

Carolyn Merchant

Carolyn Merchant: My Life Exploring Science, Environment, and Ethics

Interviews conducted by
Roger Eardley-Pryor
in 2022

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Professor Carolyn Merchant,
University of California, Berkeley.
(Photograph by Robert Holmgren)

Abstract

Carolyn Merchant is a Distinguished Professor Emerita of Environmental History, Philosophy, and Ethics at UC Berkeley who is interested in historical relationships between humanity, nature, and science with an ecofeminist focus on Western culture's domination of nature and women. Merchant was born on July 12, 1936, in Rochester, New York, where she and her younger sister, Ann, were raised by their mother, grandmother, and aunt. As a high school senior in 1954, Merchant became a national top ten finalist in the Westinghouse Science Talent Search. She earned her AB in Chemistry from Vassar College in 1958, studied physics for a year at the University of Pennsylvania, and then, at the University of Wisconsin, Madison, she earned her MA in 1962 and her PhD in 1967 in the History of Science. During graduate school, she met and married botanist Hugh Iltis, with whom she had two sons, David and John Iltis. Merchant and her sons moved to Berkeley, California, upon completing her PhD thesis and her divorce from Iltis. She taught the History of Science as a Visiting Lecturer at Oregon State University, in the Strawberry Creek College program at UC Berkeley, and as a Lecturer at the University of San Francisco, where by 1976 she became an Assistant Professor. Throughout the 1970s, Merchant engaged in feminist, environmental, anti-war, and anti-capitalist politics, which is how she first met historian Charles Sellers, whom she later married. Merchant joined the faculty at UC Berkeley in 1979, and in 1980 published *The Death of Nature*, which has been translated into numerous languages and strongly influenced the fields of the History of Science, Women's Studies, and Environmental History. Throughout her academic career, Merchant published numerous peer-reviewed articles and nine books on environmental research themes including science and domination, ecofeminism, gendered reproduction, and ethics, as well as four edited books. In this oral history, Merchant discusses all of the above, including details from her childhood and education, her personal relationships, and her academic career.

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Appendix 1: Photographs courtesy of Carolyn Merchant

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Interview 1: May 17, 2022

01-00:00:01

Eardley-Pryor: Today is Tuesday, May 17, 2022. My name is Roger Eardley-Pryor from the Oral History Center of The Bancroft Library at the University of California, Berkeley. This is interview session number one with Carolyn Merchant. Carolyn, it's wonderful to be here with you at the Belmont Senior Living in Berkeley, California.

01-00:00:19

Merchant: Yes, thank you.

01-00:00:20

Eardley-Pryor: Thank you for inviting me in. We begin almost every oral history session by asking, can you tell me the date of your birth and your full name?

01-00:00:28

Merchant: I was born on July 12, 1936, and my full name is Carolyn Merchant.

01-00:00:35

Eardley-Pryor: All right, can you tell me a little bit about the family that you were born into?

01-00:00:39

Merchant: I was born in Rochester, New York on Cobbs Hill Drive. It was a white colonial house up on a little hill, up a few steps. My mother was Elizabeth Barnes Merchant, and my father was George Eugene Merchant. My father was the head of a coal company, and my mother was at home. We stayed there for a few years and then we moved to Antlers Drive down into Brighton, which is just on the southern edge of Rochester and then we moved to 23 Roosevelt Drive. So we moved several times when I was young. My father unfortunately wasn't able to get enough coal to supply his clients during the Depression and so he began drinking. So my mother split up with my father.

01-00:02:12

Eardley-Pryor: How old were you when that happened?

01-00:02:14

Merchant: I was in third grade when we moved to Canterbury Road, 83 Canterbury Road, and that was our home for many, many years until I was in about tenth grade.

01-00:02:32

Eardley-Pryor: Okay, let's go back a little bit. I would love to dig in a little more about some of your family background.

01-00:02:36

Merchant: Right.

01-00:02:37

Eardley-Pryor: You were talking about your father who worked for this coal company—and you later become this consummate environmental historian talking about how

fossil fuels have impacted our world. Tell me maybe a little more about this paternal side of the family. How did George Merchant end up in Rochester? What's his family story?

01-00:02:57

Merchant: His father was Gerald Eugene Merchant, and they moved to Rochester, I'm not sure when, and my mother was born there in Rochester.

01-00:03:15

Eardley-Pryor: Okay. Then I would love to hear a lot more about Elizabeth Barnes and her family story, because those are the women who became such a huge influence in your life that you grew up with. Elizabeth Barnes was born in Rochester. How did her family come to be in Rochester, and what's their trajectory?

01-00:03:35

Merchant: They lived there I think a long time, so that's where she was born. And my father was head of this coal company, and so he was able to get a lot of work initially. But during the Depression, he couldn't get enough coal to supply his clients, and so my mother and my father divorced. He began drinking, and they did not do divorces very often in those days, but because of his problems, they were able to give her a divorce. And so she moved into 83 Canterbury Road with my grandmother, Estelle Barnes Davis, and my Aunt Ollo, Aunt Aurelia Huntington. We called her Aunt Ollo. She had been a kindergarten teacher, and she was absolutely wonderful. My mother first worked at Sibley's Better Dresses, a department store in downtown Rochester, where she got her first job.

01-00:05:09

Eardley-Pryor: This was after the separation, where she had to come up with her own income?

01-00:05:11

Merchant: Yes, after we moved into Canterbury Road. She worked at Sibley's for a year, but then she took a test, and she absolutely aced it, and she got a job at Eastman Kodak Company in the accounting department, so she had a slightly different commute to downtown. In the back of our house at 83 Canterbury Road, there was a subway. It was the old Erie Canal, and our house looked over its banks. The canal had first been built in the nineteenth century, and after they moved it south, they had built subway tracks in its bed. When it got further down into Rochester, it went underground. So my mother would take that subway and get off underground and walk to work at State Street and after work, she would take it home. And my sister and I would go to the top of the bank where the concrete brace came up the side, and she would walk across the tracks and up this concrete slab, and we would be at the top. We were not allowed to go down onto the tracks. And then we would walk home with her. And my Aunt Ollo would have cooked the dinner, and we had a beautiful house with an upstairs, with four bedrooms, and my Aunt Ollo lived in the very top in an apartment in the attic, so she was two flights up. My

grandmother lived in the main bedroom on the second floor that looked out over the street, my mother had the other front room, and my sister and I shared a room in the back until we got older and then we each had our own separate rooms.

01-00:07:33

Eardley-Pryor: You mentioned your sister. What's your sister's name, and when was she born?

01-00:07:37

Merchant: My sister is Ann Merchant Boesgaard, and she was born on March 21, 1939.

01-00:07:48

Eardley-Pryor: So about three years younger than you?

01-00:07:49

Merchant: Yes.

01-00:07:51

Eardley-Pryor: I imagine having a playmate that was your sister would be a fun way to have a childhood?

01-00:07:56

Merchant: Right, well we also quarreled a little bit—

01-00:08:01

Eardley-Pryor: As sisters do.

01-00:08:02

Merchant: —like siblings do, but we had fun together.

01-00:08:05

Eardley-Pryor: That's great, I like that. I love that memory of your mother coming home, and you and your sister waiting for her at the train station—or on the hill right outside the house.

01-00:08:14

Merchant: The hill. So she didn't have to go up the stairs to Monroe Avenue, down Monroe Avenue and then down Canterbury Road. It was a shortcut across the tracks.

01-00:08:25

Eardley-Pryor: That's great. You mentioned your grandmother, Estelle Barnes Davis. And these five women—you and your sister, your mother, your Aunt Ollo, and your grandmother Estelle. Did you ever meet your grandfather?

01-00:08:40

Merchant: No, my grandfather's father had passed away.

01-00:08:47

Eardley-Pryor: What were some of the lessons that you took from living in this house with these five women?

01-00:08:54

Merchant: I knew that women could do anything, and it was great. They were all great role models. I didn't have a man in the house who took care of everything, but women were in charge. That gave me a role model unconsciously to know that I could do anything I wanted to.

01-00:09:20

Eardley-Pryor: And you certainly did. You mentioned your sister Ann. It's remarkable to me that both you and your sister earned your PhDs in the 1960s, which was not a common thing for women generally—

01-00:09:36

Merchant: Right.

01-00:09:37

Eardley-Pryor: —let alone to have two sisters that both rose to the highest academic levels. She, of course, pursued interests that were a little bit different than yours.

01-00:09:45

Merchant: Right, she was interested in astronomy and astrophysics. When we were little, we had books that our aunt always read to us, and one book was called *The Star People*, and it was stories about the constellations of the stars. I still had that book until recently, and I sent it to her because that was her childhood memory that made her so interested in astronomy in later life.

01-00:10:22

Eardley-Pryor: Oh, that's really great.

01-00:10:23

Merchant: Yes.

01-00:10:23

Eardley-Pryor: Share with me if you don't mind, a few of your memories, other memories about your Aunt Ollo, this kindergarten teacher who also lived in the home with you, and was there almost, I would imagine, like another mother figure in some ways.

01-00:10:34

Merchant: Yes, she was always there for us. She helped us cook, and if one of us would get in an argument with the other, she'd say, "Come on, Annie, let's go bake a cake," or, "Carrie, let's go bake some cookies." She was very helpful in teaching us the kind of skills that one needed in order to be in charge of a household. And she had been a wonderful kindergarten teacher and so she helped us with our reading. She had cards on which she had written words that helped us learn the words and to spell the different words. She was like having an in-home teacher, and that was really helpful to us in getting a leg up on the others in school.

01-00:11:37

Eardley-Pryor: That's great. In order to prepare for your oral history, for us to be here together, you kindly introduced me to your sister Ann. I had a wonderful phone call with her, as she lives in Hawaii and I'm here in California. One of things Ann mentioned was, that growing up in this house of five strong women, one of the messages that she took from that was a subtle message to not rely on a man to look after you. Do you identify with that in any way?

01-00:12:05

Merchant: Absolutely, yes. It was definitely a subtle message because there were only women. And my mother worked, and my grandmother and aunt took care of us, and women were in charge, and so that was what we absorbed.

01-00:12:21

Eardley-Pryor: You told me that your mother worked as an accountant with the Eastman Kodak Company. How did she have this accountant experience? How did she have some training to go into that?

01-00:12:32

Merchant: She had gone to Vassar College, and she dropped out after two years to get married, but she was really good at mathematics. She was a brilliant mathematician, and she had taken two years of math there. And so although she first worked in the Better Dresses at Sibley's, then she got the interview at Kodak, and she absolutely aced the exam and the interview. So they gave her a job in the accounting department, and she learned accounting through the department. At one time, they were about to put out the annual report. In the annual report, my mother discovered an error the night before they were going to publish it, and so they had to hold it back for two days and reprint it and then publish it.

01-00:13:37

Eardley-Pryor: It's a good thing she caught that error.

01-00:13:38

Merchant: It definitely was. And she got a lot of praise and a raise, but she should have been the head of the department. In those days, women weren't able to do those executive positions. But she should have been, and she would've been wonderful at it.

01-00:13:59

Eardley-Pryor: Yes, in a different era when women had more freedom, at least, than they did at the time.

01-00:14:04

Merchant: Now they have much more, yes.

01-00:14:07

Eardley-Pryor: Share with me, if you wouldn't mind, some of your memories of Rochester in these early years. Do you even recall the experiences of the Great Depression or World War II, when you were a young girl?

01-00:14:20

Merchant: I remember particularly the end of World War II, and we were sitting on the front porch at 83 Canterbury Road, and we heard all these sirens and signals that the war had ended. And I particularly remember a young man riding down the street on his bicycle dragging a sergeant's cap upside down off the back of his bicycle.

01-00:14:55

Eardley-Pryor: That's great. What are some of the other memories you have of childhood? What things were you interested in as a young girl?

01-00:15:02

Merchant: I was very interested in carpentry, and I had wanted to be a boy, but I was a tomboy, and I was very interested in building things. And my Aunt Ollo who was home with us, was very good at that too, and so she taught us how to use hammers and nails and saws and things like that. And she helped us build a treehouse in the backyard, where there was an elm tree. Now, most elm trees have branches that go up at angles, but the elm tree in the back of our house had branches that first went to the side and then up and then two that went straight out, so it was perfect to build the base for a treehouse. And we built slats across the tree that we could climb up on. My Aunt Ollo helped us do this, and so I learned carpentry really from her. We built the tree house, and after we built sides on it, and we built benches in it on which we could lie down. And it overlooked the subway. It was right at the back fence and so we could be up there, and on a piece of paper we could record the times that the subway cars went by and it was a lot of fun. It had a trapdoor that was on hinges, and I could lock the trap door, and lock my sister out. [laughter]

01-00:16:47

Eardley-Pryor: When you had time to yourself in this tree house that you built with your aunt and sister, what were the things that you were interested in doing, on your own time?

01-00:16:58

Merchant: I loved to read and up the street from us was the Monroe Public Library. It was a branch of the main library. And first with my Aunt Ollo, we would go up, and check out books from the children's room and then later the upper level when I was able to go myself. But we had to cross Monroe Avenue, and there was a traffic light there, but there was a lot of traffic. It was four lanes, so we had to be very careful. But the library was right across the street, and we would check out books and bring them home, and then I would read them. I loved to curl up on the couch with a book and read.

01-00:17:50

Eardley-Pryor: What kind of stories were you drawn to at that point?

01-00:17:52

Merchant: They were mainly stories about adventures of children, boys and girls, of adventures around the country and around the world, so I learned a lot from reading those books.

01-00:18:12

Eardley-Pryor: That's wonderful, and it strikes a memory for me. My daughter is four and a half, and we're reading *The Wizard of Oz*, about Dorothy's adventures in Oz together.

01-00:18:20

Merchant: Oh, yes, and we read the Oz stories too.

01-00:18:23

Eardley-Pryor: That's great. When I spoke with your son, David, he had mentioned that you were a big baseball fan, beginning all the way back with a Minor League team in Rochester. Where did your love of baseball come from?

01-00:18:35

Merchant: The team was the Rochester Red Wings, and they were a farm team of the St. Louis Cardinals, and we used to go to the ball games. And by the time I was in high school in about the tenth grade, I had a boyfriend, and we would often go to the ball games together in the daytime. We weren't allowed to be out at night. But we would go on the bus to the ballpark, and we would get seats, and sometimes early on in the bleachers, but later as we were able to, we could get seats on the first base side if possible.

01-00:19:25

Eardley-Pryor: That's a great memory. What is it about baseball that strikes you? Why an interest in baseball?

01-00:19:30

Merchant: Baseball, I think, is a way to coordinate your eyes with your arms and being able to hit a ball. So we, of course, had to play softball because we were girls, but we did have softball teams in our school, Number 23 School, and I loved to play softball. And then later in college, I played softball for Vassar, and we played other teams in the area. And there was a woman who was a roommate down the hall, her name was Helen Gillotti, and she had been a softball pitcher, almost semiprofessional. And I was the only one with the courage to catch the balls she threw. So I was the catcher on the team, and I had my catcher's gear and a catcher's mitt. She threw these balls, and I would catch them and throw them back, and in all the years we played, four years, only one person hit the ball, and that was a home run because the ball was pitched so fast.

01-00:20:55

Eardley-Pryor: If they made contact, then that ball was going.

01-00:20:57

Merchant: Yes. That was a lot of fun, and then of course, we would go to the baseball games too. I really liked the sport, and I think it was partly because I was a tomboy, and boys played baseball, but of course, we played softball.

01-00:21:17

Eardley-Pryor: Oh, that's wonderful. What were some of the other interests you had? You've mentioned this love of adventure stories. What were some of the other things that you liked to spend your time with? Like, were you involved in Girl Scouts or any of this other kind of activities?

01-00:21:33

Merchant: Yes, absolutely. I started out as a Brownie Scout, and the troops were at St. Paul's Episcopal Church, and that church was several blocks away, on East Avenue. And we went to St. Paul's Episcopal Church, when we were young and went to Sunday school and then later I was confirmed. I had to study the Bible and the testaments, and so on, in order to be confirmed in the church. In high school, I became an agnostic, and the reason for that was we had a wonderful teacher in the eleventh grade named Carl Lang, and he taught us philosophy. We read Socrates's *Symposium*, we read Machiavelli's *The Prince*, Karl Marx's *Communist Manifesto*, and parts of the Bible. He was the one who really inspired me to read that kind of philosophical account of the world.

01-00:23:05

Eardley-Pryor: And that led you, it sounds like, to question this Episcopalian tradition that you had been raised in?

01-00:23:10

Merchant: Absolutely. We had to write our philosophies of life for Carl Lang, in the eleventh grade, and he taught us all kinds of things about religion and about God and so on. And so when I wrote my philosophy of life, I stated in it that I was an agnostic and that was due to Carl Lang's teaching. It was a course called American Life and that was the way I came to understand philosophy and to love it and to start questioning things I had been taught.

01-00:23:58

Eardley-Pryor: I can see how that had a huge influence and shaped a lot of your career going forward.

01-00:24:03

Merchant: And so when I got to college, in my philosophy class with Philip Nochlin, we read Anselm's proof of the existence of God, and we realized that there were flaws in it, and that was when I became an atheist.

01-00:24:23

Eardley-Pryor: That's a great journey. You mentioned that the Brownie and Girl Scout troop was housed at St. Paul's Episcopal Church. Tell me a little bit about what Girl Scouts and the Brownie experience was like for you.

01-00:24:37

Merchant: That was a wonderful experience because in the Girl Scouts, we could earn badges, and we had badge sashes. Every time we received a new badge, we would sew it on. The Girl Scout handbook had badges and the activities that you had to do in order to get your badge. And we went to Girl Scout meetings, and those were held in the rooms associated with the church. And Ms. Harris was the Girl Scout leader, and she lived nearby on Vick Park B. She was the absolutely wonderful head of the Girl Scouts.

01-00:25:25

Eardley-Pryor: Why was she such a great head of Girl Scouts? What was it about her that struck you?

01-00:25:30

Merchant: She was very kind to everyone. She was very knowledgeable, and she would give you ideas and you could follow through on them. She would ask you questions and you had to think about them and so that was what made her great. Every week there was a quiz and you had to look up the answer and put it in a box. It was very educational and inspiring.

01-00:25:48

Eardley-Pryor: I like hearing about these early mentors that helped shape so much of your experience.

01-00:25:52

Merchant: Yes, thanks.

01-00:25:53

Eardley-Pryor: I'm wondering about experiences in nature, in particular because you become such a philosopher on nature, and human relationships with nature, and the ethics of those relationships. What were some of your early engagements with the natural world?

01-00:26:09

Merchant: When I was a young child, we lived on Landing Road South, and we had some neighbors whose father was helping them make butterfly nets. He helped me make a butterfly net. We would take a pole and then put a hanger around it in a circle and then make a net and sew it on to the rim. And then we could run out in the backyard and catch butterflies. And when you caught the butterfly, then you would have to pinch its thorax so that it died and then—but before it got hardened, we had to mount it in a box on a pin with the wings spread apart. So we could catch butterflies and moths and put them in a cigar box on pins, and that was a great way to learn the different ones. We would put labels on them as to what they were. We had butterfly books and bug books, and that was how I became interested in nature and identifying the creatures of the world.

01-00:27:51

Eardley-Pryor: That's wonderful. Were family vacations a part of your childhood?

01-00:27:58

Merchant: We didn't have a car in the first years of the Depression, but then my grandmother, when we lived on Canterbury Road, eventually had the money to buy a car. It was a little blue Ford, and we were able to drive out of town, but there weren't too many places to go in the country near Rochester. We could go to Canandaigua Lake in the summers to visit friends who had cottages there. We didn't have camping equipment, my mother was working, and my grandmother and aunt didn't do that, so all the time we lived with them, we didn't do camping.

01-00:28:48

Eardley-Pryor: Were there any camping trips associated with Girl Scouts that you were able to go on?

01-00:28:54

Merchant: Yes, there was a Girl Scout camp and that was the first time I really understood and learned how to go camping. I went to Camp Beechwood on Lake Ontario for two weeks at a time in the summers.

01-00:29:04

Eardley-Pryor: What did you think?

01-00:29:05

Merchant: That was fun, yes. We had to have sleeping bags, and the first sleeping bag that I got was from a friend of my grandmother's just across the road on Barrington Street. He had one from World War II that was a down sleeping bag, so that was my first sleeping bag.

01-00:29:34

Eardley-Pryor: That's great. And camping becomes a big part of your life experience later, with taking your own children camping, from what I understand.

01-00:29:40

Merchant: Yes, that's true. We had some land up in Sonoma County, and we were able to go camping up there. We built a tent platform on it with the help of friends. And then we also went camping in the Sierras and in campgrounds around the Bay Area.

01-00:30:00

Eardley-Pryor: You had mentioned that you had this influential teacher in high school, Carl Lang at Monroe High School in Rochester New York, which you attended from 1950 to 1954.

01-00:30:10

Merchant: That's correct.

01-00:30:10

Eardley-Pryor: What are some of your other memories of high school, either of friends or other classes that you took?

01-00:30:21

Merchant: In high school, I had a friend who became a boyfriend named Nicholas Van Deusen, and his father was a professor at the University of Rochester. He was very interested in music, and together we would listen to records. We had 78 records, and we would listen to them on the phonographs, and he would walk up and down the room conducting, and so that was how I learned to appreciate music. And after I went with him to some Rochester Symphony Orchestra concerts, I really learned to love music through him.

01-00:31:16

Eardley-Pryor: And it sounds like mostly classical music at that age?

01-00:31:18

Merchant: Classical music, yes, absolutely. I loved Mozart, Mendelssohn, and Bach, especially Bach, which was much more rigorous. It was really incredibly marvelous to listen to.

01-00:31:42

Eardley-Pryor: Have your musical tastes changed as you've aged?

01-00:31:46

Merchant: I'm still interested in classical music and the classical composers. And Bach has become my favorite. I still love to listen to that.

01-00:31:58

Eardley-Pryor: What were some of the other activities that you were interested in? You mentioned softball, and Girl Scouts when you were younger. What were some of the other things that you chose to be engaged in?

01-00:32:07

Merchant: I loved hiking and hiking on my own. When I was old enough, I was able to go up Canterbury Road and then up Culver Road and then across to a little park, where there was a Widewaters Pond from the old Erie Canal. And when I was in high school, I was able to take canning jars and get water from the pond and bring it back home. I would then let it vegetate, and little organisms would develop. And a friend of my grandmother's from across the street had an 1870 microscope.

01-00:33:09

Eardley-Pryor: A microscope from the 1870s?

01-00:33:11

Merchant: Yes.

01-00:33:12

Eardley-Pryor: Cool.

01-00:33:13

Merchant: Right, so she gave it to me and so I fixed it up and looked at slides and drew figures. I learned how to make slides of different organisms.

01-00:33:29

Eardley-Pryor: So you were not only out collecting insects and displaying them in these butterfly boxes, but then also going out and doing research on microscopic organisms in the local water?

01-00:33:41

Merchant: Right, and so I drew pictures of them. I was a pretty good artist and I had gone to the Rochester Art Gallery from seventh grade on. I was particularly interested in sculpture. And I had two best friends, and on Thursdays we got out of school early at two o'clock, and we could walk to the art gallery where both their mothers taught art.

01-00:34:13

Eardley-Pryor: Who were these friends?

01-00:34:14

Merchant: They were Patricia deGogorza and Barbara Jenks, and they lived several blocks away. After I met them, I was able—after I learned to ride a bicycle—to ride to their houses to play with them. We played softball together, and we read books together. And we were in Girl Scouts together.

01-00:34:51

Eardley-Pryor: Oh, that's great. And you were also, then, taking these classes that their mothers were teaching at the art museum?

01-00:34:59

Merchant: Yes, Patricia's mother taught sculpture, and Barbara's mother taught painting. I loved the sculpture, so I mainly took sculpture classes. I loved making animals, and I once made a guy sitting with a dog by his side. And we painted them with glazes and they would fire them. I still have some of those sculptures.

01-00:35:42

Eardley-Pryor: Oh, cool.

01-00:35:43

Merchant: Yes.

01-00:35:44

Eardley-Pryor: And so from those art class experiences, you were then transferring that artistic knowledge and ability to your study of these organisms in the pond water?

01-00:35:58

Merchant: Yes, I had the microscope, and I made drawings. So my artistic ability enabled me to make drawings through the microscope on beautiful paper with really nice pencils. And so I put those together for a study of "The Microscopic Animal Life of a Freshwater Pond," which I submitted to the Westinghouse Science Talent Search. That was my project and then you also had to take an exam. I started working on those things in Mr. Bloom's class in tenth grade,

but then I took the exam, and apparently, I absolutely aced it because I loved to read science books. And so that was the way that I got to be one of the forty finalists on the 1954 Westinghouse Science Talent Search. So I got to go to Washington—

01-00:37:05

Eardley-Pryor: Washington, DC?

01-00:37:06

Merchant: Yes, Washington, DC, and we took the New York Central Railroad. There was another guy from Rochester who was a finalist also. After we got there, they interviewed us, and then they chose ten finalists. There was a first prize, second prize, and I was one of the eight honorable mentions, so I was one of the top ten in the nation.

01-00:37:36

Eardley-Pryor: Wow.

01-00:37:38

Merchant: That was really exciting.

01-00:37:41

Eardley-Pryor: Wow, yes. What was the experience like for you, even just leaving Rochester to visit DC?

01-00:37:45

Merchant: Oh, it was amazing, and there's a picture of all of us on the steps of the Capitol, which I still have and so that's fantastic too. The picture and the microscope are both in the Berkeley Life Sciences Building in an exhibit with other old microscopes.

01-00:37:56

Eardley-Pryor: Wow, had you ever been anywhere other than Rochester before your trip to DC?

01-00:38:01

Merchant: I had been to summer camp, which was on Lake Ontario. It was Camp Beechwood, and that was starting when I was younger. And we would go there for two weeks at a time and camp on tent platforms with tents on them, and there would be different units for different ages there. We'd play baseball, and we learned to cook outside, and we learned to chop wood and all the kinds of things you would have to learn to live in the wild or survive in the wild. We learned trees, and plants, and flowers.

01-00:38:57

Eardley-Pryor: Gosh, all these experiences, I can see how they seed the career interests that you took. I mean this experience in nature, understanding nature, documenting it, just being out in it. And then even doing the science, and the art, and how you pulled the art in to help you understand the science.

01-00:39:16

Merchant: Yes, so I was lucky because I was pretty good at drawing and because I not only had this practice in modeling clay but also in drawing, and that helped me to do the drawings of the microscopic animal life that were among the best parts of the project. I wrote up a page about each one, I took my slides that I had made to the University of Rochester to a biology professor there, and he helped identify the actual scientific names, the genus and species, of the different slides, so when I submitted it to the contest, I had the names and descriptions and drawings.

01-00:40:11

Eardley-Pryor: Well, no wonder you became a top ten finalist in the country on this Westinghouse Science Talent Search.

01-00:40:18

Merchant: It was a lot of fun, it was really fun.

01-00:40:21

Eardley-Pryor: I'm cognizant of how the early 1950s period, in my mind, is part of a rapid rise in the Cold War, and particularly nuclear concerns, at least by 1954 with thermonuclear weapons and open-air atomic bomb testing. I'm wondering if you have any memories of how the Cold War was shaping your high school experience in any way?

01-00:40:42

Merchant: The Cold War was taught—especially when we took American history classes and American life classes. We learned about it in our classes. And the Cold War was something that we could place after we learned about World War I and World War II. And I think it was because there was no war going on when I was really growing up that at that point it helped to shape my life because I didn't have to worry. I mean in World War II, we saved tin cans, and we took the lids off, and we crushed the tin cans, and we collected them, and then we took them to the store up the street, and turned them in, and got change for them.

01-00:41:52

Eardley-Pryor: Yes, early recycling.

