

HELEN SPENCE

June 1, 2005

Jeff Charnley,
Interviewer

Charnley: Today is June 1st, 2005. I'm Jeff Charnley, along with Dr. Elizabeth Spence, interviewing Helen Spence for the MSU [Michigan State University] Oral History Project for the sesquicentennial in this year 2005. We're in East Lansing, Michigan, this morning at Helen's home, and Elizabeth is Helen's daughter and a colleague of mine in the Department of Writing, Rhetoric, and American Cultures.

Mrs. Spence, you see that we have a tape recorder here today. Do you give us permission to record this interview?

Spence: Yes.

Charnley: I'd like to start with a few questions about your personal background and early education. Where were you born and raised?

Spence: In Hubbardston, Michigan.

Charnley: Which is in which county?

Spence: Ionia County.

Charnley: What were your parents' names?

Spence: Harry Holbrook and Theodora Viola Holbrook.

Charnley: So your maiden name was Holbrook?

Spence: Yes.

Charnley: What are some of your earliest recollections? Did you live in the country or in the village?

Spence: We lived in the village. The first house we lived in, we did not have electricity or running water or a basement. It was heated by a coal stove and a wood stove, I guess, in the kitchen, although we left there when I was about five. Then we moved to a different house in Hubbardston, but it had electricity and it had running water. It had its own water system.

Charnley: Did you have brothers and sisters?

Spence: I had one sister, one younger sister.

Charnley: What was her name?

Spence: Harriet.

Charnley: What did your parents do?

Spence: When I was born, I believe my father was working in the gristmill. In fact, I believe he owned the mill. He'd come there from Ionia where he'd met and married my mother and was county clerk, but then he moved to Hubbardston with the mill. I was born in 1915, and in those early years during the World War I, I believe the mill really prospered. So as soon as he could, he sold the mill and bought, with a partner, a private bank.

Charnley: Was the gristmill water-powered?

Spence: Yes, it was water-powered. There was a dam there in Hubbardston, and I believe at the time he owned the mill, they added a little to the height of this dam.

Charnley: Is that Prairie Creek that is dammed there?

Spence: It was Fish Creek.

Charnley: I fished on that as a boy.

There was one bank in Hubbardston?

Spence: Yes, until the bank failures.

Charnley: Of the 1920s?

Spence: Oh no. The banks failed here in the early thirties. The late twenties, I think the stock market collapsed, but it wasn't immediately followed by the bank holiday when many of them never reopened. That came a little bit later.

Charnley: Did your mother work outside the home?

Spence: No.

Charnley: So 1915, you were born during or just before the U.S. went into the war.

Spence: Yes.

Charnley: Did you go to country school, or did Hubbardston have a school?

Spence: Hubbardston had a school then. In fact, Hubbardston had up through the high school, and there was also a Catholic school up through the high school. A few Catholics that the nuns didn't get along with came to the public school.

Charnley: Were many of them German, like that settled around Pewano, Westphalia?

Spence: The ones that settled near Hubbardston were mostly Irish, the Catholics.

Charnley: What do you remember of your early school years?

Spence: Well, I had a friend that I started school with. There wasn't kindergarten, so it was first grade, and I started when I was just five. She lived in the country. But we're still friends. She's still alive, too, but she doesn't live nearby.

Charnley: What is her name?

Spence: Her name now is Dorothy Yeats. It was Dorothy Langdon. There were Langdons around there. She had a sister about a year and a half younger. They lived outside of the village about two miles, but their parents didn't want them to go to the local country school, so they walked into Hubbardston to go to the Hubbardston school in all but the very worst weather.

Charnley: Where does Dorothy live now?

Spence: She lives in Midland. I don't know if the younger sister is still alive or not, but she was living in Florida.

Charnley: What do you remember of your education? Did your parents encourage you to excel in education?

Spence: They never said anything about it, but they expected me to.

E. Spence: Her father had a very interesting way of entertaining her. He would ask her math problems.

Charnley: Talk a little bit about that. How did that first start?

Spence: I don't remember too much about that. My father had never finished high school. My mother had finished high school and had had a year of business school. My mother had grown up in Ionia, so she was better educated than my father, but my father tried to make up for it by reading and learning what he could.

Charnley: So he needed figuring and numbers for accounting for bank work, I take it.

