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Will Elder
July 7, 2020

Interview conducted by Vincent Santucci
Transcribed by Teresa Bergen
Edited by Molly Williams

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Narrator: Will Elder
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Signed release form: Yes
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Transcript

[START OF INTERVIEW]

Santucci: Are you ready to begin?

Elder: Yep. We're ready.

Santucci: Okay. So the first question is: when and where were you born? Where did you grow up and go to school up till college?

Elder: Yeah, so I was born in Tennessee. And I grew up in a small town called Norris near Knoxville. And Norris, Tennessee was built by the Tennessee Valley Authority in the late 1930s. So it was a fully, what do they call it? The city was completely built to accommodate workers at the first dam that Tennessee Valley Authority built, Norris Dam. It was not far from Great Smokey Mountains. So, east Tennessee. So we had lots of ridges, but not quite to the mountains yet on the east side of the Smokies.

And that actually was instrumental growing up there near that Norris Lake and me becoming a paleontologist in that my brother, who's quite a bit older than I, came back and did a master's program with paleontology as one of his main subjects at University of Tennessee. And he introduced me to paleo. And we'd go out to that lakeshore. Because the lakes would go up and down, you know, a lot, seasonally. And when the lakes were low in the winter, we'd go out and look for fossils. We had a lot of Paleozoic fossils there. So huge nautiloids and crinoids. And I found like one of the oldest starfishes known from that area. Late Ordovician, I believe. So, yeah, it introduced me.

And we also had the coal measures up in the mountains and go up and explore for plant fossils up in the coal areas. So, yep, that got me started.

Santucci: Sounds like a fun time.

Elder: Yeah, it was cool.

Santucci: So when you transitioned to go to college or university, did you go in intending to study geology or paleontology? Or did you study something else?

Elder: Nope. I always wanted to be a geologist, pretty much, and a paleontologist was an avenue I was interested in. So I moved out to California in '73. And it was kind of obnoxious because that was my senior year in high school. I did three years, actually, at a junior college in California, the College of Marin.

Well, actually, I will go back and say that I was also interested in art. And so I was struggling to, whether I should go the art route or the science route. I was always like really heavy into science as well as art. (laughs) So it was a tough one. And everybody said, "Oh, you know, you'll never make a living doing art, so become a scientist". So after doing a lot of art at community college, I went to UC Santa Cruz in the geological, they called it earth sciences there. And got my degree in earth sciences.

Santucci: Excellent. And did you go onto school from there?

04:10

Elder: Well, so, yeah. So I did earth sciences. Léo F. Laporte was teaching paleo there, and I took a number of classes with him, including some graduate seminars. So that kind of got me focused a little toward paleo. But when I got out, I didn't want to go back to school immediately. So I looked for jobs. And of course the US Geological Survey in Menlo Park was nearby. I went to UC Santa Cruz. And so I got a job there as a, what do they call that? Field assistant. Something, I don't know. Working in geophysics. So I spent a year and a half doing geophysics, including work up at Lassen Park. Actually, that was the year that Mount Saint Helens erupted. So my boss was doing, we were doing gravity surveys around volcanoes because of the interest at that time. So he was up there beforehand. And then we branched out to other volcanoes in the Cascades. So we did surveys on Shasta and Mount Lassen. And then I actually got to go up to Mount Saint Helens in October after the first eruption in May 1980. And that was quite an experience. So I did a little work, yeah, we actually spent a month camping in Lassen and hiking every trail and doing gravity network setup. Which never has been repeated. But I suppose if Lassen ever becomes active, more active, they may reoccupy that network. Yep. So I did that for a year and a half.

Meantime, I applied for graduate school and I wanted to be out in the Rocky Mountain west. So I applied for three schools in the Rocky Mountains. Only one of them gave me money and that was University of Colorado. And incidentally, Erle Kaufmann, who was just starting teaching paleontology there, offered me money to come out and study paleo at University of Colorado. So I couldn't really turn it down. So that's how I ended up out there, 1980. Late, yeah, starting in the fall of 1980.