01-00:41:52

Merchant: Right, early recycling.

01-00:41:54

Eardley-Pryor: For the war effort.

01-00:41:55

Merchant: Yes.

01-00:41:56

Eardley-Pryor: I'm wondering if you have memories of duck-and-cover drills or anything like that, where you had to hide under your desk and pretend that the nuclear attack was happening?

01-00:42:04

Merchant: Oh, yes, absolutely. We had desks that—where we had a chair that pulled into the desk and then we had a slot under the desk for our books and then the top of the desk. And so when the sirens would go off, we had to get down on the floor under our desks, and we had to be quiet.

01-00:42:31

Eardley-Pryor: I'm thinking about your experience in this philosophy class in high school, and you doing intensive reading as a junior in high school for your Westinghouse Science Talent Search, as a national finalist in this. I'm wondering what your thoughts were about next stages in life after high school? Did you have the expectation that you would go to college, or did you have other thoughts?

01-00:42:57

Merchant: No, I always thought I would go to college, and my mother had gone to Vassar for two years. So when I got ready in the junior year to think about college, she joined the Vassar Club. And that enabled me to get a scholarship from the Rochester Vassar Club to go plus the Westinghouse Science Talent Search scholarship. But then my mother took on extra work to earn money so that we could afford to go to college, and it was really special that she did that. And we took the train from Rochester to Poughkeepsie and then we would get off and have to get a car from the campus that would come and take six or seven of us up to the campus. In my first three years, I lived in Josselyn Hall. Josselyn was one of the great dormitories. There was a quadrangle that had four dorms facing each other across a lawn, with Jewett at the head and Josselyn next to it. I lived in Josselyn for three years, and I made really good friends there. I had roommates, Melinda Morrison, from the Newburyport, Massachusetts, and Katherine Allison from Chicago whose father had been a physicist. And they were my roommates for basically about three years. And then I had a younger friend, a year younger named Judith Oppenheimer Loth, and her father was Monroe Oppenheimer. He had been a New Deal lawyer in Washington, and he was extremely smart. And he would come up to Vassar from Washington to visit us, and it was really special seeing him.

01-00:45:28

Eardley-Pryor: That's great. What was Vassar like in this period? You were there from 1954 through 1958, what was the campus experience like for you?

01-00:45:39

Merchant: It was the first time I'd really been away from home, and my mother drove me there and got me settled in. And I had some furniture we took from home to have in the room, and Josselyn Hall was the place that I stayed. We had a dining room in Josselyn, and we would go down for breakfast, lunch, and dinner and then we could sit at tables with the other students in the dormitory

and get to know them and hear about where they lived. So it really broadened my world and my experience to know where these other women had grown up. And it was also very powerful because it was a women's school, and in the classes that I took, it was all women, and we knew that women could do anything. And I had some very favorite classes there. I was a chemistry major, and Ms. Plunkett was one of my chemistry teachers, but I fell in love with physics, and I fell in love with philosophy because to graduate, you had to take courses in these other departments and get a broad education. And in philosophy, I studied with Philip Nochlin, and he taught me how to read philosophy from the Greeks right on up to Wittgenstein in the twentieth century, and he was extremely interesting as a professor in talking about philosophy. And I also audited a class taught by Vernon Venable, and he taught that class from a fabulous historical point of view, and that was how I learned to love the history of philosophy. My friend, Judith Oppenheimer Loth, had been a student in his class, and she and I were friends in Josselyn Hall. She was a year behind me, and we would read Kant together and various other philosophers together and analyze them. I went to listen to Vernon Venable's lectures because she was in his class.

01-00:48:21

Eardley-Pryor: What were some of the other important lessons of being in this all women's school. Wait, was your high school coed?

01-00:48:29

Merchant: Yes, my high school was coed.

01-00:48:31

Eardley-Pryor: So that transition was important—coming into an all-female academic setting—and learning that women could do anything. What were some of the other beneficial experiences of having that all-women experience for you?

01-00:48:43

Merchant: Having women in the classes, you didn't have to be intimidated and you could have total confidence. And I made it a point in my American Literature class to raise my hand and say something in every session so that I could gain confidence in what I was saying. And so as we read American literature, I would figure out in advance some of the things I'd like to say. That really helped me to learn to analyze the literature and give me confidence to speak in a classroom. And since it was a classroom of all women, it wasn't like men were jumping in or interrupting. I think that was a very beneficial and empowering experience.

01-00:49:44

Eardley-Pryor: You said you began as a chemistry major. Why chemistry initially?

01-00:49:49

Merchant: I wanted to do science. I really wanted to do biology because I had done that biology experiment, and I was fascinated with microscopic animal life. At Vassar, they wanted you to be able to take classes where it would be easy to

get a job, and the chemistry department provided that kind of background so that when you graduated, you might be able to go and work for a company. I worked at Eastman Kodak Company in their chemical labs in the summers, and I learned how to test the acetate bases of film to make sure that it was chemically correct, and that they didn't have something in there that was going to mess up the film and damage their reputation. So that was how they helped and why the chemistry major was so beneficial.

01-00:50:59

Eardley-Pryor: Oh, that's great. Coming to my mind right now, I think that Eastman Kodak film provided one of the first of proofs about nuclear fallout traveling so far. With the open-air atomic testing that was happening in the West, the radioactive particles would rise up into the stratosphere and then fall out across the country. And Eastman Kodak's labs in New York State were somehow picking up that fallout on some of their films. The chemicals were messing up their film. And that's why they said, "Wow, the fallout is moving across the whole continent."

01-00:51:30

Merchant: Yes, that's right, it was amazing, absolutely amazing.

01-00:51:34

Eardley-Pryor: You had mentioned, in addition to this continued love of philosophy, that you also became interested in physics at Vassar.

01-00:51:44

Merchant: Right.

01-00:51:44

Eardley-Pryor: What was that experience?

01-00:51:45

Merchant: I had to take science classes for my major. And I took a physics class with a woman named Margaret Waggoner, and she taught it from the point of view of history. So when we studied Newton's laws of motion, we read Newton. And when we studied Galileo's laws of falling bodies, we read Galileo. And then we read nineteenth-century electricity and magnetism. She had gotten her PhD at Stanford, and she knew how to do history of science, and that was when I learned there was a field called history of science and that it was really exciting and interesting. And I took a philosophy class with Philip Nochlin, and learned how to read philosophy. And so I asked the two of them, "What should I do when I graduate from college?" So—

01-00:53:03

Eardley-Pryor: Did you ever think about just going back to Kodak and working in the chemical labs there in Rochester?

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Merchant: Not at that point. I could've done that, but I talked to both Nochlin and Waggoner. We got together, and I said, "I'm wondering what to do when I

graduate," and they said, "Well, one thing you could do is to work for a science magazine and write scientific articles and publish them in the science magazines," but that didn't appeal to me too much. And they said, "Or you could go to graduate school." So then Philip Nochlin said that he had had a former friend named Joan Bromberg and that he would write to her and ask her about history of science because she had studied that field. And she wrote back and said that there was a great program at the University of Wisconsin at Madison and that Erwin Hiebert was a wonderful professor there. But both Ms. Waggoner and Professor Nochlin said that I should first go and get more physics so that I could do the history of physics from a more knowledgeable perspective. They recommended some places, and the University of Pennsylvania gave me a fellowship, and that wasn't too far away from Vassar and I went there. I spent a year there, and I studied Atomic Physics, Electricity and Magnetism, and Thermodynamics and Math Physics. And in the meantime, I had applied to Wisconsin, and I had been admitted.

01-00:55:28

I had a very good friend named Nicholas Bykovitz whose family was Ukrainian, which I think about now with the current events going on in Ukraine. Anyway, he and I talked a lot together about physics and the history of it and things like that. And so after the year was over, I left Pennsylvania, and went back to Rochester for the summer, and then I took the train to Madison. My sister Ann had graduated from Mount Holyoke College, and she was driving across the country with her friends to visit the national parks. And she went through Madison and found an apartment for me—

01-00:56:29

Eardley-Pryor: Knowing that you were going to be enrolling there soon?

01-00:56:31

Merchant: Yes. So she went to Madison, and found a wonderful apartment, owned by Ms. Reuschle and reserved it for me, and then I moved. I had a moving truck with my furniture and moved in.

01-00:56:58

Eardley-Pryor: You had a place to land.

01-00:57:00

Merchant: Yes, and it was just a block above Lake Mendota. Madison had Lake Mendota on one side and on the other side was Lake Monona, and in the middle between the two was the Capitol. From the Capitol, you then went up the hill to the university.

01-00:57:26

Eardley-Pryor: That's beautiful. Would you mind if we go back just a little bit to that experience in Philadelphia in the wake of graduating from Vassar, and you having this encouragement to go take physics classes at Penn? What was the experience of living in Philadelphia like? What was the city experience like?

01-00:57:44

Merchant: It was my first time in a big city, and my mother had gone down with a friend and found an apartment for me. I didn't have a car, but I would walk. I was able to walk to campus and walk downtown, and I was able to go to concerts with some friends there and also to see the areas around it. I was able to go on trips to see the country around there, and I got a sense of what other places nearby looked like.

01-00:58:22

Eardley-Pryor: Philadelphia is a big city.

01-00:58:25

Merchant: Yes.

01-00:58:26

Eardley-Pryor: And it was, for a long time, the intellectual hub of North America, at least in those early colonial years. And such a deep history of science in that city, as well.

01-00:58:36

Merchant: Right.

01-00:58:37

Eardley-Pryor: What a neat place to be then while learning physics, on your journey towards history of science coursework.

01-00:58:42

Merchant: Yes, Philadelphia was a great place to learn, and especially to learn more about the music that I had started learning.

01-00:58:52

Eardley-Pryor: I'm struck that you had an interest in history of science from the very start. I knew that you did this year at Penn in studying physics, and I thought that you were thinking you would become a scientist. But you knew that was really just to serve your interests as a historian of science.

01-00:59:10

Merchant: Yes, I had heard of the field of history of science through my philosophy professor, Philip Nochlin, who had talked to Joan Bromberg. And at that time, there were only four places that taught history of science at the graduate school level. Wisconsin was the one that Joan had gone to and that I applied to and got admitted to. It was a really exciting place.

01-00:59:41

Eardley-Pryor: When you landed in Madison with this apartment that your sister Ann had reserved for you, what was your experience of the University of Wisconsin campus?

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Merchant: The Wisconsin campus was also big like Penn, and it was up on a hill. There was one building for the history of science that was down near the bottom in a

little courtyard, where my professors Erwin Hiebert, William Stahlman, and Robert Stauffer all had their offices. You had to have a broad background, so I especially took philosophy classes as well as history of science classes.

01-01:00:49

Eardley-Pryor: What were the things that you were most interested in pursuing in terms of the history of science at that point?

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Merchant: I loved the history of mechanics and of conservation of energy and momentum. That was what I had learned from Margaret Waggoner, and that was what I was going to graduate school to learn more about.

01-01:01:16

Eardley-Pryor: What was it that Erwin Hiebert studied? He became your major professor at Wisconsin. What was his specialty?

01-01:01:23

Merchant: He studied nineteenth-century thermodynamics, and he mostly sponsored graduate students in the nineteenth century. But he agreed to sponsor me because I was doing history of physics, especially the end of the seventeenth century with Newton and Leibniz. So he agreed to take me on.

01-01:01:50

Eardley-Pryor: And you knew that you wanted to explore Leibniz and Newton particularly, at the beginning of your graduate career?

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Merchant: Yes, that's right, because I had learned about them at Vassar College in my physics class with Margaret Waggoner.

01-01:02:06

Eardley-Pryor: That's great. Do you mind if we take a break for just a moment?

01-01:02:09

Merchant: Yes, please.

01-01:02:10

Eardley-Pryor: Thanks.

[BREAK IN RECORDING]

01-01:02:12

Eardley-Pryor: So, Carolyn, I want to ask about your studies, especially your early research that you were doing at Wisconsin. You mentioned you took a range of classes, but you were especially interested in Newtown and Leibniz and some of their debates with each other. Share with me a little bit more about this academic journey you took in Wisconsin.

01-01:02:30

Merchant: I loved the history of physics, and that's why I went to Penn, to get more physics. At Wisconsin, I took a class with Erwin Hiebert on the history of thermodynamics in the nineteenth century. I took a class from Robert Stauffer on the history of biology, and that went back quite a ways. And I also took history of philosophy classes for my minor.

01-01:03:36

Eardley-Pryor: When you were starting to do your own research and thinking about what kind of research project you would eventually pursue, what were you thinking and particularly, where were the sources?

01-01:03:51

Merchant: That was very exciting. The University of Wisconsin Library had a lot of the books in their rare book room and also in the library. So when I wanted to do my dissertation, it was going to include the Middle Ages and the seventeenth century with Galileo and Descartes and Boyle and Newton. I could go to the rare book room and read them there and also check books out of the library.

01-01:04:42

Eardley-Pryor: What was it like being in the rare book room? Talk me through that experience.

01-01:04:46

Merchant: In the rare book room, you had to be sure that you were not going to touch or hurt any of the books that they brought. You had to check in, you had to check all your gear at the desk, and they would give you just pencil and paper and so that you wouldn't get anything in the books. And then you would sit at a table and they would get the books in advance from the stacks or from the rare book room and bring them to you at the table. And you could have only one at a time, and you would read the book and take notes. Eventually when we got laptop computers, we could take notes on the laptops, but initially, it was all on note cards. So you had to have the note card, and on each then, there was the topic of the note card and then on the side, you would put the reference and the pages, and then you would write the notes so that you could then take your note cards and rearrange them into the order that you wanted to use to write your chapter.

01-01:06:15

Eardley-Pryor: So those note cards essentially, it sounds like would've turned into footnotes in some ways?

01-01:06:19

Merchant: Yes, that's how you would use them, to write the footnotes.

01-01:06:26

Eardley-Pryor: These rare books, I imagine them being fragile?

01-01:06:31

Merchant: Oh, yes, some of them were fragile. And some of them, you had to use on microfilm because they wouldn't let you touch them if they were too fragile.

01-01:06:46

Eardley-Pryor: Who were the other students that you were taking classes with that you recall? Does anybody stand out for you?

01-01:06:53

Merchant: So we're talking about Wisconsin now?

01-01:06:59

Eardley-Pryor: Yes.

01-01:07:02

Merchant: So at Wisconsin, they were coed classes, there were women and men.

01-01:07:12

Eardley-Pryor: Actually, on that, what was that transition like for you after having gone to an all-women's school where you had developed your strong confidence and had such a fascinating wide range of interests? What was it like to, then, be back in this coed environment?

01-01:07:27

Merchant: That was very interesting. I enjoyed it a lot. But I had learned confidence in speaking in classes when I was at Vassar, and so I didn't hesitate to speak out. The classes though were sometimes larger, they weren't like seminars, but some of them were large lecture classes, big enough that you would just go in and take notes and listen to the lectures. And you could ask questions. And so they were different in size from being at Vassar.

01-01:08:09

Eardley-Pryor: Was there anyone else who was studying the time period and the topics that you were studying?

01-01:08:15

Merchant: Professor Hiebert worked on the nineteenth century, but I mainly took a lot of medieval and seventeenth-century classes.

01-01:08:33

Eardley-Pryor: With other professors?

01-01:08:34

Merchant: Yes.

01-01:08:36

Eardley-Pryor: Who did you have to bounce your ideas around with?

01-01:08:41

Merchant: At Wisconsin, I had colleagues in the program, and we had a little office in a small department so that people could get together and talk about ideas.

01-01:09:02

Eardley-Pryor: I'm now thinking about people that you were associated with, and I want to pick some of the pieces back up on some of these friends that you had mentioned previously, like Barbie Jenks and Patricia de Gogorza, and your other friends from college such as Melinda and Katherine, your roommates. What happened to these women? What was their trajectory, as you were going off to get your PhD in the history of science?

01-01:09:24

Merchant: Some of them, Katherine for example, went on and did graduate work. And Melinda went and worked at a bank in Massachusetts. A lot of the women who were there did go on to do graduate work in various places, as it was encouraged by Vassar.

01-01:10:00

Eardley-Pryor: Wisconsin has such an interesting connection to environmental history—from John Muir growing up there, to the environmental historians who helped build the program of environmental history there later, or Aldo Leopold working there and writing *A Sand County Almanac* while living in Wisconsin. I'm wondering about your experiences with the natural world there. You mentioned Madison being located between these two lakes. Were you doing any kind of hiking or having camping experiences while you lived in Wisconsin?

01-01:10:34

Merchant: Yes, and especially with Hugh Iltis.

01-01:10:36

Eardley-Pryor: And who was he?

01-01:10:41

Merchant: He was my first husband. I met him through Joan Bromberg, and on our first date, we went out, and he took me to a prairie north of the campus that the University of Wisconsin owned. And so we went out and looked at the prairie, and he showed me about the prairie plants and then he took a book of matches out of his pocket and lit the match and threw it into the prairie. And then we left and went up to the road, and we got in our car and watched the prairie fire. His argument was you had to burn the prairies so that the roots of the plants, which were located six inches below the soil, could regenerate new plants. If the other plants weren't burned off, then you wouldn't get the revitalization of the prairies. And so we drove around on the top of that prairie and then down on the bottom, and we watched it burn. And the people across the road saw the burning and called the fire department, and the fire department came and put it out, but by then, it had burned most of that whole area of the prairie.

01-01:12:17

Eardley-Pryor: What a wild first date!

01-01:12:19

Merchant: And we went back in the spring—this had been in October or November in the fall. We went back in the spring in around April or May, and we saw the flowers beginning to come up, and it was just a gorgeous array of prairie plants, native prairie plants. Because what it had done was burn out the hawkweed and the other plants and allowed the native prairie plants to grow, and that's what the Indians had done to prairies. They had allowed the prairie fires to burn and so that they would be better able to harvest the fruits or any kinds of seeds or things that they needed.

01-01:13:18

Eardley-Pryor: What a wild experience.

01-01:13:19

Merchant: It was an amazing experience. And then after that, we burned other prairies because Hugh was a conservationist, and had helped to start the Nature Conservancy association for Wisconsin. And he and two or three others who were interested in purchasing these native prairie lands and native forests for the Nature Conservancy went to see a lot of forests and prairies. While Hugh got permission from the farmer, I would talk to the farmer's wife, and we would chat about our children. And he would talk to the farmer and explain why it was important to burn the prairies and ask if he could do it and so after he got permission, we would burn the prairie.

01-01:14:26

Eardley-Pryor: Wow, what a cool thing. What a neat way to connect to nature, and how it changes over time, too.

01-01:14:32

Merchant: Right.

01-01:14:33

Eardley-Pryor: And the human influence over it.

01-01:14:35

Merchant: Yes.

01-01:14:35

Eardley-Pryor: Maybe we can take a pause here, and we'll come back and tell some more stories about your connections with Hugh and other experiences from Wisconsin.

01-01:14:43

Merchant: Okay, sounds good.

01-01:14:44

Eardley-Pryor: Thanks.

[BREAK IN RECORDING]

01-01:14:48

Eardley-Pryor: All right, thank you for the break. That was a wonderful lunch. Thank you for treating for our lunch. I want to pick up where we had left off. You had shared this story of meeting Hugh Iltis and, on your first date, burning this prairie, and then even engaging in some of the conservation activities that he was connected to in Wisconsin. Could you share with me how your relationship with Hugh evolved from that first date?

01-01:15:17

Merchant: He was a wonderfully interesting, engaging person, and he was a great lecturer. And so when I would go to his lectures on the campus, I learned so much about the history of botany and biology and his work in taxonomy. He was the head of the herbarium in Wisconsin. And, when he took the job, the herbarium was pretty good, but it was in Birge Hall on top of a big lecture hall. There were staircases up each side and a little balcony and then you went into the herbarium. And while he was the curator, he collected and mounted many, many plants. He filled the place up with more cabinets and then he put cabinets down the hallways and really expanded the herbarium. And of those plants, each one had to be pressed. So for the plant press, you have a cardboard sheet with little ventilation holes in it, then you have a blotter, then you have a newspaper. You open up the newspaper, and you put the plant in it, and then you fold the newspaper over. You press the plant down, then you put another blotter and then another cardboard over it and then you do the same thing again. So a plant press could have fifty plants that, after you collect them, are put in the press. Then the plants in the press had to be dried out or put in front of a heater that would help speed up the process.

01-01:17:31

So when we would go out plant collecting, he would take a big plastic bag, and he would collect every plant that he saw that the herbarium didn't have—he knew every plant. He would put it in this large plastic bag, and he would end up dragging the plastic bag down the pathway till we would get back to the car. And then in the car, the bags would either be in the trunk, or if there were the two of us, we'd be in the front seat and they'd be in the back seat. If there was one of his students who was with us, the student would be in the front seat on the window side, I would be in the back seat behind Hugh driving, and on the seat beside me would be the plant press. And every time we would go around a curve, I would have to hold the plant press up so that it didn't fall down. So it was quite an adventure.

01-01:18:37

Eardley-Pryor: Wisconsin sounds like such a rich experience in so many ways for you.

01-01:18:42

Merchant: Yes. But these were trips all over the country, every place we went, Hugh would collect plants. But he was trying to build a flora of the state of Wisconsin and so his particular work was to go all over Wisconsin to wherever there were places where there were native plants where he could

collect them. And he knew which ones were rare, and if he could find a rare one that hadn't been collected, he was just in heaven.

01-01:19:17

Eardley-Pryor: That's great. I have a note that you and Hugh eventually married—after that first date which was literally on fire, and after these adventures all around Wisconsin.

01-01:19:28

Merchant: Yes, we married. And I took my orals when I was eight months pregnant in December of 1961. And then my son, David was born on January 17 of 1962.

01-01:19:46

Eardley-Pryor: Whew.

01-01:19:47

Merchant: When I took my orals, I was almost a vegetable.

01-01:19:53

Eardley-Pryor: Wow.

01-01:19:54

Merchant: But I did okay and I passed.

01-01:19:57

Eardley-Pryor: Great, and what was the experience of motherhood like for you?

01-01:20:03

Merchant: Motherhood was a wonderful experience. I had read books about raising kids, and I had a baby book where I recorded everything that my son, David did. It was in our house on Maple Terrace in Madison. And he was a baby, and I nursed him, which I loved and I think was really good for him. And we had a high chair there, and he would sit in his high chair, and he talked very early. He started talking when he was eight months old, and he would call out things, and he was just brilliant, absolutely brilliant as a young kid.

01-01:20:53

Eardley-Pryor: That's lovely. I have a note that at the end of 1962 around December, you and Hugh went on a trip to Peru.

01-01:21:05

Merchant: Right, and that was when David was about nine months old. We left at the end of October. His student had gotten an NSF grant to study the origins of the cultivated potato in Peru. And so we took David to my mother in Rochester; they actually lived just outside Rochester at that point in Pittsford, and left him with her. And he was there through his first birthday, and he learned to walk and talk, and he had a very special relationship with my mother, and they were always very fond of each other.

01-01:21:58

Eardley-Pryor: That's lovely.

01-01:21:59

Merchant: And anyway, I went to Peru with Hugh and his student and his wife. With the grant they got from NSF, they had bought a Willys Jeep, and they shipped the jeep to Lima. And by a miracle, the student and his wife were there at the harbor when the jeep was being loaded off the ship and so they were able to claim the jeep right away instead of having it go into customs and having to sit there for three weeks. So when we got down there, they had the jeep, and of course, we had shipped plant presses with them, and Hugh had also brought plant presses with us to go all over Peru. And so we went all over the country and into the mountains and then over on the other side of the mountains. We of course spent time in Lima, and we went to Peru's lakes.

01-01:23:19

The main thing was that the student was collecting plants that might have developed into the wild potato. Wild potatoes were developed into cultivated potatoes through breeding by the Incas. But Hugh, of course, was not only going to look at the origins of the potato, he was going to collect everything we saw. We had quite a time collecting all the native plants and then he would bind them up and ship them back to Wisconsin to the herbarium. We spent two and half months there, and that was really a great time to see the whole of Peru, including the Andes and the rivers and the mountains.

01-01:24:18

Eardley-Pryor: Wow, that sounds incredible. What was it like interacting with the local Peruvians in '62—or '63 at that point, I guess?

01-01:24:27

Merchant: You know, you had to speak Quechuan and I couldn't speak it but loved to listen to it. Actually, I later had a good friend named Louisa Stark who knew Quechuan. I had met her when I was in graduate school at a conference, and she came to Madison as a professor, and she was teaching Quechuan there. I didn't learn Quechuan enough to speak it, but I could listen to her speak it.

01-01:25:04

Eardley-Pryor: Wow.

01-01:25:05

Merchant: That was interesting.

01-01:25:08

Eardley-Pryor: Shortly after, or at least a year or so after you returned from Peru, your second son, John was born in October of 1964.

01-01:25:22

Merchant: Right.

01-01:25:25

Eardley-Pryor: How did you manage to be a graduate student and a mother of two young children?

01-01:25:31

Merchant: It was wonderful, but I was also very fortunate to get a fellowship. It was an E.B. Fred Fellowship that was created exactly for mothers with children who were trying to finish their PhDs. I heard about it on the Wisconsin Public Radio, WHA, one day when I was in the house. And Hugh was there with me, and I said to him, "Should I apply?" and he said, "Sure." But he didn't think I was going to get it, but I was one of the first ones to get the fellowship. And it was wonderful because it paid for a babysitter to come and cook the lunch for the children, so I could go to campus. I could have lunch on campus, and the babysitter would cook the food and also clean the house. It was a brilliant fellowship conceptualized by Kathryn Clarenbach, a dean at Wisconsin. And the fact that I heard about it and applied for it enabled me to write my dissertation in the library on the campus.

01-01:26:52

Eardley-Pryor: That's incredible. What a progressive scholarship at that time.

01-01:26:56

Merchant: It was amazing. Yes, it was amazing.

01-01:26:59

Eardley-Pryor: Especially for the dominant cultural expectations about women in the household, in that era in particular.

01-01:27:05

Merchant: Yes.

01-01:27:08

Eardley-Pryor: I want to ask about your research as well. You pursued this interest in physics in the 1600s and were looking through the rare books and the resources that were available in Madison. What was the story you ended up telling for your dissertation?

01-01:27:28

Merchant: It was on the question of the conservation of momentum and conservation of kinetic energy. Momentum was symbolized by mv , and kinetic energy by mv^2 the one-half was added in the early nineteenth century. But momentum and energy were both forms of trying to understand motion, the motion of colliding bodies that like billiard balls would hit each other. And also falling bodies and any kind of the motion on the planet of any objects that were thrown or just fell off of something. So in other words, how do you understand the motion of objects on the planet? There was a big controversy—was it mv or was it mv^2 ? Descartes said it was mv , and for him, the v , was absolute; it wasn't plus or minus, it was just mlv . But for Leibniz it was mv^2 —there was no one-half at that point. Leibniz lived a little later than Descartes, but there were some followers of Descartes who took up the mv and made a big point out of it. There were major controversies between the different philosophers.

01-01:29:28

Eardley-Pryor: And after doing your research, what was the result of that controversy?

01-01:29:33

Merchant: The result of the controversy was that later d'Alembert in the middle of the eighteenth century said both are correct, and it was even later that they added the one-half to the mv^2 . D'Alembert said both were correct and that was how I ended my dissertation. My dissertation was the story of controversy and then reconciliation.

01-01:30:06

Eardley-Pryor: Oh, that's great, that's a great narrative. "The Controversy Over Living Force." Where does the living force come into this controversy?

01-01:30:15

Merchant: Well, mv^2 was what Leibniz thought was the basis of the universe and that that was a living force, that it was coming from within the atoms themselves. Each atom was alive, and it had its own source of energy and so that's why it was living force. That's why the whole universe was alive for the Leibnizians.

01-01:30:50

Eardley-Pryor: That's great. The full title of the dissertation is, "The Controversy Over Living Force: Leibniz to d'Alembert."

