Molly Graham: [00:03] This begins an oral history interview with Dr. Usha Varanasi on March 21, 2023, for the NOAA Heritage Oral History Project. The interviewer is Molly Graham. It's a remote interview with Dr. Varanasi in Seattle, Washington, and I'm in Scarborough, Maine. I wanted to hear a little bit more today about your family dynamics growing up. I know you have younger siblings, so tell me a little bit about your experience growing up.

Usha Varanasi: [00:35] Yes. Not about my parents' and grandparents' interaction but mine with my siblings? My sister was born two and a half years later than me. For the first four, I was in Mumbai, I think, with my parents and my grandmother. And then after, my parents went to Burma again, both of them together – or my mother went to her mother's place. I don't know because she had this other little child. I really grew up with my grandmother in a small town in the state of Gujarat, which actually had a large population of Muslim neighbors. Everybody was very peaceful then. That was, I think, before the partition [of largely Hindu Indian continent into India and Muslim state Pakistan] when I was five, so I think it will be '46. I think the partition happened just a little bit later. But I kind of remember my two cousins, who were like siblings. My father's brother's two sons were also left with my grandmother because his parents were in Myanmar because they were running the business because my grandfather had died. So, there were two young couples [my parents and my uncle and his wife] who were running the business. I actually grew up with my two cousins, boy cousins. Then, later on, I remember my sister coming. [She] was brought [and] also left with my grandmother. The interactions with my sister didn't happen until I was a little over five or six. The interesting thing was I was very much into going to school and studying. I loved to read even when I was little. I did that, and she was spoiled because she was the youngest of the four of us. She didn't start school until she was seven because she just loved to be – with my grandmother's cousin, I think, a widowed cousin who stayed with my grandmother. So, two widowed women stayed in a big house and rented out parts of it. I remember growing up in this large house in very arid, Arizona-like weather. Gujarat is very dry. It's close to [Kachchh], the Gobi Desert. I remember Jetpur [was] very dry and very cold in winter. I remember the outhouses were away from the house, and, at night, you had to be very careful because the snakes came out. That's where I grew up. Two widowed ladies in their fifties because they were widowed young, my two boy cousins, and my sister and I. We were four of us children. But the house was large, and my grandmother had domestic help. We really didn't need to compete for anything. Our interests were different. I was more what they called studious. I liked to go to school. I liked to study. I also followed my grandmother's direction, so if she said don't do something, I usually didn't do it. My sister was somewhat more rebellious because she was the youngest or a little bit more spoiled. I don't remember too many interactions with her as she was just too young. I remember more interactions with my two boy cousins, who were maybe one year older and two years older. So we were about the same age to play together or tried to convince my grandmother to let us go to a movie and things like that. It was a small town. We walked to school. That's all I remember. Then, later on, if you want to know, later on, when I was twelve, my parents came back to India [and] settled in Mumbai. They had taken my younger sister long before. My younger sister was with me in that small town, perhaps for three years, between five to eight or something like that. After that, they took her back because she was kind of little. Then my mother had two more children, two boys. When the youngest brother was born, who's nine years younger than me, that's when my parents were able to get a place, an apartment in a building complex called Jain Society where all tenants or owners were from Jain Community., They wanted me back in

Mumbai because the education in a small town for children over twelve would not be competitive. Then we were in a small apartment in Mumbai. We had two and a half bedrooms, and they were not really bedrooms. They are multipurpose rooms. During the daytime, you used them as a sitting room or a reading room. At night, the bed rolls are put out, and everybody goes to bed, so they could have quite a lot of people in a small place because the beds are not just laid out all the time.

MG: [0:07:19] When you were twelve years old, was this when you went to that school where you had a principal that was very significant?

UV: [0:07:25] Right. When I was twelve, for a short while, I went to a school which was co-ed for perhaps six months or so. I didn't care for that school that much. Meanwhile, this principal who came to that other girls' school, which was actually quite far away – we had to take [an] electric train to go just because [there was no school close by in our new neighborhood]. It's like [the] Metro; you had to take the train, I think, two stops. We were all safe. Nobody needed to walk us to school or bring us back from school. Several girls went together. Then there was a woman's compartment. You could go into [the] men's compartment [but we were told not to go there], in the women's compartment – because Mumbai is a fishing port, there's a lot of fishing going on there. Most of the time, the women's compartment reeked of fish because all fisherwomen were there with their big baskets with fish – and we were vegetarian. For us, smell as well as seeing those fish – and they were very strong women. These are really strong women. We mostly got to stand. They wouldn't let us sit anywhere. They were all talking to each other. But we were fine because we were kids. We just stood around. That's how I went to that school (Sheth Dhanji Devshi Rashtriya Shala, which celebrated its 100<sup>th</sup> anniversary). Perhaps, sixth grade – could be sixth grade. I'm not sure. Then, my sister went with me for the first year. She is two and a half years younger than me but four years behind in education. And then, this principal who knew my father, when she became the head of the school, my father said, "Let's send her [Usha] there." I think that was the best decision of his life and mine. I used to have to babysit my sister to take care of her. She did not like the school at all. If I remember – after a couple of years – because she was so used to having lunch with my whole family and all that. [For] this, we had to pack a little lunch, and we went early in the morning, didn't come back until almost 4:30, 5:00. She didn't like it. I think she went with us for two years. I should tell you [that] at this time when I'm going to school, this girl school in a suburb in Bombay, we lived in Sion, which was a very new suburb; the roads were just being laid out. That's where young families could afford to have a condominium – a rental apartment. I had two friends. The three of us always went together. One of the friends – I just talked to her yesterday – we have been friends for seventy years now. She was one year ahead of me in school, but she and I always went together to our school by train – and we have kept it up for all our lives.

