National Park Service (NPS) History Collection

NPS Paleontology Program Records (HFCA 2465)
Vincent Santucci's NPS Oral History Project, 2016-2024

Vincent Santucci
April 30, 2024

Interview conducted by Nancy Russell and Molly Williams
Transcribed by Rev.com
Edited by Molly Williams

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Transcript

[START OF INTERVIEW]

Molly Williams:	00:00:03	Today is April 30th, 2024. My name is Molly Williams and I'll be interviewing Vincent Santucci. For the transcriptionist, can we please all introduce ourselves?
Vincent Santucci:	00:00:17	Oh hi, Vince Santucci. I'm the senior paleontologist for the National Park Service.
Nancy Russell:	00:00:23	Nancy Russell, archivist for the NPS History Collection.
Molly Williams:	00:00:27	Molly Williams, NCPE intern. So, Vince, where we left off, we wanted to talk about Fossil Cycad National Monument. It existed from 1922 to 1957. Would you mind giving us a little bit of history of this monument, such as what it is and its importance?
Vincent Santucci:	00:00:55	Sure. So fossil cycads are plants. There's a whole science in paleontology dedicated to fossil plants called paleobotany. In the late 1800s, this site in the southern Black Hills was discovered and came to the attention of scientists, paleobotanists, who just fell in love with it because preserved at this site were these remains of these fossil cycads, these fossilized plants that were contemporaneous with dinosaurs. It was in the southern Black Hills in a very scenic area and the preservation on these specimens was extraordinary, that there were aspects of these fossil cycads that had not been seen in the fossil record previously. They had this really strange [interesting] way of reproducing. They undergo budding, and they were able to see different stages of the life cycle of these plants. So, the University of Iowa, a paleobotanist by the name of [Thomas] Macbride made the first collections. When he reported it in the literature, he gathered a lot of interest and excitement from other paleobotanists, including a paleobotanist at the Smithsonian, Lester Ward. So, Lester Ward went to the locality, made some pretty good collections that are today at the Smithsonian, published on these, named a number of

holotype specimens that are still in the collection at the Smithsonian.

00:02:38 But it also generated interest by other well-known paleontologists of the late 19th century, including Othniel Charles Marsh from Yale University. Marsh was extremely interested in this locality, but he was a vertebrate paleontologist. He wanted to get his name associated with dinosaurs and other kinds of vertebrates. So, he had a young student by the name of George Wieland, that Lester Ward and O.C. Marsh conspired to say, hey, let's entice this George Wieland to study the cycads. Of course, it turns out that Wieland fell in love with the site [in the southern Black Hills and fossil cycads]. We can easily say that he was obsessed with the site and spent most of his career studying these fossil cycads, and also looking at trying to preserve the site as some sort of public park or monument. In 1915, the Dinosaur National Monument was created as a unit--well, before the National Park Service, it was created as a national monument and certainly generated a lot of public interest. They [Wieland] felt, let's get this really incredible fossil plant site and preserve it as a monument as well. So, he was very aggressive in terms of lobbying members of Congress, communicating with the administration, getting letters written by the scientific community to support the creation of this [monument].

00:04:23 In 1922 President Harding, using the authority under the Antiquities Act, was able to proclaim fossil cycad, at that time as a unit of National Park Service, preserving it as a national monument. The story with Fossil Cycad though has a sad portion to the tale, in that--and we're trying to determine exactly when all of this transpired, whether it was pre-monument or post-monument. But it turns out that by the late 1920s the National Park Service, although they didn't actively manage the site ... There were no staff. There was not a visitor center or trails. The site was administered through the superintendent at Wind Cave National Park. And if you go back and look at the superintendent's annual log, their annual records, which are usually a pretty good source of information on what happened day to day and week to week in a park, very little reference to Fossil Cycad. During the 1920s there's lots of challenges. The director of the Park Service at that time was really focused on developing some of the bigger parks, so the limited budget didn't really afford the opportunity to do anything for Fossil Cycad during that period after 1922.

00:05:52 By the late '20s it was determined— [by] Roger Toll, who was the superintendent at Yellowstone, during the cold winters the director of the Park Service would send him out to inspect some of the monuments, so that he could report on the status and the needs and that sort of thing. There's a report in 1929 where Roger Toll went to Fossil Cycad, and he wasn't sure if he was in the right place because he didn't see any cycads. So that began the discussion that we know by the late '20s the resource had been depleted. The story goes on that--there's lots of twists and interesting aspects to the story. But George Wieland, although he was a hero who advocated the preservation of the site, may in fact be the culprit who led to why much of that resource was depleted. He was very frustrated that the National Park Service wasn't building visitor centers and doing more to bring the public in, so he constantly criticized and wrote very verbose letters to people in the administration to try to push [his view] that there's more done at the monument. It turns out that in his frustration—he did some good things. He went to the architectural school at Yale University and had a student contest to design a concept for a visitor center at Fossil Cycad, and the drawings are really extraordinary. There's one [architectural drawing] that even sort of looks like a cycad, the design of the building.

