

CLARENCE F. KORSTIAN: FORTY YEARS OF FORESTRY

An Oral History Interview
By Elwood R. Maunder

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CHILDHOOD, EDUCATION, AND EARLY WORK

MAUNDER: Dean Korstian, we usually start out by asking the person we interview to give us a brief personal history. Could you tell us where you were born, who your parents were, where they came from, and then tell us about your education and your entrance into the field of forestry.

KORSTIAN: I was born June 26, 1889, in Saline County, Nebraska. My parents, John W. and Mary Emma Korstian, moved to Nebraska from Schuyler County, Illinois, some years prior to my birth. Later they moved to western Nebraska and located in Red Willow County, southwest of McCook. The dry years of 1893-94 burned them out. Then we took a prairie schooner trip down across Kansas into the panhandle of Oklahoma and spent the winter there picking up bones and hauling them to market in Higgins, Texas. That gave us a little cash with which to buy food. We used cow chips for fuel, very largely, and we lived in a combined dugout and sod house. Then we went across Indian territory into Arkansas and the bottom really fell out there.

MAUNDER: That was in the 1890's?

KORSTIAN: Yes.

MAUNDER: The panic of '93, was it?

KORSTIAN: Well, the dry years of 1898-94 out in western Nebraska really started things off. Mother contracted malaria in Arkansas and had it for a year or two. We had a few head of livestock which were sold in Fort Smith, Arkansas. Then we west back to eastern Nebraska and started over.

Oklahoma and the Indian territory were sparsely settled at that time. We went through the Indian territory after a tornado. The Indians kept us moving all of several nights until we got out of their territory. It was wild, all right.

Well, then I went to public school in Crete, Nebraska, and spent summers on a 160-acre farm. As soon as I was big enough to ride a binder I was put on it during the harvesting of wheat and oats. Father did the shocking and some of the heavier work. Then when it was haying time, I was on the rack and he did the pitching. When I had a

chance I'd go down along the river – I used to like to get into the woods in the bottomland.

While I was in school I spent one summer working at a commercial nursery in the local community and I got the idea, first, that I probably wanted to become a surveyor. When I went up to the University of Nebraska in Lincoln, I decided that I wasn't interested in it as much as I thought I was. Although I took a course in "pedagogy" in high school and obtained a teacher's certificate, when I received an offer to teach I decided I'd better do something else. I thought I would be teaching at the same salary for a good many years to come, and that didn't appeal to me. So I finally decided to go into forestry after I met a young man whose uncle operated a boarding and rooming house. This young man urged me to consider forestry and introduced me to the chairman of the then one-man forestry department, so I cast my lot in with forestry in September 1908.

MAUNDER: Who was the man that interested you first in forestry?

KORSTIAN: Harry L. Stults.

MAUNDER: And who was the one-man forestry department?

KORSTIAN: Professor Frank J. Phillips. And the next year Professor W. J. Duppert was added to make a two-man staff. Then Professor Phillips died. He was succeeded by Professor O. L. Sponsor of the University of Michigan forestry staff. Sponsor soon went back to Michigan. He, in turn, was succeeded by Professor W. J. Morrill. Forestry was a department in the University of Nebraska until about 1915, when formal instruction in this field was discontinued. It had originally been initiated through the interest of Dr. Charles E. Bessey, chairman of the botany department. He was also largely responsible for forestry planting being started in the sand hills of Nebraska and for the creation of the Nebraska National Forest. The Halsey Nursery was renamed the Bessey Nursery in honor of this same gentleman.

MAUNDER: Forestry owes a great deal to botanists, doesn't it?

KORSTIAN: Yes, it does. Right in this institution it does. We'll come to that later. I was fortunate in spending the summer of 1909 in southern California in the employ of the city of Pasadena, fighting fire and, when there weren't any fires, burning off vacant lots and sweeping streets – a pushbroom nurse. Some of it was real work and some of it was easy for a young man.

MAUNDER: You were employed by the city to fight fire?

KORSTIAN: Yes sir, brush fires mostly.

MAUNDER: How did you get on to such a job as this?

KORSTIAN: I went out there and I had an uncle who was well acquainted with the city director of public works, and between them they got me a job. But my uncle told the director in my presence that he didn't expect him to keep me on if I didn't put out and do my share of work. I was assigned to work with some men who were on the verge of retirement – I got the impression they should have been retired several years earlier – so I didn't have any trouble keeping up with them. In fact, they would gripe at me once in a while because I was going a little too fast for them.

Then, during spring vacations, a number of us worked at the Bessey Nursery near the village of Halsey in northwestern Nebraska.

While out in California during the summer of 1909, I got the Alaska bug. So in the spring on 1910, after signing an agreement to spend the summer there, I started out for Alaska. But when I got to Seattle, Washington, the company I had signed up with wanted me to wait and sail a month later. I couldn't see it, so I got them to reimburse me for my railroad fare to Seattle and I went to work for the U.S. Forest Service in the Snoqualmie National Forest.

The work I was doing was called "timber reconnaissance" then; it's now called "timber surveys." And Louis L. Treen was in charge of the party. That gave me some real good experience. We were paid two dollars a day for each day actually worked, and fifty cents a day board whether we had or whether we hadn't worked. We were working on the west slope of the Cascade Mountains, and we had quite a little rainy weather that summer – even though the forests of northern Idaho and western Montana were burning up.

MAUNDER: That was a bad fire year, wasn't it?

KORSTIAN: It certainly was in Idaho and Montana. At times we could look right at the sun, which looked like a big red ball. We didn't even have to squint.

After purchasing the heavy clothing that I needed there, and paying the board bills, I had enough money left from my summer's earnings to pay my railroad fare back to Nebraska and a little extra to apply to university fees. Then, in the summer of 1911, I

was offered a job doing the same general type of work in the Tahoe National Forest in northern California at \$50 per month plus board. I was then riding high.

MAUNDER: Same kind of work?

KORSTIAN: Yes. Timber reconnaissance.

MAUNDER: This for the purpose of establishing the boundaries of the forest?

KORSTIAN: No, we were mapping and estimating timber volumes. It was an inventory of the timber resource on the east slope of the Cascade Mountains. I received my bachelor's degree while I was out there. I had requested it be held in Lincoln, but someone at the university got their wires crossed and sent it "deliver to addressee only," so I had to ride a buckboard cart about 30 miles into Truckee and go to the post office in order to sign for and receive the diploma in person.

MAUNDER: This was right at the time of the Ballinger-Pinchot trouble, wasn't it?

KORSTIAN: Yes.

MAUNDER: Do you remember that controversy?

KORSTIAN: I recall that while we were in school, Professor Filibert Roth of the University of Michigan came down and gave us some lectures. I remember his talking about it; he said, "You can't believe everything you read. You've got to learn to differentiate between the good and the otherwise. Paper is such patient stuff it will tolerate all sorts of persecution." That was typical of the kind of expressions he used.

In those days jobs were not plentiful. We seniors took a two-day written civil service examination. We were rated not only on the subject matter but also on training and experience. And because of the type of experience I had had at the time I took the examination (in March of 1912), I was fortunate enough to get a grade of 95 on training and experience. Then I worked hardest and spent the most time in the examination on those subjects that carried the most weight. And the most weight, as I recall it, was 20 per cent on forest management. I got a grad of 92 on that and on down the line to the two subjects, protection and economics, and law, that counted only five points each out of 100. I didn't do so well on these two, but I still passed high.

MAUNDER: Was it a civil service examination for junior assistant?

KORSTIAN: Forest assistant. Another man, Richard A. Phillips, and I graded our own papers

from memory and flunked ourselves. He got a job with Frank Moody, state forester of Wisconsin, and I got a job with the Pennsylvania Chestnut Tree Blight Commission, working out of Philadelphia. Later they transferred me to Tyrone, Pennsylvania. In May of that year, when word got out that I had passed the civil service examination, the Blight Commission officials tried to get Henry Graves, chief of the U.S. Forest Service, to hold the position open for me until I finished the summer. But he said I'd have to take the chance that the job would be filled by then, and the chance, in his opinion, would be a very slim one.

MAUNDER: You mean you had to take it right away or you might lose the job?

KORSTIAN: Yes.

MAUNDER: Did the government job pay more than the job you had with the Chestnut Blight Commission?

KORSTIAN: It did. Also, I was looking toward a permanent position and work for which I was really better prepared. There was quite a bit of pathological work with the Commission, of course. My responsibility, when I left there, was the identification of many specimens which scouts could not determine with certainty in the field. We received all sorts of fungi, both saprophytic and parasitic. But the federal appropriation bill of 1912 didn't pass until August and they could make no new appointments until that time, so it was the end of August 1912 before I reported, in Albuquerque, New Mexico, for duty with the U.S. Forest Service.

MAUNDER: I would like you to go back just a little bit here. You mentioned Professor Roth from Michigan. Here is a man who seems to loom larger and larger in the whole history of forestry education. Can you give me a little clearer picture of Roth as you saw him and were exposed to him in 1910?

