# PROFILES OF SWE PIONEERS

# ORAL HISTORY PROJECT

## Ann Fletcher Interview

April 4, 2003

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**Ann Fletcher**

Ann Fletcher taught music lessons until 1943, when the domestic manpower shortage during the Second World War led her to engineering training courses at Wayne State University's College of Engineering from 1942 until 1944. She joined Bendix Aviation Corporation Research Labs in 1943 as a patent illustrator and remained there until 1947, when she began work as an industrial and patent illustrator for Ford Motor Company. She left Ford in 1968 for a position as technical assistant to the chief engineer at Shatterproof Glass Corporation, from which she retired in 1978. Fletcher was an early member of the Society of Women Engineers, was one of the first two women in the Society of Engineering Illustrators, became the first woman elected as Fellow of the Engineering Society of Detroit, and in 1975 was the first woman appointed to the Michigan State Registration Board of Professional Community Planners. She was a Fellow of the Society of Women Engineers and an active member of the SWE Detroit section. Fletcher passed away in 2010.

In her 2003 Profiles of SWE Pioneers Oral History Project interview, Fletcher discussed her childhood; taking War Management Training Courses at Wayne State University; working as a patent illustrator at Bendix Aviation, Ford Motor Company, and Shatterproof Glass Company; and her involvement in SWE and the Engineering Society of Detroit.

- July 2016

INTERVIEW WITH ANN FLETCHER, APRIL 4, 2003

LAUREN KATA: It's Friday, April 4. This is an interview with Ann Fletcher, of the Society of Women Engineers. Hello.

ANN FLETCHER: Hello. How are you?

LK: I'm doing well. How are you?

AF: I'm here.

LK: Well, we're very grateful that you've agreed to participate in the oral history project for SWE. Let's begin by talking about your early childhood.

AF: My early childhood.

LK: When were you born?

AF: September 22nd, 1911, in Latrobe, Pennsylvania.

LK: And what was it like growing up?

AF: Well, just like probably any other. We came to Detroit when I was two years old, and when I was old enough to go to school, I went to all the public schools in Detroit, grade school, high school, and some college.

LK: Do you remember being interested in science?

AF: No. I was originally interested in music. Actually, when I graduated, I was teaching music, violin and piano. The switch to engineering came because of World War II. There was a shortage of men. The United States Government advertised in newspapers for women in Detroit to go to Wayne State University to

take an aptitude test, that they would train us for whatever they thought we were able to do.

LK: Right.

AF: And they determined that I should go into engineering. So I was taking courses, paid by the government, courses in engineering.

After about a year and a half, they handed me a slip of paper and said, "You go there to work." It was at Bendix Aviation. And that's where -- I didn't know what I was going to do, and they put me in the patent section to be an illustrator of patent drawings. That proved to be a very, very wise choice, because on inventions you have something different to do every time, and you had a broader knowledge, because each one was different than the other, and you learned more and more about these things. I was there for about five years.

When the war ended, that particular Bendix Research Laboratory was discontinued, and I got a position at Ford Motor as a patent illustrator also.

LK: Okay.

AF: I did that until -- I was a patent illustrator until 1968, and then I had an early retirement. But I decided I didn't want to have an early retirement, so I went to work at the Shatterproof Glass Company as a technical assistant to the chief

engineer, and I was there for another twelve years. Then in 1980 at seventy, I decided to retire.

LK: Well, you've had quite a career.

AF: Interesting -- an interesting career.

LK: When you were a younger child at Cass Tech High School, did you have experiences in arts as well as music, that prepared you for patent illustration?

AF: No, I just stuck to the music.

LK: When did you attend Cass Tech High School?

AF: From 1925 to 1929.

LK: And what was that like?

AF: That was very exciting, very nice. It was one of the most modern high schools at that time. It had swimming pools. It had all the activities, had a band. It was one of the most up-to-date schools there could be at that time.

LK: And you were involved in music.

AF: In music, violin and piano, yeah.

LK: So you graduated in 1929.

AF: That's right.

LK: And you were at Cass Tech when Charles Lindbergh's mother was teaching there?

AF: Oh, yes, oh, yes. She was a chemistry teacher.

LK: Do you remember her?

AF: Yes, I do. She was a very gentle woman, and very quiet -- very reserved and very gentle and quiet.

LK: What was it like to be a student at Cass Tech at that time with Charles Lindbergh and his trip, his flight?

AF: Well, actually, I couldn't tell you, because school was school, wherever you were. I mean, you kept on doing what you were doing, and I couldn't compare it with anything, because I didn't go anywhere else, so there's no comparison.

LK: Do you remember it being exciting at the time?

AF: Some things were. See, we were in the music department, and we were constantly performing, with the chorus, with the glee club, with the band, with the orchestra, constantly performing for various functions. That was the only school in the area that had that at that time, and so we were always doing something.

LK: Right, right. And so you taught courses? You taught violin and piano after you graduated?

AF: After I graduated, yes, private, not in an institution, private instruction.

LK: And you were living in Detroit then?

AF: Oh, yes. I was living in Detroit from 1913 until 1954.

LK: Okay.

AF: Quite a while.

LK: So you read the newspapers, and read the call for women

to go to Wayne State to take the aptitude test.

AF: Yes. They called for women. There were all kinds of tests. They trained nurses, they trained -- oh, all kinds of -- after they took tests, and they determined where you were -- what fit the best. Some were in social work, but it was all done by the government. There was a shortage of men, and the job had to be done.

LK: How many other women were chosen for engineering courses?

AF: At that time, quite a number. I couldn't remember how many because they were scattered all over. There were several classes, but in the class that I was in there were ten women in that class. And then later on when SWE organized, why, I found out that there were many more that were under the same circumstances.

LK: At different universities?

AF: No. All from Wayne. But they didn't have one class, they had several classes going all the time.

LK: Okay.

AF: Night and day, evening classes and day classes.

LK: Did you take day classes?

AF: No, I took evening classes.

LK: What did your family think about you taking engineering

courses?

AF: They thought I was crazy.

(Laughter)

AF: They didn't know what I was doing. "But if that's what you want, go ahead." (Laughs) It wasn't heard of in those days.

LK: Right.

AF: Not like today.

LK: Right. Prior to the war, had you thought about going to college?

AF: Not really. I had a family. I had a child to bring up, and I had a family, so no, not really. And there wasn't anyone -- even if I did have an opportunity, I wouldn't have any way of anyone taking care of my child. So I just -- not the early years.

LK: Did Wayne State University provide child care?

AF: Well, at that time, my son was eleven years old, so I didn't have to worry about that.

LK: Do you remember other women having to worry about that?

AF: No, I don't. I never brought up their personal problems with them, their personal lives.

