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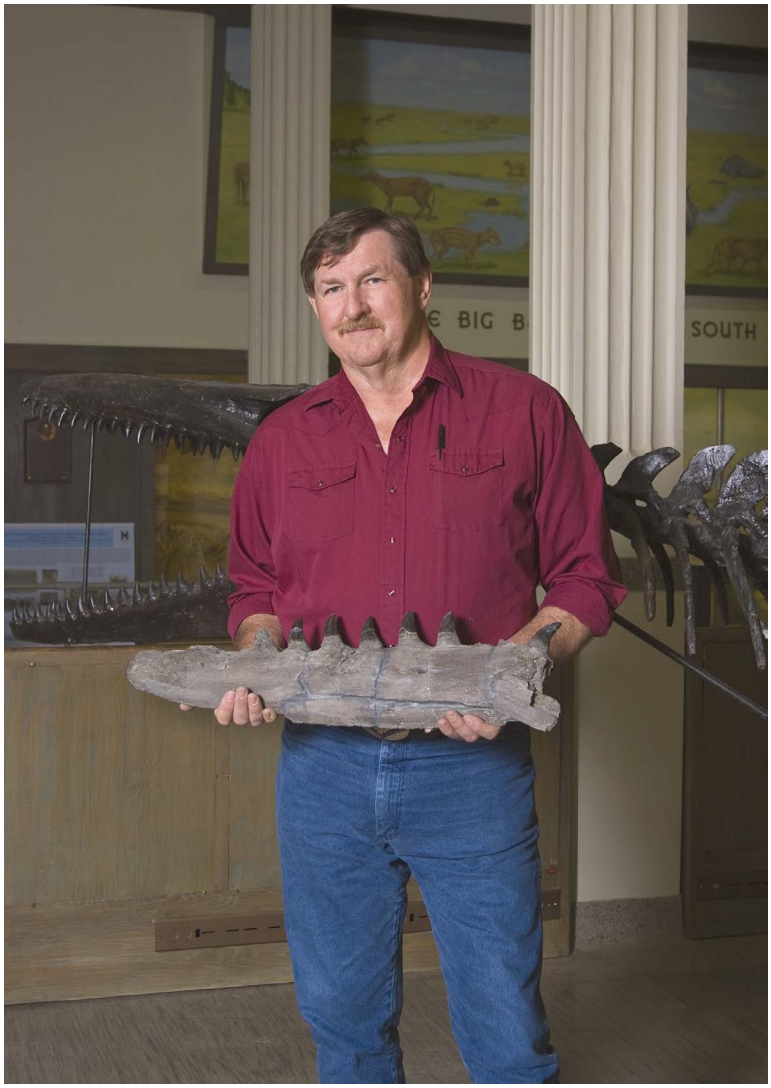
National Park Service Paleontology Program

Oral History Interview – Jim Martin

Natural Resource Report NPS/PALEONTOLOGY PROGRAM/OHI—2020/01



ON THE COVER

Paleontologist Jim Martin holding a mosasaur jaw in 2008 when he was inducted into the South Dakota Hall of Fame (Photo provided by Jim Martin).

National Park Service Paleontology Program

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Natural Resource Report NPS/PALEONTOLOGY PROGRAM/OHI—2020/019

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The National Park Service, Paleontology Program publishes a range of reports, plans, oral histories and other documents that address a range of paleontological resource topics. These reports are of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

The NPS Paleontology Program disseminates comprehensive information and analysis about paleontological resources and related topics concerning lands managed by the National Park Service. Given the sensitive nature of some paleontological resource information, such as the specific location of fossil sites, some publications are intended for specific audiences and are maintained as restricted access. When appropriate, sensitive information is redacted from reports in order to allow greater access to these reports by NPS staff, partners and the public. This work supports the advancement of science, informed decision-making, and the achievement of the National Park Service mission.

This oral history transcript is available in digital format and is maintained within the NPS Paleontology Program Archives and Library through the NPS Geologic Resources Division. If you have any questions regarding this transcript, please email vincent_santucc@nps.gov.

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Background

Interview with Jim Martin: This interview was conducted on Monday, July 21, 2020. The primary speakers are interviewee Jim Martin (JM) and Vincent L. Santucci (VS) as interviewer. Jim is a retired professor of geology and paleontologist at the South Dakota School of Mines and Technology. During Jim's career he was involved in paleontological field work and research in several NPS areas including Badlands National Park, John Day Fossil Beds National Monument, and Wind Cave National Park. Jim was inducted into the South Dakota Hall of Fame in 2008.

This interview was conducted over the telephone from Jim's home in Louisiana and Vince was at his home in Gettysburg, Pennsylvania. At the time of the interview, Vince was the NPS Senior Paleontologist and Paleontology Program Coordinator. The interview was recorded on a digital audio recorder and a mp3 file was created. A written transcription of the interview was produced from the digital audio recording and this document contains the discussion during the interview. If present, PII has been omitted.

Narrator: Jim Martin
Interviewer: Vincent Santucci
Date: July 21, 2020
Signed release form: Yes
Transcribed by: Teresa Bergen
Reviewed by Interviewee: Yes

Transcript

[START OF INTERVIEW]

Martin: —we should begin with the Badlands, probably.

Santucci: Okay. So, I'm going to give a quick introductory comment. And then we'll jump right in.

Martin: Okay.

Santucci: Thank you. Today is Tuesday, July 21, 2020. My name is Vincent Santucci, the senior paleontologist for the National Park Service Paleontology Program. Today we are conducting an interview with Jim Martin, retired paleontologist from the South Dakota School of Mines and Technology. The interview is being conducted by telephone. Jim is in Louisiana currently, and I'm in my home in Gettysburg, Pennsylvania. So thanks for your time, Jim.

Martin: Certainly.

Santucci: So just probably the easiest question you'll get is when and where were you born and where did you grow up before college?

Martin: I was actually born in Rock Springs, Wyoming. After the war, my father came home and was trying to find jobs, which were pretty tough after the war for all of our returning GIs. He ended up in a coal mine in southwestern Wyoming. He had met my mother right after the war in Pennsylvania. She came out on a train to Rawlins, Wyoming in 1947, where they were married. So, yeah, now I'm ancient; almost as ancient as some of the fossils I've worked on. (Santucci laughs)

From Wyoming, my folks continued following the mining booms, and when I was four years old, we moved to Edgemont, South Dakota, in the southwestern corner of the state, where my father mined uranium. So I guess I am the son of a coal miner and a uranium miner. Unfortunately, the coal mine caught up with him when I was eleven, and he died of black lung.

Santucci: Oh. Sorry.

Martin: We maintained our residence in southwestern South Dakota between the towns of Edgemont, and after my dad died, we moved to a place called Igloo, near Provo, South Dakota which was actually an army ordnance depot that was put in the middle of South Dakota because the Japanese planes couldn't reach that far inland in those days. So, the depot was full of bombs and mustard gas. We used to enjoy the lovely smell of mustard gas in the evenings. (laughs)

Santucci: Oh, boy.

Martin: I'm surprised I am still alive; I used to carry uranium in my pockets and breathe mustard gas. Other than that, I was in the pink of health. (laughs) At any rate, I grew up essentially in southwestern South Dakota, down in the very corner of the state. I was right in the middle of many fossil beds, particularly the Pierre Shale, a Late Cretaceous marine unit, which I later spent many years collecting.