00:07:47 But with his frustration and his scientific interest, he was worried about others coming to the site and collecting the fossil cycads because there was no protection there. So, it's believed that George Wieland probably is more responsible than any other individual for the collecting, to the point where there were no fossil cycads remaining at the surface of the monument. During the 1930s, the superintendent at Wind Cave received a letter from the director's office of the National Park Service saying, we're going to participate in the Chicago World's Fair and we want specimens from across the agency to put on exhibit for the public to see. The letter went to the superintendent of Mesa Verde asking for a pot, and when Superintendent Freeland at Wind Cave received a letter, it was to acquire one of the cycads to put on display. So, Freeland sent a team out to collect a specimen to send to the director to use at the World's Fair, and they came back empty-handed. Of course, the reason why is, the resource that the monument was established was largely gone by unauthorized collecting activities. This was an embarrassment. Now the director knows that we've got a problem here.

00:09:21 So in part to appease George Wieland and in part to utilize his interests and expertise, they recruited him to work with the Civilian Conservation Corps to go out and see if in fact there were any cycads that were still preserved beneath the surface. Perhaps they could uncover those and still have opportunities for public education. They in fact did that. We have some great photographs and reports related to that excavation utilizing the Civilian Conservation Corps. They did find some cycads. But the decision began to move in a direction, particularly during World War II when there were greater concerns the country had to focus on, that maybe Fossil Cycad wasn't an area the Park Service was going to be investing money, particularly because of the loss of that principal resource that was why it was defined. After World War II, the post-war period, one of the things that influenced some decision-making by the Department of Interior and the National Park Service to not develop Fossil Cycad, had to do with the Cold War and the search for uranium minerals on public lands to support development of weapons of mass destruction. There are some references within Interior because Interior serves a very important role. The Department of Interior serves a very important role in terms of minerals management, the US Geological Survey, and their role for the Department of Interior on public lands.

00:11:07 The discussions and the pressure mounted to be able to perhaps look at Fossil Cycad for other values and the potential for uranium mineral extraction. During the 1950s there seemed to be this consensus view that Fossil Cycad had little value as a national park unit, like Dinosaur or some of the other fossil parks like Petrified Forest. So, the discussion led to communication with the members of Congress to go forward and to introduce legislation to abolish or deauthorize Fossil Cycad. That in fact happened in 1957, what has only happened a few times in our agency's history, that an area where scientists once stood in awe, that had the potential to provide educational opportunities for the public to understand past life, that we've lost that opportunity with the loss of those resources. Perhaps shame on us in the National Park Service for maybe not doing a better job in being proactive to protect those non-renewable resources. But today, cows quietly graze on lands administered by the Bureau of Land Management.

Nancy Russell: 00:12:27 Obviously, you've done a lot of research on Fossil Cycad and you've written about it a lot. Do you remember when you first learned of this, and what that meant to you when you first heard about it?

Vincent Santucci: 00:12:41 I first learned about it when I was at Badlands National Park back in 1985 and '86, had the opportunity to go out and take a look at this site that used to be. But that was a very busy time in my life for a lot of reasons. I was finishing my master's thesis. I was going to get a law enforcement commission, as I had spoke before, and eventually then I was hired at Petrified Forest. But when I was at Petrified Forest the light bulb came on, in part because Petrified Forest was an area that was experiencing the loss of petrified wood. It just seemed like, wow, there's a lot of lessons that we could learn from what happened at Fossil Cycad that may be applicable, that we can use in our communication with the public about the way we manage non-renewable resources. We're not making any more T-rexes, that how we manage those is somewhat different than how we manage grizzly bears and redwood trees. And to look at Fossil Cycad's story as a model to share, to promote resource stewardship, protection of these resources, including petrified wood at Petrified Forest National Park.

Nancy Russell: 00:14:02 A cautionary tale.

Vincent Santucci: 00:14:03 A cautionary tale. So, I began to reach out and I was saddened by the whole story. Everybody I talked to were in disbelief because most people didn't really know the story. But how is it that the National Park Service, who does everything right, could contribute to the loss of this very special place? There's really no way that we're going to be able to recover that. And perhaps maybe becoming a national park and bringing awareness in newspapers across the country in the '20s and '30s was the absolute wrong thing to do, because it led to the loss of that important fossil locality. I was also saddened by the fact that there wasn't one place to go in and look for all the history on [and records related to] this site and found that it was spread everywhere [to isolated locations]. There were no staff that ever worked there so there really weren't people that we could talk with. There wasn't any developmental plans or anything that would have been [archived] in places like Harpers Ferry Center or the Denver Service Center that we could look at. So, I began with the Bureau of Land

Management, and they had some records they inherited [from the NPS]. But I finally, in consulting with folks, they had suggested to go to the National Archives.

00:15:28 That's where I began to find these humorous letters written by George Wieland, very critical of the National Park Service, in his own beautiful handwriting, that began to open up a richer story. I came to Harpers Ferry Center [in 1991]. One of the first trainings that I was sent to as a new paleontologist curator at Petrified Forest is, I went to the last two-week fundamentals of curatorial methods class here at Harpers Ferry. Boy, that was an eyeopener. It taught me a lot of lessons that I valued all the way through my career and the importance of preserving and protecting these kinds of records. So, on one of my lunches, I ran into the little library at Harpers Ferry Center, and I met David Nathanson. I asked him, "Do you have anything about Fossil Cycad?" He took me downstairs and there were two boxes, archival boxes, that had [labeled], “Fossil Cycad National Monument”. I was thrilled. There were things in there that I had never seen before and portions of the story that came together. So, David gave me some good advice and talking to some of the people at the curatorial methods, they had given me some good advice.