Spence: No, I think he just liked it. I always liked it, too.

E. Spence: Tell how he would whisper the story problems in your ear. I thought that was interesting.

Spence: I don't remember too much about it.

Charnley: So you learned your math very early, then.

Spence: I guess so. It was the only thing I could do better than my friend Dorothy. She was much better in writing.

Charnley: Do you remember any of your early teachers?

Spence: Oh yes, I remember them.

Charnley: Did they have an important influence?

Spence: In Hubbardston, the first four grades were in one room, the second four grades were in another, and so they had one teacher for the first four grades. Her name was Patience McGinn. The second four grades, the last name was Gardner. I can't remember her first name. I didn't like her

as well as Miss McGinn. She was Mrs. Gardner. But I'm not quite sure why I didn't like her.

They were both good teachers.

Then high school, they had two rooms and two teachers. The ones I remember best when I first started there, at least I remember the very best was a Mr. Sikkema, I think, it was his first school, and he made everything interesting, the best teacher I ever had anywhere.

Charnley: What were his favorite subjects that he taught you?

Spence: He taught math. What else did he teach? I had him for algebra and geometry, and he also taught history. I never much liked history, but he made it rather interesting, and he had us looking up old stuff we could find around there on the Civil War, for example. It was very unusual for a high school teacher in those days.

Charnley: Were there any Civil War veterans in the Hubbardston area that you were aware of?

Spence: I didn't know them, but there were still some alive, I think, because on, I think it was, Memorial Day they had a parade, and there were three or four left when I was very young, I think.

Charnley: So he gave you a good base, encouraged you in math, it sounds like.

Spence: He didn't encourage us; it was just interesting. I remember he was interested in old English ballads, which he got and he worked somehow or other into his classes. Then I remember the other teacher's name, Mary Newberry. Then the two of them got married while they were both teaching there. She was a good enough teacher, but not as inspiring.

Charnley: Did he stay in the area or did he move away, that you were aware of?

Spence: He moved.

My last year in high school, I went to high school in Ionia, and I lived with my grandmother and aunt, and that was so I wouldn't have to take an entrance exam to get into college.

Charnley: What year did you graduate high school?

Spence: '32.

Charnley: In the depression.

Spence: Yes. It wasn't the worst yet in '32. When I graduated from high school, times were pretty bad, and so I couldn't go to college, so I went to a county normal school. I believe it was the last year they kept it open in Ionia because they no longer needed rural teachers. They had enough at the moment. Then when I was done with that, I taught in rural schools for three years.

Charnley: Was that in the Ionia district?

Spence: It was in Ionia County. The first school I taught in had over twenty children when I started, but tenant farmers moved in and it ended up with either forty-four or forty-five. I couldn't handle them, so I lost that school. But I got another school, I think partly because of political influence on my father's part, and that only had twenty children or less. I stayed there for two years.

Charnley: That must have been quite a task. Would you describe maybe a typical day?

Spence: The first year I taught there and the year I taught in the first school, I lived in the country school district. You got up early in the morning. You went to school. In most of the school year you had to build a fire in the jacketed coal stoves they had, and so you had to be there early enough to take the chill off before the children came. The children all had to walk to school. I don't think any of the women in the rural area drove at that time. Some of them walked up to two miles into school, and they brought their lunches, so you had them through the lunch hour. They used to bring some dish that you could set on top of the stove in a pan of warm water so by lunchtime they had a warm meal. Then after they left at night, you had to clean up the schoolroom, and in the winter you'd try to bank the fire so there might be coals to start it from in the morning, and then you'd go home.

Charnley: You had to be janitor also.

Spence: Yes. And the house I roomed in, in fact, for that school and for the second school, I didn't have electricity or running water. Then the last year I taught in the rural school, it was only about six miles from Ionia, maybe seven, and my sister was going to school in Ionia her senior year, but she wouldn't live with my aunt because she didn't like the things my aunt wanted her to do. So we had a room together with cooking privileges, and I drove back and forth to school. That was the year of the big snow in Michigan, so I had trouble getting back and forth.

Charnley: You drove a car or you had a horse and buggy?