LK: It was just attending class with them?

AF: That's right.

LK: Do you remember what your favorite course was at Wayne State during that time?

AF: Well, it was drawing all the time, it was drafting. And I learned more on the job. Then I continued taking more courses while I was still under that War Management Training Course, when I had work. But this was at Bendix, which was only two or three blocks from Wayne State, so no problem for me, because I was in the area. All I did was walk over to the school and spend a couple more hours before I got home.

LK: Were there other women that were sent to work at Bendix?

AF: Not to the same place. They were all sent to different places, because all of the places were placing requests for workers with the university. And the university was deciding where they would send who, what, to. And usually they took into consideration where you lived and where the job opening was. If you lived on the west side, you worked in something that was located on the west side. If you lived on the south side -- because there were requests all over, because there was a shortage of men. They needed them. It wasn't only engineering, they were teaching everything else, nursing and oh, many other items where men were involved, doctors' assistants and hospitals -- especially for health care.

LK: So you responded to the call because there was a shortage?

AF: That's right. And another thing, I expected my husband

to be called into the service. And I figured, well, the wages that the soldiers received -- that wasn't enough to live on, that I would have to have something more for myself and my son. So that's why I decided that I had to go to work for protection. I was taking advanced protection.

LK: Right.

AF: And I never regretted that, because I always found it to be very interesting and very intriguing. I started working in 1942, and I didn't quit until 1980. I retired at around 1970, but all those years between Bendix, Ford, and Shatterproof Glass Company. At the Shatterproof Glass Company, I did not do any drawings. I was the technical assistant to the chief engineer. That was another new experience, very interesting, very different.

LK: What were the instructors like at Wayne State?

AF: Very cooperative. They were encouraging us. They were very cooperative. If you felt a little bit discouraged, why, they encouraged you -- at least the ones that I had.

LK: Did you ever stay in touch with any of them after the program was over?

AF: Oh, not really.

LK: Okay. Did you receive any kind of a certificate?

AF: Well, certificates from the War Management Training Course that I took these courses at Wayne, but nothing from Wayne

itself.

LK: Okay.

AF: Because Wayne was doing the teaching, but they were not -- we were really sponsored by the government.

LK: Were the courses that you took the same types of courses as the regular engineering courses?

AF: In the same class, there were regular students, in the same classrooms.

LK: Interesting.

AF: Regular credit students.

LK: Male and female?

AF: Male and female. There weren't many females then.

LK: Right.

AF: That was just the beginning. Later on there got to be more and more. See, this was at the very start of the war. And later on it got to be more and more, because this was in 1942. They just started the program. They kept on advertising and writing articles in the papers asking for -- and it grew.

LK: Right, right. And there were many women who went into factories.

AF: That's right. Well, those women, I don't know whether they were trained by anyone, or just walked in and trained on the job, but they worked everywhere. Rosie the Riveter--

LK: That's right.

AF: -- and all those, they were trained on the job. But the women did come forth and do their bit.

LK: You went on and made a career of it.

AF: Yes, I continued. I liked it, I continued. There was no reason to quit. And other women quit to start having children, and their husbands came back from the service. But I just happened to have that one child, and by the time the war was over, my boy was about twelve, thirteen years old, so there was no reason why I shouldn't continue. And I liked it.

LK: And the people at Bendix were supportive of you to continue?

AF: Well, yes. Yes, they all were.

LK: Your managers, I mean?

AF: Well, when I went to Ford, I wasn't going back to Wayne, because that was in Dearborn. I didn't have an automobile, I would never get to class on time in downtown Detroit.

LK: Did you immediately apply for a job at Ford when you were at Bendix?

AF: No. What had happened is when the war ended, the research laboratory at Bendix was discontinued. And my boss, the patent attorney that I worked for happened to mention at a patent attorney's luncheon that they had a draftsman that was -- they

explained that the department was being dissolved, and they had a draftsman that they would like to find a position for. And the patent attorney from the head of the patent department asked for my name and address, and I had an interview, and got the job--

LK: Wow.

AF: -- on the recommendation of my old boss.

LK: Right.

AF: Former boss, not old. Former boss.

LK: Do you remember how you felt when you went for that first interview?

AF: Apprehensive. You never know what they expect from you, and they never know what to expect from us. (Laughs)

LK: Was that your first job interview?

AF: At Bendix?

LK: At Ford. Was Ford your first job interview?

AF: Yes, it was taken care of even before I went there between the two attorneys.

LK: Right, right. And so--

AF: But then I had to go in there and have a formal interview.

LK: Okay. And what year was that, do you remember? 1946?

AF: '47.

LK: How many other women were in the patent department at

that time?

AF: I was the only one doing for the whole company.

LK: You were the only woman doing patents--

AF: Only patent illustrator, man or woman. Only patent illustrator for an entire company. There wasn't that many patents coming through that they needed a whole staff. Once in a while they would have an overflow, they would hire it out, to a vendor. But I was the only one there for twenty years.

LK: Wow.

AF: Now they don't have a patent draftsman on the illustrator -- on the staff. They farm it out. And I was the only one at Bendix, too. You just only need one in every company, because there aren't that many coming through -- any inventions.

LK: So was it isolating to be the only patent illustrator in the company?

AF: Well, not really, because each department was located in a certain area, and you were within the department. There were the stenographers, the typists and the clerks and then the patent attorneys who were all in one unit, so you never felt isolated, because it was a department--it was the Department of the Office of General Counsel, Patent Section.

LK: You interacted with other engineers all the time, correct?

AF: Had to interview. Every time there was a new invention, I was given instructions to go and talk to the inventor to find out what it was all about. Then it was up to me to make the illustration, the drawing. The inventor would have some drawings, too, and I would have to adapt them to the patent standards.

LK: How many patents do you think you've worked on in your life?

AF: Oh, about 300 or so, between Bendix and -- yeah, or better. They were not always -- some of them were not illustrations, some were more graphs. And so there was a variety of ways of illustrating or demonstrating what the patent was about. The patent attorney is the one who wrote the story, who wrote the detail -- it's not a story, but the description of the patent, and what it did, and why it's better than others, and why it should be considered.

LK: When did you start networking with other patent illustrators?

AF: I never worked with other patent illustrators. I never knew another one. Well, except the vendors that would come in for overflow work. We called them vendors, but patent illustrators that had their own office and did for all kinds -- all the attorneys all around town who had small offices but still had business, that couldn't have someone permanently on the staff.

Then at Ford Motor, later on, after I was there about twelve years or so, there was such a big overflow of work that we did get another young lady. She was transferred from another department. She never knew what a patent was, like I didn't in the beginning. Then she learned, like we did. She was there about four years, and then she left because she went to live in California. And then she continued on in California as a patent draftsman, freelance.

