



Mina McDaniel Oral History Interview, December 1, 2015

Title

“The Memories of an Alumna and Sensory Scientist”

Date

December 1, 2015

Location

McDaniel residence, Corvallis, Oregon.

Summary

In the interview, McDaniel describes her family background and upbringing in Salem, Oregon, and her decision to attend Oregon State University. She then provides a detailed overview of her years as an OSU student, commenting on her academic progression in Food Science and Technology, as well as her summer jobs at canneries, food packing companies, and fruit processing plants. She likewise discusses the climate on campus for women during the 1960s; her participation on OSU's women's sports teams in the era prior to Title IX; the activities in which she engaged as a member of Kappa Delta sorority; and her memories of the Columbus Day storm in 1962. In addition, she reflects on the assassination of John F. Kennedy; her involvement in the OSU Food Science Club and the National Institute of Food Technologies college bowl; the circumstances that led to her staying at Oregon State as a master's student studying sensory sciences; and the research that she conducted while a master's degree candidate.

McDaniel then recounts her first job as a food technologist at International Flavors and Fragrances, her decision to pursue a Ph.D. at the University of Massachusetts, and her experiences as a doctoral student in Amherst. From there, McDaniel recalls her tenure as a faculty member at the University of Manitoba, defines the types of work that is done by a sensory scientist, and discusses the path that she took in returning to OSU.

The remainder of the session is devoted to McDaniel's years as a member of the Oregon State University faculty. In this, she shares her memories of the state of the Sensory Science Lab upon her arrival, and the research that the lab conducted on wine, hops, beer, and Asian noodles, among other topics. McDaniel also details her experience of having been offered a promotion at an inappropriate compensation level and the steps that she took in having this situation addressed. The interview concludes with a description of the illness that led to McDaniel's retirement; notes on the development of the maraschino cherry and surimi at OSU; and McDaniel's appreciation of the time that she spent at OSU, despite several issues that she and other women have encountered during their years of service to the university.

Interviewee

Mina McDaniel

Interviewer

Janice Dilg

Website

<http://scarc.library.oregonstate.edu/oh150/mcdaniel/>

Transcript

Janice Dilg: So, today is December 1, 2015. I'm in Corvallis, Oregon, and my name is Janice Dilg. I'm the oral historian doing the interview for the Oregon State University Sesquicentennial Oral History Project. And, this afternoon, if you would introduce yourself...

Mina McDaniel: I'm Mina McDaniel, and this is my dog Bo. I'm retired now, but I was a student here a long time ago and got my bachelor's and master's, but now I'm retired from the Department of Food Science and a post in the administration and enjoying my retirement.

JD: So, we'll come back and explore all of your many occurrences and experiences with Oregon State University, but let's start with a little background of when you were born and where and a little about your early family life.

MM: Okay. I was born in 1944 in Salem, and my mom was a single mom at the time because my dad was in the Navy, and she was pregnant with twins. So, I'm one of two. My whole life I've been Nancy and Mina or Mina and Nancy. We lived there, and we went to public schools there and had a really good time growing up. Except for two abusive fathers, life was really good. And we both loved school. When it was time for us to separate, she went to the U of O and I went to Oregon State.

JD: And how did the two of you make that decision?

MM: Well, I was following one of my teachers that I really liked, and she wanted to be a health educator, and they had a better program at U of O.

JD: And when you say following one of your teachers, they had been an alum of OSU?

MM: Right.

JD: Okay. And when you went off to college, it sounds like that was an expectation of yours and of your mother's, your parents?

MM: Absolutely. My mother went to college in Montana, Montana State, and she got her bachelor's in what I think they called secretarial science or something like that. And she went to work as the main secretary for the dean of Agriculture at Montana State, and he said why don't you get your master's while you're here? And so she did. So that was by far the highest degree any of the family had ever accomplished, and Mom just talked about going to college as if it were, you know, eating your toast for breakfast; it's just what you did. She loved her education. She was a real smart, talented lady, and we were really keen to go and see what we could do.

You know, I was going to be a PE teacher, and then I got there and found out that it really wasn't for me, and a friend of my brother-in-law's said, "Why don't you go into Food Science?" Well, I'd never heard of it, like most people. People still haven't heard of it, you know, and we're quite a ways down the road. But I went to see what the program was like and switched into Food Science the next term. Best thing I ever did.

JD: So, do you remember who you talked to or what you learned about the program that intrigued you?

MM: I talked to Glen Balusha [?] and he, he was down in the California food industry somewhere and had come back, and I was introduced to him. And he talked about how it was really fun to know something more about what every human being experiences three or four times a day. You know, we can always talk about what we eat, and food is fascinating, you know, and there's so many different kinds, and you can get lost in it. Just a combination of like a biology—it's got to be safe, chemistry—again, it's got to be safe, engineering—because you've got to process it, and not all of us loved our engineering courses, but we got through it.

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And then, as we've gone on, they've added interests. There was no interest in nutrition by anybody early on, except the few dietitians that were around, but the customers weren't calling for it, so it was mainly to make something that was safe and would last as long as you wanted it to. I've gotten off; I think I'm—what your original question was.

JD: No, you're completely on track.

MM: Okay.

JD: So you mentioned kind of the chemistry, the microbiology, the engineering. Can you just expand a little bit more about sort of some of the classes that you took that might have been particularly memorable, or professors that you had that spurred you on?

MM: Probably the best class I had, was a full year of food chemistry, and Dr. Samuels was the main professor, although the people with specific—like the lipid guy would come in and talk about lipids, and the protein expert, meat expert—so he kind of organized it all and taught his main interest areas. And he was a fabulous teacher. He made you really work. I can write today because of him. And we had lab reports every week, and we were expected to go to the library and do research on published papers that had something to do with our lab that we experienced. And I don't think I had to do that anywhere else. So it was a wonderful preparation for graduate school. So he was really, really good.

And there were a couple of professors—well, Bill Davidson, for one, he was the protein, meats guy. He was just one of the funniest guys I've ever known, and so he made learning whatever he was teaching fun. I liked food law, because food law's very interesting, about who's responsible for what. FDA does this and the USDA does that, and the county is responsible for this, but the state's responsible for that, and just details that you need to know if you're out in the industry. And they have standards for foods as well, that were federal standards, and it was important that the students got to know for what products were there standards, like pickles. Pickles! And I don't know why, and I've seen jokes about it on TV, but they had a standard for pickles, and you didn't get like a AAA pickle rating if it had too much of a bend in it. Silly little things like that were fun.

And, we did, in one class, we did mold counts on tomatoes, because commercially tomatoes are handled pretty roughly. They, of course, now have genetically engineered them so they're better, but just as you're picking them off the bush, you get some mold in them, and they're supposed to go down the line and all the workers pick off the bad stuff, but they don't get everything. So, there's a standard for how much mold you're allowed to have for tomatoes. And I know that consumers would rather we had none, but it was the same idea with insects. Like in raspberries, in the drupelets, little bugs get in there, and they're, most of them are thrips, and you can't see them by just looking at it; you have to extract them and then look at that, count them under a microscope.