00:16:49 So I began to reach out to the South Dakota School of Mines and the South Dakota State Historical Society and found that they each had little pieces of the story that maybe weren't preserved elsewhere; old newspaper clippings and correspondence and sometimes photographs. So, throughout my career and since those early '90s, I would say that many of those years I have been able to add to those Fossil Cycad collections little pieces of the story that we didn't know before. We've published on this site a couple of times to be able to share that story. But I felt that we owed it to this place, again, that was of importance scientifically enough to be proclaimed as a national monument. So, we now preserve Fossil Cycad with a little better understanding of what has occurred there, some of the mistakes we made, and how we can use that information to better tell the story about the need to be careful how we're protecting non-renewable fossils.

Nancy Russell: 00:18:05 So listening to you talk I have in my head, had this vision of using modern technology and even virtual reality to take one of those architectural drawings of the visitor center that looks like a fossil cycad, and actually make a virtual park

where you could actually have that visitor center that never existed, tell this story. And then have that piece as something that people could actually interact with in a way that, you could use the technology today to do that.

Vincent Santucci: 00:18:41 That is such a cool idea. Story map could be a way to do that. So now you just delayed my retirement for another whole year because we've got to do this. That's a great idea.

Nancy Russell: 00:18:52 That would be an amazing way to use the technology, to do that. Yeah.

Molly Williams: 00:18:58 A lot of potential there. Yeah.

Nancy Russell: 00:19:02 Cool. Sorry.

Vincent Santucci: 00:19:04 That's all right.

Molly Williams: 00:19:05 And then talking about Wieland's passion, he was the constant squeaky wheel to get a field museum or visitor center on Fossil Cycad National Monument land. I recall in looking through these records and the letters that the National Park Service proposed, well, let's just have a temporary exhibition in Wind Cave. Do you think they should have maybe stood their ground a little bit more despite Wieland being like, no, it has to be here? What are your thoughts on that researcher that dictated a lot of what happened at this monument?

Vincent Santucci: 00:19:55 Yeah. The unfortunate course of what had actually happened onsite really limited or prevented the opportunities that could have existed if the Park Service was proactive in developing some sort of presence, visitor experience and protection for the resource. Once it [cycads] was lost at the site, I think we've really lost the important opportunities. Because being able to see things in the context that they are preserved, with the geology and the landscape, adds to the whole story of the paleontological resource, and trying to do it at Wind Cave probably was going to be a stretch.

Molly Williams: 00:20:48 Gotcha. So, the fossil cycads that had been excavated, you mentioned there are some at the Smithsonian. With the role that Yale played through Wieland, are there cycads there? Are they displayed elsewhere?

Vincent Santucci: 00:21:11 There's actually, the more we dig, the more we're finding, and there are cycads that are in at least seven different

collections across the country. Yale has a large collection. Smithsonian has a collection, the University of Iowa, South Dakota School of Mines, et cetera. South Dakota School of Mines in Rapid City is the closest museum institution to the site, so they've been able to gather some based on people who had collected them from the site and turned them over and donated them to the museum so they could be preserved.

Molly Williams: 00:21:52 So in addition to, you identified some correlations between what was happening at Petrified Forest and what happened at Fossil Cycad, are there any other correlations between national parks or national monuments that are experiencing similar resource management crises of a similar level?

Vincent Santucci: 00:22:16 I think the value of what Fossil Cycad shares with us, is that if we're not managing resources the way they need to be--again, whatever those resources are, bison or water or cave resources, if we're not managing them correctly we run the risk of losing them. Of course, that is absolutely contrary to our mission, to avoid the impairment of these resources that Congress has entrusted us, that the world expects for us to do, that we failed at Fossil Cycad. I think if we recognize the importance of learning from the mistakes we made, that hopefully we'll go forward as we train the next generation of park rangers and stewards to not want to ever allow something like that to happen again.

Molly Williams: 00:23:18 Any final comments regarding Fossil Cycad, or are we ready to move on to some other topics?

Vincent Santucci: 00:23:25 I think that's good.

Molly Williams: 00:23:27 All right. So, in addition to your very long list of things you've started, contributed to, you worked on a paleontology oral history project. Was this something that came about because of the pandemic, that it was an idea of something to do during that time, or was this something in the works beforehand?

Vincent Santucci: 00:23:50 Yeah, there's a couple ways to answer that question. One, I was very fortunate about a lot of things, but I was very fortunate in my career to have experience from legendary geologists and paleontologists that are well-known from their time period, people from the greatest generation that I'm old enough to have overlapped with. To be able to go out into the field with some of these very famous names

was a real privilege, an honor to be able to listen to, and hear the past experiences from people who did work in a more pioneering time where they didn't have all the luxuries of the technologies that we have today. They were out kicking dirt and fossils at Big Bend before it was a national park. Wann Langston from Texas, I've been able to go out into the field and he talks about that area in the 1930s when they were first describing it, and the excitement of what they were finding day to day. Now, we take it for granted now because they've been published and put on museum exhibits. But at the time they were making those discoveries, they were defining and beginning to understand the stories that were preserved in those particular places. So, I just cherish those opportunities where I've been able to sit down and talk with or go out into the field with some of these old-school people that largely don't exist anymore.

