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Susan Anderson-Freed

Susan Anderson-Freed
Illinois Wesleyan University

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Illinois Wesleyan University

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Susan Anderson-Freed Oral History Interview
Bloomington, Illinois
September 11, 2012

Meg Miner: Good morning. My name is Meg Miner and I'm the archivist at Illinois Wesleyan University, and today is September 11th, 2012, and we're in the home with an emeritus faculty member, and if you could please start by introducing yourself with your full name, we'll just get our interview going from there.

Susan Anderson-Freed: Okay, I'm Susan Anderson-Freed. I was hired by Wesleyan in 1977 with a PhD in sociology, quantitative sociology, from Indiana University. In 1978, I started teaching computer science, got a master's degree in computer science in…1985, I finished it, and proceeded to become…full time computer science by mid 80's. I've taught—in my years at Wesleyan, I taught 34 different courses in sociology, in computer science, the gateway colloquium in preindustrial textiles—

Miner: Wow.

Anderson-Freed: —and the graphic design course in the web as a studio art course.

Miner: That is quite a liberal arts—

Anderson-Freed: Indeed—

Miner: —spread you have there.

Anderson-Freed: —it is.

Miner: And is that the—is breadth of learning as we like to say, what drew you to Wesleyan? What did you—what brought you to Wesleyan?

Anderson-Freed: They hired me.

[Anderson-Freed and Miner laugh]

Anderson-Freed: I mean, it was—I had—

Miner: A good quality.

Anderson-Freed: —a degree from one of the top ten sociology departments in the country, and it was [scoffs]—when I went in there were four five times as many jobs as there were sociologists. When I finished it was the exact opposite.

Miner: Oh, that was they way…

Anderson-Freed: So and it was regarded as a selective school, and I had other offers, and they were the best one.

Miner: Great. So that was then almost a year—just a year than—

Anderson-Freed: Second year—

Miner: —when you started teaching—

Anderson-Freed: Second year I was teaching—

Miner: —something completely different.

Anderson-Freed: —computer science.

Miner: You want to talk a little bit about that transition? I mean, if there was a lack, or—

Anderson-Freed: No they—I'm positive they had. When I was hired at Wesleyan, there was a chair of the department. He had died of a massive heart attack the summer before I got there. And so the head of the social science division which would be Ed, basically they were trying to push inroads into people, and I think they didn't—they had to justify that there wasn't enough for a sociologist, I think, although I started teaching one section of statistics with sixteen students per section. By the second year, second or third year, I was up to fifty plus students twice a year.

Miner: Wow.

Anderson-Freed: So I think I could justify that, but I was immediately pushed into ForTran programming. And I had—when I was at Indiana you could do—you had to do an outside minor. And then you either had to take—had to have native reading ability in a second language or—what would you call it—not so native reading ability in two languages, but one of those languages could be computer science.

Miner: Interesting.

Anderson-Freed: So I took computer science and hated it. I absolutely hated it.

Miner: Ha!

Anderson-Freed: And I said I—

Miner: What did you hate about it?

Anderson-Freed: The instructor was a jerk. He couldn't teach. The teaching assistants, if you go to them for help, were arrogant, excuse me, S.O.B.'s. I swore I'd never do anything in computer science again. [Clears throat]

[Miner chuckles]

Miner: Famous last words.

Anderson-Freed: So I went—my PhD minor was in Latin American studies, and I was taking all of my courses and reading all the original source material in Spanish, and you had to get—god what was it—it was close to 800 on the GRE's in Spanish to qualify as in-depth. So I went and talked with the head of the Spanish department who I had for class and said, this is what they're

saying, he said they don't get to decide, I get to decide, you have native reading ability. So that's what I did.

Miner: Wow.

Anderson-Freed: So I went back in…right before I started teaching, summer of '78, and took ForTran programming class again at Saint Norbert College where I graduated from, and the instructor was fantastic. I lived at home and commuted every day, and so then I just started teaching ForTran programming.

Miner: Could you spell that for me please, because it's not a term I'm familiar with.

Anderson-Freed: Oh—

Miner: ForTran?

Anderson-Freed: Capital f, o-r, capital t, r-a-n.

Miner: Thank you.

Anderson-Freed: Just the t is capitalized, stands for formula translation.

Miner: Okay.

Anderson-Freed: David Braught, chemistry, was the person—the coordinator for computer science. We had two classes, one in ForTran programming, and the other one is COBOL. Common Oriented Business something or other. I would never teach COBOL.

[Miner chuckles]

Anderson-Freed: So I taught the ForTran programming class. Then if you want transitions, David Braught—just a few years later, I don't remember exactly when, had a massive—and I do mean massive—stroke that left him absolutely…well, unable to function. He had—by that time, we had added a elementary data structures course in Pascal. A little bit after that, we added this CS 101, which was for non majors. We had guest lecturers talking on topics every once a week. We'd bring them in from the outside. And it was in god awful Basic, which is just truly horrendous programming language. And it was taught by people from [clears throat] math, business, me, chemistry. David Bailey, then, who was a chemist, introduced during January term a hardware course, which I took, and had a great deal of fun, because we got to breadboard circuits. So we had this core of basically four courses. ForTran, COBOL, which were about 200-level courses, as was the hardware course, and then we had the CS 101.

Miner: Now you said that that was for non majors. So are you saying that was a—?

Anderson-Freed: —we didn't have majors then. No, no, no, no.

Miner: Oh okay.

Anderson-Freed: It was for—the ForTran was designed for science majors, the COBOL was designed for business majors and the 101 was a gen ed. requirement.

Miner: Thank you. That was very helpful.

Anderson-Freed: I mean gen ed. I don't know if it was a requirement at the time of that. And the hardware course was for science geeks as well. Yeah, no, no, no, there was no…there was no major.

Miner: So all of these, and the reason that it was taught by people from different disciplines, all of these are to teach people within disciplines how to do—

Anderson-Freed: —basically, yeah.

Miner: —computer oriented work. Okay, thank you.

Anderson-Freed: Yeah, and there was—there was no computer scientist, per se. David Braught did—before he had the stroke I believe, he was teaching full time computer science courses. Or close to it. We shortly thereafter developed a math computer science major, which consisted of four courses in math—no, excuse me, four courses in computer science and nine courses in math. Basically our whole computer science curriculum. Okay so then…they did a search for a new coordinator, for which I applied, because I was working on a master's degree in computer science, and if you'll excuse me be nasty, I—every spring we had a meeting where we would discuss what we were going to do in the fall. I found out at that meeting, in the middle of the meeting, that no candidate that had applied for that job was suitable—

Miner: Oh dear.

Anderson-Freed: —that year. So I left the meeting mid-meeting.

Miner: What year was that, do you recall?

Anderson-Freed: About '82 or '83. The dean at the time, and who was not responsible for the committee decision—basically I got home, I discovered there was a two sentence letter saying you weren't qualified for the position. So the Dean called up to apologize for the way it was handled, and I said you know, after being there, I was there seven or eight years it would've been, I said I deserve better than a two sentence letter and I certainly deserved—and I've always sat there and thought would they ever have treated a man that way.

Miner: Hm. Oh, interesting.

Anderson-Freed: And I thought that all along as I became—would computer science have been treated differently if there was a man in charge of it? I've never been able to—

Miner: —resolve that.

Anderson-Freed: No. So they did the search again next year. Of course I did not apply. They hired Gary Wester, who had—I don't even know if it was a PhD. It was either a PhD or a Doctor

of Education in science education from Western Michigan, Kalamazoo, and was working on a master's in computer science. We both completed our master's degrees within less than six months of each other.

Miner: Interesting.

Anderson-Freed: I thought so too. He lasted three years. He—I mean the task he had was truly awful because he was in charge of the coursework, developing new courses, and there weren't too many coming out. He was in charge of supervising all of the student lab workers, and he was responsible for fixing all of the broken equipment.