It took me seven years to finish my PhD. I started on a master's program. Got a year and a half, two years into that and it was looking really good. I wrote a paper. I was studying the extinction event in the mid-Cretaceous in the Western Interior Seaway. And that was done in the Black Mesa area of the Four Corners. And I wrote a paper on that, got it published, and Erle said, "Well, why don't you just count that as your master's, and I'll just push you straight through a PhD". And I said, "Okay, that sounds reasonable." (laughs) I'm living here now.

So, yeah. So then I went straight through and studied this Cenomanian-Turonian boundary extinction throughout the Western Interior Seaway from as far north as Glacier National Park area, not in the park, down to Dallas, Texas. But mainly focusing on the Utah, Colorado, New Mexico, Arizona areas. Oh, and as far east as eastern Nebraska.

Santucci: Any field work in Mesa Verde or Chaco?

Elder: Well, we at that point we did field work just outside of Mesa Verde, but not in the park itself. You know, we were trying to avoid paperwork. (laughter) Working on BLM land and other land. Well, actually a lot of the work was on the Navajo and Hopi reservations in Arizona. That's just the core area. So we did a lot of paperwork with them. And I worked in other Indian lands. Got permission to go in and do work, like up in South Dakota. We worked near the Badlands. But again, never in the Badlands. So, I don't think we worked in any national park site for that study.

Santucci: And your PhD committee included Erle Kauffman. Anybody else notable?

Elder: Bill Cobban.

Santucci: Okay, Bill. Great.

Elder: Bill Cobban. You're going to make me puttering (laughs) Let's see. Erle and Bill were the two big paleo people. Don Eicher, who's a micro-paleontologist, at the University of Colorado. Bill Hay, I don't know if you know Bill Hay. He's a paleoclimatologist. And I'm blanking out. Eric, he's another paleoclimatologist at NCAR. Eric, it will come to me. I think that was my committee. Five? That sounds about right.

Santucci: Okay. Did you have the opportunity to go out and do any field work with Bill Cobban?

Elder: Oh, yeah. Some. I mean, Bill – Bill was an interesting guy. I don't know if you ever got out in the field with him.

Santucci: I did.

10:56

Elder: Yeah. Well, I don't know. Bill—he was, yeah. We went out in the field a number of times. But I mostly worked with him inside at the Federal Center on the collections. And he was always like hard to get to say anything, you know. And then all of a sudden, he'd just like (makes spewing noise) and he'd go on and on and on about stuff. But he was a little, either he was saying nothing or he was filling you up with information. (laughter) I don't know how he was in the field with you. But yeah. He was a little proprietary, too.

Santucci: Sure. We were actually working on the Yellowstone paleontologist survey in 1996 and I happened to be meeting with him in Denver at the Federal Center and told him what we were doing. And you know, he was in his seventies at the time. And he said, "Oh, well do you mind if I join you?" (laughs) I was thinking, we're climbing up a pretty steep hill. So he came out in the field and joined us. Scott Wing was there and a couple of others. And believe it or not, Bill was in front of all of us going up that hillside, and it was just amazing to see his endurance in his seventies.

Elder: Mm hmm. Yeah. I don't doubt it. Yeah, you know, Bill and Erle were always a little bit at each other. (laughs) The relationship was always a little different.

Santucci: Sure.

Elder: But yeah, Erle was another one that was an interesting guy to be out in the field with. He always had insights, you know, that were like, oh, yeah. (laughs) That's probably the way it was.

Santucci: Did you have an opportunity to work with Jim Kirkland at all? When you were a student?

Elder: Jim and I were best buddies.

Santucci: Yeah. I thought so.

Elder: Continually. We each were each other's field assistant throughout our PhD programs. So we spent years together. (laughs)

Santucci: Yeah. He brings up your name often.

Elder: Yeah. Yeah. Yeah, I mean, we did work on what became part of Escalante Grand Staircase. But at the time, it was BLM land. Not monument. It was part of that work.

Santucci: So when you defended your dissertation, were you still working at the USGS?

Elder: So I left the position but never resigned. I went back to school. And no, so I was supported through research associateships and, mainly, throughout the PhD program. So I didn't have a job. There was a position that kept coming, being promised. And Norm Soule, who was back in DC at the survey and a good friend of Erle Kauffman's was trying to get a position, a Mesozoic paleontology position at the USGS. And that kept coming and going, and never quite getting there.

