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John: John Harrington was a local Santa Barbara boy who ended up working for the Smithsonian Institution studying California Indian languages and cultures. There's something like 200 to 300,000 pages of notes written by John Harrington. He interviewed a number of elderly Chumash Indians in the early 20th century, one of whom, Fernando Librado Kitsepawit, was a full-blooded island Chumash man. He told John Harrington a story, several stories, about Indians who lived here on Santa Rosa Island.

One of those stories is about an Indian woman named [Tuliana 00:00:43]. That was her Spanish name given to her when she was baptized at Mission Santa Ynez. Tuliana, in her life, she had been married to a man from here on Santa Rosa Island who took off one day and went to Santa Cruz Island, just across the channel from where we are now, and he didn't come back. He found another woman to spend time with over on Santa Cruz Island. She [missed 00:01:16] her husband. She didn't know what had happened to him, so she went to her mother's sister, her maternal aunt. Her mother's sister said, "Don't worry. I know the formula to bring him back."

They danced the [chuteeooish 00:01:30], which is the seaweed dance, the Chumash seaweed dance. They danced together, and they sang a song. The next day, he comes back home. This is the song that brings people home. The aunt told her, she said, "If he doesn't agree never to do this again, you are not to accept him back." He ended up sticking around and was baptized with her at Mission Santa Inez later on, when they went to the mission in 1816.

Speaker 2: That's one of Harrington's stories. Are there one or two more that you recall that are particularly interesting and help give a picture of life on the Channel Islands?

John: Harrington didn't record that many stories from the Channel Islands, but there are some intriguing stories. One is about the people here on Santa Rosa Island who went to the mainland to visit the missions, came back with some chickens. They traded for some chickens. They brought them back here to Santa Rosa Island. The next morning, the rooster crowed, and they thought, "No, this isn't going to work." That was the end of the rooster. He became dinner.

There's other stories told, too, that the Indians tell about Santa Rosa Island. One was an Indian man named [Barulio 00:02:52]. Barulio was from Santa Rosa Island, and he went to San Nicolas Island. He told a story about several canoes from this island who crossed all the way over to San Nicolas Island. On a clear day, you can see San Nicolas Island from here. They probably left from just beyond Skunk Point, our background here that you see here. They took these canoes out to San Nicolas Island.

He describes coming to San Nicolas Island. He describes the Indians from San Nicolas Island coming out in plank canoes to meet them, escorting them into Corral Harbor, which is where the main Nicoleños settlement was on that island. The [Naminacochee 00:03:39] Indians, which is what the Chumash called those people on San Nicolas Island, Naminacochee, they were able to understand each other. There must have been past cultural interaction for people to be bilingual, and maybe intermarriage, even, between people from San Nicolas and the Chumash. He describes some of the things that went on there during that trip to San Nicolas Island.

Speaker 2: How important was Harrington's research and notes in developing interest on the part of other scholars, students, and really paying attention to these islands and trying to learn about them? Was Harrington the force that opened the gates of research?

John: John Harrington grew up in Santa Barbara. He went to Santa Barbara High School. He thus was very interested in the native people of this area, once he went into anthropology and linguistics. Some of his earliest field work among American Indians was here in the Chumash region. He early on met Fernando Librado Kitsepawit, who had been born and grown up at San Buenaventura Mission, but whose parents had both been born on Santa Cruz Island. Fernando Librado was a full-blooded island Chumash man by ancestry. He knew a lot of native islanders there in Ventura when he grew up, and got to know them, and learned a bit of their language. He grew up speaking Ventureño Chumash. He was an orphan and raised by a step-grandfather. He knew a lot of the island Chumash in Ventura.

When Harrington discovered this, he began to query Fernando about what he remembered of the islands. Fernando Librado had been on both islands. He had been on Santa Cruz Island, he had been on Santa Rosa Island, as a sheep shearer. He had come over here and worked during the ranching era shearing sheep, and so he knew the places on the island and knew the places of some of the villages. He didn't know very many of them, but he knew some of them. Harrington did learn from him a little bit about the island culture on these islands.

Male: Excuse me [inaudible 00:06:04] interrupt you, but it reminds me, you told a story about Fernando Librado making the first tomol which hangs in your hall. Could you just tell [Sam 00:06:14] that story, while you're on the subject?

John: One of the things that Fernando Librado Kitsepawit, one of the things he told John Harrington was how to make a plank canoe. As a boy, he had assisted some of the old island Indians and some of the Indians at Ventura in making plank canoes in the 1850s, when he was a boy. He was the last living person to actually know how these tomols were constructed. When John Harrington realized this,

he got Fernando up to a lumber yard in Highland, California, and they built a plank canoe, with Fernando directing how it was made. Today, you can see that plank canoe in our Chumash Indian Hall at the museum.

Speaker 2: How did Harrington influence you, John, in your career? What influence did John Harrington have on John Johnson? When did you first notice him, and where did it take you?