However, I didn't really do any collecting when I was young. It wasn't until I got lucky when the SD School of Mines sent Harold Martin who, at least as far as I know, is no relation. He was a preparator at the School of Mines, and he came down to our high school to give a talk on paleontology. Our high school was, by that time, diminishing, because they closed the army depot the same year I graduated, which was 1967. As a result, there were only three of us in my graduating class.

When Harold Martin came down and gave a talk on paleontology, everyone at our school knew that I was really interested in paleontology [I had decided to become a paleontologist in the 3rd grade and never outgrew my love for fossils]. Therefore, the principal arranged for me to meet Harold afterwards, and he invited me to come up to the School of Mines. So on Skip Day, when everybody else went to Cascade Falls, I went up to the Museum of Geology and met him, Dr. Morton Green, and especially Dr. Robert Wilson. That pretty much changed my life.

Later that summer, I was going to coach baseball, which is how I made extra money, but just before the season started I got a call from Dr. Wilson. He asked, "Would you like to come work for us this summer?" So while he was still on the phone, I was pumping gas into my vehicle with the other hand. I was ready to go. (Santucci laughs) So, the summer of my senior year, before I started college, the Museum of Geology hired me. And I essentially worked for the Museum from then until I received my master's degree in 1973.

It was during that time during my undergraduate and graduate careers that I initially started working at Badlands, which was then a national monument. So that's pretty much how I got into the paleontology realm, and I've stayed ever since. I finished up my master's at the School of Mines, and went to University of Washington, Seattle, for my doctorate. Afterwards, I was well on my way to Houston to make money in the oil industry when School of Mines called me and asked if I wanted to come back and run their field programs, especially their field geology programs. So, that's what I did instead of making money. (laughter) It was a good life; I had a pretty good time for most of it. After a few years, Dr. Wilson and Dr. Green retired, so I ended up working in the museum quite a bit of the time thereafter, and, as you know I grew with the program, and we were able to build the paleontological research laboratory that was named in my honor and to conduct field investigations all over the world.

06:44

Santucci: So, did you complete a master's thesis?

Martin: Yes.

Santucci: And what was the topic for that?

Martin: It was a survey of the small mammals from the Batesland Formation, a Middle Miocene formation in south-central South Dakota.

Santucci: Okay. And then for your dissertation?

Martin: I kept with rodents thanks to Dr. Wilson; Bob Wilson was certainly an expert in rodents and really an expert in everything else, too. When I went to the University of Washington in Seattle, I worked on Hemphillian rodents from northern Oregon for my dissertation.

Santucci: Great. So that during your undergraduate and graduate degrees, it sounds like you had the opportunity to work a lot with some well-known paleontologists. Can you just share a little bit more information about some of the people that mentored you and helped you along with your career?

Martin: Sure. Obviously my biggest thanks goes to Robert Warren Wilson. He was really an exceptional individual: a great leader and very unassuming, but could speak four or five languages. He had a brilliant mind, really cared about his students, and was very adamant about making sure that students had gone in the field and understood field relationships. He taught me the one thing that I think was most important: if you do not see the field context you will never understand the fossils that came from there – not completely, at any rate. I found that to be true throughout my career; I spent my entire career in the field, really. Once, I figured it out that I'd spent over forty years, one part of the year or another, living in a tent. (laughs) So, for forty years straight, I spent a great deal of time in various field situations, thanks to Dr. Wilson's tutelage.

During my Bachelors and Masters years at the School of Mines, Morton Green was head of biology and also the curator of vertebrate paleontology. He and I went in the field together for quite a few years when I first started, and he imparted much about anatomy to me that was very, very helpful as I was principally in the geology program at the School of Mines.

A guy named John C. Harksen, J.C. Harksen, was a state geology representative of the SD Geological Survey on the western side of South Dakota. He and I spent a lot of time in the field together as well, and I learned quite a bit from him about Cenozoic stratigraphy of South Dakota.

Also, I have to name Jack Redden, John Paul Gries, and Alvis Lisenbee, who taught in the geology department. I spent much of my geology field time with those gentlemen from whom I learned most of my mapping skills and correlation practices.

10:08

Santucci: Did you overlap with James Bump at all?

Martin: No. James Bump had passed away by the time I came on the scene and in fact, Harold Martin, the preparator, died the Fall I came to the School of Mines as a student.

Santucci: Oh, dear.

Martin: So, I didn't overlap with Harold very much, but he's the one that really got me to come up to the School of Mines. Then Dr. Green and Dr. Wilson convinced me to enroll there for my undergraduate degree.

Santucci: And then later on, Reid McDonald?

Martin: Reid McDonald was actually at the School of Mines before me as well, but he did come back and retire when I had returned to teach at the School. As a result, I spent a great deal of time with Reid, more on a social basis, although we went in the field together quite often. However, he was not on staff any of the time that I was at the School of Mines.

Santucci: And then Phil Bjork?

Martin: Yeah, Phil Bjork, myself, and some others went in the Badlands in what is now the national park early on, in the '60s. When I came to the School of Mines in '67, really until after Dr. Wilson retired, and into the '70s, Phil was actually teaching at Steven's Point in Wisconsin. He had been also a student of Robert Wilson; he and Jay Lillegraven were contemporaries. When Phil was up at Steven's Point teaching, he would come back in the summers and work principally in the Badlands under the auspices of Dr. Wilson's and on his own permits as well. So, yes, I met him quite early on, well before he became director of the museum. We spent a fair amount of time in the field together, but he actually did more in the Badlands than I did. The Badlands was one of his major research thrusts.

Santucci: And some of the individuals who were fellow students with you at the South Dakota School of Mines. Do you recall any of those individuals?

Martin: Oh, yeah, there were lots of them. (laughs) Gee. Which one do I begin with? Allen Kihm came there a year after I started my master's work. He went on to finish his doctorate at the University of Colorado and was at Minot State throughout his career. He, too, worked on small mammals as a result of his work with Bob Wilson.

Mike Greenwald showed up about that same time. He worked on Late Cretaceous herps from the Hell Creek Formation in northwestern South Dakota. He went on to Berkeley and was a collections manager there for many years. He came back to help us with our curation for quite a few years, but unfortunately, he's passed on.

Frank Campbell also worked on small mammals. John Aho worked on a rhino quarry in the Black Hills on which I initially conducted the field work. John took it over and finished his master's on that site, the Rockerville Rhino site.

Let's see. Who else? Jack Rickenboch finished his master's and then went on to University of Wyoming and worked with Jay Lillegraven. Mike Morea worked on carnivores out of the Badland and went on to Riverside and studied under Mike Woodburne. There were a couple others that didn't stay in paleontology, but those are the ones that come to the top of my head now.

14:48

Santucci: Was Dave Parris a student at the School of Mines?

Martin: He was, and in fact, we'll talk about that in a little more detail here. Dave Parris was finishing his master's degree under Dr. Wilson, working on rodents, if I remember right. He finished the year I got there; so he was actually on his way to Princeton that Fall. We principally

met in the field and got to know each other in 1967 over the first fossil I ever collected from the Badlands.