That's a really fun class. I got to teach that stuff, too. We had the students go out in the pilot plant and pick out some bugs, because there were always bugs in the pilot plant, and then look at them on their, not a very strong microscope, but maybe ten, to see what all the parts were, and—because then if you do an analysis of it, the whole bug isn't there—if it's very big. The whole thrip is there, because it's really tiny. And then they could try and identify the parts.

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JD: So even as an undergrad, it sounds like you're really quite embedded in both the science of it and the economics, the market of it.

MM: Right. We are always talking about the industry, what's done in the industry. I also grew up in Salem, and our teachers would organize platoons of kids, maybe twenty-five kids, and get a bus and take us out to the strawberry patches and the bean patches, and we worked during the summer. So—and we were all just waiting until we were fifteen, maybe, and could get a worker's permit, and then we could go into the canneries and make some money.

JD: So, I mean the Willamette Valley was, even then, produce was huge, and it sounds like there were many opportunities, both for the picking as well as kind of the production end of it.

MM: Right. Yeah. The production end was canning, mostly, and it's a hot, steamy, messy job. But, when you're in there with all your friends, you have a good time and you do your job, and you can put yourself through at least part of college

that way. That was our deal at home. And it certainly gave me wonderful experience for the rest of my classes as I got into food science, and that's really why I went into food science as well, because I had that experience in the canneries, and that, on top of my friend telling me that it's the best place to be. And it was good because you got jobs. The jobs would just line up. We even used to put out a little, just a little booklet, with one page on each of us that was graduating that year. Sent them out to all the industries in the Pacific Northwest so they would come and hire us, you know. They don't do that anymore, either.

JD: So, this would have been graduate or undergraduate that—

MM: Undergraduate.

JD: That's fascinating. And so, kind of what was the state of Food Science and Technology? Like what were the focuses of the department when you were there?

MM: A lot of it was primary processing, which is what we did in Oregon. But in order to teach all of the areas that were important to be a kind of a food science, we had to have a microbiologist, and that person may have come up through food science or they may be a pure microbiologist and just be interested in applying it to food. The same with chemistry. We had, I think, two engineering professors, who probably came up in food engineering, which isn't something that we offer at Oregon State, but they, I think they came from MIT.

So we had those people who had their interests, and the research that gets done is based on who comes with their problem and offers you money, and what you're interested in doing. So, some projects will actually help pay for the next project. You know, you have to keep it going.

JD: And you mentioned working summers, but you also did some—I'm not sure if they were related to your schoolwork specifically—but during the years that you were an undergrad, your records seem to show that you worked in Blue Lake Packers and Kelly Farquhar, and kind of different, doing different tasks. Could you talk about each of those, please?

[0:14:44]

MM: Sure. In Blue Lake Packers, that was my first job in the industry, and I was not a food scientist at that time. The women worked on the lines; the men were allowed to run the machinery. I repeat that: women couldn't do those jobs. I guess they weren't smart enough. And when we were on the lines, we were running fillers. You know, the beans that go through the lines, and they pick out the bad stuff, the snakes and things. And we de-stemmed, washed, steamed and blanched, steamed. And they come out on this big round filler that had holes all around where the empty cans would go underneath, and you'd be filling it, especially with something like French cut beans.

You know, it was hard to get just the right amount into the can, and the people who ran the fillers, who were women, they didn't touch any of the machinery but they were up there doing the work. They would fill them, and then there'd be about four people, two on each side as the cans were coming out, and they were the check weighers. And, at first, we had to weigh every can to make sure it was the right amount. Put a little in, take a little out, continue down the line, and then they got automatic check weighers, where if the—it was weighed and it was sent right down the middle if it was right; too little to one side, too much to the other side, something like that. And so it got to be a lot faster, and we could really, we could really whip through those French cut green beans.

And then they'd be put in the—they'd be sealed and then put in the baskets where they'd get pressure cooked. And all of that was more steam and more steam and more heat. And so it wasn't the most comfortable, but—oh, the worst part of it was wearing hair nets. It was; everybody hated the hair nets. And if you didn't have ears that came down, they wouldn't stay down. They'd be riding up here to somewhere. It was what we liked least, you know.

JD: Hazard of the trade.

MM: And if you got caught with a clip or anything in your hair, a bobby pin, you were in big trouble, because they didn't want them to show up in the cans. Well, that's another thing that happened to some of the—it was usually the guys who did this, let's blame the guys—they would think it would be really funny to take a handful of the salt tablets and put them in one can and then a few green beans over it, and that's what they did for fun. And I just talked with a guy at

Thanksgiving, in fact, who had oil cans, and they used edible oil so you wouldn't get any bad stuff in there, but he said they really had fun trying to hit the cans from across the room, and, of course, this wasn't what that oil was supposed to be doing. So it was a little bit of sabotage, but when you're that young, you don't, you know, think about it.

JD: And then your next job, you were a bacteriologist at Kelly Farquhar.

MM: Mhmm.

JD: And were you at that point in the Food Science program?

MM: Yes, right. So I'd had my food, at least a couple food microbiology classes, and there were two of us from Oregon State that ran it that summer for Kelly Farquhar, and it was a matter of taking samples on a timely basis and then bringing them up and taking samples of them and putting small amounts on petri dishes and doing the routine where you turn it and spread out the bacteria as much as possible, the colonies. And I can't believe I can even remember this stuff, you know. And then let them sit for a couple days in the very slightly heated incubator and count them up and see how we were doing. And, so, it affected the sanitation of the plant, in making sure they were keeping it as clean as they could. We also did E.coli. It took a little longer, but that was for the big food poisoning possibility with canned products.

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JD: And so, was this kind of part of your degree work and you were getting credit for it? Or it was just your summer job because you had the skills and—

MM: It was just a summer job. It was just a way to make money. And, of course, to also learn something new about your industry. I always said I wanted to go to college because I didn't want to work in a cannery for the rest of my life, and then there I was signing up to possibly be in a cannery. But I got the microbiology experience there and then went on to Oregon Fruit, and Oregon Fruit was a real unique company. They were small, but they did specialty fruits, and so they'd be—in fact, they're still in the grocery store. If you look in the fruit section, they're usually up above, and there'll be like one can of pie cherries and Bing cherries and plums and rhubarb. We were the—I got the pleasure to be the first to help put up rhubarb for the company. Boy, that was a horrible mess. But, luckily, I loved rhubarb, so...

And in that cannery, they didn't do any frozen; it was just canned. Kelly Farquhar was frozen beans and strawberries. In that company, they were only catering to the specialty fruits; they didn't do any of the peaches and pears and the more common things. But it was high-priced items. They even did raspberries and strawberries. You ever had a canned strawberry? Don't. It's not good for the strawberries. But for somebody who's, you know, up in Alaska someplace, and they can't get to a strawberry to save them, that's a chance to have a strawberry. And they're still in business, so I guess they're doing okay.

JD: And are they still located in Salem?