John: John Harrington is one of my anthropological heroes. I first became aware of John Harrington before I went to graduate school. His notes were just beginning to be studied, because he had died in the 1960s, but it wasn't until about a decade later that those notes began to be published. I became aware of all the rich research he'd done on place names. I was interested in where Chumash Indians had lived and what were the names of those places. I was working for the Forest Service as an archaeologist.

I began going into Harrington's notes. Some people gave me some Xeroxed copies of Harrington's notes, and I began studying those. I then discovered more aspects of Harrington's notes. Like I said, there's 200,000 pages or 300,000 pages of notes. I realized what a rich body of material this was. Again, other people were studying it, too, and coming out with books. Over the years, I have continually gone to the Harrington papers to look back into time, to understand the Chumash cultural experience, the historical experience of Chumash Indians, from the time of the missions up to the early 20th century.

Speaker 2: Nice. Were they discovered? Is that a decent question to ask you? Were they unknown and then discovered, or [I've got 00:09:07] some other story there? I can ask you a question, but I'd just like to know, were they discovered? When did people first become aware of Harrington's notes? Had they been lost?

John: Oh, you're talking about Harrington's notes. I was talking about Chumash ... Okay, yeah.

Speaker 2: Were Harrington's notes essentially lost or forgotten, and did they get discovered and then started all this scholarship?

John: One of the things about John Harrington is that he didn't publish much during his lifetime. He was so busy going out to Native communities and trying to preserve a record of their language, and their mythology, and their oral traditions, that he was too busy doing that and didn't spend enough time working that material up into his books or articles. Much of his notes, much of his work was unknown to most anthropologists, because he had stored it away for some time in the future when he would write it all up, but he never got around to writing it all up. His notes are proving to be a treasure trove not only for Chumash Indians, but for

many California Indian societies, and even beyond California. Native people today, descendants today of those people that Harrington interviewed, are going back to the notes, and relearning about their cultural heritage, and relearning their ancestral languages.

Speaker 2: Nice. Thank you. [Peter 00:10:40] [inaudible 00:10:41] Harrington?

Male: Yeah. Oh, yeah. Was it [Mary Beeler's 00:10:45] ex-husband who discovered ...

John: Yeah, yes. Steve Craig.

Male: Okay. Why don't you just finish that up?

Speaker 2: Okay. Yeah, keeping on this notion of discovering his notes, what's the story of how they first really came to light and people said, "Oh my gosh"? Where were the notes, who found them, and how significant were they?

John: When John Harrington died in the early 1960s, his notes had been cached in different locations around California. He'd left boxes of notes in post offices. He'd left boxes of notes being cared for by his California Indian consultants. The Smithsonian was making an effort to find out where all of these caches of notes were. Many, many hundreds of boxes of papers that John Harrington had critical, vital information on these California tribes.

Berkeley got a call. Madison Beeler, who was a linguist at Berkeley, and Mary Haas, who was another linguist at Berkeley, got a call from the Smithsonian. They said, "Can you go down and check on this barn in Gilroy? We understand that there's boxes of papers from this guy John Harrington." They knew who Harrington was, but they didn't have any idea how monumental that work was. They drove down to the barn in Gilroy, and loaded up all these boxes of papers, and brought them up to Berkeley. They began to go through them as linguists, studying the information about languages.

Then there was this undergraduate at UCLA named Steve Craig. Steve Craig had a year-long transfer to Berkeley from UCLA to spend a year at Berkeley, inter-campus studies or something. He was up there at Berkeley. He took a course in linguistics and learned about the Harrington notes. He started going through the Harrington notes, and he found out that there were notes about basketry. He was interested in that, and so Steve published a couple of articles based on John Harrington's notes about Chumash basketry. He then got copies of some of those notes and took them down to UCLA, or maybe they loaned them to UCLA.

Then several other archaeologists down at UCLA got interested in the notes. One was Chester King. Another was Thomas Blackburn. Thomas Blackburn then got a

grant to go back to the Smithsonian to study the papers that were stored back there. When he was back at the Smithsonian, he was going to do a study of shell beads. That was going to be Tom Blackburn's dissertation. Instead, he discovered there was all this material about Chumash myths. He was interested in oral histories, oral traditions, so he started copying some of those notes. They would let him sit there at the Xerox machine and copy as much as he wanted.

He then ended up publishing a book [doing 00:14:10] his doctoral dissertation on Chumash oral narratives and publishing a book with University of California Press based on his dissertation, *December's Child*, which still today is in print. It's never gone out of print since it was published in 1975. Forty years later, continuous print, one of the most popular anthropology books published by University of California Press. Yeah.

Male: Excellent. Thank you.

John: I don't know. That's way more than they're going to want to know.

Male: That's what we like. More is better.

Male: You are boring [Guy 00:14:42]. He's lying down, but anyway.

Male: I'm watching.