LK: Did it seem like everyone at the company knew that you were the only woman?

AF: I don't think anybody paid attention to it.

LK: They just paid attention to the work.

AF: That's it. Because there were women on the drawing boards, because we were in a separate department, separate section and separate unit. In the big drafting rooms, there were women there, but they were not on patents. They were working on other projects. There was quite a number of women at Ford, at the big drawing boards. This was a small drawing board. It was a different setup. So I was not the only one doing drawings.

LK: Just the only one doing patents.

AF: The only one doing patent work. But we had quite a number at Ford Motor and at Bendix.

LK: Did the women at the company socialize and interact?

AF: Well, at Ford we did, because that's when I joined SWE. Then I got the other girls interested in SWE, and they all joined. We had quite a nice group from Ford that joined shortly after I did.

LK: Let's talk about how you joined the Society of Women Engineers.

AF: Well, I happened to see an article in the newspapers. There was Geneva Van Horn and Ann Lawrence, and one other person I forget -- oh, Virginia Sink. Virginia Sink was the first chemical engineer at Chrysler. And they heard about SWE, and they wanted to start a chapter here. There was an article in the paper about them. And so I contacted one of them, and I said, "I don't know whether I'm eligible because I'm only a patent draftsman (Laughs) -- a patent illustrator." And they said, "Yes, you are. You're eligible." So I joined. That was in 1953. That was some twelve years after I started working.

LK: Right.

AF: And that's when we started that -- well, I joined it in 1953, but the process of accepting members was different than it is now. It would travel from one member to another across the country to approve each application. By the time I was finally approved it was 1954.

LK: And you told your other co-workers about SWE?

AF: Yes, we had. I wish I was prepared, but I had pictures showing -- I might send them to you.

LK: Okay.

AF: I'll send them to you, because there's no point in me keeping them, of the organizing. There was even a picture at the Ford newspaper, Ford Times, of the women that were forming the Society of Women Engineers.

LK: So Ford was supportive of that.

AF: Oh, yes, Ford was supportive. They still are. They're still very supportive of that, more so than ever before. They didn't pay your dues, but they allowed you to take the time off to go to a convention. You still got your pay, and things of that kind. It was fine.

LK: Were you involved in any other engineering societies?

AF: Well, yes, the Society of Engineering Illustrators.

LK: Okay. Before you joined SWE?

AF: No, no. SWE was the first one. Then the second was ESD at the time as SWE, because SWE wanted more representation at ESD, so I joined ESD at the same time that I became a member of SWE.

LK: ESD is Engineering Societies of Detroit?

AF: Yes. Then about six or eight years later, the illustrators -- not patent, just illustrators from General Motors decided to organize and have a Society of Engineering

Illustrators. Then they passed word around to anyone that they heard of that was an illustrator, whether it was patent or any, as long as it was engineering illustrating, not comics or cartoons.

LK: Right.

AF: And they organized the Society of Engineering Illustrators. They existed about twenty years. They had one mistake in their bylaws, that if you retired you didn't have to pay dues anymore. It got to the point that we only had about six or seven that worked, and the rest of them were retired, and we couldn't afford to stay in business, so we disbanded. And you couldn't get new ones, because by that time the computer was taking over, and it wasn't the same.

And another engineering society that we organized was ethnic, the Polish American Engineering Association. We are going strong. We have just passed -- we are now on our twenty-seventh anniversary.

LK: Congratulations. When was that society formed?

AF: In 1975.

LK: Back to the Society of Engineering Illustrators: Was there any sense that you weren't an official engineer if you were an engineering illustrator? I know that's a difficult question.

AF: You didn't have to be an engineer, but you did have to understand mechanics, because many of the illustrators had to

illustrate a whole motor, or something, and they had to know what was a rotor and what was this, what was that. They had to know what it was so that when they were drawing, they would know what they were doing and why they were doing it. Most of it was something that was handed down from the engineering department. And they always worked close with engineers. They had to.

LK: Right.

AF: The same thing like with a patent illustrator. I had to work close with engineers to get the picture in my mind. Except I was limited to patents only, but my drawings were the same as they were doing. Theirs was for catalogs, for manuals and advertisements, but they were all three-dimensional illustrations.

LK: Who were some of the other women at Ford that you convinced to join the Society of Women Engineers?

AF: Well, there was Mildred Page and Margaret Ford, Harriet Vickery, Lorraine Phillips -- she worked in the engineering library. She was a librarian, but strictly for engineering. Who else? And others. I don't remember them all.

LK: Sure, sure.

AF: But there were about ten of us from Ford. It was the largest contingent then, because they didn't seem to roll over in General Motors until later. It started at Chrysler with Virginia Sink. They had quite a number. And then when I joined, I got

these girls interested. Because all of these women that were at Ford were all trained by the government, and one - Mildred Page, she was at that time in her sixties, she was trained by the government for World War I.

LK: Wow.

AF: And at that time, she was older. She had worked in Buffalo for an aircraft company. But she was trained by the government in drafting in World War I.

LK: Wow.

AF: Of course, she's not living anymore. Then her daughter took up architecture, and she worked -- well, she works at K-Mart now, as an illustrator in their department -- not illustrator, a draftsman in their construction department -- that is, the last time I heard.

LK: What were some of the issues and the activities of the early SWE?

AF: How do you mean?

LK: Well, once you formed the society and you became a member in 1953, '54, what were some of the activities that SWE sponsored?

AF: Well, career guidance was our most important thing, getting in touch with all of the high school counselors, especially the women counselors, to convince them not to

discourage the girls in engineering, but to encourage them, and why. And we had them for luncheons and dinners and for special programs. We paid for everything. Everything took place at the Engineering Society of Detroit. And that was our main objective, to get the school counselors, men and women, especially the women, to encourage young ladies, if they were interested, to go ahead with that, instead of discouraging them. They're still discouraging them. Some of them have a closed mind on that. But a mind is a mind, it doesn't matter what kind of a sex you have.

LK: Was there ever any discussion about participating in other activities, like writing letters to Congress, or--

AF: One thing that we did -- this goes way back -- there was a commissioner, the State of Michigan road commissioner, that someone objected to -- we were not supposed to be involved in any government things.

LK: Why?

AF: Because we were tax free. But we did make an issue of the fact -- I think it was Van Wagner -- I'm sure that we wanted to save him, because someone wanted to remove him from the road commissioner. And the Society of Women Engineers got with ESD, Engineering Society. The Engineering Society did not have the same requirement. We did, because we wanted to be tax free. And so we were not supposed to be involved in anything political. But

we did want to save the road commissioner at that time, in Michigan State. That goes way back. I might have the wrong name by now.