MM: Well, they're not at the same place in Salem, but I—somebody may be co-packing for them, because I think Agro Pack may have purchased their building. Don't hold me to that, but there's a lot of that going around. And so, I did production planning for Oregon fruit products, and we had to plan out the lines and list out the pieces of equipment that we needed to put together a line for processing something, and then figure out what people we needed and assign them as they came in and do any instructing if you needed to. That was fun, too. I enjoyed all of it.

JD: Well, it seems like it would be an interesting combination of being in classes during the year and then doing some more practical work for a few months and doing that cycle again.

MM: Right; right. It was wonderful to have the opportunity to do that.

JD: So, clearly, this was a big part of your undergrad experience, but I also want to talk or ask you a bit about sort of general campus. You know, what was OSU like during the mid-sixties when you were there and late sixties when you were there?

MM: I thought it was the best place I could possibly be. I was so happy being there, and it was just the right size. It had a few big classes, but those were the chemistry and what everybody took. The food science classes were small, and if we graduated fifteen a year, that was a good class. And I was in a class with two women; me and another gal, and then fifteen or so guys. And if you go over there now, it's really turned around. I think there are always more women than men in the program, until they developed the Fermentation Science major, and now there are probably more men than women in it, and it's very popular. Not the best program for getting a good job afterwards, because they just, all those new breweries and wineries starting up, they just can't afford to pay you until they're a good size.

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But, for fun, I did athletic things. I was on the OSU women's softball team in 1962, 3 and 4, I think. Only they didn't have one because Title IX wasn't there yet, so we just wore our whites that we wore to classes and occasionally put some sort of a banner or something on us. We played University of Oregon twice and Oregon College of Education, Western Oregon, twice, and that was our season. And it was wonderful. But I wish I'd been born a little later and had a chance to participate the way they participate now. You know, I faithfully go to the women's basketball games. They are so good. And we weren't good then, because nobody was teaching us. Nobody was helping us practice. You know, we were ... I think we were pretty terrible, but now what athletes they have, you know, it's so wonderful for them to have that opportunity.

JD: So, do you remember how it even got organized? Was it student organized?

MM: No, no. I think it was organized through the Phys Ed Department. It had to be, because they did assign coaches, so it was part of the responsibility, if you're in that faculty, to be there and help. I imagine there were quite a few programs like that, but I was only interested in softball and basketball, and we even played field hockey, because they didn't have soccer then. The wonderful game of soccer did not exist in Oregon. I'm not sure it even existed on the East coast. They were playing field hockey, too.

JD: Yeah, that has a fairly long history.

MM: Yeah; yeah.

JD: So you would be playing these kind of throughout the year then.

MM: Mhmm.

JD: As the seas—what season is field hockey? I don't know.

MM: It was the fall.

JD: Okay.

MM: Yeah, it was the fall because you—it couldn't be too bad a weather.

JD: And how would you get equipment, or how did you get to Eugene for your games, or to Monmouth?

MM: I think we took personal cars to the games. They had the equipment; the department had the equipment, so we just checked it out, what we needed. Everybody had their own glove, but they had to go pay for it.

JD: Sure. And do you remember any conversations among your teammates about boy, wouldn't it be great if?

MM: Oh, yeah; yeah. That started really early, because you knew you were not getting what the guys were getting. And we wanted to do more just like they did. It was fun and we were representing our university, and it was just, sports are a really positive, really positive for many reasons. So, yeah, we felt left out. We heard of people making a fuss about it, but it took decades. I don't know when Title IX came out; I've forgotten that now, but...

JD: I want to say 1972, but then it went through court proceedings, challenges, and I think it was really 1978 before it really got on the books.

MM: Ah, okay; okay.

JD: So, yes; it took a while.

MM: We were long gone by then.

JD: And what were some of the other kind of activities that you remember doing, or campus traditions that you were involved with?

MM: Sophomore year every living group—and I was in a sorority by then—every living group voted and picked a freshmen, a sophomore student, who were members of talent, and you got this cute little pin with a talent, and it was a talent. And it was a sophomore service organization, and I was lucky enough to get picked from my group, my living group. So we did all sorts of service organization—we even helped with some of the athletic things. When seniors, juniors and seniors, were coming on campus, we'd lead them around and give them tours, and just whatever came up that they needed a bunch of students to do, we did it.

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JD: And what sorority were you involved in?

MM: I was in Kappa Delta, my mother's sorority from Montana State.

JD: And what was that experience like?

MM: It was generally good. I do remember the first pledging, which is the week before school starts or a week before most of the other kids come. There was a lot of worry among the organization at the college level of Rush, because they said some "negro" women were coming through and that they were afraid they'd try and disrupt things. So this was institutionalized. And it didn't happen, and I think which is kind of forgotten, and I forgot about it until I went through my own initiation, and all of my sisters were wearing what looked just like Ku Klux Klan robes with the pointed [indicates hood]...and I've been dying to know ever since I came back if they still have them there.

But it was a very uncomfortable feeling for a good number of the students. Others didn't even think about it. In fact, I think there were a lot that didn't think about it. It was like, it wasn't that they were racist; it just wasn't an issue growing up in Oregon. I think we had one black family in the town of Salem, and that was it. So that was eye-opening. The first I had experienced that. We went to the games, the football games and basketball games, the men's games, and we had to dress up to go to a game. We had to wear a dress or a skirt and high heels. And we thought that was just the stupidest thing we'd ever seen.

And they wouldn't let women wear patent leather shoes because if the boys looked down at them they might be able to see up the skirt. And we tried and tried to do that, to see if it was really true. Of course it wasn't. And we had to have fussing pillows. If your boyfriend came into the lobby of your dorm, and you were sitting together, and you wanted to sit on his lap, you had to put a pillow between you and him. Fussing pillows. Heard of that?

JD: I have never heard of that.

MM: Yeah; yeah. And the men got to stay out; the women had to be in by ten or something. So there were a lot differences, a lot of differences. And the professors were sometimes troubled that they had women in their classes, because they would just say, "You can't do this job. There's no way you can do this job. You shouldn't be here. Go study something else." And that was common.

JD: Common in the food science courses, or female students heard this across—

MM: University-wide. Especially in things like probably agriculture and engineering and the boy's stuff. Luckily that got turned around nicely.

JD: Well, the sixties certainly had—there was a lot going on in this country in the sixties, and I think you gave a pretty good example of the "negro" students coming in, the school concerned about that, or the sorority concerned about that, but do you remember other ways that kind of national and international events played out on the OSU campus?

[0:35:24]

MM: Well, we were in the Vietnam War, only you couldn't have told it by coming to visit OSU. It's like other schools were having all sorts of things going on and riots and demonstrations, and nothing at OSU. And I wasn't in that mode either, you know. I was just like all the others. We were just going to school and not worrying about what was happening in the world. So it was pretty parochial. Is that the word? We were just our little cocoon of students getting prepared for jobs. And I'm sure there were those who were political, too, but I didn't know any of them. We just went to school and had fun. So it took me a while to get into politics, which I'm very fond of now. It took a while.

JD: From some of the research that I did, it looked like you were, in addition to being part of a sorority, that you were in Orange O?

