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Walter B. McDougall  
March 11, 1973

Interview conducted by S. Herbert Evison  
Transcribed by Beverly A. Foltz  
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ORAL HISTORY INTERVIEW  
OF  
WALTER B. MCDUGALL

INTERVIEWED BY S. HERBERT EVISON

March 11, 1973

Tape Number 169

WALTER B. MCDOUGALL – 1883

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(Tape #169)

FINAL

TYPED BY: Beverley A. Foltz

September 23, 1981

[START OF INTERVIEW]

Herbert Evison: This is March 11, 1973. I'm Herb Evison and this afternoon, I'm on what I take to be part of the campus of the University of Northern Arizona.

Walter McDougall: No.

Herbert Evison: No?

Walter McDougall: No, not the University. It's the Museum of Northern Arizona.

Herbert Evison: Oh, this is part of the Museum lay-out then?

Walter McDougall: Yes. This is the Harold S. Colton Research Center of the Museum of Northern Arizona.

Herbert Evison: Oh, yes, fine. I'm glad I got you to say that.

Herbert Evison: And facing me is Dr. Walter B. McDougall, a young fellow who will be 90 sometime this year. Dr. McDougall, how about just starting off by telling me when and where you were born and something about your family, - the family you were born into?

Walter McDougall: Well, I was born on December 10, 1883, on a farm in Michigan near Ypsilanti and my father was a pure Scotchman. My mother was not, so I'm really half Scotch. There were ten children. I had five brothers and three sisters. There's only three of us left now. I have one sister and one brother now. My education up there started in a one room country school, and I attended high school in Ypsilanti and then I went to the University of Michigan.

Herbert Evison: Yes. What year did you start at the University of Michigan?

Walter McDougall: I think it was 1911. No, it must have been earlier than that.

Herbert Evison: Nearer 1901, I would guess, because you would have been 18 years old then.

- Walter McDougall: Well, I was a little older than that. I think I was about 21 when I started at the university. And I think it was 1911 that I started my graduate work.
- Walter McDougall: And I took a Master's - no, I did not take a Master's degree. When I got my Bachelor's degree, I went right on to the Ph.D. and, as I frequently tell people, I worked 13 months out of a year for two years and took my Ph.D. degree in 1913.
- Herbert Evison: In two years.
- Walter McDougall: That's right. Couldn't do it now. There's no university that would allow a person to take it that soon, I guess.
- Herbert Evison: Yes. Well, now, your undergraduate work, what were your majors?
- Walter McDougall: My major was botany, right from the start - and my degree was in botany.
- Herbert Evison: Well, now, you know, most people nowadays - or in your day - a lot of people, when they started in college, didn't know what they were going to do. They went to get a degree in general education, as a rule.
- Walter McDougall: That's right.
- Herbert Evison: When you were a freshman, you knew you were going to be a botanist? How did that come about?
- Walter McDougall: Well, probably partly because my father was interested in plants. Usually, he was the first one each spring to bring in the first wildflower, I got interested, while I was still in high school, I went up to Ann Arbor and hunted up the head of the Botany Department and asked him what book I should get to identify plants. And he say, "Well, the new edition of 'Gray's Manual' will be out next year." He said, "You go to the second-hand bookstore and buy a sixth edition of 'Gray's Manual', and then when the seventh edition comes out, you can afford to buy a new seventh edition." So, I did that, and I began identifying plants. I remember hearing my mother tell a visitor once that "Walter would go out and be gone for a time, then he'd come back with a single flower in his hand and he'd go upstairs and work for a while, anyway, and then he'd come back and go out for a walk again." So, I identified quite a good many plants, even before I entered the university.
- Herbert Evison: Well, if I remember rightly, some high schools gave a botany course. Did you get any in high school?
- Walter McDougall: Yes.

- Herbert Evison: A general botany course?
- Walter McDougall: Yes, I had a general botany course in the high school.
- Herbert Evison: Here's one thing I would be very interested in hearing from you. You spoke about getting this botany book and identifying plants. Do you remember at what stage of your studies or what stage in your life you began to sense relationships, - what we now call ecology?
- Walter McDougall: Well, I presume - no, I don't believe I knew; in those early days, there were very few people that even knew what ecology meant.
- Herbert Evison: Oh, that's right.
- Walter McDougall: And I don't believe I had any introduction to the word until I was in the university, and we had an assistant professor there, Gleason, Dr. Gleason - and I took a course in ecology under him. When I got my Doctor's degree and went down to the University of Illinois as an instructor, Dr. William Trelease who had been the director of the Missouri Botanical Garden from the time the Garden started, had just come to the University of Illinois as head of the department. During the first year, Dr. Trelease let the courses go just as they had been before, and I simply had charge of the laboratory in the beginning botany class.
- Walter McDougall: The beginning of the second year, he reorganized the department and he called me into his office and asked me if I was an ecologist. I said, "Well, I'm a general botanist. I've had a course in ecology. I'm about as much of an ecologist as anything else." And he said, "Well, why don't you put in a three-hour course in ecology?" So, I did. After I'd given that course for two or three years, I put in an advanced course; and after two or three more years, I put in a research course in ecology.
- Walter McDougall: There was no such thing as a textbook in ecology at that time. I decided that there ought to be a textbook in plant ecology. But I was afraid that if any single individual wrote an ecology book, there would be so much criticism that nobody would use it. So, I went to the meeting of the American Association for the Advancement of Science and all the affiliated societies, which met in Chicago that year, and at the meeting of the Ecological Society, which met there also, - as a matter of fact, I was a charter member of the Ecological Society of America. That was about 1918, I think, that was formed, and I was a charter member of the Ecological Society. Well, it happened that year, the president of the society was a forester, Barrington Moore. He was not a teacher, and he didn't see much use of a textbook and I didn't get anywhere. What I wanted was for the Ecological Society to sponsor the writing of a textbook