MG: [11:11] It sounds like your parents had certain expectations of what you would pursue in your education, but this principal really encouraged you to check out the sciences.

UV: [11:20] Right. My parents actually didn't have any clear expectations—I don't think they had—they would have liked me to be a doctor—they and my grandmother because my grandmother always had some health issues. A doctor in the family is a good thing. Women doctor is one profession in India, and perhaps I guess in [the] Middle East and everywhere, [that]

is encouraged for women to be medical doctors because then they can see women patients. I think my grandmother and my parents didn't mind my going into sciences, thinking I would be in biology and that I would do medical things. I think if I went into writing or something, they couldn't care less because they were reasonably well-to-do middle-class people who had always thought I'll get married and then my husband's family would be financially taking care of me. So my line of education was not as critical to them as for my brothers, where they needed to make sure that they would have some profession or work with my father. My father was a businessman and had a couple of textile mills. He was a partner in a couple of textile mills. So he had just expected the boys to go into that. Nobody did, but he expected them. For my education, whatever I was doing and whatever Mrs. Kanuga, [who] was the principal, told my father that he respected her very much. He would say, "Whatever she says, you can do."

MG: [13:08] Can you talk about some of those early science classes you took? In your ICES article, you said something about how science was like a detective story and that you liked the magic of the scientific process.

UV: [13:20] Yes. So, first of all, we had amazingly unusual, I should say, good women teachers because that is one profession, again just like doctors, [that] is respected, and also women are expected [to pursue] – they can do that, especially in girls' school. So the teachers were of pretty high-quality thanks to our principal because she made sure they weren't lackadaisical or weren't saying, "Well, these girls aren't going to go anywhere." They really inspired us. I had a very good teacher in math. She was from Maharashtra. And a very good teacher in linguistics. I had a good science teacher. I wouldn't say she was out of this world great. But because I always liked mystery stories ever since I was little – if we go to a mystery movie, I'll make even more out of it than the movie. My parents always used to say, "You should not listen to Usha when she comes back from the movie because she'll make it much more interesting than the movie itself." I had a tendency to put frills in and embroider more and things like that. So, I liked this, and I really wanted to – and I was good at writing. Not great at writing but good at writing. I used to write good essays in Language when they asked you to write. When my principal said, "Go focus on science and math because that will carry you further," I told her I didn't like to be a doctor because early on, there was a biology class, even in school, where they're cutting up a frog, and I just couldn't stand it. I mean, the heart was beating outside, and I just couldn't. I told her, "I really don't want to be a doctor." She said, "But take the science. Don't go into commerce or arts because you are good at science and math." The way I started looking at science, and I don't know who actually – I'm trying to think about science teachers, but I remember the history teacher and geography teacher and linguistic language – Gujarati and Hindi. But I don't really remember the science teacher – math teacher I remember; she was amazing. But I don't remember my science teacher as such. I think she must have been good. I don't just remember her. I liked science. I felt like you were looking at equations and things, although it wasn't taught as organic chemistry; it was taught as chemistry. Chemistry seems to have more pull – I just had more interest in it. It had something to do with how it was taught. Really, my interest in science grew in college. I think I did very well in science. I won't say I was inspired by teachers or I was inspired by – but I did well. I did well in math and science. It was easy for some reason. I don't know why. When I went to [Bombay] University, the first two years, I had good teachers, and they explained things so that I could see molecules. I could see the logic in it. I could see if two chemicals are combined, what kind of heat is produced, or

what kind of stability happens when the heat is released, then the more stable compound happens. It depends on the way you are taught because many kids tell me they hate chemistry because it just seems so strange. Now, of all the chemistry, I liked organic chemistry because I just liked the question – I liked the way ketones and aldehydes and acids and esters reacted, and they all made sense with the carbon chains, and to think about [how] carbon, hydrogen, and oxygen can produce so many chemicals that can do so many different things. I liked chemistry, but I would say when I graduated and came here, I really enjoyed it – I don't know if you want to go that fast.

MG: [18:16] Before we talk about your time in college, what was your life outside of school as a teenager like? What kinds of things did you do for fun?