Santucci: We want to hear about that. (laughter)

Martin: Yeah. David and I maintained a relationship ever since; he's a prince among men. We had a great collaboration, particularly collecting and researching the marine Cretaceous units in South Dakota for over twenty years.

Santucci: So before we get into Badlands specifically, you had a large number of students that you mentored and supervised. Do you have a couple that you remember fondly?

Martin: Well, I think I remember most of them fondly. (laughter)

Santucci: Okay.

16:00

Martin: I've really been very, very fortunate with the students. I think almost all of them finished their master's degrees that started; very few did not, and most of them went on to jobs in paleontology. Many of them got very important, significant jobs.

John Foster is one individual who did some excellent work and continues to do so. He worked on Jurassic Morrison dinosaurs, particularly, as well as Jurassic mammals. He went on to have a great career and continues to do so in Colorado.

Rachel Benton, you know well. She got her master's working on the Beaver Creek Shelter in Wind Cave National Park that Jane Abbott and I started with Robert Alex, the SD State Archaeologist. Jane was another good student; she ended up working with the Archeological Research Center for the rest of her career. Rachel, of course, went on to the Park Service, worked first over at Fossil Butte in Wyoming and then came back and finished her career, work career at any rate, at Badlands National Park.

John Foster Sawyer is another student of whom I'm very proud. He was more in the geology end in which he finished his master's. I worked very closely with him and Jim Fox on his project. He eventually completed his doctorate and worked with the Geological Survey in South Dakota for very many years. Eventually, he came back and took Jim Fox's position at the School of Mines where he remains today doing excellent work. Let's see. There's so many. (laughs)

Santucci: Janet Whitmore?

Martin: Janet, yeah. She got her master's at the School of Mines working on Cretaceous mammals and actually worked at the School of Mines as preparator for a while. She then went south with Dave Gillette.

Let's see. Some of the more recent ones, I think a lot of Randy Moses, Randolph Moses. He obtained his master's and his doctorate with me at the School of Mines, conducting excellent research in geochemistry and fossilization. He produced some pioneering work that I wish he

would continue, but he now owns his own company in Wyoming and has a great family, so, I don't know if he will ever return to research.

Barbara Beasley is at the Forest Service, as is Dr. Bruce Schumacher, who completed his doctorate with me concerning the paleontology of the Niobrara Formation. Dr. Jennifer Hargrave worked on her master's with me concentrating on pterosaurs and the taphonomy of pterosaur accumulations. She went on and obtained her doctorate at the University of Oklahoma. After a post-doc where she worked in Africa, she then began teaching in southern Utah. The geology department was able to hire her at the University of Louisiana, where I am currently.

After I retired from the School of Mines, I went south to actually help out a family member who successfully battled cancer, fully intending to return and volunteer at the School of Mines. However, the University of Louisiana got a hold of me and ended up making me the curator of paleontology in the Geology Museum and a research professor. I'm still actually with them, still doing research and field work.

Santucci: What year was that? What year did you start?

Martin: About 2010, I think, I retired from the School of Mines. I think it was then, year or two one way one way or another. Like I often say, Martinheimer's is getting better and better of me every day. (laughter)

Santucci: Very good. So, do you recall your first field adventure into Badlands National park? I guess it was as a monument.

Martin: Because of what?

Santucci: Your first fieldwork in Badlands. It was during the time it was still a monument?

21:02

Martin: Yes. Yes. That's correct; it was Badlands National Monument. My first venture to collect fossils was with Morton Green and Dave Parris. One of the naturalists, John Stockert, was hiking around in the Cedar Pass area and noticed a large entelodont at the base of what Reid Macdonald considered the Sharps Formation. Dr. Green and I were in the field already working in Bennett County, and Dave Parris at that time was working for Badlands National Monument as an interpreter. So, the three of us were tagged with the duty of going up and collecting this large, heavy skull. Of course it had to be in the most inhospitable of places for many reasons. First, it was way up above the nature overlook below Cedar Pass. So, we had to carry everything up from that particular pull off, all the way back in the badlands up toward the top of Cedar Pass—way back in there. I got tagged with carrying an old green army jerry can with five gallons of water in it. (laughter) That's what happens when you're young and dumb, I guess. So, I struggled with that thing all the way up to the top of this ridge where Dave Parris and I actually excavated it. There were many pictures, I think, in the Badlands archives of that excavation where we wedged ourselves into a crack and used hammers and chisels to trench the specimen. After we got it all trenched, it became obvious as Dr. Green said, "Well, we don't need to plaster that. It's in great shape." (laughs) So, we didn't plaster it, and they poured that five gallons of water down the hillside. I almost cried. (laughter) Then, I got to carry the thing out on my back.

So, yeah, my first experience at Badlands was pretty much as a packhorse, but it was the start of a great career.

Santucci: When you worked in the Badlands, did you camp and spend several days in the field?

Martin: Oh, yeah. In those days, we camped for two to three months at a time, and came back to "civilization" only seldom; really only to get water. Of course that was in the days before generators and good refrigeration; so, we were eating canned meat, when we were lucky. It was pretty Spartan in those days. The weather could also be bad; I don't know how many tents we went through in the late '70s. We had a lot of bad winds in those days, and the tents weren't built the way they are today. So we spent a fair amount of time in the field, for sure and endured whatever nature threw our way.

Santucci: And you may have stated this, but do you recall the first year, what year it was?

Martin: Yeah. That was '67 when I was seventeen.

Santucci: Sixty-seven.

Martin: Yes, when we collected the entelodont.

Santucci: And then you continued fieldwork all the way up close to when you retired?

Martin: I continued field work up until this year. It's kind of bleak this year, with the Covid.

Santucci: Sure.

Martin: I've been in the field every year since I was seventeen. I was in the field all the years that I was at School of Mines and thereafter, even when I joined the University of Louisiana, I've was in the field most years. So, I've spent over fifty years in the field now.

Santucci: Wow. Did you ever run into John Clark during that time?

25:11

Martin: I did. John Clark was in the Badlands, in the late '60s, early '70s. He was working principally around Sheep Mountain Table when I was and when I met him—So he, J.C. Harksen, Phil Bjork, Mike Greenwald, myself, and a student named Tim Rhinschmidt met in 1969. He was quite a character, and there are many John Clark stories, particularly from the time he taught at the School of Mines long before I'd gotten there. He went on to the University of Chicago but returned to the Badlands often.

Santucci: So you must have amassed a significant collection of White River Badlands fossils during that time. And I assume, at the School of Mines Museum of Geology.

Martin: Yeah. Well, actually during that time in '67, for instance, Morton Green and I were working outside the Badlands, down in Bennett County on late Oligocene and early Miocene faunas. So we would come into the Badlands when we were needed. (laughs) Sort of that kind of situation. So, I didn't do too much in the Badlands from the entelodont episode until 1969 or '70, I think it was '69 when Phil Bjork had a permit to collect in what became the western unit of Badlands, and I was loaned to work in the Badlands. There were some political problems, so

Phil, Mike Greenwald, his brother Steve, Tim Rhinschmidt, and I collected in a Badlands area that we called the Worst Lands. Now they call it Palmer Creek. You can drive right into Palmer Creek now; in the old days, we built a road in. We didn't see anybody all summer, except one guy rounding up horses. It was much more primitive at that time. So we spent that summer of '69, collecting in that area, and we did make a significant collection that's at the School of Mines.