LK: The Engineering Society of Detroit would come out and speak out for some of these issues?

AF: Well, yeah, because they could, but we couldn't. But we did, and we shouldn't have, because we were tax free. Engineering Society is an engineering society, but it's also a business. And certain things were tax free, certain things were not. But in our group, it was we were not supposed to get involved in politics. I don't know how the constitution is now, our bylaws, but at that time, that's how it was, not only in Detroit, nationally. At that time there weren't that many national sections throughout the country, not as many as now.

LK: There were only six or seven, right?

AF: That's right.

LK: Were there some members that wanted SWE to be political?

AF: Well, the ones that were pushing for that Mackie, they happened to be working in civil service, and so they were familiar with him and all. I think that was the name of the man, but I could be mistaken, because that goes back, way back.

LK: Sure, sure. What about becoming political -- about

women's issues?

AF: We never got involved in that. If anything, it was on your personal basis, but not as a society.

LK: Why was that important?

AF: Because we were not supposed to get involved in politics. I don't know what the bylaw is now, I haven't caught up with it, but at that time, it's because it was tax conditions, and several reasons why we were not supposed to do that, involved in politics, that it was a non-political organization.

LK: It was educational.

AF: It was educational and career.

LK: And so what types of career guidance activities did SWE do?

AF: Well, we had exhibits of all the -- we would have an exhibit, along with the Engineering Society, where they have -- they call it career night. The mechanical engineers would bring out literature and show it. There was a whole display, tables and tables, and all of them would show -- electrical, chemical would show what was is being done, and we would show that our members are from all these areas, that we are all in one, and that the women engineers were represented in every one of the categories. And we were very active in that. We had members get up and give speeches to these students when they had the career nights. That

happened every year. They used to have it at the Engineering Society of Detroit, in the Rackham Building.

And it was very interesting, because these high school kids would all come out, boys and girls, and the schools began to encourage girls to go. But that was our ambition. And what we did was, we were always nagging, picking on the counselors and encouraging the counselors to encourage young girls, not to discourage them. And it always seemed that the women counselors were the ones who were really discouraging. The men didn't.

LK: Why do you think that was?

AF: I don't know, because they just judged them by themselves, I guess, because they thought they won't fit in it, so they thought the girls wouldn't fit in. It's a matter of opinion, I guess.

LK: So how did you interact with the guidance counselors? You took them to lunch?

AF: At ESD we took them out to dinner. We had a dinner for them. And it was no problem getting a hold of them – we had an excellent committee. The girls would get a hold of the various high schools and find out who the counselors were, write a letter to the principal and to the counselor. And who wouldn't come to a free dinner? And they were invited to dinner, they all showed up. We did that for several years. And now they do it differently.

I don't know. SWE doesn't do that anymore, but there are still career guidance affairs going on aimed at counselors, to encourage. But now it's to encourage both young males and females.

LK: So while you were becoming more and more involved in SWE, when did you start joining other technical societies?

AF: Well, I joined ESD at the same time, because SWE wanted a large representative at ESD.

LK: That's right. That's what you said.

AF: And then the Society of Engineering Illustrators was formed about ten years later --

LK: Right.

AF: -- and I was approached to join them. Then later on, I organized with another group, the American Polish Engineering Association, back in '75. That goes back, because along with the Engineering Society of Detroit, we had the celebration of Nicholas Copernicus, the astronomer, the 500th anniversary of his birth. And we, the Polish community -- not the Polish engineers, but the Polish community went all out. They had all kinds of committees. They had their culture committee, they had their arts committee, they had their engineering committee, which I headed. And each one we gave various functions. Ours, we joined ESD, and had a joint function with them.

After that, the Polish American Congress decided that this engineering committee did a pretty good job, why don't we organize as a group? That's what we did, as a society, then. And we've been going on since then.

LK: And why were you active in the Polish American Community?

AF: Because of all the slangs and all the slams and all the dirty and degrading remarks that other nationalities made at us and other people, that we wanted to prove to them that they didn't know what they were talking about.

LK: Your parents were born in Poland?

AF: Yes. They met here in the United States, in Michigan.

LK: And do you remember what year they came to the United States?

AF: I know when my mother came. My mother came in 1910. I think my father was there about three or four years earlier. I never knew. But the reason why I know about 1910, she says, "Because within a year, you were born." Because she met him in October, when she came, and she married him in January of 1911, and I was born in September 1911. But I never really -- I knew for sure -- he was here about three or four years before she was.

LK: But you, throughout your life, you have been involved in the Polish American community?

AF: Always, yes. There's nothing wrong with that.

LK: Absolutely not.

AF: Everybody should stand up for their background, for what they were, who they were. After all, not everybody was born in America, but came here.

LK: That's right.

AF: Other than the Indians, the others have ancestors from somewhere.

LK: That's right.

AF: Look how strong the Spanish people are. They take a lot more pride, because the Polish people have been -- there was all those jokes and things. They picked on the Polish people because there were German people that never did like the Polish people, and they degraded them. And they had more power here to degrade the Polish people.

Not only that, the only people that came here from Poland, mostly, were the peasants, to escape from the labors of Poland, because the aristocracy didn't need to leave. They had everything. They didn't need to go. They were the bosses. They were the ones that had it good. It's those who had a very meager, very poor life came here under steerage, sitting in the bottoms of the boats, they lived -- they didn't have berths or anything -- to come here for a better life.

They came here, they didn't know how to read or write, but their children graduated from colleges and became famous leaders, and well known, and active. But that was the whole thing. When they came in, it was the people that went deprived of education and everything else. And other nationalities didn't have that disadvantage. They had a chance to get some schooling. But this was under the ruling of the czar. And you either were an aristocrat or you were a peon.

LK: Right, right.

AF: They came here to make their life better. They escaped and came here. They escaped to Austria, and in various ways they managed to get here. But their children and their grandchildren are very well educated. They couldn't do it. But you see, the stigma is still there. They're still judging you -- the various Polish people, as to what was done sixty, seventy and eighty years ago, and ninety years ago. They have it in their mind, that it's impossible, just like some people think that because you're black you can't think. That's not true. We all have minds.

LK: Did your parents encourage you to take pride in being Polish Americans?

AF: All the time, all the time. We always -- I always had, in our home, and even now today, I get a Polish newspaper all the time. But the newspaper now is half English, and the other half

is in Polish, because there's an awful lot of Polish people that came in recently that would like to keep up with the news, so they get it. But I've gotten the Polish Weekly for seventy years.

LK: That's wonderful. Was your family supportive of your professional activities in the 1950s and 1960s?

AF: What was it?

LK: Your family, your husband? He was supportive of SWE and your professional activities?