Miner: Oh dear. Oh my goodness.

Anderson-Freed: So it was—there's no way he could've succeeded. So I suppose not being hired was a blessing.

Miner: Ha-ha!

Anderson-Freed: So, three years, they then—I didn't apply, there was no way in the world I was going to apply and at that time, Bradley was actually on the verge of offering me a job in computer science over there. But my daughter was three, so that would've been '85, and I said no. So the chair of Bradley called up, Wendell Hess, and I got a raise and I was offered the position, and I insisted that there was no way I was going to fix the lab equipment, that they needed to hire somebody that would do that. I would—I didn't have the time and I wasn't qualified. And so as usual things in academics move extraordinarily slowly. So we were come in November, and they hadn't even begun the process to hire somebody, and the equipment was of course—what little equipment we had was breaking down.

Miner: Oh dear.

Anderson-Freed: So I basically said that's it, I'm not supervising the lab assistants anymore until you begin the search process. So they did and we hired Trey Short, which was—

Miner: Interesting.

Anderson-Freed: —a godsend.

Miner: Okay.

Anderson-Freed: So Trey Short was—there was only me in computer science and Trey Short as the person responsible for all of the equipment. And he's just obviously been—

[Miner chuckles]

Anderson-Freed: —a godsend all along. Wesleyan—

Miner: Good track record. [Chuckles]

Anderson-Freed: Wesleyan is extraordinarily lucky to have him.

Miner: And he was then responsible for the students too?

Anderson-Freed: No, I was responsible for all the students. But he was responsible—eventually he took over the student thing but at the beginning I was. Could we go back and talk a little about equipment?

Miner: Oh, absolutely!

Anderson-Freed: When I came, ForTran consisted of a paper tape punch that punched narrow streams of paper in rhythm through an optical tape reader, and the tape was fragile, and of course little dots punched on a hole don't do anything for me.

[Miner chuckles]

Anderson-Freed: So you had to try and carefully mark the stuff so that you knew which way to feed them through and then you hoped they didn't break and they went over to a Cyber 6000 at the U of I. And of course as soon as it became busy, we got bumped.

Miner: Oh dear.

Anderson-Freed: And I'd have to sit there and write my computer programs with the students.

Miner: You took them to the U of I to do this.

Anderson-Freed: No, no, no. We did it—we had a remote access to the U of I. But as soon as the U of I became crowded, they cut off our access until they became un-crowded. David Braught discovered Apple II's. There's still a 2-E down the basement which I'm not getting rid of.

[Miner laughs]

Anderson-Freed: And thought that would be the way to go and so they purchased a bunch of Apple II's, and he gave each one of us one to babysit over the summer which was brilliant because we all got to practice on it all summer. So we did Apple II's. We then went to TRS-80s, which we also called trash 80s. From there, we—oh and we started in Shaw. We—when they renovated Buck, Computer Science moved to Buck and I'll go back and pick up that thread to talk about faculty in a minute. We moved to Buck, and we had the lab which we shared with Business in Buck. And then we had PC's. When they built the new science building, I'd argued for one giant classroom, you know, 25, 30, one medium sized classroom, and a hardware lab. We—and that's all we asked for. We got one classroom, we got half of another, and I said if you cut anymore, I don't want to go with you all. We'll stay in Buck. We have better access in Buck because we got virtually—and they—

Miner: In Shaw?

Anderson-Freed: Yeah. No, Buck. We all moved to Buck.

Miner: Okay.

Anderson-Freed: When we moved into the science building we had Suns, which was like the only nice piece of equipment we'd ever gotten, except they weren't reliable. Melvyn Jeter always used to say that computer science has the absolute worst computer equipment on campus.

Miner: Oh dear.

Anderson-Freed: That math had gone through three or four different transitions of computers and we were still using this broken down crap. We then switched. When the Suns died, we finally switched. We finally got them to buy us Mac's, and Mac's are…virtually no problems. Except we'd keep our Mac's and everybody else on campus would be getting new Mac's. So I think that takes you through equipment.

Miner: Can I stop you there and—

Anderson-Freed: Sure.

Miner: —ask you why you think that was the case?

Anderson-Freed: Yes.

Miner: So—I mean do you—

Anderson-Freed: Oh you can ask me why. Because…I think…Minor Myers somehow did not think computer science belongs to—in a liberal arts curriculum, which is not true. And Janet McNew absolutely hated us for some reason. I think she thought we were mathematics, and at every opportunity she'd keep asking me if I wanted to merge with mathematics and I said absolutely not because I was a sociologist by background. I knew that you take a minority and you put them in a majority, you know what's going to happen. And I mean—

Miner: Gobbled up.

Anderson-Freed: It did, it did eventually—even though, you know, Melvyn is a good and decent person, we were in the minority. When it reached the point where we had—this would be in the…late nineties—we had 54 majors. I was the only person with tenure. We had Lon Shapiro on tenure track. I finally had a showdown meeting with them indicating—this was after we'd had the—would've been '97, because we had the major for five years—I said what am I supposed to tell these kids and their parents at Open House, and they ask about faculty. I can't tell them any longer that we're new, because we're not new. After five years, what am I supposed to tell them, when we've got two faculty, 54 majors, and broken down equipment. And it was an extraordinarily unpleasant meeting where Janet had in her tribunal: Janet, Roger Schnaitter, and Mona Gardner. And they'd sit and grill you like a—like you were at a Nazi concentration. And I mean that literally.

Miner: Do you mean to justify your reason for asking for—

Anderson-Freed: Why, because I was vindictive, I was mean. Why was I doing this? And I said that's it. It's not worth it to me. I resigned. And suggest if we had to do anything, you know, mathematics would be the best option, but I—and I didn't think it was a good one.

7

Miner: So the university still intended to offer this as a major.

Anderson-Freed: Yes.

Miner: And this was by this time a CS major.

Anderson-Freed: Yes, and I'll go back and pick that thread up again.

Miner: But was not able to support it, or wasn't—

Anderson-Freed: Well—

Miner: —willing to support it.

Anderson-Freed: Within, you know, still continuing kind of the drag from that, within one to two years after we had ballooned to a hundred majors. Two years after that, I think it was about two years, all of a sudden we had all new equipment, when we were with math. And computer science went from two faculty members to four and a half. So I truly felt like they were withholding all support from me until I did what she wanted, which was to merge with mathematics. And, as you now know, computer science is separate from mathematics again.

Miner: So from '97 until just last year, then, or—this year is the first year it's taken place?

Anderson-Freed: Yeah.

Miner: —the two programs were merged with separate majors.

Anderson-Freed: Yup. So we had to deal—excuse me, endure—weekly math department meetings which consisted of endless discussions of calculus which computer scientists don't give a hoot about. We had joint open houses, which consisted of thirty or forty minutes discussing all the calculus sequences and five to ten minutes discussing the computer science major. We had…what would you call it—tenure track searches? Where anybody could serve on either committee and for some reason the computer science had no desire to serve on the math committee but the mathematicians wanted to serve on the computer science committee. Which meant there were only two of us then, Joerg [Tiede] and I, at the end. We were—and I was on disability, and I'd sit on the committees. And we were—we could be outvoted. We were outvoted, so the last search, we basically said that if this is the way it's doing, the computer scientists will not participate in a search for a computer scientist.

Miner: It just seems surreal, actually.

Anderson-Freed: Yeah. I describe literally, if you have to ask about my characterization of my…thirty years, mostly teaching computer science at Wesleyan, it would be a walk through hell.

Miner: Oh dear.

Anderson-Freed: I mean it was twelve to fourteen hours a day, minimum. I would teach all day, work on my lectures, come home, make supper, take care of my kid, then go back up and work some more, because you also have to write books.

Miner: Right.

Anderson-Freed: Okay so let's go backwards to people. So the next hire we had was Lisa Brown. She lasted six years, took her sabbatical leave, and went and got married, went out to Washington, stayed there. At that time, the math computer science major was not going well.

