

Transcription: Grand Canyon Historical Society

Interviewee: Nancy Eileen Muleady-Mecham (NM)

Interviewer: Tom Martin (TM)

Subject: Nancy discusses her life before entering the park service as a firefighter

Date of Interview: November 17, 2020

Method of Interview: Phone call

Transcriber: Kaitlyn Cox

Date of Transcription: December 11, 2020

Keys: California, UCLA, Catalina Island

TM: Today is Tuesday, November 17, 2020. This is a Grand Canyon Oral History interview with Nancy Muleady-Mecham. My name is Tom Martin. Good afternoon, Nancy, how are you today?

NM: Good, thank you.

TM: Great. Nancy, may we have your permission to record this oral history over the telephone?

NM: Yes.

TM: Thank you very much. Nancy, what year were you born?

NM: I was born in 1955.

TM: Where?

NM: I was born in Los Angeles, California, in Queen of Angels Hospital, where my mother worked as a nurse.

TM: How did she meet your dad?

NM: My mom met my dad through their parents. Their parents played bridge together and other card games, so when they were teenagers, they knew each other. They went on to date other people. Then after the war they met again through their church, and the rest is sort of history.

TM: What was your dad doing at the time?

NM: My dad was a student. He was going to school for engineering. He went to UCLA and then moved up to the San Francisco area and finished his degree at Cal-Berkeley. My mom was a Cadet Nurse during WWII, and she had gotten her degree, and then she worked at Saint Joseph's Hospital in San Francisco while my dad finished his degree in engineering.

TM: So, Cadet Nursing, does that mean that she got her nursing studies through the services?

NM: Yes. It was a nurse cadet corps, which started as a civilian nurse corps, but then they wore uniforms and helped. My mom was a scrub nurse and what they call a circulating nurse in surgery, so she helped with a lot of the wounded people.

TM: When did she go into the cadet corps for nursing?

NM: 43, 44, I think it was.

TM: And did your dad serve in the service?

NM: He did. He liked to say he was a grunt. He was in the 71st division of the 3rd army. He was in Europe and he fought in many battles, and he was on the Rhine when he got some shrapnel wounds that he didn't put in for a purple heart because they were on his behind and he was embarrassed by where it was. He told the story about... they were on the island in the Rhine – which I actually saw a couple years ago when I was on the Rhine – and he was a 50-mm mortar man, so he would carry, set up, and load and fire the mortar. The other mortarmen said the Germans were shooting at them from the east, and then the American's mortars were falling short and hitting them on the island, and then people next to them, their mortars were under trees, so their mortars would go up and hit part of the tree and then that would come down on them. So, he wasn't sure who was shooting at them at that point.

TM: How did they get on the island in the first place?

NM: They went over in little boats; I think it was.

TM: Did he have hearing problems later on?

NM: No, he didn't have hearing problems. He did well. He went to – I'm trying to think of the German word for it Kehlsteinhaus – but he was part of the people that went up into the Eagle's Nest. Hitler's place...

TM: Up in Bavaria...

NM: Yes. But my dad spoke German, and he spoke French. This Irishman (his heritage) spoke German, and he took it (German language) in school. He wasn't a translator, but there was a point... he told a story where they had a German officer... They had captured this hospital, which was being used by the Germans as a headquarters, and they needed some quick translation. My father went over – to a German Major – and he was translating for his U.S. commander. When he was finished, they told him (my Dad) to take him back wherever he was going, and my dad did a detour. My dad knew all officers had fire arms that were not rifles, just little other things like that, so he asked the man in German where his fire arm was, and he said it was in his office. My dad said 'Raus', and they went off to the major's office inside there. There were GIs already in there and looking for souvenirs. My dad asked the major in German where it was, and he said it was behind the door, so my dad pulled the door open and there was a beautiful luger pistol that he took with him.

All the GIs were disappointed, but my dad brought that luger home from WW2 and would show it to his kids and then my brother has it now that my father's passed. But one of the things that bothered me the most about some of the more modern takes on WW2 is my father saw people released from prison of war camps, and my father didn't go into a lot of details, but it was an awful experience, and those people really were killed, and there was a Holocaust and those deniers drive me crazy. Then he was part of the occupation force in Paris, and he went to school there. He shared a flat with a bunch of other GIs, and it got so cold one winter that they cut down a telephone pole, and they sent it in through the window to the fireplace. So, lots of stories my dad tells.

TM: Were your mom and dad of equal age?

NM: No. My mom was a couple months older than my dad. Born in 24 and 25, 1924 and 1925. My mom was born in 24.

TM: Okay. She must have wanted to help the war effort, so got into the cadet nursing corps, and sounds like your dad right out of high school enlisted.

NM: He was 17, going on 18. He had poor vision. He had to wear glasses. With glasses he had great vision, and he told us the story about how he went in, and he knew he wouldn't pass the eye exam. At that time, it was very a patriotic period of time, so he went in without his glasses on and the optometrist knew right away that he couldn't see the big E on the chart. So, he said 'Excuse me, I'll be right back', and in the meantime my dad jumped up and memorized the eye chart. When the guy came back he asked him to name everything and my father did, without his glasses because he memorized the eye chart.

TM: That's great. Then was he able to wear his glasses in service?

NM: Yes. They had military glasses, and he could wear his own for sure, but it was the matter of just getting past that first hurdle. They called them the on the 71st corps, while they went across Europe and where they ended up.

TM: So, your mom went through the training, did she get sent overseas?

NM: She did not. She took care of the people who came back, and then she worked civilian care because there wasn't a VA at the time, so a lot of the soldiers were being taken care of in civilian hospitals. She would tell me about different cases and different things wrong with people and what they did. Even as a kid, before penicillin, she would get boils on her forearms, and her dad would take an old whiskey bottle and boil water on the stove. They'd pore it in this glass bottle the size of a fist, and then he'd wear his asbestos gloves. They'd pour the water out and put the mouth of the bottle on the boil and the temperature change and the pressure change would suck the puss out. Then the heat would cauterize the wound. That's how they took care of several severe infections.