and I told them that I didn't care who wrote it, but I thought if the Ecological Society would sponsor it, that would make it more of a success.

Walter McDougall: Well, the only person that gave me any backing was Dr. Waterman, who was at that time at Northwestern University, and I didn't press the thing very much. They didn't seem to be too much interested. So, I went back home and started to write a plant ecology textbook and I didn't consult anybody except some of my students. The first edition of my "Plant Ecology" was published in 1927, and, to my surprise, it wasn't criticized by anybody. That is, all the reviews were very favorable and that was the first "Plant Ecology."

Walter McDougall: Well, there was what we called "The Chicago Textbook" at that time, Poe's, and one or two others. They published at Chicago a two-volume textbook and the second volume was called "Ecology," but it was only the ecology of individual plants, not of communities or anything like that.

Walter McDougall: So, my book was the first American book that covered the entire subject of plant ecology. It went through four editions and of course, it's out of print now and should be, because lots of it's out of date. But that was the way I came to be a plant ecologist. I just worked into it because that was what they needed there at the University of Illinois at that time.

Herbert Evison: I remember years ago having read a book called "Animal Ecology" by a man named Elton, I think it was, E-l-t-o-n.

Walter McDougall: Yes.

Herbert Evison: What I have often wondered, and I never asked any scientist about it, is why there should be animal ecology and plant ecology when animal life, the animal community, is so completely dependent on plants and in many cases, the plants dependent on animals or bees, if nothing else.

Walter McDougall: Yes.

Herbert Evison: Are those segregations still continued?

Walter McDougall: Not so much as they did. When I came here 17 years ago last October, I remember telling somebody that my book had just gone out of date that year, I think, and well, I gave a seminar. We have a habit here, in the summertime, we have a seminar every Tuesday afternoon and somebody talks. I gave a seminar on "Fifty Years of Botany," and I told the crowd about my "Plant Ecology" book, and I said, "I don't think there will ever be another 'Plant Ecology' because it has to be bioecology, including both plants and animals. You can't study animal ecology without plants, - studying the plants at the same time. And you can study plants, but you

can't tell the whole story unless you include the animals, because it's a community just like - more or less like a human community, but they're not the only organisms. They have trees and shrubs and grass and flowers."

Herbert Evison: Yes. Well, for a non-scientist, I think I asked you a pretty good question.

Walter McDougall: Well, in that human community, you have, as I said, the trees, shrubs, plants, flowers and grass and so on and you have often dogs and cats and mice and mosquitoes and sometimes bedbugs and various other things. Now, they're not all there because human beings want them to be there, but they're there because the human beings are controlling the environment in such a way that all these other organisms find it a congenial place to live.

Herbert Evison: Yes.

Walter McDougall: Now, here we have the Ponderosa Pine Forest. Those ponderosa pine trees are the dominant organisms. But along with them there are the shrubs and herbaceous plants and mosses and lichens and various other plants; and there are squirrels and deer and bacteria and various other organisms; and again, they're not all there because they're of benefit to the trees. Some of them are not.

Walter McDougall: There are parasitic fungi and various other things that are more or less detrimental to the life of the trees. Yet they're all there because those trees are controlling the environment in such a way that it's a congenial place for all of these other organisms to live. So that's one of the things that I frequently pound and still pound into people around here, that the Ponderosa Pine Forest is not simply a cluster of trees that we can use for lumber, but it's a biotic community which is just as interesting and in every way as a human community.

Herbert Evison: How long did you teach at the University of Illinois?

Walter McDougall: Sixteen years.

Herbert Evison: And that would have brought you up to when?

Walter McDougall: 1929.

Herbert Evison: Oh, yes. And that, I note, is the year that you first went to Yellowstone for the summer.

Walter McDougall: That's right.

Herbert Evison: Before we get into that though, I believe you were married and you have some children, don't you?

Walter McDougall: Yes.

Herbert Evison: Let's get the date of your marriage and the name of your bride. She's no longer living?

Walter McDougall: No.