Miner: Sorry, was this before or after the merger back with math?

Anderson-Freed: Oh this was—no, no, this was way before.

Miner: Before. So CS was still independent.

Anderson-Freed: CS was independent. This would've been…would've been my second sabbatical leave, 1992. We hired Lisa around 19…90. Somewhere right around there, because my second sabbatical leave was at the Institute for Advanced Studies in Princeton—I mean my husband was there not me. I was there a lot, right. In '92. So that would've been around 1990. The—our professional organization, the ACM Association for Computer Machinery, and the I triple E Computer Society, set standards for what curriculums should be based on what type of institution you are. So we followed the standards for a liberal arts college, hence the statement it doesn't belong in a liberal arts college is garbage.

Miner: Difficult to—it's important.

Anderson-Freed: And so we started moving the curriculum towards that standard. We still had the math computer science major but we started adding more courses. So we added a two course one-year introductory sequence that consisted of fundamentals and then basic data structures in Pascal. Then we started adding select upper level courses. So Lisa was—she had a undergraduate degree in electrical engineering. So she was supposed to teach the hardware course except she'd never breadboard circuits. I don't know why. And she added a networking course, and then she added a—I think she had a special topics in biomedical computing because she had a PhD in biomedical computing.

And then we eventually added a—I did a course in artificial intelligence. Did course and operating systems. We alternated with math because it was joint listed, math and computer science and models of computing course which was just supposed to be part of the core. We added with math, but it was only taught once or twice, a course in parallel processing because parallel processing theoretically really isn't a lot of fun. And if you don't have the computers you can't do anything other than theoretical. So by then we were getting a nice core of electives which we started as special topics. And then would add to the curriculum. By this time, that would've been the late 80's, early 90's, the students were just phenomenally unhappy. They did not want a math computer science major. They wanted a computer science major.

And so, I went—I took my sabbatical, and I'd actually—the first sabbatical, we had also applied to—John had applied as a medieval historian to the Institute for Advanced Studies and also the big research thingy in Duke, North Carolina. So I had applied to PhD programs in computer science at Rutgers and also at—I don't remember if it was Duke or UNC, and was accepted in both, but ended up at Bradley. So second, I'd thought well I could do that, but there was this very famous set of computer scientists, Ellis Horowitz and Sartaj Sahni, who had written god, knows how many books. But they wrote Fundamentals of Data Structures in Pascal, which is, 700 pages of pure delight.

[Miner chuckles]

Anderson-Freed: Advanced data structures and algorithms. And they needed somebody to write the solutions, all 600 plus of them. So I had done that actually the year before. And now they wanted somebody to translate the book into C. So you took the basic structure and then rewrote everything in C. And C is a—C is a nasty little language. Designed by AT&T Bell Labs. Because you could, you know, shoot off your foot and not know you did it. And it focuses on really succinct shortcuts. So I started writing sample programs for that. And then they had somebody from AT&T Bell Labs look at it over and over and over again to make sure it really looked like C code. So I got the contract for that. So I thought no point in doing a PhD, I've already done those hurdles. That book came out in…1992. Heh. Right about the time I—right before I turned it—I turned in the book to let Ellis and Sartaj do the final editing, and a month later was diagnosed with cancer. So, and two months later while I was undergoing chemotherapy, they passed the major. That was 1992. Last faculty meeting was either the end of April or beginning of May.

Miner: So you were pushing for the major during this whole time.

Anderson-Freed: Yeah.

Miner: Writing a book and getting treatment for cancer.

Anderson-Freed: Yeah.

Miner: Wow.

Anderson-Freed: Yeah. That book—excuse me, gritching [a favorite word] again—received virtually no recognition from the faculty because after all it was only a textbook. It was a 600 page textbook that's been translated into French, Italian, Chinese, and Korean. It has been in print for twenty years now. It's still in print. I'm still making money off of it. And by now, I suspect it's exceeded 100,000 copies.

Miner: Wow.

Anderson-Freed: And I can remember a department discussion where they said we really needed somebody that could do algorithms and I thought, what the heck do you think I've been doing all these years?

Miner: Oh dear.

Anderson-Freed: So, my bitterness is coming out.

Miner: Well, I don't think I would characterize it that way. I would say you have some distance from the incidents and have a perspective on that and so—and I don't know if you want to go back to this at all, but very early on you mentioned that you thought this might've been an issue because you were a woman—

Anderson-Freed: Yes.

Miner: —in a traditional—I mean do you have more on that you want to talk—

Anderson-Freed: I heard comments every once in a while—you'd hear these implicit comments coming out like—I won't mention the person that told it to me but it was a person that had meetings with the administrators, and they said, well, they were going to go ahead and let the major go through the upper level administrators and not really protest it because they really didn't think much would come of it. It was just Susan's little plaything and you know, nothing—it wouldn't grow. We immediately went as soon as we declared it—we had pretty close to 20 majors right off the bat. This was at a time when computer science was declining rapidly in the country. And we kept growing and growing and growing. And Lisa had gone on sabbatical Lon Shapiro, had started out as an adjunct psychologist, but he'd done—he had patents related to hardware. He developed courses in 2 and 3-D graphics that were phenomenal. I mean, he had kids getting interviews at Pixar.

Miner: Oh my.

Anderson-Freed: I could see what he was doing. We couldn't—they wouldn't give us a robot. We finally did get a robot. So we'd do Lego bots and had the kids programming Lego bots and we'd hold Lego bot contests. And I mean they were doing all the microprogramming. He became so creative, but there was a grudge against him. And they didn't give him tenure. And he had turned into an absolutely phenomenal teacher who was bringing these kids in.

Miner: So not a gender thing for him.

Anderson-Freed: No.

Miner: But—so maybe more of a—

Anderson-Freed: More of a—

Miner: —more of a discipline—

Anderson-Freed: —psych background. I mean he—they gave him no guidance when he was teaching as an adjunct in psych, and his wife was in psych as well.

Miner: So more because he wasn't achieving in psych than because he was—

Anderson-Freed: Well he was only hired as an adjunct in psych and there were people—I don't know that I want to mention the name—

Miner: Okay, sure.

Anderson-Freed: —but you probably know who I mean. There was a psychologist who was head of the natural science division then. And he wasn't the only one then that for whatever reason developed I think a dislike. And, you know, Lon turned into an absolutely phenomenal teacher. I mean like all of us, you know, you start, you've got to develop. And he—what he was doing was he was hard, but the kids loved it. He was so creative at the end, and they denied him tenure. And, as I—and hardware, we couldn't. Physics insisted the hardware lab was theirs, and that computer science really shouldn't be teaching hardware, despite the fact that I kept showing them, it's in our curriculum. It's part of our core, it says we should be teaching hardware. We couldn't get—

Miner: Were they teaching hardware?

Anderson-Freed: Yeah. Guess who's teaching the hardware course now for Physics? Computer science. Lon had a cart that he'd have to put all of the circuits on. He could wheel it in to the lab and use it twice a week, but he'd have to take it out. And he'd sit there on the office floor bread boarding circuits.

Miner: Mm, dear.

Anderson-Freed: So, that's what we were dealing with.

Miner: Change is a difficult thing.

Anderson-Freed: Yeah.

Miner: For some people.

Anderson-Freed: Well, it's kind of the foot in the door phenomenon. The first person with the foot in the door gets the smashed foot, I suspect. Joerg is not dealing with—I mean we were the outcasts. We literally were the outcasts. And it always has struck me as amazing that the academics in our mission statement talk about tolerance. But we don't practice it so well with each other. And I'm as guilty as anybody else. I mean I won't deny that. You get these little jokes that go around about various other departments.

Miner: Sure.

Anderson-Freed: So, let's see, what have I not put in. So we kept adding courses, Lon and I basically teaching them, I mean, new course after new course after new course. Because that was the only way we could give the students the breadth that we knew they needed.

