple of dozen telephone calls waiting for you to return. You pick the ones that are most urgent and get staff assistants to handle the others.

HKS: Did you usually have a working lunch where you..?

MBD: No, no, we never had a working lunch. Generally with one or two of the staff members, I'd go down to the department cafeteria. I just don't think it's healthy for people to be involved eight, ten, twelve hours a day in a particular subject. You've got to back off from it a little while.

HKS: You read about the so-called power lunches in Washington, D.C.

MBD: That's right.

HKS: Your associate over in EPA that you meet at lunch or something. But that really wasn't what happened?

MBD: No. No, I wouldn't say that was what happened at all in the Forest Service. Once in a while it would, but it wasn't a common occurrence.

Dealing with Congress

HKS: How much of your time was spent dealing with Congress and preparing for testimony and that sort of thing?

MBD: That varies a lot. There was a period in February and March, then it shifted to May and June, in which budgeting and appropriations took much of your time, not just with Congress, but on the other end with your field organization, because you need their input also.

HKS: Did you testify in Congress on matters other than budget? A bill comes through and you're brought in because of your expertise?

MBD: No. Once in a while you may do so, but I don't recall ever going up on the Hill to handle other than research activities. That was usually just once a year when you'd go up for the budget hearings, and then you were subjected to questions. Julia Butler Hansen was chairman of the committee while I was in the deputy spot. She always had some sharp questions for research.

HKS: You mentioned earlier that you didn't do liaison with the staffers ahead of your testimony routinely.

MBD: No, I didn't do that routinely. Quite often, if the committee staffers came up with a question, I'd send fellows like Buckman up there. Obviously if Julia Butler Hansen called, I would go up. But some of the staffers on the committee and our staff people would get together. Some of our staff people were up there frequently and on the phone answering questions about specific programs.

HKS: The staffer has to prepare questions for the person to ask.

MBD: They'd get an idea on the question, then they'd call me and ask, "Does this kind of a question bring out this subject?" Some of our staff people would work it out with them.

HKS: Were you ever in an antagonistic situation?

MBD: You could tell there were some antagonistic questions.

HKS: But that might be more political, Republican versus Democrat.

MBD: No, I don't think that anything was very indicative of "they're out to get you" at all. Generally, you know, the people on the Hill are competent individuals and have a lot of tact and background.

HKS: How long would you testify roughly? Is it an hour? Is it a day?

MBD: On the budget hearings generally I'd say you might have anywhere from a half hour to an hour. It depends on what the particular subject is at that time. A lot of things are resolved with the staff people before you get to a hearing. Sometimes the hearings are very perfunctory. Maybe you have five minutes to answer questions.

HKS: But the research budget is presented as a part of the Forest Service budget.

MBD: That's right.

HKS: And the chief is there. McGuire is there officially dealing with the testimony, but he would turn to you sometimes?

MBD: It kind of depends. I've been there at times when I never testified. McGuire would handle the questions, and that would take care of it. If you testified, it was to a specific question asked by the chairman of the committee. And you don't talk unless you're asked. That's the way it operates.

HKS: How about people in the secretary's office?

MBD: There's usually one member of the secretary's office at a hearing.

HKS: Do they testify very often?

MBD: Usually right at the opening there's a brief statement that they give. Beyond that, I don't recall anyone from the department becoming involved at the hearings in the research items. In the national forest, at times, there were some comments back and forth.

HKS: The research budget; some casual observations. Roughly 5 or 10 percent of the total Forest Service budget, in that neighborhood. Does Congress spend all of their time on National Forest Administration and then take a look at research?

MBD: The activities on the national forests are of the moment, and they often get the attention. The controversies that are going on, that's where all the questions come. Generally you don't have that kind of thing in research. Research is not a controversial subject that engenders questions, it's more talking to the justification for the budget proposal. Very seldom do you get much back and forth questioning. I'm sure that sometimes there were substantial problems to discuss. But at least during the period I was there, I spent a lot of time getting ready for the hearings, and I was disappointed because I didn't get much time. [laughs]

HKS: This so-called eight-hour day you put in. You must have done a lot of homework at night.

MBD: Oh, sure.

HKS: To prepare for this. Memorized the numbers.

MBD: Memorized the numbers and carted them back and forth home to study them. But after you've been around there a few years, you know they're not going to pin you down to the last dollar on a budget item.

HKS: But you want to appear knowledgeable.

MBD: Oh sure, you've got to be knowledgeable about it.

HKS: Keith told a story. He came back from the Soviet Union Saturday night and testified Monday morning, and he wasn't over jet lag. I guess you went out to his house that Sunday and worked on the budget. He was in pretty bad shape, then. [both laugh]

MBD: That's right. Well, that happens. But, you know, you develop a staff that has a feel for these things and they know what to have ready. Changing dates for hearings is common, so you never know where you're at. If something comes up in Congress that committee members have to be there on the floor to vote, the hearing is cut off until later. Then it's shifted around, morning and afternoon.

HKS: I've asked others the same question. Where do you park? How do you go up on the Hill. Do you walk a mile?

MBD: If it's a nice day like this, some of us would walk and some might take a cab.

HKS: But you don't want to be late for your testimony.

MBD: No, most of us would go up in the cab, and then take a relaxing walk coming back. But it varied. No, you've got to be there, and you want to be there ahead of time.

HKS: Would you ever call on the station director, say there was major line item for a new lab, to have them sitting there just in case?

MBD: No. The hearing room in the House was so small that you couldn't even get all the deputies and a few assistants in the room. So anybody in the field would not be there. In the Senate they had a larger room. The people who were there for testimony were all in a row up front, any others would sit in the back of the room and listen. But you're not asked questions if you're back there. Just because of the physical arrangement, I couldn't turn around and say to Buckman, "What is the report on this issue?" You just can't. You are on your own. That's the best way to express it.

HKS: I never realized that the chief was there throughout the whole thing, because I thought the deputies would go over for each major program.

MBD: The chief is the one, and the only time that the deputy talks is when the chief turns to him. That's the procedure.

HKS: It's still a mysterious process. [both laugh] You think of the immensity of government, and from the congressional staff point of view, to try to keep a handle on it. It's daunting. Your job, it seems to me, was easier than the staffers' side.

MBD: Probably.

HKS: Because they're handling so many agencies in agriculture.

MBD: That's true. [chuckles]

HKS: I knew Julia Butler Hansen just slightly. She was on our board of directors briefly. I wrote to her and said, could she give us some advice on how to get some federal grants to do forest history research. She wrote back and said, "My job is to reduce government expenditures. I won't help you at all." [both laugh]

MBD: She was a pretty sharp person. I always enjoyed meeting her when she was chairman, she was sharp and she had been with it for years, so that she knew what was involved.

HKS: The Hansen papers are at the University of Washington archives, and they are a historian's dream. They are well-organized and the horse trading is just everywhere in there. It's what you always were taught in school, and it really happens. I'll vote for your deal if you vote for my deal.

MBD: She was a master at that. [laughs]

3-Bug Program

HKS: Let's get more specific here. The 3-Bug Program. Why three bugs as opposed to three diseases or three something elses?

MBD: Let's put it this way. In the late 1960s and early 1970s, nationwide we began to have a series of insect epidemics. The most common one, I guess, was the tussock moth. Then we had the spruce budworm and the mountain pine beetle, gypsy moth, southern pine beetle. There were a whole series of infestations. Some of the entomologists related the problems to climate. I think generally foresters were more inclined to relate it to the general age class of the forest. You were getting the forests that were at the age in which they were susceptible to southern pine beetle, and same way with the tussock moth, and other insects. Sure there were disease problems, but those were more likely to be endemic than epidemic. And we had, well, heart rots, for example, various rusts. There were cases made for needed research for each of these. We had some research going on several insects, but the magnitude, the number of insects that began to surface as epidemics were so great that it was beyond the capacity of the Forest Service research organization and beyond the capacity of the forestry schools and state forestry departments. So, as I said, it kind of grew over a period of, well, starting in the '60s and kept becoming more common. We had discussions with the Cooperative State Research Service and through them to the state agricultural experiment stations, trying to see what others could do on the particular problems that we were hearing so much about including questions from congressmen. It was outgrowth of the discussions of this type that we decided we had reached the point where we had to make some kind of proposal for additional funds. We couldn't manage with the small group of scientists we had handling the insect problems. The assistant secretary, Bob Long, covered the Forest Service but not CSRS. He got quite excited over the complaints that he was forgetting about timber losses from insects and suggested that we try to rationalize some kind of a program to go to Congress. So internally we did this and talked with the stations and the stations with the agricultural experiment stations around the country and decided that three most important insect problems we ought to take on first were the tussock moth in the Northwest, the gypsy moth in the Northeast, and the southern pine beetle in the South. Also, Long was favorably inclined to approach the need budget-wise through the Forest Service rather than going through

ARS or another agency. Part of his decision, I'm sure, was because the Forest Service had a straight line organization so he could identify just where the research was going to be done and budget-wise just how to handle it. I had several discussions with Long on this, and finally we decided that, well, we've got to get one person in here full time on this. At that point in the Forest Service, Keith Shea was then in charge of our forest protection research--insect, disease, and fire.

HKS: He's a pathologist, right?

MBD: He's a pathologist. That's correct.

HKS: Did it make sense to have a pathologist in charge of bugs?

MBD: I don't think at that level it is particularly significant. You're looking more for an individual who can provide leadership, who has an understanding and capacity to work with various diverse groups, and Keith had that. He worked easily with any organization. He didn't let the little things bother him.

HKS: I knew him slightly, when I was a student at the University of Washington. On a senior field trip, we went to Weyerhaeuser's Clemons Tree Farm. We did some pathology studies with Keith. We busted up logs or we drew patterns or something of the stain on the logs. I never heard of him again until suddenly in the 3-Bug Program; I thought, he works for Weyerhaeuser. How did he get into the Forest Service?

MBD: I think he came to us from Weyerhaeuser. I'm not sure of that. Maybe he went with the PNW station for a while, and then moved in here.

HKS: I mean, the stereotype is the flow in the other direction. The industry hires someone with higher salaries and so forth.