AF: I didn't join SWE when I was -- this was between marriages, that I joined SWE. My first husband was not supportive of any kind of an organization. He didn't believe in any organizations. He worked in the factory, and he didn't even want to graduate from high school. He left school earlier. Maybe you can understand why there was such a difference between us.

LK: Sure.

AF: A different attitude about everything. Except when you're young, you don't think of those things. You don't analyze those things, you don't stop to think of them until later.

LK: When did you meet your second husband?

AF: Well, I met my second husband when I worked at Bendix.

LK: Can you talk a little bit about that?

AF: Well, it's just that I would be working on some of his inventions, his ideas, and then we would be consulting the work.

LK: Was he an engineer?

AF: Oh, yes. He used to build airplanes. I'll show you some pictures of the airplanes he built. Oh, yes, he was an engineer, and that was at Bendix. And when I left Bendix, it was about a year or two after that when I was at Ford, somehow or other I ran into him again, and we got acquainted, better acquainted. And then in 1953, I married him.

LK: And you were already involved in SWE and working for Ford?

AF: No, it all happened at the same time. I married Mr. Fletcher in December of '53. But I joined SWE in September. But by the time I was processed it was 1954. And the same thing with ESD. It all happened at the same time.

was also a member of ESD. Oh, he was a member of ESD for quite a number of years before that.

LK: And what was his name?

AF: Cicero Patterson (phonetic) Fletcher. We all called him "Pat," after Patterson, the middle name.

LK: Okay. So he was with you in 1964 for the first International Conference of Women Engineers and Scientists?

AF: In New York he was. But he didn't go to Europe with me. But he attended most of the conventions. That was our vacation. We'd always plan around that. Oh, for a long time, until the

point, after my dad died, my mother was not feeling well, and I couldn't really -- I didn't have anyone else. I couldn't leave the city.

LK: Right.

AF: I had to be around, because my brother was also very ill. Of course, my brother passed away in the '60s. But I just couldn't leave.

LK: So you weren't an only child?

AF: No, I had a brother and myself. It was just the two of us. And my father was gone in '66, when I became a woman of the Top Ten Women. Incidentally, four of our SWE women were Top Ten Working Women. Not the same year, but each one -- Anna Hanson -- what is her last name, now? Her maiden name was Hanson. And it was Virginia Sink that got it, and Mary Soler -- she's not living any longer -- and another member that worked at Y&F Chemical. I didn't remember her name now -- and myself. There were five of us in consecutive years that became Top Ten Working Women in Detroit.

LK: And you're pointing to a photograph--

AF: The figurine.

LK: They presented you with a figurine? That's what they presented you with?

AF: Yes. Oh, there was a whole weekend of -- it was Top Ten Working Women of Detroit. Every year there was a whole weekend of

festivities, all kinds of festivities. We even appeared on TV telling what we do. It was very nice. And then, Pauline Frederick, which was a national woman commentator, made a remark and says, "I don't see why they're doing this for the women. We're no different than the men. They're not doing one for the men." And they discontinued having this Top Ten Working Women of the year. And it was a pretty good idea, because every year there were ten of them selected from all kinds of categories. It was very nice. They would have a whole week of celebrations and all. It was very, very nice.

LK: During that time period it wasn't necessarily usual for women to work, correct?

AF: Oh, no. Women worked then. World War II put women to work.

LK: Right. And World War I.

AF: Well, yes, but not as many.

LK: Right, right.

AF: Well, there was always conflict. Some people think that way, and some think that, go ahead, do what you can. You know, when we went to work, when the War Management Training -- when we were trained, it was with the understanding that we would work until the men came back, and then the men would come back and take their jobs back.

LK: Right.

AF: But many times, the men decided to go back to school.

LK: Sure.

AF: Or decided on another type of work, so that's why so many of them stayed.

LK: And then women like yourself were able to build careers in engineering?

AF: That's right.

LK: Let's go back to talking about the international conference in 1964.

AF: In New York.

LK: You attended that first international conference.

AF: Yes, I attended that. In fact, Margaret Eller and I were roommates. We'd been roommates at most of the conventions.

LK: What was that like?

AF: It was very interesting. But the very most interesting international that we went to was the one in England. It was so formal. They stood up and greeted you, and then we stood up and thanked them for greeting us, and then they stood up, thanked us for thanking them for greeting us.

(Laughter)

AF: They were so, so formal, more formal than -- it was very nice in Italy, it wasn't quite that formal. And then there was

one in Poland, and that was very informal. And that was when Poland was still under the denomination of Russia -- not denomination -- under the control of Russia. But it was very nice, anyway. That was a double trip for me. There I went to see some relatives, too, while I was at it.

But the New York conference was a trial, to see how it'd work out. They had the girls from -- women from all over the world come in, Asia, Japan, Africa, from all over. And it was so successful, that that's when they started to have them every three or four years, I think it was.

And lately, I went -- they had one last year, here. But I wasn't -- I don't like to travel alone, because I can't read the signs.

LK: Right, right.

AF: And so if I -- like Sarah -- when we go to the convention, Sarah and I go, but she knows I can't read the signs, but I won't go alone.

LK: Why is it important for women engineers to meet, from different countries?

AF: So they will know about one another and encourage one another, mostly.

LK: Why did they need encouragement?

AF: To encourage others to study, and to set an example.

LK: Did you have any role models when you were first starting out?

AF: Well, no, because I didn't know of anybody there. Later on, I found out about Virginia Sink, but I was already a member. But I didn't really know anybody, because when I went to work at Bendix, I was the only one doing that work. When I went to Ford, I was the only one doing that work, that type of work. And so I couldn't have a role model. But then when I got to know -- when I joined SWE, and I got to know about Virginia Sink, she was my role model, because everybody looked up to her. She was very active with the service organization, what is that?

LK: Society of Automotive Engineers?

AF: No, no, not in engineering, it's just a service club.

LK: Soropt--

AF: Soroptimists, yes. She was a national president and all that. She was a real role model. She's not living any longer.

LK: Did the other women look at Virginia Sink as a role model?

AF: I think so. If they didn't, they didn't know what they were doing. She set it up, because she was about one of the first -- she was really a pioneer. She was a chemical engineer, and she came, I think, from the Midwest somewhere. And she came here to Chrysler, and she really made a career of herself, very, very

much. I had a lot of respect for her. She was very friendly. There was nothing snobbish about her, or "I am," nothing like that. She was so humble and friendly. I admired her very much. (INTERRUPTION IN RECORDING – end of tape one)

LK: This is tape two with our interview with Ann Fletcher, on April 4th, 2003. We ended tape one with you talking about how Virginia Sink was a sort of role model for you.