UV: [18:23] Well, what kind of things to do? First of all, the weather was generally always good during the school year. So we'd come home, have milk and some snacks, and then we'd go out to play. Luckily for my family, I think because my parents were very young, I don't think they had too many traditional things like I need to help [with] cooking or something. I usually had to babysit my youngest brother. I'm very attached to him even now because he is nine years younger than me, and sometimes I even took him to school – on Saturdays, we had half a day. We had a six-day school [week]. We had five full days, and on Saturday, from eight to eleven. [On] Saturday, sometimes I took him with me to school. He was [a] very good-looking baby. By that time, he was five or something like that, so can easily take him in [the] women's compartment. As long as I took him with me to play and keep an eye on him, my parents didn't mind. My friend Ranjan, the one I'm talking about, who was going to medical school – she and I loved to read. I think we played a little bit, but not very much. We'd usually get a book, maybe young people's books. I don't remember what we read. But during summertime [vacation], we actually wanted to create a magazine. We learned how a particular magazine we liked [was made], which we got from this mobile library; the libraries go around. We had gotten it, and we said, "Why can't we publish something like that or make something?" We were more projectoriented, even as kids. Because she was also very, what I would call, bookish and we both had little brothers or sisters that we needed to look over for our mothers, we'd give them something to play with, and then we'll write, and we tried to see [different articles] writing. Can we make a short article? Can we make a funny article? Can we get somebody to do little cartoons for us? I don't know where this idea of publishing a little magazine came [from], but one summer, that's all we did. Generally, after you play for an hour or two [after school], it is dinner time. Our dinners are not very big. Our lunch is usually big. But since the kids like me went [the] whole day to school, we got to eat early and [had a] good dinner. My parents had one full-time domestic person. He came there from a small village when he was fifteen. My mother taught him everything, so he was a very good cook, and he was very good at everything. He became part of our family. A little older, when I became fourteen or something, I think because my mother's grandmother lived in our neighborhood – my mother's mother was in Bihar in the northeast part of India. But her mother lived with her son, which is my mother's uncle. That grandmother [was] keeping an eye on all the girl kids – what they are doing. Boys, whatever they did, she left it to father. If she was going by a temple or something, and she saw us shouting or playing, she would scold my mother, saying, "Now she [Usha] should be wearing a sari. She should be putting a dot. She should learn to cook." So my mother, who perhaps didn't care one way or another – because that helper guy was so good – she would say, "You have to roll out the

thing." Sometimes in the evening, I helped a little bit. But mostly, after dinner, we just got our homework done [and] got ready for the next day because it was far. I had to get up early to get to school because it was far. Can't miss a train and then get there. The days, I don't remember them [as] great fun. I remember that they were very focused days. In the summertime, because the school is out sometimes in March – these are the hottest months, March to May. So the school is out for two and a half months or something. That is when my mother took all her kids, and her sister took all her kids from Mumbai. We went by train to Jamshedpur, which is the town [built by the Tata family and called Tata Nagar] in the state of Bihar I was telling you [about] last time. All three sisters brought all their kids to be with [their] grandparents, my maternal grandparents, who were very well-to-do. That time I remember my thing was I had to take care of all the kids because there were so many young cousins. I was the storyteller, so I was a major babysitter. Nobody had to tell the kids; they would just come. I told stories, and I wrote stories. I was not handy with embroidery or all these things the girls do, like knitting and embroidery. I wasn't very good – or even drawing. I wasn't good at any, what I call, fine arts or practical arts or whatever else. I was more like a tomboy that way.

MG: [24:44] Tell me a little bit about your decision to attend Bombay University and study chemistry and a little bit about your experience there.

UV: [24:53] Okay. Again, my principal came to rescue me because nobody in my family – I'm a first-generation college-goer. My two cousins, who were a little older, did go to community college in that little town because they ended up staying with my grandmother. Their parents never returned until they graduated from college. They went to a small community college in Gujarat. I don't remember. So I was the first one. My father only did (matriculation?) – that's twelve years of schooling – and my mother did less. So they all depended on wherever my principal said I should go. She said I should go to Elphinstone College because that was – see, Bombay University is like the California system. Bombay University has lots of colleges; all of them belong to this university system. Elphinstone College, which was fourteen kilometers from my house – very far. We had to take a bus and change buses and things like that. The train was harder to take, I think. It was more or less decided for me. I didn't have any particular desire – [it was a] good college. If [Mrs. Kanuga] said I should go there, I was fine. I had marks that were pretty – I did very well. Also, the final high school exam is like Cambridge. It's the whole state. All the kids take their finals in high school together, and they are all evaluated at the same time – it's a state exam and not your school's exam. So we all took the high school exam. I must say, I don't remember anything except that I did well. I had what they called distinction. That is over seventy percent. In those days, over seventy percent was very hard to get. Thirty-five percent was the passing grade. Thirty-five to, I think, fifty may be the lower thing – and then seventy and above percentage was called distinction. Then, they would put out the names of all the kids who made it over seventy and those who made it to the top tier. I think I was in the top tier, but I don't think I was the highest – I think I was in one percent or something like that. Getting into Elphinstone, which was one of the best schools, was not an issue. What was very interesting and very, very significant is that my school was taught – everything was taught in Gujarati. It was a vernacular school. It was a small, not very well-to-do school compared to all these quote-unquote convent schools, they used to say, where all the rich kids went because they were taught in English. There are lots of lovely buildings, and they have a lot of endowment funds, so to speak. Whereas my school was based on fees, and I don't know what other resources