KORSTIAN: The main impression that he left with me, and probably with a good many of my fellow students, was that he wore a full beard and had quite a distinct accent, indicating that he had gotten his professional training in Germany. And yet, by that time, he had become reasonably well adjusted to our American conditions and apparently to the American way of life. I believe he was at the University of Nebraska lecturing to us for about two days. I didn't have the privilege of meeting him again, but I did have the pleasure of meeting his widow in Ann Arbor, Michigan, in 1942. Professor "Brig"

Young and I were having dinner in the University of Michigan Union, and she and her daughter were eating there, so Professor Young introduced me to them and we had a nice little chat. But that's about all that I can recall.

MAUNDER: Well, would you say that he had a rather strong influence on you or was it just a passing event in the course of your education?

KORSTIAN: Out of fairness to all parties concerned, I think I should say that at the time he impressed us very much. He knew what he was talking about. He seemed to be perfectly reasonable, but I must have been not more than a sophomore at that time. Professor Phillips was responsible for his being there, and Phillips died February 13, 1911. He was sorely missed by us. He was a very inspiring teacher and a most dynamic person.

MAUNDER: Was it common in those days to invite visiting professors in for special lectures?

KORSTIAN: Only moderately so. As far as I can recall, he was the only forestry professor who was invited in for a series of lectures.

MAUNDER: Fernow, Schenck, Pinchot – none of these ever came?

KORSTIAN: None, as far as I can recall; we were way out in Nebraska. Michigan was about the nearest, well-recognized school at that time. By the way, there is one thing of interest that you might like to know. About two, or not more than three, years after I finished, the forestry alumni of the University of Nebraska organized for the specific purposes of getting the University better acquainted with the needs of forestry and to make a specific recommendation to the chancellor. We elected Fred Morrell, who was then located in Denver, Colorado, with the U.S. Forest Service, as our representative to go to the chancellor and make two recommendations, one or the other of which we wanted to see implemented – either to build the department up so that it could compete reasonably well with the then existing schools, such as Michigan and Yale, or else cease giving professional forestry training and concentrate only on farm forestry.

The chancellor said he appreciated our attitude, and in view of the fact that they weren't doing for agriculture all that they ought to be doing, he would recommend to the Board of Regents that they follow our second recommendation. Well, it wasn't too long before World War I came on, and they didn't even have an extension forester for quite a number of years. But I've never once regretted that the forestry alumni of Nebraska acted as they did. I still think it was the right thing to do. Have a good, strong program

in forestry training or none, rather than struggling with two men trying to do work that ought to be done, even in those days, by about three times that number.

MAUNDER: At least half a dozen?

KORSTIAN: Yes.

MAUNDER: And these two men were the whole forestry department staff when you were in school?

KORSTIAN: The whole department, yes. Of course, there was one closely related field that was strong there, and that was botany. I've been asked a good many times why so many graduates in forestry at the University of Nebraska landed in research and there is no question in our minds that it was because of the strength in botany: Bessey in taxonomy; Poole in physiology, taxonomy and pathology. Then Weaver came along in ecology, and there were two ladies, the Walker sisters – one was in cytology, histology and morphology, and the other one in mycology and general botany.

MAUNDER: So you were given a good grounding in botany?

KORSTIAN: Yes, a good grounding in botany and related subjects.

MAUNDER: Who were some of your associates, in school and earlier, who went into research?

KORSTIAN: Jack Boyce, whom I succeeded at the Fort Valley Forest Experiment Station in Arizona; Arthur Upson, W. R. Chapline, D.S. Olson, L.H. Douglas and R.D. Garver. T.E. Miller was in for a while and then decided he'd go into business. He went into a bank in western Nebraska.

MAUNDER: Well, you did have quite a goodly number.

KORSTIAN: Oh, before us there was A.W. Sampson, Carlos G. Bates, and G.A. Pearson, who was director of Fort Valley at the time that Boyce and I were there, and then there was E.W. Nelson.

MAUNDER: It was a pretty good representation from that small school.

KORSTIAN: Yes, rather a sizable percentage.

U.S. FOREST SERVICE
Coconino National Forest

MAUNDER: Now, going back to your beginnings in the Southwest. You went to Albuquerque in the summer of 1912?

KORSTIAN: Yes. The end of August 1912, and, after being in Albuquerque for just a few days, they shipped us rookies out to the Coconino National Forest for a period of initiation. In that group I remember particularly "Reg" Forbes, who later was state forester of Louisiana, and then became the first director of the Southern Forest Experiment Station, and still later went back to eastern Pennsylvania as a consulting forester; also J. Wilbur O'Byrne, who later became state extension forester in Virginia, from which position he retired recently.

The rest of the forest assistants were sent to other forests, but for some reason they decided to keep me there to replace Quincy Rondles who was being moved to the district office in Albuquerque, in the division that was then called "silviculture." So they kept me on the Coconino National Forest staff, working out of the supervisor's office. I had immediate supervision over timber sales. There were three railroad operations: two south of Flagstaff and one east, or northeast. On Monday morning I'd take my bedroll and go out to one camp, staying there usually until Friday, and come back into Flagstaff Friday evening. My work consisted of marking timber and check-scaling the ranger, checking the slash disposal, and, if the logging superintendents of any of the companies had any problems or any dissatisfaction, it was my job to find out what it was and see if I could work out a reasonable solution.

MAUNDER: What companies were you dealing with there?

KORSTIAN: The two large ones were the Flagstaff Lumber Manufacturing Company; a smaller mill was located at Cliffs.

MAUNDER: These companies were cutting timber on the Coconino National Forest?

KORSTIAN: Yes, and practically all of it was what was then called western yellow pine, now referred to as ponderosa pine.

MAUNDER: What were some of the problems that would come up in the process of cutting

timber on government lands that gave you the most difficulty?

KORSTIAN: On these operations there was practically no trespass. There was some dissatisfaction over marking. That is, they wanted a somewhat heavier cut than they were getting, and then there was frequently – in one case in particular – a genuine basis for dissatisfaction over scaling. One time I would check one ranger and his scale would be high; another time I'd check him and it would be low. He was erratic in that respect. The other rangers and I would check close together all the time. Yet I think the companies, in the long run, probably got a reasonably fair deal. Still, it wasn't good public relations. So I worked with him as much as I could, hoping that he would develop greater consistency.

MAUNDER: The ranger you mean?

KORSTIAN: Yes.

MAUNDER: Were these rangers of the U.S. Forest Service?

KORSTIAN: Yes.

MAUNDER: And their responsibility was to mark the timber which could be cut and to scale it after it had been cut?

KORSTIAN: Yes, although we tried to mark as much as possible while I was with them so that they would not have to mark too much on their own.

MAUNDER: What was your method of marking?

KORSTIAN: Technically, it was largely group selection, because the stands were often made up of even-aged groups; but the groups were of different ages. We selected the trees that were mature or over-mature and should be harvested, yet we had to reserve a certain amount to maintain forest conditions and provide for future cuts. We were working in virgin timber and it was largely a matter of compromise.

MAUNDER: How did you keep table on the fallers?

KORSTIAN: Well, the timber was all marked with a marking axe; it had "U.S." on the head. We'd make one blaze on the tree near breast height and another one on the stump, and then stamp "U.S." in the blazed wood. The fallers couldn't make an axe blaze on the tree and claim it had been marked, because they had no "U.S." marking axes.

MAUNDER: Did you ever run into a situation in which there was any skullduggery pulled on that, where they tried to duplicate the stamp?

KORSTIAN: None in the Coconino National Forest at all, but I ran into this situation when I was detailed for part of one summer up on the Santa Fe National Forest. I was marking timber there for Mexican tie-hacks, and I was standing at the edge of a group of trees to be marked. The Mexican who was doing the actual marking to speed up the operation was caught several times when my back was turned, marking good risk leave-trees that would make nice hewn ties, but which we couldn't afford to cut at that time. So I called him down several times, and then the last time I said, "Now if I catch you once more doing that, you are not going to have any more timber to cut. You will be through." We started on, but I thought I'd better keep an eye on him. Just after making that decision the axe came flying by my head. He threw it at me and then ran – a seventy-year old man outran me off the mesa. But, generally speaking, they were good "hombres."

MAUNDER: Well, now going on to your work at Fort Valley...

KORSTIAN: I was one member of a two-man staff: Pearson and myself. I succeeded Jack Boyce, and Pearson and I were the two technical employees. After I had been there a while, we were able to get a non-technical man to act as clerk and general handyman so that we didn't have to do the hunt-and-peck work on the typewriter.

MAUNDER: That was the first experiment station, wasn't it?

KORSTIAN: Yes. It had its fiftieth anniversary celebration on October 24, 1958. And two members of the committee asked me if I would go down and participate, representing the old guard, the old-timers. I very regretfully had to decline because of a conflict with plans previously made.

MAUNDER: Emanuel Fritz was there and I heard him read a paper on it. Were you there when Fritz came?