She also told me during the war there was something called a Wangenstein, where they didn't have electricity at times... I looked it up one time, and lo and behold I was watching a M.A.S.H episode where they lost electricity, and Potter knew about a Wangenstein. It's a way of putting in a chest tube without electricity to suction the air out, and so you'd have bottles with different water levels at different elevations above each other and you could make this pressure gradient that allowed a chest tube to work. My mom knew all these left-handed ways of doing things. Growing up as a kid, if anybody got hurt, nobody went to the doctor, they all came to my house, and my mom took care of them. We call them nurses, but they did so much more because of the lack of doctors. She did all kinds of stuff.

TM: Was she interested in that as a child?

NM: She loved to draw. She loved exploring. My mom had the most curious mind of all, and as a result I think that's where I got mine. A lot of moms would send their kids out to play. There were six of us. But she came out and played with us. Sometimes when we were kids we went to the semi-local appliance store, and she came back not with appliances but with boxes – six different boxes, refrigerator size boxes – and we'd put them in a line and paint them up. One day we'd be a train, and the next day we'd be an African boat, and the next day we'd be something else. My mom helped us decorate these boxes and we'd just have a blast. It was these big old boxes. One time a bird died and so she sat down with me and we dissected it together. She was great.

TM: What year were they born, I mean, your mom and dad, when were they married?

NM: My parents were married in 1948. June 26, 1948. My mom was born June 6, 1924, my dad March 14, 1925.

TM: You mentioned you were one of six?

NM: I'm 43f.

TM: Wait, run that by me again?

NM: I'm 43f – fourth child, third female. My dad, the engineer, when there were programmable phones, he would just put 43f and it would dial me, or dial somebody else. My sister Kathleen, she was 11f. First child, first female, 11f. He was fun that way. He also came up with fun... My dad was quick-witted, and he would come up with something like boat, and he would spell it bote – basic overwater transportation equipment. He was very clever.

TM: Interesting. Wow. Okay. Your dad then went on for his engineering at Cal-Berkeley.

NM: No. UCLA and Cal-Berkeley were about equal, so when he finally got his diploma, he had to pick between them, and he got his diploma that said UCLA.

TM: He did?

NM: Yeah. It said UCLA, even though he went to both of them. I think he went a little bit more to UCLA.

TM: Is that because your mom was there?

NM: No. My mom didn't go to UCLA, she went to nursing school.

TM: I'm sorry. I would think that your mom was working in L.A., and your dad... had he finished his schooling by the time they got married in 48?

NM: Oh yes. He was already working as an engineer.

TM: Got it. When you were born – in 55 – you were born in L.A, so your folks were still living there.

NM: Right. My dad worked for Space Technologies Laboratory. He became an aeronautical engineer. He helped design the lunar excursion module for the Apollo program. He worked for Space Technology Laboratories, he worked for North American Aviation, and then finally worked for and retired from TRW, which was absorbed about ten years ago by Northrup Grumman.

TM: All out of the L.A basin.

NM: Yes.

TM: And so that's where you grew up?

NM: I did, except for two years.

TM: What was that like?

NM: I loved it. I'm a California girl. I'm a southern California girl. Big Dodgers' fan. Big Vin Scully fan. But for two years my dad was assigned to the Pentagon. My dad could speak five languages by the time he passed away, and even could speak some Russian. He worked for defense aeronautical assets, which I don't really know a lot about, except I think it had to do with ICBMs and stuff like that, getting attacked... He actually was part of the people that briefed the presidential staff for two years, and then he came back to California. It was a two-year appointment, so it was known that we were coming back.

TM: The two-year appointment... was he offered basically then a job with an administration, or was that through his work?

NM: No, no, no. He worked for TRW. In addition to space contracts, they had defense contracts. This was under the defense contract aspect of it, but he could not tell us... I think that was kind of hard on my parents' marriage, once he went from space technologies to defense stuff. He couldn't come home and 'how was your day?', 'it was fine', that was it. He really couldn't divulge to anyone he talked to or what he said...

TM: I'm assuming that your mom left nursing to raise the children?

NM: She did. Well, she did partially. She left paid nursing and she raised the six kids, and she was there for us, but when we all became teenagers and fairly capable, we liked to say we sent my mom off to camp. She became a camp nurse at Camp Wasewagan in the San Bernardino mountains. She'd go off and be the camp nurse. I think it was some sort of pseudo-Indian word, Wasewagan. When she was gone for however many months, my dad – being an engineer – would make us spreadsheets, and put it in on the refrigerator... whose turn it was to make dinner, whose turn it was to do the laundry, whose turn it was to do this, and all that kind of stuff. We all had our marching orders while mom went off to camp.

TM: Did he put his name on that list?

NM: Of course not. My dad was very, I guess the word would be sexist, and I rebelled against this quite a bit. I was a tomboy. The girls did inside work, and the boys did outside work, and I didn't like that at all. We had a lot of arguments because of that. We lived at a place where I wanted to mow the lawn, but I wasn't allowed to, I had to go and do the dishes. We didn't have a dishwasher so we would do them by hand. At one point, being a product of the time that it was, he said if he had money to send somebody to college it would be a boy because he has to support a family, it wouldn't be a girl. That's why I had to support myself through all of my college years.

TM: I think what you mentioned there, the crux of it, was that your dad was a product of his time.

NM: Yeah. He was born in Illinois. My mom was born in Denver, Colorado.

TM: They were both in L.A, so you think they would have gotten some exposure to... even Berkeley had a long history of being...

NM: In the 40s it doesn't matter. He was conservative, and pretty much set in his ways. You would have thought, but it didn't happen. My mother, for instance, would say a black person had a great tan. My dad was not as thoughtful in describing black people.

TM: Yet they hung together and raised a family.

NM: Yeah. Because that's what you did back then, you hung together. Kind of a détente sort of at the end. Fifty-two years they were married.

TM: Fifty-two years?