it has – some community must have put in some money. It was not considered a top-of-the-line school. So the credit goes to our teachers and our principal for making us focus, at least a few of us, because, in my class, I think at least ten to twelve girls went to really good colleges and got into it even though it was pretty rough even then. Now, it's a very different system. Just getting into Elphinstone was a big deal. The college fees were not very much like here. I think most parents can afford [it] if they were middle class. I don't think they had – my parents didn't have to worry about – like, if I got into Harvard, my parents may not be able to send me because of the cost, but this was – I don't remember them thinking about finances. But going from Sion to Elphinstone took me [an] hour and a half in the buses, which was very difficult for a young woman. I wasn't athletic. I used to get quite a lot of strep throat and infections in general – respiratory – because, even then, air quality wasn't the best. Right around there was a pottery shop or something, and there was all this smoke, which is uncontrolled coming [out]. I was susceptible to those things. I ended up getting diphtheria when I was very young. I mean, I almost died when I was twelve or thirteen. Going all the way there was a big challenge. But because it was a great school and because I wanted to please my teachers because my teachers were also proud – because that really looks good for their school. My friend went to another great college called St. Xavier College. That's more for the medical students, pre-med, and things like that. Through those years, I would say we made them proud. Went to very good colleges. If you want to know just the logistics of it, going in the morning – again, taking the same lunchbox so early in the morning, hardly any food. The food I ate always became cold. There was what they call Tiffin service. You might actually have read [about it] if you know about Bombay. It's an amazingly intricate – Tiffin boxes – a system where they pick up around the entire city for kids [who] go to college. Mostly, these are for college kids. Kids go to college early in the morning. The Tiffin person comes to pick up the carrier, the one with a bicycle with the big carrier in the back. If you look up in Google "Tiffin carriers," you will just see all kinds of stories. There, they would put all the food, and they would even – some rich people's kids had insulated Tiffin carriers. Then the food is delivered to the student lunchroom at noon. The food is hot at noon. But here I am; my mother had three other little kids, and they had never sent any kid to college. They just treated me as if I was going to school in the same way. I got the same food early in the morning, whatever they cooked that early, so I didn't get a complete lunch. I would say that just because I loved to go to school and college, I went, but I was always hungry – well, it kept my weight down, so to speak. [laughter] They just gave me, if I remember correctly, one rupee a day or something like that, which had to cover my bus [fare]. I didn't have much left because there was a nice little coffee shop nearby. It was populated by all Elphinstone kids, and there was another royal college there. They all went there. They all had money, right? They ate there every afternoon around three o'clock – snack because lunch was done. Here I was; I would save my money for the week – on Friday, I could go there. I was telling my husband and some of my friends here that getting a tall glass of cold coffee with ice cream and some snacks was heaven-sent, and that was my Friday ritual. But otherwise, I just remember real hard life during those first two years. I did well. Again, the exams are – firstyear exams – yeah, exams are statewide. Again, it's not like every college gives their grades. We had to take – and they're published in the newspaper, the timing of the exams. It's only once a year. It's like the British system, once a year exam. The half year exam is done in college, and you see how well you are doing, but it is not counted towards anything. I just loved it when I came here that every two weeks, [there was a] quiz, so that you learn and you grow, and you get all the marks counted because if you have only one exam a year, and if you are not well that day,

or you have a cold, or you have anything, you got this one chance to excel. I don't think it's a very good system in my mind, and people are so scared because [of] that one chance they got. The exams are like – the chemistry exam will be [on] a particular day for the entire school. Then, in three days, there may not be any exam, or there may be an exam, but it may be history or language, which you are not taking. Then you have another one. And then the lab experiments. They give you mixed chemicals, and then you have to identify what they are. Some of it [was] very hard. I don't remember that time, the first two years, as a fun time. I mean, school, I remember, was fun. My teacher used to – we used to go on – I think I should backtrack a little. In the school, we had lots of field trips, not a lot but at least two or three of them a year, some locally. One time, in 1956, our principal said, "We should take the girls to see Ellora and Ajanta," which is in a different state and has the most ancient temples and sculptures. I remember my principal. We were seniors. Yeah, because [in] '57, I went to college. That was last year. My principal, the history teacher, and perhaps one or two other teachers took twenty girls. The parents were very afraid because now we are 'marriageable' age, right? But she said, "I will take care of them, and they need to see these things." We went there. The reason I'm telling this is because it was a unique experience – we did have some politically sensitive issues in – Maharashtra state at that time, but we had a lot of fun on this trip because we got to hear stories at night, and there were lots of games to play. School, I remember, was a lot of connection with all of our classmates, and this one was the last one, and that was history. Amazing sculptures and all. But, as we were returning, there was a riot. There was a communal riot because they were making two states, Gujarat State and Maharashtra State. Bombay is like New York; both states wanted to have Bombay in their state or province. Bombay is closer geographically to Maharashtra, but [in] Bombay, most of the money is produced by Gujaratis because they are businessmen. Maharashtra is more into sports and education and office work and all, but not big moneymakers. The Gujaratis are well known in the entire country as bankers and business [people]. The Gujaratis said they wanted Bombay to be in Gujarat, or they would move all their industry to Gujarat, and Maharashtra said, "It belongs to us. It has always been part [of us]." So, there were these huge riots, and we couldn't come back from our trip because there was what they call a hartal, or strike, because Maharashtrians are all the ones who ran the city – they are engineers, and they run trains and things like that. My teachers had to go somewhere – the principal – and make calls or send telegrams to parents. The people didn't all have phones. So, sent telegrams to say the girls are all okay. We're just going to be two days extra. That was one thing that I remember is that my principal was not afraid. The other teachers were crying and thinking, "What will happen?" She had come with a rifle to protect us! Before we left Allahabad, where the temples were, there was a boys group that also had come when they found that there were these twenty senior girls. They were making some lewd remarks. I don't know what they were doing, but they were threatening or said that they would come there or something. I still remember; she pulled out her rifle, and she stood there when a couple of hooligans or whatever – and she said, "You come anywhere near my girls, I am not responsible for what happens to you." I think just seeing the gun in this woman's hand was the best deterrent. The word must have gone because when we went to town sometimes to see something or eat – we had all these girls, right? We were in uniform – there was nobody to harm us. One thing that I really liked about my school was we all had to wear uniforms, so you never had to worry about if you were poor, or you were showing off, or you had better shoes. Shoes were also part of the uniform. You cannot wear anything different than – she liked the way my uniform – my tailor used to make uniform. She took that pattern and got everybody to get it