KORSTIAN: No. Fritz succeeded me, but I had already left – having been transferred up to Ogden, Utah. Emanuel had a good paper; I read it beforehand. He sent it to me with some questions. One was about electric lights. He thought they had electric lights when he went there, but I replied that if so, they were installed a very short time after we left and before he arrived. We left a hanging lamp in the living room of the cottage we lived in.

MAUNDER: Were you still single at that time?

KORSTIAN: No, I went back to Nebraska and was married on November 25, 1914, and we

went back to Flagstaff, stopping at Colorado Springs. C.G. Bates and Frank Nothstein were holding down what was then the Fremont Forest Experiment Station, up on Mt. Manitou. My wife and I hiked up the cog road and a side trail to the station and returned by the same route. Then we stopped off three days in Albuquerque at the regional office of the Forest Service before going on to Flagstaff and out to Fort Valley. That was one of the winters with a big snow that caused us to be snowbound out there. I went to Flagstaff about once every week or ten days to pick up mail and a little fresh meat, although we ate a good many squirrels that winter. I got up early in the morning and went on skis on the crust frozen snow, and then waited until it began freezing in the later afternoon to come back on skis.

MAUNDER: What kind of work did you actually accomplish in the wintertime?

KORSTIAN: Well, it was pretty largely maintenance, paper work and records. Weather records, particularly. We had a weather station there and in the colder part of the winter we had to keep a fire going in several of the buildings, particularly in our tank house, to keep the water system from freezing up. And there was an accumulation of data to be worked up when we didn't have anything else to do. The clerk and I did a job of plumbing that winter.

MAUNDER: You had to be a jack-of-all-trades in those days?

KORSTIAN: Yes. We put hot water in the cottage in which we lived. The cost of the building had already gone up to the \$650 limit, so anything we did had to be done one way or another without incurring an actual cash expenditure.

MAUNDER: I've heard this account given by a good many people who have been in the Forest Service. Now do you want to say anything at all about Pearson as a forester?

KORSTIAN: Definitely, yes! Pearson was a very kindly individual. He was an excellent man to work for, and with, and he was never too busy to answer questions as to why we were doing this or that. He had the utmost patience with any and all of us. It was a genuine pleasure to have had the privilege of working with him, although he was rightly insistent on accurate, good work and a full day's work. At Salt Lake City, in the autumn of 1958, four of us who had worked with him – Emanuel Fritz, Arthur T. Upson, E.T.F. Wohlenberg, and I all agreed that it was a wonderful experience. And when the word came that I was selected to be moved to Ogden, Utah, I was reluctant to go. I would have

preferred to stay, but in the letter that came regarding my transfer, my possible successor was mentioned, provided Pearson was agreeable. Gus and I talked it over at quite some length, and I finally decided that I didn't want to give them the impression in Washington that I was perfectly satisfied and wasn't interested in advancing, so I thought I'd better make the move.

Region Four – Ogden, Utah

KORSTIAN: Although I had fuel, lights, water, and a furnished house at Ogden, Utah, I had to meet all of these expenses personally, and it had been clearly stated that the promotion I was given would be effective whether I stayed at Fort Valley or went to Ogden. But it later proved to be the wise move to make. In Ogden, I was at first responsible to the district forester, L.F. Kneipp, and later directly to Washington. F.S. Baker and I composed the research team there. Our major job was to find out why they were not getting satisfactory results from the nurseries and the planting work in what is now Region Four in the Forest Service.

MAUNDER: This was at a time, of course, in the history of the Forest Service, when men were very much on the move. Transfers were going on all the time, I presume, because of the growing program.

KORSTIAN: Yes. Well, the situation in my case was about this, as I sized it up: I had been with Pearson in ponderosa pine country and their major planting work in Region Four was with ponderosa pine. In the southern part of Utah ponderosa pine was the predominant forest type. They had a little beginning on the Manti National Forest and more further south, even on the Kaibab National Forest.

MAUNDER: Your experience of a few years working under Pearson made it seem logical to your superiors in Washington that you were the man to send up to Utah, and so you went up to Ogden and worked there for how long?

KORSTIAN: From August 1916 to September 1921. And whenever E.E. Carter, in charge of silviculture in the Washington office, was out Ogden way, he could always come to my office, close the door behind him, put his feet up on the desk, or the table, and want to know "what was cooking." Baker and I were responsible – indirectly, if not directly – for three nurseries being closed and practically all of the planting shut down. We

recommended, however, that the planting of ponderosa pine largely be tabled, and that they concentrate on the high mountain-spruce, cut-over, and burned lands on which they were enjoying success.

MAUNDER: Were your reports on this situation written up and published as bulletins?

KORSTIAN: Yes. And when the two on planting and planting sites reached Washington, Nick Carter naturally reviewed them very thoroughly. One time when I happened to be in Washington, he said he was afraid they would be written so that they couldn't possible be printed without doing the Forest Service a great deal of harm.

MAUNDER: You mean somebody would pick them up, and in using them, distort their meaning?

KORSTIAN: Yes. But we wrote them up with that in mind and there wasn't any question when it was published in due course by the U.S. Department of Agriculture. The reports indicated where, and under what conditions, planting could be done, and on what areas favorable results could reasonably be expected. Much of the planting had been done in oak brush, manzanita, and even sagebrush-covered areas, where the competition of native vegetation was just too much for the ponderosa pine. But when we got onto the high mountain burns in the spruce zone, planting in the protection of sheltered logs and stumps gave generally satisfactory results. Better results were obtained particularly when they used Engelmann spruce rather than Norway spruce as they had been doing.

MAUNDER: Now this indicates that the Forest Service at that time was very much concerned about public relations, and that of this knowledge reached down into the ranks, so that the men who were writing the bulletins and papers at the time took it into consideration. How did you come to the realization of the importance of public relations? Was it at all a part of your training in the Forest Service?

KORSTIAN: Yes, to some extent, and also just common sense. Both Fred Baker and I agreed that if members of Congress got hold of some of the information we had, if it wasn't presented in the right way, it would do the Forest Service a great deal of harm.

MAUNDER: In other words, you were fearful that Congress might look upon all the money spent on setting up nurseries and putting out plantings as being a waste of public funds?

KORSTIAN: Well, what the Washington office rightly did at that time was to concentrate the

funds that they had for reforestation in those regions where they were getting better results; they were just beginning to expand in the Lake States, and personally I was in full sympathy with what they did. The nursery sites they had in Utah and in southern Idaho were poorly selected. At one of them, the Beaver Creek Nursery, difficulty was encountered in getting the seedlings out of the nursery when the planting sites were ready for ponderosa pine. At the Cottonwood Nursery they had the same trouble. At Beaver Creek, black soil was collected and stored for sowing upon the nursery beds in late winter or early spring to hasten the melting of the snow. The Cottonwood Nursery was usually either snowed in or the road was blocked with snowslides at the time that the planting stock should have been shipped to the planting sites.

MAUNDER: Was this a condition that arose out of the fact that this work was being done pretty much without any specific plan to follow? It was pioneering, in a sense? Or were these errors just errors of judgment that could have been avoided if a little more thought had been given to the matter?

KORSTIAN: Some of both, I think. I made specific inquiries of the man in charge of planting at that time as to why they were raising Norway spruce in the nurseries instead of Engelmann spruce – especially in the Cottonwood Nursery. His reply was, in effect, “Well, why not? We can buy the seed more readily than we can collect Engelmann spruce seed, and we can grow 241 transplants of Norway spruce that are about as large as 341 transplants of Engelmann spruce, so why shouldn’t we grow Norway spruce?” This was being done even though right there in the city of Ogden, well-watered Norway spruce, when it reached about middle age, began going to pieces in the tops, just as Professor J.W. Toumey said it was doing in New England at that time. Well, part of it was the lack of basic information and know-how as to why they weren’t getting success, some of it was poor planting, and some was just lack of planning.

MAUNDER: Was your work in Ogden concentrated, then, on reaching these conclusions, or was this something that was arrived at rather early in your stay there?

KORSTIAN: Our first major assignment was to tell the administrative officers that they were not getting satisfactory results, then to find out why not, and lastly find out how they could be obtained.

MAUNDER: This was in a period in the history of the Forest Service when money wasn’t easy

to get out of Congress?

KORSTIAN: That's right. And one of those years that I was out there, the Forest Service got a big cut in their research funds, down to \$50 thousand for all of the forest management research in the West. There weren't any stations in the East then. That year I was carried as a district logging engineer; the logging engineer had resigned and instead of filling that position, the district forester, L.F. Kneipp, told me that, if I would help them out in timber sale inspection for a month or six weeks, they would carry my salary in the administrative budget.

MAUNDER: But you continued on doing research mainly.

KORSTIAN: Yes, I continued doing research, except for six weeks that I spent on a trip inspecting the timber sales in the state of Nevada.

MAUNDER: Was this a common practice, would you say, among Forest Service people in the field? In order to accomplish their objectives they had to juggle their budgets a good bit?

KORSTIAN: No, I can't say that it was, except in very unusual cases similar to the one just related.

MAUNDER: Dean Korstian, let's hear from you now a little bit about the men you associated with in Utah at this time. Who stands out in your memory?