NM: Fifty-two years. I think they made each other laugh, and that's what worked when the bloom comes off the rose. They had enough arguments about the kids especially just because I had a not very good brother, and that's what kind of pulled them apart, was my brother's situation and antics. But they

hung in there for everyone. There was nothing they enjoyed better than to have the family, and the grandkids, and the cousins, and everyone, over. We had so many people over – family reunions – because we ended up living near a beach, only four blocks from the beach. Everyone would come to the Muleady house. We'd go down to the ballfield, and it'd be enough for two full teams, and half the stands would be filled with the Muleady's and their clan. We had a lot of fun.

TM: Did you learn to swim in the ocean?

NM: I learned to swim in a pool in San Bernardino. I remember the swimming lessons distinctly because I got so cocky one time. I jumped off the edge of the pool and did a pirouette on the way down – feet first – and hit my chin on the pool and split it open. My mom – she wasn't even five feet tall – reached down and pulled me out, made a butterfly bandage to stop the bleeding, and fixed it up. Let me go back in the pool because it had chlorine in it, and so it was good for that. My mom fixed it up. I remember learning to swim as a little kid, and then when I went to the ocean... I'm a fish. I'll swim anywhere anytime; it doesn't matter the temperature. I love it. I learned to body surf, and I specifically took a job, between my junior and senior year of high school, and my senior year and my first year of college, where I would get off at three thirty, so I could go back and run down to the beach, play volleyball and go swimming till the sun set. I did that all summer long. I worked on an assembly line where I made semiconductors and integrated circuits under microscopes with a whole line of twenty ladies. If I wasn't going to go to a college before that, I certainly was after that, because some of those people had been on that line doing the same thing for twenty years.

TM: Describe that to me. These were circuit boards you were soldering up?

NM: The Company was called TRW Semi-conductors. It was an assembly where things would go from person to person. I would – under a microscope – take a solder, a gold solder, and connect one dot with another dot, with a line of gold amalgam. Then it would go to the next one and I would do that all day long.

TM: It would scoot in your station, you would solder these two dots, and then it would scoot off to the next station?

NM: Yeah.

TM: All day long? Wow.

NM: All day long. Yeah. Minimum wage. The lead lady, her name was Barbara. She was this wonderful black lady. I think she was from Inglewood and the thing that I remember about her was that she cracked us up and she took no prisoners, but I loved her dearly. She had this large bosom, and she told us one time she was like a forty-four D or whatever it was. Sometimes one of the ladies would ask her – because it was a real mix of people, white, black, Hispanic, I was actually in the minority in terms of white workers – 'aren't you ever worried about going home?', because she lives in Los Angeles, in Boyle Heights, I think it was. We all know that wasn't a very good part of town. 'Aren't you worried?' She reached into her cleavage and she pulled out a derringer and she goes, 'nope' and she puts the derringer back in the cleavage. Barbara was great.

TM: Oh my gosh. This would have been 72ish? 73?

NM: I was seventeen and eighteen. So, 72-73, 73-74, around there.

TM: You were fifteen in 1970... so, alright. Yeah. Did you all go on summer vacation kind of things in the station wagon?

NM: Yeah. We did. We had a station wagon – a 54 Mercury that we called the 54 Merc – and my dad put seatbelts in, so we were probably one of the first cars to have seatbelts, but he put them in, and we would go on vacations. Because there weren't a lot of freeways in southern California, unbelievably, we'd get up before the light would come up and we would drive long distances on surface streets in southern California to get to families' homes who might be in – let me see, where would they have been – Tustin, Riverside... this would have been San Bernardino-Norwalk area.

TM: It would take you most of the day just to get across the L.A basin?

NM: It would take several hours. We wanted to get there by eight or nine o'clock in the morning, so we would get up at like five o'clock or something, I know it was still dark. If you needed to go the bathroom... with six kids you couldn't keep stopping, so my mom had Tupperware – one of her sisters worked for Tupperware – she had a big Tupperware bowl and it had a top with a hole in it. Boys could pee in the bottle and girls would sit on the Tupperware top and we would pee as we went along. We didn't stop much, and then because we were still sleepy, the seats were put down in the station wagon. We wouldn't wear our seatbelts at this time, we'd all just be asleep in the back of the station wagon as they drove off to wherever we were going.

TM: Where did you go?

NM: Whittier (?) is where I think we went the most. My dad had a brother there, and my mom had a sister there.

TM: These were trips to visit with family?

NM: Right. When we went on vacation, I remember we used to go up to Lytle Canyon when I was a real little kid. Lytle Canyon is on the way to San Bernardino, in St. Angeles National Forest. Mostly we went to the east side and the west side of the Sierra Nevada, and to the national parks. My love of the east side came from these vacations. We would stop at a place called Dirty Socks. It was called that because there's Sulphur springs there. We'd stopped on Walker Lake, Owen's Lake, and they'd stop at a place called Little Lakes. There was always this store there. We would go inside and use the bathroom and maybe have a soda or something, but here we all got to buy a little tapestry. Mine was like a three by two of polar bears and I still have that on my wall. I just love that.

But after I grew up, I heard that – and I've seen since then – this building has burned down. Little Lake store's not there anymore. We would stop there, and we would go up the east side. We would just camp everywhere. We often went up to Kennedy Meadows. Now there's two Kennedy Meadows in the Sierra Nevada. One is on Highway 108, which is near Senora, way up here where I am now. The other one is off southern California, south of Lone Pine, and we went there a lot. We used to camp, and my dad had this great big tent. We all set up the tent, and there was a left side, a right side, and a middle side. The boys would be on the left, the girls would be on the right, and my parents would be in the middle. We went on wonderful hikes. We often went up to Sequoia National Park, and we went to Devil's Postpile, and we went down in southern California to Mt. Palomar State Park. Oh, lots of places.