Male: I'm standing up, because I ...

Speaker 2: Should we figuratively transport ourselves to Arlington Springs, now? You can truncate these a little bit.

John: I know. I'm probably talking too much, too long.

Speaker 2: No, you're not. John, really, you're not. You can talk as long as you want. If you want to go shorter ...

John: That would be helpful to the editor, I know.

Speaker 2: It's okay if you want. [It's not even that 00:15:09]. It's just that we talked to you at the museum, and we've talked to you over there, and we're talking to you here. Don't feel obliged to take it all the way if you want. If you want, [we love to 00:15:21]. However you want to do it. Let's begin with the first time you ever went to Arlington Springs. Why did you go, what did you see, and how did you feel? "The first time I went to Arlington ... "

John: You want me to talk about how I got involved in it? Because it has to do with this guy here.

Speaker 2: Tell us why you went to Arlington Springs for the first time, and what you did, and how you felt.

Male: [Inaudible 00:15:50].

John: Back in 1987, I think it was, I was just newly hired at the Santa Barbara Museum of Natural History. I'd been there about a year or less than a year. This archaeologist from Channel Islands National Park, who I'd met once or twice, but he came to me, and he says, "John," he says, "I understand you have a block of earth stored there at the museum that has the bones of Arlington Springs Man that Phil Orr excavated back in 1960." I said, "I had seen something in the basement covered with plaster that had the name Arlington Springs written on it, but I didn't know anything about it."

Don Morris, who was the archaeologist for Channel Islands National Park, Don came to the museum. The two of us went down there, and sure enough, there was this block of earth. Don says, "You know, I have some end-of-the-year funds. We can maybe use some of that to see how old those remains really are." That began a collaboration that has gone on ever since, in trying to understand the true age of Arlington Springs man.

In 1993, we had done a little bit of studies with a geologist, Tom Rockwell, on taking soil samples, sediment samples from the block of earth that contained the bones of Arlington Springs Man. We didn't yet know what the age of those bones really were. We were doing some scientific studies, just getting ready to figure out what's going on. Tom Rockwell wanted to come out here to the island. He had never been on the island before, and I had never spent any time on Santa Rosa Island. I think I touched down on a plane flight once.

The two of us came out as guests of Don Morris, the Channel Islands archaeologist. We went out to Arlington Springs, and we did some initial excavation to see if we could find the sediment layers at Arlington Springs where the bones came from. Lo and behold, we could see the outlines of Orr's original dig. At that time, we could still see the outline of his pit, his excavation at the side wall of the canyon. That was my first experience. We were just there, I think, overnight. That was my first field experience at Arlington Springs.

Speaker 2: In the ensuing years, you and Don Morris have been back, I guess [inaudible 00:18:41] many times, and furthered your knowledge and discovery [inaudible 00:18:46] knowledge and discovery. Can you tell us about your joint work and the fact that the two of you who met at the Santa Barbara Museum of Natural

History in fact are still working today? From '87 to 2017, it's almost 30 years of working together. Can you tell us about this nearly 30-year collaboration with Don, your progressive discoveries, and what you now know today?

John: Yeah. Don Morris and I have now been working together for almost 30 years. Over that time, we've collaborated with other people, too, experts in radiocarbon dating, Dr. Thomas Stafford, another archaeologist who has a lot of expertise in paleo-environmental reconstruction and ancient pollen, Jim West, Dr. Jim West, and Dr. Rockwell, another geologist. Over the years, we've developed a collaborative team of researchers working at Arlington Springs.

In the beginning, what we wanted to find out was, what is the true age of those bones that were excavated by Phil Orr back in 1960? We applied techniques that were not available in 1960, techniques of bone chemistry analysis, of collagen purification, of radiocarbon dating, using just small sample of bone collagen. Lo and behold, what that revealed was that these bones were at least 13,000 years old. Dr. Thomas Stafford, who did that research, met with Don Morris and myself at the museum. He told us what he had discovered. We wrote up a paper together and presented it at a conference at our museum, the California Island Symposium, and it became national headlines.

At that time, we thought the bones may be of a woman, not of a man, that Phil Orr was wrong, that it was not Arlington Springs Man, it was Arlington Springs Woman. Some years later, we had to change that evaluation, because in going through Phil Orr's original writings, we discovered that there were some measurements that he had made on portions of that bone that were no longer in existence. We could use those measurements to compare them to a sample of other measurements that had been made from bones from the Channel Islands. It fell more into the male range, about 70 percent chance it was a male. We went back to agreeing with Phil Orr's original opinion that it was a man, not a woman. Arlington Man has gone through several sex changes, basically.

Speaker 2: John, why is it that it made national headlines? Just because it's the oldest known human skeletal remains in North America? Why is this such important news?