KORSTIAN: Well, it was really surprising that in Region Four at that time, a great many of the met were of the self-made type; they came up through the ranger and supervisor grades and on into the regional office. When a technical man, a man with professional training let's say, went out into that region, he had to make good in more ways than by just being a trained forester. He had to make a favorable impression and "deliver the goods" with men like L.F. Kneipp, Homer Fenn, Guy Mains, and C.N. Woods. All of these men were of the self-made type. There were a number of us who couldn't help but admire them; the way they had advanced and the way they were really handling their work in the Forest Service. One winter, Lyle Watts, who later became chief of the U.S. Forest Service, was assigned to help me on a job that Washington wanted done in relating lands under irrigation to forester areas, shown map-wise. The material was later assembled by Sam Dana in the Washington office and issued as a publication. Then Raphael Zon wanted the forest types of the region mapped, and Lyle Watts helped on that also. Ray Garver and Ben Rice were in that region for a time. Garver later headed the Forest Survey

Division in the Washington office and Rice became regional forester in the Ogden office, which position I believe he held at the time of his death. I could mention others, but these men had technical training and yet had enough common sense to know how to apply it to the complete satisfaction of the self-made men.

MAUNDER: The rangers and the people who were recruited in the region to assist in the work, you mean?

KORSTIAN: Yes.

MAUNDER: In other words they got along with the people of the region.

KORSTIAN: Yes, and also with these self-made men who were at that time predominant in the administrative positions in the region.

MAUNDER: Tell me something. How did the Forest Service man in those days get on with the average citizen living in the locality? How were foresters looked upon by the general public in those days? Did you have a difficult time or were you accepted? How did you get on with the people?

KORSTIAN: It depended, I think, a great deal on how the individual went about adapting himself to the local conditions, manners and customs. Those who came out from the East had more difficulty than the men who came from the West and Mid-west. I remember one man who came out from New York State to the Tahoe National Forest the summer I was a temporary employee there. He actually didn't know from which side to mount a horse, and things like that. Further, he didn't know how to saddle a horse and to throw a diamond hitch; these were unheard of in his language. The men who went out there directly from the East were under somewhat of a handicap in the old days. It isn't that way nearly as much now. We had to make considerable use of both saddle and pack horses. One man and I went into some of the back country in Idaho on a forty mile pack trip to re-examine some research plots which Bill Sparhawk had established before he was transferred to the Washington office.

MAUNDER: This was at a time, of course, when most of the people out in that area were either cattlemen or sheepmen or ranchers of one kind or another. How did they look upon the Forest Service?

KORSTIAN: They accepted a good many of us and some they were very reluctant to accept,

because they showed their “greenhorn” characteristics too plainly. I remember one little incident out in Arizona. I was trying to make conversation with a stockman soon after arriving there and I made some remark about the weather. And he said, “Young man, when you’ve lived in these here parts as long as I have, you will agree that anybody that tries to predict the weather is either a tenderfoot or a damn fool. I take it that you’re a tenderfoot.” So I shut up talking about the weather. Anyway, it was quite unpredictable in the vicinity of the San Francisco peaks. The westerners were quite direct, but when understood, they were generally easy to get along with.

MAUNDER: How did the lumbermen that you came in contact with react to the Forest Service?

KORSTIAN: In most of the Southwest and in the Intermountain Region, I would say there was a certain degree of cordiality in doing business, although my impression is that they accepted the Forest Service because they wanted to get the timber. They felt that it would be advisable to be reasonably friendly and courteous, unless they did have real cause for dissatisfaction and griping. I don’t recall that I detected any real bitterness.

Appalachian Region

MAUNDER: Now can you go on a bit from your experience in Utah?

KORSTIAN: With the reorganization of forest research accompanying the organization of two new forest experiment stations in the South – the Southern with headquarters in New Orleans, and the Appalachian with headquarters in Asheville, North Carolina – the decision was reached that I would be transferred. Fred Baker would remain in the Ogden office to finish up certain projects before he was transferred into the information and education work in the regional office. And when Colonel Greeley, then chief of the U.S. Forest Service, was in Ogden, he talked to me about going down to the Southern Station to take charge of the work with southern pine. I had sickness in my family, so I raised a question with him about living in New Orleans. The next day “Colonel Bill” said, “Well, how about Asheville?”

“Oh, “ I said, “I’m sure that would be fine and would meet with our doctor’s approval.”

So he said, “I think we can arrange it, but wait until you hear from either Earle Clapp or me.” In due time I received the go-ahead word for Asheville.

The original staff of the Appalachian Station consisted of four technical men: Frothingham, director; McCarthy, Haasis and myself, together with one secretary. I was the last one to arrive, and when research projects were assigned, I had the highest one and the lowest one: spruce in the high mountains and Atlantic white cedar (or “juniper,” as the local people in the Carolinas and Virginia called it) in the coastal swamps. And then I had a smaller project on the natural replacement of blight-killed chestnut.

MAUNDER: Tell me, how were projects actually determined in an experiment station like that?

KORSTIAN: Well, at the beginning I think they were mostly what some men have referred to as “pot boilers,” to provide an opportunity to become acquainted with the region and its most urgent problems. Frothingham, McCarthy, and Haasis did considerable work on hardwoods, which occupied a high priority in the Station’s program. The spruce was in danger of being wiped out by wildfires following heavy cutting. The landowners were seeking information as to how they should cut their lands to maintain a forest cover.

MAUNDER: Who were the operators, lumber operators principally?

KORSTIAN: Yes. West Virginia Pulp and Paper Company had a big operation in West Virginia, the Champion Paper and Fibre Company operated in the Smokies, and the Suncrest Lumber Company on the Pigeon River watershed, the latter two in North Carolina. The Perley and Crockett Lumber Company had already closed its operation in the Black Mountains in North Carolina.

MAUNDER: This would seem to imply that the companies were seeking professional forestry information and that they had no means of providing it for themselves, because they had no foresters. Did they then come to the experiment station, suggesting these ideas in research?

KORSTIAN: In some cases they were consulted as to what they thought the Station should be working on, but the Station naturally didn’t always follow their suggestions. It finally came to my attention in a conversation that the president of a lumber company wanted to know how to leave his land so that the Forest Service would pay the highest price for it. When he asked me, I said, “I’ll be glad to tell you, but I have my doubts as to whether you will see fit to follow my suggestions.” By that time I had gotten to know him quite well, and, sure enough, he didn’t.

MAUNDER: What was the pattern of logging in those areas?

KORSTIAN: They were cutting pulpwood and saw logs. In North Carolina, the pulpwood was going to Champion's mill at Canton, and in the operations of West Virginia Pulp and Paper Company, the hardwood pulpwood was going to Luke, Maryland, and the spruce pulpwood to their mill at Covington, Virginia.

MAUNDER: Who were some of the men of these companies with whom you had contact in those years? Did you know Reuben Roberston, Sr.?

KORSTIAN: Oh, yes. I knew him quite well.

MAUNDER: How would you evaluate his part in all the development of interest in forestry in the South?

KORSTIAN: Well, he has been, ever since I first knew him, a prime mover. One of the first trips that we at the Station took was over Champion's operation above Smokemont, North Carolina, in what is now the Great Smoky Mountains National Park. They had two small nurseries, one at Willetts and the other close to their mill at Canton. They did considerable planting on their lands in the general vicinity of Willetts.

MAUNDER: This was after Walter Damtoft had come to the company as their forester?

KORSTIAN: That's right.

MAUNDER: Was this rather an early stage of forestry in the South?

KORSTIAN: It has justly been said that Damtoft was the first professional forester permanently employed in the South by industry.

MAUNDER: And would you credit Reuben Robertson as being the force behind that action?

KORSTIAN: Definitely. Yes, indeed.

MAUNDER: What other owners in the area showed any interest in forestry, if any? You mentioned West Virginia Pulp and Paper Company. What did they do?

KORSTIAN: Well, on the spruce project, I did quite a bit of work on their lands in West Virginia. They were right at the point where they were trying to make a decision as to whether they would go ahead and manage their spruce lands or whether they would sell them to the Forest Service.

MAUNDER: This was when?

KORSTIAN: This was in the early 1920's – 1922 to 1924.

MAUNDER: What decision did they reach?

KORSTIAN: Well, practically all their lands in West Virginia were sold. Much of it is in the

Monongahela National Forest now, I believe.

MAUNDER: Wasn't that also the situation that obtained for Champion? Didn't they have to give up a tremendous amount of their lands to the Great Smoky National Park?

KORSTIAN: Yes. Much of the virgin spruce that is now in the Great Smoky National Park was on their land.

MAUNDER: I guess that was quite a blow to them, wasn't it?

KORSTIAN: I don't know the details, but they must have received a reasonable compensation for it. Railroad logging was very costly in this part of the Smokies, as it also was on the South Fork and Middle Fork of the Pigeon River.

MAUNDER: Because of the high altitude and difficult terrain?

KORSTIAN: Yes. Very steep grades and skidder logging was about all they could do up there. The Gennett Lumber Company took over the Crest Lumber Company. They had a big sawmill at Sunburst, and the pulp went down to Champion's pulp mill at Canton.