MBD: Yes. I had known Keith when he was an undergraduate forestry student at the University of Minnesota. I had confidence in his capacity. So, we detailed Keith, put him over under the assistant secretary's office, out of the Forest Service, because you had other agencies to deal with that are not under the assistant secretary, then you've got the problem of how do you coordinate.

HKS: I know Ken Wright. He was for the tussock moth.

MBD: Ken was a good leader, he worked well with other organizations. And he knew the Northwest.

HKS: We used to play volleyball, so that's how I'd see Ken in those days. He said, "You know, I'm over in the secretary's office, now." And I thought, "Gee, is that ominous?" I didn't know if that was good or bad. [both laugh] So, he was the tussock moth guy in the 3-Bug Program assigned to the secretary's office.

MBD: Yes. In each one of these bug programs we had a program leader. We had a comparable leader in the southern pine beetle and in the gypsy moth. Keith spent a lot of time trying to pull together a program that would meet the needs of the problems that they were confronted with and make maximum use of all of the agencies that had a capacity to work on the problem. It was a big challenge to try to pull this together country-wide, and he did a tremendous job.

HKS: Was it successful? I mean, apparently there's still a bug problem.

MBD: Yes, there are still insect problems, but I think there has never been a forestry fact-finding effort as well organized and executed as it was on these three insect programs. You don't get a simple answer. It's always complicated by the ecology of the forest and ecology of the insect. You have to piece things together and try to work out an interpretation that gives you a control. Certainly with the gypsy moth and the southern pine beetle, we have had a continuing effort for many years. What this particular 3-Bug Program was to do was to bring everything together, summarize it, put it together in one place where all of the facts could bear upon the subject, and try to interpret in terms of a program that would give you answers of what to do. Certainly you just don't say, "Okay, we've been working on these three areas.

These are the facts. This is the answer." That isn't the way that insect problems are resolved. You get good leads, good direction, and test them.

HKS: The red-cockaded woodpecker had been listed by this time. So you have habitat combat between the bug people and the bird people.

MBD: Many things are always involved. Of course, when the bug program was taken over by the secretary's office, I kind of was on the sidelines from then on. The Forest Service had been important in getting some action going, but from then on it was a joint USDA-state effort. There were several committees or counsels and so forth around the country that reviewed their activities and decisions. But at least from where I sat, I had a feeling that this was one program that was really moving and had the support of everybody. You know, we had the Universities of Idaho, Oregon, and Washington all involved in the Pacific Northwest on the tussock moth. Never before had this particular kind of an effort been made. It was interesting to see how stimulated people got to make things move. The final publication, I expect you've seen it, it's a book about like the Sears-Roebuck catalog or thicker. It has a tremendous amount of material in it on the tussock moth.

HKS: Did Ed give you the notion that this is a good strategy, let's try to find other areas?

MBD: Let me say this, this had been tried a couple times before and was not so successful.

HKS: Oh, okay.

MBD: During Keith Arnold's time--I think it was in watershed, maybe in fire--anyway, there were attempts to put together package programs of this magnitude, probably not as comprehensive as the bug program. But we never seemed to get through. We would get them together and they had a lot of promise, but we never had the push to get the necessary money. You see, in the 3-Bug Program we received a special appropriation of six million dollars.

HKS: That's a big percent of your insect budget.

MBD: It was a big, big step. Of course, if you put it in terms of the *total* research budget, for all the organizations involved it is closer to 2 percent. One of the things we observed in the earlier efforts to package programs was the need to get all parties knowledgeable about a proposal so that as the program progresses you have their interest and support. We were fortunate in the 3-Bug Program to have had so much publicity about timber losses. This kind of a program could well be the basis for some future proposals.

HKS: How do you name things? Over in fire they had Operation Skyfire, Operation Firestop. The 3-Bug Program, that's not very sexy.

MBD: I don't know how those developed. I expect probably Keith Shea had more to do with it than anybody else. You know, sometimes a simple title is very appealing.

Resources Planning Act

HKS: It actually explains what it is. The next on my list is RPA. My assumption is if the Resources Planning Act is going to work, research projections have to be a part of the assessment, because you have to have knowledge in order to carry it out. Is that correct?

MBD: I'd say you're correct in terms of the basis of the law itself. How it operated organizationally is that the RPA work group did their own projections using some of the earlier research material. They drew up their own guidelines for the projections and set up their own systems. Actually the RPA was just getting started when I was there, and I had very little to do with it. They were setting up their own organization. They took some people from research and put them into the RPA organization.

HKS: But when they made the assessment and they're identifying problems somewhere, research has to study the problem.

MBD: People at various levels participated in the discussions on the specific programs. But the responsibility was with the RPA group. We were helpers in getting their job done. I would point out that the USDA long-range study of research needs provided much of the material for research projections.

HKS: By your observation, did research benefit from this?

MBD: I wasn't there long enough to know. As time goes on research should benefit.

Forest Products Laboratory

HKS: Okay. The Forest Products Lab. We haven't discussed that really at all except who the director is. Let's start with a philosophical question. How do we as a society justify having the government do research that benefits industry? I mean, why don't we say to the industry, do it yourself? It seems to me that Ronald Reagan would have said that.

MBD: Probably.

HKS: And Eisenhower.

MBD: A lot of people did say it, too.

HKS: Is that just talk? Has the propriety of the Lab been questioned?

MBD: I've heard it discussed many places, many times. But you have to look back. The Forest Products Laboratory started in 1910. That was not when forest industries were doing very much research. In fact there was an awful lot that was not known about many of the various tree species and the qualities of their wood. So they started at a time when there was a wide open field to get information on the utilization qualities of wood and the uses that were a possibility. They grew to be a tremendously competent organization and worked very closely with several industry groups. Our scientists worked with their scientists. Generally we did not have serious questions raised about the propriety of being involved in the particular research areas. In fact, the Forest Products Laboratory tried to be one step ahead of the research that was going on in terms of say, better use of hardwood species in wood pulp. Most research back in the 1920s was centered upon the use of conifers in making wood pulp. And hardwoods were just beginning to be considered. There was some work on hardwoods in the 1930s. The competent people gave more credence to the Laboratory's effort than any other particular attribute. Of course, in addition they had fine facilities at the Laboratory at Madison to carry on their research.

HKS: When I read through chiefs' reports and literature over the years, there's the research program with its experiment stations and it's always "and the Forest Products Lab." It's never considered part. It's always considered unique or separate in some way.

MBD: Just the name is different.

HKS: Yes.

MBD: Now we have eight stations and the FPL. Also we have laboratories at Corvallis and several others around the country. They never seem to take on the identity that the FPL did. It doesn't separate them from the organization particularly. It's just that the origin of the name FPL that goes back sixty years or so.

HKS: At the station at Portland we had a forest products program. I had no idea what they did. How is that linked to what the Lab does?

MBD: Let's go back a little. During World War II, the Forest Service did service work for the War Production Board. An outgrowth of this WPB work was the establishment of what were called FUS units at individual stations--Forest Utilization Service. Every station had two people involved in studies of regional utilization problems, and often these studies were taken over by the FPL. Gradually at some stations the staff moved more into specific projects, where others were truly service units. What you were seeing at the Portland Station was what we called an FUS unit. As I understand it, these units are all closed out now.

HKS: Yes. I've noticed that a couple of the guys I knew at Portland in utilization are now at the Forest Products Lab. I don't know if that was normal moving up through the ranks or because they were closed down.

MBD: I think that as funding became tighter on into the 1980s, there was a movement to bring these individuals--some were retiring--but younger ones were brought into the Forest Products Lab. Some of them continued doing the same sort of thing at the Lab that they did at the stations, servicing various industry groups.

HKS: Buckman tells a story. When he took the assistant secretary, John Crowell, out to the Lab he said, "This is all very fine, but it's too far in the future. We can't justify it."

MBD: Yes. [laughs]

HKS: Was that a typical reaction on the part of the secretary's office? You must have taken people on tour, too.

MBD: Sure.

HKS: "Why are we doing this?"

MBD: That's a common question, "Why are we doing this?" to put us on the defensive, justify what you're doing. It would come up now and then. Particularly, I think, with the kind of program at the Forest Products Lab. But just what his comment was, that it's way out in the future, is the reason for the importance of having the Forest Products Laboratory. There's got to be somebody out there beyond the individual company doing research on unexplored subjects.

HKS: You didn't have a sense that the folks in OMB were waiting for a chance to whack that thing out of there. It won't benefit the current president, so why have it?

MBD: No. They were looking for anything that they could to cut out of the budget. If it happened to be the Lab and if we didn't have a good justification for it, why, they'd probably get rid of it. There were times when that type of a question came up.

HKS: In an administrative sense, was the Lab a maverick? I mean, did it run its own show? Because it was unique. It didn't have any competitors as it were within the agency. Did you have any problems in terms of administering the Lab?

MBD: No. I would say that we recognized their differences, we recognized their competence, and there were strong individuals on the staff. I worked easily with the Laboratory and greatly admired what they were doing.

Research Legislation

HKS: The need for research legislation.

MBD: The McSweeney-McNary Act, I think it was 1928, provided the legislative authorization for the research organization in the Forest Service. The act listed a number of experiment stations, maybe ten,

eleven. It listed authorizations of funds by subjects. These were generalizations. They weren't restrictions, but when you got around possibly to closing or moving a station, some of the local people would say, "Well, here, in your legislation it lists a station at Missoula, Montana, or Tucson, Arizona, or elsewhere." Also listed were several types of research: timber management, watershed, and range management, etc. There were several questions about the interpretation of the language. One omission that always seemed to bothered us was authorization for work in international areas. As I recall the act, there was only one mention of work in International Forestry, and that was Forest Products Laboratory shall do work on tropical timbers, which it did. I got to thinking about this and talked with legal services, and they pointed out that we were free to use other legislative authorities that the department had in international areas. Development of IUFRO was not a subject of question from the standpoint of authorization. It was there through other legislation that was available to the Forest Service. During this time there was reconsideration of various acts that Forest Service had authorizing programs and the decision was made to try to bring these all together into one act. At that time, I mentioned some of the questions we had about the McSweeney-McNary Act. One thing specifically, as we got more and more involved in international organizations like IUFRO, FAO, and so forth, we just were not sure just how far we could go. This act was mentioned as a subject for the legislative group to consider. One of the specifics that came up was forestry attachés. There are agricultural attachés at many of the U.S. embassies. With all the activities that forestry was getting into, we thought that maybe having attachés, say, one in the Pacific area and one in Europe, maybe one in Africa, or something like that, would be helpful in servicing forestry activities. I got a rather negative reaction from the State Department on this. They said, "Just depend upon the agricultural attachés. They can help you. You're all in agriculture. Why do you need somebody else?" Well, of course the obvious answer was that very few of the agricultural attachés had forestry background.