01-01:30:57

Merchant: Yes, d'Alembert. He was French.

01-01:31:01

Eardley-Pryor: And the note that I have is that you earned your PhD in that year, 1967?

01-01:31:06

Merchant: Yes, that is correct.

01-01:31:08

Eardley-Pryor: From the University of Wisconsin at Madison. For the spring of 1967, I have a note from speaking with your sister Ann that you left Hugh and went to Hawaii.

01-01:31:16

Merchant: That's right. I went to Hawaii for about five months, but then went back to Madison with Hugh, because it was not going to work for me to get a good job in Hawaii.

01-01:31:17

Eardley-Pryor: Where Ann had just moved.

01-01:31:19

Merchant: Right. I wasn't getting along with Hugh and he was very absorbed with his own work. He was trying to get promoted, and he was mainly on campus and doing work. And we just didn't have a relationship that was working and so I told him that I was going to leave. He didn't believe it, but then one day, he

went to Missouri, to the Missouri Botanical Garden for a three-day conference, and I had planned that I would leave him at that point. And so I got a moving van to come to the house and to take my furniture that I had brought with me that I had inherited from my aunt Ollo and my grandmother Davis and the things that I had bought myself. I had a friend, Louisa Stark, who came over and helped pack up my books and all my papers. I did not take anything of his or anything that we had purchased together, and we put them in a moving van that I had ordered. Then the moving van took everything and put it in a storage locker.

01-01:32:58

In the meantime I had consulted a lawyer and so I knew that I would not be able to leave the state with my two young children unless I had permission to go because otherwise, it would've been considered kidnapping. So I moved to a motel with a kitchenette across the highway and up on a hill in a little cottage where I could cook. And both my kids were in school. David was in first grade and John was in kindergarten and so I took them to school, but I would be able to do some work while they were in school.

01-01:33:49

Hugh came back after three days and saw I wasn't there. He went through all the trash up by the side of the road to see if he could find any information about where I was. He asked the neighbors, but the neighbors had agreed not to tell him. Then he drove around for two or three hours and then finally, he found my car up this little road into the motel. When he found it, he was satisfied, and he went back home, but I still had to get permission to leave the state. And so both of us got a lawyer, and we met together in conference and decided on what the circumstances would be, and he agreed to let me go. I had decided in advance that I would move to California, to Berkeley, where I had a very good friend, Wendy Dunn. She had been in Madison, but she had moved back to Berkeley where her home had been. And she had a son named Max and a daughter named Caiti. David and Max were three months apart and had met each other when they were eighteen months old. But by the time I moved to Berkeley, my sons were older. David was in first grade and John was in kindergarten.

01-01:35:24

Eardley-Pryor: This sounds like an incredibly tumultuous time in your life, I imagine, trying to finish your dissertation, and also your marriage collapsing, and figuring out what you're going to do with your two children.

01-01:35:35

Merchant: Right. But I had gotten this E.B. Fred Fellowship, which enabled me to hire babysitters and house cleaners in order to go to the campus, so I was able totally to focus on the dissertation and write it and not think about anything else during that period. And then when I was home, I enjoyed my kids and didn't try to do any other work.

01-01:36:04

Eardley-Pryor: And then to orchestrate this whole move as well.

01-01:36:09

Merchant: Right, yes, it was definitely a challenging time.

01-01:36:14

Eardley-Pryor: When I spoke with Ann, she recalled a lot of letters that you were exchanging back and forth with one another about these particular events in this time period.

01-01:36:24

Merchant: Yes. I told her some of the things that were going on, so it was nice to be able to have someone to talk to; she was great, a great support.

01-01:36:37

Eardley-Pryor: And on her own trajectory, she had gone through Berkeley to earn her PhD in astrophysics at Cal.

01-01:36:43

Merchant: Right.

01-01:36:44

Eardley-Pryor: And then had gone on to a tenure-track position in Hawaii, where she has spent her career and still lives.

01-01:36:53

Merchant: Yes, and so when I first left Hugh in March of 1967, after filing my dissertation, I went to Hawaii and stayed with her. Well, I didn't actually stay with her. She helped me get a little room just off the beach in Waikiki and so I went there and stayed, and the kids and I spent the time on the beach recovering. But then when the school year was out, Hugh decided that he was going to come and get me. He came to Hawaii, and came to stay with me. We did some traveling together with the kids around the island, and he collected plants. He always collected plants. I had decided at that point that it was not going to work for me to try to live in Hawaii without a good job. I had applied for jobs, but the only thing I was able to get was to be a laboratory assistant in large classes, and that was not going to be enough to support me. So I decided that I would go back with Hugh and get official permission to leave. We went and saw lawyers, and he and I each had one.

01-01:38:33

Eardley-Pryor: To finalize the divorce?

01-01:38:34

Merchant: We got permission for me to leave the state, and he agreed to let me leave.

01-01:38:43

Eardley-Pryor: Wow. In choosing where you would go upon leaving Wisconsin and also graduating with your PhD, what were your thoughts as to where you might go?

01-01:38:55

Merchant: My sister Ann said, "Either go to Cambridge, Massachusetts, because there are a lot of small colleges around Boston, or go to Berkeley," and then she said, "Berkeley is warmer." So I said, "Berkeley, here I come."

01-01:39:12

Eardley-Pryor: That's great, and you had your friend Wendy there.

01-01:39:14

Merchant: Yes. I had my friend Wendy Dunn out here, and I decided I would go to Berkeley. So I came to Berkeley with my two kids, and I stayed with Wendy and her daughter Caiti and her son Max, who was a friend of David's. We stayed with her in the house for a week and then she said, "Okay, Carrie, it's time to find another place." I was about to move into the Shattuck hotel in downtown Berkeley, which had kitchenettes, and I was going to move there until I found something else. But that very day that I was going to move, I found the house on Rose Street in Berkeley, four blocks north of the Berkeley campus, and I was able to talk to the landlord, and he rented it to me. And the next year, he wanted to sell it, and fortunately, my grandmother and my aunt had left me money and so I was able to put a down payment down on the house. I bought the house for \$23,250 and was then able to own the house. They didn't sell houses to women in those days because women didn't really have permanent jobs, but I had the stocks and the down payment.

01-01:40:57

Also, by that time, I had lined up a job at the University of San Francisco, but my first job before that was up in Oregon, at Oregon State University. I went there for six months but I had the job at USF to come back to. My friend Brookes Spencer had a job at Oregon, and he and his wife and family were going back to Madison to take the place of our major professor, Erwin Hiebert who was going on sabbatical to the Center for Advanced Study at Princeton and so it was a family circus literally. So I went up to Oregon, where the Spencers had a small seven-acre farm outside the university on Oak Creek Drive. And on the farm, they had a barn, and they had a couple of dogs. I moved in there, and they had helped me to find a house sitter to help take care of the children. Her name was Virginia Nelke, and she had been the runner-up Dairy Queen of the state of Oregon. She knew all about raising animals, and she loved horses. And so over the period that I was there, which was about six months, we purchased two horses and rented stalls to five horses. We also purchased a goat that had been bred, for which I built a goat-milking stand. I was very good at carpentry because I had built the treehouse when I was younger, and so I was able to build the goat-milking stand. There were boards in the front so that when the goat got up on the stand, you put the boards close to her neck but didn't choke her, just closed them so that the goat had to stand there. And then while she was up on the stand, I sat on the stool. And I had to learn how to milk the goat because I had to do it a couple of times a day. But then we drank goat's milk and made goat cheese and used the cheese in food.

01-01:43:39

Eardley-Pryor: You and the runner-up Dairy Queen of the state of Oregon?

01-01:43:42

Merchant: That's right. She taught me all those things.

01-01:43:44

Eardley-Pryor: Goat milking. That's so great. If you don't mind, I want to step back and ask a little bit about just the experience through the 1960s. In particular Madison, Wisconsin, had a really fascinating history of student activism. SDS had a strong presence there having come from Michigan, the antiwar movement, the anti-Vietnam War movement was very strong, and the Civil Rights Movement had a lot of interest and engagement from the student body. So I'm just wondering, did you have any opportunity to engage in any of this that was happening around you while also being a mother to these two young boys?

01-01:44:19

Merchant: Well, yes, a little bit, but I was mostly home with the kids. In Madison, I did go up Bascom Hill to the University of Wisconsin. I was on the campus, and I was trying to do research, so I participated to some extent. I wasn't an organizer but I was a participant.

01-01:45:02

Eardley-Pryor: Yes, to be there in that moment and then the opportunity to buy your home in Berkeley and raise your children there just sounds remarkable and what an incredible thing to have come into—for you to have found.

01-01:45:20

Merchant: Yes, when I moved to Berkeley I found the house on Rose Street and rented it. The person who rented it to me, Robert Hartcop, lived a block away and owned two or three houses. A year later, in 1968, he decided he wanted to sell it. And so I made him an offer of \$23,250.

01-01:45:53

Eardley-Pryor: That blows my mind.

01-01:45:55

Merchant: We negotiated a little bit, but I ended up being able to buy it because I had the money from my grandmother and aunt, and I also had a job at the University of San Francisco lined up and so I had everything in place. And even though it was unusual for women to buy things and for them to receive mortgages, they did grant me a mortgage.

01-01:46:34

Eardley-Pryor: Wow, that's how you purchased your home on Rose Street, which you still own today. And from what you've told me, your son John has moved into it, which is so cool.

01-01:46:45

Merchant: Yes.

01-01:46:45

Eardley-Pryor: So, when you purchased that home—I'm trying to think about the order of events for your career. You said you had lined up some sort of opportunity at USF—

01-01:46:57

Merchant: That's correct.

01-01:46:58

Eardley-Pryor: —but then you also went to Oregon at Oregon State?

01-01:47:00

Merchant: That's right. My friend Brookes Spencer, who had a farm in Oregon—

01-01:47:07

Eardley-Pryor: Oh, it's Brookes's farm that you lived at?

01-01:47:10

Merchant: Yes. Brookes Spencer was going to Wisconsin to take our major professor Erwin Hiebert's place, and he asked me. I had gone up to visit in the summer with my kids because I had known the Spencers in Madison. I drove into his driveway on Oak Creek Drive, and I got out of the car and walked up, and Brookes said, "How would you like a job?" [laughs] He said he was going off to Madison for six months, and would I like to come and teach his classes, so I said yes.

01-01:47:58

Eardley-Pryor: That is so cool. What were the classes that you taught at Oregon?

01-01:48:03

Merchant: They were history of science, both an undergraduate and a graduate course.

01-01:48:08

Eardley-Pryor: You were also teaching physical science classes?

01-01:48:11

Merchant: Yes. I taught those at the University of San Francisco as an undergraduate lecture course, and a history of science course.

01-01:48:27

Eardley-Pryor: Had you done any teaching during your graduate training in Wisconsin?

01-01:48:31

Merchant: Yes, I had been a teaching assistant, and I had worked hard to prepare so that I did not have to read notes or anything. I had some practice as a teaching assistant at Wisconsin. I prepared in advance, so I did not have to read my notes.

01-01:49:02

Eardley-Pryor: That's great.

01-01:49:03

Merchant: That was a lot of fun.

01-01:49:04

Eardley-Pryor: What was that first experience when you had your own first course in Oregon teaching those classes? What was the experience like?

01-01:49:12

Merchant: It was great, because I could make my own interpretation. It wasn't someone else's course I was TA-ing for, but I could actually teach the course. The course had a description, but I could decide what and how I wanted to teach it, and they were very open to those terms.

01-01:49:36

Eardley-Pryor: That sounds liberating.

01-01:49:38

Merchant: It was liberating to be able to do it, but also to get the experience to do it so that when I then went back and began teaching at USF, I'd had some experience lecturing, grading papers, and working with students in sections.

01-01:50:03

Eardley-Pryor: That period for you in the late 1960s—from completing your dissertation and earning your PhD, to moving to California, and then having this opportunity to teach your own classes in which you get to choose what you're going to talk about—all within that couple-year period between '67 and '69. It just sounds like it was transformational, like it's a new life for you.

01-01:50:25

Merchant: Absolutely, yes, instead of being a graduate student and going to the library and looking up articles and writing a dissertation, I was now presenting material to people and talking to them and answering their questions.

01-01:50:41

Eardley-Pryor: That's great. This sounds to me like it might be a nice point for us to pause today. We'll pick up our next session with, perhaps, a little bit more about that life experience in Oregon, and then your return to the Bay Area and where your career goes from there. Does that sound okay to you?

01-01:50:54

Merchant: Thank you.

01-01:50:55

Eardley-Pryor: Great, thank you.

Interview 2: June 7, 2022

02-00:00:02

Eardley-Pryor: Today is Tuesday, June 7 in 2022. My name is Roger Eardley-Pryor from the Oral History Center of The Bancroft Library at the University of California Berkeley. This is interview session number two with Carolyn Merchant. Carolyn, it's great to be back here, in your home here in Berkeley.

I want to pick up where we left off in the last session, which was when you had just moved to the West Coast, you had just spent a year teaching in Oregon at Oregon State. But before we dive into your return to the Bay Area and, in this session, explore some of the ways that your California life helped shape your creation and publication of *The Death of Nature* in 1980—before we dive into that 1970s context, I want to revisit some of the influences for *The Death of Nature* that came out of the 1960s that we did not discuss much about last time.

The first thing I wanted to talk about is the subtitle for *The Death of Nature: Women, Ecology, and the Scientific Revolution*. So I want to ask again about the Scientific Revolution and your work exploring the controversy about whether or not the cosmos was alive or not. How did your work, which you did in the 1960s, come to shape what became *The Death of Nature*?

02-00:01:19

Merchant: Yes, well, my dissertation for the University of Wisconsin-Madison that I did under Professor Erwin Hiebert was on the late seventeenth century, and the focus was on Gottfried Wilhelm Leibniz. He devised a concept called *vis viva*, which means living force. He had a big argument with Newton whose idea was that the main force in the universe was momentum, mv . And the two of them had followers on each side who debated whether it was mv or mv^2 . And then, finally, in the middle of the eighteenth century, D'Alembert said, "You're both right. They're both conserved." And so that's how the whole idea of the conservation of momentum, which later had a plus or minus sign on the velocity, and how mv^2 which later added the one-half, came about. So we had conservation of momentum and conservation of kinetic energy, which was living force. Leibniz thought the universe was alive, and Newton thought the opposite, that actually matter and motion were dead, but they were moved by each other like billiard balls. The motion was put in at the beginning by God, and then it was transferred among the particles as momentum.

02-00:03:16

Eardley-Pryor: Oh, so that's why the conservation of that energy mattered so much in Newton's worldview?

02-00:03:20

Merchant: Exactly. Leibniz believed in conservation of *vis viva*, and Newton in conservation of momentum, and they each had followers who did experiments

to prove they were right and the others were wrong. And then finally, D'Alembert realized that they were both correct.

02-00:03:55

Eardley-Pryor: What came out of this concept about *vis viva*, this living force? What happened to that concept?

02-00:04:00

Merchant: That concept became conservation of kinetic energy, one-half mv^2 when the one-half was added later. The debate was—was it mv^2 or mv ? And finally, with D'Alembert by the middle of the eighteenth century, they realized both were right. And finally, in the nineteenth century, the one-half was added to the mv^2 . But it wasn't really until the nineteenth century that both of these concepts were used at one time to describe moving particles and atoms that were like billiard balls. This was before the structure of the atom itself was understood, and that there were protons and electrons and that the electrons jumped from one circular realm to the next. And so the whole idea of momentum and energy and their joint conservation was not really fully understood till the late nineteenth century.

02-00:05:21

Eardley-Pryor: All right. So this idea of whether the cosmos is alive or not is part of this controversy that you explored in your work in the 1960s?

02-00:05:29

Merchant: Right.

02-00:05:29

Eardley-Pryor: This debate happened back in the late seventeenth century?

02-00:05:32

Merchant: Yes, that's right.

02-00:05:34

Eardley-Pryor: Another influence for *The Death of Nature* is, of course, the women's movement. And I want to ask specifically about the 1963 book that Betty Friedan wrote, *The Feminine Mystique*. Now right around the time this book comes out, you had just gotten married, you just had your first son, a second son was going to be on the way the year after this book came out. And so I'm wondering, how did this book come onto your radar? How did you first learn about it?

02-00:06:00

Merchant: We had a home in Madison, Wisconsin, on Maple Terrace, and my husband, Hugh Iltis had a position in the Department of Botany at the University of Wisconsin. And so I was in the home because I'd had my first child, who was David Iltis. And I was listening to the radio, WHA, which was a public radio station, and I heard about this fellowship. It was a fellowship for women with children who were going back to the university to finish their PhDs. And I said to myself, "I can do that." And so I asked Hugh when I saw him, "Should

I apply for it?" And he said, "Sure," but he didn't think I would get it. But I actually was one of the first ones to get it. It was called the E. B. Fred Fellowship. It was funded by an entrepreneur named E. B. Fred who gave money specifically for women with children who were going back to school to finish their doctoral degrees. The fellowship was to pay for babysitters and housekeepers. It was brilliant and exactly what I needed. And so I was able to hire a couple of wonderful housekeepers, babysitters combined. They would come to my house on Tuesday, Wednesday, and Thursday in the middle of the day, and cook lunch, and take care of the kids. And I would go off to the University of Wisconsin, and I would get books out of the Rare Book Room that would be saved for me behind the desk. And I would sit there and read them. And as some of them were in Latin, I had to try to translate them, or at least understand them. And others were in German and French. And so I was able, at that point, to begin to craft the chapters of my doctoral dissertation on *vis viva*—and the question of whether energy or momentum was conserved. My dissertation was about that controversy.

02-00:08:42

Eardley-Pryor: So that's the environment you're in around 1963, when Betty Friedan's *Feminine Mystique* is published. How was it that you first heard about *The Feminine Mystique*?

02-00:08:53

Merchant: I was listening to the public radio.

02-00:08:56

Eardley-Pryor: Oh, you heard about, not just a fellowship that you earned, but also *The Feminine Mystique* on the radio?

02-00:09:00

Merchant: Yes. And then I ordered the book, or maybe I went to the university library or a bookstore where they were selling books, and I got a copy of the book and started reading it. And it made so much sense to me because it talked about the power that women had, and why it was important for women to finish their degrees, and to participate fully in the economic world. I had the book at home, and that by this time we had moved to a new home, which we had built on University of Wisconsin Arboretum land that was being sold off for housing. And because my husband Hugh Iltis had a connection there, he was able to buy two and a half acres, and we built a house there, a two-story house with a long gravel driveway that went up to meet the road. And so I had that book by Betty Friedan in the home at that time. But Hugh didn't like it. He threw it out the window. He did not want the women's influences to change the role of the traditional housewife.

02-00:10:42

Eardley-Pryor: Wow. What were your thoughts at the time upon reading it though?

02-00:10:45

Merchant: Oh, on reading it, it made perfect sense to me. Everything that she said was important to me and made me realize—it gave me confidence that women could do the intellectual things that men could do, and women could get jobs, and so on.

02-00:11:04

Eardley-Pryor: How do you think *The Feminine Mystique* and your reading of it especially in that environment that you just described, how do you think that ended up becoming a part of your book, *The Death of Nature*?

02-00:11:15

Merchant: The subtitle is *Women, Ecology, and the Scientific Revolution* and there were those three influences on me. The role of women and the power of women and the strength and capabilities of women were reflected in that part of the subtitle.

02-00:11:37

Eardley-Pryor: That's great. Well, on that other part of the subtitle: *Ecology*. Also in the early 1960s, in 1962, Rachel Carson publishes *Silent Spring*, which leads to a whole wave of interest in ecological connections. What was your experience with Rachel Carson's *Silent Spring* in the early sixties?

02-00:11:56

Merchant: When Rachel Carson's *Silent Spring* came out I heard about it from my husband Hugh Iltis. He believed that Rachel Carson's *Silent Spring* was a very important influence, and so I read the book because he had turned me onto it. And I realized how important *Silent Spring* was, and that *Silent Spring* meant that all the influences on the environment—where people would exploit it with technology, and ultimately capitalism—all those things were transforming the ecology. And so that part, together with the women's movement, which was trying to save ecology, was a major influence.

02-00:13:09

Eardley-Pryor: You mentioned at the end of our last interview together how you had this opportunity—after you moved to the West Coast—to go up to Oregon State in Corvallis, Oregon. And you spent time teaching up there, but also living on a farm and milking goats and taking care of animals.

02-00:13:29

Merchant: Yes, yes.

02-00:13:29

Eardley-Pryor: And that, in the late sixties, was very reminiscent of this countercultural back-to-the-land movement.

02-00:13:36

Merchant: Exactly.

02-00:13:37

Eardley-Pryor: How did that experience, this back-to-the-land movement that you had, come to eventually shape parts of *The Death of Nature*?

02-00:13:45

Merchant: Yes, I moved to Oregon for six months. We lived on a farm, which was owned by a former grad student colleague of mine at the University of Wisconsin-Madison. His name was Brookes Spencer, and his wife was Nancy Spencer, and they had four kids. And they had bought this farm, and lived on it. Brookes went to take Erwin Hiebert's place for six months at the University of Wisconsin, when Erwin Hiebert, our major professor, had gone to Princeton to the Center for Advanced Study. I went up to visit Brookes and Nancy after I moved out to California with my kids. As I drove in the driveway, he came out of the house and said, "How would you like a job?" So I said, "That would be great." He was going to go to Madison, and so I got to teach his courses. I taught a course on the history of science, and a course on ecology for non-science students at Oregon State.

02-00:15:12

Eardley-Pryor: And how did that experience of living on the farm and teaching these classes come to eventually become a part of *The Death of Nature*?

02-00:15:20

Merchant: I now understood how important it was to go back to the land, and how important it was to conserve the land and not exploit it. And so *The Death of Nature* talks about how science and capitalism, and mechanistic science in particular, come to use natural resources and actually begin to use them up, so they become scarcer. And so then, we have to move into conservation and the conservation movement to try to save the natural resources and to create the whole concept of ecology, which fits together with energy and matter to conserve the world. So that's how in the seventeenth century, *The Death of Nature* happens, and then in the nineteenth century it changes to get conserved, and we begin to use the conservation movement to try to save the whole world.

02-00:16:40

Eardley-Pryor: That's great. Those influences that are happening to you in the sixties, you then bring with you into the 1970s as you return to the Bay Area. You had bought a house in Berkeley by that point. You had both your sons with you in the early 1970s. And from my notes, you began work as a lecturer at the University of San Francisco. How did that opportunity come to you?

02-00:17:04

Merchant: We moved into the house at Rose Street. And two doors up, there was a woman named Grace Maxwell. Her husband was Neil Maxwell, and they had two kids, and they were both my sons ages. Neil was David's age and Claire Maxwell was John's age. We went up and knocked on the door and said, "We'd like to see if your kids would like to come and play with us." I was looking for a job at the time, and she was the one that said, "Well, you should

go and talk to this man named Art Furst." He was in the chemistry department at USF. She knew him through folk dancing because they were in a folk dancing group together. I wanted to do folk dancing too. But anyway, she told me to go to USF and talk to Art Furst, so I did that. When I met with him, he said, "Well, there is a new program that's being developed here by a man named Robert Thornton." Robert Thornton had been a dean at San Francisco State University, and he'd retired. But now, they were hiring him at USF to start a new program that would be related to conservation and the environment. Arthur Furst said, "You should go and talk to him."

02-00:18:53

So I turned my resume to Robert Thornton, and then I made an appointment to see him and talk to him. He was a Black man who had gotten his degree at Howard University. He then earned a master's degree at Ohio State University, and a PhD in physics at the University of Minnesota. He had come now to start this new program at USF. And he said to me, "The minute I saw your resume, I knew you were exactly who I wanted." So that was wonderful because I could combine history of science with physics—and with the historical and philosophical background of physics, because that's what I had done my dissertation on.

02-00:19:46

Eardley-Pryor: That's right, and that's how you had studied it at Vassar, too.

02-00:19:47

Merchant: Yes, I was a chemistry major at Vassar, and I had studied physics with Margaret Waggoner who had gone to Stanford and taught us physics from the perspective of history. And Philip Nochlin, who was a philosopher at Vassar, was very interested in the history of ideas. They were the ones who had told me about this program called the History of Science. And Philip Nochlin had said, "I know a friend who went to that program in Madison, and I'll write to her." Her name was Joan Bromberg, and she had studied physics and was just finishing her work at Wisconsin. And she said, "I will tell my professor Erwin Hiebert about you." I met Hiebert, and he said, "Well," he said, "I mainly advise nineteenth-century students, but when I saw that you wanted to work on energy and momentum in the seventeenth century, I decided I would take you on." So that's how I got to have him as my major professor, and he was absolutely wonderful and very interested in the history of ideas.

02-00:21:16

Eardley-Pryor: Life is just full of interconnections of people and relationships, isn't it?

02-00:21:20

Merchant: Yes.

02-00:21:20

Eardley-Pryor: Both our relationships to nature, our relationships to people. I'm fascinated with the relationship you developed with this physicist in San Francisco, Robert Thornton, and what came out of this program that he was interested in

creating, that you were able to teach in. What was it that you were able to teach?

02-00:21:40

Merchant: I gave him my resume. And then I went to see him, and he said, "When I saw your resume, I knew you were exactly what I wanted." What he wanted was somebody who could not only teach physics and general science to non-science students, but somebody who could teach it from the perspective of philosophy of science and history of science. And so he was very interested and supportive of that. There was a small program called the History of Interdisciplinary Science that was created within the physics department, and there were three people teaching in it. He was one, and there was another man, and then there was me. And so I got to teach history of science and physical science for non-science majors.

02-00:22:46

Eardley-Pryor: That's fantastic. You mentioned your home on Rose Street, that you still have, and that you would then commute from Berkeley to your job teaching at the University of San Francisco. But about that home in Berkeley—when I had this great conversation with your son, David, about his memories of that home, he talked about a science room.

02-00:23:09

Merchant: Yes.

02-00:23:09

Eardley-Pryor: What was the science room you had at home with your two boys?

02-00:23:12

Merchant: The home at that time was a single story MacGregor bungalow. There were quite a few of these designed by MacGregor around Berkeley. It was one story—I built a second story on it, but not till 1989. Off the kitchen was a breakfast room. And so in that breakfast room, instead of using it for breakfast we created a science room because I wanted my kids to learn science. And so we had a little bench, and on it we had a terrarium, and we had a birdcage with finches in it, and an aquarium that had snakes—not poisonous—but also lizards and other small organisms. So my kids could learn to take care of small animals and to study them and to understand them and that's what we called the science room.

02-00:24:40

Eardley-Pryor: That sounds magical. There was some story that David told me about. He remembered in a jar, there was maybe a cow heart or a brain?

02-00:24:50

Merchant: Yes. USF when I came to teach, I tried to bring laboratory experiences into the lecture room and so I had gotten a cow's heart. I went to the slaughterhouse on the edge of Berkeley, and I got a heart so that I could show the students the ventricles and the auricles that all hearts have, but I could

show it in a large enough model, and they could all come up and gather around and see the different parts and how the motion was carried through the veins and the arteries. And that was a big thing because it became kind of famous.

02-00:25:49

Eardley-Pryor: That's great. And I remember in *The Death of Nature*, you talk about how the discovery that the heart pumps the blood through the body led to this mechanistic idea that the heart is like a machine, that the body functions like a machine.

02-00:26:03

Merchant: Right, yes. The idea in the seventeenth century was that the body was a machine. The world was a machine, the body was a machine, and humans could build and operate technology as machines and so everything was mechanistic. And so I tried to bring into this the idea that the world was actually organic. There was ecology, and you had to understand the ecological dimensions of how the person or the animal fitted into the ecological background and what that contributed to them and how it supported them. And then when humans interfered with it, how it might destroy their own life and lead almost to their own extinction, that would've happened without the conservation and ecology movements.