Herbert Evison: But can we have that on the record, please?

Walter McDougall: Yes. I was married in 1908 to Myrtle Dolby. We have three daughters and those three daughters all live in California; and I have two grandsons, two granddaughters and one great-granddaughter.

Herbert Evison: Now, when did you lose Mrs. McDougall?

Walter McDougall: 19 - about 1930 - something.

Herbert Evison: A long time ago.

Herbert Evison: We've got you up to 1929. You say that was the end of your teaching at Illinois?

Walter McDougall: Illinois, yes. I went from there to the University of Southern California for two years.

Herbert Evison: Now, what were you? Professor by that time?

Walter McDougall: Yes. That is, I was an associate professor at Illinois, and I went to University of Southern California as a full professor. But I was there only two years when I went into the Park Service by invitation.

Herbert Evison: Oh, did you? I didn't realize that. But let's - your first official connection with the Park Service was in the summer of 1929.

Walter McDougall: That's right.

Herbert Evison: And you've written out some very interesting stuff about it, which maybe you'll want to refer to. But I would like you just to talk about that first experience and what your chores were.

Herbert Evison: Who was the chief park naturalist when you went there?

Walter McDougall: The chief park naturalist was—

- Herbert Evison: Would it have been Max Bauer?
- Walter McDougall: No, before Max Bauer. What was his name? Not good about remembering names.
- Herbert Evison: Well, I thought maybe you might, but I don't think it's important. What we're concerned with right now is you.
- Walter McDougall: Well, the way I happened to go to Yellowstone Park was that Homer L. Schanz was the head of the Botany Department for a few years at Illinois and I worked under him. He went to the University of Arizona as president and somebody in the Park Service - somebody at Yellowstone, I suppose - wrote to him and asked him if he knew of somebody who would like to come to Yellowstone as a ranger naturalist. He referred them to me, and I said, "Well—" I thought it might be a good experience. So, I went up there as a ranger naturalist, 1929. And I went back for four summers, I think it was; that was while I was teaching at the University of Southern California.
- Walter McDougall: When I went there, Horace Albright, who had been superintendent there, had just been appointed as Director of the National Park Service and he was still in the park there. He hadn't left for Washington yet. There were a number of other ranger naturalists, of course. They put me in charge of the work at Mammoth Hot Springs.
- Herbert Evison: Park headquarters.
- Walter McDougall: Yes. And called me senior ranger naturalist, I think, so I had several ranger naturalists working under me. But there was a meeting of all the rangers and the ranger naturalists and Horace Albright spoke to us. I don't remember very much of what he said. Of course, he told us something of what our duties would be. But I particularly recall that he was very much in favor of the National Park Service uniform. He was wearing a uniform at the time, and he told us that we ought to wear the complete uniform all of the time. He said, "If you get too warm, take off your undershirt. But keep your jackets on." And then Superintendent Toll had just been appointed superintendent there and he spoke. He was not such a good speaker, but nevertheless, he told us some of the things that we should know and—
- Herbert Evison: He was a pretty impressive individual, too, wasn't he?
- Walter McDougall: Yes, he was. And made a good superintendent. Ted Ogston had just been made chief ranger and he spoke, too. He was a good speaker. And I knew Ted Ogston later on in Death Valley. I spent some time in Death Valley

and Ted Ogston was the chief ranger there. He and his wife dropped in here about a year ago and they've retired, of course, by this time. They live in Wyoming. But they dropped in here once about a year ago.

Walter McDougall: My duties there were to take people on hikes, I guess we should call them. Most of the time when I was there, I think, I took a walk over the Hot Springs and explained the Hot Springs, and the algae that grow in the hot waters of the springs, and so on; and then, in the afternoon, I took a comparable hike over the nature trail and talked mostly about plants, of course. Once in a while, we'd see an animal that I would talk about. I recall, for example, that once while I was taking a crowd over the Hot Springs, we came up to one spring where we looked down and just as we looked down there, a horseshoe rabbit came out from the side and hopped across the area outside of the Hot Springs area. But a young lady in the crowd looked at me with her eyes bugged out and said: "Why, how did you get that to come out just at this time?"

Walter McDougall: But in those days, of course, there were not very many automobiles; most of the people came by train and they had a schedule that was fixed. They came at a certain time; they had to leave at a certain time. These hikes were regular, every day at a certain time; and if they went on a hike at all, they had to do it at that particular time. So, as you probably know, rains are quite frequent in Yellowstone Park in the summer and many times, I started out in a rainstorm with as many as 75 or more people following me. That was true, not only on the Hot Springs, but on the nature trail in the afternoon.

Walter McDougall: I enjoyed those hikes immensely. We met a lot of interesting people. I remember, for example, I happened to be in the museum one day and a gentleman was looking at one of the displays there. I was in my uniform, of course, and he turned to me and asked me a question. I don't know just how it came up, but he told me his name and I began to laugh, because he was a botanist, at that time as the head of the department of the University of Indiana. He looked at me, wondering what I was laughing at, and I says, "I'm McDougall," and he began to laugh. We both knew of each other, of course, for a long time, but just didn't recognize each other. There were lots of meetings of that kind.