HKS: Yes.

MBD: Then there were other questions of the AID forestry programs and several others around in the government that were involved in forestry activities. As consolidated forestry legislation was considered further, the Research Act came back into consideration. That was about the time I retired. Eventually research was put into one act with the National Forest System and State and Private Forestry. The authorization for forestry research was very general. It deleted the names of stations, and some of the other items that we had considered. But it was still at least a couple of years after I had retired before the act went through. I viewed this with a mixed feeling, because in some ways the title of the McSweeney-McNary Act was a good point of identification for forestry research. And just saying in a more general act that you should do research doesn't give anything specific to guide you in developing programs.

HKS: My understanding is that the Farm Bill carried the authorization for a new deputy chief for international forestry.

MBD: I believe so.

HKS: It was a way of getting it through.

MBD: This is the very kind of a thing that the lawyers in agriculture referred us to. These special authorizations occur in various kinds of legislation as amendments and riders. The authorization may be for the Department of Agriculture, so why not use it in forestry as well as agriculture? I guess my concern relates to my early association, identifying McSweeney-McNary as the forest research authorization for a federal program. Then all of a sudden it's replaced by more general language. This kind of bothered me. [laughs]

International Forestry

HKS: Obviously International Forestry is important to you, because this is what you have been working on so much as a retiree. What was happening in International Forestry when you were deputy chief? What were the issues other than could you do it?

MBD: Quite specifically, we had had a staff group in research that was financed through the AID Program, much as they have today in the forestry support program. This did several specific tasks that the AID program wanted. During the late 1960s, early 1970s, that program kept contracting, and we got down to a small staff, two or three, maybe four people, so that our capacity to do work in the international area was much more limited. The interest, though, was growing, and our problem was to find a way to service it, and eventually that developed.

HKS: Why doesn't international forestry in terms of its place in the organizational chart fit more logically in State and Private Forestry, which is an extension concept? My understanding is largely that International Forestry is an extension concept, only it goes outside of the United States.

MBD: I guess there's some rationality there that's sound, but when you look at it from the standpoint of the agency, international activity in research was a subject which had been active for many, many years. IUFRO itself is an international organization and participation is largely by research scientists. One thing leads to another. FAO has what they call a COFAL group. This is a committee on forestry at FAO that reviews the FAO forestry department program periodically. With the research group's other activity, it was natural to pick up one more thing. One thing led to another. Not that there wasn't some discussion about it, but the research people were already involved.

HKS: It strikes me that IUFRO must have been significant in terms of the mentality of the players.

MBD: That's right.

HKS: And the World Forestry Congress, which is broader than research, doesn't have all the activity going on that IUFRO does.

MBD: The aggressiveness and effectiveness of IUFRO had much to do early on with the international activity being in the research group in the Forest Service. I am sure Les Harper could give you as much better background on this than I have. I came in as more of a Johnny-come-lately. We made a special effort to bring people in from State and Private and National Forest System into the various activities where they had the interest and capabilities, so it wasn't just a research fraternity. It was service-wide. And it wasn't of the magnitude that you could, with any good sense of judgment, come up with a deputy position or organization to carry on, not at that stage. Since then, the international activities have taken on much greater significance.

HKS: With the recent collapse of the Soviet Bloc, International Forestry has taken on a whole new dimension. But in your mind, at the time, did you draw a line between International Forestry and tropical forestry and Third World forestry?

MBD: No. Many of the assignments that I went on were short term. In Africa, in Europe, in Asia, all in the same trip and for various organizational reasons. The subjects that I gave attention to just didn't fit all into one slot. You have to operate on a broad basis to represent them. Part of it was the fact that foreign travel is fairly expensive, so you want somebody to go to a meeting in Dehra Dun, India, for forestry and somebody that can go on to Pakistan for a different type of a session. You have these geographic problems, getting people around. While I was deputy, Bob Long was very, very strict on foreign travel. I remember one time planning to go to a IUFRO meeting, and I sent three names up for approval. He looked at them and said, "Dickerman, one person from the Forest Service is going to go to that meeting." We had two IUFRO division leaders--Bob Callaham and Herb Fleischer--and I was on the executive board. I said, "Okay, Mr. Secretary, do you have any feeling as to which particular position should be represented?" He said, "You'd better go." Well, I had some very disappointed individuals in the organization, because they were members of a board that was governing IUFRO, and they couldn't go to the meeting. I mention this because that was how limited foreign travel funding was.

HKS: Explain something to me in terms of the bureaucracy. Why are you asking an assistant secretary this? Why didn't you ask your chief this question?

MBD: Because at that time all travel and foreign travel had to be approved by the assistant secretary.

HKS: So, there was a major crackdown government-wide.

MBD: That's right. It was government-wide. It wasn't just the forestry...

HKS: So trip by trip. They didn't say, "You have fifty thousand dollars this year for foreign travel." Each trip-.

MBD: No. Each trip went up for special authorization.

HKS: How long did that go on?

MBD: I don't know. [laughs] Probably for a year or so.

HKS: It seems rather incredible to me in terms of management. Obviously there was some abuse there.

MBD: There was some abuse and there was some easing off from it as they went along, but that was the way the game was played at that time.

HKS: The rules that you couldn't take annual leave when you were on international travel.

MBD: We ran into some abuse of leave on travel.

HKS: This in a sense is before your time, but you may have some feeling for it. There are some retirees in the Durham area that meet for lunch. They worked in Africa on various assignments. They said, the big mistake we made as a nation was thinking that the Marshall Plan could apply to Africa. The Marshall Plan was a First World plan. Do you have any thoughts on this?

MBD: I really don't.

HKS: Africa at that time had independence. There was a whole layer of issues.

MBD: I expect that's true. One thing I found in international activities, different parts of the world just work differently. It isn't a standard pattern even in IUFRO. Try to get leaders for certain subject matter materials. You just have to approach it differently.

HKS: In International Forestry it turned out to be very significant, it's the Institute of Tropical Forestry. I interviewed Wadsworth last month. Somebody sent him to places like Borneo, but he doesn't know the forests in Borneo. Does that make sense in retrospect?

MBD: Well, probably no one other than Frank had been involved in tropical forestry for many years.

HKS: Or what else would you do?

MBD: What else do you do? You look at your alternatives. You don't have anybody who knows the species or the ecology of Borneo in your organization. Apparently some group needed or wanted somebody from the States. Frank has been involved in international activities on a scientific basis for years. He has a better appreciation than many of what is involved. To come up with the best candidate, you've got to recognize that even the best has limitations as well as good capability.

HKS: He reported directly to the deputy chief for a long time, but now he's under the Southern Station. Did that happen during your time?

MBD: No. That arrangement changed several times. I believe, when I was first in Washington, in the late 1960s, Frank was reporting to the director of the Southeastern Station, because Florida was under the

Southeastern Station and was closest to Puerto Rico. And in addition, he became involved in the experimental forest there that is part of the National Forest System. So he was also administering national forest lands. I think probably that had more to do with it than anything else in shifting of responsibility into Washington and away from Southeastern Station. I don't know when, I think it was while Buckman was deputy, that they moved the administrative responsibility down to the Southern Station which makes more sense to me than maybe any other arrangement. It's always been a problem, because of the national forest and the research responsibilities, and each with a very small staff. You know, maybe three or four at the institute and a couple of them paid in part out of national forest monies. At one time, we also had a scientist there funded in part from State and Private Forestry.

HKS: You had a program in Hawaii about the same time, right?

MBD: The program in Hawaii came later.

HKS: Okay.

MBD: The one in Puerto Rico goes way back into the 1930s.

HKS: When I lived in California, Bob Callaham was speaking, maybe to SAF, and talking about his areas of responsibilities, which included Guam.

MBD: That was later. That came even after I left. Buckman must have worked that out. They tried to use the same pattern in Hawaii that we developed at Puerto Rico in the sense of having the Pacific Island areas included.

HKS: At coffee this morning, we talked about Frank, the person, and the fact that he's had his current position for thirty-five years and how unique that is. This bothered Ed Cliff. You weren't getting enough out of Frank, he had more potential, and the Forest Service was not taking advantage of his experience.

MBD: I pointed this out to Ed Cliff.

HKS: Do you have anything you want to put in the interview about the Forest Service not knowing quite what to do with the institute for a long time?

MBD: I think that's kind of obvious, the way Frank kept shifting around organizationally, that he didn't feel very secure in any particular arrangement. My own judgment is that probably the most useful arrangement is what they have at the present time, operating under the Southern Station. I can't see operating out of the Washington office. There's just not the magnitude of program.

HKS: Conceivably it could move under International Forestry now with the new deputy.

MBD: Yes. That is a possibility. I don't know enough about what they're leading into with their new organization.

HKS: Frank gave me, in preparation for the interview, a thirty-seven page vita. I don't know how many people do this, but he had listed every meeting he had ever gone to. For the promotion he never got, I guess.

MBD: Yes. [laughs]

HKS: It was incredible how many hours that man spent in the air and in airports.

MBD: And it's increased over the years. You know, the last few years there's been more and more travel for him. He had the same problems I mentioned earlier, travel funds, Frank couldn't get out of Puerto Rico unless we transferred some money to him. He just didn't have enough money in his budget to take on many tasks. We just couldn't get additional funding. Probably the restraint was in the department more

than in the Congress. We just couldn't get new budget items out of the department that included Puerto Rico.

HKS: I would assume that the Department of Agriculture, in terms of farm technology, must routinely do tropical agriculture.

MBD: Oh, yes. There's quite a program of agricultural research in Puerto Rico. I don't know what the scope of it is or subject matter, but there is a lot of research going on there.