One time my dad had tickets to go to a Dodgers game. He took the top three – remember I'm number four – and so he took Kathleen, Tom, and Sheila. I, the baseball fan of the family, didn't get to go. He

was being egalitarian???, not taking the fan. Sheila could care less, and Kathleen could care less, but they went. I was so distraught that I couldn't go to this Dodgers game that my mom... she must have communicated this with a friend of hers, so we went over to her house and she had this old raggedy saddle, it didn't even have stirrups on it, and she gave it to me. I would sit on that saddle, on a barrel or on this, that, the other thing, and just ride off in the sunset. I just loved it. I'm one of those seven-year-olds that fell in love with horses and never fell out of love with horses. I worked at stables when I was twelve, I did horse patrol at the Grand Canyon. Today every year I lead backcountry horse-packing trips in the Sierra Nevada. Horses have always been a big part of my growing up. I'll never forget my first saddle because I couldn't go to a Dodgers game.

TM: And you were seven roughly?

NM: No. I was a little bit older. I think I was nine. Seven when I fell in love with horses, but my first saddle I think I was nine.

TM: Did you ever own a horse?

NM: Yes, and no. Yes, I had a horse, but I didn't own it just by me. When I worked at some stables, there was a horse named Dynamite. It was a western cut horse, and I could seat well, I didn't get thrown off very easily. I'd learned to ride when I was three years old. There's even a picture of me on a horse at my uncle's ranch in southern California at that age. I remember visiting, and this time, I was probably four or five years old, I was riding behind my cousin. There are tie downs on the back of saddles tying your jackets, and I was on the back of the saddle sitting on the horse. We were just running across this big open area and the tie downs broke. I fell off the horse and fell on my butt and they just kept going, had no idea I'd fallen off. But I knew he'd come back, so I just sat there holding the tie downs until he came back. I think I was five years old. No, I've been riding ever since I was three.

TM: Where was this ranch? I'm sorry, I missed that.

NM: Solvang. It's inland from Santa Barbara. Then again, about five or six, probably six or seven, again we were at the ranch. Sam the palomino was getting old, and so my Uncle Bob cautioned us 'don't ride double on Sam, Sam's getting old'. My brother Tom says, 'we won't ride double, we'll ride triple', so he put three of us on and of course we got bucked off immediately. That was the beginning of not trusting my brother Tom, too.

TM: Interesting. So loved horses...

NM: I didn't expect these stories. For you to make all these stories come out. This is interesting.

TM: This is great. What do you remember about your first Dodgers game that you were actually able to go to?

NM: Oh my goodness. Then... everyone took a transistor radio and they listened to Vin Scully on the radio while you watched game. He would say things like 'It's the third base umpire's birthday today, so in the sixth inning, I'm gonna get you all, in the sixth inning in between things, you all sing happy birthday to you'. The umpire would look up and say, 'what the heck is going on?'

TM: ...because he wouldn't be listening to the radio.

NM: All sixty thousand people in the stadium. Then when I became a teenager... I should precede this with, I'll post it with another story. If you got good grades in school, you got free Dodgers tickets, and I thought 'well if that's all it takes'. I got As and I was published in the Los Angeles Times as an A student. I would get free tickets and then your name would be published in the paper. I would go to Dodgers games that way, and of course it took someone to take me there, so my parents or my aunt or uncle or somebody would get us to the game.

When I was a very young kid, I guess I was having problems in school. I was in Catholic school for the first three years. The second-grade teacher, Sister Mary Helen, my memories of her are so positive and wonderful. I guess she pulled my parents aside and said, 'she's not stupid, there's something wrong, but she's not getting any of this' and she said, 'she needs to go to an optometrist'. She says, 'I moved her to the front of the class, and it got a little better but not yet.

I remember being seven years old. There was some sort of a band parade outside when I got my first pair of glasses at the optometrist, and I remember putting them on and looking out the window and seeing the light off of the brass instruments, and that I could see them for the first time and how sharp everything was. It was just amazing. I remember being able to see for the first time at seven. Before that, and to this day, because I learned to see without glasses for so long, when I swim in the ocean without glasses I can read the waves that are coming by the shadows and the lights and the things. I know how far away they are, and I know how to catch them. I don't think I could have done that had I not learned to see through lights and shadows. I really think that's... you know that I like to draw.

TM: I didn't.

NM: I send you a Christmas card every year with my drawings on it.

TM: You're drawing those? Well, okay.

NM: Those are my drawings. I draw not so much looking at what it is, but what I see, and what I see is light and dark. So anyway...

TM: Okay. And after you got the glasses did things...

NM: I had straight As after that.

TM: I'll go back to the Dodgers tickets based on good grades, was that something that the school did, or the Dodgers did?

NM: It was sponsored by the Los Angeles Times, and it was for everybody in L.A. county. At this time, I was living I think in a... I can't remember, it was when we came back from Maryland, and I was twelve years old or so. I was in junior high, and then in high school.

TM: That would have been a nice perk then.

NM: It would have been, but even if it wasn't...that's all it was for me, it was a perk. I'm the kind of person that if I was given an assignment due in a month, I'd go home and start it that day. I am not a procrastinator. I hate things hanging over my head. I like to get things done so I can move onto the next thing that needs to be done. I'm a doer, that's how I define myself, I'm a doer.

TM: Baseball and horses, swimming, a fish... What else did you really enjoy as a child growing up?

NM: Running. Just running anywhere. Running and throwing. I always got in trouble for throwing things, but if someone said 'hand me that' I'd always toss it to them. I ran everywhere, a regular little forest gump girl. And laughing, I liked laughing. Exploring. Oh my god, I loved exploring.

TM: Like what? Where?

NM: When we lived in San Bernardino, I was a little kid, and we had a fairly large yard area. We had a front yard, back yard, a side sort of yard. I would go crawl through the bushes and I'd climb up the trees and I would find an old building and I'd explore it front and back, going anywhere that I could go, anything new.

TM: Nice. Were your brothers and sisters like you? I'm thinking back on your mom and dad. Very intelligent people, very smart, creative. Yeah, people of their times, I get that, but I always think of... when I interview people I think about their parents, and how much their parents made the people I'm talking with. Did your parents encourage and foster your knowledge for exploration?