MM: That was the women's athletic honorary. Actually I don't remember much about that. I know we met. I don't remember at all what we did, if we did anything.

JD: Well, in just—you know, the yearbooks are all online, all the *Beaver* yearbooks, and so under one year of which you were in the picture of the group of Orange O's, it talked about hostessing at games and events.

MM: I can believe that; yeah, putting on pregame events and coffees and teas. And we were all very good at that.

JD: And do you remember anything about how one became an Orange O?

MM: Oh, they—I think it was a teacher, some of the teachers and some of the students got together and picked the ones that they felt were the most active and most interesting. You got to belong to the club.

JD: And were there particular campus traditions, like annual events or dances, or things like that that you recall were an important part of your undergrad experience?

MM: I remember dances in the lower level of the MU, and they were more like the high school dances where the girls were on one side; the boys were on the other. It's so much better now. But we still did it and people looked forward to it. One of the really big events was seeing the Columbus Day storm when I was a freshman in the dorm. And we were all trying to get home to see if our homes were still there. But that's—oh, and when it snowed, when it snowed and all of the foreign students got so excited and went out and stood out in the snow and enjoyed that. I remember that. There were all sorts of intramurals for everything. There wasn't any reason you weren't involved in something because there were all sorts of things to do.

JD: So before we get away from the Columbus Day storm, what was it like being on campus while that was happening? If you're trying to get home I'm assuming that meant you were all on campus when it occurred.

[0:39:34]

MM: Yeah; we were all on campus. It was frightening and exciting at the same time. I had never seen our big trees blow so far in one direction. I don't know how many. The MU was covered with trees at that time, literally covered with them, the MU quad—and most of them came down. Only some around the edges were left. So it had a totally different look afterwards, just like at the state capital in Salem. Amazing. And we saw some pictures probably; well, I don't know how we were seeing things if there was...maybe they had TVs in the dorm. They didn't have them in the rooms, but we saw Turkish steeples turned over and stuck on the ground, and just amazing destruction from a storm like that. We were told not to go anywhere because of the downed power lines, but that didn't stop us. We managed to somehow get to Salem on the second day, see our parents. They had no electricity, and we cooked on a camp stove and had a very nice time.

Another thing that happened during that time was the assassination of John Kennedy. I was a sophomore, I think, and I was in the library studying with some friends when somebody came around and told everybody what had happened.

And we were, you know, we were so stunned, we couldn't do anything. I don't know if people now realize what it was like to go through that. The sorority wasn't a good place to be. We wanted to be in somebody's home, so we all took off to Eugene and stayed with family of one of the girls down there. It must have been eight of us sleeping on the living room floor and watching TV to see what was going on. And that was...that was certainly the most horrible thing that happened that we did talk about it. We didn't talk about the war; we did talk about Kennedy. He was our hero. That was an important time. I don't know what the Republicans were thinking at the time. You know, you didn't seem to have that much...the Republican and Democrats were more like this [holds hands close together], and now they're like this [holds hands far apart], you know. So it wasn't as big an issue. Everybody mourned him, I think. Lots of tears.

What else did we have...oh, we had our own clubs, like the Food Science Club. It was a wonderful club because spring break it went to California every year and toured three or four food-related companies, processing companies, the big companies where they actually made the food, oil manufacturing. That wasn't a pretty one. We saw all sorts of things. We visited UC Davis and had a wonderful experience. And they continued to do that for quite a few years, but then it kind of went out of popularity. I think it was easier for everybody to get around later on, but this was a really, really important trip.

We had dairy judging, and as against the whole country, and people went to the dairy meetings as a team and judged dairy products. And then we had a college bowl the department got ready for every year, and again it was done at the National Institute of Food Technologies meeting. And we won a couple times. It was a big deal.

JD: And so what types of questions get asked of the Food Science and Technology College Bowl panels?

MM: Oh, well, all about food. Let's see...what are the proportions of sugars, proteins and fats in homogenized milk? Been there. It's all about four percent, about equal. And a processing question like how do you determine the heat necessary to process, to can a food? And then maybe there are three answers and you have to pick the right answer. But just regular food science stuff right out of our classes. Some of it was about the national IFT. They wanted us to know who the president was. Nobody ever knew that, and they always asked.

[0:45:37]

JD: And would you travel to the finals or the bowl?

MM: Yes.

JD: And where was that? Where was the IFT?

MM: There were...well, there are now about five or six cities with facilities big enough to handle all the food scientists, but the ones we went to most were Dallas, Anaheim, Chicago, Philadelphia...well, that's only four, but that's the idea. And it was wonderful to go to those.

JD: And so how many other groups or schools would be represented there?

MM: All of them. There aren't all that many food science departments. It's not like being English, being in English, and every place has to have English, but it was mostly at the state colleges and being supported by the extension, or the experiment college. So we all managed to go. We had fundraisers. We did everything we could to get there and slept six to a room, I think. Well, it was a wonderful experience. And Floyd, Dr. Floyd Bodyfelt, was the main person who ran that for decades. For decades. And all of his kids got good jobs in the dairy industry, because if you're active in that for three or four years, you really know what quality is and why it should be that way, and so it was great experience.

JD: So you were clearly enjoying and enmeshed in this food science technology that you went on to do your master's at OSU as well.

MM: Right. At the end of our—well, probably about the middle of our senior year, the department head would call us in individually and talk about our future careers. And he...when he brought me in, he said, "I don't want you to do what the others are doing. I get calls almost every week from the industry looking for sensory scientists, and we're not producing any. So why don't you become one?" And I ended up staying and doing my masters' with Bob Lindsay, who's a dairy

flavor chemist, and Lois McGill, who was a sensory, Lois Sather McGill, who was the sensory specialist. And so we did a combined analytical chemistry on—I worked on sweet cream butter, the effect of fatty acids in sweet cream butter. We did the sensory part and the analytical part, and it was great, too. It was really good. And I got to learn two areas where most people just live with one.

And I had four or five job offers: Carnation; General Foods; IFF, which is International Flavors and Fragrances; Peter Eckrich, which is a big meat company in the Midwest...there might have been another one. And so I got all my first plane trips for many of them, you know. And the idea of going off by yourself and doing it, that was certainly good for me too. But I decided to take the IFF job, the Flavors and Fragrances. It was in New Jersey, and I had no idea what the East coast was like. I could have done some homework on that, but [laughs]. But it was good to be so far away from home and really be on my own, make my own decisions. So that was good.

[0:50:25]

JD: So when the dean was talking to you about becoming a sensory specialist, were there characteristics in your work, or how did he sort of propose that, or what, how was it explained to you that you said, yeah, that's for me.

MM: Well, he talked to me about it because I'm a woman, and that field was okay for women to be in. If I had gone out to the regular jobs that were in the industry at the time, it would have been production, quality control, engineering, working with the guys, the guys that have been there working thirty, forty years. And he knew it was rough, because other women had been through it, some of them treated very badly. And I think he was—not only was the situation there where they needed sensory people, but I was a good pick to go into it. Although it would have been fascinating to see how I handled those old guys. I'm pretty easygoing, you know. I can get along with just about anybody. And, in fact, when I went into Administration they said that I came across as non-threatening, and that's what you need to be to be a good administrator. So there I was, non-threatening when I went into what a lot of the women in other parts of the country have developed and gone into. It all worked out great.