02-00:27:03

Eardley-Pryor: That's great. All of this experience happening in your life from the sixties through this early seventies period, all the excitement that's happening with teaching and these new opportunities at new universities and making the connections, it just seems like such a rich time to be in the Bay Area.

02-00:27:22

Merchant: Yes, the 1970s were especially important because the ecology movement of the sixties and the women's movement of the sixties all came together and merged. And by the seventies, we had all these ideas coming together. And, of course, the seventies were a period in which there were demonstrations and there were challenges to the structure of society and so on. The Bay Area was especially important to that because a lot of the movements actually started in San Francisco. My neighbors across the street were Chinese Americans, and they were very interested in the marches, and so on. I went with them, with my two sons, and we would join the marches in San Francisco. I became radicalized by those contacts and by what was going on in the seventies.

02-00:28:38

Eardley-Pryor: That's wonderful. You'd mentioned square dancing or folk dancing in Berkeley.

02-00:28:44

Merchant: Yes.

02-00:28:45

Eardley-Pryor: Can you tell me a little bit more about what that was?

02-00:28:47

Merchant: My neighbors two doors up—the ones who had told me about Art Furst and that I should talk to him—were folk dancers, and I wanted to learn folk dancing. And they were part of a folk dancing group in San Francisco that performed under Madelynne Greene, and they had costumes and performed on stage. So when I went to them, they said, "You should go and take lessons from Madelynne Greene, and we will introduce you to her." So they sent me a letter, and I went, and she said, "Okay, I'll take you on." She was teaching classes over in San Francisco. I would get a babysitter for the kids, and take folk dancing lessons from her. I really loved that; it was wonderful. They were circular dances, so people would do things in one circle, and then there might be an inner circle, and people would move jointly with each other. That was very interesting and exciting to me, and also, it was a way to develop coordination and energy and exercise.

02-00:30:19

Eardley-Pryor: Yes, and you had been an athlete as a younger woman, and so to be able to dance and be social at the same time sounds perfect.

02-00:30:24

Merchant: Yes, exactly. So I had wanted to do that, and now, here was an opportunity to do it. And then it turned out that they started a folk dancing group in Berkeley at Live Oak Park near my house on Rose Street so I didn't have to commute, but I could go to the dance groups there.

02-00:30:46

Eardley-Pryor: That's so cool. I had interviewed a Berkeley professor in chemical engineering named Alexis Bell. And when he came to Berkeley in 1975, he said the same thing, that he fell into what I think was an Israeli folk dance group in Berkeley, and that was his entrée into social life in Berkeley.

02-00:31:04

Merchant: Yes.

02-00:31:05

Eardley-Pryor: What a neat thing to be doing in the seventies.

02-00:31:07

Merchant: Right.

02-00:31:08

Eardley-Pryor: I want to ask about in 1972, a summer experience you had where you traveled to Italy and participated in a course that the Enrico Fermi Institute put on, a course called History of Twentieth-Century Physics. Can you tell me a little bit about that experience of going to Italy and then what transpired at this course?

02-00:31:28

Merchant: Yes. I had met through the History of Science meetings a physicist named Robert Cohen, and he told me about that course, and so I applied. My sons, at that point, were spending summers and Christmases with my husband Hugh, so I had the summers free. And I also had money that my aunt Ollo had left to me. I had invested that, and so I used some of that to travel to take this course. And it was a wonderful course in which I learned all about the history of physics and especially met Robert Cohen.

02-00:32:26

Eardley-Pryor: I read, I think, in one of your introductions to *The Death of Nature*, in one of the various editions that was published, that this course focused on the social responsibilities of science. I know in the late sixties and the early seventies, with the Vietnam conflict and ongoing concerns about nuclear contamination, that the social responsibilities of science were a really big idea that science was wrestling with, let alone the history of science.

02-00:32:55

Merchant: Yes, absolutely.

02-00:32:56

Eardley-Pryor: What was it that that course helped shine a light on for you with regard to the social responsibilities of science?

02-00:33:01

Merchant: It made me realize that the science that I had learned as kind of an abstract mechanistic system had important social consequences. And that those social consequences included things that destroyed the earth and that also were part of the Vietnam War and that destroyed areas that were important to ecology in Vietnam. And so I began to see that there were much wider and more important influences that came out of mechanistic science and that we should indeed take more social responsibility toward it.

02-00:33:51

Eardley-Pryor: What role did Robert Cohen play in helping shape some of your thoughts? I know he was a Marxist philosopher of physics based out of Boston University.

02-00:34:00

Merchant: Yes, and he was at the conference in Italy and so I spent quite a bit of time in the social hours talking to him and being introduced to how Marxism and social ideas could influence science. And he turned me on to reading Karl Marx and Edgar Zilsel and other people who tried to bring the social context into relation with science.

02-00:34:38

Eardley-Pryor: And you had mentioned in our conversations just today the way that capitalism can have a role in shaping ecological relations.

02-00:34:44

Merchant:

Yes, Robert Cohen was especially important in creating that influence for me. And so I began to make critiques of capitalism in my courses and in my writing and turned toward Marxist history of science and critiques of capitalism. And realizing that maybe, there was another system out there called socialism or at least social ecology where small communities could be created that would share resources with each other and grow food that they shared, and milk cows, and so on. So that they could become more like local socialist organizations.

02-00:35:41

Eardley-Pryor:

You'd mentioned that you first met Robert Cohen through the History of Science Society or HSS. And I looked through your resume and saw this deep, long-lasting relationship and participation of yours in the History of Science Society, becoming a member in 1962, and on and on through seventies in particular. I'm wondering if you can talk a little about the ways that your participation in the History of Science Society, especially early in your career, helped shape your role as an academic?

02-00:36:15

Merchant:

I had heard about the History of Science Society through my colleague Joan Bromberg, and I decided that I would try to go to a meeting of it. And so when I did that, I became a member and then I also tried to eventually get on some of the committees that the History of Science Society had and especially forming a women's committee that would promote the role of women in the history of science. And I also worked to establish a West Coast History of Science Society, and I did that jointly with a colleague. And we began having meetings of the West Coast History of Science Society. We had meetings at West Coast universities, in San Francisco and Los Angeles and Santa Barbara. The meetings often focused on local issues.

02-00:37:46

In my job at the University of California, I had to do something called an Agricultural Experiment Station project, which was part of the job itself. Part of my job was to teach two courses a year only, but also to do an experiment station project, which had to have approved by the state agricultural society. So I began to do projects that would fulfill those types of requirements and write a book on California's ecological history. My idea to fulfill my obligations to the state experiment station was to create a book on sources in California environmental history. It was called *Green Versus Gold* [*Green Versus Gold: Sources in California's Environmental History* (1998)], with green for ecology and gold for money and capitalism. And I did that in conjunction with and following the same outline as my books on American environmental history [*American Environmental History: An Introduction* (2007)], which looked at the whole country. Each chapter had about six primary sources, and then three essays that often had conflicting points of view. And it had thirteen chapters so that it could be used over the course of a semester in a teaching program.

02-00:39:40

Eardley-Pryor: Oh, that's wonderful. And that book is still used in California history courses.

02-00:39:44

Merchant: Yes, and it went through three editions, and each one added new materials that had appeared over those years.

02-00:39:53

Eardley-Pryor: I want to ask about your work as a lecturer at the University of San Francisco initially, before the Cal opportunity around 1980 or so. What role did the History of Science Society play in plugging into an academic framework? Especially when your employment at the time, as a lecturer still, I think, could be concerning whether it was long term or not.

02-00:40:22

Merchant: Yes, the work was teaching physical science for non-science majors. I was hired to do that. But then I asked if I could introduce a history of science course, and they said yes, I could do that. And also a history of the occult sciences, and they were more skeptical about that. I had to go to the dean to ask, and he—the dean said, "You can do it as long as there's science content in it." And so I—

02-00:41:00

Eardley-Pryor: It's the dean at this Catholic university saying, "what do you want to teach?"

02-00:41:03

Merchant: Exactly, yes, that's right. But my main goal in all of these courses was to teach from the sources themselves, from the primary sources. So in every case, I would have students read primary sources that maybe conflicted with each other, and then I would have three interpretive essays that also could have differing points of view so that the students would learn how to read primary sources and understand things from the sources themselves. They would learn how to evaluate them so that they themselves could become much more astute critics of the history that they were reading and ultimately might be teaching themselves.

02-00:41:57

Eardley-Pryor: I love it. I want to ask about this time period in the early 1970s, how all of these things are coming together: the coursework that you're teaching, the primary sources that you're using both in your own research and particularly in the classroom, and these new ideas that are coming to you about the social responsibilities of science, and the role that capitalist development can have in shaping society and even shaping scientific thought—some of the ideas that were circulating in the Bay Area. A book in 1972 comes out called *The Domination of Nature* by William Leiss?

02-00:42:34

Merchant: Yes.

02-00:42:35

Eardley-Pryor: What is that book? And how did that influence you at the time?

02-00:42:37

Merchant: I heard about this book from Robert Cohen when I went to that course in Italy, and so when I came back to the Bay Area, I got the book. And it was incredible because I began to look at science and at the sources in science in terms of its history and the influence that those sources may have had on giving people permission to dominate and exploit nature for capitalist production and for profits. And so that was, again, a major influence of Robert Cohen by turning me onto that book and of giving me the tools to make a critique of science sources themselves.

02-00:43:37

Eardley-Pryor: Another influence on your thinking came from a science writer named Daniel Greenberg who introduced you to Theodore Roszak.

02-00:43:48

Merchant: Yes.

02-00:43:48

Eardley-Pryor: Who is Theodore Roszak? Who is Daniel Greenberg? How did these suggestions come to you, and what did they do?

02-00:43:54

Merchant: I had met Daniel Greenberg at a conference. And I was talking with him about the history of science, and he told me about Theodore Roszak who was at Hayward—it was called Hayward State at the time. It's now Cal State, East Bay. He had written a book called *The Making of a Counter Culture*, and I got that book and read it. And then I asked Daniel Greenberg if he might be willing to give Roszak the three essays that I had written at the time, which he did. And Roszak read the essays, and he called me up, and we got together. And he told me about HarperCollins and John Shopp, and how I should form these essays into a book and give it to HarperCollins to consider. So that was my next project, to create the book that became *The Death of Nature*.

02-00:45:07

Eardley-Pryor: What were these three essays?

02-00:45:12

Merchant: One was on science and utopias, on which I had been influenced by the farm in Oregon and by my assistant, Virginia Nelke, who was the runner-up Dairy Queen of the state of Oregon. And one was on mechanism in society and the issues of mechanistic science, such as the conservation of momentum, mv , and the conservation of energy, mv^2 , which later became one-half mv^2 . What were the consequences of those two laws for the environment? And if they were used to create experiments and to create ways of extracting resources from the environment, what consequences were there for nature and for ecology? How did they begin to destroy ecological relationships?

02-00:46:17

I had become very attuned to ecology through my first husband, Hugh Iltis, when we went out on our first date and burned the prairie. And when we were married, he was a leader in the Nature Conservancy Society in Madison with a couple of other people. They would have meetings once a month and there would be field trips through Abraham's Woods and through different Wisconsin prairies. Because of him, I became attuned to where the prairies were being overgrown with plants that didn't belong there that were destroying the native prairies. And so our partnership was that we would go out to a prairie, which needed burning, and he would ask the farmer if he could bring some colleagues to burn the prairie. And I would take my baby son, David, and talk with the farmer's wife. And she and I would chat while they went out and burned the prairie, but I also burned prairies with Hugh. So over the course of our lifetime, we became prairie burners.

02-00:47:53

Eardley-Pryor:

That's great. So you mentioned these essays that you shared with Theodore Roszak. And one of them was on science and utopias. One of them was on the ways that mechanistic thought had combined to allow for the destruction of nature. And then, what was the third essay that you shared with him?

02-00:48:14

Merchant:

It was on organic society, about how society was constructed by components that fitted together like a living organism. In the world of the Renaissance, of the fifteenth and sixteenth centuries, the universe was an organism writ-large. It had a body, soul, and spirit. The body was the earth, and the soul was the heavens, and the spirit was just below the realm of the fixed stars but beyond the planets. So the whole world itself was a living organism and was considered to be such by people in the fifteenth and sixteenth centuries. And *The Death of Nature* was about how that whole concept changed to become a machine, and the machine was made of dead, inert parts driven by momentum and energy. So we lost the organic worldview.

02-00:49:30

Eardley-Pryor:

Great. And those essays, you were writing in the early seventies, are what you shared with Theodore Roszak?

02-00:49:36

Merchant:

Yes, that's right, and he said, "I want to introduce you to my editor John Shopp," who said, "Okay, these are three great essays, but you should make them into a book." And so I was able to get grants and funding to do so. I went to the Center for Advanced Study at Stanford [CASBS] for a year, and I also got an ACLS grant to help fund my time there. That was a period in 1976 when there was economic instability, and so my job at USF, which was as a lecturer at the time, was being threatened. So I applied for grants and fellowships. And I got the ACLS, and then I got admission to the Institute at Stanford. I was able to go there for a year's fellowship, and that was all due to Robert Merton and Harriet Zuckerman. Harriet Zuckerman had been a

colleague of mine at Vassar College and then she entered a relationship with Robert Merton who was in the history of economics and society. And I met with the two of them at the CASBS, and they wrote me a letter of recommendation—they were both on the board of the Stanford Center for Advanced Study, I was able to get enough funding to be there for a year. And partway through that year, I got interviewed at the University of California at Berkeley. And they wanted me to teach the courses—the job was advertised to teach the courses that had been taught by lecturers, Alan Miller and Joseph Petulla.

02-00:51:41

Eardley-Pryor: Before we dive into that Cal opportunity, there are other things I want to go back to, to make sure we cover. We'll work our way up to that, but first I want to talk about some of the other relationships you've been talking about, these wonderful connections and social relationships that lead to opportunities.

Another relationship I want to ask about in the early 1970s period that helped influence your thinking of what became *The Death of Nature* is with a fellow historian of the Scientific Revolution named David Kubrin.

02-00:52:08

Merchant: Kubrin, yes.

02-00:52:09

Eardley-Pryor: What was it that David studied, and what was your connection together in the Bay Area?

02-00:52:13

Merchant: I met David Kubrin through a school called the Liberation School in San Francisco that he had founded with a couple of other people. It was an alternative school. It wasn't giving a degree or anything, and he and a couple of colleagues formed it together. I had heard about it because I had become an activist, and I was interested in changing the world, and heard about David Kubrin. David had done his PhD at Cornell with Henry Guerlac. And he had worked on conservation of momentum, and I had worked on conservation of energy with Erwin Hiebert, and both of them were prominent historians of science. I got to meet David Kubrin when he was teaching a course in the Liberation School, which was a critique of ideas about energy and momentum, and how they were supporting mechanistic science and technologies that help to destroy nature. I became an ardent follower of David Kubrin and the Liberation School. And that was how I began to bring the social context of science into my own thinking and teaching, and that led to *The Death of Nature*.

02-00:54:04

Eardley-Pryor: That's wonderful. Another thing that happens in the mid-1970s before you get your tenure-track position at Cal is an opportunity to teach in 1974 or 1975 in what was called Strawberry Creek College at Cal.

02-00:54:20

Merchant: Yes.

02-00:54:21

Eardley-Pryor: What was Strawberry Creek College, who was involved in it, and what was your involvement in it?

02-00:54:26

Merchant: Well, I was involved with Charles Sellers—whom I ultimately married later on. He had created Strawberry Creek College at Cal with Charles Muscatine, who was in the English Department, and Peter Dale Scott, also in the English Department. They wanted to have an alternative program in which students could take a single course that was twelve units, instead of just a three- or four-unit course, and that would last the whole semester. And that would be in this program called Strawberry Creek College, and there were six courses taught by six faculty in that program. There was Peter Dale Scott, Charles Muscatine, and Charlie Sellers, and then Bert and Stuart Dreyfus who were philosophers who co-taught a course, and then they wanted some women. I went to have lunch with Charles Muscatine and Charlie Sellers. Charlie had said, "I've got this luncheon date with you, but Charles Muscatine wants to talk to me. Would you like to join us?"

02-00:55:50

So I did, and Charles Muscatine was saying, "Well, we'll need some more lecturers in this program." And I turned to him, and I said, "What about me?" And he said, "Well, maybe if you were in a science department." And I said, "Well actually, I'm at USF in the physics department, but I teach physical science." Afterwards, he met with Charlie, and he said to Charlie, "Maybe we're going to have to go outside the Berkeley campus." And so they hired me and Karen Hermassi, both women, to form the first faculty of Strawberry Creek College. They had gotten a grant from NEH, the National Endowment for the Humanities, to offer these courses on campus. And they were housed in the T (Temporary) Buildings on the Berkeley campus just between the library and Hearst Street. They were wooden buildings that were temporary buildings built during World War II. These T Buildings have since all been taken down, but at the time T9 was the building that they got access to for Strawberry Creek College. We had the whole building to ourselves. They were just wooden shacks, but they had room for our six courses and a lounge. There were the six classrooms, and there were also offices for the faculty in the building.

02-00:57:25

Eardley-Pryor: You'd mentioned that Strawberry Creek College had these twelve-unit courses, and there were a handful of courses. What was it that they were teaching? What made Strawberry Creek College different from what you could do at Cal?

02-00:57:36

Merchant: Everybody who taught one of the courses taught the whole course for the whole quarter for nine units. And so, that would be within Strawberry Creek College. And then the students would take one course in the larger university for three or four units. These students were mostly freshman and sophomores, but some were juniors and seniors. And they would learn in these intensive courses that met for several hours a week together, in Strawberry Creek College, how to read and think critically. And there were three quarters in each course. One was on the past, the second on the present, and the third on the future. Each of the courses had that structure.

02-00:58:34

Eardley-Pryor: What was it that you were teaching about the past, present, and future?

02-00:58:38

Merchant: Yes. I taught the history of science, starting with Renaissance history of science, followed by one on the seventeenth- and eighteenth-century history of science, and then in the third quarter I taught science and utopias. So those were my contributions.

02-00:58:54

Eardley-Pryor: And the utopia was the future-imagining?

02-00:58:56

Merchant: Exactly, right.

02-00:58:58

Eardley-Pryor: That's wonderful. Charles Sellers, of course, becomes this great love in your life, and you share many, many years together. How is it that you and Charlie first met?

02-00:59:09

Merchant: We met through Berkeley politics. I had moved out to Berkeley, and it was the time of the liberation movements and the political movements that were questioning the Vietnam War and were organizing people. I heard about a group that was meeting, and it turned out to be at Charlie Sellers's and his wife Nancy Sellers's house on Virginia Street. And so I went to the meeting, and I started attending future meetings. They were meetings that criticized and tried to analyze the problems that the war was creating for the world—the ecological and political problems that were being created in the 1970s. And that's where I met Charlie. And then he was meeting one day at lunch with Charles Muscatine about Strawberry Creek College and who else to hire. And at lunch I asked, "What about me?" And so they decided they would go outside and hire me also in Strawberry Creek College.

02-01:00:30

Eardley-Pryor: That's wonderful. You mentioned another woman who was a part of it named Karen Hermassi?

02-01:00:33

Merchant: Karen Hermassi, yes.

02-01:00:34

Eardley-Pryor: What does she teach, what was she into?

02-01:00:36

Merchant: She taught about politics and the theater, and so on.

02-01:00:48

Eardley-Pryor: Whatever came out of it? What became of Strawberry Creek College?

02-01:00:54

Merchant: It was funded for six years by NEH, and it was given a home in the T Buildings. But then after the six years, it was to be evaluated by the campus as to whether they wanted to make it a permanent program. It wouldn't necessarily have been a separate college, but would it have been a program that would still continue these large seminars. But the campus voted it down. And so after the grant ran out, they all went back to their original departments.

02-01:01:38

Eardley-Pryor: How long did you stay as a lecturer?

02-01:01:40

Merchant: I was a faculty member at Strawberry Creek College during the time I was a lecturer at USF in 1974-75. But then I got a permanent job as an associate professor at USF. They said, "You've done enough, we'll put you up for associate." But then I saw the job at Cal that was being advertised.

02-01:02:32

Eardley-Pryor: Oh.

02-01:02:32

Merchant: And I saw this because I saw a guy who had been in my program at USF in Harney Science Center, walking down the hall, peering into a catalog. And I said, "Dave, what are you looking at?" He said, "There's a job at Cal, and I'm applying for it." And so when I asked him what it was, he said, "Well, it's in this new program. And there are courses that all have been been taught by lecturers. But now, they're hiring permanent faculty." And he said, "I want to teach that course," and that course was environmental history and philosophy. And I said to myself, "I can do that." So the next day, I drove down Euclid Avenue, and I parked my car at Euclid and Hearst, and I walked over the hill into Giannini Hall. I went into the office of the Department of Conservation and Resource Studies, and I said, "I understand you have a job for someone to teach these courses?" And they said, "Well, that job is for an ecologist. But we're going to have one for a historian, and I will send you the announcement."

02-01:03:52

So in December, when the job was approved by the Budget Committee, they sent me the announcement. I turned in my application at the end of December, and then I went to Stanford where I had been appointed as a yearlong fellow at the Center for Advanced Study in the Behavioral Sciences. I went to Stanford, where I was working on my book, *The Death of Nature*. And when I got invited to interview in Berkeley in March, I came back, and stayed in Berkeley for three days, while I was interviewed. And I was able to give a great lecture because I had prepared the lecture and given it to my colleagues at Stanford in advance. I didn't have to use notes. I just looked at people's eyes in the audience and gave the lecture. And they said, they'd like to hire me.

02-01:04:59

Eardley-Pryor: Wow, what an amazing opportunity that you had worked hard to get.

02-01:05:01

Merchant: Yes. All of these were things that I heard about, but then they panned out, and worked into opportunities for me.

02-01:05:15

Eardley-Pryor: I mean, both the opportunity that you had to become an assistant and an associate professor at the University of San Francisco and then walking down the hall talking to a colleague, and learning about the Berkeley job, and then finally walking into Giannini Hall and saying, "Here's my resume, I can do this."

02-01:05:29

Merchant: Yes.

02-01:05:30

Eardley-Pryor: And when you walked into Giannini, you said, "I understand you have a job I might be interested in."

02-01:05:35

Merchant: Right. I did. So I was assertive and took the chance that maybe I would be of interest to them, so I did put myself forward. But I knew that I had the kind of resume that would attract them. Because I had published my dissertation as six peer-reviewed articles, and they had equations in them, and that really appealed to the UC Budget Committee. They liked the idea that I included derivations of equations, that the papers had to do with momentum and energy and so on. Then my book, *The Death of Nature* was just completed in page proofs. And at the time I was interviewed, the book was on the table for all the faculty—and the committee of both faculty and students—to look at while I was being interviewed.

02-01:06:46

Eardley-Pryor: So you had the book there to show them, and it was going to be published?

02-01:06:47

Merchant: I had it, yes. And then the following spring, in 1980, it was actually published.

02-01:07:00

Eardley-Pryor: Wow. You'd mentioned that the hiring committee at Berkeley was a mixture of faculty and students for this new program that was being created. Can you tell me a little bit about the hiring?

02-01:07:11

Merchant: Yes. They especially wanted to involve students. It was a period—when students were activists and wanted to be included in consideration for the jobs of the faculty that would be teaching them. And so there were very activist students at the time. And that worked in my favor because I was also an activist, and the students liked that.

02-01:07:43

Eardley-Pryor: Tell me a little bit more about the program that was being created. What was this new program that you were hired into, where they're making this slew of faculty hires?

02-01:08:02

Merchant: That was in the College of Natural Resources, and it was called Conservation and Resource Studies, and it was a program that emphasized the environment and conservation. And its office was in Giannini Hall. And so when I got the job, I got an office there that was only four blocks away from my house, so I didn't have to commute to USF.

02-01:08:32

Eardley-Pryor: That's wonderful. What was going on in your son's lives at this time?

02-01:08:37

Merchant: In 1976, they had gone to live with their father Hugh Iltis in Madison, and they were old enough by then. They had visited him in the summers and at Christmas, but they had a chaperone on the airplanes, each time. But now, they were old enough so that they could go to school there and come home from school themselves. And their father Hugh often would be working late at the herbarium, and David would say, "Well, we would make the dinner, and then it would just sit there." They learned to take care of the house and to cook the food, and so on. So that was a really important experience for them.

02-01:09:28

Eardley-Pryor: And I imagine with your sons having grown to the age where they could be away for most of the year, that allowed you to be able to dig into your writing time, too.

02-01:09:37

Merchant: Exactly so. And then, they moved to Madison be there during the school year with Hugh and came to visit me in the summers and Christmas. And so it was good for them to be with their father full time. And it also allowed me more time for writing and teaching.

02-01:09:59

Eardley-Pryor: And folk dancing, apparently.

02-01:10:01

Merchant: And folk dancing.

02-01:10:02

Eardley-Pryor: And activism, and all those things.

02-01:10:03

Merchant: Yes. That's right.

02-01:10:06

Eardley-Pryor: Your move to California in that late sixties period, and this whole decade of the 1970s, just feels so different—from the life that you had before in Wisconsin and in New York. Your life on the West Coast feels like a whole new chapter of your existence.

02-01:10:26

Merchant: Yes, absolutely. It was a period of activism, and there were a lot of things that were going on in Berkeley. Berkeley was on the forefront of the changes that were happening in society. And so there were people that I met, and organizations I became involved with, that were very supportive, and I became influenced by them. And I began to understand the importance of the whole social context of science—not just the history of momentum and energy on which I'd done my dissertation, but the whole idea that people who lived at that time were socialized into a worldview and a way of relating to nature that was much more integrated into nature, and not just apart from it, and trying to transform it. And so that was part of the idea of the utopias and the farm I moved to in Oregon that helped influence and strengthen that background and portion of science within society for me.

02-01:11:49

Eardley-Pryor: With your activism in the Bay Area—in the antiwar movement, and questioning the way that capitalist society had been structured, in requests and demands for racial and gender justice, for women's rights—I'm wondering about how that social ferment shaped what you thought could be done against the mechanistic worldview that emerged in the late 1600s, the late seventeenth-century period that you were writing about. I guess what I'm asking about is, how does one now combat or alter the mechanistic worldview that has been entrenched for centuries? How does one go about trying to change that and to re-grasp the organic or ecological world that was lost?

02-01:12:36

Merchant: That's partly what my book, *The Death of Nature* was attempting to do. Most of what I had written about in my earlier papers were histories of mechanism that had equations in them, which were important because the Budget Committee loved that. But I also tried to fit those mechanical ideas into the social context, which had helped to create it. And trying to do that was a big problem because people did not want to think that society would influence equations or the creation of laws, and so on. So I was interested in the idea that science and its laws actually came out of an organic system in which

people lived and how those ways of relating to nature may have subtly or even more consciously influenced their ideas, and maybe also have led to the scientific laws that were then formed.

02-01:14:00

So that was what *The Death of Nature* was about. It was about the world's integration into the organic worldview, and then how in the seventeenth century that worldview incorporated equations so that the organic worldview died out and it is the mechanistic worldview that survived. *The Death of Nature* was the death of that organic context. But then in the Enlightenment of the eighteenth century, people began to say, "Well, there is a larger, at least, intellectual context. There are ideas about the world and about how people's minds became enlightened through understanding and reading books that had a larger influence on them." And so the Enlightenment began to show that there was a much wider context and also to question that the mechanistic worldview was the sole way to look at nature. The Enlightenment worldview was developed—beginning in the eighteenth century, but on through the nineteenth century. And then the ideas of conservation of energy developed in a larger context, not just kinetic energy and momentum, but that the whole world was really formed of energy. And then in the twentieth century, it becomes chaos and complexity theory, which is much more complicated, and argues that some of these ideas are actually not as permanent as one might think, but there are much more complex relationships. And chaos theory begins to question the permanence of some of these laws.