NM: My mother did. My mother did. My father, again he was caught in a time warp. To give you an example, when I was a high school student my freshman year I took biology when you're supposed to take some other class, and the next year I took chemistry, and the next year I took physics, and anatomy and physiology. They ran out of science classes for me, so they invented one for me. By my senior year I had a wonderful mentor, Elizabeth Estill and we were doing all kinds of things. She taught me how to do experiments and how to write things up. I did one – a very elaborate experiment – and submitted it to a national science foundation called the Westinghouse Science Talent Search. Now it's called Intel Science Talent Search, I think. I won and my paper was "Application and effects of low temperatures on amoeba proteus in relation to pinocytosis."

TM: Which means...

NM: Which means that I did an experiment with the little amoeba that you look at under the microscope, the single-celled organism. When you eat something as a single cell the eating is called phagocytosis, when you take a liquid it's called pinocytosis, and how was that effected by temperature. I used a colored dye, I used different temperatures, thermometers, and learned how to write the question, how to write it up. I won several awards as a senior, and as the result of winning this science talent search, I got offered free rides to about maybe twenty different colleges throughout the United States. Letters from the Senators – Tunney – the senator of California. Anyway, I got letters from senators of congratulations and all that stuff, but I only wanted to go to UCLA. I wanted to go to UCLA for a specific reason, but they didn't offer me a ride, I only got partial scholarships for one year to UCLA. My father said 'You should go to one of these other places they'll pay for the whole thing', and I said, 'But I don't want to go those places, I want to go here', and because of that, he did not help me in school at all, ever.

TM: Why did you only want to go to UCLA? Not in defense of you father here, but I'm saying... gee, a four-year free ride today, that can happen quite a bit, but back then...

NM: It was because of what they offered, what they were doing, what I wanted to do, and the programs they had there, and where I wanted to be. I didn't want to go to Pennsylvania, I didn't want to go to Wyoming, I wanted to stay in California. This school had two things... I also was a college athlete, I got on the basketball and softball team at UCLA. In fact, when we were practicing my freshman year of

basketball, the men's coach came over and talked to us, and said 'way to go!' That was Coach Wooden, so it was really fun to be a part of.

TM: This is Coach Wooden from Indiana, who took... John Wooden, wow.

NM: Because I had affiliations with UCLA already... because as a high school student I was already going there to the library, doing studies, because I thought perhaps I wanted to go to be a surgeon. I thought I wanted to be a biologist, and then I decided to be an East African ecologist. I had a chance to listen to Jane Goodall lecture in southern California, and that really inspired me, and I knew... anyway, for a host of reasons, I wanted to go to UCLA. And so, I did.

TM: Let's go back to high school for a minute, because I do want to kind of cover that a little bit. What sports were you interested in in high school?

NM: I went to Mira Costa High School, and I was in the Girls Athletic Association, GAA, all four years lettering. The first year I was on track. I ran, short distances, and did field stuff. We didn't have javelins, but we had shot put, we had jumping, and we had things like that. Then the next year they had to cut some things, so they cut the woman's track and field, so after that I played basketball and softball, every single year. One of the senior awards I got was in athletics, as well as in laboratory science and in field science.

TM: And where did you go to high school?

NM: Mira Costa High School in Manhattan Beach. Another mentor that meant a lot to me and I'm still in touch with him today was Gary Hartzell. He was a history teacher. He and Jean Hartzell, his wife, became very good friends, and I babysat their boys, who are now in their forties. I'm still in touch with them. He was on Laura Bush's library committee. Yeah, he went back to school and got his PhD in library sciences. I loved high school. I loved my junior year of high school most of all because then I could drive. My dad loved it when we could drive because then they didn't have to drive us anywhere. We could drive each other anywhere.

TM: Did he get another car?

NM: Yes, as a matter of fact. We got a 1960 Studebaker that we named Charlie. We also had a 1965 Chevrolet van that my dad had bought new in Maryland and we brought it back. The van held eight easily, and I remember in the summertime when we were all teenagers and had jobs, we would all get in and somebody would drive and drop us off, each one of us off, at a job, and then come pick us up at the end of the day. I had a sister who worked at Unimart, which became Target. I worked at Taco Bell. Somebody else worked at Pier 1 Imports. It was really an interesting time

TM: Yeah. Gosh. It sounds like you had some amazing teachers in high school that matched your key interests and studies and desire to learn, that's really wonderful.

NM: Yes. It was. I loved learning, I loved going to school, which is probably why I just kept going.

TM: Thinking of Elizabeth Estill and Gary Hartzell a couple of people that taught you from high school that you remember now.

NM: And Sylvia Holly. She passed away. She was one of two black teachers at the school, and she was the coach of the basketball team, and the assistant coach of the softball team, and she was a P.E

teacher. I'll never forget, I just thought the world of her. We were doing rehearsals for graduation and I was CIF in Academics, and I was first in line of the ones that wore the CIF awards. We were practicing walking out of the stands and I'll never forget her sitting there going "way to go Muleady!" and to have my coach say I did good because of academics was huge to me. I can still see that, and it meant it's okay to be smart and a jock, too.

TM: Again, another strong teacher supporting students.

NM: Yes. Yes.

TM: Okay, so you were looking to go to UCLA for the sports that it offered and for the curriculum that it offered.

NM: Primarily for the science, and then I just liked to play sports. I had to quit all of my sports my sophomore year because of two reasons. One...

TM: In UCLA?

NM: At UCLA. I had a scholarship. I had multiple scholarships the first year, but they all ran out after the second year. If I was going to stay in sciences, all of them had labs or field trips, and I either had to pick between the sciences or traveling off to University of Pennsylvania or wherever to play softball. Being an athlete at UCLA, a student athlete, did not go well if you were a science major, a serious major. I stopped my sports after my freshman year because I had to go to work. I had three or four different jobs beginning my sophomore year.

TM: What did you do?