Santucci: And so, since you were there and straddled the time during the redesignation from a monument to a park, do you remember much discussion or controversy or support to upgrade from a monument to a park?

Martin: No. I really wasn't involved in that; I was still a student. Dr. Wilson and Phil Bjork were, as I say, because his principal interest was the Badlands. I pretty much stayed away from the Badlands, because it's kind of Phil's deal. I worked more in the Miocene and in the Pierre Shale during most of my time at School of Mines, so I didn't do much in the Badlands Park itself.

28:37

Santucci: Okay. So, did you work on the Pierre Shale at all, within the boundaries of Badlands National Park?

Martin: No, I didn't. I was working around the Black Hills and along the Missouri River. I think Gorden Bell, when we had him there as a postdoc, did a few things out in the Sage Creek area.

Santucci: Okay. I imagine you, even though you may not have done specific fieldwork or collecting, you visited a lot of the localities, such as the Titanothere graveyard or Sheep Mountain Table. Were you able to visit some of those sites?

Martin: I was, over the years. I went to many sites out in the Badlands, just as needed. Of course, I was always interested in the geology out there. The clastic dikes, stratigraphy, environments of deposition; essentially anything that seemed to be a problem, I was interested in learning about. So, yeah. I was there often. I didn't do a lot in the Titanothere Graveyards, but I was often in the Sheep Mountain Table area. For instance, Jack Harksen and I were there together when he was choosing his concept of the main type section for the Scenic Member. I don't know off hand; I was at various places, such as Cedar Pass, looking particularly at the contact between the Sharps and Brule formations and looking at the clastic dikes at Cedar Pass. So yeah, I spent a lot of time looking around the Badlands, but not a lot of time collecting. That was really Phil's bailiwick.

Santucci: Sure. Very good. And let's see. Anything else related to Badlands National Park that's worth mentioning?

Martin: Well, not that I can think of off the top of my head. I'll probably think of all kinds of things when we hang up. (laughter)

30:45

Santucci: The fossil footprints that Phil Bjork collected, that was from within the boundaries of the park?

Martin: That was down in the Palmer Creek area, which as you know, became part of the park eventually. And I got to carry those, too. (laughs) So, yeah, those were found when we were down there. We were told about where they were by a local rancher, so Phil sent me down one canyon, Mike Greenwald down another, and he took the third. I found nothing in mine, and Mike found nothing in his. Phil also found nothing, but he walked up Mike's canyon and came back later. He didn't say much for a while, but finally he bet Mike he could find them. Mike took the bait and bet him. Phil immediately took us down Mike's canyon, and he showed us where he found them. To add insult to injury, he showed us Mike's footprints, and they showed Mike had sat down on the block with the track way. Phil never let Mike forget it. It was Dr. Wilson's birthday, so Phil found a bright red ribbon, and once we'd carried it out and got it back, we got to haul it upstairs, and we put it on Dr. Wilson's desk with the big ribbon around it. (laughter)

Santucci: Do you think, were there more tracks? And you only collected a sample of them? Or did you collect everything that you observed?

Martin: The block had been washed out into the middle of the canyon where it was actually isolated in float. It couldn't have come very far, as big as it is, but there was nothing else around footprint-wise that we could see other than what was on that block.

Santucci: Very good. Well, do you want to move on to your involvement at John Day Fossil Beds National Monument?

Martin: Okay. When I went from the School of Mines to the University of Washington, the question was what was I going to do for a dissertation. I'd already started working in the early-mid Miocene, and there were some rocks of that age there. However, there were some significant fossil collections that had been donated from the late Miocene, from the Hemphillian land mammal age. The preservation was good, and I was happy to be able to work on jaws instead of isolated teeth. So I started researching the Hemphillian assemblages of northern Oregon. Following the advice of Dr. Wilson and others, I started looking regionally at the various Hemphillian formations in Oregon. In fact, I think I've looked at all the Hemphillian formations in Oregon and made collections from most of them.

One of these was the Rattlesnake Formation at John Day, which is the uppermost part of the section there. It is late Miocene and had been worked at the turn of the last century; Merriam named the Rattlesnake in 1901. I made some collections there when I was a graduate student in 1976 from the capstone formation there at Picture Gorge and many more in the 1990s.

At that time, that portion of the park had not actually been committed to the park. It was owned by the Mascall Ranch, and at that time, Lillian Mascall was the heir. She was quite a lady, let me tell you. (Santucci laughs) I received permission from her to collect and in fact, even later, when I was collecting there in the mid '90s, it was still in negotiation, although she had essentially promised it to be part of the park, which it is now.

When I was collecting from the Rattlesnake Formation, Ted Fremd, who was the paleontologist at John Day, and I would go and talk with Lillian to get permission to collect, be on the roads, cross her property, and so on. Well, it was always interesting. I'll relate to you the

first time I went to meet Lillian with Ted. I think Lillian kind of had a little eye for Ted. (laughter) She was about, oh, late seventies then, I guess. So off we'd go to meet with Lillian; Ted knew the routine. We wouldn't go up to the front door; he went around to the back door. I was with him and Lillian was happy to see us. He'd called and let her know we were coming over. So she invited us in for coffee, which I thought that was pretty neighborly. We sat down and she was talking and Ted was talking while I was kind of sitting there watching the whole thing. She got the coffee pot and poured us each a half a cup in a large mug as she was talking. I thought to myself, "man, just a half a cup of coffee; that's kind of weird". I noticed no milk or sugar and that Ted hadn't touched his cup. Well, I should have known. Then came out the bottle of whiskey. She filled up the other half of the cup. So it took us about two hours to get out of there (laughter) before we got to go in the field. It was an entertaining time, I'll tell you.

So I worked in the John Day area up in the Rattlesnake for a fair number of years in the mid-'90s, collecting from the Hemphillian Rattlesnake Formation. I collected some very interesting fossils and studied the stratigraphy and lithologies extensively.

Santucci: Very good. And you made collections. Did the collections go to the university? Or did they remain with the park?

36:43

Martin: Well, at that time it wasn't part of the park. So some of them came to the School of Mines and those that were from BLM land went back. So there are some at both places.

Santucci: Okay. Very good. What was one of the more significant discoveries as part of that research?

Martin: Oh, that's a good question. What's the most significant discovery? That's like what's the best fossil you ever found. You know, it's that question. (laughs) I don't know. I think it was the collection as a whole. Most of the collection up to that time had been mega-mammals, and of course I was interested in trying to complete the fauna. As a result, we found a number of micro localities that produced a diverse assemblage. With that information, we were able to tie them really well into the biostratigraphic succession based on rodents that I put together in Oregon. So, in answer to your question, it was not a single specimen, but the numerous and diverse fossils that was great. Most of them were small animals that I was concentrating on at that time.

Santucci: Excellent. Any other thoughts about John Day?

Martin: I still hope to publish more on them and the stratigraphy, so I've got to keep alive for a few more years. Also, it is interesting that now, one of our students from the School of Mines, Nick Famoso, has now taken over as the paleontologist at John Day, and I'm sure he's going to do a great job there.

Santucci: Yeah. He does great work. Excellent. So, how did you get involved with work at Wind Cave?