made. But no wearing any other clothes. That actually was – I think it's a very good thing for poor kids or rich kids or everybody in the same bucket. Those two things I remember. Many other teachers took us [on] a trip. Our teachers also took us to different [places]. The field trips were one of the joys I remember of being in school, where I had to beg my parents for money to go, but more or less, I was able to do it. So I remember two, three of those trips. Sometimes, it would be just [sightseeing in the city] with very nice buses, and then we see all the monuments and the history. There's so much history in India. But the college was all very impersonal because people come from different places. The teachers just came and taught you but were not really interested in making a community or anything. I think, in college, we didn't have any counselors or anything. Sometimes you get along with one teacher better, so you could perhaps ask them something. But we were left to ourselves. Also, here I am, coming from a Gujarati school, speaking Gujarati. Most people – kids, parents – are known to us, at least fifty percent of them, they're all sending those kids to the same school. But here, in this college, students come from all over Mumbai. I mean, people from different communities, like Parsis or Maharashtrians. You suddenly find yourself in this unfamiliar mix – and the boys! You suddenly find yourself overwhelmed by all these things. Then you tend to make a very small group. I think that is actually stifling when you have to hang out in a very small group because you don't learn. That is one thing when I came to this country in the 1960s; I could truly not - we didn't have enough people from any community to make a small group, so I became very comfortable knowing all kinds of people. Now, in 2000, when the immigrants come, there are so many they often remain in their own community; they hardly socialize with people outside their community – this is where all the things about "we" and "they" begin. Anyway, I'm digressing. After two years in Elphinstone College, my health was declining because, just going and coming back, I was so exhausted. I was doing well. I mean, studies and grades were okay. But life was not very enjoyable. My best friend was in medical school. We hardly met. In the evenings, the nights, we worked. In the second year, our family physician said, "I don't think she should continue going this far because she's not going to make it." I had had all kinds of illnesses and things like that. So, after inter-science, as they called it – that is, sophomore year – I changed colleges, and I went to a college close to our home. It took me ten or fifteen minutes to go instead of an hour and a half. It was not a great college. It was not considered great. But the teachers were quite good. The thing is, if you want to study, you study. But the physics teacher was quite good. The math teacher was totally not good. He just read. But the organic chemistry teacher was like – he just loved organic chemistry. So, I loved organic chemistry. Do you want anything more that I should say before I go into finishing university?

MG: [45:41] I was going to ask what you were planning to do with your degree in chemistry. How were you thinking about the future before you decided to come to the United States?

UV: [45:49] I must tell you, I was one of those kids who was a dreamer but not a planner. I truly did not plan my future. My friend [Ranjan] was going to become a doctor. She was going [to be a] gynecologist and obstetrician, and she was going to run her practice. She had it all figured out. Me? I know what I didn't like. At that time, I didn't like biology because of frog dissection, and biology was needed to go to medical school. I didn't care for that. I selected chemistry, physics, and math groups because engineering would be too hard, not subject-wise, but you had to conduct field experiments sometimes out of town. My parents won't allow me to do that, and the doctors also felt like going on a field trip – I think that would have been both strenuous and

also, you have to be with boys. That perhaps would not have worked. I didn't have many choices unless I went into arts or commerce. I have no sense of business. I have no sense of finance. Money comes, and I use it. I'm totally the opposite of what my family background is. My family background is all business, all finance, and I am totally a dreamer. I had not exactly planned what I would do. I just wanted to study. It was only in the second year of college that I realized that if I finished, they were going to get me married. Because that is the fate of all the girls no matter how – once they finish their bachelor's degree – way before they finish their bachelor's degree, there's already what you call matrimonial offers coming, or people are always looking where the eligible boys and girls are. I was watching it, and I had several cousins slightly older than me. So, I did sit in some of those quote-unquote "interviews" for girls and boys. They meet once. Those days, they just met once. Now, they actually go out after they decide to get engaged. But before, you just met this strange guy and that strange family, and you sat there. I saw a couple of my cousins. Since I wasn't the person who was being interviewed, I was much more free. So, the boys (potential bridegrooms) would talk to me more, and that actually ruined the other girl's chance because she'd be too nervous. I was told not to go into such interviews even if my girl cousins wanted me to accompany them. I didn't like that entire process. I didn't like some guy telling me what to do, whom I didn't even know, and his family. That is when this idea of 'I have to do something different before it's too late' came. Before going to college or the first year of college, I had no idea what I was going to do with my degree. I think there was some idea in the back of my father's mind and my father's partner's mind that if I go into chemistry, they could open a sort of medical company or [pharmacy], something very vague, but nothing concrete.