00:25:28 We've moved away from field-based projects because people are now working off of their computers and looking at satellite imagery to do mapping. But they were the pioneers of their time and to listen to them in the twilight of their lives reflecting over people they had worked with, that you see in all the textbooks and on the websites, getting [learning about and understanding] those connections have been extremely meaningful and I carry those with me. One of my friends when I was an undergraduate, he was a Native American Cherokee. He was getting his PhD in philosophy and we're thinking, what do you do with a degree like that? He was very quiet but when he said something, he said things that were very profound. And the one thing we—I was sitting around one day and he walking about, he said “The way I was raised is that if you look at any individual that you come encounter with in your life, and you have the ability to find out what it is about this person that is interesting, unique, special, because that's the way you want to view people. You want to view people in terms of not the clothes they wear, not the color of their skin, but what kinds of things can they contribute to this lifetime, to themselves and to others?"

00:27:02 He said, "If you had the ability to identify that one thing in every person that you've met and you said, I want that to be part of my heart and soul, I want to look at the good of everybody and bring that inside of me, think about where you'll be down the road." I'm thinking, what a great idea, what a great concept to view that way. Again, being able to

talk to some of these iconic geologists and paleontologists and to listen to them, I learned so much just by listening. It formulated a lot of the things I believe and find to be very important, whether they're conservation or whether they're science or whether just humanity. I grew up with my grandparents, I think I mentioned. They were born in 1902 and 1908, and living with people from that older generation, I've incorporated a lot of the values they've had in their life. They lived through the Depression, and they lived through World War II, and it really built character of people that survived those times. So, a lot of these paleontologists and geologists that I had the opportunity to work with, they were World War II veterans, and they were older generation. And to hear their stories and to learn from them, I figured, okay, I'm going to try to capture every word, but we need to preserve this information [and history].

00:28:42 So that's what led me to think, okay, I can take notes all day but if we capture what they have to say in their words and their emotions and their expression, it's not how I've lost things in translation trying to write it down, this is something that is really worth preserving. I grew up in a family, we wrote letters. I'm appalled with, my granddaughter doesn't even learn how to do cursive writing [in school]. But being a Civil War fan, a historian, reading some of these beautiful, eloquent letters that were written at a time that was important to people, we've lost that and don't want to lose that. I want to hold onto that myself. I want to help to preserve those stories and those perspectives as best I can. The first formal oral history project that I was involved in was when I worked at George Washington Memorial Parkway. We began to learn that we had this World War II top secret interrogation program, that all the records were destroyed, and we needed to know more about this. This is a National Park Service site. There was something that happened here [that we do not fully understand], we want to figure it out. I think I told you that story already, so I won't go into detail here, but what an incredible experience. I went through formal training on how to do oral history interviews. This all made sense. It enhanced our ability to capture things in high-definition audio and video.

00:30:32 But the stories we learned about, were stories that were going to disappear. They were going to go extinct along with these [elderly] men who were involved in these top-

secret programs, that signed secrecy agreements and were told to go home and never tell anybody. And because they were part of that greatest generation mindset, they didn't even tell their wives of 60 years. So here we are, park rangers coming into their home, into their living room with cameras, and they're willing to share that information with us. Oh my gosh, what an experience both personally [and professionally], but to recognize that we were preserving a very important part of American history regarding these [military] intelligence activities that otherwise would have not been captured. It was meaningful also to them because these individuals in the twilight of their lives, who had never shared with their families. The families came from around the country to find out why these park rangers want to talk to grandpap. So, we together learned a history that otherwise was being kept inside and it was going away as each of these veterans were dying. We captured them starting around 2005, 2006. We captured 75 oral history interviews. We recognized we lost a lot of those veterans that we'll never have the opportunity to learn from.

00:32:08 But we learned enough to say that this is a really phenomenal story. It's an emotional story because some of these men were German-born Jews and they [some] lost their family members in the Holocaust. They're telling this, the last time they saw their sister and their mother and father, and we've captured the emotion. Again, there's that other aspect that the German-born Jews are interrogating Germans, Nazis, people that you would think they probably are not big fans of. And how these men told us how important it was to treat them respectfully [and humanely], despite what they represented and what they did, because we had a job to do, and we wanted to capture good intelligence so that it could be used in ways to benefit the United States military and our country during the war. When we're doing these interviews, it was a time in our history where under President Bush there was controversies of waterboarding, Abu Ghraib. And here we are, having men talking about, critically, how our administration is doing horrible things and not only are they doing horrible things, but what they're doing doesn't even make sense from an intelligence standpoint. Because if you want reliable intelligence, you don't want to torture people because they'll tell you anything. There are other ways to get it [information], and reward, trickery and other techniques worked very effectively during World War II in order to gain the information they needed.