HKS: It will be interesting to watch and see what happens.

MBD: Yes.

Endangered Species

HKS: One item left on my list is endangered species. Research must be involved in studying the habitats, ecology, and physiology of endangered species. Is that correct? Like the woodpecker and the owl?

MBD: I don't remember the year that the Endangered Species Act was enacted. What was it, in the 1960s?

HKS: Yes.

MBD: We did not get involved in this activity until later.

HKS: Someone asked me, "Why doesn't the Forest History Society do a study of the history of the red-cockaded woodpecker, the issue?" So, I dabbled a bit. One thing that amazed me was that the bird was listed in 1969 or thereabouts, and in 1970 there was a conference co-sponsored by a lot of groups including the Forest Service, on the state of the art. There was an incredible amount of information available on the life history of that woodpecker. People had been studying it for a long time.

MBD: We didn't get involved with the Kirtland warbler habitat in Michigan. We didn't have a specific project, but we had some habitat studies, observations going on with the ranger in the area, and had developed a fairly good understanding of the habitat requirements. But this was a subject that was just beginning to come into focus in the 1960s and 1970s. I don't recall having a budget request for endangered species.

HKS: Every time a new species is declared, there's a sense of urgency.

MBD: Sure enough.

HKS: And people are going to say, "Well, we don't know about how we are going to have timber harvest," for example. Certainly research must get bumped, "Hey, why don't you study this right now."

MBD: Well, you get this on many suggestions.

HKS: But it also creates a need for different specialists.

MBD: Oh, that's right.

HKS: Ornithologists in research.

MBD: Yes, why not?

HKS: Or would you ordinarily work cooperatively with organizations that already had ornithologists?

MBD: It works both ways. At the present time, some of the stations have ornithologists and projects on the endangered species. There are other organizations in some of the state groups that are working on the endangered species habitat relationships. We set up a wildlife habitat project, back in Harper's time. That habitat work went into subjects other than ornithology. Just a couple months ago, I was out at St. Paul and heard a very good presentation on some of the research work they were doing on habitats. So there's some research going on now. But you take the spotted owl. Jack Thomas, who is the long-time research scientist, made a lot of contributions and got involved in many controversies too. [laughs] But it was an outgrowth of his broad interests that he got into the spotted owl controversy.

HKS: Someone suggested to me that there's a whole generation of very senior, influential scientists like Jack who are about to retire.

MBD: That's true in several forest science areas.

HKS: Because of the recruitment spurts in the agency's history.

MBD: Sure, an even flow of recruitment or retirement is seldom achieved. You go along like this and then you go along like that. [gestures]

HKS: The idea was that the agency ought to have us interview some of these people, because there's a transition going on in the agency of another kind.

MBD: Maybe, sometimes you get some good things that way, but I'm kind of philosophical about it, that you get out of an individual the capabilities and productivity that he has and when he goes, they go with him. And that's it. Interviewing might be worthwhile, at least you'd get some history out of it.

HKS: The implication was that the Forest Service might not recruit Jack Thomas today. They're looking for different kinds of scientists.

MBD: Oh, yes, always.

HKS: It's more and more specialization.

MBD: More and more specialization. That certainly is what's going on and will continue to do so.

Decision to Retire

HKS: One thing we haven't talked about is the decision to retire. Had 1975 always been your target?

MBD: In the later years, yes, '75 was the limit that I had in mind. Had it been particularly relevant to organizational needs, I would've been receptive to retiring a year or two earlier. But '75 was my outer limit.

HKS: You never seemed to be a part of the decisions made to promote you. [both laugh] It happened. You got a phone call or something.

MBD: That's right.

HKS: Can you shed any light on how Buckman was selected to be your successor?

MBD: About the only comment I can make is that his name was one that was involved in the long-range placement planning. Buckman was obviously one of the candidates for a top position, so that he was well up in the list when the need to select a replacement came along.

HKS: For a situation like that, do you call the candidate to come in for an interview, or do you know enough about him already?

MBD: In this case, I knew enough about him. I'd known Bob since he started in the research group in the Forest Service. I didn't need to follow up any further. I suspect that some of the others in the staff who were involved in the decision probably talked with him some, but I didn't feel the need to do so.

HKS: All right. So, you retired. Did you take any time off and play around?

Society of American Foresters

MBD: No, in fact, I didn't have the SAF particularly in mind at the time that I retired.

HKS: Had you been active in SAF?

Science Adviser

MBD: Off and on. I'd been very supportive wherever I was located. Out at the Lake States I was involved in several ways. I always had a very deep regard for the profession. So when I retired, I took several months traveling around and doing odds and ends. I wasn't particularly anxious to get relocated right away. In fact my pattern of thought had run that I was going to take a couple of years to just kind of knock around before I settled into something. But at the SAF Carl Ostrom was working as a science adviser. He left suddenly and I became interested.

HKS: Is that a real job? I mean, he has to go to work?

MBD: It's what you make out of it really. Basically the primary responsibility is assisting in the development of the working group programs for the national convention each year. That was the one solid activity when I went out there. Carl left in late '76. Then Hardy asked me if I would help out. In fact, I only worked there part-time for, the best part of two years, just one or two days a week.

HKS: That's a compensated position? You received a salary?

MBD: Yes, there was a salary. It's like all those jobs. The longer you're around, the more demanding it gets. [laughs]

HKS: What's the difference between what the science adviser does and the outfit that runs *Forest Science*, the journal? To my mind, you have through *Forest Science* some pretty high powered people involved with the society.

MBD: During this time, there were a number of international forestry organizations developing. IUFRO was well along. IUSF, which is the organization representing the societies of foresters in the various countries, was getting organized. The job of the science adviser was to provide leadership in SAF for science activities, especially in the international activity. Also it involved representing SAF at organization meetings, in addition to the regular SAF chores. I remember one conference I went to at the Forest Products Lab that was concerned with the utilization of tropical timbers. That was a real high powered conference. It took a lot of time on the part of SAF. The science adviser at that point was serving as a right hand man to the executive vice president in all of the international activities. That was about as broad as it was. You never knew what was next.

HKS: The title's a little misleading. At least it is to me.

MBD: Well, no, the title is apropos to the extent that you realize that the development of the national convention programs by the working groups was quite demanding in getting good programs developed, in selecting outstanding scientists for programs not only from the SAF but outside. So that part of the job is quite relevant, but as happens in all societies, there are lots of odd jobs around which somebody has to pick up. I suppose you could come up with other titles. I don't know whether they would be more appropriate or not.

HKS: You made a general statement about the role. Are there some specific topics you can recall that as science adviser, specific assignments you had?

Peoples Republic of China

MBD: One was development of the science and technology exchange with China. That was one that became a major operation before we went very far. The SAF had had some contacts with the Chinese Forestry Society, and it was obvious that they were most anxious to re-establish their contacts with other societies. There were several individuals in the Chinese society who had gone to school here in the States. Dr. Wu, who I worked with closely, was a graduate of Yale and Duke.

HKS: I believe I met him at a Duke reception somewhere.

MBD: He's been through here several times. He particularly was trying to reestablish contacts. Apparently he had very good contacts within the Chinese government, so that he didn't have the difficulties some of the other individuals and groups had. But the development of the exchange and all the arrangements were the responsibility of the science adviser.

HKS: At the IUFRO congress in Kyoto, there were Chinese there.

MBD: Oh, yes.

HKS: And the thing that struck me is that the younger scientists, we'll say under thirty-five or something, wore western clothing. The elders wore Mao jackets. That ideology must have been difficult to deal with.

MBD: That's another thing that you had to bridge. Just getting correspondence through in the late 1970s before the U. S.-Chinese relationships had opened up was a chore.

HKS: Nixon had been to China.

MBD: But the U.S. hadn't yet recognized China as such. There were several contacts in forestry going on informally.

HKS: Are you working with the State Department?

MBD: Yes. We worked through the State Department. We also worked through OICD, Office of International Cooperation and Development, in USDA. This office had been set up to coordinate the activities within USDA. The Chinese offered to pay all of our expenses once we got off the airplane in Beijing and until we left. They would take care of the housing, transportation, meals, quarters, everything like that. But we still had to face up to the question of getting the airfare back and forth.

HKS: No Super Savers to Beijing at that time.

MBD: No. It was an expensive deal. OICD came through on that one and helped us very much. I might just mention the name of the individuals that went on the trip. Since SAF was the key organization in developing this exchange, we decided right off that the team should represent a cross section of all of the various forestry organizations in the U. S. And yet we had to keep the number down to six. There were some criteria that had been agreed upon between the two countries in terms of who would go, how many and where. The individuals who were selected were Carl Reidel from the American Forestry Association; Bryan Clark from research in the Forest Service; and Jim Yoho and Carl Gallegos from International Paper Co. They split the time there, because they couldn't take the full time. They represented the industry. Then Donald Duncan from the University of Missouri and John Gordon from Yale from the forestry schools; and Doug Leisz from the National Forest System. I wound up as the team leader from SAF. This selection was made by the SAF and concurred in by the OICD office.

HKS: Roughly, what was airfare?

MBD: Oh, I would guess around $1500 round trip to Beijing.

HKS: You can get to Tokyo easily. It's that last-.

MBD: Yes, it was that last part, Tokyo to Beijing, that was difficult to schedule. We landed at Beijing, and the Chinese almost had a band out there to welcome us. [laughs] Then we traveled extensively to the far north and the far south, seeing forestry activity and problems.

HKS: Was this the first scientific group?

MBD: This was the first official forestry team to the Peoples Republic of China.

HKS: Fred Knight went with a bunch of entomologists.

MBD: What happened was that after this initial group, we identified several subject areas of mutual concern, then subsequently there were a number of teams that went to China. The entomology group was one, genetics another, and a few others.

HKS: I know a Canadian group went over.

MBD: Yes, there were Canadians. There were quite a few. In fact, the Canadian foresters came very shortly after we were there.

HKS: Of course, Canada recognized China for a long time.

MBD: Yes, and there were other countries later.

HKS: So you arrive at the airport, and you are warmly welcomed.

MBD: Warmly welcomed and dined extensively. We spent a few days in Beijing, and then took off by plane to Heilongjiang Province, which is the northeast province of China, up against the Russian border. We flew up to Harbin, the capital of the province.