AF: Well, let's go back to Virginia Sink.

LK: Were there any other women within SWE, or within the engineering profession who--

AF: Oh, Dr. Lillian Gilbreth is another one. And another one that was national -- not local -- it was Elsie Eaves. And Katharine Stinson, another one. Those were the real pioneers.

LK: Do you think that you would have known about these women if there wasn't a SWE?

AF: Yes, because they appeared in the paper once in a while, there would be something about them. In fact, I received the book, *Cheaper by the Dozen*, about Lillian Gilbreth, before I knew there was a Society of Women Engineers. We met her.

LK: Do you think you would have been able to meet her if there wasn't a Society of Women Engineers?

AF: No. I couldn't see where or how. And with all the others, too, I couldn't see -- the circumstances were not just

right, but when you have an organization, there is a chance.

LK: Was that important to you?

AF: That was, because to know what their experience was and what their attitude. And most of these that I've spoken to you about were so humble. They were not conceited. They were very humble and down-to-earth.

LK: But they were pioneers.

AF: They were the pioneers, yes.

LK: What does it mean to be the first? You were a female first. What does that mean?

AF: Well, at first it kind of awed me and frightened me, because like I was the first woman to be on the Board of Directors of the Engineering Society of the Detroit.

LK: Was that--

AF: I was also the first woman to be a fellow of the Engineering Society of Detroit. I was just apprehensive as how the men would accept it -- more apprehensive how the women would accept it, because some of the women disregarded that. Let's put it that way. "So -- well, so you're a first" -- that attitude. And so in fact, there were -- at that time when I was appointed and elected, I was apprehensive -- "Should I -- is that the right thing to do, the right thing to do, the right thing to accept it," because I didn't know what the attitude would be.

LK: Did you talk about this with your husband at that time?

AF: No. I never talked about -- all we did -- or I would tell him that -- he had been on to ESD, and he would know what was going on, and then we went around. But he never objected to anything, and he was more or less surprised that those things happened, but he was pleased, too.

LK: Where did he spend most of his career?

AF: Well, I met him in the latter part of his life, because he was forty-seven when we married, so I don't know too much about him. All I just know is what I know about him since I knew him, that he was an engineer at Bendix, then he was an engineer at Ford, and then he was an engineer for G.I. Case in Wisconsin.

He would travel back and forth for the weekends, but he would be working in Wisconsin. He went there because the fellow that was chief engineer at Ford Tractor got this position of vice president at G.I. Case, a farm equipment and tractor equipment company, and he wanted to take his key men with him. And my husband though that was a good opportunity for him.

But I didn't want to leave Detroit, because I liked my work, and I thought our home was all right, and this was only a temporary job, anyway, for him, a contract job for five years. I didn't see any sense in disrupting everything for the sake of five years. And we agreed that that was the right thing, because that

way I didn't lose my pension. And I had to think of that, too.

LK: Your pension, was this from Ford?

AF: With Ford and with Shatterproof, because I have a pension coming from Ford, and then I have a pension coming from Shatterproof -- not much, because I was only with Shatterproof twelve years. But every little bit helps.

LK: Of course. That must have been difficult for your husband to be in Wisconsin and you to be here, continuing to work.

AF: Well, it was only about an eight-hour drive -- not even so, because it was just about an hour after Chicago -- about a four-hour drive. Just from Harrison Township, where we lived, Mt. Clune, that's ten miles south of here, it was three hours to Chicago, and just about an hour, hour and a half to Racine, Wisconsin. So it was only four and a half, five and a half hours, depending on the weather. And he would come home weekends, Friday, and leave Monday morning. So this was all right. And he was on contract. They were on contract for five years, so I didn't see any point in disrupting everything for five years.

LK: Sure, sure.

AF: And I had the job, I liked working. What was I going to do over there? Start -- at that time, I was in my fifties. You don't -- it's not that easy for a person in their fifties to get jobs, you know, because you're close to -- I was retired from one

place. I was fifty-eight when I retired from Ford. That was a special early retirement because they were cutting down the staff. In fact, they never did replace anybody on the staff. They did all their work on the -- had it vended by outsiders. And there was no one on the staff anymore. I was the last one on patent illustrating.

LK: How did you feel about that?

AF: Well, I was sorry to lose that, because I liked it. But then when I went to Shatterproof, the work was altogether different, because I was a technical assistant to a chief engineer, and I had to make reports that he didn't have time to do. He would go over it, and make analysis of heat use and gas use and water use, and various things. Altogether different, but interesting. Both jobs were very interesting, because on patents, you didn't do the same thing twice. There was a variety of things going on all the time, on the inventions, from all over the company. So they were both very interesting. Both were time well spent, not a dull, routine job.

LK: Before you went to Shatterproof, and you and your husband were both working at Ford--

AF: Well, he was, at that time, working at GI Case in Wisconsin.

LK: But before he went to Wisconsin, you were both working

at Ford Motor?

AF: Yes. But he was working in another department, in another division, in another building.

LK: Right, right. Did you know any other husband/wife couples that both worked at Ford doing engineering work at the time, or do you recall?

AF: I can't think of any. I can't think of any.

LK: Because that's very interesting.

AF: There were lots of husbands and wives that worked, and one wife was secretaries or stenos, and the husbands would be working, but I didn't know who they were. As far as that was concerned, there were quite a few couples that way, but not in engineering-related work. But like our secretary in our department, her husband worked in the engineering department. And many of them -- there were many husbands and wives. They met there, most of them. Although I didn't meet Mr. Fletcher, I met him at Bendix.

LK: That's right. At any time in your career, was the fact that you didn't have an official engineering degree matter to anyone?

AF: No, it didn't. It didn't seem to, because I seemed to satisfy them with my work.

LK: Good.

AF: So it didn't matter. But I kept on going to night school taking various courses.

LK: Sure.

AF: But none were credit courses. I didn't want to go into that, because you never knew what was going to happen next year or so, that you could continue.

LK: Was that ever an issue in the professional societies?

AF: No. No one ever questioned me.

LK: Because there were many women who earned -- gained their training during World War II, like you did, correct?

AF: Very many. Both wars, World I and World II. Of course, there are more trained girls now -- more girls trained in engineering, because of society, and the colleges have many graduates. It's different now than it was before. They're not going to have a shortage. What they will have a shortage of is labor, down on the production lines and all.

LK: That's interesting.

AF: But not in the training, because the girls -- well, look how strong SWE is. They're all strong, and they're not going to go into the war, into the service. They'll replace the men if they have to. They'd rather not. They'd rather be on their own. But our girls, I'm so proud of them. There are such advancements in the -- when you read in the SWE news and SWE newsletters and

*SWE Magazine*, you can see how they're advancing and how professional they are. And the organization itself is so very businesslike and professional. I'm proud of them.