John: Why is Arlington Springs such an important site in understanding the prehistory, the earliest people to be present here along the Pacific coast? Thirteen thousand years old is the oldest dated human skeletal remains in North America, right here on Santa Rosa Island. There is only one other burial that's been discovered anywhere in North America that dates almost to the same age, and it's a little bit younger. That's a burial from a site in Montana, the Anzick site.



What does this mean? Arlington Springs was on an island. This person, in order to get out here, had to have watercraft. He had to have some canoe or something that brought him to this island. If one person was here, Arlington Man was here, there was probably Arlington Woman here, too, as well. There were probably other people in his social group living on the island. The fact that they're on an island indicates maybe they were using coastal resources. Maybe they were living off of fishing, and hunting marine birds and some sea mammals and stuff.

That indicates that people very early had a coastal adaptation that it fits in with the whole idea that one of the earliest migrations that brought people into the Americas came along the coast, from coastal Alaska, around the glaciers. One of the first places they would come to would be California, and one of the nicest places in California is the Santa Barbara Channel area and the Channel Islands. We think that the presence of Arlington Man here is indicating that coastal people became settled here early on, and chances are those people were ancestors of the Chumash Indians of today.

Speaker 2: What a fabulous, fabulous [inaudible 00:24:28]. Thank you.

John: Maybe you can clip out parts.

Speaker 2: [Inaudible 00:24:34] questions into that one ... Hang on, now. Don't go away.

John: Okay.

Speaker 2: Give me just a second, please.

Male: [Inaudible 00:24:46].

Male: [Inaudible 00:24:48].

John: Yeah, it gets a little tiring.

Male: You want to take a little break?

John: No, no, I'm okay. I'm resting on the other foot while he's ...

Male: I was just going to say, is it fair to say that that's the, you know the whole thing about coming to America, that that's indication that possibly they were the first people to ... something along those lines. Is that fair to say?

John: I think at this point, it's an area of active research.

Male: [Crosstalk 00:25:20] significance [inaudible 00:25:22].

John: Yeah. People are coming at this question from several different standpoints. People are looking at it from a genetic standpoint, looking at the genetics of American Indians. People are looking at it from the standpoint of early archaeological indicators of people in coastal California. One of the problems that we have is that the sea level was 200 feet lower then, or 150 feet lower then, than it is today. Most of the coastline existed at that time has been inundated and eroded away by wave action. Evidence of early people is underwater or erased from the archaeological record, so it's very rare to find evidence in coastal California that dates to the end of the Pleistocene. That's what makes Arlington Springs so significant.

Speaker 2: Could you describe briefly the discoveries relating to the pygmy mammoth and what we know about their habits, how they might have come to the islands? Then I'm going to ask you ...

John: Don's a better person than ...

Speaker 2: Okay, we'll have Don do that. [Crosstalk 00:26:46] ...

John: I can say one thing about that, though.

Speaker 2: Okay.

John: Okay. Dr. Larry Agenbroad, who's one of the foremost experts in studying the pygmy mammoths here on the Channel Islands, got a radiocarbon date on pygmy mammoth bone right around 13,000 years ago, no statistical difference between the radiocarbon date we got at Arlington Springs. We published an article together with Don Morris and Tom Stafford indicating that these people, this is evidence that the first people here saw those mammoths. There was likely an interaction between mammoths and humans. We know that 13,000 years ago on the mainland, people were hunting full-sized mammoths. The question is, did the first people to arrive on the island, if they saw those mammoths and interacted, they would probably be hunting them, too. We don't know that for sure. We've never found any conclusive evidence, but we suspect that there may have been some hunting of pygmy mammoths that took place. Is that fair, Don? Don and I may disagree on ... No, actually, we ...

Male: [Inaudible 00:28:06 - 00:28:10].

Speaker 2: Peter has a question, but you should look at me for the answer.

Male: As a follow-up to that, you were telling us yesterday ... we may have recorded, but we didn't film it ... about the comet event that happened right about this time, and what the proof is, and what it may have meant for the world, and specifically for this area. Could you talk about that, please?

John: One of the discoveries we made when we were doing our work at Arlington Springs, or one of the discoveries that came out of that work that we did at Arlington Springs ...

Speaker 2: [Crosstalk 00:28:42] start over. Okay? Discoveries.

John: One of the discoveries that came out of our work at Arlington Springs in 2001 was derived from a traverse that we made walking down Arlington Canyon. Dr. Jim West, who was part of our team, noticed that there was a buried log in a pocket of dark soil at the side wall of Arlington Canyon. He's very interested in ancient pollen. He studies ancient pollen from archaeological sites and geological layers. Jim took a sample from around that buried log, and we took a sample of the log itself. We did a radiocarbon date, and it was 12,800 years ago. The pollen, it was very rich in ancient pollen. It showed that there was a pine and cypress forest on this island. Probably some of the pines I'm standing here among these pines were there at that time, more widespread over the island. There's no cypress trees native to the island today, but the pines are still here.