02-01:16:08

Eardley-Pryor:

We'll talk, I'm sure, in a later interview about the ways that you continue to incorporate science, like complexity theory, into your environmental ethics and environmental thinking. and particularly with partnership ethics and the possibilities that are found in those complexities.

02-01:16:26

Merchant:

Okay.

02-01:16:27

Eardley-Pryor:

But I want to ask about the reception of *The Death of Nature*, the ways that the book was received. And maybe to start that, to ask about how Berkeley colleagues—Berkeley being such a science-oriented university, known for being on the cutting edge of scientific research in so many fields especially in nuclear research—how did your ideas, about the ways the social aspects of scientific thought were evolving, how were those received by your Berkeley colleagues, particularly those in the sciences?

02-01:17:02

Merchant:

When *The Death of Nature* came out, it was interesting because it was displayed in all the bookstores all down Telegraph Avenue. And one of my colleagues, Londa Schiebinger, who was visiting, said, "Let's go for a little walk down Telegraph Avenue." And so we went down, and *The Death of*

Nature was in every bookstore window, and it was being especially featured in Cody's Book Store. And I gave a talk that week in Cody's upstairs, and it was just filled with people. It had been advertised, and it was featured in the *Daily Cal* and several other magazines.

02-01:18:03

Eardley-Pryor: How did that make you feel?

02-01:18:05

Merchant: It was very gratifying to think that people were taking it seriously. But of course, there were also the critics that didn't want to include that social background and said it's really independent. I had both support and some legitimate criticisms based on the kind of assumptions that were being made.

02-01:18:34

Eardley-Pryor: How did fellow Cal colleagues receive your book? So it sounds like it had a popular reception that was really powerful, particularly in Berkeley. What about the Cal faculty?

02-01:18:47

Merchant: In the history department for example, there were some people who were skeptical. But on the other hand, there were some, especially some of the faculty women, who were very interested in the book. And I had a partial affiliation with the history department, and so the people in the history department who supported me were also supportive of *The Death of Nature*.

02-01:19:28

Eardley-Pryor: I read somewhere that there was a mention of *The Death of Nature* in *Newsweek*, and even in a congressional hearing?

02-01:19:36

Merchant: Yes, that's right, it was amazing. That was when it came out, and there was a column in *Newsweek*, and then it was brought up at a congressional hearing. It was a criticism of what mechanistic science alone would do to the environment if it wasn't associated with an ethic and some restraints and understanding of what the consequences were. So it was very gratifying to see that reception.

02-01:20:17

Eardley-Pryor: That's great. Do you mind if we pause?

02-01:20:19

Merchant: Right.

[BREAK IN RECORDING]

02-01:20:23

Eardley-Pryor: All right, Carolyn, thanks for that break. Thank you, again, for treating our lunch today. It's a real pleasure to dine with you. So what I want to ask before we close today's session, to wrap things up for this period that's talking about

the 1970s, I want to ask about some travel that you did. I understand from talking to your son, David, that you went, at some point, sometime in the 1970s, on an African safari. What was the opportunity to go on this safari?

02-01:20:53

Merchant: The main opportunity was that my sons had visitation periods with their father in Madison, in the summer and Christmas. So that left me free to go to places. And the African safari came up because I decided it would be fun to go on a safari, and so I looked it up, and there was one being led with the Sierra Club. I was a member of that, and so I signed up. And I had the money because my grandmother and my aunt Ollo had left me money. Aunt Ollo especially had left me money, which I had invested. So I had some funds that allowed me to go. And there was that Sierra Club trip that that I went on.

02-01:22:07

Eardley-Pryor: What are your memories of being in Africa?

02-01:22:10

Merchant: In Africa, we went to Kenya and then Tanzania. And in Kenya, we went in a van. There were only a few people, and we were in one van. We went on little-travelled roads through Kenya, and we would stop where there were herds of the animals. And those were particularly interesting. I bought a little movie camera, so I was able to take some movies. I still have those tiny, little reels that I then later converted into discs.

02-01:23:18

Eardley-Pryor: That's great. Your son, David, also mentioned that at some point, you took another trip to somewhere in Greece and there was an incident with a snake.

02-01:23:27

Merchant: Yes. It was after Africa. I had been on the safari to Africa, and I was very used to looking at animals, and the leaders would pick up big snakes, and they weren't poisonous, and we could touch them. Also, I had lived on this farm in Oregon where we had collected reptiles and snakes and had little terrariums, and so on. So I just thought snakes were something you could pick up, which turned out to be not the case. When I got to Greece, I saw a small python, it was just a small snake. And so I was used to picking up snakes, and I was on this walk, and I leaned down, and then I picked it up with my left hand, and then I remember seeing fangs going into my thumb. And so I shook it off and threw it away, and I ran back to the person who had brought us from the cruise boat in a rowboat to the land. I said to the guy, "I've been bitten by a snake," and he said, "No *morte*, no death." And anyway, he took me back to the ship's doctor, and the doctor looked at it and said, "You are really stupid." [laughter] So basically, it wasn't poisonous, and I wasn't going to die. But the doctor did give me a bandage, and they cleaned it up and everything. And then when I got to the mainland when the boat returned, they said I should go to the doctor there. It was okay fortunately. But, yes, it was really stupid. [laughter]

02-01:25:55

Eardley-Pryor: I don't know about that. But why Greece? Why was Greece a place you wanted to visit?

02-01:26:01

Merchant: Greece was something that I loved from all my work on the history of the pre-Socratics, and Plato, and Aristotle, and then on the later Greeks, and up through Plotinus, and so on. I loved Greek philosophy, and I had learned that at Vassar College from my two philosophy teachers, Philip Nochlin and Vernon Venable. And they taught Greek history and Greek philosophy and made it come alive. And so I learned it and loved it there. And then, when I got a chance to go because my sons were visiting my former husband, I decided I would go to Africa, and I went on a safari, and then to Greece.

02-01:26:57

Eardley-Pryor: When you were in Greece what was it like being in that environment and then thinking about all of this you had learned about before?

02-01:27:08

Merchant: Oh, yes, that was fantastic. I had studied Greek history and that included Greek geography. So I tried to re-envision and remember what it was like before modern Greece and what would've been there, and what the philosophers would've seen and enjoyed writing about it, and what might have influenced them and some of their ideas.

02-01:27:39

Eardley-Pryor: The power of place plays a role in your life in so many different ways. I read somewhere that the title, *The Death of Nature* for your book, came out of a camping trip in Utah. What's the story behind *The Death of Nature* title and how that idea came to you?

02-01:27:57

Merchant: My sons and I were visiting the Canyonlands of Utah, and we went to Bryce Canyon. And when we went, it was in the evening. We had just gotten there, we'd made a campsite, and before the sun went down, we went out and went along a narrow trail on the edge of the canyon. And it was filled with beautiful colors. It was all red and yellow, and especially in the sunlight, it was alive, it came alive. So my sons and I then came back to the campsite. We had dinner, and then they fell into an exhausted slumber. But I lay awake, and I kept on thinking about it and thinking how alive it really was even though rocks were supposed to be dead. But for most of human history, people thought that rocks and mountainsides and grasslands and everything was alive and grew in the womb of the Earth Mother. And so I was reexperiencing something that had long since been called a myth, but which really came alive for me.

02-01:29:30

Eardley-Pryor: That's a beautiful story. I want to ask lastly, I had asked earlier about your first meeting Charlie Sellers who becomes your longtime partner and love with you. You eventually got married, but not until much later. You mentioned

how you and Charlie first met through political activism in Berkeley. But you also mentioned that was at a house that he and his wife at the time shared. How did your and Charlie's relationship evolve to become the romance that it did?

02-01:30:03

Merchant:

When I got to Berkeley, it was the sixties, but in the early seventies, I became really interested in Berkeley politics. And so I began—when my kids were visiting their father in Wisconsin, and I had some free time—to follow what was going on. And there was the *Berkeley Barb*, and other radical magazines, and the *Barb* would list where political meetings were going to be held. And I saw that there was a meeting on Virginia Street of Berkeley politics, and so I went. And there were a lot of people who were basically interested in changing the world, like Loni Hancock and Joe Hancock, and other radical Berkeleyites, and it was held at Charlie Sellers's and his wife Nancy's house. And so then after they had these discussions and meetings, they played music and so we danced. And then Charlie came and asked me to dance, and so we danced with each other, and that was it. [laughs]

02-01:31:33

But then Nancy decided to leave Charlie, because she had found another man. Things were pretty open then. And Charlie came by my house, and he said, "The lady has left." [laughs] And so then he and I were able to get together, and so we became partners and a couple. We didn't get married however until 1993, on his seventieth birthday. He was born in 1923. All his family and my family were coming to Berkeley to visit, to celebrate his birthday. But then we said, "Well, if we're ever going to do it, we should do it now." And so we asked his sister's husband, Bill Boyce, who was a minister back in Virginia and was coming to Berkeley for the celebration, if he would be willing to marry us. And he said he would.

02-01:33:01

We didn't tell anybody ahead of time. We told my sister because she had had an illness and wasn't sure if she was coming. But my mother came, and so that was good, and her husband also came, and all the guests stayed at the Marriott Hotel down by the bay. And in the morning, we had a brunch, and people had doughnuts and orange juice and things like that. And then Bill Boyce said, "Well, we're all going to take a little walk out to the point." And so they put down all their things, and he led us all out there. And we had picked out a place, a grassy land where people could stand, and we asked people to make a circle, and then Charlie and I faced each other. He had worn a jacket that he had bought, which was kind of dark pink, and my mother whispered to my sister, "Charlie looks like a blushing bride groom." And Ann whispered back to her, "It hasn't happened yet." And then Bill Boyce said, "In case you haven't already guessed, this is going to be a wedding," and everybody gasped. And we had each picked out a poem that we read to each other. And we had bought rings, and so Bill joined us and we put the ring on each other's fingers, and he

married us. He said, "Thank you to the state of California, which has allowed me to marry you, Carolyn Merchant, and you, Charles Sellers."

02-01:34:51

Eardley-Pryor: Wow. What a beautiful moment.

02-01:35:00

Merchant: Yes! We now had a larger family. Charlie had an older son Grier, whose full name was Charles Grier Sellers, III, a daughter Janet Smart Sellers whose middle name came from her mother's side of the family, and a son Steen Sellers whose mother was Nancy Snow. I had two sons, David Hugh Iltis and John Paul Iltis, whose father was Hugh Hellmut Iltis—my first husband. We have had many great family occasions together over the years, although our children now live in other parts of the country. Grier lives in Philadelphia, Janet and her husband Mark Jones live in Michigan, and Steen and his wife Glee Harris live in southern California. David and his partner Lisa Hazel live in Salt Lake City, and John and his partner Sarah Metzger in Berkeley.

02-01:35:01

Eardley-Pryor: And you and Charlie, of course, went on so many different adventures together, including while writing.

02-01:35:08

Merchant: Yes, we did. We bought a camper. One day, we were walking down near the bay, along the road, and there was a RV show going on. And so we walked off the little pathway and down the road where the RVs were, and we looked in the various RVs. And we went inside and saw one we liked, and we said, "We'll buy it." So we just did it then. We bought it jointly, and shared it, and drove it home.

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Eardley-Pryor: That's great.

02-01:35:52

Merchant: And then we were able to go on trips together. And over the course of the years, we had two or three different RVs. The most recent one was a Tiger, and it was four-wheel-drive all the time, and it was narrow. The first ones were wider, so they just fitted within a lane on the freeway. But the last one we bought that we loved most was narrower. If you needed four-wheel drive on a little rocky road, it would automatically do that.

02-01:36:39

Eardley-Pryor: In our next session, we'll talk about some of the research themes that you've developed throughout the rest of your career in a number of other books and articles. And I think one of things I'd like to hear about, along with that, is how you developed these research themes often while traveling and writing with Charlie in these RVs.

02-01:37:00

Merchant: That's right. We started out with Osborne 1 computers. And the Osborne 1s were the first portable computers, and they looked like a suitcase. They were like a brown suitcase—and they had a cover that came off, and there was a big, wide keyboard and a small screen about the size of a three-by-five note card, and they had actual floppy disks. They were discs that bent. And the later ones were still called floppy disks, but they were small and square that you just inserted in the disk drive. But we had these Osborne 1s. When I first heard about it, I went and bought one and then I got it set up in my dining room, and just turned it on and opened it. Charlie came over, and I showed it to him, and he sat down, and you could write a whole paragraph on one screen, and he just started writing his book. So he went down and bought one. So we each had these relics, which we should've kept, but then later, we sold them for Macintoshes with bigger screens. So it was not very foresighted of us to imagine that this wouldn't become a famous thing.

02-01:38:38

Eardley-Pryor: Well, incredibly foresighted that you bought one and then used it while traveling and writing.

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Merchant: Absolutely, and we were among the first to use it. And Donald Worster, who was a colleague of mine in Kansas, came to give a lecture, and I showed him the Osborne. He sat down and typed on it, and then he went out and ordered one. And so we were the first, and a lot of people bought them because of us—and then of course, they improved the models, and a lot more people began getting them.

02-01:39:10

Eardley-Pryor: So you would pack the Osbornes into the RV and then hit the road?

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Merchant: Yes, exactly. And we had the camper outfitted so that there was a table. And on the seat that went lengthwise, one person could sit with their Osborne or later their Macintosh. And at the end toward the back with the light coming in the back, the other person could sit. That's where Charlie sat, and we would each type. We would go to a campground, and at that time, you had to have the electrical connection for the computer to work, but the later models had batteries in them, so you could go for two or three days and actually change the batteries out. But we initially went to campgrounds that had electricity. And so we would plan these trips, and Charlie would plan the routes. And I had a membership in AAA, and we would go into the office and we would get all the local maps. And they had fabulous detailed local maps at the time. Now because of computers and cellphones, they don't make those anymore.

02-01:40:35

Eardley-Pryor: Yes, the TripTiks, I remember. You'd know where you wanted to go, and they had each page highlighted for you.

02-01:40:40

Merchant:

That's right, and they would create them for you so that you would have the small version and also the larger map. So we had a lot of fun doing that and going places. Charlie chose the places for the birds, and we had lots of bird manuals that listed the birds that would come at particular seasons, and these were done by the Audubon clubs. We could find the places on our maps. And we each had binoculars, and as the binoculars developed, we got more powerful but smaller binoculars. Charlie had been a bird-watcher since he was an early teenager, and so had I. And so we each had our bird lists from childhood, but then we began expanding them as we went to these new places. Charlie would choose the places based on the birds that we hoped to see at a particular season. So that was our wonderful traveling life together.

02-01:41:51

Charlie had retired in 1991, but I had a fabulous job at Cal where I taught both my courses in the fall. Because I was in the College of Natural Resources, I was only required to teach two courses a year, and the rest of my appointment was a research appointment. So I had to have a California experiment station project that had to do with the ecology and the resources of California, but it could be comparative. So I would choose not only a California project, which I ended up writing up and editing for my book *Green Versus Gold: Sources in California Environmental History* (Island Press, 1998)—on the environmental history of California, but also, it could be comparative. So I chose New England, which I loved and grew up next to, in New York State as a kid, and I had many friends there. And so we would take our camper and look for birds, and then stop in a camping place. We would go out birding early every morning and then I would do my writing. And Charlie would load all the pictures he took into his computer. He would take some 500 pictures at a time and then he spend the rest of the morning going delete, delete, delete until he got down to maybe the four or five best pictures. And so over the weeks, he would accumulate an incredible collection of photos of birds.

02-01:43:46

Eardley-Pryor:

Wow. That's a great way to travel and also do your research at the same time.

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Merchant:

Exactly, yes, it was great. So I wrote first on the Osborne 1, which we didn't save unfortunately because they would be relics now, but then on the Macintosh when they had larger screens. And we had portable ones with batteries in them, so we could not only hook up, but we could have a battery supply under the seat that we could plug it into that would last for about three days. So we could be off the beaten track and plug our computers in, and we could also plug the lights in and use the camper's electricity.

02-01:44:38

Eardley-Pryor:

What a great way to be an environmental scholar, to go explore the environment together.

02-01:44:42

Merchant: Yes, it was incredible. And it all fitted in with my research projects.

02-01:44:47

Eardley-Pryor: Well, let's pause today's interview. We'll pick up in our next session to talk a little bit about some of those research themes that you have developed while traveling.

02-01:44:55

Merchant: Okay, that sounds like a plan.

02-01:44:57

Eardley-Pryor: Thank you, Carolyn.

02-01:44:58

Merchant: Thank you.

Interview 3: June 9, 2022

03-00:00:01

Eardley-Pryor: Today is Thursday, June 9, 2022. My name is Roger Eardley-Pryor from the Oral History Center of The Bancroft Library at the University of California, Berkeley. This is interview session number three with Carolyn Merchant. Carolyn, it's great to see you again here in Berkeley.

03-00:00:15

Merchant: Thank you so much.

03-00:00:17

Eardley-Pryor: Thank *you* so much. Today, I'm interested in covering a lot of material with you about your career at UC Berkeley, including your publications and the research themes that you developed. But to begin, I'm interested in hearing you talk about the academic positions you held at Berkeley, and how the department you were in changed over time, and what your experience was like at Berkeley. My notes show that in 1979, you were hired as an assistant professor. And after *The Death of Nature* was published in 1980, you were quickly elevated into associate professor, and you were an associate professor until 1986. What are your memories of the department at the time that you were hired into it?

03-00:01:02

Merchant: Yes. The department that became part of the larger department, ESPM [Environmental Science, Policy, and Management], had several divisions. And our division was initially called Conservation and Resource Studies, but then it became Society and Environment. And that, along with Forest and Resource Management, Ecosystem Sciences, and Organisms and Environment became ESPM, Environmental Science, Policy, and Management.

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Eardley-Pryor: That is a giant department.

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Merchant: Yes, and that's partly because the provost and the people up the scale, higher up in the administration, didn't want to see all of these disparate departments, but they wanted to see something that was more integrated together. And so they did a review of the department and a review of the different divisions, and at one point, they were going to abolish everything. However, there was another woman, Doris Calloway, who was in the upper levels as the provost, and she said, "No, we are going to keep the department. But we are going to cut it down from 400 students—where there are so many students who are taking classes from all over the campus and are being guided by this disparate group of faculty members—and we're going to cut it down to 120 students, and those students must each have a professor who guides them. Before they start out in the major as a junior, they must each have a plan. And they have to have it written out. And that plan has to say what courses they're going to take, and most of them must be from within the College of Natural Resources,

but there can be a small number from outside the college across the campus." And those courses had to have a theme—an area of interest that had to be approved by a committee, so that each student would know what they were going to take and why they were taking it. But they could choose their own theme as long as it had something to do with the environment and with conservation, which was the whole point of the department.

03-00:04:17

Eardley-Pryor: Wow, that's a really forward-thinking way to have an interdisciplinary science and environment-oriented major. But it also sounds to me like there'd be a lot of mentoring for faculty members, for each undergraduate to have their own plan.

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Merchant: Yes, that's true. Each faculty member could have something like ten students to advise, and they had to approve the student's plan. And then the plan had to be approved by a larger committee to make sure that it fitted into the themes of the larger department. It couldn't be just anything that people wanted to devise. The themes had to be environmental, and they had to do with society and how environmental sciences or history could fit into the larger society, and why these courses were important in order for the students to then go out and try to get a job. So each student had to have a plan, and they had to think ahead about what kinds of jobs they might want to get after graduation.

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Eardley-Pryor: That's interesting to have that vocational aspect embedded in the structure of the program.

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Merchant: Yes.

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Eardley-Pryor: What are some of your thoughts or some memories of students who chose a particular plan and pursued it? I'm looking for an example of how a student might navigate through these options.

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Merchant: Yes. Well, for example, they could focus on things like society and forestry as played out in a particular forest in the state of California. Or they could look at a desert, maybe the deserts of California. So they had to look at a particular type of environment and then think about which courses they could take from the campus, but particularly from the College of Natural Resources, that would help them understand the ecology and also how people might change that ecology, and manage it, and save it from being exploited. Because a lot of the resources of California and the whole country were being simply exploited by capitalist enterprises that wanted to take the resources and turn them into something they could make money off of. So the idea was to save the resources, and to save the environment, for the future and for our children's sake.

03-00:07:20

Eardley-Pryor: Do you remember around when, what decade it was, that this transition happened where this ESPM major was reduced in number and then also re-structured?

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Merchant: Yes, it was in the early nineties. The major had become quite large and then when it was reviewed, they were going to abolish the major. But that was when Doris Calloway, who was provost at the time, stepped in and said, "No, we are going to cut it down from 400 students to 120 students, and all of those students must each have a particular plan, and they must work with a particular professor as their advisor."

03-00:08:06

Eardley-Pryor: Interesting. When we talked about your career as a teacher in the 1970s at USF [University of San Francisco] and eventually your early years at Berkeley, it sounded to me like a lot of your teaching was in history of science and the history of the Scientific Revolution. With the publication of *Death of Nature*, your research does take this turn with an environmental angle, and you then got the job at Berkeley in the College of Natural Resources. I'm wondering about how the courses that you taught, your undergraduate courses and your graduate lectures and readings, how those changed over time for you?

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Merchant: When I taught at USF, I was in the physics department, and I taught introductory physics for nonscience majors. I didn't teach advanced physics, but I also introduced a course on history of science. I worked with Robert Thornton who had retired from San Francisco State, and he was now helping to head up a program at USF. And so he and I and a third person worked on the set of courses and the kinds of theories that the students would have to have. So I had that kind of background and that way of integrating and bringing science and society together when I saw the job that was offered at Berkeley. One day Professor Dave Mullen was walking down the hall in the Harney Science Center at USF and said, "There's a job at Cal, and I'm applying for it." And I said, "Well, what is it?" And he said, "Well, it's in this new department, Conservation and Resource Studies," which later became Environmental Science, Policy, and Management. And I said, "Well, what do you have to do?" And he said, "Well, there are all these courses in the catalog that were devised by lecturers and taught by lecturers, and now, they are wanting to hire full-time faculty to teach them." And it turned out that the first three faculty members that they hired to do that were all women. And that's because there were a lot of women in the major and they wanted women because the College of Natural Resources was mostly men except for nutritional sciences, many of whom were women.

03-00:11:01

Eardley-Pryor: When you were hired as one of those three women, who were the other two that you joined or joined you?

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Merchant: Sally Fairfax had taught at Duke, and she worked on the history and policy of forestry. And the second was Claudia Carr, who had worked on the deserts in Kenya and had done a lot of work there and brought that background with her to the department. And then I, of course, had worked in history of science and had brought my experience of history focusing on Europe. But then the job at Cal wanted to focus a lot more on the US. And so I was able to bring that background from Europe to think through and interpret what happened in the United States, especially with colonialism and the migrants from Europe who brought ideas about European philosophy and ecology with them and how they wanted to use the environment. They wanted to settle, and build societies, and towns, and wanted to exploit the resources through technologies that they introduced. And so they began to settle small towns all over the East Coast, especially towns that had access to transportation. So initially, those were on rivers that didn't have a lot of rapids or waterfalls, but were wide, flowing rivers. And they had canal boats with mules pulling tugboats along them that could carry the produce, and the resources, including the wood, and the rocks, and gravel, and the things that were required to build towns. And they also used them to ship the resources and products back to the coastal ports and then to Europe to earn money.

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Eardley-Pryor: It makes sense to me that the job at Cal required you to have this American and even California focus. Whereas before, you had studied the Scientific Revolution in Europe.

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Merchant: Yes.

03-00:13:52

Eardley-Pryor: It makes sense to me now why in 1989, your next book is about New England, *Ecological Revolutions*, and the environment of colonialists and Indians together, especially the colonialists and how they used the resources.

03-00:14:06

Merchant: Yes, the job was partly teaching, but it also had a paid component through the Agricultural Experiment Station. Every person in the College of Natural Resources had to have an Agricultural Experiment Station project, and that project had to do with the state of California. And all the experiment stations in the country had to focus on the state in which they were located, and how they could help that state move forward and use the resources, and so on. A portion of my job had to do with California and it was necessary for me to have an Agricultural Experiment Station project that focused on the California environment and its resources, but it could also be comparative. And so using

that, I was able to create Ag Experiment Station projects that compared New England to California.

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I loved New England because I grew up in New York State—and I had gone to Vassar College on the border of New England—but in Poughkeepsie on the Hudson River. I was fascinated with New England, and many of my close friends and roommates in college had been from New England. And my ancestors had come from New England, and had all migrated across New York State and settled in Rochester. So I was very interested in the history of New England and trying to understand how that might have spearheaded the developments that then moved westward as people migrated west.

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Eardley-Pryor: That's great. What were some of the first courses that you taught at Berkeley?

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Merchant: I taught a course on environmental history. And that course had been originated by Joseph Petulla, and he wrote the first book called *American Environmental History*. He had been a lecturer and taught environmental history. And Alan Miller had also been a lecturer and taught environmental ethics. And when they created the job, they combined environmental history, philosophy, and ethics into one position, and so I was able to apply for that job. But they wanted to hire people who had published in peer-reviewed journals and published peer-reviewed articles. And Alan Miller and Joseph Petulla were great lecturers, and they had written these wonderful books that they used in their classes, but they hadn't written peer-reviewed journal articles. But they were both interviewed. There were five people who were interviewed including Joseph Petulla and Alan Miller. And there was a fifth person who dropped out because she had gotten another job. So there were two additional people interviewed for the job I got, including me and Donald Worster from the University of Kansas. The Department had already hired Claudia Carr and Sally Fairfax for two other positions.

03-00:18:21

Eardley-Pryor: Donald Worster was applying with you at the same time, here at Cal?

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Merchant: Yes, Donald Worster from Kansas had applied. And he had written a wonderful book on *Nature's Economy*, and was a highly qualified candidate. But I was a woman, and the students—there were only undergrad students at the time—on the committee were women along with the male faculty. And the students wanted a woman, and they lobbied, because I was a finalist, to have Carolyn Merchant. And so both Donald Worster and I were interviewed, and we gave lectures to the undergraduate students, as well as the faculty who were involved in that department. And at the time I applied, I had been a fellow at the Center for Advanced Study at Stanford, where I had been writing my book *The Death of Nature*. And so when I was interviewed, I was from

Stanford, and I was not a local yokel four blocks away in Berkeley where my house actually was.

03-00:19:48

Eardley-Pryor: Wow, and good for you that there were all those women who wanted your perspective to be part of what became so foundational here at Cal.

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Merchant: Right, and they wanted to understand what role women had played in the environment, and how they used the environment, and how they developed as scientists and environmental scientists. And so they liked me because I was interested in pursuing those topics and finding out by digging into the archives who the women were and what they had done.

03-00:20:29

Eardley-Pryor: And thank goodness that's what happened. In 1986, I see that you were promoted up to full professor of Environmental History, Philosophy, and Ethics. What was the tenure process like, or what was it like for you?

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Merchant: The tenure process at Cal was you had to have published peer-reviewed journal articles or books that were published by university presses and that had been peer-reviewed. Many of the scientists mostly published articles, and they did experiments in their laboratories, but those of us who were social scientists published in social science journals and also books that were published by university presses that were peer-reviewed. And so the Budget Committee at Cal was where your case went after the department put it together and got letters of recommendation from outside and put together your articles and your books. And they then sent your case forward, up the ladder into the Budget Committee. And the Budget Committee was made up, of course, of tenured faculty from around the campus, and some of them were scientists and some of them were humanists, and some were social scientists. But the Budget Committee liked my books and articles and liked me because I used equations, and I had developed the history of the laws of conservation of momentum and conservation of energy, and why those were important for the environment. And it was the fact that I had developed the history of the equations and used them and solved them in my early papers that they liked my work.