Walter McDougall: In the evening, I gave a talk. I think that first year, I gave them only at the lodge through the summer. But I stayed quite late in the fall, up into early September, and I used to then after most of the other naturalists had gone. I would go up to the lodge and give the talk there and then run all the way from there down to the hotel and repeat the same talk down there. I remember once I was still somewhat out of breath when I started talking and I told the crowd that it wasn't due to stage fright, that I had just been running from the lodge down to the hotel.

- Walter McDougall: But I enjoyed giving those talks. That first summer that I was there, I made the talk that was assigned to me, which was on buffalo and had nothing to do with botany, of course. Nevertheless, it was biology and I got so I could give the talk, as Dr. Muppis once said, “with my eyes shut,” if necessary.
- Herbert Evison: Tell me, nowadays, of course, an evening lecture could hardly be given by a park naturalist who didn’t have a projector and slides or something of that kind. What appurtenances did you have in those days, if any?
- Walter McDougall: I didn’t have any. That year, if I remember rightly, the talks were given only at the lodge and the hotel and not at the campground. Later, when they began giving talks at the campgrounds, then they began using slides, projectors. I don’t recall that I ever used slides in Yellowstone. I did later in some of the other parks where I was. But, of course, there were slides at that time. I remember Ben Thompson came into Yellowstone. He was just a young fella. He gave a talk at the lodge, illustrated by slides, and I recall that, if I’m not mistaken, that was the first time he’d ever given a public talk; and he came to me afterwards and asked me how he did and wanted some pointers. I told him that he did all right except that he talked to the screen too much of the time instead of to the audience. I guess he appreciated the tip that I gave him.
- Herbert Evison: You have something in here about two people in whom I’m very much interested, and your relationships with them both were interesting. One, of course, was George Wright. Tell me what experiences you had that involved George Wright.
- Walter McDougall: I didn’t have very much contact with George Wright. I think he came to Yellowstone once when I was there and probably that’s where I first got acquainted with him. Then, I presume, I, in one of my trips to Washington, D. C., when he was the head of the branch of natural history. I probably met him there. On this trip, the Big Bend trip, I was not in Big Bend with the crowd. When they came out of the park, I met them at Alpine, Texas, and then the next day, we drove from there to El Paso. I don’t know why we took a whole day for such a short trip. I guess maybe we spent time in Alpine before we left; anyway, George Wright rode with me from Alpine to El Paso; and then the next day, we were to go from El Paso to Tucson and George Wright rode with Roger Toll and Dr. Bell of the Biological Survey rode with me.
- Walter McDougall: Before we started out, Roger Toll turned to me and said, “How fast do you want to drive?” I said, “I don’t care. You go ahead and I’ll follow you, whatever speed you take,” and George Wright spoke up and said, “McDougall was driving up to 60 yesterday.” Roger Toll said, “I think 50

miles an hour is fast enough.” “Well,” I said, “that’s all right with me. We got all day to go from here to Tucson.” So, he went ahead, and I followed him, and we drove just about 50 miles an hour. It was just a few miles out of Tucson that a car came from the other way and a tire blew out and the car went out of control and simply turned right in front of Roger Toll’s car. It killed Roger Toll outright, and George Wright was hurt so badly that he died two or three hours - just a few hours later. Herb Maier, who at that time was our regional director, and some of the others, I think, had stayed in El Paso for some reason or other. As soon as I got to Tucson, I sent a wire to Herb and told him of the accident and told him he’d better come. So, he came over; and then when the preliminaries were all worked out, taken care of, Herb Maier accompanied Roger Toll’s body to Denver, which was his home, and I accompanied George Wright’s body to Washington. Then I went to his house and talked to his wife, - told her about the accident and so on.

Herbert Evison: I wonder if you remember anything about your conversation during that day’s drive with George Wright.

Walter McDougall: No, I don’t know that I do.

Herbert Evison: Of course, that’s an awful long time ago to remember what two people talked about.

Walter McDougall: That’s right. I presume that we talked about biology some, but I don’t recall.

Herbert Evison: You were there at Yellowstone, you say, for four seasons.

Walter McDougall: Yes.

Herbert Evison: Now, starting in ‘29 - that would be ‘29, ‘30, ‘31, ‘32. You say you taught, from ‘29 to ‘31, you taught at the University of Southern California?

Walter McDougall: Yes.

Herbert Evison: And you were a full professor there.

Walter McDougall: That’s right.

Herbert Evison: What brought about your departure from that job. I’m sure you weren’t fired.

Walter McDougall: No, I wasn’t fired, but I had gone there to take the place of other professors who were going on sabbatical leave.

Herbert Evison: Oh, yes.