NM: One of the jobs was very interesting. I read to blind students. This is before audiobooks, and so I would read to them. I remember going to the Braille reading room. They had all kinds of magazines and stuff, and one of which was Playboy. Yes, they did read it for the articles, because there were no pictures for them. I remember that I hated psychology – for whatever reason, I know it's because of my brother, but I hated psychology – and one of the students was a psychology major, so I had to read him an entire textbook in psychology, and that was... As I read it, they recorded on a cassette what I was saying so they could listen to it again. Just like you they would ask me to spell a word or whatever. I read to blind students. I was an intermural field sports referee. I got that job easily because they just want you to be a student athlete, and I said 'I can't but, can you pay me to be – when the students get together and they play flag football and stuff, I can be one of the referees and get paid that way'.

My biggest job I had beginning my sophomore year was, I worked in a microbiology and immunology laboratory. That was very fulfilling, very insightful, and very difficult. I'd get up at five o'clock in the morning and go to the lab. I would harvest the liquid cancer called ascites, from mice, and then prepare it for being reinjected into other mice. I worked for Doctor Benjamin Bonavida, his laboratory, and what they were doing was they were doing something new, which is used quite common now, called monoclonal antibodies. There was something called a gamma counter. To give you an idea, you take these tumor cells, and cancer reproduces much faster than the other cells. You put in radioactive iodine and they're growing in this medium and you treat it with whatever it is you're going to treat it, and if it works on the cancer cells they explode and release this radioactive iodine, which you can then count in the gamma counter. You put these things in the gamma counter and you get a low count, that means whatever it is you were trying to kill the cancer with didn't work, but if you got a high count, there's

something that maybe is killing these cancer cells. My job as the technician was not to do the experiments, but to maintain the cancer cells so they could do the experiments. I was taught very well how to do things.

I remember there was a senior lab technician, and I wish I could remember her last name, but her name was Barbara. She was Asian American, and she wouldn't swear, but she used to say 'shoots', so every now and then I say 'shoots', instead of somebody saying the bad word. I would go in, I would grab the mouse, put forceps behind its neck, pull its tail, break its neck, go and slice it open, harvest the cancer, put it in these things, go in and thin it down with media. Then they would work on them during the day. I would then come back in the middle of the day, make media, which is the growth factor that these cells grow in, or assist in doing that. Then I'd come back at nine o'clock at nighttime, and make sure everything went into the incubator correctly and was maintained well, and then reinject other mice with this strain, to keep the strain going.

It was a minimum wage job, but I also did things like went to the copy machine and if you wanted a copy of a journal article you could ask for it, and you might get it within weeks if they send it to you, or you could just copy it down out of the journal and send it to someone else in the department. I worked the copy machine a lot. As a result of that, my last couple years of college I was a B rather than an A student, which really frustrated me, but I had to work. After that, for my Master's degree and for my PhD work I was straight As because I had work that I could do, like teach, which was fun and easier for me than getting up at five o'clock in the morning or reading to blind students.

TM: These things like reading to blind students and coaching intramural sports, and working in the lab...

NM: That was three of four jobs.

TM: Was all that through UCLA, and they would say 'okay, you do this for us, and we'll reduce your tuition' ...?

NM: Oh, no, no, they were just paid jobs. Then the last job I had is, I had to move out of the dorm on campus because I couldn't afford the dorm. I lived in Sproul Hall, second floor, and then my sophomore year I moved to an off-campus facility and I was one of the RAs, resident assistants. I had to be there at certain times to make sure people followed the rules, make sure the doors were locked at nighttime and that kind of stuff. I had four jobs my second, third, and fourth year of college.

TM: Did you ever talk to your mom about this? And say, 'hey, I'm doing well, I'm enjoying this...'.

NM: My mom would slip me what she could, 20 bucks here, 20 bucks there. Finally, my sister Sheila... We're Irish twins, we're only eleven months, two weeks and one day apart, so we're very, very, close, and she actually had a job on campus, and we would have lunch together. She said, 'you look awful, you look awful, you need to go to student health', and I said, 'I don't want to go student health'. Finally, I went to student health and they said I was anemic because I wasn't eating right, which was true. So, Sheila would buy me blocks of cheese and things like that. I used to have – after I left my freshman year, when I worked in the dorm – a little toaster oven, and I had a pot with a handle. I would put Campbell's Chicken Noodle soup in the pot and stick it into the toaster oven with the handle sticking out, and that's how I would heat my soup, because you're not allowed to have hot plates and I'm a rule follower, but there was nothing about toaster ovens. I would have my Campbell's Chicken Noodle soup and I lost a lot of weight in college. I probably didn't eat right but my sister would give me blocks of cheese and my mom would slip me money here and there. My father and I became estranged.

TM: And these things happen.

NM: Yeah. We got sort of back together later on, when I became a park ranger for the national park service and they would come and visit me and see me in my uniform and see me giving walks, talks, even programs... being capable, and later on doing search and rescue and all that stuff. My mother said he was very proud of me and all that kind of stuff. He just couldn't see it back then. He was still very biased, guys over gals.

TM: Right. It's difficult for his generation, women were teachers or nurses or moms.

NM: No, no, they stayed at home. Even that extreme.

TM: He would be like, 'why do I want to invest in that?'

NM: '... all you're going to do is get married and have kids and what are you going to do with that education?' Because my older sister Kathleen...

TM: Such a defeatist argument...

NM: It is. I was a straight A student. I was the one who was reaching for the stars, and it was just... My older brother was a mess, and then my older sisters each had issues, and I was truly the one that achieved in the family, and the one who wanted to get out there and be a part of life. It was frustrating. I just made, and ever since then I've been making, my way into life.

TM: Okay. Yeah. So, camping growing up, can't have been high school... but working summers. Sports. You mentioned you'd attended a talk from Jane Goodall.

NM: Yes, I wanted to be an East African ecologist in the worst way.

TM: It sounds like you wanted to be a renaissance woman, sort of exposed and knowledgeable in many things.

NM: It is. I couldn't decide, really, I wanted to be everything and do everything. There was a show when I was a kid called *Daktari*. It was about a guy who was a doctor in East Africa. He was a veterinarian doctor, and he was a people doctor, and I said, 'oh god, that's what I want to be. I want to do it in East Africa, I want to drive a land rover, and all that stuff'. I wanted to do that and so that was my goal in life was to do that and...