00:34:04 For example, the Prussian Waffen-SS colonel who loved bourbon--he's locked up in a cell. He's not going to do much on the war front. If you give him a bottle of bourbon every once in a while, you get the intelligence you need. And it was good intelligence, it contributed to the outcome of the war. So, oh my gosh, what we learned, what we experienced, what we heard for the first time that has not been preserved anywhere else, are now captured in these 75 oral history interviews. That down the road, whenever the economy is good enough to build a visitor center at Fort Hunt and interpret this story, we'll have videos of men in their own words and their own emotions and their own perspectives, and not just what we wrote down on index cards. So, for me, a lot of these men that I had the opportunity to go out in the field with, I'm starstruck. These are my heroes and heroines. They've done legendary things. They're the Cope and Marsh of my generation, that I'm getting them at the tail end of theirs with their wisdom, experience. So that led me to believe, particularly after how positively the oral history interviews went with the World War II veterans, that we need to do this with some of these paleontologists.

00:35:40 Because they're passing as well and they have helped define elements of our science and geology and paleontology, I want it in their words and nobody else is doing it. So, I am so excited that we have these 50 some interviews of largely people [paleontologists] that were leaders in their field, that had an interest in working in national parks. So that preserves our story as well, a very important story, that we're filling up your space in this place to try to preserve all of it.

Molly Williams: 00:36:18 Were there any individuals that you've yet to interview that you'd really like to?

Vincent Santucci: 00:36:26 Yeah. There's one paleontologist at the University of Nebraska who, his career was dedicated to research at Agate Fossil Beds. He just is shy. He feels uncomfortable in doing that sort of thing. We've asked him politely and he's responded respectfully and said, no, I don't think so. So, we don't want to push barriers there because we have a good relationship on so many other levels, that we won't be able to get [some of] those [interviews].

Molly Williams: 00:37:08 So we've discussed National Fossil Day so far. What are some other education and outreach programs or projects

that you're particularly fond of, say like the Junior Ranger program?

Vincent Santucci: 00:37:19 Yeah. The Junior Paleontologist Program is fun. I was in a classroom of homeschoolers in Biglerville, Pennsylvania last week. Again, I come into that energized, excited, just as the high energy kids that can't even keep in their seat. They're so excited to talk about fossils, that I'm just as excited as them. I love to hear their questions because I think I learn from them. I can tell them some stories, but the reality is that what gets them excited helps me to be a better paleontologist working for the Park Service, so I can share those kinds of clues with other people, if we can make those connections and we can protect petrified wood and cycads and things like that.

Nancy Russell: 00:38:09 It strikes me that you have a very unusual, in a very good way, job within a bureaucratic government. In that, ordinarily you get to a certain level and you're naturally more removed either from the resources, from the visitors, certainly from school children, because you're more focused on the programmatic things. But in your case, you're still doing it all. I mean, you have the programmatic piece and you're juggling all of that stuff and legal issues, and all of that kind of stuff. But you're also still engaged in what's going on actively in the field and then you're still going to a homeschool classroom. That's I think a pretty unusual position.

Vincent Santucci: 00:39:01 I probably shouldn't say this on recorded tape, but I constantly complain that we're not getting more funding. We can't create more positions. We have so many things we need to do. We're getting them done despite all of those things and that's our tenacity, to make sure that we marry the Park Service concept of everything that we do in conservation and public education, all the things we do that told me in my life it would be a dream to work for the Park Service and to work as a paleontologist in the Park Service. So, we're trying to fit all those pieces together in the way that we work our magic in the National Park Service, to make sure that paleontology is part of that. We wish we had more but sometimes Justin Tweet and myself, Justin works with me, we smile and say, how lucky we are that it's just us? That we don't have to deal with all these human resource problems, that people above us aren't micromanaging us. They've trusted us. They know confidently that we're taking things in the right direction

and we're making miracles happen through partnerships and other ways, even when there's no money, that they give us the freedom and flexibility to do what we think we need to do. Who can ask for a better scenario than that?

00:40:39 So to sit here and say, in my little [brief] lifetime, in the masses of geologic time and the fossil record, I'm really proud of what we're doing and what we've done. I'm hoping that we pave the way and set the precedent and the bar high enough, so that those that come behind us don't miss a heartbeat, that they feel that same level of commitment and understanding the strategic ways that we did things, that we hope it becomes the standard and the norm carrying paleontology into the future. We love mentoring interns. I just checked the other day, 115 interns I was able to supervise. I keep in contact with a lot of them. I still publish with them and some of them volunteer for projects. In a very small way, it's kind of a revolution of what we're doing in this little time period going from 1985, 12 parks, to 286. We're taking over rooms in Harpers Ferry Center with all of our records and archives. We want to make a mark that they can't ignore us, because they have for a long time. We put in $1,000 to get 20 cents of our time [$1000 of work and effort at an actual cost of 20 cents], but we make it work. I grew up poor so we learned the value of money. I went and collected pop bottles to get 2 cents to save for things. So, it doesn't always take money.

00:42:37 It takes a commitment, it takes passion, heart, it takes a lot of hard work and none of those things that we're afraid of. Because we believe in what we do and reminded of it every day, whether we're talking to a scientist, whether we're talking to a colleague at another agency, whether we're helping to investigate a case of fossil theft or we're talking to a group of third graders, that we're getting our message across, and we think it's a positive message. Lots of interesting stories come up along the way. Our agency deserves it, our resources deserve it. We feel good about what we do and that's why I have no interest in retiring.

Molly Williams: 00:43:30 I'm really going to put you on the spot here, but of all of the NPS projects that you've been a part of, would you say that you'd have a favorite one?