Walter McDougall: And when my two years was up, I was invited to go into the Park Service. So, I just went into the Park Service. That was in the C.C.C. days.

Walter McDougall: It was George Baggley who had been taken to Washington. He wrote to me and asked me if I would come to Washington as his assistant and I told him I would. Then, before it came time for me to go, I got word from him that I was to be sent to a C.C.C. camp down in Southern California first and I wrote back to him and told him that I was very happy to do that. I always preferred the field, rather than the city. After I'd been in Southern California for pretty near a year, I guess, George Baggley came down there. We were driving around, and he spoke about the - or maybe I brought it up, I asked him when he wanted me to come to Washington. He said, well, he had an assistant who was doing fairly well, and he said, "I judged from your correspondence that you preferred being in the field rather than Washington." I said, "Sure, I prefer to be in the field, but I do whatever I'm told to do." He said, "Well, for the present, let's let it go on this way." And so, I stayed in the field. I never did go to Washington on duty there until after I retired.

Herbert Evison: Now, weren't you hired under the title of wildlife technician?

Walter McDougall: That's right.

Herbert Evison: You were one of a group that included Dan Beard?

Walter McDougall: That's right.

Herbert Evison: And O. B. Taylor down in Richmond?

Walter McDougall: That's right.

Herbert Evison: And quite a group who were all taken on at about that time, when we realized that for the C.C.C. work, we had to have some people who understood natural processes and so on, to see that the damage done was minimal.

Walter McDougall: That's right.

Herbert Evison: Well, how long did you stay in that capacity, about?

Walter McDougall: I think I was wildlife technician until the war came on. When the war came on, of course, we didn't have gasoline to travel and there was not much we could do in the regional offices and therefore, a number of us

older men were sent out into the parks to take the places of younger men who had gone into the service. I was sent first to Grand Canyon and worked under Louie Schellbach. Then I went from there to Yellowstone. Max Bauer was naturalist there. Then I was sent from there to Death Valley and I was in Death Valley for about three years, I guess, and some of the time, I guess they called me a park naturalist when I was in Death Valley; and quite a bit of the time I spent in the Big Bend National Park, just some of it before it was made a park, and some of it after it was made a park.

Walter McDougall: Then I was sent from Death Valley clear up to Maine.

Herbert Evison: To Acadia.

Walter McDougall: Acadia. And I was there until the park naturalist who had been there and who was in the service came back; and I stayed only maybe a couple of months or so after he came back. Then I was sent from there down to the Natchez Trace Parkway and I was on the Natchez Trace Parkway for about six or seven years, I guess. Then, from there, I was sent back to the regional office in Santa Fe. I was getting pretty close to retirement then and I think my title was simply biologist. I worked mostly on the river basin studies, that was it. Then, of course, when I reached 70, I necessarily retired. I came back to Santa Fe and was working on the Yellowstone book - a second edition of the Yellowstone book - when I got word from Ben Thompson that they wanted me to come back into the Service to help with the survey of all the natural areas along the Atlantic and Gulf Coast, from Canada to New Mexico.

Herbert Evison: Oh, yes, the seashore areas.

Walter McDougall: Seashore areas. So, I spent a year on that. When the year was up, I came back to Santa Fe again and I was still working on that Yellowstone book, but - no, I think I had - well, I don't know whether that was completely finished at that time or not. But I contacted Dr. Colton, asked him if he didn't want an old man to help out in the herbarium here at the museum; and Dr. Colton immediately said, "We don't have any biologists at all here." So, I came here and there was nobody in either botany or zoology here, except Milt Wetherill was the superintendent of buildings and grounds and he had been working some with the animals. He was pretty good at - Milt Wetherill - he lives right next door here, and he's retired now, and his health is not too good now. But he's an interesting character. You may know of John Wetherill.

Herbert Evison: Yes.

Walter McDougall: Yes, well, John Wetherill was Milt's uncle.

- Herbert Evison: Oh, really? I visited Clarkdale the afternoon with another nephew of John Wetherill - Mrs. Wetherill's nephew, Jack Wade. Did you know him?
- Walter McDougall: Wade?
- Herbert Evison: Jack Wade, long time chief park ranger at Mesa Verde.
- Walter McDougall: No, I don't think I knew him.
- Herbert Evison: Well, that's interesting, on two successive days.
- Walter McDougall: Yes, yes. Well, Milt's first work for the Park Service, I think, was at Navajo National Monument and he simply lived in a tent, winter and summer, and he took care of that area.
- Herbert Evison: And he drew a magnificent salary for it, too.
- Walter McDougall: Yes.
- Herbert Evison: One dollar a month.
- Walter McDougall: Probably, yes. I don't know just what year he came here, but he was an old-timer when I came here, and he had a very good memory, and he was interested in everything.
- Walter McDougall: And after he came here, whenever a scientist came here and wanted to do field work, Milt would go along as a guide. He knew the country very well. By working with those scientists, he became a pretty good geologist, archaeologist, botanist and zoologist. So, when I first came here, when any question came up, the common thing was to say, "Ask Milt." But that was all there was to the biology department, was Milt and me. But then it was several years - I came here in the fall of 1955 and a few years later, Ardith Johnsen, J-o-h-n-s-e-n, was living. Her husband works for the government. He's a botanist, too. And she was working for a Ph.D. degree, but she'd just had a baby and she couldn't work at home, so she got a babysitter and came out here to work, to finish her dissertation for a Ph.D. degree.
- Herbert Evison: Came out here from where?
- Walter McDougall: Well, she was living down south, Flagstaff.
- Herbert Evison: Oh, I see.
- Walter McDougall: And she just drove back and forth. And as soon as she got her Ph.D.