In the process of studying the pollen, Dr. West noticed that when he dissolved the sediments in an acid bath, there were some acid-resistant carbon spherules, little carbon spheres that appeared in his slides when he was looking through the microscope. We brought this to the attention of a geologist, Dr. James Kennett at the University of California Santa Barbara. He became very excited, because what they were discovering is that at 12,800 years, all across North America, they were finding materials just like that in the same time period, little carbon spheres and other rare items, magnetic spherules, iridium, other things that they believed was evidence of a comet impact with the Earth at 12,800 years ago.

Jim Kennett came out to Santa Rosa Island. They took a whole column sample, studied a whole geological section there, did a lot of radiocarbon dating, did a lot of analysis. They discovered that not only were there these carbon spheres and magnetic spherules, little metallic spherules, but there was also nanodiamonds embedded into the carbon spheres. These kinds of things are not explained by any earthly process, and so we believe that this is evidence of this ancient impact where a comet intersected the Earth 12,800 years ago. Research has been going on over the years, continuing to find new evidence, in the Middle East, in Europe, in the Greenland ice sheet, in the ice sheet in Greenland, all at the same time period, showing that this event was cataclysmic across much of the Northern Hemisphere.

Speaker 2: One last question [inaudible 00:32:16]. You got a watch?

Male: A quarter to noon, or a quarter to 11.

Speaker 2: Quarter to 11.

Male: I had to cut, [David 00:32:29]. Sorry.

Male: Cut, okay.

Male: Yeah.

Male: You guys tell us when you're ready.

Male: I'm ready to roll. Speed.

Male: Speed.

Speaker 2: Peter, before I begin, we already know ...

Male: [Inaudible 00:32:46] the mic.

Male: Oh, sorry. [Inaudible 00:32:47].

Male: Thank you.

Speaker 2: We don't need the whole story leading up to the Navy decision, do we?

Male: No.

John: My wife is always telling me, "Make it simple, John. Make it simple." I tend to go on.

Speaker 2: The question is, just a few months ago, the Navy issued a determination that gave essentially the rights to the cave that's believed to be the Lone Woman's to the Pechanga. Can you describe that determination? Is it a correct determination? If so, why, and if not, why not?

John: Okay. One of the unfortunate things is that after the discovery of the Lone Woman's cave on San Nicolas Island, that the excavation was stopped by the Navy, which I hope is a temporary pause, that people, archaeologists, will be allowed and permitted to go in and take a sample to determine how early that cave was occupied, because that's a very spacious cave. It's been above sea level since the end of the Pleistocene. There's a chance that people have lived there

throughout the prehistory of San Nicolas Island. The earliest people to arrive there probably sought shelter in that cave. It's the best cave I've seen on any of the Channel Islands. It's 80 feet deep. It's very spacious. You can get the whole tribe in there to seek refuge during a storm. I think that it has a great potential to yield insight and to give us a picture of the whole prehistory of the Channel Islands, if archaeologists are allowed to undertake scientific studies there.

Speaker 2: "The Navy decided," is that all you care to say? Do you not want to talk about the Navy?

John: I can talk about the Navy. What?

Speaker 2: Requests were made by Rene Vellanoweth, among others, to go in and continue excavation. Excuse me. Those requests were subsequently denied. Can you tell us why the Navy denied the requests to excavate the cave?

John: I think that the decision by the Navy not to allow excavation in the cave was mistaken, and a mistaken interpretation of the law, actually. There were some Native Americans, Luiseño Indians from Pechanga Indian Reservation, who made a claim to cultural affiliation on San Nicolas Island. We know that the Indians of San Nicolas Island were not Luiseño Indians. They were Gabrieliño Indians. They spoke a language that, although it was related to Luiseño, it was different. They had different traditions, different customs, from the Luiseño Indians.

I don't believe that that affiliation claim is valid. Also, it has nothing to do with whether or not you excavate a cave. The whole business about cultural affiliation, as defined by NAGPRA, the Native American Grave Protection and Repatriation Act, has to do with burials. There's no burials in that cave, so far as we know. If burials were to be encountered during an archaeological excavation, then NAGPRA would come into play.

There are several things that I think are wrong with this picture. One of them is that I don't think that the Pechanga Band of Luiseño Indians, I have nothing against the Pechanga, but I don't think that they're culturally affiliated with San Nicolas Island, number one. Number two is NAGPRA doesn't apply to excavations in a cave where there's no human burials or no human burials have been discovered. Archaeology should be allowed to proceed.

Speaker 2: Okay, I think that basically does it because of what we have from elsewhere.

Male: No, that's good.

Speaker 2: Very nicely said.

Male: [Inaudible 00:37:06]. Do you know ...

Male: Do you the story of [inaudible 00:37:14] and Steve Schwartz? I can use [inaudible 00:37:16] just Steve right now.