Miner: Mhm. And so more in the special topics and trying them out that way—

Anderson-Freed: And then we'd introduce them into the curriculum. And show how we could do it on a two way rotation. It was—I mean as you get a job in creative financing given the ability to manipulate the courses. I did as much as I could to try and maintain student *esprit de corps*. So twice a year, we would have—I'd have the kids over for a big cookout, at my own expense.

Miner: I was going to say.

Anderson-Freed: And we started—we started with equal numbers of males and females. But you know, sociologically, as a field becomes high paying, the men go in and the women get pushed out. And so when I finished, almost all of my courses were close to 100 percent male. Boy they could eat.

[Miner chuckles]

Anderson-Freed: So I'd make everything, I—you know, we manned the grill. I made everything from scratch for them. Sometimes we'd do tacos, sometimes we'd do other. But I did that two or three times a year. Two times a year, excuse me, two times a year. It usually ran three to 400 bucks a pop, which I paid for. And then for the seniors, I would have before graduation, all of the seniors over for a steak, baked potato, dessert, dinner.

Miner: Oh my.

Anderson-Freed: And I can remember the one dinner in particular. There were, I don't know, maybe six or eight kids. And the university had just asked for a donation—you know, the senior key gift. So they took the change out of their table—pockets—put it on the table. It was—I remember distinctly—it was a buck and a quarter. And they divided that up amongst themselves. And each one determined, you know, the twenty cents, twenty five cents, a quarter. They just said this is what we're giving to the university, because the university didn't support us while we were here so we're not supporting them. That—

Miner: Do you think they made that—

Anderson-Freed: —was the level of bitterness.

Miner: That's amazing. Do you think they made that known to the administration?

Anderson-Freed: Yes, they were—

Miner: Or somehow?

Anderson-Freed:—yes.

Miner: Okay.

Anderson-Freed: The kids were constantly going up and asking for new faculty and new equipment. So yes, I know they were. I know that when I resigned, I had a steady stream of students in my office wanting to know what they could do and how they could protest this, because they were very, very unhappy about it. And I thought, I am not—I could rally. It

would've been easy to rally them. I thought, I am not putting my students in the middle of this, because I did everything I did all along to create a good—as good an environment as I could for the kids. And I was not going to put them in the middle of this fight. And I said no, it'll be fine, just leave it be. I continued the potlucks for about a year after we joined with math, and the last one I said I'm not doing any cleaning up, I expect you to help, and the kids did. They did all the cleaning up. But I had two male colleagues, and there was this senior woman faculty member running around like an idiot. While, if you'll excuse me, my two male colleagues were sitting on their butts and I said this is not the image I want to convey to my students so, done. I'm not doing this anymore.

Miner: So no one else offered to help.

Anderson-Freed: Nope, and nobody else took it up either after I did it.

Miner: And how long were you at Wesleyan after that?

Anderson-Freed: Let's see, I went on to—I taught when the cancer reoccurred. It would be twelve years after the original '92…2004. I taught while undergoing chemotherapy for three years. And I got—Melvin very kindly switched—I mean he was very accommodating. Switched my schedule so I could teach Tuesday and Thursdays, or whatever so I could do chemotherapy on Friday, be sick the whole weekend and go back on Tuesday. I had had that—I had a sabbatical. We talked about new developments and we talked—my second committee member was Sheri McElroy from Art, and they really, really wanted a Web design course. And so Melvin asked the last—what could he do to accommodate, I said you could give—not give me a new course preparation. I ended up teaching the Web design for the art, so somebody undergoing chemotherapy, and I had more contact hours because they were four hours per week than the other faculty members and as it turned out, I absolutely loved that course. It was just fantastic. I had six students, all females—

Miner: Hm!

Anderson-Freed: —like the first time I'd had female students in a year!

Miner: Oh interesting.

Anderson-Freed: We did Dreamweaver, we did Photoshop, we did Flash. They were so creative. It was just a lot of fun. But for me the contrast was interesting, because I'd asked for Dreamweaver, because I taught two upper level—alternated two upper level Web courses for the computer science majors. I was told I'm not teaching graphic design. So the computer scientist had to sit and hand code all the HTML.

Miner: Oh my gosh.

Anderson-Freed: Photoshop, it took years to get Photoshop, because once again, we're not teaching graphic design, so we'd have to settle for freebie software, which is what we did in the early years. I mean it was all free, we couldn't get—it took a long time to get commercial stuff.

Miner: Well at this point the administration had changed, right?

Anderson-Freed: To—yeah. It was worse under Minor Myers and—

Miner: But I thought—so I thought we were talking about—

Anderson-Freed: That was—

Miner: Later. Oh, okay, okay.

Anderson-Freed: No we're talking about middle.

Miner: Okay.

Anderson-Freed: No, no—

Miner: When you couldn't get these things it was still under that—

Anderson-Freed: Oh yeah.

Miner: —administration.

Anderson-Freed: Yeah, yeah, yeah, yeah. No—

Miner: Okay.

Anderson-Freed: —it's changed—

Miner: I'm sorry; I thought we were in the last—

Anderson-Freed: No, no, you're right. It's changed under the—but by the time Dick came in, I was already on my way out. So, the things I've seen are positive. But it was too late for me.

Miner: Sure. So maybe, you know, keeping along the same line of thought, but switching focus from teaching and the struggles in the department, but thinking more about faculty governance generally, because you've mentioned a couple times of the interference of administrative positions in the curriculum.

Anderson-Freed: Yup.

Miner: And particularly I was struck when you said the upper level of the administration wouldn't protest changes in a curricular decision. There was a—after the combination that they wouldn't protest that, so I'm intrigued because—

Anderson-Freed: Oh wait I don't know what you mean by—

Miner: You'd mentioned—I thought you said that they're after the combination of CS back into Math, because they wouldn't protest the—

Anderson-Freed: Oh yeah because they thought it was Susan's little toy.

Miner: Yeah, so—

Anderson-Freed: They figured it would fail.

Miner: So when—you know, I'm fairly new to the faculty governance processes and it sort of strikes me in my experiences as something that would be difficult to imagine. We—

Anderson-Freed: We sat there with our fingers crossed that it was going to go through.

Miner: Okay.

Anderson-Freed: I mean we literally sat there.

Miner: And there was really no pretense about that.

Anderson-Freed: No.

Miner: It was not a curriculum that was driven by faculty; it was the other way around. And those—

Anderson-Freed: That's right. It was driven by the students.

Miner: But not your students.

Anderson-Freed: No, not our students.

Miner: That's interesting.

Anderson-Freed: And it was driven by Lisa and I really prot—pushing. And math wasn't going to protest it because the Math-Computer Science major was an absolute disaster. I mean, became an absolute disaster through time.

Miner: So two women—

Anderson-Freed: Two women.

Miner: —promoting a department—

Anderson-Freed: Yeah.

Miner: —that they had been hired to teach in.

Anderson-Freed: Yup.

Miner: But could not get movement from an administration that didn't want to support what it had hired them to teach.

Anderson-Freed: Yup.

Miner: Just want to make sure I'm right.

Anderson-Freed: Yup, yup, you—

Miner: Is that too basic?

Anderson-Freed: —stated that extremely succinctly and quite accurately.

Miner: And the students which I had heard during the Myers administration did have a lot of influence on the campus.

Anderson-Freed: Yeah.

Miner: Could not influence this.

Anderson-Freed: No, they could not.

Miner: So earlier you said you attributed it to the fact that President Myers was not interested in computer science in the liberal arts. And today on campus I think that that—those types of feelings are spread out more to the faculty generally and to some of the pre-professional programs specifically. So what's interesting is how we have—

Anderson-Freed: I think you're accurate. And I think it's academic snobbery and intolerance.

Miner: Okay.