Martin: Wind Cave was a real surprise to us; to me, especially. The folks at Wind Cave came up to the School of Mines and said that they had found fossils in the cave. Which was a surprise, to say the least; in Mississippian limestone, they were talking about mammals. They talked me into

coming down and going in to look at the site, which is in an area of the cave itself called the Chamber of Lost Souls, an appropriate name. (laughs)

We went in and found mammal bones pretty commonly distributed in this big chamber of Mississippian limestone and where we made collections. I published a GSA abstract about the site, which is a very surprising place because we couldn't figure out how the animal bones could occur that far into this cave. Some of them had obviously been drug in and many had chew marks, indicating processing by scavengers. We assumed that there had to be an opening somewhere directly into the Chamber, and that this accumulation was probably a den of some kind. We couldn't explain without a previous opening to the surface, the occurrence of all the rodents and of course the bats that were pretty common. No living bats were found that far into the cave from the opening by the way we came. Which, by the way, is not something a guy that's six-four and weighs 270 pounds is really good at getting through. (laughter) The mud, the blood and the beer made trying to get into a cave a challenge. But eventually Park officials got comfortable enough to actually let me lead parties in and out myself. So that was pretty cool.

Anyway, we didn't know for sure how the fossils had gotten in there. Fortunately, Rich Klukas, who was the park naturalist at Wind Cave at that time, was a great person with whom to work, and an excellent government employee. He arranged to get a sounding, and we found the location on the surface of the chamber below, and there we found a place that probably was a resealed entrance. A very strange coincidence is that the Chamber of Lost Souls was also directly below the grave of the fellow who found Wind Cave originally. (laughs) So, the site really was well named as the Chamber of Lost Souls.

41:36

Santucci: And the results of that project? Were there significant collections made?

Martin: Yes, a collection from that site is at School of Mines.

Santucci: Okay. And did any of your students work on that material? Or did you publish on that material?

Martin: I published one abstract; I had planned on publishing more. We did have a student, Ruth Anderson, who worked on the collection but nothing was published. It sure needs to be; one problem, unfortunately, was that we couldn't get an absolute date, the material was so altered that no collagen remained. The bones were encrusted or powdered with calcium carbonates, which did show quite a bit of antiquity. All the fossils were of Rancholabrean aspect. At least we finally figured out how they got in there. (laughs)

Santucci: And so were you involved at all with the White River fossils at Wind Cave?

Martin: Yes, they got my interest. Actually, there were three things that I got involved with at Wind Cave. The Chamber of Lost Soles, and then Rich Klukas said, "I have a shelter along Beaver Creek that looks like it may have some fossils in it." So he brought me out there, and it became obvious right away that it not only had vertebrate fossils, but it had lots of artifacts as well.

I then contacted Dr. Robert Alex, who was the state archeologist at the time and another exceptional scientist and exceptional field person. He came and joined us, so the School of Mines and the SD Archeological Research Center under Bob Alex worked collaboratively there for some years, excavating that site. That's where Jane Abbott and Rachel Benton got their start. Lynn Alex and I eventually published a synopsis of the Beaver Creek Shelter, which was important, because it essentially contained nearly the entire Holocene in one stratified section. So that was a big undertaking: thousands of fossil remains were collected and curated at School of Mines as well.

Then the third thing Rich Klukas got me into—I don't know whether to thank him or hate him—but that was the area I named the Klukas localities. They were in the northeastern side of the park and were Badlands sediments, high-elevation remnants of White River rocks, and there I found both fossil invertebrates and vertebrates. I made a number of collections from this interesting area. First of all, you had to duck bison and elk in order to walk into the area and haul everything in and out on your back. That was no big deal, and we collected from quite a few different exposures. Those fossils, too, are at the School of Mines. As a result, I did reports for the Park Service and published some abstracts. That's another of those things you always wanted to get back to, but too many other things came up in your life. Near the end of my time at the School of Mines, I turned that project over to a graduate student, Rachel Brown-Schneider, who took that on as well as the Centennial Locality that was found later after my time there. Unfortunately, I don't believe she finished after I retired.

That was a really interesting high-level site, so my interest, of course, was how did it compare with typical Badlands fossils and sediments? Were you able to see any altitudinal differences? I was confident after looking at the sites and identifying everything we found that there really wasn't any difference as far as species were concerned, at least based on the fossils we found. Even the relative percentages were pretty similar, but our sample sizes were relatively small, so additional collections must be made to substantiate the hypothesis that at that time, during Scenic time, the climate was pretty well ameliorated, enough to mask any elevational differences. So, yeah, those were my three research projects in Wind Cave National Park.

46:42

Santucci: Perfect. Thank you. By chance, did you ever do any work at Agate Fossil Beds?

Martin: Not any real work; Bob Hunt, from the University of Nebraska, and I worked together on the guidebook, for the 1985 Society of Vertebrate Paleontology meeting we hosted at the School of Mines, that included Agate. Reid Macdonald, of course, had done a lot of work at Agate, and I received a great deal of information from him. Overall, Bob Hunt was really the individual who was working at Agate at the same time I was working at a similar site, the Flint Hill Quarry in Bennett County. They were nearly lateral equivalents of one another. As a result, Bob and I corresponded and got together in the field many times, but I didn't actually collect there as it was Bob's project.

Santucci: Sure. So although it was an abolished national monument, you're aware of Fossil Cycad National Monument. And there are large collections of cycads at the School of Mines. Do you have any thoughts, insight, about that particular site and its history?

Martin: Well, you probably know it as well as I do, Vince that it was designated a fossil monument but before it could actually be established, most of the cycads had been hauled off, sold, and cut up into jewelry or whatever. As a result, the site was kind of left barren for many, many years. It wasn't until they changed the highway, US Highway 18, and put in a bridge that they ran into cycads on the northern edge of what was the monument. Phil Bjork was contacted, and he went out, but before he could get there, many were even hauled off by workers and others. Nevertheless, we did end up with a pretty good collection at the School of Mines: a few large ones and quite a few smaller pieces. As far as I know, there's been nothing done subsequently.

Santucci: Because you had mentioned family history and uranium mining, I spoke with Vernon Bump, James Bump's son.

Martin: Sure.

Santucci: I assume you know him. And he talked about the week before the monument was actually abolished by Congress, that he and his dad went out to look at the site. And they camped at the location. And they said they looked out and all around them were campfires of people that were just outside the boundaries of the monument. And when he and his dad went to speak to some of these individuals, they apparently were people that were wanting to put in mining claims because they felt that there was uranium on the property, on the monument property. And I thought that was kind of interesting.

50:13

Martin: Of course I can't establish that as it was well before my time. But the monument, of course, is in the Lakota Formation, which is part of the Inyan Kara Group, early Cretaceous in age. The Lakota and Fall River, both formations of the Inyan Kara, are the hosts for most of the uranium that was mined back in the '50s when my father was mining there. He actually worked in a mine a few miles south from the old Cycad National Monument.

Santucci: Interesting. And so do you know from your experience in the Black Hills, are there other localities outside of what used to be the old monument where cycads have been discovered?

Martin: No, I haven't heard too much about cycads being discovered. There's petrified wood many, many places within the Lakota Formation. One site occurs just a little bit to the east of Cycad National Monument where there's significant petrified wood resources. But I didn't hear much about cycads. They usually end up in the rock shops and the like, so, no, I don't ever remembering hearing much.

Santucci: Very good.