LK: That makes you feel proud as having been an early member?

AF: Yes, it does.

LK: Do you think things have changed in the profession for women since you were an early member of SWE?

AF: Yes. They're accepted now. It was pretty hard to be accepted before, unless you did something that they didn't want to do. Like for instance, patent illustrators, not many wanted to do that. They wanted to go higher up. You weren't in their way. But if you were an engineer with a degree, then you competed with another engineer and a degree, and they didn't want you. They wanted to go up. They didn't want the women to climb. But now it's different.

LK: Did that bother you?

AF: It didn't bother me because that didn't affect me. Nobody wanted to do what I was doing. They wanted to do more.

LK: Did that mentality ever affect any of your colleagues within SWE?

AF: I never discussed that, so I don't know. Now, Helma Fuhrman -- she's not living anymore, she was one of the charter

members [of SWE Detroit Section]. She was the first woman who passed the Society of Professional Engineers State Exam. She was the first one in Michigan to pass it. Virginia Sink and Hazel Quick were in because of a grandma clause. They didn't have to pass a test or anything. But after that, you had to pass the MSPE test. They didn't have to take it -- those other two didn't have to. But when the Michigan Society of Professional Engineers finally got underfoot, and the State of Michigan started to give out Professional Engineer certificates, they demanded that you had to pass a test.

After that, all of the women, Lydia [Lazurenko], Pat Shamamy, all of the women had to pass this severe test that the State of Michigan gave for professional engineers. "Professional Engineer" is on equivalent of getting a doctorate, or being a doctor. It's a profession. It's higher than just an engineer with a degree. When you pass that test, why, you are a professional engineer. You're entitled to more benefits, better jobs and the like.

And we have quite a number of women that are professional engineers. Marian Yune is a professional architect. And Helma Fuhrman was the first one -- first woman to pass the test. Now we have quite a few. My hat's off to every one of them. I don't wear a hat, but whatever.

(Laughter)

AF: I'm quite proud of our women.

LK: What would you consider to be your most important contributions to engineering, as a woman, but also just in your career, in general?

AF: Encouraging women to continue, and to be in it, and students, to be in it, to take up engineering. It's very challenging. Why, they can do it.

LK: Last summer, the Engineering Societies of Detroit honored you with the Lifetime Achievement Award.

AF: Yes.

LK: And do you remember how you felt?

AF: Stunned.

LK: Why?

AF: Why, I didn't do anything. I feel I didn't do anything to get a lifetime achievement award, and I told them that. When I made the speech, I said, "There's many, many, many women in the organization that have done much more than I have." But they have to wait until they're ninety, like I did--

(Laughter)

AF: -- to be recognized. But they did much more, but I did that before they did it, before they got into doing their thing, like Lydia was president of the Engineering Society. And [Sue] Chiscke, she was on the Foundation Board. And oh, there's so many

of them. Of course, all this was -- in the beginning, when the women were just being accepted -- I was the first woman to be a fellow, first woman to be on the board [of ESD]. But after that, why, the door was wide open, and more women started to get involved. And they did a lot more than I did. But they have to wait until they're ninety. That's when I got mine. They don't have to wait, but that's my comment--

(Laughter)

AF: -- you know, that I had to wait until I was ninety. Of course I was stunned. I didn't expect that anything like that would ever happen, ever. Now, that telephone call, that was about that banquet that's going to be -- I'm getting that award next Wednesday.

LK: This is an award that you're receiving for your contributions to Polonia?

AF: Yeah, well, a contribution. Like for instance, when we had the Copernicus Celebration together with ESD, I headed that committee -- on the engineering committee of that, I headed that. Every year, I write about an outstanding Polish American who did -- an engineer or a scientist -- a lot for America. Every year for twenty-six years, I have instigated -- I was writing most of them until my vision failed. But I am coordinating. Now I'm coordinating the whole thing. We write booklets, distribute them

to all the libraries that we can think of that ask for it, schools, difference societies. Plus we distribute them at the Affiliate Council Gold Award Banquet. We distribute them there. And then we honor these people for their achievements and contributions to mankind.

LK: Why is that important?

AF: Because they slurred the Polish people, and we want them to know that the -- and the reason why we do it at the Affiliates Council is that all the other societies are there, all the other nationalities are there, we want them to know what our Polish people can do. That is important, because they have been always the underdog, always being, "Oh, well, he's Polish, he doesn't know anything. He's Polish, he's ignorant." That, in spite of Chopin, in spite of all the famous people from Poland, "they're still stupid." They still have that fixed notion, because it goes way back to when the peasants came here to escape the oppression in Europe.

They came here and they worked hard in coal mines and did the dirtiest jobs, but their children were educated, and their children rose. But the stigma -- I wouldn't say stigma -- but the label that the others gave these people who went to work in mines and all that, they were stupid, see, they didn't know anything. But they came because they had to escape the oppression and give

their family a chance. That's why it's important to me.

This didn't happen in my family. My father was a salesman. He never worked in a mine or anything like that. And my mother was a dressmaker, and she had a professional bridal shop. That didn't happen in my family, but I saw it happen all the way around.

LK: Is that similar to why it's important to honor women for their contributions?

AF: That's correct. Yes, it is, because there are still men that will not accept women, but not like it used to be. It used to be really rough. But the war opened the door for that. Well, I don't want wars to open the door for women. I want women to be welcomed without the cause of a war.

LK: How do you think that would be possible?

AF: Be hard. You have to be hard-nosed and -- well, our girls are now -- now it wouldn't matter -- but things wouldn't be the same. The girls wouldn't go -- no, they wouldn't have been encouraged to go into all that. I think that war has made the women do these things. And after, the younger generation followed trend, do it without a war, because of their parents -- their mothers influenced them.

LK: Was it difficult being the first?

AF: Among the first. Well, it's that time again, they say.

They have to take us. So they have to play ball with us, because there was nothing else they could do about it. The few men that were left -- the men that were left were those that could not go into service, they were too old or something, or maybe their health wouldn't permit -- there were some health problems for the younger ones. Well, they did accept us, because they couldn't help it, they had to. But I never ran into problems.

LK: Okay.

AF: And I don't think most of the girls did, either, in the big companies. It would happen in the little small companies, maybe, but not in the big companies. Because most of the jobs that the women took, it was on a contingent, like I said before, with the understanding that when the men come back, they would get their job back. Well, most of them went back to school instead. They didn't want their job back, they wanted something better.

LK: What about when you started becoming more active in ESD, and then you became the first woman fellow, was that difficult?