HKS: This is west of inner Mongolia? I'm trying to visualize it.

MBD: No, it's northeast of Beijing and east of Mongolia and northwest of North Korea. And the northern boundary of Heilongjiang Province is mainly along the Amur River. Then from Harbin, we took an overnight train north, stopping in several villages where there were timber utilization plants, timber harvesting, timber cutting. We saw quite an area of coniferous plantations.

HKS: Were the forests extensive?

MBD: The further north you get, the more forests there are. A lot of the Korean pine which is similar to our eastern white pine. And big trees, not as big as our West Coast ones, but good sized. They had a large timber harvesting program going on. One of the things that kind of caught my eye, they apparently had done a lot of scouting to locate logging equipment, arches, and various kinds of tractors. They had some equipment there that was just far too big for the kind of timber in the area. I'm sure they changed to smaller equipment before long.

HKS: So they were thoroughly mechanized-.

MBD: Oh, yes, they were mechanized. The Finns had been there with a group and had helped them in equipment use and maintenance. Coming back to Harbin, we stopped in several places where we saw plantations and various and sundry operations of tree planting. One of the interesting places where we visited was the Northern Forestry School at Harbin. They had a huge building, bigger than, I think, any

forestry school department in this country. The Chinese are much like the Russians in the sense that everything they built was big. The president of the school was a very affable, friendly, courteous, and helpful individual. We spent the best part of a day there at the school. They had activities going on much as we do in this country.

HKS: What was your sense of the quality of education?

MBD: At that time, they were struggling so to get going again. They had lost all their books and equipment during the Cultural Revolution. The Red Guard had taken all the books, and most educated people and students had to go out and work in the fields and not spend any time learning in the classroom. From Harbin, we flew down to Shanghai and spent a day around there.

HKS: Did you fly in propeller planes or jets? [pause] That's a very long haul.

MBD: These were jet planes. Most all of their planes were Russian made. And from Shanghai, we took the train over to Nanjing, where the large forestry school in southern China is located. We spent more than a day around there meeting the faculty and finding out what they were doing, what they were interested in, what they saw as forestry problems. Each place we went, we tried to emphasize, what is your basic problem that you're most concerned about in the management, harvesting, and utilization of your timber?

HKS: Could most of the faculty read English, so they could get access to the scientific literature?

MBD: No, I would say maybe only 20 percent could understand us. Every school you went to, you'd find somebody who had been in the U.S., so we had no trouble talking about their interests and activities. Nanjing had a very impressive layout in facilities and faculty. Then we headed over to Changsha in Hunan Province, which is Mao country.

HKS: Way inland.

MBD: Well, it's inland somewhat. We didn't go over to Mao's home, which was still further west. Changsha is a big city. We visited several forest experiment stations in that vicinity. They had some interesting plantings of species selection and selection of the superior trees.

HKS: My vision of China is it's pretty arid.

MBD: They had done a tremendous amount of reforestation there and had large plans for continuing.

HKS: The pine.

MBD: Pine. Their reforestation is most intensive. One of the things that bothered me, every time I looked at a plantation, every tree was there. You don't see such complete plantations in this country. [both laugh]

HKS: So if one died, they replaced it.

MBD: Yes. I said to Dr. Wu, "How do you do this?" He said, "If a tree dies, somebody in that village goes up there and puts another one in, see, so we've got it fully stocked all the time." They had the labor to do that.

HKS: No economists screwing up the work that was going on.

MBD: No, sir. You didn't have to worry about the economists. [both laugh] We must have visited four or five areas around Changsha, and then took the night train on down to Guangzhou (Canton) and spent some time around there. We went out to an experiment station where they were testing eucalyptus.

HKS: Mei was with you on this trip?

MBD: Oh, yes. She was on the trip all the way. She was our interpreter and helped much in developing an understanding of our interests. The Chinese had an interpreter along, but as usual, with a technical subject you need a couple of interpreters to decide upon the proper translation. She had grown up in the Fujian Province which is right across from Taiwan, so it's south central China. There's a mixture of dialects in the area, and she got along fairly well with the various dialects.

HKS: But the written language is uniform.

MBD: Yes.

HKS: So the literature is readable by everyone.

MBD: Yes. We spent the Fourth of July in Guangzhou and had an exciting experience. Some of Mei's relatives came in and visited with us at the hotel and gave us a little local color. That evening some of our crew went out to celebrate. [laughs] Some way or another somebody had some firecrackers. They tossed them away and lo and behold, one started a fire.

HKS: Uh-oh.

MBD: [laughs] Things had to move pretty fast to get the fire out. It was kind of a tense minute. Anyway, we got through the Fourth of July in Guangzhou and had a good time about it. Then from there, we flew on a small Chinese plane down to Leizhou which is on the Gulf of Tonkin. We were there two days. That is the area where the Chinese had tried at one time to establish extensive rubber plantations. But apparently the climate and soil were not right, although there are remnants of the plantations there now.

HKS: Don't they grow bamboo?

MBD: Yes, of course bamboo is grown many places. In fact that was one of the interesting things we saw up near Nanjing. One of the profs there has spent a lifetime studying bamboo, both the selection of the superior kinds of bamboo and the planting and management of bamboo. He had a very interesting story. It was fascinating to me to see what knowledge he had brought together under difficult circumstances. We saw extensive plantings with various spacings and several kinds of pine. And we also visited the dune stabilization plantings along the coast of the South China Sea. They put on a very nice luncheon for us there. I guess there was at least a watermelon for each one of us. [both laugh] It added much to the day, because of course when you're in southern China, it's hot and drinking water is scarce. As I said, the day before was the Fourth of July, so we were right into the heat of the summer. Out in some of the plantings, they put on a beautiful luncheon. All the way through they seemed to enjoy entertaining us. They always did the best they could with what they had and then even a little more.

HKS: Did you have a sense of any security restrictions?

MBD: No, not at all. We could see anything we wanted.

HKS: Were you free to wander where you want and all of that stuff?

MBD: You could wander as much as you want. It was up to you. It was a question of whether you thought you were going to get lost or not. [laughs]

HKS: Sure.

MBD: I had been on a similar assignment in Russia back in '74. There we had all kinds of security. In fact, we had a security officer traveling with us all the time, and frequently he would go into the restaurants before we would and scout out the surroundings.

HKS: This was while you were still with the Forest Service?

MBD: Yes, when I was with the Forest Service, but it was the same kind of a mission. The objective of these science and technology exchange trips was to identify and develop programs of mutual concern and interest to the respective countries. So you develop a pattern of working. In Russia we had two groups, one group in fire and one in entomology. We traveled with the Russians to the respective areas of interest. The reason I started to mention the Russian exchange was there we had several security problems. In fact, the State Department could tell before you got there, what room you were going to be in, as it was supposedly bugged.

HKS: Did we reciprocate with equal pettiness when the Soviets toured the U. S.?

MBD: No, not in forestry. One of the things that we decided early on, we're going to be wide open. If they wanted to go to town and buy a lot of clothing or something, go ahead. They couldn't quite believe that that was the case. On the other hand, on the China exchange, everything was open all the way along as far as I know. We didn't have any security people traveling with us. Maybe some of the individuals may have had instructions, I don't know. But anyway, we didn't feel that we were constrained at all and were free to roam around and see what you wanted to and ask any questions of anyone.

HKS: When you were developing the itinerary, were you involved in all the places you could go?

MBD: To some extent. Not as much as to places, but rather as to subject matter.

HKS: Okay.

MBD: We would indicate we were interested in tree improvement work they were doing, for example, in chestnut blight in China--subjects of that type. Then they would pick out the locations. And I'm sure that part of their selection was to be sure that we got around the country as much as possible, because going from the northern border of China and Russia down to the Gulf of Tonkin is a far distance. Some of the locations were probably not the most essential to see, but it did give us an excellent perspective of the forest areas.

HKS: Do they have a central bureaucracy like the Forest Service, or are the provinces relatively autonomous?

MBD: Well, I guess I would say somewhere in between.

HKS: Is it more like the U. S. or more like Canada, I guess the question is.

MBD: My hesitancy is that we were there just as China was opening up. And many of the provinces were just constrained. They did not have transportation and other facilities they needed. I'm sure by now the provinces are stronger than they were at that time. I find it hard to characterize the situation in 1980. Many places we went, the kids and older people would come out "An American! Where did you come from?" They just hadn't seen an American for many years, it was almost a shock to them.

HKS: They had been indoctrinated that we were some kind of devils, I suppose.

MBD: I don't know.

HKS: Just as we were about them.

MBD: One day I was hiking along the top of one of the walls around Nanjing and came upon an old Chinese stone mason. He saw us, he couldn't speak any English. He motioned in some way so that I could understand that he thought that we were Americans. He clapped and bowed just like God had come to his country. It would give you a great feeling of pride. Part of that friendliness is inherent in the Chinese people, they tend to be friendly and very polite to anybody.

HKS: Nanjing. That's where Chiang Kai-shek holed up in World War II, right? So that would be sort of a stronghold for the older generation.

MBD: The older generation, yes. That's an interesting city, old walls and many historical places. The trip through China was more relaxing than it was to cross Russia into Siberia and back to Moscow. Both were stimulating as well as tiring.

HKS: This may sound like I'm a victim of the nightly news. In those days, when you're planning a trip like this, does the CIA approach you, saying "Go over there and look for this"? Maybe you couldn't even answer the question if supposedly this had happened.

MBD: I can say frankly that nobody--CIA or otherwise--approached me. The only thing that we had was a little cut-out from the OICD office on how to handle problems.

HKS: You mean, if you get in trouble what you should do?

MBD: Yes. What you should do. I don't think anyone in our group was contacted by the CIA.

Soviet Union

HKS: Do you want to elaborate a little bit more on your earlier trip to the Soviet Union? Was it the same kind of fact finding trip? Was that the purpose of it?