MG: [49:27] Can you say what you did instead?

UV: [49:29] What did I do instead? I got [in] inter-science very good marks. Before I left Elphinstone College – after my second year, right? I just finished [my] first year and was beginning my second year. That's when I heard about these two Gujarati boys whom I knew because all the Gujarati kids were meeting each other at whatever function the college had. While I was not good at doing anything artistic, I loved to dance – folk dancing. Those days, there was no ballroom dancing. But I like rhythm. We used to have – when our festivals came, like Diwali, the festival of light, there will always be some function like here. I got to know some of the boys because we all did the stick dance, and there were all kinds of folk dances. I was good at it, so I got picked. They (the other dancers) told me – these two boys – are going abroad. One was going to Chicago, and the other was going somewhere else. I knew them scholastically also, and I didn't think – I mean, obviously, they're admitted to Elphinstone College, so they were pretty bright. But I did not think they were brighter than me. And I felt, "Why can't I do that?" I like adventures because it's in my mind, right? I'm reading books. Although physically, I'm not that strong, so I'm not very practical when I think of adventures because I know I can't do it. But I can do it in my head. I can go anywhere in my head. I know how to daydream to perfection. I can daydream [about] anything. I thought, without thinking of consequences or anything, "This will be a great lark." It will get me out of this system of getting married and being subservient to somebody else, even if not subservient. I still have to listen to them more or less. That's when I went – and I think you have read all about it in my story 'My Father's Journey.' I went, and I asked my father. Luckily, my grandmother was there, or my father would have said, "No." But my grandmother said, "That's a great idea. She has better

marks than any of my other grandchildren. My husband wanted his children to be educated," which she felt she had not fulfilled. If my grandfather was alive, I don't think he would have allowed me to go because I think he would have been very traditional and said, "No, I meant education for boys only." But my grandmother, who was very unusual, wasn't going to distinguish. That is my second lucky break. The first was meeting my principal. The second lucky break was that my grandmother was in Mumbai [at] the time I came up with this idea. She tells my father – men listen to their mothers very much in India, to any older women, but especially to their mothers – "Let her go abroad." My grandmother, you cannot not listen to her. That's how I started and went around, asking the boys a little bit [about] how they applied. But they did it whatever way they had – they are very rich, well-to-do. So I just went to USIS, which was the United States Information Service, I think, a precursor of the embassy. I went there, and there was a very nice older gentleman. Maybe he was only forty, but to me, he seemed like an older gentleman. I just said, "I want to go to college in the United States. Can you give me the names of five best places?" I mean, I wasn't going to take anything mediocre, I decided. I never knew how much it cost. Some colleges cost a lot. I applied to MIT [Massachusetts Institute of Technology]; Caltech [California Institute of Technology]; the University of Pennsylvania; Michigan State University; and there was one more college that I don't remember now. Maybe something in [inaudible]. I don't remember. But the main contenders were Caltech, MIT – and the reason I even applied to Michigan State is because lots of Gujarati boys were going there. It's my parents' wish that I will be somewhere where students from our community are. So I applied to MSU, too. But Michigan was not my choice. And that's five colleges I applied [to]. In those days, applications were a very simple affair. You fill out – he gave me some forms – the man in the USIS – just a simple form with your name, and then you attach the transcript of your grades and everything and a couple of letters of recommendation. That's it. No fees. Because if it asked for dollars, I don't think I would have been able to apply to five schools. It had nothing. You just put it in the mail, and you get letters back. I mean, they all wrote saying they received it, and they told me when they would tell me. Then they all told me that I was admitted. So, the letters of recommendation – we had no essays or anything, so they didn't ask me why I wanted to [attend]. They just had my teachers' letters of recommendation. So I had a physics teacher, my organic chemistry teacher. That's all I remember, just those two teachers' letters. That's it. Only when you get admission, then you have to do a lot of paperwork about government-togovernment foreigners traveling. Sounds good to you?

MG: [56:05] Yes. Would you like to wrap up for today? I still have a few more questions.

UV: [56:11] Go ahead.

MG: [56:15] How did you choose Caltech? It sounds like you were admitted to other places.