03-00:22:51

Eardley-Pryor: Ah, I see. I'm also thinking about *Ecological Revolutions* again, about the structures of ecological revolutions, and those graphics that you included with really complex ways of trying to present information graphically, not just in a narrative.

03-00:23:07

Merchant: Right. So, I had tables with topics, and then examples and filled in the blanks, and then I also had diagrams. And the main diagram that I made was circular, and I like circles because that was how the ecology was; it was circular. And

of course, the whole earth and the universe and the planets were originally thought to be circular. So this was a set of interlocking circles, and they consisted in one-half of the environment and its resources. And the other half was human production systems and reproductive systems, including species reproduction and daily life, socialization, and governance. And the environment included the deserts and the forests and the plants, animals, and bacteria. And people brought together the resources and created products that they could sell and ship on the transportation networks, which were being built all over the country. So originally there were wagons with oxen pulling them, and then there were horses and buggies, and then canal boats that were pulled by mules who walked along the paths on the shore and pulled the boats that were filled with products. And the rivers had to be navigable rivers, without rapids and waterfalls on them. So they had to choose rivers that flowed along flat lands, all across the country. But then, when they had to go through mountains, they had to construct toll roads, or ways to get through the mountains. Or ways of going along the Ohio River system, and canals, such as the Erie Canal. The whole canal system was being built at the time.

03-00:25:30

And when I first lived in Rochester, New York, my house at 83 Canterbury Road had a back fence. It was a lattice fence that looked out on what had been the original Erie Canal. And on the other side of the fence, there was a tow path, along which the mules had actually towed the boats. First of all, it had trails, then canals, and then trolley tracks and railroads, and then ultimately a highway that went along it.

03-00:26:11

Eardley-Pryor: Oh, I remember you telling a story about how your mother would come home from her work on the trolley train, and it would go right past your backyard.

03-00:26:18

Merchant: Yes, it was what they then called the subway, as it was a subway when it got to downtown Rochester and went underground. And she would get off at State Street because she worked at the Eastman Kodak Company, on State Street. She was a great mathematician and accountant. When she first left my father, she worked at Sibley's department store in the Better Dresses Department. But then, the next year, she took some tests and was interviewed and aced everything, so she got a job in the accounting department at Eastman Kodak Company working at the State Street office on the thirteenth floor. And she was able to come home on what was by then called the subway which had subway cars. And she would get off at Monroe Avenue, which was the big avenue at the head of which Canterbury Road intersected with Monroe Avenue. Monroe Avenue actually went all the way downtown, and went past Monroe High School where I went to high school. And anyway, instead of going up the long staircase up to Monroe Avenue and then coming down Monroe Avenue and down Canterbury Road, my mother would pick her way across the trolley tracks, waiting of course until the trains were not in sight, and then she would come across. And then she would go up a kind of wide

concrete slab that held the soil back but was wide enough for her to walk up. And my sister and I would stand there at the top and watch for the train, and then watch her come across the tracks and come up the concrete slab. Then we would throw our arms around her and welcome her home, and take her hands and bring her back to 83 Canterbury Road. We lived there at the time with my grandmother Davis and my aunt Ollo Huntington. Aunt Ollo was very good at doing the cooking, and helping us with art projects. My grandmother was very good at sitting in the living room and reading a book or later of watching the early television set. When we would run past her, she would play bear and growl, and try to catch us.

03-00:29:02

Eardley-Pryor: Those are great memories. I want to ask about your memory of serving as chair of the Department—at that time—of Conservation and Resource Studies—which later was absorbed into what became ESPM [Environmental Science, Policy, and Management]. You served as chair of CRS from 1984 to 1989. What are some of the memories of being chair then?

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Merchant: Yes, well, Conservation and Resource Studies at the time was mainly a department that was quite large that was made of students who formed their own individual majors. They could take courses from all over the campus in order to then declare their own individualized major. They would then write up a program of eight courses, and get a degree. There were something like 400 or 500 students in this early department, from all over the campus. This early department was reviewed by the Budget Committee, and they decided that this was not acceptable for Berkeley.

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Eardley-Pryor: You'd mentioned that they almost got rid of the department. What was it like being chair of such an unwieldy, large department?

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Merchant: That was difficult. But when I became chair, it was scaled-down to 120 students by the provost, Doris Calloway, who saved us, but cut back the department to 120 students instead of 400 or 500 students, which had been very difficult to manage, because they did whatever they wanted. The Budget Committee was going to abolish us, but Doris Calloway saved us by cutting us down, and saying that each student had to write an area of interest, and they had to select eight to ten courses, a large proportion of which had to be from the College of Natural Resources, and the rest could be from outside departments. And each student had to write an area of interest statement, which had to be a page, or page and a half, explaining exactly why each of these courses fitted into a theme. They could choose their own theme, but it all had to be coherent and relevant to natural resources and the environment, and then write an area of interest statement justifying their choice of each course which was then reviewed by a committee. So it wasn't just the students forming what they wanted to do and then getting a degree. The courses had a

theme relevant to natural resources and the environment that was reviewed by a departmental committee.

03-00:32:02

Eardley-Pryor: It's interesting to think about the creation of that program in the seventies, in the wake of the burgeoning environmental movement, and how that became more and more structured over time.

03-00:32:14

Merchant: Yes.

03-00:32:16

Eardley-Pryor: I'm curious, too, about your experience as a mother when both your sons came to Berkeley. In 1975, you had mentioned they'd gone to spend their high school time with their dad in Wisconsin. But then, for college, they both came to Berkeley, around the same time—or, at least David came around the same time that you came to UC Berkeley and started working at Cal.

03-00:32:38

Merchant: Yes. I started working at Cal, and David and John came back. And David applied to Cal in math and computer science, and he got admitted. He was very good at math, and he was—is extremely smart. And so he took this double major in mathematics and computer science, and then he got a degree in it, two degrees actually, and that has been great for him.

03-00:33:19

Eardley-Pryor: What was it like having your sons on campus? Were there any interactions that you had?

03-00:33:22

Merchant: Their last names both were Iltis. Their father's name was Hugh Iltis, and so it was David Iltis and John Iltis. And I had taken back my maiden name, which is Merchant. So my position, when I moved from USF to Cal, was in my maiden name. And so for my whole career at Cal and until the present, it was Carolyn Merchant.

03-00:33:53

Eardley-Pryor: So no one knew that they were your sons?

03-00:33:54

Merchant: So no one knew, which was good because they would have maybe thought that I had favored them or somehow talked to people in their departments and pushed them. But no, I never did that, of course, but there was never any question of it. But then when John, John Paul Iltis, graduated, he graduated in Conservation and Resource Studies in which I had taught. And he had come out here. I picked him up in Madison, and he then went for a year to the Independent Learning School, which was over by the 7-Eleven on University Avenue. He went there for a year. At the Independent Learning School, they took each student and what they knew and where they were in each subject, and they let them proceed at their own pace. And they had people working

closely with them, so that eventually they would be able to take the courses that they needed to pass and to get into a junior college and then transfer to an upper division college or university. So after graduating from the Independent Learning School, John went to Santa Rosa Junior College where he spent two years and got a junior college degree. And then after he had done that, he applied to Berkeley, but his name was Iltis, and mine was Merchant. He actually applied in Conservation and Resource Studies and was admitted but never was a student in a class I taught. My colleague Claudia Carr helped guide him through. Then when he graduated, I asked if I could read the names of the graduating students in CRS. And so, as each came up in their cap and gown to the podium, I read the names of the Conservation and Resource Studies students. And when John came up I said, "My son, John Paul Iltis," and the whole audience gasped [laughs] because they knew me as Carolyn Merchant, and then they all clapped and cheered. So that was a big occasion for John and for me.

03-00:36:30

Eardley-Pryor: What a great moment. Did you have any opportunity to have John in any of your classes?

03-00:36:36

Merchant: No, I purposefully never had him in my classes. He took one of the classes that I taught, Environmental Philosophy and Ethics, but I was not teaching it that semester. At the time, I had research grants, and my colleague that I had met in Australia, Patsy Hallen, was teaching the course. And so John took it that semester. It was my course, and it had similar themes, but was taught from Patsy's perspective. But it was still Environmental Philosophy and Ethics.

03-00:37:16

Eardley-Pryor: Oh, that's really cool. I have a note here that from 2005 to 2007, you once again served as chair, but this time as chair of the ESPM Division of Society and Environment. And then you retired in 2018–2019, and become a professor of the graduate school as you had been teaching graduate students, too.

03-00:37:41

Merchant: Right.

03-00:37:42

Eardley-Pryor: I want to ask about how your experience in the College of Natural Resources, and in what became ESPM, changed. How did the department change over time in your experience?

03-00:37:56

Merchant: Yes, it became much more structured. Initially, the students could take classes from all over the campus.

03-00:38:04

Eardley-Pryor: Yes, as you said, and then they narrowed it down.

03-00:38:05

Merchant: Yes, and then after it was reviewed, it became much more structured, and students had to have an Area of Interest that they created for themselves. They could select eight courses and two alternatives for their Area of Interest. But they had to have a written one-two page plan, and that plan had to be reviewed by the chair of their particular committee, and then it had to be reviewed by the Society and Environment faculty. Each student therefore had to have an idea of what they wanted to do, why they wanted to do it, why each particular course would fulfill their goals for the future. And they also had to have an idea of what kinds of jobs they were going to apply for.

03-00:39:10

Eardley-Pryor: How did your experience as a professor change over time in the department? Your personal experience. Less how the department changed, and more about your experience.

03-00:39:26

Merchant: My personal experience was great. First of all I loved it, and I was thrilled to be hired. And I began teaching things that I had not studied before. I had studied history of science. In college I had studied mathematics and chemistry and physics. And then, I went on to graduate school, in the history of science. By then I had become much more interested in the environment, and how the environment was affected by the kinds of technologies, and the subjects that were helping to tear it apart. And so I began to rethink my own history, and the part that I had played in studying chemistry and physics, and how the environment could be saved. How could we turn all that around, and how could we save nature? And how could we save the natural resources?

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So the idea of conservation became especially important, along with how the environment itself could be saved. It had natural resources and free-flowing rivers and waterfalls and all kinds of resources that we wanted to save, not only for aesthetic reasons but because they housed animals, and birds, and salamanders, and whatever kinds of organisms had evolved together in those systems. And so I became much more interested in ecology and ecological systems, and the interactions among living organisms and the natural resources in a particular place. And how that place, such as a desert, may have differed from another place not too far from it such as a forest.

03-00:42:03

Eardley-Pryor: That's great. Let's pause for a second before we dive into some of the other research themes that you developed as you shifted into this focus on the environment. Do you mind if we take a pause?

03-00:42:15

Merchant: Right.

03-00:42:15

Eardley-Pryor: Thank you.

[BREAK IN RECORDING]

03-00:42:18

Eardley-Pryor: Carolyn, next, I want to ask about some of the research themes that you developed over your career, particularly at Berkeley, and even before. And the first theme I want to ask you about is the theme of science and control, or science and domination. Initially, your early work on this theme was on how early modern scientists in the European realm, and philosophers in that realm, re-envisioned the cosmos from something that was alive, and animate, and deserved respect. One that had very much a feminist bent to it, a female sort of identification—into a transition in which the world, the cosmos, and nature itself became a mechanical non-gendered sort of structure, and one that invited manipulation by people. So on this theme of science and domination, why is that an important theme for us to understand, along with the course of history and people's relationship with the natural world?

03-00:43:14

Merchant: People's relationship with nature in ancient times, and in the Middle Ages, and up to the Renaissance, had been that humans were an integral part of nature. They were not above it, and could not control and dominate it, but they were part of it. And they had to give back things that they took. They had to have respect for nature, and they had to give something or some kind of object back to nature. Often those things they would be giving back—such as planting and nurturing plants or helping animals breed or reproduce—helped nature itself to maintain and reproduce itself. And nature was viewed as a female, as a nurturing mother, and humans were a part of that system, and they had to nurture the mother and replenish her womb.

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And so that's why it's so important to think that in early modern science, in the early mechanistic worldview, as the world changes from being a living organism and a nurturing mother, to one of being a machine—that what's really critical is that the machine is dead. The machine is made up of inert parts of matter, and they're matter in motion. There are no repercussions in terms of wounding the Earth, or wounding a mother, or wounding a living being. But the Earth and all its objects are made up of atoms. They were not the atoms that later became neutrons and protons and electrons, but they were like billiard balls. They could be pushed around like balls on a billiard table where you would hit one and it would transfer its momentum and its energy to another and to another, and so on. So it was like a billiard ball universe, but these balls were not living, and therefore, people could manipulate them and could build new structures and technologies that were nonliving. And because the Earth and the things they were manipulating were nonliving, there were no consequences where the Earth would not come back.

03-00:46:46

Eardley-Pryor: I think of the Shel Silverstein's book, *The Giving Tree*—

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Merchant: Yes.

03-00:46:51

Eardley-Pryor: —which he wrote while living on a houseboat down in Sausalito. I wonder if he read your work and it influenced his writing?

03-00:46:57

Merchant: [laughs] I don't know.

03-00:46:58

Eardley-Pryor: That's great. We'll pause for just a sec.

[BREAK IN RECORDING]

03-00:47:04

Eardley-Pryor: Another theme that you develop throughout your career is on women and nature and what became known as ecofeminism. What is ecofeminism? How did it evolve?

03-00:47:16

Merchant: The idea was initially that the Earth is alive and that the Earth is a nurturing mother, and one has to pay respect to the Earth. Ecofeminism comes from a woman named Françoise d'Eaubonne in France, and she introduced the term *ecofeminism*. And ecofeminism basically means that women have power, and women can assert that power in order to help save the planet, and that women are equal to men, and they can do the same things as men. Maybe their strength differs, but their brains are exactly the same, and in some cases thought to be superior to those of men. And so ecofeminism asserts the power of women and also their interrelationships with nature, and how women can save nature, and how women themselves can become important forces in the whole role of the conservation of resources.

03-00:48:46

Eardley-Pryor: That's great. The note I have is the ways in which, in a patriarchal world, the conflation of women and nature actually, in some ways, led to the devaluation, exploitation, and degradation of both women and nature.

03-00:49:00

Merchant: Right.

03-00:49:01

Eardley-Pryor: And so what role does that identity or that sense of history play in what became ecofeminism?

03-00:49:09

Merchant: The world itself initially and throughout history was patriarchal in the sense that men had more power than women. Women often worked in the home, although in earlier times, women also engaged in trade and were part of the system. But then, the idea of the household evolves where the woman was

expected to take care of the house, do the cooking, the canning, and take care of the children. And so women were part of the home, and men went out into the world to earn the money and bring it back to support the family. So that was what the patriarchal world was. And as that became more powerful in the sixteenth and seventeenth centuries, women began to realize that they actually had more power than they were being given by society itself. And so the women's movement evolved and the idea that women not only could go to college or a university, but they could learn languages, they could do mathematics, they could do science, and they had as much power intellectually as men did, even though they might not have had the physical strength. And so that's how women's sense of themselves began to evolve and became an important force. And then women got together and became a movement, and organized themselves to make changes in society and to object to certain things in society.

03-00:51:33

Eardley-Pryor: Ecofeminism develops, in that there's an ecological sense to this growing feminist movement that evolves over centuries but especially flourishes in the twentieth century in the United States. What are the ways in which ecofeminism evolves into different kinds of ecofeminisms?

03-00:51:51

Merchant: Ecofeminism initially was what we think of as liberal ecofeminism. That is, women had power, but they had power through their roles in a traditional patriarchal society, so that they could do more things within that patriarchy than had been thought of before. And so women began to feel a sense of power, a sense of what they could do, and that they actually could advance within the traditions of the patriarchy, but they could take on new roles. They could do technology, and they could do mathematics, and they could perhaps even construct things that men did, but within the idea that it was a patriarchy. So liberal ecofeminism began with women realizing that, within that structure, they could have a much more formative role. Then we have the development of cultural ecofeminism.

03-00:53:19

Eardley-Pryor: And what is cultural ecofeminism?

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Merchant: Cultural ecofeminism is where women's culture and the ideas that women have within that culture become much more powerful and come to the forefront. So that women can read, they can write books, they can discuss logical arguments, they can do things that give them more power within the culture and develop women's culture itself. But what do women think about or write about perhaps that men don't? That's partly what ecofeminism is, i.e. what women can do, what they think about, and what do they think of themselves as people. Then there is—

03-00:54:23

Eardley-Pryor: So that cultural ecofeminism—just so I'm able to follow—is women's culture, but then challenging the patriarchal structure?

03-00:54:31

Merchant: Right, and bringing women—not working within it and having power, but women being equal to it, and having the ability to become dominant. And women can control society and take over the roles that men played within the patriarchy.

03-00:54:53

Eardley-Pryor: And the eco part of that cultural ecofeminism is, exploring the ways in which that patriarchal system is limiting women's power? And that that rising—the strength of women's power and the women's perspective, is a means to both critique that patriarchal superstructure, and also to analyze the ways in which human relationships with nature, and women's relationships with nature, can be improved by critiquing and destroying the patriarchy?

03-00:55:23

Merchant: Yes, and how women themselves obtain more power through that very process of making a critique.

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Eardley-Pryor: That's great. And then you were going to continue with a different kind of ecofeminism?

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Merchant: Yes, so there's liberal and cultural ecofeminism, and then we have radical ecofeminism, and social and socialist ecofeminism.

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Eardley-Pryor: And what are those?

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Merchant: Radical ecofeminism is the idea is that women step to the forefront, and women are the ones who change the world, and women are the radicals who decide where we should go, and what the future should be, and how we should get there, and it's women who are in control. Women have more power than men, and they are the ones who organize the future and where we're going. And then we have social and socialist ecofeminism, and in a sense, those both are arguing that women and men are both part of a socialist society in which the resources and work and everything that women and men do are part of socialism. And that there are no profits by one group, or by a patriarchy, or even by women who might be superior, but all those profits are shared equally among everybody, and everybody contributes to it, and everybody benefits from it.

03-00:57:12

Eardley-Pryor: You had mentioned the idea of ecofeminism having its roots in a French scholar. How did your thinking about liberal ecofeminism and cultural

ecofeminism and these ideas of radical and socialist ecofeminism evolve for you?

03-00:57:26

Merchant:

Yes. First in the 1960s, I read Betty Friedan who was a liberal feminist and who wrote *The Feminine Mystique*. I read that book after I heard about it on the public radio, WHA, when I was living in Madison, Wisconsin and I went out and bought the book. I read the book, and I was very inspired by it. And my husband looked at it, and he didn't like it and threw it out the window. [laughs] And then I also read Rachel Carson, and my husband Hugh Iltis was an ecologist and a plant taxonomist, and very interested in saving the prairies and forests of Wisconsin and writing about conservation. And so the idea that women could play a major part in conservation became very clear and important. And that I, as a woman, could form a conservation society made of women, and that we could go out and save prairies, or save them through the power of women and through the roles that women might play, or how they might convince the people who owned the prairies to save them. So, in some cases, I would go out with Hugh, and he would talk to the farmer. And I would talk to the farmer's wife, and I would have my baby with me, and we would talk about the children and the role of women. Then I would talk to the farmer's wife about why it was so important for women to take more power, and take control, and help to save the land and things that would benefit women.

03-00:59:40

Eardley-Pryor:

That's great. And as for the radical and the socialist ecofeminist ideas, how did those come into your thinking?

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Merchant:

Yes, well, they were put forward by feminists and ecofeminists. And I liked radical feminism because it gave women much more power and much more of a role. And I liked socialist ecofeminism because small socialist societies and communities could grow their own food, manufacture their own things, and have their own resources, and they could live and share with each other. So nobody was making profits off the land or exploiting each other. And these small communities, which were really social or socialist communities, could then interact with each other, and nobody would become dominant, but they could trade with each other and learn from each other. So it was a much more egalitarian society where everybody contributed, and everybody was equal and thought to be equal, and acknowledged that women's minds and bodies were just as good as those of men.

03-01:01:20

Eardley-Pryor:

I love it. I can see the ways that your earlier research in the sixties and early seventies on science and utopia, particularly in the European context, merges with your later research. You published a book in 1992 that we'll talk about later called *Radical Ecology: The Search for a Livable World*. I love seeing all these ideas merge over time and evolve in your own work.

03-01:01:45

Merchant: Yes, precisely.

03-01:01:47

Eardley-Pryor: Let's pause here for a moment.

[BREAK IN RECORDING]

03-01:01:51

Eardley-Pryor: All right, Carolyn, we're back from a wonderful lunch break. Thank you again for treating me to that delicious lunch downstairs. Now, for the next research theme for us to discuss. I'm interested in the part of your job at Cal that included being a professor of ethics, and how you developed an environmental ethic and what became known as your partnership ethic. Where did you enter into bringing ethics into your research? How did you come to think about that?

03-01:02:19

Merchant: First of all, my job at Cal was to be a professor of environmental history, philosophy, and ethics. And environmental history was a lot of what I had developed and explored in my books, *The Death of Nature* and *Ecological Revolutions*, and so on. But environmental philosophy and ethics was another important part of the position I took, and so I began teaching environmental ethics. And as I taught it, I developed my own view and positions about it. In teaching environmental ethics, I started out by talking about liberal environmental ethics, which was part of the world in which humans lived and in which men were usually dominant over women. And we also lived in a capitalist society, and environmental ethics comes out of that society and is consistent with it. If we want to talk about environmental ethics, we would ask, how do you live in a liberal patriarchal society? And therefore how would you develop an ethic that would support a patriarchy, and in which men would be the ones who instigated and proposed and discussed ethics, and then environmental ethics.

03-01:04:12

And then we would explore radical environmentalism, leading to radical feminism and ecofeminism in which women played much more important roles. One in which they begin to think of themselves as leaders, and think of how radicalism could change the patriarchal relationships so that women became much more powerful and, in some cases, even dominant over men. And out of this, we would develop a radical environmental ethic, that might also place women equal to or even above men.

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And then out of the whole history and intersection of nature and humans, I developed a partnership ethic. I began to think about the interactions and integration of nature and humans. Nature as an interacting system of ecological parts that included people and animals, and plants and minerals, in interaction with a human society, in which all humans are equal. So it's not

that whites are more dominant, or Westerners are more dominant, but all people all over the globe are equal to each other. And I began thinking about forming an ethic in which all people are equal in an interdynamic interaction with a nature that is also powerful and has a major role to play. A society in which humans have to respect nature and accept what nature does, and that there are things that nature does that are uncontrollable. For example, we can't stop volcanoes, and tsunamis, and major hurricanes, or things that nature produces. We can't control those. So nature has power, and nature is its own self, and is itself an actor, and we have to respect that and accept it, and yet—try not to control it, and dominate it, because ultimately, we can't. So it's an interactive ethic in which humans have power, and humans have power to do things, or to stop themselves and withdraw from doing things, and give nature respect because nature can do things that we can't control. So it's an ethic that is interactive and dynamic.

03-01:07:35

Eardley-Pryor: Yes. And I'm hearing also these elements, in your partnership ethic, as a counter to a dualistic narrative of either men are on top, or in the radical version, that women are on top.

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Merchant: Exactly.

03-01:07:48

Eardley-Pryor: Instead, there's this equality that has moved beyond the dualism that's so common in Western thinking.

03-01:07:54

Merchant: Right, yes, and that women and men are equal. They're equal in intelligence, and they're equal in what they can do. Men may be stronger in their bodies in some ways, but in every other respect, men and women can do the same things. And they can climb mountains, and they can deep-sea dive, and they can run marathons, and they can run across the country. They might not be quite as fast as some of the men, but they can still do the running and the marathon itself.

03-01:08:37

Eardley-Pryor: Absolutely. I want to hear you also talk about the ways in which the partnership ethic—that you developed as an environmental ethos as a way to move towards a more flourishing and sustainable relationship with the natural world—I want to hear about the ways that science helped you in your thinking. And one of the ways to get at that is, there's a really long quote that I would love to read that came up while I was doing research on your career. And the quote appears in a book, it's a Festschrift stylebook, that's called *After the Death of Nature* by a number different scholars who came together and wrote about your life and your research. The quote that I'm going to read here is by Laura A Watt, who now is an environmental scholar at Sonoma State, up near where I live, and she did her PhD at Cal in the ESPM program. She wrote

this, "Carolyn's exploration of chaos theory fundamentally destabilizes the very concept of nature as a standard of reference to make space for the possibility of creativity in our relationship with nature, rather than a simplistic control and domination dynamic. Building on chaos theory as a variety of unpredictable outcomes, Carolyn insists that because ecology as a science is nonlinear and nondeterministic as well as historical, it opens up more opportunities for partnership." So I'm wondering if you can talk a little bit about the ways in which your readings in the science of ecology, and in the evolving science of complexity theory, shaped your partnership ethic?

03-01:10:15

Merchant:

Yes. Well, I was very influenced by my original work in the problem of the domination of nature, and how mechanistic science was able to create laws—the laws of momentum and energy, and particularly whether kinetic energy or momentum was conserved. There was a big controversy between Leibniz and Newton and their followers, and it got into all sorts of vituperative details. It wasn't resolved until the middle of the eighteenth century by D'Alembert who said, "Both of you are right." But it wasn't even really fully accepted that both momentum and energy were conserved, until the nineteenth century.

03-01:11:16

Eardley-Pryor:

And still, in that mechanistic worldview that came out of it, they're trying to understand how science is a force in nature, and creates the very structures of nature. But the science itself evolved. I mean, the science of ecology became increasingly complex. And complexity theory is another way in which complexity itself needs to be understood within the natural world.

03-01:11:38

Merchant:

Right.

03-01:11:39

Eardley-Pryor:

How did those ideas of complexity influence your partnership ethic?

03-01:11:42

Merchant:

The seventeenth century, of course, culminates with Newton and Leibniz and the laws of energy and momentum, and how those shape and control the world, and how we can use the technologies that come up out of that to dominate nature. But then, we come to the early years of ecology, in which you have to recognize that all the parts are equal and have equal force and possibilities. And that nature may be shaped not just by dominant technologies but by uncontrollable events, such as tsunamis and volcanoes and hurricanes and everything in which nature has a power to assert itself—some would still say "herself." But I like to say it "itself," because I don't like to think of nature as female, which means it could still be controlled and dominated, but of nature as a partner with humans and as interactive with humans. And nature, as a partner, has the same kinds of forces and powers that we must respect, and that we realize we can't control, but have to live within and also to accept. And while humans also have the power to control, we have to realize that

some of the things we do are not helpful or beneficial. We must allow nature to keep maintaining itself as an active entity. So partnership makes nature and humans equal, and interactive, and sharing and giving. And also that we have to conserve nature if we are going to go ahead and live in the future with an active nature and an active humanity.

03-01:13:53

Eardley-Pryor: That's wonderful. There's another piece here that I am curious to hear you talk about, and that's the rule that possibility plays. And how because of these nonlinear aspects of science, and the way that nature evolves, and that humanity as a culture evolves along with it, and the unpredictability of both those aspects, you find an element of hope, of possibility. Can you tell me a little bit about that?

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Merchant: Yes, well, the fact is that we have to recognize that we cannot dominate and control nature, that nature has power, and that nature is unpredictable in the sense that sometimes things will happen that we don't expect, that we can't control. We have to accept that. And so by recognizing that things are going to happen, and that there is nothing that we can do to change them, we have to learn to live within nature and interact with it. And that allows us then to feel that we can be partners with nature and live with nature. We do, however, have some control, and we can change some things. We can build things, and use our technology and science to create a world that humans can control and dominate. But we also have to recognize that nature has the power to tear all that down. If nature causes a hurricane, for example, all that we have built can be lost. Or if there is an earthquake, many of the tall buildings we have built may topple over. And so in that sense, we have to respect the power of nature, and in respecting that, realize that we cannot control nature. Therefore, we have to learn to live within it, and conserve it, and allow it to have its own space, and to use its own laws and make changes that we have to accept. And that way, we can become partners with nature by accepting nature and moving forward with it.