JD: So talk a little about those first experiences and what you were doing and kind of how your training at OSU and your work experiences fit into all that.

MM: Well, the training in sensory evaluation was, it was not organized, because it hadn't been part of even many of the programs in food science. But it was a huge need in the industry. And I think the guys maybe thought it was just a little too soft. They wanted to be food technologists and food engineers. But you have to evaluate your product; you have to know what your product is in the first place. And we could talk for hours about how to do that. You know, if you were a coffee company or a whatever, you have to have quality standards.

And I can remember, I was at—I did some consulting for Lipton Soup, and I said, "How do you develop your purchasing standards for the onion, dried onion, that you use?" And so they had a bunch of things written down, and then when it came to odor and flavor: "typical onion flavor." That's it. And I said, "Well, what do you do if it's, if they're different intensities, and this batch is really strong and this batch has been sitting around a little longer and it's not really strong enough? And, well, they didn't really have an answer for that. It was just like something they weren't worried about. But they were producing—their quality control wasn't good because they didn't know how to work with what they had, you know. And I don't have answer for that either, but I could figure it out.

So we really tried to help the industry recognize the tools that we were giving them and how to use them. Another example from Lipton's—poor Lipton's, I don't know if they're in existence anymore, but somebody's got their brand. Anyway—I met with the different research groups that they had, and when I was a couple days with the soup group, I said, "If you're organizing a marketing test and they're going to set up in a mall someplace, what kind of—and you're not there, you're in New York and they're in Columbus—how do you instruct them as to what you want them to do? At what temperature did people eat soup?" Now this was a soup group. They didn't know. "Hot. Hot was their answer."

[0:55:49]

I can remember sitting at home before I went out there with these bowls of soup and a thermometer and tasting them about every five degrees as they were going down, as I could, and I knew exactly what point you could stand to put the

soup in your mouth, and then what was the easiest just to eat and you don't have to worry about the temperature, and at what point it was too cold. But they never thought about it. They never thought about it. It's crucial to serving soup, you know. Common sense, you'd think. Wouldn't you? It's just common sense, but a lot of people didn't do it.

JD: So it sounds like perhaps the industry was at a turning point at this juncture as more people like you brought those skills into the industrial setting.

MM: Oh, I think so. And yet it was years to really develop across all the companies. It was something they didn't want to pay for. They didn't know how to do it; they'd have to build some sort of facility in addition or within what they had, what space they had, and that was a problem. If you're in a room and you open the door and there's a processing facility, you know, is the air clean? No, you know. You can't smell a thing except what they're processing. So it wasn't easy to set up a sensory program. They had to really be committed to it. And it took people, took people away from their jobs, because you had to have people come and evaluate the products. Some companies developed external panels, and we did that, too, with—when we did tests for companies, which we did a lot. And even in our descriptive panels, where we worked to describe what the characteristics are of, say, Pinot Noir aroma, and then learn how to rate their intensities...the wine was one of the nicest things I worked on. Beer, too.

JD: So, at some point then, you went off and taught some at the University of Manitoba?

MM: Mhmm, taught and did research. Yeah, it's always a combination; it just depends on how they're funded, how much you—how much time you get to do your research.

JD: Sure.

MM: So there, there was more teaching to be done. And I taught food chemistry and sensory, of course, and a food quality evaluation class. Experimental foods, they called it.

JD: And much difference in the standards in the food industry in another country than in the US?

MM: Oh, yeah. Oh, yeah. Not so much with Canada, although they, when the sweeteners were coming out, they banned one of them and we banned the other one. So, never total agreement from one place to the other. But the scientists were basically the same. Most of them had gotten their degrees in the US, their graduate degrees, and the graduate programs were just growing within their own university. Now they don't have to send anybody to the US unless they feel like it.

JD: Right. And so, in 1974, then, you decided to get your PhD.

[1:00:00]

MM: Yes.

JD: And how did you choose UMass and your program?

MM: Well, I was in New Jersey and one of the UMass lipids professors came down and gave us a presentation, and, you know, visited with all the people who were involved with lipid work. And, in fact, he was the one that told me that my advisor, the sensory guy at UMass, Miles Sawyer, had money, and he was looking for a student. So that was how I—and I had my dearest friend at the time was a UMass teacher. So it was a wonderful place for me to go, both socially and educationally.

JD: And what did you end up specializing in there?

MM: Golf [laughs]. I took up golf, I took up painting. If you ask anybody what they did during their PhD, you know, you had to get away from it somehow. So we did other things as well. But I specialized in scaling; how to use scales to get people's opinions of how strong it is or how much they like it. Anything that you have to scale. And there was a new type of scaling technique called magnitude estimation that the people at Harvard in the Psychology Department developed: S.S. Stevens. And then his, one of his students, Howard Moskowitz, went on to really work on it in the food industry, and he and I went around and gave seminars all over the country on how to use magnitude estimation. That was fun, too.

But he helped me, he was at Natick [U.S. Army Natick Laboratories] at the time, at the research labs in Natick, and they were doing a lot of work, and he suggested that I work on comparing the regular, like a 9-point hedonic scale—how much you like it, how much you dislike it—to magnitude estimation because there wasn't anything like that out in the literature. So when we were ordered to do that I needed something for them to taste, and this pile of money had been given to Miles Sawyer, my advisor, by Heublein [Inc], and Heublein made Smirnoff vodka. They made almost all of the little bottles you'd get on the airlines of a premixed drink. So we decided we would work on whiskey sours. I think I'm the only person on earth who has their PhD in whiskey sours. I kind of like that, too.

He—we talked with people there, the product developers, to see if they could make an array of sweetness, sourness, bitterness, all the characteristics that were there. It was a very simple system. And they—we came up with an array of products and tested them with the at-home group, and I think we had fifty people in that, and then we had our internal panel of consumers, and then we did descriptive work on it, as well. To compare and see which tools best separated their products because that's what you want to do. You want to see if there's a difference, and if it's there and you miss it, that's bad. You don't want to put something out that you think of something else. So we were able to do a number of different studies comparing the techniques. And it went very fast, much faster than most PhDs. And when I finished there then I went to the University of Manitoba.

JD: And were you doing similar teaching and research kind of balance when you went back up there?

[1:05:06]

MM: Mhmm. A little more teaching, maybe, but I had graduate students. And the department seemed to have money for graduate students, which most departments don't, but they got them involved in some teaching. And so we had good students available to us. Gosh, when I taught my food chemistry classes, there must have been a hundred students, so it was a pretty big program that graduated lots of students. And they had a food tech department and they had a home economics department, and all the sensory was in the home economics department. So it was a good chance for me to get to know what home economics was all about. It's very impressive.

JD: Maybe I should have you sort of define what sensory work is for the average person who might be watching this and not know.