UV: [56:20] I sure was. I was going to go to Michigan State because that's what my parents wanted. I did not want to upset anybody. I just wanted to get out. Right? So I didn't want to upset anybody. During that period, my parents were told by several people, "Hey, get her married, then she can go." And so they're still throwing these boys' names. I told them, "Listen, I'm very young." I was finishing – I was just twenty. I'm just [turning] twenty. I said, "I don't really want to. I don't want another family." And they were not very strong – the break I got is my parents were very young. My parents [are] only twenty years older. My mother [is]

seventeen years older than me, and my father twenty years. They had not a clue. So they said, "Okay, yeah, yeah. Okay, you can go." So I was ready to go. I had already applied to what they called Reserve Bank; it's where you get exchange currency. You exchange your rupees for dollars. I think we got two hundred dollars to take with us to go there. So, we were almost filling out all these forms – East Lansing – showing I got admission. And then I went to my friend Ranjan, whose father was a jeweler. We had one other friend who lived right next door. She was older than both of us. [The] three of us were good friends. I went to tell them. The third one told her father, who had just returned from England. I don't remember what he did. I think export/import business. She said, "Usha is going abroad." He was very interested. He said, "Where did you apply? Where are you going?" I said, "I'm going to Michigan State." He said, "You know it's really cold there, right?" And I did not. I wasn't [a] fact-finder. I was an imaginative person. I just imagined places; I don't really figure out, actually – and in those days, there's no Google or anything. Then he said, "It's very cold there. Where else did you apply?" So then I said I had actually applied to Caltech, MIT. And then my father said, I cannot go to Caltech because it is a private school – very expensive tuition. So, I wrote to the dean of sciences that I couldn't come, so they gave me a tuition scholarship. I had just gotten a tuition scholarship, but Michigan is where we are going, right? But my friend's dad – this third friend's dad said, "Are you kidding? You're getting admission to Caltech? It's in California. It is one of the best schools. You're getting a tuition scholarship. I am going to take you back to talk to your father." So, he marches me off – we lived one block from each other – brings me up and says to my father, "You cannot send this girl to Michigan. This girl has got an admission to Caltech. It is one of the best colleges. She also got tuition. You must make her go there." He went with us to the Reserve Bank, and we changed all the papers. It was like if I didn't go to tell them, my life would have been totally different. I perhaps would have gotten too cold and would have come home. I don't even know what. Anyway, that's how close this thing called fate came. Everything changed just because my friend's father was there when I visited her. Clothing became less of an issue, although they had bought me a warm coat and all that. That's how I went to Caltech.

MG: [1:00:22] When you went to Caltech on a plane, it was your first time on a plane ever. What was that trip like?

UV: [1:00:28] That, I would say, is the first time. Those days, people could go all the way to the gates, all the people who are coming to see you off. In India, lots of people come to see you off. I had eleven, twelve people going with me, everybody – my sister crying; she didn't want me to go. My mother totally didn't want me to go. She was the most upset of all the people, but she had no voice because my grandmother and my father said I can go – but I think [if] left to her, I would not have gone. So, they all came, and we sat there. Everybody's there. [They] kept feeding me because they worried I wouldn't get this home-cooked food. Then I had a lot of luggage coming by ship because there was nothing available here. So, that spices and whatever – I don't know all they sent. I perhaps had two big suitcases. Then, people came to say goodbye – all kinds of friends, who were coming and putting things in my hand luggage because they had ties for somebody and gifts. Those days, taking gifts for everybody was a big thing. I had no idea. The minute I went through to the door of the airplane – I don't even remember if there was security or you just went. I don't know. I was in a cloud. Then I sat in the plane, and suddenly I realized the enormity of what I had done. I mean, it was huge, right? Here [I am], just finishing

nineteen. I think it was because I'm going in August. A kid who has never [left her] parents. Even [on the] train, I always travel with either my mother or my [grand]mother. I am now sitting all alone on the plane! Next to me is a ten-year-old kid, a French kid. I think he had come to see his parents in the French embassy or French something. He was sitting next to me. We're not speaking English, right? But I am just suddenly so lonely. I am sitting there and knowing nothing. They came and put [on] the seatbelt. Then, when the food time came – they gave a lot of food, even in the economy class. My uncle, who had gone abroad once – my mother's brother – told me all kinds of things, like not mixing drinks. I had no idea what that meant because nobody drank alcohol in my family. I didn't think it was alcohol until I reached here [and it] said mixed drinks – don't mix alcohol thing. And don't go to Chicago. There are too many mobsters. Too many people there. It's all from the movies, right? Movies [about] California, everybody has a convertible, everybody's singing songs, students never go to school – images start to pop up. We had seen some Hollywood movies, things like that. I had never spoken a full sentence in English. Because even in college where [the] instruction was in English, we were in sciences, so there wasn't that much. There are formulas, and there are few sentences in English. My teachers all spoke Gujarati. When they came out, if we went to ask them anything, it was in Gujarati. I have all these words in my head. I know words, but I don't know how to pronounce them, and I don't know how to make sentences. First of all, I have [an] accent. When she (the flight attendant) came – I thought I must tell her I'm vegetarian. I must tell them I'm vegetarian. So when she came to take the order – those days, [inaudible] you had choices – I said, "I'm vegetarian," and she smiled and went, and then she brings a tray, right? I recognized bread, a bun, or something. But then there is something pink, like mousse, I think, but pink. It was salmon mousse. See, they thought vegetarian meant no meat because I said, "Vegetarian, no meat." Those are the two things they told me. I said, "No meat." I take this thing and put it in my [mouth]. It is something I have never eaten. There is a smell. The smell is similar to my school days. I knew it was fish. I didn't know what to do. I said, "I can't eat that." She said, "But you said vegetarian." I said, "This is fish. I can't." I can only do things like sign. I can say, "I cannot." I don't know how I pronounced it. But she was very nice. She said, "Eggs?" I said, "No eggs." I eat eggs now. But "No eggs." Then, she brought me some cereal, like porridge or something. She said, "This is good. Put milk in it." They were so nice. I went on Swiss Air. That's why this French kid was with me. My first stop was – we were four kids traveling together: myself, another girl – she was older. Her parents have already got her married. So, myself, a couple, and another boy that my parents knew. The four of us were going together. [In] those days, they used to give a lot of free stopovers whenever the flights didn't match. We were going on Swiss Air, and the first stop was Cairo, Egypt. This French kid was going somewhere. He orders, with his meal, alcohol. He orders wine. He's ten only. But they took a little wine, put water in it, and gave it to him. He asked me. I said, "No, no. I don't know." They had told me, "No alcohol" – my parents and my uncle. "No alcohol. No meat. Vegetarian." I was very scared. I cannot tell you; I was scared. But since I was with these three other people, at least I wasn't totally alone. That young couple continued to bicker because they had just married. That was an arranged marriage. I knew exactly how good I was not to do that. There were money issues, my parents and your parents, and things. The first place we ended up in [was] Hilton on the Nile. I have never been into what I consider a more luxurious room. All to myself. All of us were – I think that's where, perhaps, we should stop.