03-01:16:12

Eardley-Pryor: I guess what I am concerned about is that sometimes the reality of this dominant power that nature has, that we cannot control, could lead to hopelessness, right? That, "Oh my gosh, there's this overpowering force that leads to a lack of hope." And especially today with climate change, there's that feeling that massive changes are happening at a global scale. And people feel hopeless about being able to do anything about them.

03-01:16:42

Merchant: Yes.

03-01:16:42

Eardley-Pryor: But you find hope in this possibility, in these nonlinear spaces, in these potentials.

03-01:16:48

Merchant:

Yes. We must realize that we have limited power, and that we also have the capacity to *not* do certain things that we might have the technology to do and by not doing them, we will allow nature to live and thereby conserve its forests, deserts, and water resources. That we can work with nature in the sense that we can set up laws and conservation centers that will maintain the things that are necessary for both nature and humanity to survive. And to recognize that, in order for humanity to survive, we have to allow nature to survive and to reproduce itself. And therefore, we have to help nature to conserve itself so that we can become equals as we go forward, and not one obliterating the other.

03-01:18:00

Eardley-Pryor: That's great. Can we pause for a moment?

[BREAK IN RECORDING]

03-01:18:04

Eardley-Pryor:

Carolyn, I want to ask you about another research theme that you developed over time, and that's the notion you have about gendered reproduction. So much of historical research, especially in thinking about social structures, talks about production and the modes of production. And one of the things I took out of reading your work and your scholarship is the importance of reproduction. Why is this notion of reproduction important as a lens for understanding history and our relationships with nature?

03-01:18:38

Merchant:

Right. Well, historically, production has been the thing that has propelled human society forward, and that has a lot to do with the technologies that humans use to build all sorts of structures that then allow them to really control and maintain and dominate the Earth through human production. The thing that I find missing in that is, what happens to reproduction? What happens when all these systems of production and technology take away resources? How is nature, on the basis of which this whole Earth exists, going to continue? Will nature be able to keep reproducing its own systems both ecologically and genetically? And are humans and other organisms going to be able to continue to be reborn or are they going to go extinct? So how can we maintain the ecosystem in which humans are only one part, but all the other organisms and plants and animals and minerals are an equal part?

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Only by doing that can we really think about the Earth as being able to go forward into the future because, otherwise, we will use up the resources. We will find that some of the animals or plants that we really need are being used up and will go extinct, and we can't use them anymore, and therefore, if we depend on them, we will eventually go extinct. So conservation and reproduction, allowing the reproduction of nature and its systems to continue

is what is going to allow humanity to reproduce itself and to continue. And we have to do that in interaction with the natural ecological systems of the world.

03-01:21:10

So humans are a large part of what occupies this Earth, and if humans keep taking everything we need to keep ourselves alive and to reproduce more humans, we're going to use everything up. And eventually, the Earth will go silent, humans will go extinct, and maybe whatever lives on might live on, but it might not ever evolve again into what we think of as humanity. So we need to bring the whole concept of reproduction into the mainstream of our thinking, and make it equal to production, and make sure that we are allowing everything else on the planet to reproduce itself. And we have to do that by understanding the laws of ecology. And we have to do that by passing laws of conservation and to preserve what resources we can use, limit how much we use, and when we have to stop, and set places aside and allow them simply to reproduce themselves.

03-01:22:37

Eardley-Pryor:

I see how your ecofeminist perspectives are so central to that, because in terms of humanity, who is it that does the work and the labor of reproduction? Women.

03-01:22:50

Merchant:

Women are reproducers. Men are also reproducers in the sense that they're critical to the ongoing interaction. So it's an interactive system, but one in which reproduction and all its needs and its processes must be put on an equal basis with those of production. And by doing that, men and women do it by being equal to each other. They do it by recognizing that male and female are both important and both equal, and we go into a future of partnership and not a future of domination.

03-01:23:34

Eardley-Pryor:

That's great. I want to ask about the ways in which transformation is wrapped up in your thinking on reproduction. You have a really full-throated explanation about reproduction as an organizing category in your 1989 book, *Ecological Revolutions*. And around that time, there's an article I found that you published in 1990, in a collection that B. L. Turner edited that's called *The Earth as Transformed by Human Action*, and your article in there is called "The Realm of Social Relations: Production, Reproduction, and Gender in Environmental Transformations." There's a line that you say in there that is, "Environmental transformation can be linked to biological reproduction, which is linked to social reproduction." What is this relationship between biological reproduction and social reproduction that you're thinking about?

03-01:24:28

Merchant:

Yes, well, biological reproduction comes from within the genetics of each living thing, which is able to reproduce itself. And only by allowing that to continue to happen will humans be able to continue with reproduction.

Because if we don't allow the natural resources of the world to keep reproducing themselves, if we don't set aside land or pass laws that prevent us from using everything up, we won't be able to continue reproduction. And production will overwhelm the planet, and we will do ourselves in, because we will go down with the production systems that obliterate reproduction.

03-01:25:25

Eardley-Pryor: That's great. I am interested in talking about international fellowships that you had. Are there any other major themes that we haven't talked about that you want to make sure we flesh out at this moment?

03-01:25:38

Merchant: I think mainly the thing is that gender is so important and so central. Because most of human history, and most of even environmental history, and the history of science has been concerned with the roles that men play. And I want to make the roles that women play and the importance of gender as an equal thing, so that the roles of women are not obscured—and that women and men are equal partners not only in an existing political economy and a social economy, but they are equal partners in every aspect of trying to work together as partners to make the whole planet continue to live on.

03-01:26:35

Eardley-Pryor: That's great. And I also just want to say, it's such an honor for me to talk with you about your work and your research because I went into the study of history and fell backwards, almost accidentally, into the history of science and environmental history together. And you were really one of the founders of the entire field of environmental history and the ways that science informs it. For me, it's such a pleasure to be able to talk with you about the work and the ideas that you developed over time, because that's what I came to study and what I do, and it's in a lot of ways because of the work that you did.

03-01:27:14

Merchant: Thank you very much. And I began to understand it through works, for example, like Betty Friedan's *The Feminine Mystique*, and Rachel Carson's *Silent Spring*, and how the period of the sixties was so wrapped up in social movements and social change. And are these going to be beneficial, or are they going to be destructive? And how do we make gender and women and reproduction come to a forefront and to interact equally with the forces of production? So Marx thought about the forces and relations of production. I, as a feminist, think about the forces and relations of reproduction, and how reproduction and production are both equally important and interactive going forward.

03-01:28:13

Eardley-Pryor: Beautiful. Do you want to take a break before we move forward, or you want to just continue talking?

03-01:28:19

Merchant: We can take a break.

03-01:28:19

Eardley-Pryor: Okay, let's pause for a moment.

Interview 4: June 9, 2022

04-00:00:01

Eardley-Pryor: All right, today is June 9, 2022. My name is Roger Eardley-Pryor from the Oral History Center of The Bancroft Library at the University of California, Berkeley. This is interview session number four with Carolyn Merchant. We are in your wonderful apartment in Berkeley, California, at Belmont Senior Living. And to begin this interview, I want to ask about international fellowships that you had, and some of the international travel and research you got to do while there. The note I have is that in 1984, you became a Fulbright Senior Scholar in Sweden. Where did you go, and what were you doing?

04-00:00:39

Merchant: I wanted to go to Europe, and I applied for a fellowship. And I also had met a wonderful woman named Abby Peterson at one of the conferences, and she was at Umeå University in northern Sweden at the time. I received a Fulbright fellowship in 1984 and went to and taught at Umeå University. It's U-M-E-A with a little circle over the a, and it's pronounced "U-mi-o." And I had also met historian Sverker Sörlin who likewise invited me to come to Umeå.

04-00:01:18

Eardley-Pryor: All right.

04-00:01:19

Merchant: It is one of the universities in Sweden. There are several, but this is the northernmost, and it's right under the Arctic Circle.

04-00:01:31

Eardley-Pryor: What was it like being there?

04-00:01:32

Merchant: It was incredible being there. Of course, I was not there in the mid-deep winter, but I was in there in March through July, and so things were brightening up and then warming up, and trees were budding and flowers beginning to come up. And Abby Peterson was a wonderful person in the department there at Umeå University, and I taught two classes, one in the Department of History of Ideas and one in Women's Studies. I taught one course on Nature and Culture, and one on Science and Nature. One was in the morning, and the other in the afternoon, and so I had different groups of students. They were seminar style. I also gave some fairly large lectures, but I taught these seminar-style classes. And so I got to know the Swedish students. In my style of teaching and seminars, I always liked to make sure that I'd go around the table, and know everybody's name, and know their story, and what they had done. And I would then always be sure that the things we were reading, we would talk about, and I would ask each person to speak. I taught my book, *The Death of Nature*, and people had it and had read it. It had been translated into several different languages, among which were Italian,

German, and Swedish, and then also it came out in Japan, China, and Korea. So the book itself became quite well known.

04-00:03:52

Eardley-Pryor: Yes, I see behind you on the shelf are some of those foreign-language editions of *The Death of Nature*.

04-00:03:57

Merchant: That's correct. In Sweden, I had a Fulbright fellowship. I gave lectures at different universities, but I had a home-base in Umeå. I went to several different universities around Sweden, and also into Norway, to give lectures.

04-00:04:27

Eardley-Pryor: Wow.

04-00:04:28

Merchant: Most of the lectures had to do with *The Death of Nature*, and the implications of nature and its use by human technologies, and therefore, the implications for the environment and what was happening over the world. But some were about the ethics that we need as a human species if we are going to survive, and how to create an environmental ethic. My ethic was one of partnership with nature. If we can partner with nature and have an ethic of partnership, we can withhold some of our demands. It's an ethic in which we use the things that we need and then recycle them as much as possible and give them back to the environment, so that the environment can then sustain itself.

04-00:05:26

Eardley-Pryor: That's great. And Sweden has such a rich history of environmental interest and environmental science, particularly in the twentieth century with early concerns about acid rain, and of hosting in 1972 the UN Stockholm Conference, the first intergovernmental conference on the global environment. It must have been pretty neat to be there in 1984 and to lecture to those students.

04-00:05:49

Merchant: Right.

04-00:05:51

Eardley-Pryor: I have a note on another fellowship you had in 1986. In June of '86, you became a visiting professor in Paris, France. Where were you, and what were you doing there?

04-00:06:01

Merchant: That was at the École Normale Supérieure, and it was due to the invitation of Evry Schatzman. He was an astronomer who I actually met when I was in Hawaii visiting my sister Ann Boesgaard. He was giving lectures to Ann's department in Astronomy at the University of Hawaii. Evry Schatzman then invited me to come to France, and he helped to get an appointment for me and arranged a couple of classes for me to teach. I was able to have a very nice

apartment near the Luxembourg Gardens, and then go to the École Normale to teach the class.

04-00:06:50

Eardley-Pryor: Sounds like a pretty good way to spend time in Paris.

04-00:06:53

Merchant: It was great, yes. And so I was able to go and then stay for another month or so, after I had finished teaching, and travel around a little bit, not only in Paris, but I took a trip to southern France and back. It was a really nice experience.

04-00:07:12

Eardley-Pryor: Oh, wow, was Charlie Sellers able to join you in any of these international visits?

04-00:07:17

Merchant: Not on the international ones. Charlie Sellers was my husband, and he and I had met through Berkeley politics, and then later, we got married. We had been together since 1972, but then on his seventieth birthday in 1993, we decided to get married. We were going to celebrate his birthday, and his relatives from the East Coast were coming, along with my mother and my sister from Hawaii and both my sons. And so both our families were coming, and they were going to stay at the Marriott Hotel here down by the Bay in Berkeley.

04-00:08:13

Eardley-Pryor: Yes, you had told that story, and how you all wandered outside, and the person you had asked to marry you said, "If you haven't figured it out by now—"

04-00:08:23

Merchant: We were going to take a little walk down toward the Bay. And when we got there, Bill Boyce, Charlie's brother-in-law, who was a minister, said, "If you haven't already guessed, this is going to be a wedding."

04-00:08:33

Eardley-Pryor: That's such a good story. Another fellowship that I have in my notes is in 1991, when you became a visiting fellow in Western Australia in Perth.

04-00:08:45

Merchant: Yes.

04-00:08:45

Eardley-Pryor: What were you doing there?

04-00:08:47

Merchant: I had met a scholar named Patsy Hallen, and she and her husband Peter Summers lived in Western Australia. And she invited me to come to Murdoch University in Fremantle, near Perth in Western Australia, and so I agreed to

give two courses there in Fremantle. Charlie and I had a VW camper, a small camper, but it fitted perfectly into a container that could be put on a ship, and shipped from Oakland to Sydney Australia. And then we flew over. And after we got there, we had to get the camper out of customs, and then to put a sign on the back of it that said "left-hand drive." And we had to be sure to drive, not on the right side of the road as we do here, but on the opposite side of the road. And we had to keep thinking where we were, and what side of the road we were supposed to be on.

04-00:10:08

Eardley-Pryor: Oh, my goodness, that had to be difficult.

04-00:10:10

Merchant: Yes.

04-00:10:11

Eardley-Pryor: What an adventure. So Charlie did get to come with you to Australia?

04-00:10:13

Merchant: Yes, he did. And what was wonderful about that is, we had both been bird-watchers from childhood. And we had done a lot of bird-watching together in our camper in the US, all over the West Coast and across the country. But we had a VW bus that we shipped in a container to Sydney, and we picked it up there. And we visited a friend that I had met through international meetings, Val Plumwood, who lived just south of Sydney. And she had renamed herself after the plumwood trees that were native to her place. There she had built a cabin for herself out of wood, and she grew all her own fruits and vegetables, and was totally independent. We visited her there, and she had a pet wombat. And she would invite the wombat into her kitchen every day and give him some food to eat, and then she would kind of boot him outside. And he would come back the next day and ask for more. [laughs]

04-00:11:30

Eardley-Pryor: Wow.

04-00:11:32

Merchant: Right. So it was really a lot of fun to see the birds, especially those birds and animals that were native to Australia. And we drove the camper, first south along the east coast, where we saw Val, and then we drove it across the whole of southern Australia through to Western Australia, and on to the west coast where we met with Patsy Hallen and her partner Peter Summers.

04-00:12:09

Eardley-Pryor: What an adventure.

04-00:12:10

Merchant: I taught a couple of courses there at Fremantle. And while I was doing teaching and research at Murdoch, Charlie would take the camper and go off during the day and find a place to bird-watch and to see the sights of Australia. So we had a wonderful time. And then, after my teaching was

finished there, we went up the west coast of Australia, north, and then across the top of Australia. Then we came back down through central Australia, and back to the east coast. That was a long trip in the camper. And always having to drive, for us, on the wrong side of the road, and remember where we were and which side to drive on. And we had to have the sign on the back that said "left-hand drive," so that people would not look at us in astonishment and think that there was nobody in the driver's seat. [laughs]

04-00:13:20

Eardley-Pryor:

How exciting. That's great. What I'd like to ask you about next is to just move through some of your major publications and ask what stories come out of the creation of those books? We've talked a lot about your research themes that you developed in many of these different books, so just the story of writing or maybe the reception of a particular book, whatever comes to mind for you. So the first one, the major book that you wrote after *The Death of Nature*, is published in 1989, your book *Ecological Revolutions: Nature, Gender, and Science in New England*. And you've told a little bit about where that story came from, and how you could do a comparative, California-New England, agricultural research project. I'm curious about what the process was like for you of writing this book?

04-00:14:12

Merchant:

My appointment at Berkeley entailed having an Agricultural Experiment Station project. Everybody who taught in the College of Natural Resources had to teach two courses a year only, but then they each had to have an Agricultural Experiment Station project. It had to do with the agricultural land and resources of California, but it could be comparative. You could write a proposal for a five-year project and then you could renew it, if need be, for another five years. So I wrote a project that compared the natural resources and their use in California with those of New England. So we took our VW camper, and drove it all around California and then later across the country and through the Northern Plains, bird-watching along the way. Charlie would collect the local bird-watching maps, along with what birds would be where, and which places we were likely to see particular species, and that's where we would camp. And we would go out in the morning at about 5:00 or 6:00 A.M., as soon as the light was up and the sun started to come up. That's when the birds were out, and they were singing. And we would go along the edge of the forest, which is where you would see most of the birds, and expand our bird lists.

04-00:16:07

Eardley-Pryor:

That's great. So bird-watching was the way that you moved through, in getting across the country. Once you were on the East Coast and you were trying to develop this research project, how did you go about doing it? Were there particular archives you were really interested in?

04-00:16:23

Merchant: Right. Well, I was interested in the environmental history of New England and so I needed to look at what the natural resources were, and why a particular place was settled. Originally, the towns were settled because there was an important natural resource there, or there was a river or a navigation place that would make it possible for them to have commerce and therefore to make money and support themselves. We looked through our AAA maps and our AAA guides, and they would often tell the history of a town, and why it was important, and then list the campsites. Charlie would plan where we were going to go so that he could expand his bird list. He had been a bird-watcher since childhood, and so this was an opportunity for us both to build on our life lists, especially our U.S. lists.

04-00:17:37

Eardley-Pryor: That's wonderful. I love how birds were driving part of where you went, and then you would explore the environmental history of that place, sometimes through AAA map resources.

04-00:17:48

Merchant: Yes, that's right. And so we would go into a camping place, having chosen it based on the environmental history or what birds would likely be there. We would both go out in the morning together and do bird-watching and then we would come back to the camper. And if we were hooked up to the electric sites there, we could plug-in our computers. Charlie would take photos of the birds we saw—up to around 500 birds a day, and download them to the computer. And then he would go delete, delete, delete until he got down to maybe the best five photographs. And I would set up my computer on the camper table and start working on another chapter of my book in progress, especially focusing on the resources of New England in the particular place we were in. My book on *The Death of Nature* focused mainly on Europe, but the books I worked on afterward dealt with what happened to those resources, and to the colonists who brought those ideas and technologies to New England and then across America. New England was one of the first places to which they had come. We looked at a lot of the early places they had settled. And often, I would go to the library there and look at the resources and archives. And Charlie would take the camper and go out around the area during the day bird-watching. And then we would meet up, and we would either go to a local restaurant, or we would go to the campground and cook our food in the camper. We had a wonderful time doing all that.

04-00:20:01

And that was how I gathered the sources and the materials to write my book that became *Ecological Revolutions: Nature, Gender, and Science in New England*. The book took many of the themes I had developed in *The Death Of Nature*, but it looked at them more specifically in local areas, and particularly at the geography, topography, and resources of the different areas of New England. And those were quite different, of course, from what I had been looking at in Europe.

04-00:20:44

Eardley-Pryor: I imagine how important it was for you to actually be in those places, to see what the environment looked like, and how the hills and the curves along the river would influence the way society might develop there.

04-00:20:56

Merchant: Exactly, and also how I could take slides to then use in my classes later on. And Charlie would take slides or photos of the birds. And so we had quite an archive of our trip.

04-00:21:13

Eardley-Pryor: What a great way to do that. The book that you wrote there, of course, provides us with this framework for understanding how environmental change happens, in New England particularly. In terms of environmental historiography, your book, *Ecological Revolutions* is often paired with Bill Cronon's book, *Changes in the Land*.

04-00:21:34

Merchant: Yes.

04-00:21:34

Eardley-Pryor: I'm curious to hear your thoughts about how you two approached New England and changes that happened environmentally over time, and the different ways you went about it?

04-00:21:44

Merchant: Yes. I hadn't realized that Bill Cronon was writing about New England at first. His was called *Changes in the Land: Indians, Colonists, and the Ecology of New England* (Hill and Wang, 1983), and when it came out it was displayed in Cody's Books. I went and looked at it and when I opened it up I realized that he had focused mainly on the colonial period. So I decided to expand my own book to focus much more on the nineteenth century and to look more specifically at capitalism and industrialization in nineteenth-century New England.

04-00:23:07

So that's why it was called *Ecological Revolutions*, because I was looking at both the impact on the land of the first waves of the colonial land use, and then at the industrial period of the nineteenth century. I looked at economic use in the nineteenth century, which was inspired by James Watt's steam engine. The steam engine of the late eighteenth century helped to transform many of the New England towns that had dams and water resources that could provide energy for steam mills. And the steam engine also allowed people to move away from the water resources into other places where you could just burn coal as a source of power. And so you could expand and industrialize the whole of New England into areas where water power was not accessible, but where you now had steam power.

04-00:24:36

Eardley-Pryor: So to have that industrial approach was something that you added after seeing Cronon's *Changes in the Land*?

04-00:24:42

Merchant: Exactly, and expanding it to go through the nineteenth century, and then an epilogue on the twentieth century. So after I recovered from the shock of seeing that Cronon had done a lot of what I had started out to do, I realized there was a lot more to be done. I got some additional grant money to help me do it and had a lot of fun developing the theory of ecological revolutions and how to conceptualize and illustrate them. My book was delayed until 1989, but it covered much more ground, was more theoretical and contrasted the colonial with the industrial periods in New England.

04-00:25:24

Eardley-Pryor: Oh, that's great, that's a great story about that. As a scholar myself, as a graduate student, I was thinking about how the two books talk about a similar place but do it so differently. His is more of a storytelling sort of narrative, and yours is theoretical and structured with beautiful graphs and archival research in different places. As a student, as an environmental scholar, it was really cool to have these two different ways of approaching a topic.

04-00:25:52

Merchant: And to create the structure of an ecological revolution. That these revolutions, both colonial and capitalist, had some similar structures in terms of production and reproduction, and ideas and ideologies, but their ecological aspects needed to be considered and integrated into the structure. The colonial and capitalist revolutions were really different in what they were able to accomplish, but their ecological needs and consequences also had to be considered. The capitalist revolution had more technologies and machines powered by steam power, and therefore had extensive ecological consequences, both in the depletion of natural resources and the ecological consequences of waste. In the middle of all that was the Market Revolution, about which my husband Charlie Sellers had written extensively.

04-00:26:45

Eardley-Pryor: In the Jacksonian era, or the Market Revolution era.

04-00:26:48

Merchant: Right, but first of all, in the 1810s, and throughout the nineteenth century there was an extensive Transportation Revolution, including toll roads, canals, and railroads that allowed both resources and finished products to be moved around the country. And then in the 1820s and '30s came the Market Revolution, which allowed you, through the Transportation Revolution, to market both resources and finished products, and which by the late nineteenth century, became the Industrial Revolution. I was very influenced not only by William Cronon, but also by Charles Sellers and his idea of the Market Revolution. And so I expanded the ecological dimensions and consequences of these revolutions into the era of the Industrial Revolution and its steam-

powered technologies. So, I was able to say, "Yes, there's a colonial, capitalist, and Industrial Revolution, but you need to include both the natural resources used and ecological changes that resulted." And I showed that you had to look not only at similar things that happened, like production, reproduction, and ideology, but also to include the exploitation of natural resources and the ecological consequences that occurred. And to see how differently they interacted with each other in these different periods.

04-00:28:03

Eardley-Pryor:

That's great. You told me off the record, while we were just at lunch today, about the ways in which Charlie Sellers helped shape your writing style and the way you think about creating a book. Can you talk a little bit about the way that you and Charlie worked together on some of your book projects?

04-00:28:24

Merchant:

I was writing *The Death of Nature*, and he had been working on his book *The Market Revolution*. But we did a lot of camping together, and we would drive our camper down Highway Five to Southern California and find hiking and camping places—they were mostly influenced by birds and what kind of birds we would be able to see. So we were driving down Highway Five, and I had written a chapter or two of my first book, *The Death of Nature*. And I read him the beginning of the first chapter. And he listened for a while, and then he said, "Well, there's a lot of verbiage about this and that, but there's no argument." So he helped me to think about how to make an argument, to say what you're going to say, and how to put forward the ideas, and develop them, and how to have paragraphs with a first line that introduced the idea and a concluding line for the paragraph and a transition to the next paragraph, and then a chapter conclusion that brought it all together. So he really helped me structure the book. And the opening line, "The world we have lost was organic" was Charlie's contribution to the opening of the book.

04-00:30:08

Eardley-Pryor:

That's great. Great teamwork. You were a wonderful team together. Another book I want to ask you about was published—your next book after *Ecological Revolutions*, was published in 1992. It's titled *Radical Ecology: The Search for a Livable World*. That one, in my estimation, seems like you've expanded upon this notion of ecological revolutions to then be able to tell an environmental history into the twentieth century, from the sixties up until that point the early 1990s, but especially this one turns on radicalism. What led you to write this book?

04-00:30:45

Merchant:

I was asked by the publisher to think about who I would recommend to write a book about that era. And so instead of doing that, I started writing the book myself. [laughs] So I sent him what I had written, and he said, "Oh, this is wonderful." And so I was able then to elaborate on it, and to write about the different aspects of ecology, and the changes that took place. And changes in the land and in social movements and ecological movements, in which people

joined together in trying to make social changes and trying to save nature. And the resulting book was called *Radical Ecology: The Search for a Livable World* [1992]. And it has a wonderful picture on the cover of people saving the rainforest.

04-00:31:59

Eardley-Pryor: I'm wondering if you had any engagement yourself in some of these radical environmental organizations, of things like Earth First! or Earth Liberation Front, which were gaining ground in the eighties and into the nineties when your book was published?

04-00:32:11

Merchant: Yes, well, I did participate in some of those marches and also in some of the meetings. I had a good friend, David Kubrin, who had worked on liberation ecology, and I met with him. And he had a little class in the Liberation School that questioned the whole background of capitalism and what it was doing. He had written an article on "How Sir Isaac Newton Helped Restore Law 'n Order to the West" and how Newton's laws and ideas took what was disrupted and rather chaotic with the work of Copernicus and Kepler and Descartes, and how they had basically torn apart the medieval worldview, and it was kind of in shambles. And Kubrin showed how Newton with his laws of motion and law of gravitation put it all back together. And that's how he—Newton—restored law and order to the West.

04-00:33:31

And so David Kubrin was a wonderful influence on me. And he taught this course in the Liberation School that I went to, over in San Francisco. And the Liberation School had several courses taught by fairly radical people, and I took a couple of those courses, as well as his. And that really helped to broaden my thinking, and think about how we have to move beyond capitalism and outside of it, and how can we do this, but do it in a way that's not totally disruptive, but rather can use the forces of people and movements in order to try to create new structures and change.

04-00:34:24

Eardley-Pryor: That's great.

04-00:34:25

Merchant: So it was very hard because it's hard to disrupt capitalism. And that part of it did not, of course, ultimately succeed. But the radical movements of the seventies and eighties, and especially how the women's movement began challenging the structures of patriarchy and the work that men had done, and began to show how women's liberation could give women the confidence and the power to make changes. And so that whole radicalism, beginning in the sixties, and then the seventies, and going on through the eighties, ultimately led to radical ecology.

04-00:35:22

Eardley-Pryor: That's great. You've talked about being a participant and witness to some of the changes that were happening in terms of social activism around Berkeley, in the San Francisco Bay Area in the 1970s. In the 1980s, I have this thought in my mind about the ways that Berkeley students rose up to challenge the structures of racial capitalism in apartheid South Africa, with these massive protests that happened in Berkeley's campus in 1986, '87 era. Where they were calling for divestment from South Africa among American institutions, and in Berkeley itself. Do you have any memories of some of the student radicalism on campus in the eighties?

04-00:36:04

Merchant: Yes, and Charlie and I were both participants in it. And some of the meetings that were involved met at his house on Virginia Street and with his then partner Nancy Sellers. So Berkeley radicalism challenged the Berkeley City Council members who were fairly conservative Democrats. The radical movement tried to get more radical people elected to positions on the council. But in the north of Berkeley, it was pretty hard to do. We tried however, and I, at one point, nominated Charlie to be on the council. And I was his campaign manager. I printed a lot of brochures, and we worked together with several other people who worked with us. And we would take these flyers around to people and knock on their doors and talk to them about it. It worked much better in west and south Berkeley, but not much in north Berkeley.