But right around the time I was getting my degree, it actually looked better. So I applied for that, with the hopes that I might get that. And I would be based in Menlo Park. And so that's how I ended up getting back with the USGS.

I did some work, I moved up to Fort Collins after I graduated. And was doing consulting work and just studies around, I was working on some dinosaur stuff up around there, two taphonomy sort of stuff. And various things to make ends meet for a while, until that other job came through. Which it did. I thank Erle and Norm for getting me in the door there. And so in April of '88, I guess, yeah, moved out to Menlo Park and started the position there as the Mesozoic paleontologist. So I was replacing Davy Jones, which probably his name has come up in Alaska work in the past.

Santucci: Yes, mm hmm.

16:43

Elder: And so, Davy had gone to Berkeley to teach. And I filled in for him. And Jack Miller, who had worked with him for years in Alaska was still there. So I was supervising Jack, who was in paleo with Davy but was never trained highly in it. But he knew a lot. And yeah. So I started

that. So my responsibilities there were Alaska and west coast of the Lower 48, basically. The western region of the USGS.

Santucci: So, question then. In terms of the organization at least during the time that you were working for the US Geological Survey, you worked in the branch of stratigraphy and paleontology, is that correct?

Elder: Yeah. Paleontology and stratigraphy.

Santucci: I'm sorry. Paleontology and stratigraphy.

Elder: (laughs) P&S.

Santucci: Yes, P&S, thank you. How was that organized geographically? So you had some of the staff under P&S in Reston, some were in Denver, and some were at Menlo Park. And some were in Alaska. How did they divide up and decide where individuals would be duty stationed?

Elder: Well, I think the positions were just located within a region. So you have eastern, what do they call it, mountain or central? Central? Eastern, central, and western. And Alaska was kind of its own thing, but it fell under western, generally. So many of the main workers in Alaska, the mappers, were based in Menlo Park. There were a few people up in Anchorage office. But the bulk of the people were down in Menlo.

Santucci: So as the Mesozoic paleontologist, did you work on all taxonomic groups from the Mesozoic? Or specialized?

19:11

Elder: Yeah, so we would work on what we wanted to, and what we were beset suited for from our past experience. However, we would get the requests for, the E&R requests for fossil reports from field geologists. And if it fell within our Mesozoic realm, then likely it would be sent to us. But there were other sort of crossover people that worked on stuff like Norm Silberling?

Santucci: Yes. Mm hmm.

Elder: Yeah, Norm. Another Norm. (laughs) You know, he worked on the Triassic stuff a fair amount. So if it fell into the lower Mesozoic and he was still actively working on stuff, then we'd go to him. And of course, you know, micro versus macros was a distinction there, too. So, yeah, I was the macro paleontologist. So mainly what came to me was Jurassic and Cretaceous fossils from the field to report on to the field mappers so they'd get some biostratic, mainly biostratigraphic control. But also sometimes ecologic and yeah. You'd also, depending on the project and stuff, you might want to get out in the field and look. Because field mappers have other priorities than finding fossils, many times. And so, you know, a pair of eyes that are tuned to the fossils can find them a lot better than the field mappers. Although some of them are pretty good themselves. You know, if they're looking at everything.

Santucci: So although you were based out of Menlo Park and supported Alaska and the western region, did you receive requests regarding localities or samples from the central or eastern part of the United States? Or did they go to another individual?

Elder: Yeah, no, I don't think I ever got anything that wasn't out of the west. Another thing was that I at that time, too, I went back to, well, I went to the Smithsonian, looked at all the collections there from Alaska, mainly. Because a lot of the early Alaska stuff went back east. And then also I would go to the Federal Center and work with Bill Cobban with the idea that Bill was getting along and was going to retire at some point. So that I could potentially take over from him, since my background was really western interior as well. So I worked with Bill. I went back there a number of times and went through the fossil collections with him. And we'd go over the stuff. And I learned how Bill worked his fossils and you know, the realization of it, you really need dozens of examples of something from a locality in order to really understand what's at that locality. Because if there's so much intraspecific variation that you can't just, you know—it's hard. I won't say you can't but it's hard to actually definitively ID a fossil based on a specimen. If you got a whole tray full of them, and look at the variation within that tray, then you can slice things as thin as Bill was able to do. But based on one specimen only, slicing it that thin gets really hard. So that was interesting to learn about how Bill accomplished what he did, and what it really takes to do that.