Anderson-Freed: And it's more than that, because I just got to get this out. Several years ago, the feminist group brought in a speaker that was a biologist turned feminist. I don't know why you can't be both at the same time. And obviously I go home pooped. But my women colleagues in the sciences went to this meeting and the speaker basically said that any woman in the sciences has been taught to—has been brainwashed into thinking like a man. Now if you'd said that regarding some ethnic or racial group there would be protests all over campus! Nobody protested this.

Miner: The fact of her stating it, or an acknowledgement of the reality of it?

Anderson-Freed: It's that there's no reality to that.

Miner: —to that. Okay.

Anderson-Freed: There is no reality—

Miner: No basis for—

Anderson-Freed: —into being brainwashed into thinking like a man. I mean the same skills I use as a computer scientist are exactly those same skills I use to design knitting patterns. And I now have two published books of knitting projects. I'm thinking—like I think and to stereotype me as to thinking like a man is insulting! And there is this great divide between the women in the sciences and the feminists to the extent that I told that to Mona Gardner, and I said I would like to have something at the house where we have the women scientists and the feminists over so we can talk. And that did occur, virtually all of the women in the sciences showed up. A substantially fewer number of the feminists showed up. And I always considered myself somebody that promoted women. I mean Lisa came in as a divorced woman with two kids. I did

17

everything I could to help her, including—and she had little kids—my daughter would come in on school days and often babysit her kids in the office. And so there's this massive divide between the feminists and the women scientists. And it wasn't just me. I started talking with them, and if not outright hostility.

Miner: [Sighs] It's the theory of eating our own, right?

Anderson-Freed: Yeah, yeah.

Miner: We can't—because then they're united front.

Anderson-Freed: And just intolerance. And of course you probably know, you know, there's this kind of snobbery about, you know, which of the scientists is at the top of the pyramid, which is at the bottom. Well I won't go which is at the top but we know which was at the bottom.

Miner: Ha-ha. Well as a sociologist I would think, you know, it's a sad fact of human nature—

Anderson-Freed: Exactly.

Miner: —plays into this—

Anderson-Freed: Exactly.

Miner: —and we always have to have one up or one down.

Anderson-Freed: But you kind of think—

Miner: I know. You wish—

Anderson-Freed: People with PhD's, people with brains, ought to know better. But we don't. And I didn't say they don't, I said we don't.

Miner: Sure, sure. Well I think we do get caught in our own perspectives sometimes too much.

Anderson-Freed: Well it's like the smaller the pie, the more people fight over it.

Miner: Yeah, it's unfortunate.

Anderson-Freed: So what else can I tell you? You've probably heard far more of an earful than you—

Miner: Well, I mean do you want to talk more about other campus issues? Like I mean any of the other changes you noticed or perceptions that you have about Wesleyan as it was when you started versus what you see today? I don't know how much contact you still have in the community.

Anderson-Freed: Very little. I—when I walked out the door, I walked out the door.

Miner: Do you have any—well, I'm sorry I interrupted. Did you have any observations on that that you'd like to make or—on changes?

Anderson-Freed: Well I did. You know I need to—I needed to distance myself. But I noticed you know since I've obviously had cancer, I got email, but nobody wants to know how I'm doing, I don't care. I mean, because I was—I was not a social butterfly. I couldn't be—I was too busy working on course development. But in my tenure at Wesleyan, let's see, I served on the academic accreditation committee in the early 80's, that one. I was on Curriculum Committee. I was head of Curriculum Development. I was obviously the head of the Computer Science Coordinating Committee. I was on Personnel and Tenure. I was on CUPP—I was the head of CUPP. Head of CUPP, I could see how Janet could manipulate that committee. I remember we were in charge of getting new faculty, and she had six positions to give away as the head of CUPP, and, she said, I want to do it statistically. So I want you to form a subcommittee that will work out who gets it based on, you know, need—using statistics. I told her point blank at that meeting that you don't need to do that, it is your right as provost to determine who gets those positions. You know, but if you do do this, you know then you've got the committee there and you agree to this. So we put together these statistics. Well I taught statistics—and she agreed to them. I taught statistics for more than a decade. I knew computer science was number one!

Miner: Yeah.

Anderson-Freed: We didn't deserve one faculty position, we deserved two! Based on those statistics. So there were eight departments that applied. Six got new positions. Computer science was not one of them. At the meeting, Janet told the committee, see, this justifies that my decision was correct, because the head of the committee did not get a new position. This was the last meeting. At which point, I promptly resigned as head of the committee, saying that I will not be manipulated or used in that manner.

Miner: But the data showed that—

Anderson-Freed: The data showed computer science was number one on every single statistical criteria.

Miner: And then—but I don't understand how—

Anderson-Freed: We were seventh or eighth. In terms—she ignored every bit of—and basically picked who she wanted. She ignored all of the statistical evidence. And then used that, used my being head of the committee, to justify that her decisions were just.

Miner: I don't think I even understand the logic of that.

Anderson-Freed: Well, I said I will not have my committee's head put on a pike to justify what you did. So I resigned, which was a…symbolic victory because of course the only meeting we had left was the party at the end.

Miner: Oh.

Anderson-Freed: Except the committee refused to accept my resignation.

Miner: Oh dear.

Anderson-Freed: So, but I—

Miner: Hopefully you didn't have to cook for that party.

Anderson-Freed: No, we catered in.

[Miner chuckles]

Anderson-Freed: But I don't know if I made clear—

Miner: Well—

Anderson-Freed: —what she was attempting to do. She was attempting to basically justify her personal choice by ignoring the statistics, and then the department that scored number one on all of those issues, all of the statistical evidence that should've been the first one given a position, she then says see this shows that what I did was just.

Miner: Yeah I think I'm following your statement of the events, I don't think I'm following the logic of it. Because the logic of it would dictate that she had asked for data to provide—

Anderson-Freed: She did.

Miner: —the answer to a decision, and then made a decision that flew in the face of the data.

Anderson-Freed: That's exactly—that's dead on accurate.

Miner: Okay. So we still understand that the outline and the outcome, we don't understand the process that was used and—

Anderson-Freed: Well—

Miner: —and so saying that—

Anderson-Freed: But there was a strong tendency for her to constantly do that. I mean—

Miner: Yeah, sure. So asking for work, asking for faculty to provide work, provide input, and then ignoring it.

Anderson-Freed: Yeah. Well then it was more than that, because we had long series of email exchanges about various—excuse me—various decisions. And so there was Personnel looking at the status of women on campus. And I'd saved all of those emails. Computer scientists saved the evidence. I had 100 pages of emails.

Miner: Oh dear.

Anderson-Freed: So I printed them all out, and wrote a ten or twelve page commentary on this indicates the status—at least this woman on campus. And I sent them to Promotion and Tenure, which the head of the committee immediately passed the buck and viewed it as faculty grievance. So—and I'd had a lawyer look over all of this. It was not a grievance; I mean they should have read it. So it went to Hearing Committee as a grievance. And I'm sure they didn't

read most of it. It was a supposedly formal hearing. And Janet had this tendency on any committee so she knew what was going on to appoint Mona Gardner as an ex officio committee member. I said—and Mona Gardner was a friend, I mean she was over here for dinner frequently with Dixie. She, you know, she was at my daughter's Confirmation party. So I mean we were friends. I said if Mona shows up at this committee, the process stops and I hire a lawyer. So she did not. But of course I knew the committee wasn't going to do anything because there's a strong tendency of faculty to sit on the sidelines and—as long as they're not the person being knocked down, they don't fight for anybody else. So the outcome of the committee was that people should talk to each other more. [Blows raspberry]

Miner: That does no good.

Anderson-Freed: No.

Miner: Because people—

Anderson-Freed: No, but I've noticed—

Miner: —people—

Anderson-Freed: —that over at Wesleyan, it's kind of—first Janet got rid of the department division heads, then one by one she would take out faculty members that she viewed as troublesome, and I was certainly one of them.

Miner: Take out in a—you mean getting them out of power—

Anderson-Freed: Yeah.

Miner: Or getting them removed from campus? Okay.