Vincent Santucci: 00:43:39 So you're asking me this question on April 30th. If you asked me, it on the 29th, it's going to be a different answer. If you asked me it 20 years ago, it's going to be different.

Today my answer is, I feel so, so lucky to have you guys help us to preserve 35 plus years of very hard work to try to understand this story. So, the preservation of the NPS Paleo Archives is my favorite, over discovery of dinosaurs and mummified bats.

Nancy Russell: 00:44:21 But yesterday it was a new science-

Vincent Santucci: 00:44:24 Yeah, the brachiopod. I mean, the diverse things that come within our daily work, you can never get bored. I mean, there's always something that fills the day, that is worth taking the time. When you get a call from a park ranger you want to listen closely, what are they asking for? What do they want to know? What don't they know? By providing good customer service to them, they're going to be your advocate. So maybe there's just Justin and myself and some partners, but we actually have lots of help out there by dedicated park rangers in parks that also care about these resources.

Nancy Russell: 00:45:20 You talked about the fact that your management trusts you to do the job and take the program in the direction it needs to go. But it occurs to me, we maybe haven't really called out some of those individuals who have been supportive over time. Are there certain key managers or things that you think deserves a kudos for the historical record for the support for your program?

Vincent Santucci: 00:45:46 Oh, absolutely. Let's see. I can start off with, chronologically, when I got a call in February of 1985 the person on the other end of the line, his name was Dave McGinnis. Dave was the chief naturalist at Badlands, and he said, "Vince, I got an application here for a seasonal ranger position at Badlands." So, Dave opened a door for me, that none of the rest of this would have happened if he didn't give me the opportunities he has. We have a shark from Mammoth Cave that's going to be named after Dave probably within the next couple of weeks. It's in the press.

Nancy Russell: 00:46:36 Oh, nice.

Vincent Santucci: 00:46:37 Yeah. I love Dave McGinnis and the fossil shark comes from Mammoth Cave. I like all the serendipitous aspects of things that we can control when we develop a National Fossil Day logo or all little secret messaging. So why a shark from Mammoth Cave for Dave McGinnis who worked as the chief naturalist at Badlands, a really

important fossil park, who's the longest serving superintendent at Fossil Butte National Monument? He dedicated his life. He demonstrated leadership where you don't get it everywhere. He was a superintendent that used his authority and his time to advocate for the need for all these things for paleontology. He created opportunities for me twice, once hiring me at Badlands and then hiring me as the chief ranger at Fossil Butte where he was the superintendent. And having worked with Dave, he's a guy that says, "One of the most important things I do every day is to make sure I help my employees to be fulfilled in their career as a park ranger." He means that and he exudes that.

00:47:57 So why Mammoth Cave Fossil Shark Dave McGinnis? That's where he started his career—

Nancy Russell: 00:48:04 Oh, nice—

Vincent Santucci: 00:48:04 —at Mammoth Cave.

Nancy Russell: 00:48:05 —a cute little scientific Easter egg.

Vincent Santucci: 00:48:08 Yeah. That's where he met his wife and got married. He doesn't want you to know about how he serenaded her on one of the riverboats on the water, so we'll leave that out of this conversation. But last year we celebrated National Fossil Day at Mammoth Cave. Last year the logo was for Mammoth Cave and guess who showed up? Dave McGinnis and his family. It was just nice to see him. So, we're lucky only to have two of us, because it gives us such autonomy and flexibility to allow dreams and ideas to move forward without impediments that might come with other issues. So, when the Paleontological Resource Preservation Act was finally enacted, signed into law by President Obama, you know who the first person to call me was? Frank McManamon. He had just retired as the chief archeologist and he said, "Vince, congratulations. This is a big one. ARPA has been part of my life for a long time, and I know how it's benefited archeology." He said, "But I want to tell you this. We have 227 archeologists managing 13,000 years of overburden, covering the things that you are going to be caring for that span billions of years."

00:49:52 He said, "I can only imagine how many paleontologists you're going to need to do your job."

Nancy Russell: 00:50:01 So as a stratigraphic marker, how many paleontologists are in the Park Service now?

Vincent Santucci: 00:50:06 12. However, that number is increasing right now. Starting next Monday, we have a new one coming on at Tule Springs. It's going to be shared with Death Valley. Glen Canyon is hiring one. The highest we've ever had was 18 back around 2001, so we're hoping to get back to that level and if I'm around long enough, I'll just be continuing to fight that war. Probably I could quote George Wieland in some of my conversations because of his flowery sarcasm.

Nancy Russell: 00:50:47 I know it's always doing an incredible amount with a very little bit of money, and partnering with other organizations and university scientists and all of that kind of stuff. Have you had support from other types of places like National Park Foundation and those kinds of organizations?

Vincent Santucci: 00:51:14 No. No, we have not. We had a little bit of support with Buddy the Bison when we created National Fossil Day but largely, no. We have reached externally. We've got a great partnership with the American Geosciences Institute, with the Society of Vertebrate Paleontology, the Paleontological Society, where we actually have a memorandum of agreement where they are willing to provide pro bono support to help the National Park Service where we have needs related to fossils. And particularly the Paleontological Society has really stepped up and done some extraordinary things. We have an agreement where we have a cost share. We each put money up each year and right now we're putting that money towards student interns that can work on projects, so they can gain experience and also learn about how we do business in the National Park Service with paleontology, because it's different than academic paleontology and museum paleontology. Doing federal paleontology, land managing, permitting, curation, law, policy, requires a whole different mindset.