degree, I got Dr. Danson to appoint her as curator of biology. She was a specialist on mosses. That was the beginning of the build-up of the biology department here. Now we have - I think there are eight or nine of us now on the full-time staff and we have two or three volunteers working for us. Last summer, we had as many as 19 people working in biology. So, we've grown a lot since I came here.

Herbert Evison: Yes, I should say so. I want to go back a ways.

Walter McDougall: Yes.

Herbert Evison: You made several references to the second edition of the Yellowstone Botany. You have something in your notes about working with Herma Baggley or at a time before she was Herma Baggley. But let's get on the record something about how the preparation of that highly standard volume came about.

Walter McDougall: Well, while I was a ranger naturalist in Yellowstone, I spent all of my spare time, of course, on the flora of the park and Herma was also very much interested in botany and I first made a checklist, I guess, just a checklist of all the plants that they had in the herbarium and all others that I knew were in the park; and then one summer, I began to spend my time working on the proposed book, the first edition. Herma had been taking nature walks and talking a good deal about the botany and she knew a lot of things about the plants that I didn't know; so, I just asked her to collaborate with me and I did the more scientific part and she put in the interesting sidelights, comments and so on.

Walter McDougall: We published that first edition sometime in the '30s - I don't remember, maybe about '37, I guess - and it sold like hotcakes and was reprinted and reprinted, I don't know how many times, until the photographs got so they didn't come out very well; and, of course, we'd learned a lot more about the botany, anyway. So, between us, we decided to put out a new edition and there were a lot of color pictures in it, which we didn't have much to do with. The people in the park supplied most of those. But George Baggley was superintendent for a number of years of the Lake Mead area. And while they were there, I went over there and stayed with them for several days, a week maybe, and Herma and I just spent all of our time together on that book. Then they went to Omaha, and I went back to Santa Fe, and we finished it up by correspondence.

Herbert Evison: How have the two of you in the intervening years kept up this increase in knowledge of the botany of Yellowstone? How were you able to keep up to date?

Walter McDougall: Well, of course, I was back there again for a while during the war.

- Herbert Evison: Oh, yes.
- Walter McDougall: Mostly in the wintertime, however. I don't know that I did a great amount of botanizing, but I did have the herbarium and I worked over the herbarium quite thoroughly while I was there.
- Herbert Evison: Now, there had been constant additions to that in the intervening years.
- Walter McDougall: Yes, yes.
- Herbert Evison: Yes. Well, now, I remember also a publication called "The Plants of the Big Bend."
- Walter McDougall: Yes.
- Herbert Evison: And you were the author of that, were you not?
- Walter McDougall: Yes.
- Herbert Evison: Now, tell me something about that. That must have been a terrific chore.
- Walter McDougall: Well, it was quite a chore, but I did most of that while I was in the Santa Fe office and Homer Sperry, who was a botanist, when I first knew him, he was at that little college at Alpine, Texas.
- Herbert Evison: Oh, yes. Sul Ross.
- Walter McDougall: That's right, Sul Ross College. And later, he went to College Station.
- Herbert Evison: In Texas?
- Walter McDougall: Texas. State College. And he's retired from there now. But he did a lot of the collecting and practically all of the photographing and I did the writing. So that was my second book on the park. Now, of course, I have one on Grand Canyon also.
- Herbert Evison: "The Plants of Grand Canyon?"
- Walter McDougall: Yes.
- Herbert Evison: I'm interested in your frequent references to the herbarium. Am I correct in thinking that that's one of the basics of the preparation of a botanical manual of an area?
- Walter McDougall: Well, in a way, yes. A herbarium is simply a tool that is used by botanists

to help identify plants. I have an herbarium here. When I came here, the herbarium was in eight herbarium cases, I think. Now, we have the vascular plants, that is, the seed plants and ferns, in 32 cases and we also have five cases of bryophytes, - that is mosses and liverworts.

Walter McDougall: I now have a young botanist who just started the first of February. He was here last summer, however, as an assistant and he was so good that I got them - he was from a college in California and he graduated at the end of January - and I got them to appoint him as a full-time botanist so that, sometime in the future, he probably can take over my job, when that becomes necessary.