DUKE UNIVERSITY
Development of Duke School of Forestry

MAUNDER: When did you get out of the Forest Service and into teaching?

KORSTIAN: I received several offers to go into teaching, but I resisted the temptation for over 15 years. I spent ten months at Yale in 1925-26, by which time several offers had come to me. I had been drawn into an advisory capacity at Duke University. President Few had been asking Dr. A.S. Pearse, professor of zoology, a good many questions, some of which he couldn't answer, so Pearse asked me if I would try my hand at it. It happened that President Few was immediately available, so we had quite a long talk about their 4,600 acres of land, much of which was in farms and forest, at that time. The president had been in touch with Colonel Greeley, and Dr. Pearse had corresponded with Miss Gerry about what they should do here.

MAUNDER: By Miss Gerry you mean Dr. Eloise Gerry, then on the staff of the Forest Products Laboratory at Madison, Wisconsin?

KORSTIAN: Yes. As a matter of fact, we had several conferences, into which I drew E.H. Frothingham, then director of the Appalachian Forest Experiment Station. Then one day later, President Few came barging into my office in Asheville and said he didn't have time to talk, that he was on his way to Nashville, Tennessee, and he would like to see me on his way back. Well, it developed that he had to hurry back and didn't stop. He wrote me a note and said that the next time I was down his way he would like to see me.

By that time I was quite convinced that they really wanted to do something along the lines of educational work in forestry at Duke. So I stopped in the next time I was in the vicinity on station work and had another conference with President Few and Dr. R.L. Flowers, vice-president and secretary-treasurer of Duke. The president started by saying, "You know I've been reading about the Harvard Forest in the president's annual report of Harvard University and why shouldn't we develop a Duke Forest along the same lines as the Harvard Forest?"

"Well," I said, "I have visited the Harvard Forest, spending some time in it, and I also spent some time at Yale. Let's take the best of both the Harvard and Yale programs." I went on to explain that the Forest ought to be organized as a very definite

adjunct to a graduate school of forestry, but the training should not be limited to what the men could get in the Forest, because this had led in the past to the men receiving a limited education in forestry.

I said I thought the Forest should serve the School of Forestry the way the hospital served the Medical School. Well, they kept asking questions and it went on to lunch time. The president said he and Dr. Flowers had another engagement, but they'd arrange with a gentleman who is now one of the vice-presidents here to take me to lunch. He said, "After lunch I wish you would sit down and jot down these ideas that you have expressed and we'll get together about three o'clock."

We got together and as I read each item President Few said, "Well, that seems all right." So finally he turned to Dr. Flowers and said, "Flowers, do you think we'd better spill the beans?"

That's the first inkling I had, and they said, "If you'd be interested, we'd like to have you come down and get our forestry program started off." I said, "Well, it's rather sudden. I haven't considered it prior to now." After further discussion I said that I was definitely interested in the challenge and the opportunity. And further, I stated that I was not going to do any bickering with my director at Asheville because I knew the government policy, but that I did want to discuss it with my wife to make sure that she would be willing to make the move. We both liked Asheville, I liked my work there and we had friends there. "Well, by all means you should do that," was the reply.

The forest here was what really persuaded me to come down. I had been travelling three to six or seven hundred miles to get to some of my work on the coastal plains and I even had some work in Connecticut on two of my projects. When I got out on field work I would have to do what you have to do – I'd have to stay out long enough to make it worthwhile.

MAUNDER: You went home then and talked the matter over with your family and friends.

What decision did you make?

KORSTIAN: I decided that it was a real challenge here and that I should come down. I could be at home a great deal more and see that our two young sons had the influence of a father when they needed it. And I never once have regretted the move. I came here as director of the Duke Forest first, and developed the instructional work gradually. As time went

on, I finally said, “Now I think probably we’ve gotten about far enough that you should be thinking about someone to assume the responsibility of dean of the School of Forestry.”

MAUNDER: When did you first come here?

KORSTIAN: I came September 1, 1930. And in response to that suggestion of mine the president said, “Yes, we were aware of that and we’ll take care of it in due time.” I wasn’t asked if I would accept the deanship. I was in Atlanta on business when I received a wire from my wife telling me that I had been elected by the trustees to be Dean of the Duke School of Forestry. That was characteristic of President Few and the way he used to do things. One would get quite perturbed until he got well enough acquainted with him to understand how he did things.

MAUNDER: Becoming dean of the School of Forestry meant what exactly? How many men did you have on your faculty to begin with?

KORSTIAN: We went over the whole program in advance and decided we should have eight trained foresters on the teaching staff. There would be two men from the botany department teaching some work that we wanted to have in the curriculum – Dr. Kramer to teach plant physiology, with emphasis particularly on the physiology of trees, and Dr. Wolf would teach forest pathology.

MAUNDER: What about your regular forestry people? Where did you get them?

KORSTIAN: From all over – all the way from Connecticut to the state of Washington. The first man to join the forestry staff was William Maughan, who had been Hawley’s assistant at Yale, working particularly on the Eli Whitney Forest. He had experience in the type of work that would help him as assistant director of the Duke Forest in charge of operations and as teacher of forest management. He arrived in January 1931, and promptly initiated the first inventory of the Duke Forest.

MAUNDER: Did you make overtures to these men yourself to bring them here?

KORSTIAN: Yes.

MAUNDER: How did you go about doing a job of that kind?

KORSTIAN: Well, I might say that every man with the exception of one, we brought here for an interview; it gave them a chance to look us over and us to look them over. The exception was the present dean of our school, Dr. Elwood S. Harrar, who was then on the faculty of

the College of Forestry at the University of Washington. I was called to California very suddenly. Before returning to Durham, I interviewed Professor Harrar in Seattle. It has paid off over the years to have prospective faculty members come here for interviews. It's well worth the extra cost. I've had men from other schools say to me, "How have you been able to hold your men? Big salaries?" No, it wasn't that as much as it was the freedom to teach their courses unhampered by meddling from above.

MAUNDER: The former president's name is spelled how?

KORSTIAN: F – e – w. On several occasions he would say, "Well, now, whatever we do let's give it enough thought and do it so well that we will not want to re-do it. And take all the time you need. Whatever we start we want to last, and we don't want to go off on a tangent, half-baked."

MAUNDER: I'd like to ask you something. What do you feel the place of research has been in the development of the School of Forestry here? You began with research right at the beginning in 1931?

KORSTIAN: Yes. That was really a necessity. If we were going to manage a forest, we had to have the know-how and the results of research to do a reasonable job of teaching silviculture and forest management, just to mention two fields in which we needed local basic information. The program of the Appalachian Forest Experiment Station was developed first in the mountains to provide answers in connection with managing mountain forests – largely hardwoods. Then research was initiated in the coastal plain because industry was better developed there than here in the Piedmont area, and industry was beginning to seek results there. But there wasn't any work under way in this area closer than Maryland, and there might be some question as to whether there was much work under way at that time in Maryland. Maughan and I decided that we had better get busy. We kept the forest under close observation and began a certain type of work that would provide the answers – some in a very short time, and others in a longer time. As we went along we developed our practices. Naturally we changed our thinking as we went along.

MAUNDER: Did you receive any outside assistance at all of stimulus to this research?

KORSTIAN: Yes. We took over the full responsibility for the Forest July 1, 1931, from the

Duke Construction Company, which had been organized to build this west, or new, Duke campus. The secretary-treasurer/vice-president said to me, "You're going to need a budget to operate that forest, aren't you?"

My response was rather surprising to him. I said, "I'd like to suggest that you let us take the area and see what we can do with it, and I would like to reserve the privilege of submitting a budget estimate later on if it is necessary. But let us take it first and see what we can do with it." Included in the area were quite a few houses occupied by tenants. I am happy to say that the University administration readily agreed to set up an account in the treasurer's office known as the Duke Forest Fund. And any balance that was left at the end of the fiscal year wouldn't revert to the general treasury as it does in practically all state institutions, but would be a revolving fund that remained intact until needed for work in the Forest or related activities. This arrangement was a very important factor in making the forest self-supporting from the beginning. It is still self-supporting, and contributes about half of the salary of the man in charge of forest management, who is also now managing director of the Forest. We made it pay right from the beginning, with one exception. The first year, before we took over the responsibility for the Forest, the state offered us some planting stock free of charge if we would take it and plant it. That was too big a challenge to pass up. So I got an appropriation of \$300 for that job and that's the only case in which the Duke Forest Fund did not bear operational costs.

MAUNDER: You ran a \$300 deficit that year?

KORSTIAN: Well, not exactly. The university administration just gave us that much. That was before the Forest Fund was even set up and nothing was said about repaying it later. I didn't raise the question either. I should add that the Duke Forest Fund financed the purchase of several pieces of land needed to round out the Forest boundaries.

MAUNDER: Do I follow you that the principal direction of research here at Duke followed along lines which were helpful specifically in the management of an area of forest land about four to five thousand acres in size?

KORSTIAN: And also the provision of teaching material in several branches of forestry.