Santucci: So at Menlo, were you a supervisory paleontologist/geologist, or did you supervise any staff?

24:09

Elder: Well, just Jack Miller.

Santucci: Just Jack.

Elder: Who was my prep—I don't know what he was. I supervised Jack. (laughs) Yeah, that was it.

Santucci: Were there any other paleontologists at Menlo Park at the time?

Elder: Oh, yeah. We had a whole P&S team. But nobody that overlapped with me. Louie Marakovitch handled the Cenozoic molluscan faunas from Alaska and the west coast. So Louie was there, Dave Adams did—palynology? Yeah, palynology—Bill Sliter, of course, was my big overlap. And Bill was really my mentor, I will say. Bill Sliter studied foraminifera from the Mesozoic. Well, mainly Cretaceous. And Bill perfected the technique in the US for doing thin section analysis of foraminifera, which really allowed him to do a lot of work out west in the terrain blocks where we had limestone that wouldn't dissolve down very easily for foram so he was able to use the thin sections and get a lot more information out of them.

I will say, too, that Davy Jones started out doing macro molluscan paleontology, but decided that he couldn't do the work he wanted to do in the terrain blocks with macro because there's just not enough of it. So he learned to do radioalaria work and was able to accomplish a lot more doing the rad work. And then Bonnie Murchie worked with him. She got her degree and

she took over his work with the radiolarian. She was there as well. So Bonnie and I worked together on a lot of stuff as well.

Golden Gate, so, yeah, my first encounter with national park paleontology was in 1989, ’88, ’89? When I was sent, Clyde Wahrhaftig, who had been at USGS and then went to Berkeley, had gotten a fossil from a ranger on Alcatraz sent to him, who then he sent it to me to ID. So I IDed this fossil from Alcatraz, which is an inoceramus that I work in. That was my first work on a national park fossil.

Santucci: Very good. Just a couple more—

Elder: As I digress. I’m not sure where we started. (laughs)

Santucci: No, no. Just a couple more questions about the Menlo Park office. So was there a P&S branch supervisor at Menlo Park?

27:33

Elder: No.

Santucci: No. Okay.

Elder: I’m blanking out now. Just a minute. Dang. You know him as well as I do. (laughs) Our branch chief back in DC. Pojeta.

Santucci: John Pojeta.

Elder: John Pojeta.

Santucci: Yes.

Elder: John Pojeta, yes. So, John Pojeta through many of my years at Menlo was the P&S branch chief. But he was back east. So he was the one that I talked to on the phone. He was the one that really thought that I should work with Bill Cobban and set that up. So, yeah, John.

So we were kind of out there on our own. We didn’t have a specific person. We did have project leads. So there was a lot of personalities was in our group. Let’s see. I guess Bob Blodgett was always up in Alaska, right? He’d come down occasionally. I’m not sure why he was up there. Was he? Or did he work back east?

Santucci: So, he did in fact work a lot in Alaska. But he was stationed out of Reston.

Elder: Mm hmm. He was back east, yes. In fact, that’s probably, he was out with us a few times. And I think I met him back when I went to the Smithsonian and worked on their materials. So, at any rate, we had project leads. So, one of the things after I was there for a few years, we were mainly working off of these big map projects in California. So my main project was the San Jose 100,000 quad, which was South Bay area, big area. So all of us paleo people that were appropriate for that age of rock, which was mainly Mesozoic/Cenozoic, it was

Mesozoic/Cenozoic, were assigned to work on that project. And there was a southern California project that took a number of people. And I got sort of peripherally involved with that some.

Oh, yeah, there was an idea of working on the Channel Islands, but that never quite came to fruition. That was later. And then there was this Pacific Northwest project, you know, working northwestern Oregon up to Seattle area, I believe.

So that, though, because nobody else, there was nobody that didn't have any axes to grind (laughs) to lead the paleo team for that project, I was assigned as the project lead for the Pacific Northwest project. But, you know, the RIF [Reduction in Force] came along and that never really fully panned out. So we did have that sort of slightly hierarchical structure with no direct supervisory assignment to it, but just sort of an organizational thing and some money handling.

Santucci: Very good. So, when you came onboard at Menlo Park, they still had maintained their fossil collections at that point?