04-00:37:33

Eardley-Pryor: I love that you were taking these thoughts about how global environmental change was happening and really putting it into action in the local framework where you lived.

04-00:37:42

Merchant: Right, so you have to start with the local and then build up.

04-00:37:50

Eardley-Pryor: I want to ask you about a couple of edited books that you did that really came out of your teaching. In particular, a book the first edition of which came out in 1993 that you were the editor of called *Major Problems in American Environmental History*, and that later had other editions in 2005 and 2012. But it has been foundational in teaching environmental history across the world, especially American environmental history here in North America. How did you get involved in writing *Major Problems in American Environmental History*, and what was your thinking in creating it?

04-00:38:28

Merchant: There was a series on *Major Problems in American History*, and I had gone to American Historical Association meetings and seen them there. So I talked to the editor there about possibly thinking about it and so—

04-00:38:53

Eardley-Pryor: You reached out to them and said, "I could do something on American environmental history?"

04-00:38:58

Merchant: Right. And so I put together an outline. And the idea of these books was that they used primary sources for every chapter. They each had fifteen chapters, because there were fifteen weeks in a semester, and the first one started out proposing different theoretical approaches to the field. And each one would cover a period of time. And in each chapter, you would have primary sources that were written by the people living in the time. And they were reasonably short, maybe a page long, or a page and a half. There would be about six or seven of them, and then followed by three longer essays that would summarize and compare the approaches for that time frame. And the essays would be taken from articles or books that had previously been published, but they would have contrasting perspectives. The students would begin to realize there are several ways of interpreting the materials of a period, and how the historian goes about making an argument, and what kind of evidence they bring to support it, and how they write an introduction and a conclusion. Each of the three essays would be comparative. I had seen the books in this series, and so I proposed to the editors that I might try to put something together on environmental history. And so I spent a fair amount of time—a few weeks—looking at sources and putting together a table of contents, which I then sent them. They were very positive in accepting it and so I then put the book together.

04-00:41:07

Eardley-Pryor: That's great. I love that you were the one who said, again, "I can do this. This is what I'm going to do."

04-00:41:13

Merchant: Right. And I was taught at Vassar College to go to the sources, and that that's what you should depend on, and interpret for yourself, and not pay attention to the people who've written about it because they could have different points of view. And also, as you change decades and go forward in time, different perspectives come up on that same material and how to interpret it. And so I would look for people who had different perspectives on a particular period where natural resources were being used.

04-00:41:58

Eardley-Pryor: Your point about the way that perspectives can change over time, that historiography evolves, makes me wonder about how the second and third editions changed.

04-00:42:10

Merchant: They came out several years apart, during which time new articles and books had come out with new interpretations. And so as the times changed, sometimes more progressive or conservative ideas or more radical ideas would appear, or sometimes the importance of particular technologies might

be influential. And so over time, what was available, and what ideas may have improved or challenged some of the previous ideas were coming out, and so that's why there were the several editions of the book with different essays and some with different sources. [The third edition in 2012 was 573 pages long.]

04-00:43:10

Eardley-Pryor: When you taught American environmental history here at Berkeley, did you use these books?

04-00:43:15

Merchant: I did, but they hadn't come out at first, and so I put together readers that I got duplicated at Cody's or someplace else as a course reader. And I like to always teach my students to read from the sources, and so I would mainly get primary sources and put them together. And then for the students, I would sometimes put some books on reserve that might have had a point of view about that particular period and say, "You can look these up, but I really want you to interpret these sources yourself and see what you think are the major conclusions for that period."

04-00:44:06

Eardley-Pryor: That's great. Another book along these lines that you edited to help students understand a particular topic includes, in 1994, your edited book *Key Concepts in Critical Theory: Ecology*.

04-00:44:23

Merchant: There was a series called *Key Concepts in Critical Theory*, and I had seen that at a meeting and talked to the editor of the series. And they hadn't done one on ecology, and so I talked about putting something together and looking for sources. And so my book *Key Concepts in Critical Theory: Ecology* contained different perspectives on environmentalism and on ecology, with different points of view about certain themes.

04-00:45:02

Eardley-Pryor: That's great.

04-00:45:04

Merchant: So, it's important for students to have different sources to go to and make their own interpretations. That was the overriding theme that I had learned at Vassar College: "go to the sources." And I always taught my students to look at the sources and interpret them for themselves. But realize historians can be wrong, and times can change, and different perspectives can come up, and you are the source yourself to make the determination of what they really mean.

04-00:45:40

Eardley-Pryor: That's great, and you applied that same logic to the 1998 book, which you've already spoken about here on *Green Versus Gold: Sources in California's Environmental History*.

04-00:45:50

Merchant: Right, and I wrote that because as a member of the College of Natural Resources, everybody had to have an Agricultural Experiment Station project, later called a Natural Resources Project. And it had to do with California because part of our appointment was covered by the state of California and by the Agricultural Experiment Station. So we all had to have a project, and it could be a project that would last for five years, after which you might be able to renew it for another five years. But I wanted to put together a book of sources on California's environmental history that was similar to my book on American environmental history, and so it ended up being called *Green Versus Gold* [*Green Versus Gold: Sources in California's Environmental History* (1998)]—green for the environment, and gold for the mining of gold and ultimately extracting minerals and resources and money from the Earth.

04-00:47:05

Eardley-Pryor: In 2002, you published another book that's used pretty widely in terms of teaching, and that's *The Columbia Guide to American Environmental History*. That book is, to me, a little bit different. It's a lot more summary about major events that happen over time. What was your thinking in writing *The Columbia Guide to American Environmental History*?

04-00:47:25

Merchant: That was again a series that I had seen at some of these national meetings that had guides like that. And so *The Columbia Guide to American Environmental History* was again similar to Columbia Guides to other periods or perspectives on American history, but I wanted one that was on the environment. And so again, I went to them and proposed it. And I put together an outline with lists of sources and submitted it. They approved it and I then put the book together.

04-00:48:12

Eardley-Pryor: That book was particularly useful when I first began teaching environmental history courses after graduate school. That is, your book is what I turned to.

04-00:48:17

Merchant: That's good to know. I'm glad to hear that.

04-00:48:21

Eardley-Pryor: I want to step back in time to 1995, and the publication of a book you wrote, a research book called *Earthcare: Women and the Environment*. This one explores a lot of relationships between women's involvement in environmental movements and this long-standing theme of your work in symbols of nature as female. The very beginning of the book opens with your attendance at the 1992 Rio Earth Summit, the United Nations Conference, held in June 1992.

04-00:48:51

Merchant: Right.

04-00:48:52

Eardley-Pryor: And I want to just ask, what were your experiences like in Brazil?

04-00:48:56

Merchant: I was able to go to the conference because my children were then visiting their father, Hugh Iltis, in Madison, Wisconsin, and so I was free to go. And I was able to get the money to go because my aunt and grandmother had left me some resources. And there was a group that was going to go and attend, that I came in contact with from California and from the Bay Area, and so I went with them. I was able to be involved with the women's tent. There were various tents in Rio, in the area where they had the conference, and one of them was the women's tent. And it had tables with women from all over the world from different countries who were displaying books and articles and pamphlets, and talking to other people about what women in the rest of the world were doing to try to save the environment. It was an extremely enriching and wonderful experience to meet all these women from around the world who were trying to save the planet.

04-00:50:38

Eardley-Pryor: Yes, you wrote about that tent, I think it was called Planeta—

04-00:50:42

Merchant: Planeta Fémea.

04-00:50:44

Eardley-Pryor: Planeta Fémea. Fantastic.

04-00:50:47

Merchant: The women's tent, the Women's Planet, in a larger sense.

04-00:50:51

Eardley-Pryor: And you explored so many cool ideas in this book, *Earthcare*, such as James Lovelock's notion of the Gaia hypothesis, that Earth is this dynamic organism, which is a theme that you had been working with yourself in the history of science. And here's this chemist, James Lovelock [d. July, 2022], who was digging back to revamp some of these ideas in a scientific framework.

04-00:51:12

Merchant: Right.

04-00:51:13

Eardley-Pryor: And a lot of your thoughts about chaos theory, including possibilities for learning from the unpredictability of nature, and partnering with it are relevant here.

04-00:51:27

Merchant: Yes, exactly. In recent years, chaos theory and complexity theory were beginning to come to the forefront. And I would go to meetings of various societies, and you would see on the tables in the book exhibits these books on chaos theory.

04-00:51:51

Eardley-Pryor: And you had just written the year before—or just published—this critical perspectives book on ecology as well.

04-00:51:57

Merchant: Yes.

04-00:51:58

Eardley-Pryor: And I imagine how all these ideas and these thoughts of projects that you're working on are all coming together in these new ways.

04-00:52:05

Merchant: Right.

04-00:52:06

Eardley-Pryor: Do you mind if we pause for a moment?

04-00:52:07

Merchant: Yes, let's do it.

04-00:52:07

Eardley-Pryor: Thanks.

[BREAK IN RECORDING]

04-00:52:11

Eardley-Pryor: Carolyn, I want to ask you about your engagement in the American Society for Environmental History, ASEH, and about that organization. That organization helped to really develop the field of environmental history itself, and you've been a member since 1980 when *The Death of Nature* came out. And then, throughout, you served in a number of different capacities—as an associate editor of the journal *Environmental Review* and later *Environmental History*, as a consulting editor on book projects, on different committees, and in 1999–2001, you served as vice president. And then from 2001 to 2003, you served as president of ASEH. I want to ask you about that term as president. But just broadly, what role does ASEH play in your life as an academic?

04-00:53:02

Merchant: I started out teaching environmental history and environmental philosophy and ethics at UC Berkeley in 1979, and that was due to people like Joseph Petulla who had devised and taught the course on American environmental history in 1972 and had the foresight to write a book titled *American Environmental History* in 1977, and to my colleague Alan Miller who had written a book on environmental ethics in 2003 called *Gaia Connections*. They had both been forerunners in these fields. They had taught courses at Cal that they devised and which drew large numbers of students, because the environment was becoming such an important force in society by then. And there was a lot of consciousness about saving resources, and saving the environment, and especially public lands. And there were marches—similar to the peace marches—but environmental marches to save nature and save

resources, and so on. And also, it was a period where there were many social movements. There were women's movements, nature movements, environmental movements, and peace movements. There was a lot of activism at that time, and so environmental history and the environmental movement came in on that wave.

04-00:54:45

So I became involved in environmental history when I first heard about it, and I heard about Joe Petulla's book on *American Environmental History*. And then I was teaching at USF, and I heard through Dave Mullen, my colleague, who was looking at a catalog from UC Berkeley, that there was going to be a job in environmental history. And so I looked at the catalog, and then I went down to Giannini Hall and said, "I hear you're going to have a job for someone to teach these courses?" And they said, "Well, that's for an ecologist. But we are going to have one for an environmental historian and I will send you the announcement."

04-00:55:37

Eardley-Pryor:

When you took that job at Berkeley in 1979 and began as a member of the American Society for Environmental History, you kept your engagement in the field for several decades. And it seems like you shifted away from your engagement as a part of the History of Science Society. It sounds like a transition for you. I'm wondering about the ways that you think ASEH changed over time, over the decades of your engagement with it, and how the field changed over time?

04-00:56:10

Merchant:

Yes. Well, I started out in history of science. I was a member of the History of Science Society and the West Coast History of Science Society. And then when environmental history came up and I got a job in that field, that became my focus for my research, and my publications, and going to the meetings of the environmental history society. Since it was now my professional life and my professional focus, I moved more strongly into that, but I still kept up my interest, and membership, in the field of history of science because that also formed the background for environmental history.

04-00:57:01

Eardley-Pryor:

How did ASEH change? How has the field changed?

04-00:57:05

Merchant:

It has developed many more specialized aspects. And it has moved to work more closely with the Forest History Society and on world environmental history. Whereas initially, environmental history had focused on the US, now there are fields and societies that focus on European environmental history, and on world environmental history, and on various other places, such as Asia and Australia. So the field itself grew to be more widely understood and more widely recognized as being really important, because there has been increasing recognition of what is happening to the resources of the world and

how important it was to, not only conserve them and save them, but to restore them. So the idea of the restoration of nature, and restoration ecology have become increasingly important.

04-00:58:23

Eardley-Pryor: Oh, that's great. You've talked about some of the origins of environmental history as a field coming out of this era of radical engagement and activism, of citizen activism. Today, in the world that we live in, there is a series of unfolding crises in the United States, from the rise of fascism to the overarching global climate crisis. I'm wondering what your thoughts are about where you think environmental history should go as a field in this time of crisis today?

04-00:58:57

Merchant: Yes. I think it is and should be increasingly focused on world ecology and economy, and what is happening to the world as the population increases, and there is more pressure on the land and resources, and there's more interest in birth control and population limitation. And also, what would happen if we just keep on going without trying to do any limitation on population? What will happen to the resources? They will begin running out. So now, we're focusing more and more on recycling and reuse of resources, and where we can collect all the tin cans and then recycle them and reuse them, instead of just throwing them in dumps. So the idea of reducing dumps and increasing the way we reuse our products is important. And manufacturers are also increasingly making reusable containers and reusable packaging, and so you can go to the store and take some of the containers you already have and get them refilled. And we're going to have to keep doing that increasingly because it's about both slowing down population growth and reusing resources. But we're not there yet, and there are a lot of people who just pay no attention to it. And so it's important in every household, in every city to have containers that are for reuse, and containers that are for materials that can't be reused, and paper that can also be recycled and used for printing new materials.

04-01:01:27

Eardley-Pryor: I want to ask you about in 2003, at the end of your term as president of the ASEH, you gave your presidential address that you wrote on the topic of environmental justice. Later, the address you gave was published as "Shades of Darkness: Race and Environmental History" in the journal, *Environmental History*, published in July of 2003. Why did you choose environmental justice as the important theme for your presidential address?

04-01:01:56

Merchant: Increasingly there was an awareness that the field of environmental history was mainly for white Americans and Europeans, and that we needed to recognize that people of color were not only interested in environmental conservation, but that we needed to promote environmental justice in order to bring people of color into the conservation and ecology movements. And so my presidential address was trying to recognize the need for environmental

justice, and the need for sharing, and equality, and recognizing the role that people of color, working with white Americans and Europeans, and others could play.

04-01:03:15

Eardley-Pryor: That's great. I want to ask about a few other books that you published later in your career, just to mention them. In 2003, you published the book *Reinventing Eden: The Fate of Nature in Western Culture* that talks about the controlling power of the biblical myth of Eden, and how that helped to shape environmental practices from then up through the present day.

04-01:03:37

Merchant: Yes.

04-01:03:38

Eardley-Pryor: Why was that an important book for you to write?

04-01:03:41

Merchant: It seemed to me to recognize that although I had focused initially on seventeenth-century Europe and then America, it was important to see where the roots of all of these ideas came from. And in college, I had been in love with Greek philosophy, and the pre-Socratics, and Plato, and Aristotle, and in graduate school I'd taken a history of Greece and the various islands. I had been to Greece and traveled all over the Greek islands, as part of a trip to Africa. And so I wanted to try to bring that early history, and how the pre-ideas developed that then became so important in the period that I had loved when working on in the seventeenth century. And then for American history, to make that early history more central and more important for everybody studying the environment.

04-01:04:59

Eardley-Pryor: That's great, to go back to these roots, the philosophical roots.

04-01:05:00

Merchant: Yes, exactly.

04-01:05:01

Eardley-Pryor: In 2016, you published a book titled *Autonomous Nature: Problems of Prediction and Control from Ancient Times to the Scientific Revolution* taking you back to your interests in history of science and to this overarching theme in much of your work about controlling nature. But here, you're talking about nature as this rebellious, recalcitrant, unruly actor.

04-01:05:28

Merchant: Right. So much of environmental history, and history in general, has been about humans controlling, and settling, and transforming the Earth, but we must also realize that the environment itself has aspects that we cannot control and should not try to control. And that may make it unruly and recalcitrant. There are tsunamis, and earthquakes, and hurricanes, and huge tidal waves, and aspects of nature that we can't control but need to recognize as being

important forces. And to try to work with that, as a partner, work with those forces of nature, but also to just allow them to be, and not try to dominate and control them.

04-01:06:43

Eardley-Pryor: That's great. In 2016, you also published a fascinating book called *Spare the Birds!*: *George Bird Grinnell and the First Audubon Society*.

04-01:06:55

Merchant: Right.

04-01:06:54

Eardley-Pryor: And you've told me here on record about how you and Charlie did so much of your travels that revolved around your birding experience. What was it like to write *Spare The Birds!*, and why did you write that book?

04-01:07:08

Merchant: It came about because I was a bird-watcher, and because I was interested in Grinnell, and how he came to write the book pamphlets that he did, and recognizing that the existing pamphlets were very sparse. There were only a few sets left in the libraries that I could look for online in the online catalogs. And I realized that if people, especially as we became more conscious of bird life, and bird-watchers wanting to look into our own history of bird-watching, that it wasn't going to be possible to find all the pamphlets. And not only that, if people checked those out, maybe some of them would never get returned to the libraries where they had been found, because they're pamphlets. And so when I became interested in that, to write about the birds and the problems of the loss of bird life, I titled it *Spare the Birds!* in order to try to bring recognition that not only were we losing the birds, we were losing a lot of our original information about them. The title comes from an 1875 editorial by Charles Hallock in *Forest and Stream* magazine. And the beautiful, colored pictures of bird life, were also in pamphlets that were sparse in the libraries. And so I wanted to put out the book *Spare the Birds!* And fortunately, Yale was willing to publish the colored photographs of them as a centerpiece of the book.

04-01:09:11

Eardley-Pryor: The plates in that book are beautiful.

04-01:09:14

Merchant: I'm very grateful that they were republished and made available. And that the pamphlets themselves and colored plates are now available in my *Spare the Birds* book, so that people anywhere can get them if they're interested in them.

04-01:09:30

Eardley-Pryor: That's great. It strikes me, too, in the combination of topics we've just addressed, your attention to environmental justice is an important aspect that needed to be brought into the study of environmental history, with a lens on race being a central theme here. And also your work on the Audubon Society

and Grinnell. Today, the Audubon Society is expanding in so many different ways in part because of engagement with African American birders. And there are sometimes racist concerns about that that rise up, especially from white women in parks who might not be accustomed to seeing Black men birding in parks. So I think it's really cool how your research has helped presage some of the issues that are ongoing today.

04-01:10:21

Merchant:

Right, and how important it is that everybody needs binoculars, and a lot of people can't afford binoculars, and also that children need them. And so we need to provide a pool of binoculars for people to use in these bird-watching areas and on trips.

04-01:10:45

Eardley-Pryor:

In 2008, you published a collection of some of these early articles that you wrote, in the collection called *Science and Nature: Past, Present, and Future*. What inspired you to revisit some of these works you had done in the history of science?

04-01:11:00

Merchant:

It seemed to me that I had written a lot of articles that were published in *Environmental History*, or environmental ethics journals, and those journals were available in universities, and some of them were available online, but that it would be a good idea to collect the ones that I had written together, especially the articles on women, and women in environmental history and history of science, and the early work that was done by women. I was always interested in promoting issues of gender and especially contributions of women. And so this book was also trying to present that aspect of environmental history.

04-01:12:05

Eardley-Pryor:

Great. And very recently in 2020, after returning to Stanford, where you had written much of the *Death of Nature*—many years later, you returned to Stanford as a fellow. And you used that time to write the book you published in 2020 called *The Anthropocene and the Humanities: From Climate Change to a New Age of Sustainability*. What is that book about for you?

04-01:12:30

Merchant:

The Anthropocene is an idea about the period of human history that comes about with James Watts's steam engine, and how the steam engine and steam power create trains, and canal boats, and eventually airplanes and jet engines. And that those were not only using resources to run the engines, but also polluting the atmosphere with the results of burning coal, oil, and diesel-engine fuel, and so on. And that we really need to be aware, not only why we need this transportation to bring together the peoples of the world, but how we need to engage everybody in saving natural resources so that we, as humanity, can continue to exist on the planet.

04-01:13:50

Eardley-Pryor: That's a pretty important thing.

04-01:13:53

Merchant: Absolutely.

04-01:13:53

Eardley-Pryor: Great. I want to ask about another work that you helped publish, but your name is not a part of it. And that's a book that's about *Race, Genetics, and Science: Resisting Racism in 1930*, by Hugo Iltis, your ex-husband's father.

04-01:14:11

Merchant: Right.

04-01:14:14

Eardley-Pryor: You helped to republish this book, and I'm curious about your engagement in that project.

04-01:14:22

Merchant: Yes, well, Hugo Iltis Senior had written an important book on Gregor Mendel, and I was interested in what things he had written after that. This is a book that he was ready to publish, but passed away after he had brought so much of the material together. I put it together, but wanted to make it come out of the Iltis family. I also wrote a preface and my name is on it in the acknowledgments. And so it was a new edition or advancement of the work that Hugo Iltis had started, but was unable to complete before his death.

04-01:15:23

Eardley-Pryor: That's great. So your choice was to help promote the Iltis side of the family?

04-01:15:30

Merchant: Right, exactly.

04-01:15:32

Eardley-Pryor: That's very honorable. Those are the publications that I wanted to ask you about. The final questions that I have for you, as we near the end of your oral history, the first is about teaching and mentorship. You had a number of students, and you've taught thousands throughout your career at Cal, and several graduate students. I'm wondering what your philosophy was particularly in taking graduate students and mentoring them through their graduate experience?

04-01:16:03

Merchant: Right. When I first started teaching at Cal in Conservation of Natural Resources [CNR] and then Conservation and Resource Studies [CRS], we didn't have a graduate program. They hired three women faculty, Sally Fairfax, Claudia Carr, and me, to teach the courses that had been developed by Joseph Petulla, and Alan Miller, and others that were attracting large numbers of students. But it wasn't easy for us, as three women, to begin to nearly cover the materials and the numbers of students. There were around 400 or 500

students that wanted to major in CNR, and the students at that time were able to take courses from all over the campus. They put together the courses for their own individual majors, but a lot of them were taking courses that really didn't fit together, and taking many courses from the rest of the campus, but still getting a degree in the College of Natural Resources. And so the campus Budget Committee decided they were going to review the major, and decided that this could not continue, and that the major should be abolished.

04-01:17:40

But then Doris Calloway, who was a woman and provost at the time, recognizing that there were three women who were about to lose their positions, decided that the major should be continued, but cut down from maybe 400 or 500 students to 120 students. And that each of the students had to have a faculty advisor, and had to have a program, and develop their major. They could still give it a name, but they had to take a certain number of courses from within the College of Natural Resources, and then they could take others from other departments outside. So that they weren't getting a degree in the College of Natural Resources but taking their courses from the rest of the campus, and not from the college. So that worked very well. She saved the major and she saved our jobs. And then we began to work more closely with other departments, but to mentor our students, and to be sure that we had a small enough number that we could handle, and that we could meet with and be advisors to.

04-01:19:11

Eardley-Pryor:

Yes, that helps outline a lot of what happened with your undergraduate mentoring. What about your graduate mentoring of graduate students that came through Cal who were interested in the work that you had done? What advice would you give to them as to how to approach their own projects?

04-01:19:28

Merchant:

At first, we didn't have graduate students in the major. And it wasn't until we joined with the other departments that became Environmental Science, Policy, and Management in 1993 that we had a graduate program. Then we got not only a larger department with several separate departmental units within it, but we were also able to mentor graduate students. And each faculty member could have a limited number of graduate students and had to be able to advise them, and to spend time with them, and make sure that they got the guidance that they deserved.

04-01:20:17

Eardley-Pryor:

What was it like for you to suddenly now have graduate students that you could work with?

04-01:20:21

Merchant:

All of us had tried to find ways when we didn't have a graduate program to work with other departments such as geography, or landscape architecture, or in my case, history. I was able to get a below-the-line appointment in history,

so that I could mentor some students from the Department of History who were history majors but who were very interested in environmental history. Then when ESPM was created, we could each have our own graduate students.

04-01:21:02

Eardley-Pryor: What was that like for you?

04-01:21:04

Merchant: That was really great. It was great to have graduate students that we could advise, and also to have the first students come across the stage and get their degree in Environmental Science, Policy, and Management, but with a special focus on, in my case, environmental history. And in 2019, my students and colleagues put together a book in my honor titled *After the Death of Nature: Carolyn Merchant and the Future of Human-Nature Relations*.

04-01:21:29

Eardley-Pryor: That's great.

04-01:21:30

Merchant: My son John, John Paul Iltis, was a major in Conservation and Resource Studies. But his name was different from mine, it was Iltis, and I never taught him in any of my courses. But he was able to be in the major, and Claudia Carr was his advisor, and he took a lot of great classes. And when it was time for graduation, I asked if I could read the names of the Conservation and Resource Studies students. And so I stood at the podium, and when he came up to get his degree, and for me to hand him his diploma—I said, "My son, John Paul Iltis," and everybody gasped, and then they cheered, and they realized that he had a different name, but he was my son. It was a thrilling moment.

04-01:22:35

Eardley-Pryor: Yes. I want to ask some concluding thoughts here at the end of your oral history, and thoughts about your legacy as a scholar, and as a mother, and as a partner. What are some things that you are most proud of that you've been able to do in your lifetime?

04-01:22:54

Merchant: I think writing *The Death of Nature* was probably the number one thing on the academic side. Having my two sons, David and John Iltis on the biological side was the most important thing. And also, having those come together. As my sons got older, they began to read my books and appreciate what I had done. And John majored in the College of Natural Resources, so that was particularly wonderful. And meeting and marrying Charlie Sellers made my life particularly complete.

04-01:23:29

Eardley-Pryor: What are your hopes for the future?

04-01:23:34

Merchant: Of the world? Well, of course, I'm distressed that we have all the environmental problems that we have now, and all the issues that are coming up, and especially the depletion of wildlife, and the organisms of the oceans, and the pollution of the lakes and rivers. It's very distressing to see that. But there's also hope in the sense that there are laws being passed, there are people who are working continuously, and there are new societies and new organizations being formed. So we're at a tipping point. And hopefully, we'll go in the direction of conservation, and environmental justice, and environmental reform, and saving the Earth.

04-01:24:37

Eardley-Pryor: I hope we use your partnership ethic to guide our way.

04-01:24:40

Merchant: Thank you. I hope so too!

04-01:24:41

Eardley-Pryor: Is there anything else you'd like to share the end of your oral history that we haven't covered?

04-01:24:44

Merchant: I think we're fine.

04-01:24:46

Eardley-Pryor: Great.

04-01:24:46

Merchant: Thank you so much for listening and for asking such interesting and important questions. I've enjoyed it so much!

04-01:24:47

Eardley-Pryor: Thank you for this opportunity.

[End of Interview]

Appendix: Photographs courtesy of Carolyn Merchant



Carolyn Merchant swinging at her home on Cobb's Hill Drive in Rochester, New York, 1938.



Carolyn Merchant at Lake Ontario, New York, 1938.



Carolyn Merchant in her high chair in the backyard
on Cobb's Hill Drive in Rochester, New York, 1938.



Carolyn Merchant with a Thanksgiving turkey on a farm in Rochester, New York, 1939.



Carolyn Merchant in Monroe High School, Rochester, New York, 1954.



Carolyn Merchant in her senior year in Vassar College, Poughkeepsie, New York, 1958.



Carolyn Merchant in Honolulu, Hawaii, 1967.



Carolyn Merchant at her home on Rose Street, Berkeley, California, July 1984.



Carolyn Merchant on galley duty on Charlie Sellers's boat Storm Petrel, 1988.



Professor Carolyn Merchant at her office in Giannini Hall
at the University of California, Berkeley, 2018. Photo by David Iltis.