MAUNDER: That was the beginning motivation of your research program. Later on in broadened out to assume greater responsibility over a larger area?

KORSTIAN: Yes. One of the fields that I wanted to see developed very early was forest soils.

We knew very little about our soils here. When I was with the Forest Service, I had spent some time both in Arizona and Utah with a soils man detailed from the Bureau of Soils of the U.S. Department of Agriculture and I appreciated the need for study of forest soils. I looked around to see where I could get training in forest soils, but I couldn't find it. So we had an assistant here that we were able to interest in forest soils and we worked out a deal whereby he'd get his doctorate at Yale by spending one semester here and then the next semester in residence in New Haven. By hard work and by getting what he could from the few men who understood the basic differences between forest and agricultural soils, he was able to develop a good program of instruction and research in forest soils.

What we tried to do was to get or develop specialists in their respective fields. For example, when we wanted a wood technologist, we decided that we wanted a man who was trained with Harry Brown of the faculty of New York State College of Forestry at Syracuse. So I wrote to Harry Brown for suggestions, and I approached and got the man that headed his list.

MAUNDER: What was the name of that man?

KORSTIAN: Dean Harrar of our school and who is presently serving as president of the Forest Products Research Society. I went out to Seattle, Washington, to get him. Then we wanted a forest economist, so we selected Roy Thompson who had been associated with Dr. Fred Fairchild on the Forest Taxation Inquiry that the U.S. Forest Service had underway for a number of years. Roy was down here just prior to that, and made a study of three counties in this state: one in the coastal plain; one in the next county south of Durham, here in the Piedmont; and then one mountain county. We got him away from Iowa State College. Then we took Wackerman, who at that time was forester for the Seaboard Railroad; he was a product of the University of Minnesota. Well, Wackerman had been with the Lake States Forest Experiment Station and was transferred to the Southern Station; then he was with the Southern Pine Association, and then the Seaboard Railroad. He is now teaching forest utilization.

Then we wanted a man to develop forest mensuration, and we decided there was just one man in the country who had the necessary qualifications, namely F.X. Schumacher, then in charge of the Division of Forest Measurements in the Washington

office of the U.S. Forest Service. He has done a splendid job here. I think the secret has been that each man has had more than the usual amount of academic freedom. Oh, once in a while questions have been asked, of course, and problems fully discussed. But that's one advantage in being part of a private institution; we have not had to contend with politicians, and are not bound by many regulations similar to those imposed upon state institutions. The previously mentioned operation of the Duke Forest is an illustration of this point. We, of course, have our business offices and staffs, but on the whole they are inclined to be helpful and desire to assist us in furthering the major objectives of the University.

MAUNDER: To what extent have men here been able to devote substantial amounts of their time to research, as well as to teaching?

KORSTIAN: Every forestry professor that came here, came with the understanding that he would become involved in and carry on a program of research – every man. And if he didn't want to, we didn't want him to come with us.

MAUNDER: What percentage of a man's time do you figure is given to research? Or does this vary?

KORSTIAN: It varies a great deal from semester to semester and year to year. Sometimes a man has a light load in teaching, sometimes a heavy load, but we try to organize the courses so that he will have time for research. Now, of course, the more students there are on the graduate level, the less time he will have for research. I might say that our work here is on the graduate level; there's only one course that is really for undergraduates and that's not for foresters. We might say it's a survey course given particularly for any sophomore, junior, or senior who cares to expose himself to forestry but who does not plan to go into forestry as a profession.

MAUNDER: I think you are one of the few schools of forestry that I know about which has its offices in the social science building.

KORSTIAN: Well, this is temporary. We've been all over the campus. We began with three rooms in the biology building, then we gradually expanded until they couldn't give us any more room there. Next they moved us over into Few Quadrangle, one of the dormitories that had just been completed for graduate students. Then, when we moved over here President Edens said to me, "I don't visualize your quarters here as the

permanent home of the School of Forestry.” We now have a new biology-forestry building under construction. When it is completed, the school will be back with the biologists with whom we have much in common, including a common library, and it will really be better all the way around.

MAUNDER: But this is principally a graduate school of forestry?

KORSTIAN: It is; the only exception is in the case of men who have had three years of arts and sciences work in a liberal arts college, and that college is ready to recommend that they are qualified to begin graduate professional training. We will accept them for the first year in the School of Forestry just as we accept the graduates of accredited undergraduate schools. We have a ‘three-two’ program worked out with some 62 arts colleges, and there are two more that Dean Harrar told me about just in the last two or three days – two more that raised the question of affiliating with us in that program. Every one of the cooperating colleges is fully accredited by their regional college association. We will not establish cooperative relationships with a non-accredited college.

Forestry Education in the South

MAUNDER: Now, Dean Korstian, I would like to start going into some of the specifics. I'd like you to describe, if you will, what you recollect about the birth and growth of forestry education in the South. Duke was not the first forestry school down here. I suppose the first was Biltmore, which wasn't really a forestry school in the sense that we think of forestry schools today, yet it was sort of a forerunner.

KORSTIAN: Yes.

MAUNDER: Would you have anything to say about the contribution which Dr. Schenck made in the whole development of forestry education?

KORSTIAN: Well, I first saw Schenck when he came back to North Carolina. You may have it more specifically than I, but it was during the time that I was with the Forest Experiment Station, so that was in the 1920's. I am acquainted with a good many of the old Biltmore grads. Then I visited him, on his invitation, in his home in Lindenfels, Germany, in the summer of 1932. He insisted on accompanying me on a visit to the Spessart Forest. Schenck was a very personable type of individual. He made a very lasting impression on his graduates; he was very individualistic, and at times even bombastic. I have practically all his books that he wrote for use as texts, and they are very characteristic of the individual as to directness. I remember once, when we passed one of the plantations on the Bent Creek Road on the edge of the Vanderbilt estate when he visited Asheville in the 1920's. He looked around at the trees and he started to laugh, "Ha, ha, ha! They all grew!" Then he went on to explain that he had planted them very closely spaced, five by five or closer, and that he expected a high mortality would occur and further that an early thinning would be made, neither of which had occurred.

Based on the experience I had with him in Europe, and what I was able to pick up from others, I've been led to the conclusion that while he was highly regarded by his former students, who really had great admiration and love for him, his dynamic forcefulness and caustic criticism of fellow forester – particularly in Europe, but to some extent even in this country – has left two diametrically opposed reactions to his professional career.

MAUNDER: Going on with the consideration of the origin of forestry education here in the

South, what came in its wake?

KORSTIAN: Well, I had my first introduction to the South during World War I when I traveled more in the South than I did in other parts of the country on war work. The first school that was established in the South was at the University of Georgia.

MAUNDER: We have, incidentally, all of the basic chronological information down here.

What we are looking for from you is more of an interpretation of this history.

KORSTIAN: There was some work underway at Louisiana State University. As foresters came South from northern schools, they were accepted at first with some degree of doubt by southerners. But after all, many of them – in fact, practically all of them – made good and they learned to live with, get along very well with and even fall in love with southern people.

MAUNDER: Who do you think of particularly in this regard?

KORSTIAN: Among the early ones, “Cap” Eldredge.

MAUNDER: “Cap” was a southerner.

KORSTIAN: Yes, that’s right, he was a southerner, and naturally would have fit in. Then there was Walter Damtoft, and Austin Cary from Maine. Austin learned the ways of the South very quickly, yet he was very individualistic.

MAUNDER: Did you know Cary?

KORSTIAN: Yes, I did.

MAUNDER: Do you remember any personal experiences that would help give a real-life picture of him?

KORSTIAN: I remember that one evening while we were visiting in a home in Starke, Florida, he said, “Now, you folks just excuse me for a little while,” and he took off his shoes and stretched out on a davenport. As far as the rest of the folks were concerned, he was in another world for a while. That was one of his characteristics, very unconventional; yet he knew how to approach southern lumbermen and landowners. And he knew slash pine. He was so thoroughly convinced that slash pine was an exceptionally good money crop in southeast Georgia that he invested in it himself. I remember Demmon and I were on a trip down in west Florida and Austin Cary got on the train, and we talked slash pine most of the way until we got off a few stations down the line and he went on. Austin Cary was one of these very individualistic persons, but of quite a different temperament and

personality than Schenck. He had a way of talking with laymen and he was patient, yet he could convince them that there were gold dollars in green trees.

MAUNDER: How would you compare the development of forestry and forestry education in this part of the country with that in other parts of the country?

KORSTIAN: I believe I would be safe in saying that there were a number of forestry schools started in the South on little more than a shoestring. And for a while it looked like the shoestring was going to break. They were inadequately financed, therefore inadequately staffed, and there was a good deal of doubt as to what the product was going to be like.

MAUNDER: What was the reason for this? Was it because the legislatures down here were reluctant to put up money for this kind of thing?

KORSTIAN: Many of the southern states were just poorer and were unable to put into educational institutions what was demanded. There has been quite a tendency – it still exists today – that if Georgia and Alabama have programs of professional training that South Carolina or Virginia do not have, the people in the latter states feel that they are being deprived of something they should have, regardless of the cost or the real need for the training. I think it is more a matter of state pride than anything else.