TM: How did you manage that in UCLA because universities want, at the end, a certificate that has one thing on it?

NM: That was interesting, because when I went to UCLA and decided I was going to be an East African ecologist, people laughed. They would ask my major and I would say biology, and they would say 'are you pre-med?' 'No.' 'Are you pre-dental?' 'No.' 'Are you pre-vet?' 'No, just a biologist'. I was one of the handful of biology students that was going in to be a biologist there. It was rigorous because for your biology major, it took three physics, three calculus, and six chemistry classes, let alone the biology, just to do that. I would have the very best background because of that, and so I knew I could get into any graduate school with that, even UCLA, because my senior year I did so well.

I did field studies in the deserts and I did field studies at Catalina Island and later on I got a job one summer working – two summers later – as a marine biologist at the Institute for Marine and Coastal

studies at Catalina Island. My very first published paper was done based upon the sea cucumber, which was a holothurian an echinoderm, which I studied with the director there. My first published paper was as a marine biologist.

TM: Cool. Let's go back to the desert for a minute. What studies were you doing, field studies in the desert?

NM: I did studies on two different things. I studied Dipodomys, which is a kangaroo rat, it's the genus for kangaroo rat. I would get up early in the morning and I'd walk the mile and a half to my study site where I'd set up my traps, and I would identify who it was, key them out, mark them, release them, and then come back, have breakfast. Then I would go back out and study antelope ground squirrels. But because this was a group thing, we would all sit down and we'd listen to, every day... somebody was studying Sceloporus, which was a western fence lizard, and somebody else was studying this, and somebody else was studying that, so we would learn about how they were doing their studies. We would do all that. I remember the professor, he brought one of the telescopes. It was the first time I really remember seeing Saturn and the rings of Saturn from the telescope. I learned a lot there, and then in the marine biology work, that was half a semester, and then I graduated.

That summer I had a job with a pretty famous physicist, his name was Cole, and he worked at UCLA. He was doing something called helical electrophoresis. Electrophoresis was at the early stages, and it's a way of using molecules within DNA to separate them out to make a blueprint of them. You could see what they were and that's what electrophoresis does. That's the basis for identifying some of these DNA today. He had a way of doing it in a system, like from floor to ceiling, which was a helix, a great big spiral. My job just was to make the media in the laboratory. I would go in and talk to him. He had a signed picture from Einstein on the wall. He was really a cutting-edge chemical physicist at the time, and he was the basis for DNA fingerprinting today. I had a chance to work for him for a summer.

TM: Very cool. Let's go back to Catalina Island for a minute and talk about this, your first published paper. Catalina Island is... fifty miles off the coast.

NM: No. It's like the old song, 'twenty-six miles across the sea'. Twenty-six miles. If you look at it in profile, there's kind of a mountain range, and then a dip, and then another mountain range, and that dip is called the isthmus, where you can walk from one side of the island to the other without having to go over these mountains. That's where the USC / UCLA Institute for Marine and Coastal Studies was. When I was there as a student, it was learning how to do science and marine biology. It was the coolest thing, because I'm still friends with two of the grad students that were there at the time: Bobette Nelson and Rich Ambrose, who later got married. I would go back and stay with them multiple times.

You would study something in particular, and I was studying a sea star, some people call it a starfish, called Linckia leviuscula. Most people know that when a sea star loses an arm it grows another arm. The sea star I was studying, yes, it would grow another arm, but the arm would grow a whole other sea star. Somehow it was able to turn the locks off its DNA to grow a whole other organism. It's called asexual reproduction. My research was why? What makes it do that and nobody else? I was looking at things... okay, why would you not reproduce successfully sexually to keep your species going? Why would you have to make more another way? I was looking about predation pressures, male to female ratios, all kinds of different things with my studies. The cool thing about being a senior capstone student there was you dove twice a day for your work, but then everybody else has a study, too and needed a buddy diver. There's like fourteen of us, so you ended up diving seven or eight times a day, scuba diving.

I learned to scuba dive when I was fifteen, because one of my jobs... I should digress for a second. My next-door neighbor was one of a twin, Bill of Bill and Bob Meistrell and they had a dive shop called Dive 'n Surf. They later invented a company called Body Glove. I learned to scuba when I was fifteen, got my certification at sixteen and so this year's fifty years I've been scuba diving. They were just wonderful. I had all my stuff, and he goes... after I graduated from the class and I was all ready to go and enjoy the sport of scuba diving. I'm a sixteen-year-old, which means diving off the beach a lot because you don't have your driver's license. I went into Dive 'n Surf and he fitted me out in a wetsuit with a hood, and got me the tank and the B.C – buoyancy compensator – and the regulator and a mask and all that stuff. He said 'okay, got a hundred bucks?' and I said, 'I do' because he'd talked to my parents. 'I do, here it is' and I hand him ones and twenties. That's exactly it. This is over six hundred dollars I later found out. He was just a wonderful person. When I was at the institute doing biology, they (Bill and friends) would come by all the time in their boat and we'd go diving and we'd do all kinds of stuff. Anyway, I learned to dive as a kid and I had thousands of dives, I'd just go off the cliffs in Palos Verde or off the beach with friends, just get my tank filled and take off again.

TM: Diving seven to eight times a day. How did you get any studying done? That sounds great to me, you get to see what other people are doing.

NM: You sleep four to five hours a night. They're only forty-five to an hour dives in between, but this was how we learned. For instance, when I dove with Rich Ambrose, he was studying octopus. We would go down, and he'd have these suction guns. We would go to where the octopus eggs were, in the back of the lair, and when they came out there were these tiny little white things, these tiny sharp arms, and we'd slurp 'um up. Then when I helped Bobette with her work – and I went back and helped her several times beyond just class – she was studying a worm called Serpulorbus and it lived in a calcium tube. Over time it changed its sex or gender, and so she was studying this. Why did it do that? How often did it do that? She had this big plastic sheet that she would put over the colony – the colony's say as big as your floor in your house where the coffee table is – and we would put that out. She'd go around with her grease marker and she'd mark this, that. My job was to hold it down and be a base diver too. She'd do her thing and then she'd turn to me and she'd put her finger in the air and circle it around, which means I got to go swim back and forth and back and forth and back and forth. Because its cold in that water this is not the tropics, it was cold, and so I'd get cold, and start to shake a little bit. I'd just go back and forth and then I'd come back and hold her thing down again. I helped another person study rockfish, I helped another person study sea cucumbers. You learned all about everything.