Martin: I do know that Barbara Beasley of the Forest Service in Chadron, Nebraska led a field trip to that area and picked up a little piece of a cycad that's now at the School of Mines. That had to be in early 2000s.

Santucci: You had mentioned a name. I just wanted to clarify. John Stockert.

Martin: Mm hmm.

Santucci: So did Stockert work for the National Park Service? Or who was he?

Martin: Yes, he was a naturalist there at that time. In fact, he authored or participated in two books about the Badlands, one on living plants in the Park that I believe he authored and then one on the Badlands itself; I think he was the driving force behind that book. That's the one that was sold at the Visitor's Center for many years and has a picture of me and Dave Parris collecting that entelodont.

Santucci: Very good. I'll look for that. Did you ever hear the name John Lemley?

Martin: John Lemley? Or Ray Lemley?

Santucci: So, I think it's John Lemley, but it may be Ray.

Martin: I'm guessing if it has to do with paleontology, it's Ray Lemley.

Santucci: Okay.

Martin: Ray Lemley was an MD in Rapid City, who operated a huge ranch out in the Badlands. The ranch house was near the Creston dinosaur, all that's left of the little defunct town of Creston. The little dinosaur that once was in front of the gas station is now sitting out in the pasture painted like a Hereford cow. At one time, Lemley had a huge sign on the gate there that read, "Coyotes and Snakes Protected, the Coyotes Get the Sheep and the Snakes get the Herders". He was definitely a cattle man.

Santucci: Yes. Uh huh.

Martin: (laughs) Lemley had a huge ranch, and a lot of it included lease land on the Pine Ridge Reservation, and in those days, whoever leased the land did what they pretty much wanted to with it. So, he made large collections out there, which eventually they went to the Science Museum in Minneapolis. He made a huge collection and was a real character. (laughs) He, Reid Macdonald, and Jim Bump all kind of worked together out on Lemley's place out there. So, the line shack, you may have heard of the line shack out in the Badlands, out in the Titanothere beds in the Indian Creek area. That was Ray Lemley's line shack for working cattle, and that's where paleontologists in the old days (up to the early sixties), before my time, would stay and collect.

As I said, Lemley was a character; he always had a Derringer in his back pocket, even at dinner. (laughs) He'd go to a fancy dinner party and you could see the Derringer in his back pocket. He also had trained his horse. He would have a lot of tourists coming out to his ranch, and they would collect in the old days. He had convinced them that his horse could find fossils. He would go out there on his horse, and when the horse stopped, he'd say, "There's a fossil over there." The tourists would run over, find a fossil, and they would be amazed. Of course, Ray had already been there, knew the fossil was there, and had his horse trained so when he squeezed him in a certain place with his legs, he stopped. So Lemley had lots of people convinced he had a fossil-finding horse. (laughter)

Ray Lemley found some of the best titanothere remains that are now at the School of Mines. He also found something that was very interesting, but I don't know what ever happened

to them. When I was a graduate student, he found long track way with titanothere droppings in association. I know that he made a plaster replica of the track way, and it was at the School of Mines when I left to go for my doctorate, but I never did see it when I came back. I don't know what happened to it, and I don't know what happened to the coprolites, either, but they were full of plant stems; I can vividly remember that.

56:17

Santucci: Wow. That's so interesting.

Martin: They might still be there somewhere. But I don't remember seeing them.

Santucci: Any idea where the locality was that they were—

Martin: It was out in the Indian Creek area, in that line shack area.

Santucci: Was it in the park or outside of the park?

Martin: Well, at that time, it would have been outside the park.

Santucci: Okay. All right.

Martin: That would have been in the late '60s or very early '70s.

Santucci: Okay. So another doctor that collected, do you know the name Dr. Boyce?

Martin: Yes. Ray Boyce. He might have been a urologist. He worked with School of Mines in the early '60s and maybe before. Actually, at one time, he'd gotten a permit from the Forest Service, and I went out with him and Phil Bjork and we collected a *Metamynodon* on his permit that is at the School of Mines. Boyce owned a ranch down south and east of Hermosa. I think his descendants still have it. The ranch was in the Chadron Formation, mostly. He must have had a titanothere ranch because he collected numerous fine specimens of titanothere skulls from his ranch, along with other great things such as entelodonts and so on. The last I knew, the fossils were in a private collection in Rapid City owned by his son, oh, what's his name?

Santucci: Japeth.

Martin: Japeth! He was the heir apparent, I guess. I don't know what ever happened to any of that material; I assume Japeth has it.

58:18

Santucci: So, Japeth has a commercial fossil business.

Martin: Yeah. I knew that.

Santucci: Yeah. And I assume that the father has passed away.

Martin: Oh, yeah. Yeah. I knew him. But when he did pass away, gee, I don't know, perhaps in the early '80s or possibly later. At any rate, I just thought of something about him: one of the things that he did was to finance a couple of expeditions to the Badlands through the School of

Mines. I think this was in 1965, before I got there. The students on that expedition were Jim Kernaghan, Mike Rock, and the guy who was at Idaho, Jim Soiset. They went out on this expedition, on the money that Boyce donated, I guess, to the School of Mines. They spent a summer out there and they found a very fine alligator skeleton that's on display at the School of Mines, or was when I left there, at any rate. I don't remember where exactly all that material came from, but I think it was out in the Indian Creek basin, as well.

Santucci: So, just to confirm, you think that Lemley's first name was Ray as well?

Martin: Yeah. Mm hmm.

Santucci: And he was a doctor as well?

Martin: Yep.

Santucci: And his collections went to the science museum in Minnesota?

Martin: Yes. Bulk of them, yeah.

1:00:07

Santucci: Do you know why to Minnesota? Was there some connection there?

Martin: Well, I don't know why. Again, I wasn't involved in it, but I was surprised that they went there and didn't come to School of Mines because he always seemed to be a great friend of the School of Mines.

Santucci: Very good. So, just let's see. So, August 24 through 26 of 1992. Do you remember where you were? (laughter)

Martin: No, probably not. August, go ahead, tell me where I was.

Santucci: Were you involved at all in the Northern Plains Governors Conference?

Martin: Oh, yes. I was.

Santucci: Can you share anything about that in terms of the planning and then the implementation of that conference?

Martin: It was mostly a Forest Service thing. Geez, now you're trying to make me remember the woman's name. She was the head of the Forest Service Archeology in Chadron. Golly, how could I forget her name?

Santucci: Lister? Leester?

Martin: Riester?

Santucci: Terri Leistman? Or Terri Leesman?

Martin: Oh, that's it. Terri. Sorry. Yes. Thanks. Terri Leistman. Yes. That's who it was. I don't know why that name escaped me. At any rate, she was in charge of Toadstool Park at that time, and many of the fossil beds in northwestern Nebraska and the National Grasslands in South

Dakota. She was noting significant vandalism in Nebraska, and I was noting significant vandalism on the Forest Service holdings in Fall River County. So she said, "Let's do a conference on this and invite the governors." I said, "Okay, whatever you think." (laughs)

She went ahead and arranged for the conference with my input. Then during the conference, there was a shooting; thank God it wasn't a mass shooting. The result was a fellow with a gun shooting in the hotel where most were staying. As the police moved in, he gut shot himself, which he survived but must have been mighty painful. That kind of broke up the conference, unfortunately.