MBD: It was different to this extent, John McGuire and Keith Arnold had been to Russia as a forerunner to our trip. They met in Moscow and went down to Kiev. I don't know where else, but they didn't travel as extensively as we did. Their main mission was to come up with an agreement to guide for exchanges, not to identify the subject matter except in a very general way. Our trip followed theirs, we had two research groups--one in entomology, the other in fire. I think, all told, thirteen or fourteen people went to Russia on our exchange. We had a couple of days in Moscow. After that, the group separated. I traveled north and east with the fire group, the insect group went south. We were looking at specific studies in fire research which would be of interest to both countries. One of my most memorable days was when we were way north of Leningrad near Lake Omega. They took us out to give a demonstration of fire control technique. When we got out to a spot over comes a great big army helicopter. The Russian foresters use the army helicopters frequently, the military makes them available to them. Anyway, out jumped a crew of half a dozen or so, they came down, all lined up, marched over to shake hands with me and the rest of the group. Then one reached in his backpack and pulled something out and handed it to me. I kind of looked at it. It was a stick about twelve inches long, maybe an inch or so in diameter. It was a stick of dynamite. [both laugh] These fellows had been jumping out of the plane with packs of dynamite on their back.

HKS: OSHA wouldn't approve of that at all. [both laugh]

MBD: Well, I was really quite shocked when they did that. But anyway, then they took this dynamite and went out through the woods and set a fire line putting their sticks along the way, then detonating them. And lo and behold, they blew a good fire line right down mineral soil all the way along where they had blown the ditch with the dynamite. Of course, they had knocked out some trees in the process. [both laugh] It was a startling exercise to see. But also very effective for remote areas. Then after that, we headed east to Siberia, flying to Lake Baikal area near Irkutsk. That trip gave me a great appreciation of the tremendous size of Russia and of the vast forest resources.

HKS: I know, twelve time zones.

MBD: You look at the map and think how large it is, but when you get on the plane at midnight and you fly all night long, and the next noon you get off over in eastern Siberia. You've been in the air close to twelve hours and not yet to the Pacific Coast. All you saw was flat, what looked like timber country, much of it I understand was marshland. It's quite impressive when you see something like that. A friend of mine

reminded me of this when I came back. He said, "The biggest problem Russia's has is holding that country together. It's so big." [laughs]

HKS: Transportation costs would be enormous to bring the natural resources in the east to where the people are in the west.

MBD: That's right. Many of the areas in Siberia have tremendous forests remaining and there just hasn't been any way to get the timber out of there over to the Pacific Rim countries where there's a tremendous market. The Trans-Siberian Railroad is way down on the Chinese border and the timber is further north. We had an opportunity to go out on Lake Baikal.

HKS: Did you see the famous pulpmill that gets so much bad publicity?

MBD: We saw some of the air pollution coming up from it. We didn't go to the mill. I guess the other thing that impressed me, from Irkutsk we flew north to a city, one of their new cities called Bratsk. Anyway, on the Angara River at Bratsk there's a huge hydro plant. It was built, as I understand, at least in part to supply electricity for a new electrified railroad that was to parallel Trans-Siberian Railroad across the northern part of Siberia. One of the Russians told me, "Our biggest problem is to find a way to use all the electricity that's generated. We have only half of the generators operating now. With the pulpmills and the sawmills that we have here, we don't use much of the electricity. With only one half of the generators installed, we produce more electricity than all of Grand Coulee." So, it gives you some idea of the generating capacity on that one dam. Another thing I recall vividly is traveling around there by car. As I said, this was a so-called "new city." I would imagine within, say, a couple of hours of travel, we must have passed fifteen or twenty weddings. [laughs] I commented on that to one of the interpreters, and he said, "Well, what do you expect? All of these people here came from other parts of Russia. They came here as youths, and the weddings are going on all the time." [laughs] I was fortunate on this Russian trip to have as an interpreter a forester who had worked for me in St. Paul. A Russian Pole, Alex Vasilevsky. Alex had worked on the forest survey in the Lake States there, and he had lived in what is now Russia, but was Poland then. He spoke the Russian language fluently and got along well with the Russians. If it hadn't been for Alex, I'm afraid it would have been a dull trip. He kept things moving and interesting.

HKS: The Soviets had been able to impose the Russian language uniformly across the country? It's not like China where you have dialects.

MBD: I guess I cannot answer that. We went across the north. As far as I could make out there was a common language. But I suspect when you get further south, you get into what are now separate countries. There you undoubtedly have more dialects.

HKS: What was the state of technical knowledge?

MBD: Highly variable, I'd say. They had done very little in tree improvement work, because of the background.

HKS: Lycenko.

MBD: Lycenko, yes. Just outside of Moscow we visited their central forest laboratory. They had some tremendously advanced work, especially the effect of air pollution upon vegetation.

HKS: But the basics. If they planted a forest, the trees survived?

MBD: Oh, yes. They had good reforestation techniques all right. The Russian foresters are well trained, highly competent. They were having the same problems that the Chinese were of not having equipment and transportation. They picked up ideas real fast. You see, after we were there, a Russian group came over to this country, and we took them to the Pacific Northwest. They would pick things up and leave some ideas, too. So many times we tend to think of others as being less developed, and actually in many of these countries they already have the knowledge; it's the problem of getting it into use.

HKS: We've had so much publicity in recent years about the illegal sales of computers to Russia.

MBD: Yes.

HKS: Presumably, they don't have the technical capacity to actually manufacture them. They want to buy them from the West. I suppose that same limitation is throughout.

MBD: I believe so.

HKS: Although forestry doesn't use a lot of high tech.

MBD: They don't use a lot of high tech yet, but they pick things up pretty fast.

HKS: I'm working with an Austrian friend right now through IUFRO to put out some proceedings of the recent Berlin congress.

MBD: Oh, yes.

HKS: And all the western papers come on floppy disks, but the eastern papers are typewritten.

MBD: Those are some of the common things you run into in international contacts. Of course some of this you overcome by these exchanges. Getting together and seeing what the techniques and equipment are. Before long they find a way to get it into their country. Both the trip to Russia and to China were highlights of my participation in international forestry work.

HKS: What happened when you got back? Did you bundle up cartons of technical literature and mail it to China or what?

MBD: Oh, yes.

HKS: Or did they have all that stuff already?

MBD: Yes and no. Some things got through and you'd wonder how it ever got there. You'd also be amazed what they didn't have. So it's very spotty. I'm sure that by now, things have opened up so much that a lot of the literature is getting through without any difficulty.

HKS: I suspect desktop publishing is going crazy where they're cannibalizing our stuff.

MBD: I don't know.

Acting Executive Vice President

HKS: Okay. The next thing on the list is Acting Executive Vice President of SAF.

MBD: I had been out at SAF for two or three years part-time. The Renewable Natural Resources Foundation was just beginning to operate. Things were moving along quite rapidly.

HKS: That foundation was inherent in the Tom Gill bequest, that this sort of thing be created?

MBD: That's right.

HKS: It was always part of the master plan.

MBD: Hardy Glascock, as the executive vice president of SAF, was a very vigorous individual and did a tremendous job of getting the RNRF moving. At that time the SAF had its largest membership ever--about

twenty-two thousand, I think. Many activities going on and a large staff, I suppose, thirty people or more there at Wild Acres. At some point Hardy decided that he was going to leave the SAF and go over and become the general manager of RNRF.

HKS: Was he of retirement age?

MBD: He'd been talking about retiring for some time, and I don't know just what prompted his decision--probably his broader interest in the RNRF than in just the SAF.

HKS: Was there some problem between Hardy and the council? Was he eased out?

MBD: Hardy was an aggressive individual. To some he was kind of abrasive, but he had the drive needed to make an outfit go. Yes, he had problems with the council. I attended some council meetings, but I don't recall any particular incident. The SAF had had a search committee for his successor and had identified two or three people. For some reason or another, they were not interested. So, by the time that Hardy was ready to leave, a successor had not been selected. I was there, and a possibility, not that I wanted it at all. Bernie Orell was president at the time and talked to me. I told Bernie that I wasn't interested in the position, but if I could help him out for a few months, I would do so. The council proceeded to ask me to take over. I agreed to stay for a short time. I had some other plans for the summer that I wanted to follow through. Also, before we go further I'd like to make it clear that when I took over the acting responsibilities at SAF, I had an understanding with Bernie Orell, then the president, that he would handle RNRF-SAF relations. I was not to become involved as I was to be acting for not more than three months. I'd had no previous exposure to all the arrangements, and Bernie thought this would be the best arrangement.

HKS: Cooperstown, no doubt, was a part of your plans.

MBD: That was part of it. Mei and I also had plans to take a trip to Asia.

HKS: So Hardy now was over at the foundation.

MBD: He was over at the foundation.

HKS: There was a physical plant there. They had a building.

MBD: There was a building, newly finished. There were plans and plans and plans for subsequent developments, and he was working on those. It was obvious that there were some rough spots along the way, problems between individuals in the various members of RNRF and the Society. After I left, Bill Bromley took over for the rest of the year.

HKS: Also as acting.

MBD: As acting, yes. Bill got quite exercised over some of the arrangements that he found or arrangements that supposedly existed that he couldn't find. I don't know what he did personally. I know Bernie Orell was quite concerned over some of the problems that existed.

HKS: Bill Towell, I guess, followed Bernie as president.

MBD: That's right.

HKS: He was pretty critical of Hardy. He said, "Hardy is a good example of someone who doesn't know how to retire."

MBD: Sure there's that, but on the other hand, you take a fellow who has been around there for many years and had done what he had done building up the SAF organization, it's kind of hard to go across the street and not come back frequently.

HKS: Sure.

MBD: Bernie twisted my arm hard to stay for the rest of the year, but I'd been under the gun for enough years. I decided it was time to get away from things.

World Forestry Committee

HKS: One final topic here under SAF, and that's the World Forestry Committee.

MBD: This committee is one of the oldest committees in the SAF as I recall. It was set up back in 1928 or thereabouts. Sam Dana was one of the early chairmen of this committee.

HKS: Is that right?

MBD: I went back through the records of the committee to see what they did, and there was a great diversity of activities. One of their main things in the early days that continued was hosting foreign visitors, planning their itinerary, and seeing that entertainment was provided for them. Now, there are many foreign visitors coming through Washington and visiting out at SAF.

HKS: Of course, the Forest Service picked up a lot of that slack.