AF: It was a surprise. I never expected anything like that. And I was as surprised when I was elected for the board of directors. I was the first one, too. I didn't expect anything like that. But then it showed me -- because I told my husband, "My God, why did they pick me?" He said, "Don't you see that they're recognizing that you guys can do something -- that you

girls can do something?" My husband was proud of that. And he said, "Take it."

LK: How did you balance your working life with your family life and your personal life while you were working?

AF: When I worked at Ford, I was already divorced, and it was just my son and myself. And then he went into the service, so then I was all by myself. In the meantime, I got married again. I was single about eight years. And I got married again, and when he came back from the service, why, he was already a grown person, and he went his own way. He was welcome at the home and all, but he had his own ideas of what he wanted. He wanted to be in California. He was stationed in California when he was in the service and he just loved it. So he wanted to be -he went to California, and he lived there. He lived here for a while, and he married one of the girls from Ford Motor. He worked at Ford for a little while, but he wanted California. So he was a grown man, could do what he wanted to.

LK: But there are still responsibilities in the home, like housework and--

AF: Well, you do it when you can. Even now, I do it when I can. Sometimes my back is so bad that I don't touch -- do anything, just sit and read. But I am very active with the American Polish Engineers, because all the work that I can do, I

can do right here at home, without going anywhere to do anything out there. And they have the other people who can do the chasing around. I can't chase around anymore.

LK: It's important to have flexibility.

AF: It is important to have something to do. I am here at the village with the people my age and older. There are quite a number of people that are beyond 100 at the assisted living and all. But I do not mingle much with them, because I still have something to do. I am still tied to my past life. And they understand that it's that I'm not avoiding them in any way. I do go to certain functions. But I have other things to do, that I'm not looking for some more. They have a lot of activities here, but I just can't be involved in all of them, because I have other responsibilities. That's it. But I'm here in case I have my emergencies or so. I have no family left, and so I need to have something or someone to take care of me when the time comes. And who knows when the time comes? Can be next year or tomorrow or ten years from now. Who knows?

LK: Do you feel satisfied with your work?

AF: Yes, yes. I feel like I'm accomplishing something.

LK: Do you have any advice for young men and women today who are in the engineering profession?

AF: Well, that they should go into it if they're interested

in it, if they like it. There's so much opportunity, so much now-a-days that didn't exist before, so much ahead for them. They should, if they're interested in that type of work, because there's nurses, there's doctors, there's teachers, oh, there's a big variety of everything.

LK: Let's go back to talking about when you retired from Ford, and then you went and you worked at Shatterproof Glass, and you were the technical assistant to the chief engineer.

AF: The chief engineer.

LK: Were there any other women at Shatterproof at that time?

AF: No. That was a small company -- compared to Ford it was a small company. Oh, they maybe had about 300 employees, including the production lines. That was a small company. But it was interesting, very interesting. A different line of work. That's what inspired me a little more, because the work was altogether different. I didn't do any -- I did some drawings, but not patent drawings -- other drawings, you know, that some people in the factory had an idea about moving about certain things or so, well, then, we made them drawings for approval by the chief engineer. But I didn't do much drawing. I did other things -- analysis, reports -- oh, a variety of things. I called myself "Friday."

(Laughter)

LK: So there weren't any other women?

AF: It was a small company. There were women, secretaries and typists and stenos, but I was the only one doing -- our engineering department consisted of five people: The chief engineer, and another engineer, not a chief engineer, just an engineer; and two draftsmen, and myself. It was a small department, but we did a lot of work.

LK: If you had to name the greatest engineering contribution in Detroit, what would that be?

AF: The automobile.

(Laughter)

AF: The automobile. And of course, Edison was born in Port Huron, and he used to travel between Port Huron and Detroit being a newspaper boy. I don't know how much he contributed in Detroit, he's another one from Michigan.

LK: That's right. But definitely, the automobile.

AF: The automobile, I'm sure of that.

LK: Is there anything in your career that you wish you would have done differently?

AF: I wish I'd started earlier, because it was interesting.

LK: Started earlier in engineering?

AF: Earlier than the war -- before that, if I had started earlier, because it was very interesting. Of course, I maybe

couldn't have, really, because I did have a child to take care of. But when I started working, he was already going to school, so that was all right, but maybe before that it wouldn't have been. I would have had to make some sort of arrangements -- but I wish I had started earlier. It never occurred to me to even do that, because the war -- the ad in the paper -- the notice in the newspaper is what spurred me on. It never even crossed my mind to do anything else other than teach music.

I was teaching privately, not for any institution or organization. And you know, you have a student that has to take a lesson, and you count on that lesson, and then they call you up and said he has a toothache, or something else, and then you don't. It wasn't a steady income. It was according to how the students could come, and wouldn't come. And at that time, you only charged a dollar a lesson. And so it wasn't any kind of an income -- it was just something to do.

LK: Do you still think there's a need for a separate Society of Women Engineers today?

AF: Yes. There are still a lot of people, when you talk to them, that ask -- "You mean you do engineering? You mean you were in engineering?" -- never heard of the women engineers. Then I start to tell them about the Society of Women Engineers, about the international conferences, all with women. And a lot of people

don't know. They still stereotype, still it's a man's job. A lot of people don't know.

And I blame most of it on our newspapers. They don't exploit us. Like we have this convention of 3,000 people, more than any other convention, not a peep of it either in the *Free Press* or the [Detroit] *News*, not a peep.

LK: The conference last October in 2002?

AF: Last October, yes. And the same thing occurred when we had it before. One reporter said to me, "Well, what's that, women engineering?" And it was a woman that said it and she shrugged her shoulders, because we said, "Why isn't this in the papers?" And we invited them to lunch, you know, so they would -- they came to the lunch, but they didn't cover it. They had an attitude. They still do.

There was an article one time in a paper, it was about a year ago? No, before the convention, there was an article in the paper about how the schools and the principals and the counselors are discouraging girls from being engineers, long before our convention. And they were saying there's so few women engineers, and that the schools are discouraging. They don't even know what's going on. But the reporter goes out and -- some counselor gave him that kind of an interview, and that's what it was. This was the counselor that we should have gotten a hold of to say,

"Look here." (Laughs) And that's why we were always gearing, in the beginning, gearing our efforts towards the counselors, so that they would encourage the young girls. But they kept on -- they still discourage them. They have a blind mind -- blind eye. Or maybe it's envy, something that they wish they would have done instead. Who knows?

LK: Do you have any final thoughts?

AF: No, I just think that now our current management and current women in engineering that are managing SWE are very professional, very talented, and my hat's off to them, really.

LK: Well, we thank you very much for participating.

AF: I don't know if it was any good, but I told you how I felt. Right?

LK: Absolutely. Thank you.

END OF VIDEOTAPE