Speaker 2: Do you know that he searched for almost 20 years, and then he got the map, and then he got the field notes, and that was the "aha" moment, and he [was on 00:37:31] the cave shortly thereafter? Do you know that story? Could you tell us the story of Steve Schwartz's understanding that there was a cave, and then the different tools he used to ultimately find it [at least 00:37:44]?

John: Yeah. Steve Schwartz, who worked for the Navy for 20 years or more as an archaeologist, is a very serious, indefatigable researcher, and had carefully read all of the documents and gathered together all of the documents related to the Lone Woman of San Nicolas Island. He kept coming across references that she lived in a cave. He went around that island looking for caves. He didn't find any cave that would match the description of where she lived, so he was at a standstill there.

He eventually realized that there was a benchmark, or he discovered there was a benchmark, on the south shore of San Nicolas Island that was called Cave, Cave Benchmark. There were several caves in the neighborhood. He wasn't sure which cave they were referring to, but it was possible they were referring to the Lone Woman's cave. He looked, but there was no cave in the area that would match the cave where she lived. He was at a standstill until there was a researcher up at Berkeley who was studying the early field notes of the surveyors who originally surveyed on the California coast. He found in this surveyor's notebook the description of where the cave was and that the Indian woman had lived in this cave.

Steve used those notes and was able, using the surveyor as the compass bearing, able to locate where the cave would have been. There was no cave, so they began an excavation. He worked with Dr. Rene Vellanoweth from Cal State Los Angeles and then his archaeology field school. They began to excavate down, and down, and down. Still no cave. At one point, Steve put his trowel into the side wall of the cave, thinking it was sandstone, and it was sand, not sandstone. Then he realized that, as they excavated down, there was beginning to be evidence of a cave. Many, many bucketloads of sand later, they actually got down to the original floor level of the cave. Sure enough, it was a beautiful, spacious spot. She would have been very protected living there when she lived alone on that island with her dogs.

Speaker 2: Excellent. That work for you, [Brent 00:40:24]?

Male: Yeah [inaudible 00:40:24].

Speaker 2: Good. That was a gift to Brent. He has Steve saying that, which is very good, but we would just have Steve. Now we can cut you and Steve back and forth.

John: I've only been on the island one time, and it was with Steve as his guest.

Speaker 2: [Inaudible 00:40:43] not you.

John: I saw the cave. Yeah, Steve should get the glory.

Male: Oh, no, definitely, but it just moves the story along, that's all.

John: Okay. Yeah. Okay.

Speaker 2: Now we have [Ivan's 00:40:52] questions. Do you want to take a break? Everybody want to stretch your legs? Why don't we cut for a second? Everybody [crosstalk 00:40:58].

John: Haven't we covered Ivan's questions?

Speaker 2: I don't know. Let's look at [crosstalk 00:41:02].

John: I think we have.

Speaker 2: [Do we have them 00:41:03]?

Male: No.

John: I'm happy to do more if you want. [Put it 00:41:06] out here. May I say something?

Male: Yeah.

John: Yeah.

Male: Oh, you mean for the camera?

John: Yeah.

Male: Okay.

Male: I don't [crosstalk 00:41:15].

John: One person that doesn't get enough of credit, I think, but who really is the godfather of the present generation of archaeologists on this island is Dr. Michael Glassow from University of California Santa Barbara. Mike Glassow is the mentor of many of the current generation of archaeologists, and the generation that they're training. You might say that Mike is the great-grandfather of many of the archaeologists that are doing work on the Channel Islands. He did the first archaeological overview of the Channel Islands for the National Park Service, and recently did an updated overview a few years ago for the National Park Service, and has done groundbreaking research on the Channel Islands over the years. I wanted to say that.

Male: Do you have any photos or videos of him?

John: Of Mike?

Male: Yeah.

John: Oh, yeah. I have lots of photos. I have photos of Mike. Mike was my mentor in archaeology. Yeah. I worked with Mike in New Mexico. I worked with Mike in California [inaudible 00:42:24]. He was chair of my dissertation committee. Yeah.

Male: [Inaudible 00:42:28] Ivan's questions.

Male: That's a good point. Excellent point. I'm glad you [inaudible 00:42:33].

Male: All right, cut?

Male: Yes.

Male: Yeah, let's cut for a minute.

John: [Inaudible 00:42:37]?

Male: Ready to go? Four questions, unless whatever Brent's got about the tomol.

John: Did the Hawaiians come here? You never say never, but I doubt it.

Male: This is a big broad question of all broad questions. Hang on just one second, please. [Inaudible 00:43:08]. [Inaudible 00:43:13]. [Nothing you can do about it 00:43:16].

Male: [Inaudible 00:43:19].



Male: [Inaudible 00:43:25]. Okay. Thank you. [We're going to go to the 64 00:43:28]. What is the significance of archaeological discoveries on the Channel Islands?