MBD: Yes. The Forest Service took on the main workload of guiding foreign foresters.

HKS: They have somebody to arrange foreign tourists.

MBD: There's been a lot of discussion within SAF about the place of the World Forestry Committee, and whether it is really needed. One thing that I should mention about the SAF was the establishment of the International Forestry Working Group. That came about directly because of the interest in the activity of the World Forestry Committee while I was serving as chairman. We decided that the international activities were of sufficient importance that we ought to have a working group at the national conventions.

HKS: You got a petition out.

MBD: And got endorsements from SAF members all around the world. The council agreed to go ahead and set up the working group. I believe today it has the largest membership of any of the working groups.

HKS: I'm sure. International forestry is really where the action is.

MBD: And they've had some pretty good programs. That's a good example of what I think the World Forestry Committee should be looking out for, where are the new organization opportunities to strengthen the society. This will not come through International Forestry Working Group. This is too big a group to focus on the policy concerns of the society. This is what the World Forestry Committee can and should do.

HKS: We lack hard data for some of the questions that are being debated now.

MBD: You know, right now the interrelationships with various international organizations don't pose any particular problems, but you look back in the years following World War II when FAO was getting organized. Henry Clepper, representing the society, used to go to the Committee on Forestry meeting at FAO and contributed to the FAO in those formative years. Same thing now with IUSF--International Union of Societies of Foresters. It has not developed as a particularly strong organization yet. But this is where the World Forestry Committee can function and effectively assist in the development of the organization. There are, I'm sure, other examples.

HKS: I knew Henry Clepper pretty well, a lot better than I knew Hardy, because Henry was so active in forest history.

MBD: Yes.

HKS: I was riding on a bus someplace with Henry. He was critical of Hardy in that Hardy spent all of his time on the SAF problems and not on outreach.

MBD: Oh.

HKS: Moving to Wild Acres was a mistake. You want to be out where the action is in Washington, D.C. Like you say, Henry used to go to the meetings. He saw SAF isolating itself. Would that be a fair characterization?

MBD: It's something you have to guard against. I don't think it's a good characterization, particularly now with the Metro system available. You get back and forth so easy from out there that I don't think it's isolation. With other resource organizations locating there at RNRF, there's getting to be more and more of an interchange of people in organizations. Hardy was driven by the rapid growth of the society and new responsibilities. Certainly there was more than enough to do. Perhaps a more efficient, better organized person might have done more.

International Society of Tropical Foresters

HKS: Let's move on to the International Society of Tropical Foresters.

MBD: This was one of Tom Gill's favorites which he started back in the fifties. He organized informally a group of forestry-interested people in Latin America into what he identified then as ISTF--the International Society of Tropical Forestry. He was getting along quite well. He developed a membership of four or five hundred.

HKS: Was most of that membership from developing countries?

MBD: There were many U.S. members in the initial organization. Then as Tom traveled in Latin America, he picked up more and more members. That was the make-up of the group. It didn't reach out to Asia particularly. There were a few members scattered elsewhere, but it was primarily an American organization. Tom put out a quarterly newsletter. When he passed away, the organization just kind of folded. Charlie Larsen had a continuing interest.

HKS: He was at Syracuse, right.

MBD: Yes. He agreed to take over the leadership and made considerable effort to do so, especially with the French. But the French never moved ahead.

HKS: Is Frank Wadsworth the permanent editor of the newsletter?

MBD: No. He wasn't in on the original. I think Tom and his secretary probably did the original newsletter. Frank took over in the late 1970s. During the 1970s, after Tom passed away the ISTF organization was inactive. In the late seventies Gordon Fox and I attended a meeting at the State Department in which it seemed the main emphasis was on criticizing foresters and the forest industry for what was happening in the tropical forest. I thought this was unfair and unrealistic. A large part of tropical deforestation was coming from the natives in the type of agriculture they were practicing which resulted in deforestation.

HKS: Tell me about Gordon Fox. His name comes up throughout all the interviews. Did he have a specific job? He was involved in everything.

MBD: I've known Gordon since he was a ranger out in the Huron National Forest in Michigan, some fifty years ago. Gordon had a capacity to reach out into a lot of things. His interests were broad. As I mentioned at the beginning of this interview, he was involved in a forest cooperative on the Huron

National Forest. Then he shows up during World War II down in Latin America working on, I believe, balsa wood supplies for the War Production Board. Then later he became the associate deputy to Clare Hendee. At the time we became interested in ISTF, both Gordon and I were retired and had time on our hands. This looked like something that might be worthwhile to reactivate. So Gordon and I spent quite a bit of time trying to get ISTF going again.

HKS: So he had some tropical background.

MBD: Yes. He worked in the tropics during World War II.

HKS: Was this a natural outgrowth for you, since you had an overall interest in international affairs?

MBD: Yes. I did not have and do not have any particular skills or knowledge about tropical forests in Latin America. I've been in the tropics in southeast Asia and some parts of rural Africa.

HKS: What was the primary rationalization? Why is the group necessary? What does it accomplish?

MBD: The main purpose as we saw it was to get helpful forestry information out to the various countries and to their forestry departments. Sort of a one-on-one basis in contrast to the typical international organization which has a hierarchy of several layers before you reach out to the working forester. Gordon was always very socially minded in the sense that he always wanted to help the man on the ground. That's what we set out to do, to get organized so that we could send our periodic newsletters and other publications. By about 1979, we had our first reactivation meeting and quite a number of the charter members of the original organization were there. Charlie Larsen became president as a natural successor to Tom. He was still up in Syracuse and very much interested. The SAF agreed to give us some office space where we could have our office and use their facilities. In the first few years I spent as much time as a volunteer on SAF international activities as I did on ISTF. One thing that we decided early on was that since we didn't have any grant money, we would operate with volunteers completely. That has continued. Other than the secretarial help, it's been a volunteer organization with a staff of four or so.

HKS: So the dues pay for the secretary and the newsletters.

MBD: That's the way it goes. It's been that way thirteen years now. From that '79-'80 period, the five hundred membership has now built up to about two thousand. There's been much interest and many people involved. We have over seventy country vice presidents and members in about 110 countries. Every country where we have members, we try to have a vice president designated. That's the core of the organization. There's the board of directors with three directors representing major tropical regions and several directors at large.

HKS: But you've gone beyond the American focus of Tom Gill days to worldwide.

MBD: We have. We're worldwide. This is what Tom had in mind, I believe.

HKS: Roughly, how many tropical countries are there in the world?

MBD: I'd guess about 150, the number keeps increasing.

HKS: Are there any really important tropical forestry countries that aren't involved in the organization?

MBD: Not that I know of. There may be a few in Africa. Africa is a difficult country to work in organizationally because of instability of governments.

HKS: Countries come and go.

MBD: That's right. Countries come and go.

HKS: When you say 'tropics,' is that any country between the Tropic of Cancer and the Tropic of Capricorn or is it humid tropics?

MBD: It's not limited to the humid tropics. We take in the arid areas also. We don't have any real firm lines. We have quite a few members in Europe, the Middle East, and Scandinavian countries. Many of them like to get the newsletter, because this is one way that they can get the word on activities that are going on around the world. One of the things we've done with our two thousand membership is to publish a list every year of the members. That is one of the most widely used things we put out. It gives people contacts. If I'm going to go to Nigeria or to Indonesia, I look over that list to see who are some of the people you can write to and ask them where, what, who should I see, that sort of a thing. We started the list as a means of recruiting members, to let them know who were members and to attract others. It's worked that way, too.

HKS: It's limited to English in terms of publication?

MBD: No. Spanish also. We tried a French issue. We put out two or three issues in French, but we soon decided that the cost of a French edition was beyond our means. We would like to get back to the French edition, because the French speaking countries in Africa are some of the more important tropical forestry countries.

HKS: What is the language for Southeast Asia? English?

MBD: English is general. In Southeast Asia most anyone that's in forestry has gone to school elsewhere. Indonesia and Australia have good schools.

HKS: I don't have any idea what the other common language might be.

MBD: I don't think there is any other. The nearest I think you'd get to it would be probably Chinese, Thai, Malaysian, and Indonesian. But I think ISTF has a place. It never will be a big organization. I don't visualize it as such unless somebody finds a way to finance how-to-do-it type of activity.

HKS: Would it be appropriate with the apparent major growth of international forestry in the Forest Service, to link up with ISTF?

MBD: Maybe so, time will tell.

HKS: In a sense, you have it already with Frank Wadsworth directing the newsletter.

MBD: Right now for example ISTF has a contract for distributing publications which are available from any organization or conference. I don't know how many hundreds of publications are mailed out by ISTF. We send out a list of what we have. If you want a publication, check it off on the list and send the list back to ISTF. Just a few weeks ago, I spent all day assembling packets of material to be mailed out. Some had checked off five or ten publications to be mailed to them.

HKS: We get some pretty heart rending letters from Nigeria. Send us anything. We don't care what it is. We need it. Just send it to us.

MBD: We get many letters "Send us everything you have on tropical forests." [both laugh] Some of the schools must have told students to write to us.

HKS: I didn't follow up on his comment, but when I was talking to Wadsworth, he said, "You know, maybe I ought to retire. I can spend all my time on the newsletter." I don't know if it was doing research to get information or if he saw a need for a larger and more elaborate newsletter.

MBD: I can't speak for Frank, but I would say this, that the amount of material that is coming in for the newsletter is increasing rapidly. The more we put in the newsletter, the more we get coming in. We've

talked several times about trying to put it into a more formal type of publication, a *Journal for Tropical Forestry* or some other format. I don't think we're anywhere near that in funding or organizationally. I'm sure Frank would have no trouble at all getting material to double the newsletter.

HKS: I'm a member of OTS. I'm impressed with how many conferences there are. That seems to be what they try to list in their newsletter.

MBD: They do a good bit of that.

HKS: One could spend their whole life just going to meetings.

MBD: That's right. [both laugh]

HKS: Is there anything more on this organization? You mentioned some of the key players.

MBD: I am almost inactive now. The progress that has been made in recent years in ISTF, about 90 percent of it is due to Warren Doolittle and several other volunteers.

HKS: What's his interest in this?

MBD: He's the president.