MM: Well, sensory is using your senses, and it could be all of them, even sound and the crunch of a potato chip or many things along that line. It's using your senses to perceive what's there, and in perceiving it, you have to have some way of communicating what you're perceiving. So that's when we try and develop these questionnaires in using scales on one side and then also training people to be experts at sensory evaluation of wine or beer. Yeah, we did lots of those, lots of products. Rancid fish, you know, all sorts of rancid nuts, rancid filberts, so you have a rancidity panel. And at the end of each panel we made t-shirts for everybody with something about their panel on it. That was fun too.

JD: And is there a certain...how do I want to ask this...In fragrance there are often people who are considered to have particularly sensitive sense of smell or, you know, going to be really good at that particular job. Is there some measurable way to determine whether someone has a particularly sensitive palate or range of sensory?

MM: Yeah. You can—one of them would be by determining thresholds; at what point can you perceive that this is there. And it could be in a system or it could be just in water or whatever it can be in. The creative flavorists and the creative fragrance people in the industry probably make more than anybody else, because they're the artists. They do the art. They can put things together that smell like blue cheese, which is pretty amazing to me, but then all the other scientists around them are doing analytical tests on blue cheese to tell them what's in it. And then they, the company, makes whatever it is that's necessary. They have to create them so that they can be tested and used. And so, it's a big process. It's a long process, because everybody wants the answer yesterday, but some of it doesn't work that way. Am I on line?

JD: Mhmm. So you were working there for a few years and it's the early 1980s, and what drew you back to OSU?

MM: I wanted to teach. I couldn't see a place to go in my company. I was thinking you know, I could be in charge of the sensory program for the rest of my life, but I came with—at the same time as three guys came. We were all buddies, they were wonderful, and in the two years that I was there, they all got promoted up into something else. And it was, I think it

was just the same old thing; they weren't used to looking at what women might do, taking advantage of their skills. And it was just like the writing on the wall that there was no place for me to go.

[1:10:05]

And I don't think they knew. You know, I didn't know. I really didn't know, so I wasn't much help to myself. I probably would have wanted to be a creative flavorist, if anything. But I decided that I really wanted to teach, and not so much doing research. I didn't think about what that really meant. And, of course, it turns out that's the main thing. That's the most important thing. If you're an okay teacher, that's great, but you better bring money in, have good ideas and get your results published. So that's what I ended up doing. And when I went back to grad school, even though it wasn't very many years, the development in the field was growing exponentially, so I had a lot more things I could study in. Like all of the magnitude estimation work and all that was brand new. Brand new at the time.

JD: So was there a specific position that you applied for at OSU?

MM: When I came back to OSU?

JD: Mhmm, yeah. 1983?

MM: Yeah. It was the sensory professor. Lois McGill was retiring, and she wrote to me and said she was retiring, and didn't I want to apply for her job. And, of course, I did. So I got it and showed up there in July of '83 and just, you just sit down and answer the phone and get started. Well, pretty soon you've got more on your plate than you can handle, and it was particularly true in our situation because they were under pressure to get more women involved in things, to be on search committees, to be on graduate program committees. They always wanted to make sure that they had at least one woman on anything they were doing. It was me; I was the only woman there in my department for quite a few years. And then Diane Barrett came, and she didn't feel welcomed enough for a number of reasons. She's terrific. And UC Davis hired her. She's a big star there. So we had two women. And now there are half a dozen, so that's better too.

JD: So what was the state of the sensory science lab when you came? What were you taking over and what were your goals for it then?

MM: It was doing some commercial work, and with other people doing some research just that was going on in the department, doing the sensory end of it, Lois McGill was one of the earliest scientists getting involved in sensory. And UC Davis was very, very good at it too. They had three people in sensory. But Lois had a good lab. She had two research assistants and one of them had just retired and the other one needed to retire, so one of the first things I did was hire another research assistant, and that helped get the program up a little higher. The woman who was there didn't know when she could improvise and when she couldn't. So she did the best she could, but she just wasn't thinking science with every decision that she made. All these people are good people, and a wonderful opportunity to work with so many good people. And I went around to each of the professors and talked about what they were doing and talked about research opportunities. The professor who was most excited about my coming was the wine professor, because he knew what they were doing at UC Davis on wines, and he wanted to do the same thing. So that's probably the first research project that we worked on.

[1:15:26]

JD: And what was that professor's name?

MM: David Heatherbell. David Heatherbell. And he had come, maybe just a couple years before, to take over the wine program. He was from New Zealand. And then from that, from working on wine...and I was always interested in the perception of carbonation, as well, and what the carbonation level did to other components of a drink, so my first two PhD students worked on carbonation. Just carbonation, period. What were the sensory elements in carbonation, how do you describe it, how do other things affect it, how does it affect other things, you know. Everything you can think of about carbonation, we got done in those two programs.

There was a guy at Monell, which is a big sensory research center in Philadelphia, who had done some work on carbonation, but it was more—it wasn't as practical. It wasn't the kind of thing that people who were producing carbonated

beverages needed to know. And then we just kept rolling year after year. I got involved in lots of things; the faculty senate and any of the—they had a committee that ran the Women's Center, which was relatively new, and I got involved in that. And through those, met wonderful people across campus. Some you could work with; some they were just good people you met.

JD: And where is the sensory lab located at that point?

MM: In the Food Science Department.

JD: Okay.

MM: Yeah, it's still there. And we had to have parking available for people who would be coming in and doing our hundred-member taste panels that we did for the commercial interests. And then, at one point, I decided I would like, before I finished up at OSU and retired, I would like some administrative experience. And so I applied for, it was the associate provost for academic affairs. And we had just gotten a new provost. He'd only been in his chair for three weeks or so, and I applied and was interviewed and he called me and offered me the position, which I was thrilled about. You know, just exactly what I wanted to do. Only when he made his financial offer, it wasn't appropriate. It wasn't high enough. And I told him where I'd gotten my data and that I talked to this and this and this and they said it should be more, and we talked once on the phone on a Friday afternoon, and he called—we decided then to think about it over the weekend, and he called me Saturday morning—the weekend didn't go by—and said, "No, I think that's the appropriate level for this position."

And so I tried one more long email explaining again why I thought this was appropriate, and he called on Monday and he wouldn't adjust it. So I turned it down, because I believe in getting paid for what I do.

[1:20:12]

So I was back in the lab again. Only he, his response was to walk down the hall and ask a guy who had been his competition for the provost position, and he was doing a special project for him up there. He was in the Math Department. He offered him what I was asking. Because I got all these phone calls from my friends in Administration telling me what he had done. So I wrote a letter to the president.

JD: And who was the president at this point?

MM: Oh, he had been the provost. Oh, what's his name?

JD: Would that have been John Byrne?

MM: No, no. It was after John. He wasn't there that long, and he got the presidency of Idaho.

JD: MacVicar? No, I'm going the wrong direction.

MM: Going the wrong direction.

JD: Tim White?