31:59

Elder: Oh, yes.

Santucci: And how did it come to be, or what is your understanding related to the transfer of those collections to Berkeley?

Elder: Oh, it was grudging. (laughs) But, well, yeah. It was the RIF of 1995 that they decided to eliminate basically the entire P&S branch in Menlo Park. And the only survivor was Bonnie Murchie who went into management at that time. Yeah, some other people, the micro people, had mostly moved to other places. But micro was maintained a little bit, but all the macropaleontology was eliminated. And some of the micro.

So with nobody there to look at the collections, the work on them, they wanted to get rid of them. So the arrangement was made with Berkeley that they would take them. And of course it took them, what, ten years to actually get them out. At least. But yeah, that was the deal.

But I had one quite large room filled with cases of fossils from Alaska and all of western region. As well as my office had quite a few cases in it, too. So there was probably fifty cases, at least. There was about ten thousand collections, I think, that I managed when I was there. And so most of my work, actually, was from those cases, not from field work. I'd studied those fossils in those cases and IDed them, as well as going to other museums around. The Cal Academy Sciences in San Francisco has quite extensive collections. LA County Museum, sensitive collections from the west. Those are the two main other repositories. And I spent many days at those places going through their collections. You know, realizing that museum collections are not very well documented. And very poorly documented.

Santucci: The collections that you maintained, they were in part specimens that you collected. But also in part specimens that were collected by predecessors like Davy Jones?

Elder: Correct. And anybody, any fossil sent in for an ID from a field geologist would end up in those collections. As well as those collected by Davy and me. But 95% of those fossils were stuff that I didn't have anything to do with collecting.

Santucci: Okay. Can you briefly explain in a general sense the whole process of ENRs and how it worked, specimens being shipped in from the field, coming into your office. How did that process go forward?

Elder: Oh, I guess a field geologist would come back from the field and they'd have fossils that they thought were important. They would pack them up and send them to us with a formal request for a report on what was there. And so, I'm not sure how it actually got channeled to the specific people. But people just knew who was working in what area, for the most part. And we'd get the collection, we'd open it up. Write up a report. And you know, many times it was like indeterminate fragment of something. (laughs)

Santucci: Sure.

Elder: But sometimes it was really good stuff. And you could give them pretty good detailed biostratigraphic information. And like I said, if there was paleo-ecologic information in there, you could, you would include that in your report. Or taphonomic information might be interesting, too. We would get, I don't know, a dozen of these a year. It wasn't a huge load. But some of them, you know, if they had a lot of collections in those, it could take you weeks to put together.

37:24

Santucci: So there'd be times where something was valuable enough to add to your collections in your office?

Elder: Yeah. I mean, generally you know, if it's an indeterminate fragment, that's not going in there. But anything that you could tack some sort of a name on would go into the collections with that. So you'd have the field numbers is what they'd come in as, and then if there was material that was worth keeping, then you would assign the M number, the Menlo number, or, yeah, it's M Menlo, to that. You'd give it, you'd have a log that you'd work through the numbers as they went. And you'd give them that number and that would become part of the permanent collection.

So obviously this was a time in the late '80s and early '90s when we were starting to go into computer catalogs. And so one of the things I was working on was the first database of all this material. And Dave [Addams?] was pretty adept with working with this databases and things. So I worked with him on developing our database. We used Paradox at the time. So we were able to put together a pretty relational database that allowed us to track all the material in the collections. I didn't get it all in there, but I got a lot of those collections into the database at that time that Berkeley took and massaged it into their database.

So that was one of the key things I was working on was getting it all computerized, so I could do a listing of, I could list out where this species was found. All the different collections, or I could look at a collection and see all the different species in it or whatever. It was pretty nice

at the time to be able to start to do that, which you hadn't really been able to do when you just had your logbooks.

Santucci: And so during your time with the USGS before the RIF, you had a project within Golden Gate. That was a big project. Did you have other projects that entailed national parks in Alaska or elsewhere?

Elder: Well, so, not really. Yes and no. Okay. Yup. (laughs) In Alaska, the field work that I was doing in Alaska was all on the north slope. And possibly some of those very southernmost localities I worked in were at the doorstep, if not within, Gates of the Arctic. Let's see. But that, there's my map here. Yeah. Gates of the Arctic. Possibly something near Noatak. Very northernmost parts of these parks. But probably nothing inside of that.