Spence: Oh, a car. Yes, my father had a car before I was born, and by that time he had bought another car. My mother was supposed to learn to drive it, but she wouldn't do it. She learned to drive, but she wouldn't drive outside of the village. She wouldn't go into Ionia. Sometimes she went into the outskirts and parked and walked down to see her mother, but that was the most she ever did. So when I was fourteen, my father brought home a driver's license and says, "You're going to learn to drive."

Charnley: What kind of car was it?

Spence: A Buick. He always had a Buick, excepting once after the height of the depression. He couldn't afford a Buick, so he got something else, but he went right back to the Buick.

Charnley: What do you recall about when the bank failed, the circumstances there?

Spence: I was in school in Ionia. Now, I think I must have been in the county normal at that time when the banks failed. I remember the first thing that happened, the banks all closed suddenly, and the teachers were about to get their paychecks, but, of course, the check wasn't any good. So I'm not quite sure how they did manage to get enough so they could pay their rent and buy some food. I suppose a lot of people in Hubbardston were very angry at my father, but they didn't take it out on me.

Charnley: That's good. Bankers had a tough, tough row in tough times.

After you taught a couple years in country school, how was it that you came to Michigan State?

Spence: I always wanted to go to college, and several things happened. I really liked the second country school, but I really wanted to get started in college, and I had been taking courses in the summer at anywhere I could pick up a few college credits. I guess they offered a little for what I'd done in country normal. My father said, "If you really want to go to college, I can help you a little bit," and he gave me a check for five hundred dollars, which was a lot of money at that time. I'm not quite sure how he got the five hundred. And he said, "Make it last."

Charnley: Do you remember what year that was?

Spence: If I can think of it, I think it was '36. In the meantime, I'd taken summer school. The first time I came to Michigan State, my Uncle Fred was living in East Lansing. He'd come there partly because he wanted to go back to school and get a Smith-Hughes degree and partly because his son, who was my age, was supposed to start college. The son went for one term, and then he quit to get married and he got a job working, I think, for Oldsmobile. The first day he worked, he told his mother it was too hard, he was going to quit, and she said, "You have a wife to support. You can't." [laughter]

So I stayed with him a couple of summers and went to the six-week summer school at Michigan State.

Charnley: You mentioned a degree. What was it that he was going to go for?

Spence: I think they called it Smith-Hughes. It was in agriculture, and you got a little extra money if you taught this. I don't remember for sure the details.

Charnley: I wasn't familiar with that program.

Spence: I may have the name wrong.

Charnley: Did they live in East Lansing or in close to Michigan State?

Spence: He just moved to East Lansing. He had taught school before, and then he had gone to Canada and homesteaded, and during the depression years he came back from Canada. He wasn't making a go of it there and went back to teaching. But while he had a teaching certificate, I think he partly just wanted to go back to school for a while and get this further degree.

Charnley: Was this your father's brother or your mother's?

Spence: My father's.

Charnley: Then you made the decision to come to Michigan State?

Spence: I'd always wanted to come here, so at the end of the first year of teaching in the country, he was living here and said I could live with him if I paid for the cost of my food. So I saved a little money on my forty dollars a month I'd been earning, which was good pay for the country school then, and I came down here for the summer school for six weeks.

Charnley: What were your first impressions of the campus?

Spence: I'd been here before to visit sometime, so I'd seen the campus before. I can't quite remember. I think something that I'd been down for a weekend at. Before I did that, the spring before I first came to Michigan State, I picked up a few college credits at Mount Pleasant. A group

was driving up on Saturday from Hubbardston, country schoolteachers, and that we went up and we took a three-hour class in the morning and another three-hour class in the afternoon and got some college credit for it.

Charnley: At Central Michigan.

Spence: Yes.

Charnley: What did you study when you were here at Michigan State? It was Michigan State College then, right? It wasn't University.

Spence: I'm trying to think if it was still the ag school or if it was already Michigan State College. I'm not 100 percent sure.

Charnley: Okay. We can check that. What area did you study?

Spence: I was interested in studying math, and I'd first planned to study math and English, but I'd taken some physics classes in the summer, and I'd done quite well with it, and I became acquainted with the head of the department, Professor Chapman. I forget his first name. And he did not have a doctor's degree, so it was just Professor Chapman. He said, "If you'll come here on a regular basis, I'll see that you have some kind of work."