Walter McDougall: But I've been teaching him to identify plants. Now, we have the keys, of course. All of my books have keys in them. But there is no such thing as a perfect key and when a plant comes in that I want to identify, if I've never seen it before and don't know what it is at all, of course, I go to the keys first, and trace it through to what I think it may be. Then I go to the herbarium, where we may have as many as two dozen specimens of the same species from different places, which show all the different variations; the key, of course, just tells why the typical plant is like. But I'm working on a book now. I was over at the university office a little while this afternoon, reading some proof of a book on the Seed Plants of North Arizona. Now, we have a book on the Arizona flora, which has the keys. But it does not have the detailed descriptions.

Walter McDougall: When I first came here, of course, the plants - most of them - were strangers to me. And I'd run them through the key and then - our herbarium was small, as I said, at that time, and so I'd go to California books or Colorado books or anywhere where I could find a description to verify my identification. So, what I did finally, after I finished the Grand Canyon book, I started work on this book, that's being published now on the seed plants of Northern Arizona. I gave a detailed description of each species, so that trace it through the key and read the description and then you can go through the herbarium and with the three together, my whole purpose in writing this book that's coming out now is to make it easier to identify the plants of northern Arizona. Now, that's taxonomy, of course, and I've frequently said I've been an ecologist all my life and I still am. But I've done more taxonomy here than ecology, simply because it needed to be done. That's what we all do, of course; we do the things that have first priority.

Herbert Evison: Who is going to publish this book?

Walter McDougall: It's being published by the museum, printed by a printer right here in town.

- Herbert Evison: Now, there's another botany that you did, if I'm not mistaken, that never got published. You were assigned to the Natchez Trace Parkway for quite a long time.
- Walter McDougall: Yes.
- Herbert Evison: And you did a "Plants of the Natchez Trace Parkway" or something of that kind.
- Walter McDougall: That's right.
- Herbert Evison: What can you tell me about that?
- Walter McDougall: Well, I did that because they needed it there. That was during the wartime, of course, and nobody had any money for publishing at that time and—
- Herbert Evison: Or for a long time after.
- Walter McDougall: That's right. That's right. And they finally had some copies made - I don't know whether it was Xerox - some copying process anyway - and they've been using it down there on the Trace and they're still using it. But I doubt whether it ever will be published now. It would have to be revised now and brought up to date, of course. When - I don't think of the naturalist's name who was head naturalist in Washington and then he went to Olympia - what's that national park up at—
- Herbert Evison: Olympic National Park? (John E. Doerr - H.E.)
- Walter McDougall: Yes, he went there, and he died. Well, he came here shortly before he made the change from Washington to that park and he spoke about that manuscript that I made and he said, "We're going to publish that." And I said, "Well, it will need some revision." And he said, "Well, we'll keep in touch with you." But then he was transferred up there and died; and there's been some agitation every once in a while. I received a copy of a letter that somebody had written to the director not very long ago, urging that that manuscript be published. But I've never done anything about it. My attitude has always been that my job is to write them. The publication is up to somebody else. I never worried much about it.
- Herbert Evison: Yes. Well, in the aggregate, you've been published pretty extensively, haven't you?
- Walter McDougall: Yes, that's the only thing I ever wrote that I thought was worth publication that was not published. I have a list of the things I've published; I think it's 70-something now, but that includes papers in the journals and things like that. I have a second row of books from the top, you see those two red

books, the one right next to it. Now that thing gray one is in Russian. My “Plant Ecology” was translated into Russian.

Herbert Evison: Oh, for heaven’s—

Walter McDougall: It was also translated into Italian, I think, but I never did get a copy of that. But from there on to the end there are all my books.

Herbert Evison: I’m surprised that your “Plant Ecology” didn’t get into German or French or in Spanish.

Walter McDougall: Well, I don’t know why. They used a lot of them in England. They sold copies to England every year. I recall Wells that was an important - I’ve forgotten his first name.

Herbert Evison: What did he do?

Walter McDougall: He published books, wrote books. What was his first name? I can’t remember now. But anyway, while I was on the Natchez Trace Parkway, I remembered one of the custodians of one of the monuments that I was visiting - I guess his wife was interested in plants - and she told me that this Wells, who was an Englishman and published English books, - but she’d got a copy of one of his books and in that book, he had referred to my “Plant Ecology” and—

Herbert Evison: Well, that was one country that could use it without it having to be translated, anyway.

Walter McDougall: Yes, yes.

Herbert Evison: My wife just reminded us of the name you were trying to think of a few minutes ago. It was John Doerr.

Walter McDougall: Yes.

Herbert Evison: I’m astounded I didn’t get it immediately because I was closely associated with John in Washington for so many years. He was head of one branch, and I was head of another branch, both in the same division, much of that time.

Herbert Evison: One of the things that astounds me, - here you are, you’re going to be 90 toward the end of this year and you go to your office every day. You look a pretty young 65, to be perfectly frank about it. Is your health as good as it seems to be?