John: Why are the Channel Islands important for informing us about human history in this area? For Chumash Indians, their cultural heritage is here on the Channel Islands, so it's very important for them to understand their ancestral past. For us as anthropologists and archaeologists, the Channel Islands are a wonderful laboratory for understanding change in prehistory. Why is that? Why are the Channel Islands important for understanding prehistory?

Out here, there are no burrowing animals, so the archaeological deposits are undisturbed by being turned over. There's no bioturbation that's going on. You get this nice layer cake. You can really understand cultural change without mixing of deposits, for the most part. There's also a continual long-term changes going on, times when there was droughts. There were major droughts in the past, nothing like we've experienced in the past several centuries. There were times that were very different climatically. There's been a lot of environmental change over time.

How did people respond to those changes? How did they adapt to those changes? How did they interact with the natural environment? How were they stewards of their environment? How did they subsist out here? How did they make a living? How did they impact the native plants and animals and seashore life through their activities? All of these are important questions that help us understand human condition, understand long-term change. You can only get a look at that through the study of archaeology. Furthermore, how can we in the future become stewards of the natural environment if we don't understand the long view?

Speaker 2: Beautiful answer. I think the museum going to want that for a video [at the front door 00:45:57]. How do you see the future of archaeological research on the island? You've given this beautiful statement about how important it is. What's the future of archaeological research here?

John: I think the future of archaeological research on the Channel Islands is very bright. There are a number of young up-and-coming archaeologists trained by their mentors, who were trained ultimately by Michael Glassow at UCSB, who is really the godfather of archaeological studies out here. The future of archaeological research is very bright. New dissertations are being written. It's a laboratory for the study of change in this area. The dissertations are revealing things we didn't know about just a few years ago. I think those kind of discoveries will be important and continue to lead to other discoveries.

Also, these museum collections by the early archaeologists that were out here, by Phil Orr, by David Banks Rogers, those collections we can turn to again and again, like rare books in a library, to ask questions of those collections, questions that they didn't think of, questions that we aren't even thinking of today. As new scientific techniques are developed, we can go back to those collections, and learn new things, and shed light on what happened here in the past.

Speaker 2: Excellent. [Inaudible 00:47:32] ask you to give an example of some of the recent dissertations that are shedding new light ...

Male: [Inaudible 00:47:37].

Speaker 2: If you [inaudible 00:47:40] you said there's some new dissertations in the last few years that are very exciting. If you could just say a couple of examples. You don't have to. I'm just curious, if you have them at the top of your mind. No big deal if you don't. An example of a new way of thinking, however you want to say it [inaudible 00:48:00].

John: Yeah. As examples of some new dissertations that are being done here on the Channel Islands, one that was just completed is by Heather Thakar, who's now teaching at Temple University in Philadelphia. Heather's dissertation on the western part of Santa Cruz Island has led to many interesting discoveries about cultural change and environmental change on the Channel Islands. I don't know.

Male: That's fine.

John: There's others.

Speaker 2: [Inaudible 00:48:40]. Thank you. Oh, yes. Still on this broad subject of archaeology, how do you involve and work with Native peoples as you conduct archaeological studies?

John: Yes. Yes.

Male: Looking at me, please.

John: Okay. One of the important changes that has taken place in archaeology in recent decades is involvement of Native people in archaeological studies, both as collaborators, colleagues, co-researchers, and consultants, as we move forward. Here on the Channel Islands, there are people today living in Santa Barbara and Ventura Counties who are descended from people who lived here on the Channel Islands. Because of studies of the genealogies and the mission records, we can identify them with where their ancestors lived at the time the missions were first founded. There are also a current generation of Chumash descendants

who are going into anthropological studies. They're getting their degrees in anthropology. They're going into graduate school, doing graduate work. That's going to be a very important, I think, contribution in the future, is having Native people studying their cultural heritage themselves and publishing information about it.

Speaker 2: I think I have one more, John, and then you'll be released.

Male: Not quite.

Speaker 2: Oh, Brent has [inaudible 00:50:26].

Male: Never. [Inaudible 00:50:31].

Speaker 2: Last question is about trade between the islands.

John: Four questions ago, you said it was the last question.

Speaker 2: [Inaudible 00:50:41].

John: Okay, no, I'm fine.

Speaker 2: Plus, we have the car keys. Last question is, a description of the trade between islands and between islands and the mainstream. What went between the islands, what went that way, and what came back? If you could describe trade between islands, Chumash, [inaudible 00:51:06], others, and the mainland, and back and forth.

John: We can tell by studying archaeological collections, both the ones in the museums and the ones that are being resulting from recent field work, that there's a lot of trade that's been going on throughout prehistory between the islands and the mainland. The obsidian is one thing that shows up out here. There's no obsidian on the Channel Islands, so they must have gotten that through trade with the mainland. There's other kinds of lithic stone tools that show up out here that come from the mainland. There's also bone material, deer bone, for example, and even bear, artifacts made from bear long bones, and elk, have shown up out here on the Channel Islands. They had to be obtained in trade.