Then you'd get together and you'd play ping pong, and you'd play pool, you'd actually talk about different things, you'd bounce things off each other. This was not so much studying, because we'd done it. We had Ricketts, this was the name of the text, Between Pacific Tides. We had another textbook, but we were doing research, we were making notes, we were writing things down at this point, we were not "studying" so much because we were out in the field doing things. Then we would sleep, then we would get up, hike up the Estrella undosa hill, which was the hill above the research center, Star hill, and then I'd come back down and we'd go down the dock and off we'd go to do more diving and research. I did very well on my studies, to the point where the director, Bob Givens, asked me if I wanted to come back and help with the sea cucumbers study. He said he didn't have time to do it alone, but if I wanted to do the work, I could publish the paper.

So, I did. The sea cucumber was off a little rock of the isthmus called Ship Rock, at a hundred and twenty-five feet. Normally at thirty-three feet it drops one atmosphere. Every 33 feet you go down you

have to spend less time around at that depth or nitrogen bubbles will go into your bloodstream and if you came up too soon and you didn't give it time to go out of your bloodstream, then you get the bends and you can die. We had a decompression chamber there, for people who had emergencies. What you needed to do was, if you were going to spend more than seven minutes at 125 feet, you had to stop at different depths coming up, and just breathe and breathe and breathe. We had tanks tied to the rope at different elevations so we could work, and say we worked down there for 35 minutes studying our holothurian – our sea cucumber – then we'd go up and we'd stop at say 118 feet and breathe a certain amount, then we'd go up to 100 feet and breathe and sort it out, and work it off. It took us several hours just to come up to the surface after spending only a half hour at the bottom. So we wouldn't get decompression sickness. Anyway, it was a whole new sea cucumber distribution. I got to describe it for the first time and extend its range. Holothuria zaca forma *iota* was my first published paper. You're making me pull things out from... I know that I'm fortunate that I have a good memory but it's also... I work at it; I call it my memory management.

TM: You do an incredible job. It looks like you're going to graduate with an undergraduate degree in biology, straight up. As you were in your senior year, were you already thinking, 'I'm going for my masters?'

NM: No. No, I wasn't. I wasn't at all, and I wasn't quite sure what I was doing. Back when I was a kid, and I was at Devil's Postpile, I remember seeing a park ranger and going, 'wouldn't it be great to do that, but I could never...' But when I was a senior, somebody went into the office, and at this point I needed a job, so there's something called the P.A.C.E exam – the professional and administration career exam. That's the exam if you wanted to work for the federal government. Because of my work for marine biology, I thought maybe that's where I wanted to go, so I took the P.A.C.E exam. I did well. I'm about to graduate, and I'm offered this job, but I'm not offered this job. The job is to be a biologist on a tuna boat and to record if they catch anything else besides tuna – dolphins and things like that – be an observer. The guy says, 'well you're on the top of the list, and I'm supposed to offer you this job, but the wives of the men on the boat wouldn't like it if there was only one woman on the boat, so I'm going to tell you that you can't have this job'. I said, 'oh gosh, that sounded so much fun'. He says 'sorry' and I went 'okay'. This was 1977, when I didn't know I couldn't be discriminated against. That's where I would have gone, right into marine biology, I thought at the time.

That didn't happen, but because I was still on this list, when I graduated from college, I got offered a job. I went to the interview in Ventura, California, for the Department of the Navy as a civilian researcher for environmental impact statements. I would get the impact statements, I'd read them over, correct them, do whatever it is, and then send them off with evaluations. They showed me my cubicle in the basement without a window. It would be a full-time permanent job with the U.S government. I went home to my mom – I was living in the attic at the time, in my parent's house – and I said, 'gosh, mom, it really doesn't feel right, it's not in the field, it's not doing all this stuff'. She goes, 'well, I should tell you' and this was like a GS-7, GS-9, which is pretty good right off the bat. She says, 'well, so U.S Forest Service called, the Kings River district for Sierra National Forest, and wanted to know if you wanted to be a GS-3 firefighter'. I said 'yes, I do'. That's how I became a firefighter, because I didn't want to live in a cubicle. I became a firefighter, the very first woman on the Kings River district.

TM: So, Nancy? Right there, this is a great place to maybe consider wrapping up part one, because I want to know all about firefighting and Kings River and what that was all about.

NM: Sure. Sounds good.

TM: If that sounds like a good place, is there anything else that you want to add about the grounds you've covered?

NM: No. This is a lot of fun. I would like to add one thing. My mom's name is Eileen, and my middle name is Eileen. That's why Eileen is on a lot of my books. My husband Kent called me Nancy Eileen a lot, because he knows how special that name is for me. That's why it is Nancy E., or Nancy Eileen Muleady-Mecham. My mom was everything to me. She made me who I am today, and if somebody had to say, what one person influenced my life the most, it would be her. She did.

TM: That's wonderful. No, I was just like wait a minute. Two very strong, very intelligent parents, one of them made you who are. That's really neat.

NM: Later on, when I talk about nursing and kindness and what you should need to know, it's her teachings that made the difference.

TM: I look forward to learning about that. Thank you, Nancy. With that, this will conclude part one Oral History with Nancy Eileen Muleady-Mecham. I'll get it right. You train me.

NM: No, you did, you did. I laugh because you put it in there.

TM: Yeah, it should be in there, and you've trained me, so that's good. Today is Tuesday, November 17, 2020, and Nancy, thank you so very much.

NM: You're welcome, Tom. Hope it wasn't just a lot of extraneous stuff.

TM: Of course not. It's really great. Alright, thank you.

NM: Hope to hear from you. Bye.