MM: Yes, it was Tim. And he may even have been temporary. I don't. Was he? Yeah. Anyway, he called and said, "Let's go for a walk." We lived in the same neighborhood. And so we went for a walk and we discussed what I wanted, and what he wanted, and he admitted that what the new provost had done wasn't maybe quite what should have been done, but he had no experience. He was from engineering, and another really nice guy, but... So they turned around and offered me the same position in the research office, and you know they were all great, too, but it wasn't what I wanted to do. So—and that was at the salary that I had asked for. So I didn't take it, and just did my own work.

But then after having Bob, and Bob was his name, in my position for about three years, they were trying to find a way to get rid of him because he wasn't working out. I could have told them that. And they redesigned the position. That's about

the only way you can get out of it, and they told him he could apply for it, and he did, but I got the position. And it was, again, under the same provost. And I got it for a good amount. Oh, but meanwhile—I'm sorry, I skipped a bunch.

JD: That's fine.

MM: After that first offer and my turning it down and turning down a research, I went to Eugene and got Martha Walters to be my lawyer. She's on the Supreme Court now in Oregon.

JD: Yes.

MM: You know her? Yeah.

JD: Yes.

MM: Martha was wonderful. They had lost—OSU had lost a big settlement to her more than once. Softball coach was an example. And so they knew her very well, and they weren't very happy that she was sitting at the table with me. But we went to mediation and it was...it took a long time. I thought of just saying everything that was already obvious but I know lawyers have to do things in certain ways. But they finally offered me what I wanted just to stay in my own position, but a raise and an amount of money that I'm not allowed to talk about.

[1:25:05]

And after that everybody who wanted to sue the university, every woman in the university came to me. And I gave talks about it at the Women's Center and here and there. It was kind of fun. But that was the end of that. I did eventually get in there, had a couple years, but then I got sick. I got a headache—did you know about that?

JD: You did tell me that when we talked kind of early on setting up the interview. But please, go ahead.

MM: Well I got this headache, I just woke up one morning and I said to my partner, "I have a terrible headache," and I—then I went through all the doctors that one would go to and nothing helped. Drugs didn't help, nothing. I've been on—I still have it, this will be my tenth year, I think, this January. Every waking moment, never goes away. I've been on twenty-six drugs and had brain scans and I even had Botox, because it's right across here [indicates across forehead and eyes]. And I couldn't function in my job. I tried, but I just couldn't, so I went out on disability and made an arrangement with the provost, associate provost at that time, Becky over in Bend.

JD: Becky Johnson.

MM: Becky Johnson. Yeah. And so she allowed me to collect my disability and retire. So I retired about six months early, but it wasn't a big amount that I missed.

JD: Well, I do want to go back just a little bit to some of the work that you did in the sensory science lab. You know, projects that you were involved with, and I've got probably some incomplete notes from when we spoke before, so hopefully they'll make enough sense that you could help fill in. And one was an Asian noodle project.

MM: Yeah, that's the one I was thinking of when you were starting to say that. I was USDA funded. It's not easy to get money from the USDA, but the noodle lab up in Portland at the Wheat Center wrote very supportive letters. They wanted the work done. And their interest was in selling Oregon wheat to Asia, which I think they'd done for years, but the Asian palettes weren't always happy with the product that they got. So our job was to look at standard wheats and new wheats that were being developed, had different compositions, and make noodles out of them. So we borrowed one of the machines from the noodle research lab, and it was a box about this big, you know [indicates about a square yard], and made funny noises, and it made really good noodles.

So, we did two things. We did descriptive analysis work on the noodles. Again, what are the characteristics of a noodle? So we had to bite down with an even pressure and rate the density or whatever, all of it. The most fun one was that we had to rate the smoothness of the noodle. And the smoothness is how it goes over your lips; how it feels when it goes over your lips, and you're kind of slurping it in. You may notice that a lot of the Asian folks will slurp their noodles. Yeah. And

if it drags at all, that's not good. They want it to just slide right down. And so we had a lot of fun figuring out—actually I, we, hired one of my colleagues who has her own company in New Jersey and is a real descriptive analysis specialist, and she came and stayed a week and helped us figure out how to train people to do this.

[1:30:15]

JD: That was going to be one of my questions. Who's doing the testing and how do you figure that out?

MM: Yeah. Well, we did the testing for the descriptive work, which is objective sensory testing. And then we had guys from the wheat industries for the wheat—the noodle industries in various countries come over separately, usually, and they'd bring half a dozen people, maybe, and we presented all of the samples to them and got their opinions and their words, their descriptors for it, and then put it all together to see if someplace in there we were making something that we liked. And knowing exactly what the characteristics were, able to speak it, not just put an instrument on it, and so then we presented that at national meetings all over. It was a very popular topic. We got to go to quite a few places to present that work: Taiwan, Brazil. You know, I know the Brazilians aren't famous for making noodles, but they do make noodles, too.

JD: And this was like through your project, so these projects have some longevity; they're quite intricate.

MM: Yeah. They were. It was three years fully funded, I think. And so I had a number of graduate students who did their masters and PhDs on the noodles.

JD: Well, and we do live in Beervana.

MM: We do.

JD: And so, of course, some beer project would end up on the sensory science lab's door step, and it happened to be Widmer Brewing.

MM: That was one of them; yeah. You know, we started years before that happened, so there was a lot of work done before that, so they knew we were into it. You know, hops were grown here for years until something wiped them out. There was something wrong with the cultivation of the hops, and it all moved into Idaho and Washington. And now it's come back some, I guess. The original work was for Anheuser-Busch. They funded us for years, not just in food science, but in analytical chemistry. Max Deinzer worked with him for years on coming up with the actual hop compounds that were interesting, and then we would apply them and evaluate them and see what they were like. So we did that for ten, fifteen years. And, at the same time, trying to present at any beer meeting we could, to get the interest of other beer people as well. Sometimes Anheuser-Busch doesn't like competition, and we had to be careful about what we did, so as not to offend them, because they gave us a lot of money.

The Widmer project was—they were always interested in coming out with new beers, and it's the life of the industry. That's how they keep interesting to people. And they wanted some help on finding out where the space in Beerdom—here's Beerdom [indicates space directly in front of her], and there are some beers over here [indicates just to the right of Beerdom] and here and here and all around [indicates various spots adjacent to Beerdom], but what weren't they producing, and in a space where it looked like customers would be interested in it. And so we did a lot of beer work. Same idea: analyzing what was there and then some consumer liking, and came up with a description and a space that was not being produced by them or anybody else that we could tell. And so, they evidently made it. I don't know what it was, I never got information past that, but they were, they seemed to be very happy with the work.

[1:35:19]

JD: According to my research it was Drop Top Amber Ale...

MM: Oh, okay.

JD: ...was what they came up with.

MM: Well, you know more than I did, then.

JD: Well, I know that detail.

MM: Yeah, I never heard that. That's good. Are they still making it?

JD: They are.

MM: Excellent.

JD: They've got a great label: dog with the ears flapping.

MM: Wonderful.

JD: And, you know, there were also some big projects that kind of put OSU and their food science programs on the map that I know were before your time, but I thought I'd get your take on the lore.

MM: Sure.

JD: And, of course, one of the early ones was maraschino cherries.