So at that time the government was giving some kind of financial aid, helping the college, and so I had about twelve hours a week of that. Then I found some other things I could do on the side.

Charnley: Was that just working on the campus or were you doing like a work-study thing?

Spence: They didn't have work-study yet, but, well, I did different things. At first he had me as an assistant to his secretary because, of course, everything was done by hand. She couldn't even type very well, and she wanted a duplicate made of all the students and what they were taking. So I used to fill out these cards for her. Then after I'd taken a couple more physics classes, for a while I was assisting in laboratories. I'd finished enough to graduate, and I still stayed on another term, I believe. At that time I was on like a sort of graduate assistant basis, and I got another dime an hour for what I worked for, thirty-five cents instead of twenty-five, something like that.

Charnley: Per hour. You were a lab assistant in the physics department then when you were a grad?

Spence: I don't know what they called it. Part of it was before I graduated, you see, because I didn't graduate at the end of the normal year; somewhere about the midway through. There were three terms then, and I was still here the winter term. At that time I was working for my room and most of my board.

Then several things happened. I got a little too tired because I was working too many hours a week. The people I was working for, he was transferred to a different state, Georgia, I think, and they were moving, so I lost that place to stay. There was an opening for a teacher in Portland in English and math, and I had just enough English so they could hire me. Then at the end of that term they shifted things around, so in Portland I was teaching math and physics and chemistry.

Charnley: So you were doing this while you were going to school, or was that right after?

Spence: No, this was when I finished school.

Charnley: What year did you graduate?

Spence: Well, I have to figure that out. I'm not quite sure.

Charnley: You started in '36?

Spence: Yes, but I picked up credits along the way, so from '36 to '37 to '38, and I think it was the very, very early '39 that I had enough, plus a few graduate credits.

Charnley: While you were here, it sounds like you were pretty busy with all your work and study, but were there any social things you did on campus?

Spence: Oh yes, they had nice things, and we did all the free ones.

Charnley: What were some of those?

Spence: It's pretty vague in my mind, but they had sort of the beginning of a program like they bring here now, with music and things like that. I can't quite remember where they went for it. They'd have a concert once, but I can't remember where it was held. It was before the auditorium was built or anything like that.

Charnley: Did they have a bandshell?

Spence: Not at that time. They built that about the time I finished here. The first bandshell, I think, was built just after I left as a regular student. So you did that. It's hard to say.

The People's Church, I remember, had an Sunday evening social hour where you also could get a light lunch, and I used to go over there sometimes. If you had a date, you'd go to a movie if you had enough money. Otherwise, you'd just go over and have a Coke together.

Charnley: Was that at the Michigan Theater or the State Theater? I know the State was still here when I was.

Spence: There as this one downtown theater. I don't remember its name now. Actually, there were two. That, and was it the Campus?

Charnley: Yes, I think so. When I came in 1978, the buildings were still there and they were still showing them, but I guess the ceiling was falling on people so they tore them down.

Were there very many women students when you came in the thirties?

Spence: There were a lot of home ec[onomics] students. Most of the women students were in something like home ec. There were almost none in physics. There were some in math, but not too many.

Charnley: So in your math and physics classes were you the only woman, or were there some others?

Spence: I'm trying to remember if there were any other women in the physics—

[Begin Tape 1, Side B]

Spence: —things like you'd pack up a picnic and you'd go down to Pine Eden [phonetic] and you'd build a fire and roast maybe frankfurters or something and eat.

Charnley: When the tape ended, you were talking about the women in your math classes, and you said they did quite well. How did they do in relationship to the men in the class?

Spence: Well, there was never much relationship between class members anyway.

Charnley: What was your impression that the women did in relationship to the men? Did they do better or—

Spence: The ones who took math usually did better, but that may be because they were highly motivated to take it to begin with. There were no women in engineering.

Charnley: At that time, did you ever have any contact with President [Robert S.] Shaw?

Spence: No.

Charnley: Did you see John [A.] Hannah at the time, or did you only have contact with your professors?

Spence: I never saw him. I had contact with my professors, but no one outstanding.

Charnley: Were there any other professors while you were an undergraduate that you can say had an important influence on you when you were here?

Spence: I don't think so.

E. Spence: I thought one of the math professors, but maybe that was later when you were in M.I.T. [Massachusetts Institute of Technology].