00:52:34 I think the archeologists in academia are more aware of how important that is as part of the archeological training, where I think a lot of the paleontologists are still kind of Ivy League, that they want to spend their days talking about dinosaurs and they have less interest in the management issues associated with them.

Molly Williams: 00:53:00 So how many fossil recoveries have you been a part of?

Vincent Santucci: 00:53:04 Oh, my gosh.

Molly Williams: 00:53:05 Or is it such a large amount that it just, don't have a ballpark?

Vincent Santucci: 00:53:12 A lot, but I guarantee that every one of those discoveries is still up here [points to head] and you probably have archives talking about it someplace that you're working with. I may have told you this before, but one of those meaningful days was when I was working as a first-year ranger at Badlands and taking visitors out hiking and they're finding fossils. For almost all of these people, they're coming from the east, from Pittsburgh, from Chicago driving west, their first stop on their way to Yellowstone and the Black Hills is Badlands. So, they get out and stretch their legs and they go on a hike, and they say, "Oh, there's a ranger-led fossil hike. This sounds like something fun. We've never done anything like that before." Taking families out there, not scientists or not bureaucrats, taking families out there, that are in an environment that's alien to them, that there's so much we can share and experientially. And finding a fossil in the wild in a geologic context for the first time, I can't tell you how many people said, "I'll never forget this moment. I forgot my camera today but I'm never going to forget this." They're crawling around and they're making these discoveries in Badlands, and they're not hard to make because it's [fossils are] so abundant. They're finding little teeth and jaws and things like that, that it's a great moment to capture that experience.

00:54:57 Because it might be the most common fossil on planet Earth, but that's their fossil [discovery]. That's the one that they put their eyes on and found in a geologic context where the kinds of questions that they ask, "Oh wow, what's the relationship between the fossil and the rocks?" Okay, that's a fun story to answer. Or "How do you get these fossils to look like the fossils that are in the museums?" And the whole methodology and the science of paleontology and preparation. So, you can have all those conversations, but you know that their adrenaline's going. All the kids are wooing and wowing because grandpa found this little fossil, and they had never seen a fossil in the wild before. I think I've mentioned this before, having the opportunity to see fossils in a natural state in the wild is really an important experience that we can provide the Park Service, and we do very effectively. In those moments, I

say it all the time to everybody I speak with, "Make sure that you tell as positive of a resource stewardship [message] at the moment when they're excited and say, 'This is great. We had this opportunity together to share this with your family. We're never going to forget it. Let's make sure that we allow this opportunity for the next family that's going to come through and why not to take that with you.'" and all that sort.

00:56:31 And it works, or at least they let us believe that it might work. They might have left with those fossils.

Nancy Russell: 00:56:37 But there are still fossils there for the next family, so it's obviously working to a better degree than Fossil Cycad.

Vincent Santucci: 00:56:44 But apply that resource preservation message at that moment. Like I had mentioned before, it's great to go to the National Zoo and see a bald eagle, our national symbol. But it doesn't compare to walking along the Madison River in Yellowstone and seeing an eagle soaring above, and view that same experience with fossils. You can go to the Smithsonian; you can see some wonderful fossils. But how many people--the 27,000 people that come to Fossil Butte, that drive a long distance because they want to see what this place is all about, we love that opportunity to take them in and say, "Hey, come here. Take a look at this. This is a 50-million-year-old bat. It's complete. It was formed in this environment that allows this complete preservation. Very rare. The fossil record of bats is really limited. There are fragile bones that we know of fossil bats in concentrations from caves. But outside of caves, the fossil record is almost non-existent. But here we have a glimpse 50 million years ago of a complete skeleton of a bat," and having the opportunity to get them excited about seeing a bat.

00:58:05 They're rare. There's only a couple of dozen. There's more T-rexes out there than these little fragile fossil bats. And to say, "But wait a minute, come with me. Look outside the visitor center. That's where it was collected from," so that they can make that connection and understand. They can't do that at the Smithsonian. They can take their T-rex and they can take; they're not walking out the door and sharing. National parks have that opportunity. We do it very, very effectively and hopefully we're creating stewards along the way.

Molly Williams: 00:58:41 It sure sounds like it.

Vincent Santucci: 00:58:43 Thanks.

Molly Williams: 00:58:46 So you've had a couple of fossils named after you. Can you talk-

Vincent Santucci: 00:58:52 I can't even pronounce them.

Molly Williams: 00:58:57 Are there any notable stories about how they got your name?

Vincent Santucci: 00:59:03 Well, I'm very proud that they all come from national parks, so that's meaningful. There's a new genus that's being described right now. Did I tell you about this?

Molly Williams: 00:59:17 No.