One of the things that we worked on, which I never did any field work, it's all based on our collections at Menlo, was the Katmai quad. So we did, Jack Miller had been working in that area for his whole career, pretty much, with Bob Detterman. And so probably the last big project that Jack worked on that I worked on with him, made sure that it was good, was the Mesozoic locality map for the Katmai quad with parks that they thought [unclear] 41:56 Naknek quadrangles. So a lot of that area was Katmai.

And yeah, that was a pretty nice report. It's a miscellaneous map, what they call them, miscellaneous field study. Yeah. But again, that was all, never set my foot to the ground. But it did include a lot of material from Katmai National Park.

When I was up there once, I went over to a locality that Ann [Pask?] had found, but wasn't in Wrangell-Saint Elias, but nearby. Which was a hadrosaur locality. And this was a marine locality, so they were finding inoceramus and ammonites in there. So she wanted me to come and look at that. So I collected that and helped put an age on that. It was like mid to late Turonian hadrosaur locality. Sort of what we have in California, where these things float out in the marine environment.

Santucci: Sure. Outside of the park?

43:17

Elder: I think so. It was just west of the park.

Santucci: Okay. Very good. So were you on the ground at all in any park in Alaska?

Elder: Well, I drove through Denali. (laughter)

Santucci: Okay.

Elder: It's also possible I looked at some fossils from Yukon Charlie River area. But I have no idea if they fall within the park.

Santucci: Okay. All right.

Elder: Or not. I was at Kenai Fjords. But again, just checking it out.

Santucci: Okay. Thanks. And then, are there any other national parks that you worked in or for during that time period?

Elder: Yes. So one of the things I was interested in was extending my Cenomanian-Turonian work. Okay, so one of the projects that I was assigned to was a – we were doing some collaborative mapping work with states. And I got involved with Texas. And again, through Norm Soule on this one, studying the great Cretaceous, you know, in Texas. So I worked out, went to Austin and studied their museum materials there. And that's where the State Geological Survey is headed. They were doing a mapping project in New Braunfels quadrangle, which is west of Austin. And so I did some work out there. There's no national parks right there. But being in that area, I was interested in Big Bend. And knew that there was a Cenomanian-Turonian boundary under Big Bend. And that's when I ran down Gorden Bell, who'd been looking at some mosasaur material from that interval. And so Bill Sliter and I went out there.

And actually on the way, sort of interestingly, we drove through Amistad National Recreation Area. You ever been out there? Amistad?

Santucci: Yes. Yes. Uh huh.

45:50

Elder: Well, there just happens to be a Cenomanian-Turonian boundary interval there. I guess they'd find some giant ammonites against the lakeshore, too. But Bill and I stopped at a road cut there along the lake and measured a Cenomanian-Turonian boundary interval and collected that a little bit. And then drove on and went to Big Bend, where I actually did the official paperwork. (laughs) We did some collecting in the Cretaceous. It wasn't constrained to the Cenomanian-Turonian. Went up higher in the Turonian. But we looked at the Cenomanian-Turonian interval, which is very condensed there. So that was the really only inside a national park official work where I was on the ground, other than the Golden Gate stuff where I'd look around occasionally.

The other work that went on during that time was at Mesa Verde. So, Jim Kirkland and Mark Leckie had measured a detailed section through the Cretaceous. And so they were doing their reference section for the Mancos Shale at Mesa Verde National Park. And they collected extensive fossil material from that. And they sent, well, actually I went out there and found the best material in the collections from the Mesa Verde collections that they'd collected and photographed and did the paleontological workup on all the Molluscan material from that. So that's a pretty big volume of work there. On the paper here this morning, we have one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen—sixteen pages of plates of Molluscan material from that reference section. So, I worked that all up while I was at USGS.

Santucci: Very good. So then, when did you first get rumor that there may be a RIF at USGS?

Elder: Early 1995. The RIF occurred October 1995.

Santucci: So relatively quickly.