Spence: That was later.

Charnley: So after graduation, you taught math and English at Portland High School, not far from Lansing.

Spence: For the first term, but then the next fall I taught math and physics and chemistry. We shifted around, and it had an eighth-grade teacher also teaching the math and physics, or the physics, so I taught math and English one term. Then they shifted things around so I taught math and chemistry and physics.

Charnley: That was in the public school in Portland?

Spence: Yes.

Charnley: Were you there when you first heard of the Japanese attack on Pearl Harbor?

Spence: I believe that was right, because, let's see, that was in '41, wasn't it?

Charnley: Yes, December seventh.

Spence: Yes. I was teaching in Portland, but I'd already met my husband, who was a graduate assistant at Michigan State at that time, and there was a friend of his from the same town in New York that was up here in school at that time. My father was still in Hubbardston, and my mother wasn't living at home at that time. So I used to bring friends up for the weekend sometimes and come to see my father. Francis Shephard went up with me to see my father, and we'd gone off on this Sunday morning to look for a place that was supposed to be a beaver dam. I'm not sure we ever found it. And when we came home, about maybe one o'clock in the afternoon, my father was listening to the radio, and he said, "Come and hear this," and the Japanese had just attacked Pearl Harbor.

Then we went back that afternoon to East Lansing where I was returning him, and the minister's daughter in Hubbardston also was working in East Lansing. So I took them all back to East Lansing, and we sat around where she was living, and her roommate was engaged to someone who was in ROTC. We all sat around that evening, we picked up Bob from where he was working, and talked about the changes it was going to make in our lives.

E. Spence: And I think that's where I come in. He wants to know how you first met Bob.

Spence: I'm not sure. I knew him, because I can remember once I was eating over at Kewpie's and he came and joined me at the table.

Charnley: Kewpie's was a local restaurant?

Spence: Yes, it was right across from the campus, and cheap.

E. Spence: Maybe he would a little bit more of an extended idea of your courtship, so if you want to describe a little bit of that, too.

Spence: That doesn't have much to do with much of anything.

E. Spence: I thought it was interesting. How did you decide to get married to Bob? You can describe how that all occurred.

Spence: Well, we had some mutual friends, Bernie Rothlein and Virginia. I'm not sure of her last name anymore. We used to sometimes sort of double date, and they said, "Ask Bob if he'd ever seen Lake Michigan." And he said no. And they said, "Oh, you must see Lake Michigan. We must take him to see Lake Michigan."

So I had a car, and so we arranged we were going to drive to Lake Michigan and show Bob Lake Michigan. It was Memorial Day weekend, but we started out, oh, I think the day after Memorial Day. I don't know what day of the week Memorial Day came on then, but anyway, we started up like a Saturday. We had to stay overnight up there and took him to see Lake Michigan and then came back the next day. It was during that trip that he asked me to marry him. It was sort of a surprise. I didn't really know him that well.

E. Spence: What was your answer?

Spence: I said, "I'll tell you next week." [laughter] So I thought about it for a week and decided it looked okay. I'd been looking for a smart husband, and he was quite smart.

E. Spence: What were the circumstances around your marriage? The actual wedding.

Spence: After Pearl Harbor, he could no longer get a deferment as a graduate student, but they promised him that he was offered a job, teaching radar in Boston. Nobody knew anything about radar, but apparently he'd taken an electrical engineering course once, and they went to the electrical engineering departments trying to find someone with a proper background. They said, "We don't have any engineering students, but there was this fellow from physics that came over here and he did exceptionally well." So he had this promise of a deferment if he went and taught radar in Boston.

So we decided it was a good time to get married so I could go with him. I gave up my job in Portland, and his parents, who lived in New York, came out to go to his commencement for his master's degree. He took a master's degree instead of going on for the Ph.D. Then they came up to Hubbardston and they had to stay overnight. Because there was no other place to stay, they stayed in our house, and we got married the next afternoon. The minister was going to come up to our house to marry us, and my aunt came and my sister came, and we'd asked Bernie and Virginia to come. The minister said, "I have to go somewhere else first, but I'll come up when I get back in the afternoon." So he got back earlier than he thought, so Bernie and Virginia got there too late for the wedding.

Charnley: They missed the wedding?