HKS: I know, but what's his interest in the tropics?

MBD: I don't know. He became interested while in the Forest Service. He's a good organizer, a good leader and well versed.

HKS: He was director of the Northeastern Station.

MBD: When Gordon and I were starting the reactivation, we were looking around for some more volunteers. I mentioned to Warren one day that this might be something that he'd find of interest when he retired. He started showing up, and the more he came, the more he was interested. [laughs] And he does a tremendous job. He puts in a tremendous amount of time all on his own.

HKS: He lives in this area, so it's convenient for him to go to Wildacres.

MBD: It's convenient for him. He's been active in the SAF as president and on various committees. So he has more than the ISTF organization to interest him. But I don't want to pass up the opportunity to acknowledge the part Frank Wadsworth has in editing the newsletter. He has a tremendous background, knowing people and things that are going on, what's important and what isn't. It's been interesting. It's been a lot of fun. We've got up to what I call the second level. We made the thousand level and held that. Now we're up to the two thousand level.

HKS: With all the financial problems and so forth at SAF, are these sorts of programs in jeopardy?

MBD: I expect it's of some concern, all right.

HKS: As a matter fact, with the shrinking staff, you may have more space.

MBD: More space. We have about four or five volunteers now.

HKS: Are any of the groups that are in the Natural Resources Foundation involved in international affairs the way SAF is?

MBD: As far as I know, no. But I don't speak with authority on that.

HKS: I've lost track of who's in that foundation.

MBD: There's a whole long list. I can't come up with their names at this time.

HKS: Are they all headquartered at Wildacres?

MBD: No, they're not. Several are downtown. They're not all at Wild Acres. Most of the space is taken up now. RNRF has two buildings.

HKS: The Forest History Society was invited to join the foundation and move there, and in some ill-defined way be the library resource for all the members. It was about that time the place was falling apart, and it didn't seem prudent. And besides, we were concerned if we got into Washington, we'd get involved putting out fires rather than have the detachment a history society is supposed to have. I have often wondered if it was a mistake on our part to not join.

MBD: If they keep the organization growing, there's going to be a big opportunity for interchange within the group. And maybe at that point the History Society might find it worthwhile.

International Forestry

HKS: Okay. The final major section here is international forestry.

MBD: Yes.

HKS: You had assignments in thirty nations. It's an impressive list of countries you've traveled to.

MBD: For various and sundry reasons. One of the things that we haven't touched on in this respect is what we refer to as the Food for Peace Program (PL-480). The counterpart funds that become available from having shipped food and other supplies to various countries have financed a number of forest research projects in various countries. That started in the early 1960s. By the time that I became deputy, many of the research projects were being completed and the question was: are we going to renew them? Also some countries once eligible were no longer eligible, new countries were interested. Many countries were interested in forestry research funded through the PL-480 Program. So one of the things early on that we decided to do was to contact various countries as we were traveling on other activities and see what the possibilities were for additional research projects. That's the kind of interest I had when I went to Poland. We contacted a number of the institutions there to review on-going projects and some new ones. Poland had several forestry research centers and did some excellent research. We were anxious to have more contacts. So I spent several weeks in Poland. Stan Krugman was with me, and he had a good background in some of the project activities. We did this same look-see activity in a number of countries in Asia and Africa. I remember one time going down to northern Africa when I was attending an FAO forestry meeting in Rome. Later I went on the Russian science and technology exchange. I spent time in the Philippines, and then went on into Indonesia and several other Southeast Asian countries. In all, either reporting on what had been accomplished on the projects that were underway or trying to size up people and possibilities for additional work. Just as much time as one could spare was an excellent way to get some good talent involved in research subjects in which there was a mutual interest. Travel costs being what they were, just tying PL-480 exploration in with other activities was an effective way to carry on. That accounts for a considerable number of countries I listed. Then the international organizations like IUFRO, IUSF, FAO and UNESCO required frequent travel.

HKS: How about the Peace Corps? Is that of an interest to you officially?

MBD: Not especially, we didn't get involved with the Peace Corps program. Being on the executive board of IUFRO required travel and was a way to get well-acquainted with research activities by others. The reason I stopped in the Philippines, for example, was the Man-In-Biosphere Program.

Man and the Biosphere

HKS: Talk about Man and the Biosphere.

MBD: It was developing about the time I retired. In the Philippines they were setting up areas as biosphere reserves and wanted to get the news of others on areas they had under consideration.

HKS: Sort of natural areas?

MBD: Somewhat. There were a number of countries involved in MAB. I believe it was when I was coming back from the Russian trip. I had to stop in Thailand, so I went on over to the Philippines. One of my contacts in the State Department wanted to have me go down and look over a proposed area on Mindanao, which is one of the large islands off from Luzon. When I arrived in Manila the next morning, the forestry group took me down to a navy ship. They had a cruiser ready for us to go on. It was a very elaborate overnight affair.

HKS: Sounds that way.

MBD: I was embarrassed with the arrangements. I spent several hours looking over the proposed reserve and encouraging them to go ahead.

UNESCO

HKS: What about UNESCO?

MBD: UNESCO was centered in Paris. They were more interested in the social aspects of rural life in the various countries. And they had encouraged the MAB program. Coming back from COFAL in Rome, I stopped in Paris and spent some time with people in UNESCO, but we never really did get anyplace working with UNESCO.

HKS: Is that part of the problem when we pulled out of UNESCO, what was it, ten years ago or something?

MBD: This was before we pulled out of UNESCO. But the problem was there. Their operation just didn't fit into the research we in forestry were interested in.

HKS: We call it social forestry today?

MBD: I think probably that's about the closest you can come to what they had in mind. That was the only contact that I had with the UNESCO. Also I went to the IUFRO congress in Munich, and some years later to the congress in Oslo. When you go on trips, you try to tie into various countries along the way. One of the big things, and you consciously have to work at it, is getting acquainted with key people and give them a feeling of support and interest. That is so important, just to be supportive of others who are struggling to get ahead with their organization and programs. I don't think we realize this enough. I've had several people from various countries say, "You know, just the fact that you stopped here and showed an interest in some of our problems gave us a little extra edge in our government." It doesn't take a large amount of time or expense if you can do this while you are on other travel.

HKS: They knew you were coming, but you dropped in.

MBD: You just dropped in. They knew you were coming, and they might want to take a day or two on a field trip. But you don't have any big proposal to make. Just show an interest.

Nepal

Another interesting session that I participated in in 1977 was in Nepal. I went there with a group of five. The group leader was Roger Revell from Harvard. There was one fellow from Sweden who was involved in small hydroelectric developments. And another one in small business. I represented forestry, and someone represented agriculture. We held a seminar for the best part of a week on the campus of the university in Katmandu discussing development possibilities.

We had half a day or more to discuss forestry objectives and programs and how to get some vegetation reestablished on the barren slopes of Nepal. It was a real interesting session. I had a chance as I always tried to do, either before or after, to get out in the country and see some of the forests. I got down into long plains--the Terai--where most of their timber is. In Nepal there was once a tremendous supply of large timber there, much of it has been cut in recent years.

HKS: That's where the tigers and stuff are.

MBD: Yes, that's where the tigers are. It was rugged going, poor roads, no places to stay or eat other than in a local village.

HKS: I'm always impressed by Nepal, it's so prominent. It seems like everyone has gone through Nepal at some point.

MBD: Part of it is just the geography of its location. Nepal sits there as a buffer zone between India and China. Both sides are interested in keeping Nepal going as a country.

HKS: But in other countries like Bhutan, you don't hear about people going on forestry assignments.

MBD: No.

International Forestry Research Institutes

HKS: Nepal is where they go. The last topic, you mentioned-International Forestry Research Institutes. We've already mentioned some.

MBD: Yes.

HKS: What did you have in mind, other than the one in Puerto Rico?

MBD: In agriculture there are institutes like the one in Mexico City--CIMMYT, the Wheat and Corn program, and the Rice Institute in the Philippines.

HKS: Borlaug.

MBD: Borlaug was a long time member of the staff in CIMMYT. Viewing the substantial needs for forestry research worldwide, it's obvious that you shouldn't have a research program in every country. How do you try to put together a research effort that meets the needs of a region, several countries? It seemed to me that regional research institutes might have something to offer if we could find a mechanism for organizing and funding. Through my contact with Norm Borlaug, I went to Mexico City to see how CIMMYT was organized and funded and what might be the possibilities for something like this in forestry. I had mentioned this at one of the IUFRO executive board meetings, something that IUFRO might get interested in and take on as a project. They didn't pick it up. It was just an idea. That's about as far as I carried it or could carry it, in the time I had left. Then Bob Buckman followed me in IUFRO and was most successful in getting interest and support. I understand several regional forestry institutes are now being developed.

Conclusion

HKS: Okay. Let's conclude with, any regrets, other than there wasn't enough time to do everything? Were there some failures? You tried but it didn't work?

MBD: I suppose there were. I don't know as I could identify them--or want to! You don't get all the things done that you want. Probably the most gratifying thing is to see how some of the younger men you recruited have come along and see how well they've done professionally. As far as my personal concerns, all I can say is that I feel privileged to have had the opportunity to participate over the years in the development and success of the Forest Service research program.

HKS: Of all the awards you have listed, somehow it strikes me that the Schlick Medal offers the best recognition for the breadth of the things you've done. Would you agree with that?

MBD: Yes. I was very proud when that came to me. I didn't expect it, because I had not been in top positions very long, usually I was the second or third man along the way. When you get a chance to do a few significant things, that's what you look back upon as most gratifying.

HKS: I suppose one of things you might regret in a way is language. I didn't force myself to remember the languages I learned.

MBD: Sure enough, that is something you just have to keep at all the time.

HKS: It's pretty embarrassing in this international stuff.

MBD: But there is a sign language that is universal. You learn not to let language differences be an impediment. When I worked in Italy, I learned a little Italian; and in school I learned a little German; elsewhere, I picked up a little French; and never was fluent in any language, but always enough to get around and enjoy the company of others.

HKS: Thank you for your time.

MBD: I do appreciate the opportunity to touch on some of the highlights of my many years in forestry. I only hope that what I've done has in a small way helped others and helped to advance the practice of forestry. Thank you.