MM: Yeah, that's what we're famous for. When I was a grad student, then, I think it was Wiegand who was the department head then and was working on it, along with a number of different people. The story that I got when I was there was that they had large Royal Anne cherry production, and the cherries would turn brown—the purple cherries don't do that—and so it was a real problem with keeping them high quality before you did something with them. And they couldn't seem to stop the production of the coloring, so they were saying, "Well, what else can we do with this?" and they developed the candied cherry.

Now I talked to one of our students just a few years ago about how many products they produce and call it maraschino cherry; it was like a hundred and fifty or something. It was a big number. And all dependent on the criteria that you get from the company that wants to buy it. They don't want the color to leach out, or it doesn't matter if the color leaches, and they want more of this flavor than that flavor, and colors and everything. So it became extremely popular. I don't know if the department ever got a penny of it, but it sure helped the industry, and that's what we were there to do. They also, and I carried this around with me for decades, they made tall jars of this round, of maraschino plums. And I think it was mostly just a joke, but they were beautiful, just all lined up in the jar, you know. I think all the graduate students got them anyway. I don't know. Somehow I managed to lose it along the way. And I haven't seen any since.

JD: And I know there's a separate lab facility out in Astoria now, but part of the program was also the development of surimi.

MM: Yes.

JD: And what do you know about that history, which has also become significant in the food industry?

MM: Yeah. It didn't start there but it may be that work in this country started there. It was a big deal, and Jae Park has really done a great job taking care of the industry, taking care of it really good. The work had a lot of sensory components to it, of course, so we got involved with a little of that, but it was really after they were already up and going. But there were several projects that involved sensory work. So I would work with those students to make sure the evaluation was proper. And out of that same lab they developed sort of a surimi soy sauce that was not too bad. It was pretty good. I don't know if any companies picked it up and go on with it, but we had the student work on that project too. The students get really interesting things to do.

JD: And students are a real component of that department and that lab.

MM: Oh, yes.

JD: In significant ways, it sounds like.

MM: Yes, yes. And we were always, each individual was trying to get the best students, and sometimes there was a little competition for the students, but they came from all over the world, supported by their own country, sometimes, or by a company sometimes. And then if we were working on a certain project and had written in the budget for one or two graduate students, then we were able to support them while they were there. They have to eat, too. It's expensive to live in Corvallis. So, yeah. We did a number of projects over the years with the seafood lab. It's a wonderful place to visit.

[1:40:47]

JD: So I've come up with a few projects, but are there other pieces of history of your work or the lab that you want to make sure we capture for this project?

MM: The noodle project was the most comprehensive. Not the longest but the—it was a big deal. A lot of it was through the agricultural products that are made in Oregon. We work, like Michael Chen, who's the flavor chemist in our department, he would do the flavor chemistry of twenty different varieties or something, and then we would do the sensory work on it and publish together. And those were always—I loved doing those because we were doing it for Oregon, for the Oregon industry. We did a lot of work on nuts, hazelnuts in particular. "Filberts," I grew up with.

JD: That's that they were still called when I moved here too.

MM: Yeah. And a lot on the rancidity issues with heat-treated, roasted hazelnuts. For specialty projects at various industries we'd call in—one industry called and they were working on a chemical to take away the cat pee odor and they wanted us to, what do you call it when you get the, you work the pee out of the cat?

JD: I don't know that term.

MM: The word for it is—but we talked about it and decided we couldn't do that for them, but we did do a project for them; they were developing a room spray that would work on cigarette smoke, and we had these individual storage rooms about as big as a closet downstairs, and we took over about eight of them and put cigarettes in, and we just did whatever ones they wanted. We didn't do a study on which cigarettes to use. And then to see how the aroma in the room was affected by the spray. And we did another one on pellets made from wood. I can't remember the wood—something that's grown around here—and how they would work in horse stalls for keeping the horse stalls good.

So, you know, everything that smelled of something came to us. We worked on city water because in the summer when the river gets low—we only have part of our water from the river but when it gets low we sometimes get some off flavors in the water. So they put us in their boat and took us up to the effluents were coming out of the paper plant, I think it is, and so we got to see this brown stuff surging from underneath the river, you know, into the river. But it's really diluted pretty well. I mean that's a big river. It's moving fast. So we were able to get a little out of it, but not as much as we hoped. Just tasting water, smelling water. So we have lots of good stories to tell about odd things that we worked on.

[1:44:53]

We worked on—they were farming fish, catfish, in Mississippi I think, and they had a problem with geosmin odor that would develop. It's a muddy flavor. And so they sent us fish and fish and more fish, and that wasn't very pleasant; you know. And the people who come in and taste for us, you know, they want to know what we're doing next to see if they want to answer the call. The best, probably the best test we ever did, was for a company that was going to get in the frozen cinnamon roll business and they wanted to copy Cinnabon. And we probably got thirty cases of cinnamon rolls of all different brands, frozen, that are all in business against each other; you know. And they wanted to know what was out there and what they would have to do to get on top of it. And so, boy, did we love our cinnamon rolls. That was the best one. And I didn't tell you about my—oh, no, I did. I told you about my whiskey sours.

JD: You did.

MM: Good.

JD: Two high points.

MM: Yeah, two high points. Cinnamon rolls wasn't a research project, though; it was just that very precious money coming in so we could afford to pay our staff.

JD: So, are there other final comments, thoughts that you have about your work there? Because I was just going to ask kind of a big overview question to wrap up, but ...

MM: Well, yeah, I would—well, why don't you ask your question and then I'll ...

JD: Well, basically you spent many years at OSU in a variety of different capacities, so you wear several different hats, and so I was really just going to ask you to try and sum up what your experience with OSU has been, and maybe any thoughts for it and the future.

MM: I think I have been extraordinarily lucky to be at OSU, both as a student and as a professor. You know, every organization has its black spots, and OSU certainly has had theirs, too, but on the whole it is a great place to be. It's a great place to go to school and a great place to work.

And it doesn't mean that there aren't problems; there are lots of—I also had most of the women on campus who had been sexually abused by someone in their department come and talk to me, too. And I remember one gal who I've gotten to know very well. She was bothered by this guy over and over again, and he said to her, this one time, "You know, you might as well just give in, because you can't tell anybody because no one would believe that I, a distinguished professor at OSU, would do something like that."

This is a distinguished professor at OSU. So there are all sorts of problems like that—big ones, little ones. So that's happening just like it happens everywhere. And what was the most disappointing about that was that the guys—it was all guys that I knew of—were always promoted to get them out of where they were. Get them out of their trouble spot. They'd promote them. That's really sad. And they knew, you know. They knew but they'd promote them anyway.

I was able to watch...the biggest change was in how women were treated as students, as faculty, as administrators. You look around now and you see lots of women in higher positions, and I would guess we'll have a woman president not too far away. You know, I think it'll happen. And I love saying that; that's really important to me. I want OSU to be the best and fairest and funnest place to work, and I think it has been on the whole for a lot of people.

JD: If you have no further thoughts, that would be a lovely place to end.

MM: Great; thank you.

JD: Thanks for participating in the project. It's much appreciated.

MM: You bet. My pleasure.

[1:50:57]