Spence: We got married in my parents' living room, and my mother had someone bake a cake, and they had cake and ice cream afterward.

E. Spence: The story of how they got too Boston is kind of interesting, if you want to hear it.

Charnley: Of course.

E. Spence: Would you like to describe the story of how you got to Boston after that?

Charnley: Could I ask one quick question about the year? Was this 1942?

Spence: Let's see, Pearl Harbor was '41, so this was '42, yes.

Charnley: What date did you get married?

Spence: I think it was June fourteenth, but I'm not sure.

Charnley: He went to graduation just before that?

Spence: Yes.

E. Spence: You could tell him how you got to Boston and the pressures of getting there.

Spence: We went up to Hubbardston to pick up some things that I wanted to take with me and say goodbye to my parents. Gas rationing had started and it wasn't too serious in Michigan, so we started out and we stopped so my husband could tell someone where he was going. He had this deferment, I forget what they called it, and they'd promised him a deferment for taking this job, but they changed their minds the last minute. So he spent a day at the telegraph office, because that was before the long-distance calls were so common.

Finally they said, “Well, the best thing you can do is get there and start working as fast as you can and we will continue to see what we can do about it.” So we headed off and stopped at his parents’ home in upper New York near Batavia, and we got there. Further east the gas rationing was very strict, and we couldn’t possibly get enough to get to Boston. So we unpacked everything we had, left most of it there, left the car there, and each took a suitcase and got on a bus and went overnight to Boston.

So when we got to Boston, I guess maybe we had a lunch, I’m not sure, but we found a taxi driver and asked him to take us to a hotel near M.I.T., and he looked at us and said, “You can’t afford a hotel. I’ll find you a nice rooming house.” So he found us a nice rooming house right near the bridge over the Charles River, and we found a nice room there. He left me and went right to work after the night on the bus to report for duty.

E. Spence: As I remember, the place he went to work was an unmarked building, with security clearance, and also he had to sort of walk into a strange building and find his way through it.

Spence: No one was supposed to know what they were doing up there.

Charnley: Is this at M.I.T.?

Spence: I'm not sure whether that was under M.I.T. It was sponsored by both M.I.T. and Harvard, and they had both army and navy. After a while, they separated the army branch and the navy branch.

E. Spence: Can you explain why?

Spence: There was something about someone having to salute for— They all had to salute someone for the officer of the day, and they got in a quarrel over whether it would be an army or a navy officer, so they separated them.

Charnley: The interservice rivalry.

Was your husband employed by the government, or was he in the military?

Spence: He was not in the military, but many of the teachers down there were. It was a mixture of the ones who were civilians and the ones who weren't, and he was not in the military. The ones who were in the military would eventually put in a term or so, often overseas.

Charnley: So he was responsible for teaching how to use radar or was he doing research on radar or both?

Spence: For how to use it, but they didn't have even a manual to go with it half the time, and if they did, it was wrong. They used many vacuum tubes, and it was hard to determine which one was causing the trouble when they went.

Charnley: So he was involved in some of the original development?

Spence: He was teaching them. They weren't doing any research there. They were doing that up at the radiation lab, the theoretical research and also others.

So when we got to Boston, first I went to an employment agency to see if I could get some kind of job, because what he was earning was just barely enough to keep us going. He didn't want me to, he wanted me to go to school, but it wasn't really quite realistic. They looked at my qualifications and said, "You've overqualified for any of our jobs. Go up to M.I.T. or Harvard."

So I went up to M.I.T., and Bob wanted me to get like a graduate assistantship. He wanted me to get educated. I went there for that and they said, "Well, we don't have any such a thing. We've put together two graduate assistantships to make full-time so we can keep some of the young men out of the army and navy." But they said, "Why don't you go over to the radiation lab." They said, "Go over and see Sam Goudsmit. He's looking for some people like you." So I was rather shy, but I went over to the radiation lab and, yes, they hired me just like that.

Charnley: What were your duties?

Spence: We were called computers. That's how I got interested in computing. What we had were, at the time, state of the art. There were Monroes and Marchants that were the best known of the calculating machines, and they were electrical-powered. They carried ten digits. We had Marchants there, and they could add, subtract, multiply, and divide, but they couldn't do square roots. So you had to use books with tables of square roots.