Elder: Yeah. Well, I remember, I was at Big Bend. That was 1995. That's when I did that work. The writing was kind of on the wall. I was also doing some work down in the Santa Ana Mountains. We didn't get to the Santa Monicas. I looked at material from the Santa Monicas at the LA County Museum. Yeah, I think I got word of the RIF when I was in the field in the Santa Monica Mountains. That was a bummer. (laughs)

Santucci: Part of the recreation area?

Elder: Is there a Santa Monica Mountain Recreation Area?

Santucci: Yes, uh huh.

Elder: Sorry. I misspoke. Santa Ana Mountains is where I was at.

Santucci: Okay.

Elder: Not the Santa Monicas. Yeah. But I did look at fossils from the Santa Monicas at LA County Museum.

Santucci: Very good.

50:10

Elder: So, yeah, it was pretty, it was, well, I mean, you don't want to draw it out anymore (laughs) that sort of thing.

Santucci: Sure. And so, did they offer you any sort of reasonable accommodation?

Elder: Well, I didn't think so. They offered me the door.

Santucci: Oh, geez.

Elder: Yeah. Yeah. You know, I got some severance pay. But no, it wasn't great. I'm blanking on the name of the new branch chief that took over. My new boss. He promised a lot of stuff, which none of it he could pull off, you know. Being that I was one of the only young people on staff, I had a reasonable future. And Robert Blodgett was another one that was young. But they wanted to put me onto the climate change studies they were doing in Florida at the time. But I don't know, he wasn't able to pull the right strings or something, or never tried. Nothing came out of that. So yep, that was pretty much it.

I got a head of research associate with the Cal Academy after that, so I could work with their collection some. But I had young kids and you know, I needed to take care of. (laughs) Since my wife was basically [unclear] 52:22.

Santucci: Right.

Elder: So I ended up kind of doing that. And I was hanging out in parks a lot with my kids and things. This was right a couple of years after the Presidio had become a national park site. So they opened up a number of park ranger positions at the Presidio. And I thought about it, should I

do this? Talked to Bonnie, who'd worked with the park on and off for years, Golden Gate. And she goes oh, why not? Give it a try.

So I applied and I got a position as a park ranger at the Presidio. That got me into the Park Service. And I did that for, you know, quite a few years. And got back marginally involved with paleo. And of course you kind of brought me in to work with some of the paleo stuff, too, out here. So I did more work, well, not a lot, I don't know, looking at the park stuff and interpreting it.

And let's see. About the more recent stuff that I've done, and I just realized I need to update my resume and things. I worked with a guy down at Stanford on zircon dating. About like three or four, four years ago now or so, we did a, I did the paperwork to do a zircon dating of all the fossil localities that we knew of in Cretaceous at Golden Gate. And we actually sampled zircons from that, cutting off the side of the piece of the inoceramus fossil that I had worked on initially in the '80s from Alcatraz. And we went out to Alcatraz and collected some other sites. Because there's been some controversy as to what the age of Alcatraz is, whether it's Cenomanian or actually lower than – Valaginian I think, yeah. So, we recollected.

And actually when we went to collect the zircon stuff at a place that no longer exists in the quarry above the parade ground, I immediately found this really high-spired gastropod, looks like a Nerinea. New fossil from Alcatraz. And that study came out recently. We did that, we collected near where the ammonite was found at China Beach in San Francisco. And we collected in the Marin Headlands near where the ammonite was found under the Golden Gate Bridge as well as at Rodeo Beach area where some other fossils have been recorded. And we also collected up on Bolinas Ridge, where no fossils have been found, but we want to know the age of the sandstone block up there. So we got all that data back. Oh, and we collected at Land's End area, which we also wanted to know the age of the sandstone there, because there's no fossils.

And yeah, we got all those back and they all come out pretty, very close to the same age of like late Cenomanian. And that has not fully been published yet, although pieces of it have come out in other papers that came out of this work. So, that's my latest contribution. (laughs) And when I retire, or maybe sooner, I will finish writing up the zircon data from Golden Gate that we have now. Which came out to be pretty interesting because we now know that some of the blocks that were, some of the terrain blocks are wrongly classified based on the new age data.

57:53

Santucci: Very good. You mentioned there's a new high-spired gastropod from Alcatraz Island. Is that published or is that something to be published?