Anderson-Freed: Yeah, yeah, yeah. No, no, you couldn't remove them from campus—

Miner: Yeah I was going to say, that would be a—

Anderson-Freed: We had tenure. We had tenure, because I remember at a faculty—department heads had to go through a three year review of how they were functioning as a department head by their faculty, which was easy for me because—[Laughs]—I only had one faculty member! And so Janet said—and then those reviews would go to her and she'd evaluate us. And so she was going to do that with herself, except she was going to sit and read the evaluations. I said, now wait. I said if we have to be reviewed by you, and you're reading your own, where's the validation to that? And I said—you know, and I'm sitting there at the department heads' meetings saying that, not a single other faculty department head said anything. But I walked out in back of them! And they were saying this is really wrong! Why didn't they say anything?

Miner: Yeah.

Anderson-Freed: Because they didn't want to lose their position. And there's this tendency to— as long as somebody else is being picked on, I'm not being picked on. But what they don't

realize is when she's got rid of one person she's going to move on to the next. But she was the supreme…pick the adjective you now want—

Miner: Heavy.

Anderson-Freed: —I have a few—

Miner: The person in charge, or—

Anderson-Freed: Yes.

Miner: Okay.

Anderson-Freed: Queen bee.

Miner: Something like that.

Anderson-Freed: Yeah.

Miner: Wow.

Anderson-Freed: But this is my perspective, I—

Miner: Yeah, no, no, I would say that I, you know, I have certainly heard these kinds of things before, so I'm just trying to think of a line of questioning to go from there on.

Anderson-Freed: I do recall hearing, you know, via the campus grapevine that after Minor died, and I think what, Dick came in. And he'd know better than I do there was a steady stream of people in his office talking about her, and I thought, cowardice. If I talked to somebody I'd tell them to their face. Which, of course—

Miner: Right.

Anderson-Freed: —got me in trouble.

Miner: Hehe. But you left with a good long time!

Anderson-Freed: But, I made my integrity.

Miner: I was going to say. And it sounds like you've had an influence against a great deal of odds with a great number of students. Do you have any—?

Anderson-Freed: I love my students. I mean, I would do anything for those kids. And I notice now that there's a Homecoming thing and I thought God, thirty years, now you're going to do something at Homecoming. But I am so looking forward to, you know, seeing those kids. Because I cared very much about them what I did. Clearly I didn't do for any personal gain or glory.

Miner: Clearly. Heh!

Anderson-Freed: I did for those kids. I wanted to try and provide them with everything I thought they deserved, and I thought they deserved the best. I mean, they were and are such good and decent and hardworking kids. I mean they're still kids to me they'll always be kids to me. They—you know, they were over at the house, I mean, Jenny hobnobed with them—

[Miner chuckles]

Anderson-Freed: They were just good kids.

Miner: So do you keep in touch with them still then?

Anderson-Freed: Not too much anymore, because I don't check Wesleyan email. Usually, you know, it's kind of like when I was an undergraduate, you know, you keep contact with them for five or so years, and then they kind of—

Miner: They move on.

Anderson-Freed: Yeah, they kind of move on, which is life.

Miner: Yeah. Well I think the thing that I have noticed about Wesleyan especially around Homecoming—

Anderson-Freed: Yeah.

Miner: —is this desire to celebrate, you know, anniversaries that are—in round numbers! [Chuckles]

Anderson-Freed: Yeah, it's twenty years.

Miner: I guess so, maybe—

Anderson-Freed: I would've liked a heck of a lot more support when I was trying to build a major then—

Miner: Than—

Anderson-Freed: —than any recognition now.

Miner: Yeah, yeah. That's—

Anderson-Freed: And mainly because they really would've—I really wanted to provide those kids with the best.

Miner: It would be interesting to know if they're—if the difficulties, the outright discrimination that you experienced, and the lack of resources—I mean, it changed the way that you had to teach—

Anderson-Freed: Yeah.

Miner: —students. And it would be interesting to know, I think, if they found some of those struggles instructive in their career. So they may have had situations where they didn't have the support that they needed and they were able to work around—I don't know, I'm trying to look for a—

Anderson-Freed: They might—

Miner: —silver lining here. [Chuckles]

Anderson-Freed: —they might. Well I think Joerg and Mark [Liffiton] have a much easier go. I mean really. But yeah I've always sat there and wondered in the back of my head, you know, would it have turned out like this if there were a man in charge. Would I have been treated by the

committee when I applied for that coordinator-ship if I was a man? And I can't—I can't answer. I don't know.

Miner: That's interesting that CS grew out of a supporting position for other disciplines.

Anderson-Freed: Yeah.

Miner: And I kind of—part of me, not being a trained Sociologist, but characterizing myself as a feminist, wonder how much a man would've stuck with, and tried to make it work, in the face that it wasn't—not to say—to cast it—but you did mention that another person was hired, and faced a great deal of difficulties, and left.

Anderson-Freed: Yeah.

Miner: And the stereotypical thing that happens with women is that they are often faced with obstacles that you can either ignore, go around, or go through. Um, so, I mean, I kind of wonder—

Anderson-Freed: Yeah.

Miner: —if it would've been—

Anderson-Freed: I took it out on my hide, and I…let's put it this way. My life at Wesleyan is such that the first semester of disability from chemotherapy—with chemotherapy—I thought I was on vacation. I still regard chemotherapy as easier than my daily life at Wesleyan. I am far happier now, despite the fact that in the last six months I've had two major allergic reactions, one of which was sending me into cardiac arrest at the Cancer Center.

Miner: Oh dear.

Anderson-Freed: And the second one of which left me with an old—well, all sorts of things, which I'm getting rid of. But, I thought, man, maybe I wouldn't be able to tolerate eight plus years of chemotherapy, now, if I hadn't had to put up with thirty plus years at—

[Miner chuckles]

Anderson-Freed: —Wesleyan! Now—

Miner: A growth experience.

Anderson-Freed: —that's a pretty sad commentary.

Miner: That is a sad commentary.

Anderson-Freed: But I wanted to go back and talk a little bit about the origins of computer science because that fits in with what you were just saying. Because, when I was an undergraduate, there was no computer science. It was only the big schools that did that. And that would've been in the late 60's. And it wasn't anything. It was just beginning—I mean because it grew out of World War II, I mean, the big stuff. The first person credited as a computer programmer was Ada Lovelace. Woman, the programming language was named after her. She wrote programs for Charles Babbage's—analytical engine, which they wanted to use to bust the odds at MonteCarlo. Didn't work.

[Miner chuckles]

Anderson-Freed: When they worked on the computers for ballistics trajectories during World War II on the Mark I, Grace Murray Hopper, who became I think the first woman Admiral in the Navy, primary programmer, early computer science was full of women. There were women that were presidents of the ACM and the I Triple E Computer Society. So it started off computer science had a lot of women, which we don't—I think the computer scientists actually are acknowledging the role of women in computer science. As I said when we started teaching, those who got beyond the ForTran courses with the majors, we were equally divided between men and women. We were about fifty, fifty. So, but as I said, as it changed through time—and part of it was I can remember two sisters, one of which was a computer science major and she acknowledged that her younger sister was by far, far better computer scientist than she was. So the sister came in as a computer scientist major. She lasted less than a year, and, you know, I asked her why, and because her sorority sisters said why would you want to do anything that hard.

Miner: Oh dear. Oh, personal choice.

Anderson-Freed: Yeah. Well, but if that's the attitude that you don't—you know, this isn't kind of the right thing for women to do I mean it wasn't—and my male students were, at the beginning—god I can remember two specific incidents. One was a male student who came in to protest his test, and I said no. It's wrong, wrong, wrong, wrong. And he basically questioned my knowledge of computer science, outright.

Miner: Mm, dear.