I was working for the theoretical group, so there was a lot of calculation to do. So we learned to do this calculation, and you kept it all. You had a big book about so wide and so high that was lined out that you— All the things you'd put in memory in the computer now, you'd put down in writing. It was sort of easy work, but monotonous. But the people we worked for were very nice, and they said, "You can't do all of that work eight hours a day without taking breaks," so we were encouraged to take like morning and afternoon breaks. At first, sometimes we ate lunch out, but the lunchrooms were so crowded with the wartime, and it took so much time, that they began hiring a woman to come in and make soup and sandwiches that you could get there at the lab and just eat there.

E. Spence: How many other people were you working with? As a computer, who else was working?

Spence: It varied over the time. I was trying to remember just how many, but of the ones that were real steady workers there, there were maybe five or six and then sometimes there would be more.

That was in the theoretical division. It was an interesting place to work because there were some quite well-known people who would have us doing computing.

E. Spence: Can you mention their names?

Spence: The best known was Julian Schwinger. In 1965, he, with two others, was awarded the Nobel prize in Physics.

E. Spence: One of the interesting things was my parents both had security clearances, but they couldn't talk to each other about what they did exactly.

Spence: No, we couldn't talk to each other. No, you never talked about it at home. It was all supposed to be highly secret, Bob's even more than mine, but mine was too, and you had to have a badge to get in. Then they put a time clock in, and you had to punch the time clock, and we girls didn't like to do it. We'd never done that sort of thing before. So I think we complained to the men we were working for, and they said, "Oh, we'll fix that." So instead of having the same rank as secretaries, they made us staff members.

Spence: Somewhere I have a picture of all the people, but I wasn't in it. I was home on maternity leave.

Charnley: So you had your first child. You became pregnant at that time?

Spence: About when it looked like we were going to win the war, we decided, and we put aside a little money. We decided, yes, we could. My son was born in '45, May of '45. Then, of course, the war actually ended that August.

Charnley: Were you at M.I.T. during the whole war?

Spence: We got there at the time we were married, and I went to M.I.T. soon thereafter. Then we were there, yes, until then, and all the jobs were collapsing. My husband had always planned to get a Ph.D., and it was understood when we were married he was going to. I'm not quite sure how he'd arranged it, but by phone he had arranged to get a graduate assistantship at Yale. He wanted to go to Yale. He'd gotten an offer from Yale and from Brown, I think. But we'd been to Yale for a weekend to visit a friend, and we knew we liked it there, and so we went down there.

Charnley: Could we go back to the radiation lab, the work that you did there? Did you work on additional—

Spence: At the time I had the baby, I was on maternity leave. But when the war ended, the radiation lab was sort of closing down. A little of it was left, but there was no need for it then.

Charnley: Did any of the people that you worked with that you knew, were they involved with the Manhattan Project, with the atomic bomb development?

Spence: No. That was in Los Alamos [New Mexico, and also there was a little something in Chicago area. Some of them went back and forth to the radiation lab, but they were really working on something quite different.

Charnley: Were you involved in any other computers that developed during the war?

Spence: To begin with, when I was still working there, I was doing some program, and they were having a big debate over whether it was worth six weeks of my time to get one more figure of accuracy or not. I forget, who was the man who put together the first computer at M.I.T.? Someone at the lab said that he has a machine up there that can calculate faster, and he is looking for programs to test it on, and I think he'd be happy to do that for you. I think they called it the Mach I, or something.

Anyway, so I went up to see them, because, of course, I had to tell them just what we needed done, and he was delighted to do it. I think I went up and helped punch some tape for them or something, and checked what they were doing. Then he said, "Would you like to come up and see it run?" He said, "Your husband can come, too, if he has a badge." So we went up that evening.

The computer was in a big room down in the basement. Oh, it was a room that was at least twenty feet long and wide in proportion, and there were shelves around the whole wall. All of the pieces were in boxes around the shelves around the wall. You punched tape for that first one, I think. Then the output came out on a tape, which we then eventually had to run through a typewriter to type it out. I was just fascinated by it, but it was under the use of the navy, and you had to belong to the navy to use it. So I couldn't.

Charnley: So you saw the first computer?

Spence: It wasn't the first; it was maybe the second in America. I think there was some question over what was really the first. I can't remember the man's name who was in charge of it.