Vincent Santucci: 00:59:17 Oh, I'll send you the information. It's going to be published probably in the next two weeks. It's not a species that's being named. It's a genus. How rare is that? *Santuccimeryx*. It's a little deer from Badlands National Park where my life began as a paleontologist, that the staff there dedicated it to me. So, very nice. I guess probably the funniest story has to do with the fossil plant from, it's a cycad, by the way, from Petrified Forest National Park Triassic age. Sid Ash, he's passed away now, he was one of the experts in the world looking at plants from Petrified Forest and late Triassic flora. So, one of the first times that I had a chance to meet with Sid when I was at Petrified Forest in the early '90s, I showed him some plants that were in one of our museum cabinets that had collapsed, and everything was mixed up. But there was a really weird-looking plant there and I showed it to him. It seemed like an eternity before he would answer me, but he looked really interested. The first thing he said to me, he said, "How much information do you have about the locality," this and that? He said, "This is brand new. This is new to science." So, I was really excited.

01:00:50 Anyways, I had absolutely no idea that Sid went ahead and published that *Androcycas santuccii*. But what I have to laugh about, my family laughs about, is that the etymology, the derivation of the name. Santucci is my name but *Androcycas*, the “manly cycad”. I thought, “Wow, that probably fits better than the Santucci part”. Is that what you needed?

Molly Williams: 01:01:32 Absolutely, yes.

Vincent Santucci: 01:01:36 You got to have fun with what you do.

Molly Williams: 01:01:41 That's right, you have to. What would you say your favorite fossil species or dinosaur is? Do you have one? Does it change every day?

Vincent Santucci: 01:01:50 Because I have to be a generalist [in our NPS paleontology work], that's really important. So many people get into paleontology, and they become myopic, and they become specialists, and I think they lose the broader perspective. To me, the fun is to see that great diversity of things. So many young students, "Oh, I want to be a dinosaur paleontologist." It's like, oh, how boring. There's a whole world of living things that have come and gone that are non-dinosaurian, that tell such incredibly beautiful stories about the history of life. There are insects, moths and butterflies from the Green River Formation that because they're buried in these very quiet water depositional environments, they retain the coloration pattern in their wings. It's like, come on, that gets me excited. Fossil bats get me excited. So, you can have your dinosaurs, I mean, they're part of the story so I guess we'll tolerate them. But that's why we had focused on the National Fossil Day logos, when we were deciding on the first logo, we didn't know we were going to do an annual logo until we got this great demand and feedback. So, we said, "Let's find something really primitive looking, prehistoric that people don't know about. So that when they look at it, what do they ask? 'What is it?'"

01:03:16 There it is, the teaching opportunity, the opportunity to have them have a broader understanding of the history of life that's non-dinosaurian. So, we absolutely resisted dinosaurs as part of any National Fossil Day logos until next year, no, this year. We've stayed clear. Because there's opportunities to teach about these sea scorpions and these other things, that the kids love them once they learn about them. It's not all just Jurassic Park and dinosaurs. There's some really cool things out there that have their own very special story that were part of this world, and we're lucky to be able to find those as fossils.

Molly Williams: 01:04:03 So while you aren't retiring anytime soon, do you have any words of advice for whoever, or the multiple people, that would come in after you and work to do-

Nancy Russell: 01:04:16 To find people, to do your job when you're not doing your job.

Vincent Santucci: 01:04:21 Yeah. Just take a moment and go to Harpers Ferry Center and stand in front of this incredible archive that Nancy Russell and Molly Williams and Emma have preserved for us. What do we do in the National Park Service? We protect the resource; we preserve the resource, and we share the resource through the knowledge that we gain. There's been too much of an investment of work, and not just what Justin and myself and you have done, of all those that have come before us, of the hard work they did, of the good scholarly science they did, and the care and meticulation of preparing these specimens, that we don't throw it all by the wayside. We will benefit by having that broader understanding as we go forward and we work with the public and we work with politicians and we work with bureaucrats, to make them recognize that this is a world-renowned resource that we have collectively in 286 parks, probably more to come, that tell that story about America's paleontological heritage, that we're fortunate enough to be able to work with on a daily basis in the National Park Service.

01:05:47 So that's my advice, go to Harpers Ferry, email Nancy. Say, Nancy, I'm coming tomorrow. We're going to talk about this paper.

Nancy Russell: 01:06:03 Well, I mean, I think it's very much, anybody coming in needs to understand the history of the resource and the management of the resource, and you do that through the archives.

Vincent Santucci: 01:06:15 Yeah. They're becoming digital but that's okay. That doesn't mean that all of these paper records didn't exist. We've got a letter between Stephen Mather and the famous paleontologist from the Smithsonian Charles Gilmore in the 1920s, when they're publishing in the Washington Post these fossil tracks that are found at Grand Canyon National Park. Of course, the director, who was here in DC said, "I want to come and see these tracks." I think those connections, those little pieces of our agency's history are just as important as any other.

Molly Williams: 01:07:07 Well, is there anything else that comes to mind that we should talk about that we haven't already covered?

Vincent Santucci:	01:07:13	No. I have to say that my bucket list of things to do, and there's still a few on there, that what you Nancy and you Molly and Emma have done is probably one of the most important ones that allow me to go into my life--I'm assuming I'm going to be fossilized--and be able to rest peacefully knowing that those records will be available in the future.
Nancy Russell:	01:07:48	Okay. Well, thank you very much.
Vincent Santucci:	01:07:49	Thank you.
Molly Williams:	01:07:50	Yes, thank you.

[END OF INTERVIEW]