Walter McDougall: Yes.

- Herbert Evison: Of course, one thing's a cinch. You've never allowed yourself to rust.
- Walter McDougall: No. Well, first place, of course, the main thing obviously is inheritance. I inherited health. My mother was 90 when she died, my oldest brother was 93, my father was only about 78, I think. He was in the Civil War and was wounded in the shoulder and probably that had something to do with shortening his life, although 78 isn't considered really very young. And the second thing is I've never depended on stimulants. I've never considered myself exactly a teetotaler, I used to take a drink - social drink - once in a while, but I never liked anything with alcohol in it. I never used tobacco. Once, oh, I guess it's maybe 15 years ago, I went to the doctor for some little thing and he asked me if I'd been doing any smoking and I said, "No." He said, "How much coffee?" I said, "None." He looked - he didn't know what to ask next, so I says, "I usually drink a cup of tea, one cup of tea, in the morning." "Well," he said, "that's not going to hurt you any."
- Walter McDougall: And the third thing is, just kept on working.
- Walter McDougall: These people that retire and don't know what to do, they never live very long. Our curator of zoology, he started in here when he was an undergraduate, as a work-study student. Then after he got his Bachelor's degree, we began to pay him some salary here. He went on and got a Master's degree and then we sent him to the University of Illinois for his Ph.D. degree and he expects to get that next fall and just a few days ago, he was telling me we - the salaries here are all very low; we don't have much money, and people don't come here for money, they come here because it's the place where they can do the things they want to do. I've never been on the payroll at all. I don't pay anything for this cabin, apartment, or whatever. But when I first came here, after I'd been here for a few months, Dr. Colton said, "We ought to make some arrangements, some permanent arrangements, about your compensation." I said, "Dr. Colton, I'm perfectly satisfied just as I am." I said, "As long as I have free rent of that house up there, I don't need anything else." Well, of course, I have my annuity, which serves me pretty well.
- Walter McDougall: This curator of zoology, he told me just the other day - I think he gets about \$650 a month, plus a house that he lives in, and he told me that the Park Service, offered him \$16,000 a year to do research and they told him that he would get advances regularly. Steve told them that he didn't need that much money and wouldn't know what to do with it if he had it.
- Walter McDougall: He says, "I'm satisfied right here." And he just loves his work here and I told him then, I says, "That's what's kept me alive so long, is because I'm doing the things that I want to do." Some people keep busy just having a

hobby. Well, it's all right. But what good does that hobby do? That is, sometimes—

Herbert Evison: A useful one?

Walter McDougall: Useful one. But sometimes, it's just for themselves and what we're doing here is carrying on research and learning new things all the time. Our whole interest is in that research that we're doing.

Herbert Evison: Well, you have expressed a very wonderful philosophy of living and of adding on the years. Even if I hadn't gotten another thing from you this afternoon, just those statements of yours would make this visit on the tape abundantly worthwhile.

Herbert Evison: Now, you mentioned one person that I'd like to get some- thing on here about before we end this tape and that's Dr. Hermon Bumpus. Did you have much contact with him?

Walter McDougall: Yes, I had quite a lot of contact with Dr. Bumpus. He was in the park; he was in charge of the Laura Spelman Rockefeller funds for building wayside museums.

Walter McDougall: Carl Russell was there as his assistant. Dr. Bumpus and I got together every once in a while to talk things over and he paid my way to one of the national meetings of the American Association for the Advancement of Science and affiliated societies when they met, I think, in Omaha, - somewhere in the Midwest, anyway - because he wanted several of us to get together and talk about things that we were doing in Yellowstone, and he asked me to write a manuscript which comprised mostly what I talked about when I took the crowds over to Hot Springs Terraces. He went along with me sometimes, just to see what I was doing and talking about.

Walter McDougall: I've always remembered his story that he told on himself. He said he was - he lived in Massachusetts, and he was working in his office one evening and he heard a racket which sounded as if there had been an automobile accident; and shortly after that, there was a rap on the door. The maid went to the door. Well, Dr. Bumpus said he couldn't hear what the visitor said, but the maid said, "Oh, yes, he's a doctor all right, but he's one of those kinds of doctors that ain't of use to anybody."

Walter McDougall: So sometimes a Ph.D. gets a takedown.

Herbert Evison: That was exactly the kind of story that Dr. Bumpus would tell on himself, too.

Walter McDougall: Yes, that's right. Well, I've been mistaken for an M.D. sometimes.

Herbert Evison: Let me tell you this before we wind it up, Dr. McDougall. I can't think of very many people that I can bust in on on a Sunday afternoon and sit down and get a great tape, as I have this afternoon; and I can't tell you what a privilege it's been to sit down here across from you and listen to you and get some of the inspiration that I'm sure you will be spreading at a hundred. Thank you immensely for being willing to do this.

Walter McDougall: Well, I enjoy this sort of thing. I'm sure glad you came.

[END OF INTERVIEW]