Santucci: And that was kind of an interesting time as well because it was contemporaneous with the seizure of the *Tyrannosaurus rex* Sue.

Martin: Right.

1:02:53

Santucci: And there were demonstrators outside. Do you recall anything in regards to that?

Martin: Oh, there were. You know, that was a strange, strange time. I recall them, but I wasn't too impressed; I didn't regard them very highly. The reason was that I really was kind of a sub-player in the Sue deal. In fact, I never even saw it but once. I was actually collecting in Oregon when all the Sue things came down. So, I wasn't even in the state when it was seized. I saw it once when they opened up the shipping container at the School of Mines, and that was it. So I didn't have a lot to do with that whole thing, but because I was at the School of Mines, my name was often brought in, and I certainly didn't support the idea of commercial collecting on public lands.

Santucci: So what was your reaction to the National Academy of Sciences report that came out in 1988 on collecting fossils on public lands?

Martin: I was a little surprised that it did not seem to do what was best for the resource, but the committee was dominated by invertebrate paleontologists who had a different outlook. So I guess, it shouldn't have surprised me. At that time, there were a lot of politics going on, just like there is today. Little of it has to do with real science and what's best for science, as you may have noticed recently with the pandemic. (laughs)

Santucci: Yes.

Martin: So, the same thing happened then.

1:04:33

Santucci: Because your work was largely in the Great Plains, outside of your work in Oregon, did you ever have any association with Native American tribes, indigenous people? And did that present any issues for trying to do paleontology in South Dakota?

Martin: Well, yes, I did. First of all, I grew up right west of Pine Ridge Indian Reservation and at least half of my schoolmates were Native Americans. I still have a number of close friends left that haven't passed on. As a result, I was very comfortable in that culture. At the time that I

started my career as an undergraduate, there wasn't really much concern. Nobody really cared about fossils in those days. They were just something in the way of either grazing or whatever. (laughs) Normally, ranchers were more than happy usually to get rid of them, and that was the way it was on the reservations was well. Although, you know, there were protocols that Dr. Wilson and others went through to get permission. We always got permission, wherever we went, and at that time, we didn't really have much trouble with the Native American group.

The only trouble I personally had was in 1981, and it wasn't really trouble, more of a misunderstanding. In 1981, a mammoth was discovered down near Ogalala on the Pine Ridge reservation, and it turned out to be a Clovis kill site called the Lange/Ferguson mammoth kill site. I did the paleontological side of that excavation and the research. Also, the tribe dictated that specimen itself, the mammoth, came to the School of Mines. However, there were some politics going on then that I don't want to go into. As a result, the Native Americans were under the impression that the bones were not being cared for at the School of Mines. So they came up, looked at them, we went round and round, looked at every specimen, and showed them that everything was just fine. The tribal council ended up being very happy and very supportive of us.

Later, I continued to work with Native Americans on the Crow Creek Reservation in central South Dakota. I worked with a number of tribal councils and tribal leaders there in the '80s and '90s. Dave Parris and I collaborated there for many years, and we never had any trouble with Native Americans, and some, such as Lee Azure and Konnie Olson, became close friends.

I think my background helped me. Like you said, I kind of fit the cowboy image. So when I met with them, I was usually wearing a cowboy hat and a beaded belt buckle. It worked out pretty well, (laughs) and I enjoyed it. We had some of our best times collecting on the Crow Creek Reservation, found some fantastic fossils, and that was a great experience in my life.

1:08:09

Santucci: So was there a specimen of a gomphothere that had been vandalized or stolen that South Dakota School of Mines was working on?

Martin: That wasn't exactly how it happened. Now that happened again when I was living in Seattle working on my doctorate, so it's a little bit hearsay. But yes, there was a gomphothere that was collected on the Rosebud Indian Reservation without permission. Years later, J.C. Harksen showed me pictures of it in the ground, and it was really spectacular. At the time it was collected, I was actually at the University of Washington, but when I came back in the summer, this gomphothere was being put back together by Mert Bowman, the museum preparator. At that time, the skeleton was in pretty sad shape, certainly nothing like the pictures I saw later. Evidently, the Rosebud tribe found out about the specimen and although I don't know the details, they recommended that it be brought to the School of Mines, where it was conserved and put on display, last I knew.

Santucci: So it wasn't vandalized in the field or anything like that.

Martin: I don't know. I saw a picture of it in the field and it was essentially perfectly preserved before it was removed. So, I don't know how it was removed, prepared or what happened, but it was in pretty sad shape when I saw Mert gluing it back together.

Santucci: Sure. So, the question about the evolving relationship with Native Americans as it relates to fossils, has had an impact on Badlands National Park. Particularly because the south unit is on the Pine Ridge Indian Reservation. And there's been a long relationship with the Lakota in terms of the management of that south unit. After about 2000, you're probably aware that change in leadership in the tribe looked at things a little differently in terms of the south unit. And so there was discussion with the National Park Service about a new approach and possibly abolishing the south unit of Badlands to create a tribal national park. Are you aware of that at all? And were you involved in any of these discussions?

1:10:44

Martin: I was not involved in any of those. So, I think probably Rachel would be your best bet there.

Santucci: Sure.

Martin: Although I was not involved in those negotiations, every once in a while we would have a contingent from Pine Ridge come up and periodically check whether or not the fossils that were there from the reservation were being cared properly for. I think in all instances of which I was a part, they were quite happy with the way we were taking care of those specimens. Although they still felt that they should come back to the tribe, or at least to the Pine Ridge Indian Reservation. Which certainly is reasonable, I guess, but recognition must be given to all the hard work of collecting, preparing, protecting, and all the years of caring for these specimens. The School spent a great deal of time and money to conserve those specimens.

All of this really, frankly, came about because all of a sudden fossils became worth money. (laughs) Up until that time, there was no recognition or concern by any of the tribes. So that's when things changed completely.

Santucci: Sure. Are you familiar with some tribal members by the name of Fergusons? A family?

Martin: Uh, I didn't know that they were tribal members. Les Ferguson, is that who you're talking about?

Santucci: Yes. Uh huh.

Martin: I didn't know they were tribal members. I knew Les Ferguson, who lived in Hot Springs, because he was the one that found the Clovis kill mammoth site near Ogallala. He seemed a nice fellow, you know, very helpful, considerate guy. I didn't know him well, but I had met him several times at the kill site, but I didn't know much beyond that.

Santucci: Back during the 1980s, there was an individual who was collecting fossils commercially by the name of Frank Watson. Did you ever hear that name? Did you know him?

Martin: No, I didn't. No, I never heard that name.

Santucci: I'll be very brief about it. We can talk about it more at another time if you're interested. So there was a day that I was not working. It was in 1985, in July. And I was out visiting the south unit. And I went to the Titanothere Graveyards for the first time. And Mr.

Watson was out there. And I had watched him for a while. I wasn't in uniform or anything. So I walked down. And as I got close to him, he saw me and he gave me a very friendly, warm, grandfatherly like, "Hello, how are you doing? Are you having any luck collecting fossils?"

And I said, "No." And I said, "How about you?"

So he proceeded to show me fossils that he was collecting in the park. And I didn't say anything about working for the Park Service. And he proceeded to offer for me to come back in the next few days to his camp in Scenic, where he had lots of fossils that he had collected and they were available to purchase if I was interested in.