Anderson-Freed: I mean, outright. So I looked at him and said—at that time I had written two books. I said, when you've written two books in computer science, you come back and talk to me. Up until that time, I am not discussing this with you. This is the way it is, end of discussion. And then I wrote a letter Jim Barber was—an email. Jim Barber was registrar, and I said if this student comes in, I absolutely refuse to discuss with him, this is what's going on. That kid turned around. He turned around because the other male students basically told him he was a—expletive deleted.

[Miner chuckles]

Anderson-Freed: The other student, what a gem. It was in the—we used to do group projects in the second level course, which I stopped doing because one person does all the other work, the other ones screw off. And we were doing it in…I don't remember the language, I'll say Pascal. It probably wasn't. And he decided he was going to do it in something like C. I said, you cannot do this! The rest of the class is doing it in this language, this is the language you're going to do it in! No. So I thought well okay, they all had to have an algorithm. They had to analyze in depth, and write a paper on it from the book. We were using my textbook. Which, by the way, I made no money off of at Wesleyan. I donated every single royalty I got from selling books at Wesleyan to Wesleyan. So I was not doing it to make money off my students. That would've been unethical. So I read his paper on the algorithm, and it is completely wrong. I mean he doesn't understand diddly squat. So I haul him into the office, and I tell him this is completely wrong. He said no, I've read it, it's accurate. I said it's out of the book, I wrote the book.

[Miner chuckles]

Anderson-Freed: He looks at me bald-faced and said well perhaps I've read it more recently than you have.

Miner: Oh dear.

Anderson-Freed: He got an F. But because the class was only offered once a year and he needed to graduate, I had to spend the summer tutoring him for free so he could complete the course.

Miner: Oh good grief.

Anderson-Freed: Yeah. That's—

Miner: Insult to injury.

Anderson-Freed: Yeah.

Miner: Did he ever turn around? I mean in his attitude?

Anderson-Freed: Not that I could see. David Bailey used to say about some of the on and off again students we'd get in computer science that they were like gophers. You basically shoved the gopher chow under the door and left them alone.

Miner: Oh dear.

Anderson-Freed: Yeah. He was one of those. And hackers—well, they didn't make it in our program, because computer science requires a great deal of discipline. You got to write what they tell you to write. You can't write what you want to write. Are you game playing in computer science?

Miner: So you find that another issue of people coming into the major thinking that's—?

Anderson-Freed: Not anymore. They get weeded out in less than a semester.

Miner: Mm, interesting.

Anderson-Freed: Yeah, yeah. What we get now, or what we were getting before I left is a lot of people don't—didn't want to major in it because computer science is damn hard work. And I—and—students were not very good at disciplining themselves. So when we got to the end of the third course, I would write a program. I know how long it would take me to write it. And some of these programs would take me like eight hours to write. Doing it in pieces, and I would show them how to program it in little pieces. So I figured if it takes me eight hours, two weeks is about right for them, working on a little every day. So what the heck would they do? They'd wait until the weekend before and then discover they couldn't do it. And so what I ended up doing was I ended up having to break the program down into itty bitty pieces. By this date you'll do this, by this date you'll do this, by this date you'll do this. Well, at some point you got to figure that out on your own.

Miner: Yeah. I think that happens in a lot of disciplines, though. I mean I think it's part of the learning curve.

Anderson-Freed: It is part of the learning curve, because—

Miner: The reasoning processes…

Anderson-Freed: —a history paper written overnight sounds like a history paper written overnight.

Miner: Right.

Anderson-Freed: Yeah. Yeah. Part of it is just maturity and growing up.

Miner: Sadly you're the breaker for the waves.

Anderson-Freed: Well, yeah.

[Miner chuckles]

Anderson-Freed: And there are increasingly, not just at Wesleyan, everywhere I think a substantial minority of students who want the A without doing the work required to get the A.

Miner: That's true.

Anderson-Freed: And we're by no means unique there.

Miner: I think that's true, yeah. What do you think you would have to say to young women today about entering into the sciences? That seems to be a major theme…obviously, it was a huge force in your academic life—

Anderson-Freed: To what.

Miner: —to enter the sciences. Do you—what advice would you have for them, or insights to share? Is there a way to make it easier? Or is it a matter of putting your head down and moving forward?

Anderson-Freed: I think it's a matter of putting your head down and moving forward. I think that if I look at the women's movement, not the women's movement as interpreted by feminists at Wesleyan, it is that women should have the right to do whatever they wish to do. And that should not be told by a man that I'm not capable of doing this. By a man, I'm not capable of doing computer science, or, excuse me, the idiot—that president of Harvard, I'm not capable of doing biology. And I'll get back to that in a minute, because I have a personal story there. But I shouldn't be told by feminists, either, that women shouldn't be in the sciences. And that has occurred at Wesleyan. That somehow we're weird or we're different. I'm not weird, or I'm not different, but if I am—well actually I am weird and different—but so what?

That's what makes life interesting, is the fact that we're different, and we can learn from each other. But not if we automatically say well there's something wrong with you because you're a female biologist. Or there's something wrong with you because you're a female computer scientist. You just got your wires crossed, you're not thinking straight. My niece just finished. She's one year older than Jenny—Jenny's thirty—undergraduate degree, U of Chicago. By the time she got to the U of Chicago she already spoke fluent Russian. She'd passed a whole lot of math courses because her father's a—both her father and mother are math. Her mother's a systems programmer. Her father was head of the math department at Indiana. Was accepted—well she interviewed at Stanford, Harvard, [et cetera]. Just finished, and I do mean just finished, within the last year, a PhD in biophysics at Harvard. The discrimination against women in the sciences at Harvard is disgusting. What she had to put up with to try and get that PhD—and you've got Larry Summers there sitting as head at Harvard, writing stuff that basically says that women aren't suited for biology, that their brains don't think correctly, then you got the biologist at Wesleyan coming in saying that they think like men and therefore are screwed up—I mean, you can't win either way. And all you got to do is ignore it, and push and push and push for what you want. And know that it's going to—it's going to take a big toll on your body. Does that—?

Miner: It does! It does. And I think that's probably a lesson from a lot of different perspectives from what women—

Anderson-Freed: Yeah.

Miner: —wish to achieve.

Anderson-Freed: But what do you do? Do you sit down and say sure I'm going to give up.

Miner: Well some, like the sorority student, do.

Anderson-Freed: Yeah.

Miner: Some, like you, don't.

Anderson-Freed: Yeah, and—

Miner: And in the meantime, you—

Anderson-Freed: I think that's what fortified me to get through what I'm currently going through, because I've now put up, I'm on my ninth year of chemotherapy.

Miner: That's amazing.

Anderson-Freed: So, and I hope, I go to the doctor on Friday and we'll see.

Miner: Do you want to talk about your—the work that you're doing outside of your—

Anderson-Freed: Sure!

Miner: —specific disciplines?

Anderson-Freed: I—

Miner: Or do you consider it all an extension? You said you use your same brain—

Anderson-Freed: It's an—oh yeah—

Miner: So it's your creative—

Anderson-Freed: I'd love to talk about that!

Miner: Your creative streak—

Anderson-Freed: I—

Miner: —in a different direction.

Anderson-Freed: I basically had to go on disability. When you program with kids you're going to put your fingers on the keyboard. When you got low white blood cell counts, every time a kid got sick, I got sick. But in addition, one of the side effects of computer science is neuropathy, muscle loss of—

Miner: Side effect of chemo.

Anderson-Freed: Nerve—

Miner: Side effect of chemo.

Anderson-Freed: It's a side effect—yeah, not of the cancer, of the chemo. And you get it in your legs, so I walk like a drunk sailor half the time. And you get it in your fingers. And to teach in class, you've got to be able—I mean I'm a two finger typist now and I used to be able to type I don't know how quickly. And I couldn't write very well on the board either. So I simply thought, I was doing a disservice to the students that I could not give them my best possible effort. I just couldn't. And of course we were going to talk about the extreme tiredness. So I went on disability, and…I don't remember when. I've been on it six, five years. This is my sixth year. Three years. Okay, I've been on—because I taught three years, and that would be 2004. I went on disability I think in 2007, 2008. I'd been working all along on knitting patterns. I can show them to you if you wish. The books.