What were the islanders trading in return? We know, at least in some cases, originally they were trading cuts of meat, shoulders from sea lions and seals, to the mainland, one of the trade items. There's also, we're finding, certain kinds of carved stone mortars, bowls, that are being traded from the northern Channel Islands to the mainland. Later in time, beginning, well, we don't know how early, but one of the common things on the islands are the beads that are made from

the shells of the *Olivella biplicata*, the purple olive shell. It's a very common little marine snail that's found here in the sandy beaches on the east end of Santa Rosa Island.

We know that those beads over time became a form of currency and were traded to the mainlands for resources they didn't have on the islands, probably including some kinds of seed resources, acorns and things, which were not as common out here and more available to people on the mainland. We suspect that in times of food shortages that occurred from time to time, that the people of the islands, that bead money became critical. That bead money that they manufactured could be traded to the people on the mainland for food that would help sustain them through times of scarcity.

Speaker 2: Very good. Thank you. [Inaudible 00:53:58]. Last question, John.

John: Your credibility is ...

Speaker 2: Looking at me, please.

Male: Years ago, tomols would go back and forth. [Folks are 00:54:12] trying to bring that back. What happened to the tomol? What happened [for it to stop 00:54:19]?

John: Okay. I'm going to answer your question, but I'm going to say something else first.

Male: That's fine. That's fine.

John: Yeah, yeah. One of the interesting things in the study of the mission records of the Indians who came from the Channel Islands and were baptized at the missions is we can study marriage and family patterns. We see there's quite a bit of intermarriage among the different islands. There were people from Santa Rosa Island marrying people from Santa Cruz Island, marrying people from San Miguel Island, and so on. They're also marrying across the channel. That gives us a clue, whom they're marrying is giving us a clue about what the canoe routes were across between the islands and the mainland. We can see that there aren't just specific locations people were crossing. People are crossing directly across the channel from their village to the one that's closest to them, and they're meeting those people and intermarrying with them.

With regard to the tomol, we know that the last tomols being made on the mainland by people from the Channel Islands, it was the 1850s when the last tomols were being manufactured. Because of Fernando Librado, who was interviewed by John Harrington, he helped making those tomols, and so we

know how they were made. In the early 20th century, Fernando Librado worked with John Harrington to make a tomol. Harrington took extensive notes on how they were manufactured, interviewing Fernando. Today, descendants and others are replicating those tomols using John Harrington's notes so that they can bring back that knowledge and use those tomols today. I think it's a very interesting development.

Speaker 2: Last question.

Male: [Inaudible 00:56:32] why did they disappear? Why are they [inaudible 00:56:37]?

John: Why did they disappear?

Male: Why did they [crosstalk 00:56:41]?

John: I'm going to quote Don Morris here. I don't have a clue. No.

Male: [Inaudible 00:56:50]. Why did they disappear?

John: Okay. I think tomols disappeared because of the introduction of watercraft that was more stable in the water. Tomols disappeared because with Europeans' new improved watercraft were introduced to this area, and so they were using those boats instead of the traditional plank canoes.

Male: Fair enough. Of course, the whole life on the island had changed by the 1870s and ['80s 00:57:28].

John: Yeah. You want to talk about [inaudible 00:57:31]? Is that what you're trying to get at?

Male: I was just trying to get that they were removed from the island, and it was [inaudible 00:57:36]. [Crosstalk 00:57:40].

John: That's a good question. Why did the islanders go to the missions? It's a million-dollar question. What caused the islanders to leave their homes here on the islands and go to the missions? If we study the records, the Spanish records, and in this case, we study Spanish records in Peru, and what do we see? In 1816, 1815, 1816, there was a very severe El Niño event. In fact, more severe than any El Niño event we've experienced in historic times or more recent times.

We know that when the water warms up during an El Niño event that it causes the kelp beds around the Channel Islands to die. Where were the Indians doing all their fishing? They were fishing in the kelp beds around the Channel Islands. They would have experienced a time of hardship during that very severe El Niño

event in 1816. The missionary at San Buenaventura Mission, Father Jose Señan, writes that there were famine conditions on Santa Rosa Island in 1816, that the Indians out here were starving. When do we see most of the islanders, almost the entire island evacuated and people migrating to the mainland? It's in 1816.

You can ask the question, why didn't they do that earlier? They must have surely experienced El Niño events earlier in prehistory. Yes, they did, but what did they have then that they didn't have in 1816? Then they had trading partners. They could trade their bead money for resources during an El Niño event when they had scarcer fish available to them. In 1816, all the people they used to trade with were now at the missions. They were living at the missions, so their old trading partners were no longer available to help them buffer that shortfall that they experienced during 1816, during that very severe El Niño.

Speaker 2: Excellent. Tied it up in a perfect bow.

Male: Well done, John. You are done. Next victim.

Speaker 2: Take a little break? Little break?

Male: Yeah. How's your leg?