Martin: Oh, great. (laughs)

Santucci: And in the course of the conversation, he told me that now that he's older—and this was 1985, he was in his seventies—he said that he had been collecting at the park for over twenty-five years, even before it was a national park. And that he sells the fossils. He's been doing it, you know, even knowing that it's illegal. But he made the justification, saying that the Park Service is allowing these fossils to erode away and that's terrible, so I'm rescuing the fossils. And he said that he's done pretty well and he's a wealthy man. So that was kind of a surprise to me. But he also disclosed, because I came back to visit him in a few days, just to see what he had. And he showed me a scrapbook of things that he had from his long career as a commercial fossil collector. And he showed me a photograph of a *Rapid City Journal* newspaper article showing a large Archelon turtle with a young man sitting on top of it. And he said, "Hey, I found this fossil." And so he's pointing at that very famous *Archelon* turtle that wound up being sold to the European Institution.

Martin: Yeah. Right.

1:15:27

Santucci: And so he told me a very detailed story about how that was discovered, how it was collected, and who was involved in collecting it and how it got sold. So it's a very interesting story. But, so what do you know? Do you know anything about how that particular *Archelon* turtle that was sold, where and when it was discovered?

Martin: No, I really don't. I remember hearing about it, but I didn't know anything about Frank Watson. I had heard that the Larson brothers had found it on private land, and they had collected it. That's all I ever heard, so I don't know any details.

Santucci: Watson disclosed a locality that wasn't private land. It did involve BHI.

Martin: Yeah.

Santucci: Just a couple of other names. Does the name David Anderson mean anything to you?

Martin: No, I'm afraid not.

Santucci: Okay. How about Eddie Cole?

Martin: Oh, yeah. Eddie Cole was part of a Sue trial based on materials that he was collecting from US Forest Service areas down in Fall River County, but evidently the trial exonerated him. Nevertheless, he was one of the major collectors of marine Cretaceous fossils in Fall River County.

Santucci: Do you know that he had a rock shop in Wall for a while?

Martin: No, I didn't know that.

Santucci: Just out—

Martin: Oh, maybe. Maybe. Maybe I did.

Santucci: —Just south of, it was on the south side of Highway 90, just under that underpass closer to the park.

Martin: Oh, okay. I never went in the place, but perhaps I may remember that something was there a little bit, but I never went in the place, that's for sure.

Santucci: Well, one of the things that after he abandoned the building, they were searching the building. And they found a huge cache of sand calcite crystals. Do you know about that locality?

Martin: I know of it. I've never been there. But that's on the reservation, for sure.

Santucci: Yeah. There's probably more gold, silver, platinum than sand calcite crystals in the world.

Martin: Yeah, yeah. I mean, they're very rare. Yes.

Santucci: Anyhow, and just one final, and you may, you don't have to talk about this if you don't care to. But have you ever had any associations with Black Hills Institute or Peter Larson? Is there anything worth talking about there?

Martin: Well, I knew him; I knew Peter before he ever came to School of Mines. He took me to a site out on the Rosebud Reservation when I was an undergraduate. Here's how it worked. His brother, oldest brother, Mark Larson, and I were freshmen together at the School of Mines. I met Mark through Pat Tlustos, who was my roommate, and both of those guys were from Rosebud. Pat and Mark knew I was interested in fossils, so Mark took me over to Rosebud and I met Peter and his brother, Neil, at that time. They took me out to where there were some fossils, but it was on the Rosebud Reservation, so I wasn't interested. Even as a freshman, I had spent enough time around the Museum of Geology to learn not to collect anything without proper permission. I didn't know if it was private land or Indian land they were collecting on, but it was White River material. I never went back. I steered clear of them. It didn't look like anything I wanted to be part of.

I didn't hear anything more about them until after my time at the University of Washington. While I was in Seattle, they came to the School of Mines as students, where they befriended and were befriended by Bill Roberts, the mineralogist. Of course the thinking of mineralogy collecting is a lot different from paleontology, where buying and selling of minerals was commonplace.

That's how they got started by going up to old mines, obtaining mineral specimens, and selling them. Bill Roberts even called them the "Midnight Miners." Then they later moved into the fossil realm.

Santucci: Very good.

Martin: But that's about all my personal interaction with them.

Santucci: Sure. Any other, any other things you'd like to share as it relates to your career or Park Service paleontology?

Martin: Oh, gee, I don't know. I've really enjoyed my time working with the National Park Service. However, it's getting more difficult; I'm not even sure that I would be allowed to collect anymore. Everything has become pretty well regulated, or maybe overregulated in some regard, so that the academic paleontologist has much more difficulty in doing work in parks. Maybe that's a good thing; I don't know, but it does restrict opportunities for students and research. Overall, I think that the strides that have been made to preserve fossils in national parks has been great. Certainly it's a lot different game than when I started, and that game has been good for fossils—and that's the ultimate importance of paleontology; the resource and the database. So, the Park Service is certainly taking the lead on the management of fossil resources, and it should be that way.

Santucci: I appreciate you saying that. And so—

Martin: My pleasure.

1:21:57

Santucci: —you were out there working on federal lands before and after the Paleontological Resource Preservation Act. Did you have any involvement or opinion about the legislation?

Martin: Well, yeah. Mostly because I was out there working in the field when this all started. I'd go out to work an area at a field site and all I would find would be holes. (laughs) It became apparent that if students of the future were going to have any chance of understanding what I'd been blessed with, the field relationships of fossils, that something had to change. So I was very much behind preservation of fossil resources on public lands.

Santucci: Very good. Well, I personally want to thank you. Not only for spending time today and sharing some of this with us, but also inspiring me when I was a young student in paleontology and a seasonal ranger at Badlands National Park. It was fun to see you bring a group of students out for field work. And you know, you're tall, and your cowboy hat. You personified the cowboy paleontologist for sure, and we benefitted greatly from the work that you've done and inspiring your students.

Martin: Well, thank you, Vince. I'm very happy with my career. I've been very lucky. The students made it a great life, and I'm happy to still be continuing it at University of Louisiana. Our program there is growing greatly, and I'm still hanging in there, teaching, curating, and publishing.

Santucci: Good to hear.

Martin: Yeah.

Santucci: When I get the transcript, it will probably be about a month or so, I'll make sure I forward it to you.

Martin: Okay.

Santucci: And if you have time to look through it—

Martin: Yeah, I certainly will.

Santucci: —and you see any errors, we'd love to get the feedback.

Martin: Sure. I'd be happy to, Vince. And congratulations on your career.

Santucci: Oh, thanks very much. I really appreciate that.

Martin: I mean, you know, you should be very proud, starting as a seasonal and ending up in charge. That's a great move.

Santucci: Thanks very much.

Martin: Way to be there – senior paleontologist. (laughter)

Santucci: Thank you so much. Well, I carry a little bit of Jim Martin inside me, just so you're aware.

Martin: Well, I don't know if that's good or bad, but I'll take it as good.

Santucci: Thank you so much.

Martin: Take care of yourself.

Santucci: Enjoyed talking with you.

Martin: You bet. Anytime.

Santucci: Bye-bye.

Martin: Bye.

1:24:44

[END OF INTERVIEW]


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NPS PALEONTOLOGY

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