Miner: Sure.

Anderson-Freed: And when my father died, my father did all of the bird carvings. I mean they're all over the house.

Miner: Oh my, they're beautiful!

Anderson-Freed: And—

Miner: Got duck decoys and swans and—

Anderson-Freed: Oh, yeah, oh those are the decoys. They're in there because we've got a Golden Retriever now.

Miner: Probably likes to gnaw on wood.

Anderson-Freed: You got it.

Miner: Anything like my dog.

Anderson-Freed: You got it.

Miner: Oh my.

Anderson-Freed: You got it. So we did a lot of songbirds, too, which are off on the mantelpiece that Fred—

Miner: Oh dear—

Anderson-Freed: —Fred can't get at. And so I've been working on pattern gloves. They're called Sanquhar. They use little [cheap knit?] patterns. I could show you a book if you want to see it. And I thought well could I put the birds on the front? And so I started taking pictures of his things, and designing bird patterns based on that. And I've put together gloves and mittens, ski hats—oh no, yes, ski hats, and Chullo's, the Andean earflap hats. And what I call glove-ens. Flip top mittens. And then I had a little series of what are called Fair Isle. They're the multicolored, more geometric things. And a friend of mine had attended a spinning workshop, and she met an editor at MW Media which is the largest producer of arts and crafts books in the country, including, you know, books for—in the fine arts. And so she said well have her send me pictures. So I did, and she liked both the Fair Isle and the birdies. And so she said which one—or could we put them together, and they want to put them together because there are instructions for each one. So in 2009, I, you know, worked around chemotherapy, and I'll talk about that in a

29

minute—I sent her the stuff and we decided to do the birds. So we did nine of the birds. I had like twenty. We picked nine of the birds, and we called the book—it was called Colorwork Creations, came out in 2010. It's been translated into British English. But this summer I got the Swedish and the Estonian versions of it. The English version, it's a little flat right now, but it has sold 13,000 copies so far.

Miner: Wow.

Anderson-Freed: Monday, the new book comes out, which—and that book is dedicated to the doctors, nurses, and staff at Mid Illinois Hematology and Oncology and especially Doctor Sriratana. The second book is Fair Isle—but it's—well, it's Fair Isle, Norwegian, and Icelandic, because we went to Iceland three years ago. And it's called Nordic Knitting Traditions, and it has mittens, it has gloves, it has ski hats. Oh and the first book had tams, I love making tams. And it had mid-calf socks, knee-high socks, leg warmers, and then they ran out of space to put all the cowls I had to make for it. And that's coming out Monday, and it's dedicated to all of those who have been affected by cancer. And the patterns—well, there's one named after me, Susan Storm pattern, which looks like Navajo weavings.

Miner: Oh, nice.

Anderson-Freed: And there's one named after Jenny. Because she likes mazes. But the other nine patterns are named after the chemotherapy nurses. So that's what I've been doing.

Miner: That's amazing.

Anderson-Freed: And now they're waiting to see if this will sell. And if it does sell, which, keep your fingers crossed, then I've got another book in the works.

Miner: I was going to say, you've got the cowls you need to put in, something—

Anderson-Freed: No, no, no, this is—

Miner: Oh this is something different?

Anderson-Freed: Yeah, this will be completely different.

Miner: Oh, okay.

Anderson-Freed: So.

Miner: Quite an active retirement you have here.

Anderson-Freed: Well, I knit through chemotherapy. Literally. I mean I literally, when I'm sitting in the chemo chair, when I'm not on the pills—which is the last one that caused all the stuff was a pill—I knit through chemotherapy. The steroids I'm kind of reacting better to them now, I mean, I'm on steroids now to get rid of this…thing. But they give you anti-nauseates before the chemo, they give you steroids, they give you Benadryl, they give you Pepcid. The steroids would send me off the wall. So I couldn't sleep. I would sit—

Miner: And that's what you do.

Anderson-Freed: I'd sit and design patterns. Because after a while you can't knit either, because the brain—I mean the fingers just won't coordinate. So—

Miner: Now I was told before I came here today though that you used to knit in faculty meetings—

Anderson-Freed: I knit—

Miner: —so this is not a new-found—

Anderson-Freed: No.

Miner: —joy in any way.

Anderson-Freed: Oh no, no, no, no. I've been knitting for more than fifty years. The designing I've been doing for—

Miner: That's new.

Anderson-Freed: Well I would—I will always take when Jenny was growing up and I'd make her sweaters, I'd always piddled with them. And John, to get a nice sweater that fit him I'd have to adjust the patterns. But yeah, I would sit there and—because it's just, with computer science it's—you use a top down approach, you break a big program into little pieces. And then you solve those little pieces one at a time and you glue them together. When I'm trying to make these really fancy gloves, you use the same thing. Well how do I get the fingers to fit? Now how do I put the pattern on the fingers? Okay now how do I put the pattern in the middle, how do I get the thumb to come in? And sometimes I really screw up phenomenally. I was making the bird gloves, and I thought oh, man, this is easy! And I got to the third pair of gloves, and I looked at them, and I thought, there is something really wrong here! And what was wrong was you don't usually stick the left thumb next to the little finger!

[Miner laughs]

Anderson-Freed: But because I make them from the top down I could rip out up to the thumb and then re-knit. But—well and that happens with computer science. I mean what should work, what the language says should work, doesn't. So you constantly have to be thinking up alternate ways to do things, and—

Miner: Another example of working around a problem presented.

Anderson-Freed: Exactly, exactly. Well yeah, and it implies—well, and see that's what I tell the students. The skills I'm teaching in computer science, don't just apply to computer science. They're problem solving skills that you can use for anything. And those are the same skills—

Miner: That's fascinating.

Anderson-Freed: —I'm using, and I do all of my own graphs, Photoshop, which is what I learned from that, because I'd done Photoshop, I use InDesign, which is the graphic program they use. I use that, and I can manipulate these things in ways, and put together—I mean I—they use InDesign at the publishing company. So I can give them books that, you know, they go through the graphic designer, and they make them look really, really, really pretty. But all of the graphs are mine, all of the text is mine, and I can do that because of all of the practice I've had as a computer scientist.

Miner: Sure. Wow. That's a nice synergy, things coming—

Anderson-Freed: Yeah, well—

Miner: —together, yeah.

Anderson-Freed: John told the newspaper article that he thinks this knitting is what keeps me alive, because I'm—I can…push myself out of the chemotherapy by focusing on the creativity, by keeping my fingers moving, and by feeling that I am contributing to society by holding fundraisers. For computer science, and of course, I have a phenomenal family that's very supportive, and I can't say enough good things about the [Community] Cancer Center. I mean we're on the committee for the major—they're doing a major capital campaign. And John and I are on the committee.

Miner: It's a great resource, great resource.

Anderson-Freed: It's a phenomenal resource. Everybody there is just absolutely wonderful, from the [facilities], from the doctors, nurses, and staff at Mid Illinois Hematology and Oncology to all of the staff and the volunteers at the Cancer Center, it is—I just can't say enough good things about them.

Miner: That feels kind of like a wrapping up point.

Anderson-Freed: Works for me.

Miner: Do you have other things to add?

Anderson-Freed: I don't—haven't I said enough?

Miner: I think I really appreciate the time you've taken for this. It's—

Anderson-Freed: Oh—

Miner: —fascinating talking with you.

Anderson-Freed: I'm so busy!

Miner: Ha! You are. Goodness! You're writing books and designing things. But thank you so much.

Anderson-Freed: Oh you're most welcome. And it was a delight talking to you. And I won't shake hands, because I got this real germ phobia thing.

Miner: We won't take any chances.

Anderson-Freed: Okay.

Miner: Okay. Thanks.