MG: [1:08:14] That sounds good. I just wanted to say it's amazing that you encountered all these cultural barriers and you hadn't yet landed in California.

UV: [1:08:23] I did. Actually, I should tell you how I went. We stopped in Cairo first for three nights. I mean, it was really good. The boy, the single boy, his brother was an airline representative, so they gave us the best tour. From Cairo, we went to Athens. We spent two nights or something in Athens, where all the Greek boys – when we went to Acropolis, I was wearing this purple silk sari, and they thought I was a princess. They're all taking pictures. It was the weirdest thing. I'm in all different cultures, right? Cairo, the people are in long robes, and we bought so many things to send to our parents and family. I think they just took our money and never sent anything—we bought the first gift to send to our parents. They said, "Don't worry. Just give me the address. We'll do it." We gave the money, and nothing reached [them] because we should have known by then. They know these kids don't know anything. The third stop was Geneva. My father had told me in Geneva I must buy an Omega watch. My father was a watch aficionado, I would say. He had so many watches. He thought Swiss watches were the world's best, and probably they are still the world's best. He said he would like me to get an Omega watch in Geneva; that was a requirement for myself. He said, "I want you to wear something nice, and this is where you buy the best watches." So in each place, I remember something. In Cairo, of course, there were pyramids, and it was so hot. I had gold bangles, very thin gold. They just melted. It was that hot. They just became pliable. That I remember. I remember pyramids and extreme heat. I remember all my gifts to my parents didn't reach [them]. In Athens, I remember boys were following me and our group, but all the time, calling me "Princess." That was cool because, for a young girl, who wasn't considered that good-looking, I was suddenly somewhere else. Because in India, I'm considered dark-skinned and not that good-looking. But here, suddenly, they thought I was. That was good. And then go to Geneva to buy my first watch – Omega. Then, the last stop – New York. I didn't go directly to California because, in New York, my mother's younger sister's oldest son was studying at NYU [New York University] – Engineering. He is actually two years younger than me, but he was there. Maybe one year. He was an undergraduate student there. They thought I should stop there and familiarize myself with the United States before going to [California]. He took such good care of me, that little young man who is my best cousin. I didn't want to go to Caltech. I was so scared. I wanted to change my application to NYU because he was there at NYU. I did not want to go, and he was such a sweetheart. He said, "You got this. It's a very good school, and you should go there." That's when I went, two weeks after. August 31, 1961, I was in New York. And somewhere, September 15<sup>th</sup> or so, I flew to [California] against great inner resistance. I really didn't want to go. We'll talk about it.

MG: [1:12:35] It sounds like such an adventure. When we talk next time, we'll pick up with your time in California. I'll send you some dates via email.

UV: [1:12:43] Okay. And then, when you finish everything, I get the write-up?

MG: [1:12:49] Yeah.

UV: [1:12:50] Okay. Sounds good. We talked a little bit about if I can – "My Mother's Ring" is one of the things I think we can talk [about] next. One of the things I'm thinking about is making

short stories like that instead of biography because it's too detailed and it becomes too big. I thought if I can publish them all, like an anthology with short stories – how does one go about doing –? You might give it a thought. You might know. Because this story by itself is not publishable because people keep telling me they love it, but I need to put more detail into it. But I just want your opinion because you are in this. You are an expert in listening and reading and things like that. So give it a thought. That's one thing. The other one, "My Father's Journey," I made into a – not book, but a PDF and sent it to all. My family uses it. The grandchildren use it. My nephews use it. Everybody, whenever they marry, they give that to their [spouse] because it's their roots. They love it. So, that is fine. But this other one, I'm thinking – I have thirteen of them, titles to make a short story, but I need to get the first one published to see if it [is] publishable or not.

MG: [1:14:19] Yes, that's something we can talk about next time.

UV: [1:14:21] Bye, Molly. Such fun.

MG: [1:14:23] I know. I love this, too. Thank you so much for all your time.

UV: [1:14:27] Goodbye.

MG: [1:14:28] Bye.

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Reviewed by Molly Graham 5/12/2023

Reviewed by Usha Varanasi 6/20/2023

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