MAUNDER: Would you say that this whole development here in the South is suddenly going along faster, perhaps, than it is in other states?

KORSTIAN: Yes, although slower to come, the demand for foresters has recently developed much more rapidly in the South than in other sections of the country.

MAUNDER: In other words, that might be the prime reason for the rapid growth here and the demand?

KORSTIAN: Well, I knew they've always been able to hire all the men that they've wanted in forestry in the South, although not necessarily southern foresters. Let's take South Carolina as an example. Before Clemson College started their developmental program, there were accredited schools in four other southern states: two in North Carolina; one each in Georgia, Florida and Alabama; and two in Louisiana. Prospective employers could get all the men they wanted but they couldn't necessarily say, "He is a native South Carolinian who was trained in South Carolina." He had to go out of the state to get his training. That went hard with some native South Carolinians. Now, I will say that Clemson did not start their program of professional forestry training until they had a

reasonably satisfactory budget passed by the legislature. They are trying their best to do a good job of developing a good school. Now, there are some others whose shoestrings are about to break.

I can cite another institution in the South whose representative a few years ago asked me to recommend men for its forest faculty. Before doing so, however, I wrote back and asked him one question, "What salaries will you be able to pay?" And when I got the information, they were comparable to the starting salaries with the U.S. Forest Service and with industry. He couldn't get well-qualified and experienced men because they would rather stay where they were, or take a job with the U.S. Forest Service or in industry than go to that institution.

MAUNDER: Why was this?

KORSTIAN: Low salaries. They didn't have a large enough budget. They jumped into it because of a certain jealousy that developed within the state. Right now in another state there is serious discussion over the need for the local training of forester. There is one school of thought that says, "Well, if it's good for the other states, why isn't it good for our state? Why shouldn't we have our young men joining our state forest service get their training in our home state?" On the other hand, there is the very logical and economical argument that their state could well afford to finance the out-of-state tuition and expenses for their young men to go to some of the other accredited schools already in existence in other states.

MAUNDER: Then I take it that you believe that we have enough forestry schools, we don't need to add more, but that we need to improve those that we have.

KORSTIAN: We have too many mediocre schools in the South and not enough good ones. And I'm afraid it's going to be a rather long pull. I can say that this problem exists all the way from the Atlantic seaboard to three states lying west of the Mississippi River.

MAUNDER: But you have a feeling that some of these are going to fall by the wayside soon?

KORSTIAN: I have no indication of it yet. I mean that, as yet, they are just not able to get what they need in the way of finances and are not yet ready to admit their shortcomings.

MAUNDER: But if they don't get what they need in the way of finances they are going to fold up, aren't they?

KORSTIAN: No, they've been rocking along for 15 years or more, and they'll probably

continue to rock. The most regrettable thing about it is that they are not fooling themselves, but they are fooling and short-changing students who go to those institutions thinking that they are going to get good, high-grade, professional training.

MAUNDER: All right, now what role does the Society of American Foresters play in all this?

KORSTIAN: The SAF, I believe, ought to play every possible role in informing not only the institutions ahead of time, as it does, but also the general public in the particular states as to the facts pertaining to forestry training.

We've had some students here from non-accredited schools whom the U.S. Forest Service has employed because they have been able to pass the scholastic tests, which didn't include forestry. And they've done very satisfactorily in the Forest Service.

MAUNDER: Products of these non-accredited schools?

KORSTIAN: Yes.

MAUNDER: Well, I know I've heard Henry Clepper, on more than one occasion, speak out very forcefully on this subject, even in locales where the talk was strong for setting up a new forestry school. I think that Henry has done quite a good job in this regard.

KORSTIAN: Well, I certainly have tried hard to support Henry's good work. I have constantly opposed setting up new schools on shoestring financing. In one case when I was reliably informed as to the size of the budget passed by the legislature, I said, "Well, go to it; God bless you."

MAUNDER: Here are a couple more questions. What would you say about the relationship of the schools of forestry in the South to government agencies, such as the experiment stations, and U.S. Forest Service and state foresters?

KORSTIAN: Graduates of accredited schools of forestry in the South seem to be readily employed by governmental agencies.

With reference to the situation in Georgia, I can say that some years ago when Governor Talmadge was indirectly responsible for the University of Georgia's being suspended from the list of accredited institutions, I was asked to investigate the situation from the standpoint of restoring their accreditation in forestry. I did have some discussion and arguments with the then dean, Don Wedell. However, I think they're in good hands now. We have had no difficulty here. In fact, in that list of students, there are quite a number that are here from the experiment stations.

MAUNDER: In other words, you've had a good relationship all through the years with these government agencies.

KORSTIAN: Oh, yes. And I'll say that particularly for North Carolina and Duke. Here the situation is just this: there are three areas of instruction that are attracting a good many students, namely, tree physiology, forest soils and Schumacher's work. This year economics has come in for its share. Several men from the U.S. forest experiment stations are here mainly to study economics.

MAUNDER: What has been the influence of industry on the schools?

KORSTIAN: Good, I would say, particularly pulp and paper. The lumber industry has not employed very many foresters. We have about two or three – oh, there are more than that – but there is a comparatively small number of graduates with the lumber industry. There are a large number in the pulp and paper industry, however.

MAUNDER: In other words, it's been the pulp and paper industry, largely, that has given the great stimulus to the development of industrial forestry in the South?

KORSTIAN: Oh, yes. Very definitely.

MAUNDER: And lumber had played a relatively small part, would you say, in development?

KORSTIAN: A much smaller part in the South.

MAUNDER: How much smaller? Now, you take 100 per cent. How much of it belongs to lumber and how much belongs to pulp and paper?

KORSTIAN: Well, if we were to put it on a percentage basis, I'd expect it would have to be at least three-fourths in pulp and paper.

MAUNDER: This, despite the fact that pulp and paper didn't really move into the South in any great volume until about the thirties?

KORSTIAN: Well, it's perfectly logical that they are going to be looking to the future when they have an investment of anywhere from \$25 to \$100 million or more in a pulp and paper plant, and then perhaps a like amount in the lands. They are looking to the future. They are really doing a marvelous job and they want to do better.

MAUNDER: Dean, you were chairman of a committee which prepared a program of forestry for the South. Do you remember that? This monograph was put out in 1948 by the Institute for Research in Social Science. Wasn't it published for the Southern Association of Science and Industry?

KORSTIAN: Yes.

MAUNDER: I wonder if you've reviewed this monograph to determine how far the South has come toward the fulfillment of some of the things that you held out as important objectives?

KORSTIAN: Well, that's in the nature of a '\$64,000 question'! There has been very definite improvement in fire protection, but it's still not up to where the state foresters themselves would like to see it. Some states are better situated than others. The big need for better cutting practices in the South now is not on large ownerships, but on the small ownerships. That's one reason the U.S. Forest Service had a hand, along with the states, in promoting conferences in the different states to which the owners of small tracts of forest land were invited. In many of the state, such as North Carolina, the governor took a prominent part, called the conference, and even participated. They came up with many ideas, but the proof of the pudding is in the eating.

MAUNDER: And what is it?

KORSTIAN: Well, the small holdings are in the poorest condition today – there's no doubt about it – and they will remain a knotty problem for quite some time unless, or until the states get to a place where they've got enough fortitude to require private owners to keep their forestland continuously productive.

MAUNDER: Now this is getting into the old argument of forest regulation, isn't it?

KORSTIAN: I haven't changed my views on that matter, although I realize I am more or less a lone wolf in some circles. I haven't changed my views particularly from what they were when that was written.

MAUNDER: Didn't you also emphasize this viewpoint in your bulletin, Forestry on Private Lands in the United States, published in 1944?

KORSTIAN: Yes. It resulted from months of travel in 1942 involving much field study of forest conditions in the four important regions of the United States. The project was sponsored by the National Lumber Manufacturers Association. It is now evident that state regulation will not be needed at all, in my opinion, on publicly-owned lands or on large holdings, such as those of the pulp and paper and lumber industries.

MAUNDER: But regulations will be needed, you feel, on the smaller, private ownerships?

KORSTIAN: Or else a much larger financial incentive than they've been given thus far.

MAUNDER: What do you think is the best key to this situation, then? Providing them with a greater incentive and, if so, how? Or regulation, which will require action on the part of the state legislatures?

KORSTIAN: I can't help but believe that we can take a good many lessons from the long years of experience of foreign countries, particularly in some of those countries where they are progressing on more than one front – economically as well as socially. I'm quite interested in the plan that is being followed in Britain. They call it a "dedication" plan. In other words, if I were a private owner and wanted to get some assistance from the government, I would agree to dedicate a certain portion of my land to the growing of forest products. The government foresters advise and prescribe when cutting is desirable and assist the owner. When he dedicates it, he has committed himself. It is then under supervision of the forest officers in the employ of the Forestry Commission. I was in the field and talked with owners and foresters and both groups seemed satisfied. The latter seemed to be very reasonable and practical, as well as professionally sound. The owners receive financial assistance from the government as well as professional help. I think something like that will have to come. You can offer them free service or cash payments, but I don't think that is the answer because the cash payments or other incentives will not last long enough.