Elder: I got a picture of it. We left it in place and it's now sheetrock, what do you call it, they covered that face. So realistically it was an internal mold, basically. So there was no probable way of identifying what it truly was. Very high, my guess would be that it might be one of these gastropods related to a seep, hydrocarbon seep or something. Since we know we get those. It looked like it could be a Nerinea, which is a southern gastropod. But we know that we get these high-spired things associated with these hydrocarbon seeps out here in California.

There's also reports of lucinid, at least one if not several lucinids back in Anderson from Alcatraz, and those are also associated with seeps. So, not impossible that we're seeing some of that out there.

You know, keep trying to see if we find something else out there. But fossils are few and far between. But definitely more common than most places in the Franciscan around here, since there's probably been a half a dozen fossils found in Alcatraz over the last two centuries.

Santucci: Very good. And so your current position with the National Park Service at Golden Gate, what is your position currently?

Elder: I am a visual information specialist. So I do, and I lead the media branch of the interp team. So we develop all the exhibits and all of the brochures and all the websites and social media for the park. I would like to, you know, when I came on, I worked on a geologic brochure for Golden Gate, which never quite came together. It would be nice to get something like that done before I leave. Or maybe after I leave. But I am planning on retiring in the next few years.

1:01:16

Santucci: Very good. Is there anything that you want to share that we didn't talk about already?

Elder: Let's see. I'm not really thinking of anything at the moment. I think those are my main relationships with the park and the Park Service. Yeah. I think you know, if you need help when I retire on some of this stuff, I'd be happy to help out. I will say my intent is, I mean, I don't know, you know, the world we're in right now is so different (laughs) than what we were all thinking a year ago. But my intent is to go back and work with those collections that I worked with at USGS after I retired because they're available a twenty-minute drive from my house. Who else is going to look at them? I have copious numbers of files full of notes and photos. I was working on a manuscript on the inoceramus from Katmai region. These are Campanian Maastrichtian age inoceramids. Quite interesting stuff. I have it all photographed and notes. And so that would be a manuscript that I could put together fairly easily.

And I know there's a number of questions outstanding that Berkeley has on those collections that when I've gone in there they're always asking me stuff. (laughs) So at any rate, if those are available, I plan to go back and work with them. And then in those collections are the materials that I collected from Big Bend as well. I don't know that there's any paper in that exactly without going back, but that's a possibility. So at any rate, I do have plans to move back into paleo some. And certainly might – would be able to assist the Park Service on a voluntary basis if they needed Mesozoic molluscan paleontology.

Santucci: I can think of about twenty things we can have you do, for sure. (laughs)

Elder: Yeah, I'm looking forward to being able to arrange my time to what I want to do.

Santucci: Yeah. The Park Service never had a Mesozoic paleontologist before, per se. So maybe we can create a new position.

Elder: Yeah. That's about it.

Santucci: Well, you know, I want to really thank you for both the interview today, but all the support you've provided with a number of projects that helped us with National Park Service paleontology. And very indebted for all the service you've provided for us.

Elder: Yeah. I guess I didn't mention working on those resource, what do we call those inventory studies?

Santucci: The network? Network paleontological inventories. Yeah.

Elder: Yeah. So yeah, I did work on a couple of those in Alaska. And of course the ones down here. So those are, I put a fair amount of government time into that, actually, in my position here. And you know, that's the reason I'm still here in the Park Service is that I've been given a lot of latitude to work where I want to. It's become more narrowed as I've moved into my current position, because there's so much to do. But you know, still, there's opportunity to do what you want.

Santucci: Good to hear.

Elder: Yeah.

Santucci: Well.

Elder: Okay.

Santucci: I think that's good. I'll hope to correspond with you in the future. When I get the transcript put together, I'll send a copy to you so you have that.

Elder: Okay. That would be cool. Thanks, Vince. And thank you for all you do in the paleo in the parks. I know it's been sort of a long thing. (laughs) Getting you to be where you wanted to be all along.

Santucci: Yeah, I'm pretty happy. And there are so many needs that every day is a new adventure.

Elder: Yeah. It's cool. Well, feel free to call on me or let me know. I'm happy to help out where I can.

Santucci: I really appreciate that. Well, thanks again for everything. And you have a great day.

Elder: All right. Okay. Talk to you later.

Santucci: Bye-bye.

Elder: Bye.

1:07:31

[END OF INTERVIEW]