MAUNDER: I want to ask you to what extent you see a development in forestry in the South whereby individual schools specialize in one particular branch or subdivision of forestry? Is this a developing trend, and if so, when did it start and who started it?

KORSTIAN: I think it has developed somewhat as "Topsy" developed. Some schools found it a necessity. Now, I can cite our own case here. From the beginning we had no intention whatever of specialization in wood chemistry, pulp and paper technology, and range management. I can mention these as being fields we decided we would not presume to develop. I would also add game management. In the past, if men wanted to do specialized work so they could be employed in those fields, we would refer them elsewhere. I believe that this trend has been responsible for our getting a great many men who want to specialize in certain fields that we have developed on a coordinated basis. I already mentioned forest soils, tree physiology and – as not only a special field but a helper to these other fields – Schumacher's work in the design of experiments and

analysis of data. We have outstanding men in these fields. Now, economics is becoming another field of specialization with the very helpful, strong, cooperative support of the Department of Economics.

That has been one idea that the Committee on Forestry and Related Training, operating under the auspices of the Southern Regional Education Board (SREB), has been endeavoring to promote. They did go into and examine quite thoroughly the field of pulp and paper technology, and at one time there were four or five institutions in the South that were thinking seriously of going into it. The University of Florida already had started its program in the School of Engineering, and North Carolina State had laid some pretty well-grounded plans in that direction. All at once, the representatives of two other institutions spoke up and said they were planning to go into that work. And at a joint meeting of this committee and the presidents of the southern institutions, the forestry representatives of one southern state university indicated that they were planning to develop the field of pulp and paper technology. Somewhat later in the discussion, his president said that their institution was interested in pulping and paper making qualities of bagasse, but that they were not contemplating any work with wood as the raw material. Still later in the discussion, the head of the department of forestry in another state institution indicated that they had plans for a program in wood pulp and paper technology. About that time the chemistry folks at a strong institution in the same state began considering a similar program. The Southern Regional Committee may well have had something to do with rationalizing these programs.

MAUNDER: This Southern Regional Committee has, in a very true sense, then, had tendency to keep this thing from getting out of hand?

KORSTIAN: They have endeavored to do that. They haven't been too successful as far as new programs and new schools were concerned. Now, I might say that this Southern Regional Committee is an outgrowth of a commission that the SREB set up to study the whole field of education in forestry and related subject matter. This was a sizeable commission composed of representatives of federal and state governments, industry, and the schools (each school had a representative and I happened to be designated as chairman of that group). After two years' study and two or three meetings, we came up with a report which the Southern Education Board printed. I refer to the Commission on

Forestry and Related Training. And that led to the formation of this Southern Regional Committee on Forestry and Related Training, which is composed of the head of each of the southern schools or departments of forestry that are accredited. The non-accredited are not included and there has been some adverse feeling on that account. There was a strong feeling on the part of the committee and the board that it should be restricted to the accredited schools. The chairmanship of that committee rotates among the different eligible schools.

MAUNDER: How old is that committee?

KORSTIAN: Well, let's see. The report of the commission was printed in 1952, and this committee came into existence very soon thereafter as a result of the findings and deliberations of the commission.

MAUNDER: Your records on the activities in that particular committee would be a very important source of history, too. I hope you preserve those in the files here at Duke. They are probably very important.

KORSTIAN: There is some difference of opinion right now as to the effectiveness of that committee, but I still think it has an opportunity to do good. The question is whether or not it will. That will be answered in the future. There are a few skeptics, but there are others who feel it has done enough good to justify its continuance.

MAUNDER: Who are the skeptics? Where do you find the skepticism?

KORSTIAN: Well, the whole framework of the SREB is advisory; it has no compulsory functions. It can point out and advise, and on several occasions it had gotten out informative statements regarding the formation of new schools of forestry. That information, or those releases, have mostly fallen on the deaf ears of the heads of non-accredited and mediocre schools and their followers because they say, "Oh, well, they're just trying to protect the interests of the accredited schools." And that's about as far as the committee and the SREB can go.

MAUNDER: Well, one could almost foresee that criticism, but what about the value of the committee within the programs of the schools which are members of it? Has it had a good influence there?

KORSTIAN: Personally, I think it has. It provides a means by which the schools can keep in

touch with each other. Of course, there is nothing to prevent a school from suddenly deciding that they want to do something, and they are likely to get it thoroughly jelled before they acquaint the other members of the committee with what they are planning. I can think of a few cases where that has been done. Perhaps Duke has less of a stake in the activities and deliberations of the committee than the other schools because of our peculiar situation: we are the only strictly graduate school of forestry in the South and the only private institution with an accredited school of forestry. I feel that the Duke School of Forestry has definitely made a place for itself, not only in the South and the nation, but also throughout the world, wherever forestry is important.

MAUNDER: Has the committee been a regularly functioning one?

KORSTIAN: It meets once a year, occasionally twice a year. The meetings have usually rotated among the schools, except in some cases where the school was way off to one side of the South, and sometimes when the SAF met in the South. For example, the committee met in Athens, Georgia, two days before the annual meeting of the SAF in Memphis, Tennessee.

MAUNDER: Did the SAF have any leading part at all in setting up this committee?

KORSTIAN: Well, yes. Henry Clepper met with our commission by invitation once and he did speak favorably regarding the activities of the commission and its recommendations.

MAUNDER: What I am getting at is this: did the SAF, either through its direction in Washington or its sections here in the South, exert any influence at all on launching this commission in the first place? I know you are all members of the SAF as foresters, but I would like to know whether the formation of this regional committee got its impetus from debate or discussion within the Society, either at the national or the sectional level?

KORSTIAN: No. Only certain members of the Society influenced it, not the Society as a whole, because it was a distinctly regional problem. When Dr. John Ivey was executive director of the SREB, he and I had several talks in his office in Atlanta and then we talked individually with others. He was on the faculty of the University of North Carolina before he went with the SREB. Now, I believe, he is vice-president of New York University.

MAUNDER: The germ of the idea for a regional committee, then, came out of conversations which you had with Dr. Ivey?

KORSTIAN: Yes, and with others. In other words, we both discussed the plans for the commission, its report, and the organization of the forestry committee with others.

MAUNDER: Who were some of the other people?

KORSTIAN: The heads of some of the other schools. I know I talked to Henry Clepper about it; also, the director of the Southeastern Forest Experiment Station, the regional forester of the U.S. Forest Service in Atlanta, and some of the other leading foresters in the South.

MAUNDER: Who assumed the responsibility of calling the first meeting of the committee?

KORSTIAN: I can't recall, but I believe it was held at the board headquarters in Atlanta.

MAUNDER: Has the committee published its own minutes or anything like this?

KORSTIAN: No.

MAUNDER: A very private affair?

KORSTIAN: Yes. They held open meetings only once in a while. They occasionally invite someone to meet with them, but generally it's a closed meeting. There are several things that they have done. They worked out as uniform a program as they could for forestry instruction on the undergraduate level so that this information could be supplied to junior colleges throughout the South, and to other four-year colleges, so that students could transfer to any of the undergraduate schools without loss of time. They would have had certain subjects, certain courses, in certain fields that would provide the background for forestry. In that respect it's somewhat comparable to Duke's 'three-two' program, except that they plan to get practically all of the basic work into two years, while we allow three for it. I participated to a limited extent in those discussions. I made clear my position that it was a program peculiar to those institutions and I was merely raising questions, looking forward, and trying to be helpful rather than destructive.

MAUNDER: Well, Dean Korstian, I think we have pretty well covered all of the subject matter that I wanted to go into with you. Unless you have anything further you'd like to add to what has already been said, I think we can conclude the interview at this point.

KORSTIAN: I might comment upon the effectiveness of the accreditation program of the Society of American Foresters. When I was president of the SAF, I attended two conferences on accreditation in Washington that were called by officers of the College and University Association. They were very critical of accreditation in certain professional fields, namely medicine, law, and social service, in which there were two or

more different accrediting agencies; they were critical of forestry for the same reason. In those conferences I had to challenge some of the statements of these gentlemen, and I made it clear to them that in the field of forestry we had just one accrediting agency, namely the SAF. Then they did not lambaste forestry quite so hard. A National Commission on Accreditation was set up to resolve the problems. For a time, Dr. Gustafson, then chancellor of the University of Nebraska, was chairman of this commission; President Hollis Edens of Duke University was also a member. He was, in fact, a very approachable gentleman.

This national commission worked out a plan whereby the regional college and university associations would assume the major role in accrediting institutions. Further, it decreed that whenever an institution having professional training programs was to be examined for accreditation, these professions would have one or more representatives on the examining team. This procedure could result in the disapproval of one or possibly more programs of professional training without necessarily jeopardizing accreditation of other satisfactory instructional programs within the institution. This plan met with the approval of the Society of American Foresters and is proving helpful in holding professional training in forestry to the desired standards.