E. Spence: Do you want to go on to Michigan State?

Charnley: Sure. After the war, you mentioned that your husband was thinking about going to Yale. Did he end up going there?

Spence: Yes, we went to Yale, baby and all. I don't know how he thought he was going to support us, but somehow we did. The head of the department there, the physics department, put us in touch with a student, Fred Leitner. Right across the road from the physics department there was a big old Victorian house, and it had been given some kind of zoning privilege to house a lot of people

during the war years, and it was run as a cooperative house. So we got a room in the cooperative house. We had one fairly large bedroom for ourselves and the baby, and then you shared the rest of the house. You ate dinners together. You got your own breakfast and lunch, and you were honor-bound to write down how much you ate so you'd know how much you had to pay for it for dinner.

Then everyone had to work part of the time to keep the house going, and you got some credit toward your bill for what you worked. You had to work at least twelve hours a week. Well, I did mine and some for Bob, and then you could work extra if they needed you. So I sort of learned to cook there.

Charnley: Were many of the other students returning veterans?

Spence: Yes. The graduate students at Yale that were Bob's classmates were some of the veterans, the earlier ones that got back.

E. Spence: It was a really interesting group of scientists now that were there together.

Charnley: What was your husband's area of study?

Spence: Physics.

Charnley: Was there any specialty in it that you were aware of at the time?

Spence: Not really. Theoretical physics, it was. He wasn't too into the experimental stuff. He liked the theoretical physics best.

Charnley: Do you remember who he studied with at Yale, or did he have a major professor that directed his dissertation?

Spence: Yes, and I'm not quite sure I remember his name. It will come to me probably. Page.

E. Spence: You took some courses with Page, too, didn't you?

Spence: Oh yes. Several physics people lived in the house, and they'd all taken Page's course in theoretical physics. So Bob was always wanting me to get educated.

[Begin Tape 2, Side A]

Charnley: This is tape two of the Helen Spence interview.

When the last tape left, we were talking about graduate school of Bob Spence at Yale, and you mentioned when the last tape ended that you were taking Professor Page's course on theoretical physics.

Spence: I really should have taken math or something else, but I guess I wanted to be sure I could do it. So when I got done, Page said, “You did almost as well as your husband,” which was a high compliment.

Anyhow, while we were there at Yale, some people came up from Brazil doing postgraduate work there, and they had with them a child who was about a year older than our son. What had made it possible for me to do this was we’d exchange babysitting, and they would take care of John in the morning when I went to class and then I would take care of their son in the afternoon. So that made it possible for me to get time off to go to the class. Then in the evening we could leave him and I could go over and study in Bob’s office, and the people in the house would be there in case he woke while we were away. So that was very nice and a pleasant and cheap place to live.

Charnley: It sounds like Yale was quite a long ways away from Hubbardston, Michigan.

Spence: It was.

Charnley: How did you feel about that?

Spence: Oh, I liked Yale. We would have loved to stay there, but even if Bob had been made an offer, and he was not, they only kept on one or two of their own students. It would not have been a good thing to do because almost none of them ever got tenure.

E. Spence: So then Bob came back to Michigan State, and would you like to say something about the fact that he wanted you to stay for a little bit longer at Yale so that you could finish up your degree?

Spence: Yes. Bob came back to Michigan State because he went down to New York where they were hiring new graduates, and he met the head of the department here who remembered him as a graduate student and made him the best offer in academic field, and he wanted to stay there so he could choose his own research. So we decided to come back at that time.

And what did you say?

E. Spence: You said you had half of a master's degree at Yale and Bob wanted you to stay.

Spence: Oh yes, he wanted me to stay, but it was unrealistic. I'd had to stay with the baby, we'd had to support both of us, and I'd had to somehow or other arrange for time to go over and study. It just wasn't realistic, and besides, I didn't want to. I'd rather have another baby. I was already getting on. I was about thirty-three.

E. Spence: When did you begin using the computer at MSU?

Spence: I'm not quite clear. I was trying to remember how I had a chance to use the Mistic. I heard they were building one on campus, I'd been wanting to get into this ever since I'd seen that

other computer. There was a man named Weeg from the math department, who was going to offer a class on how to program it. Of course, no one knew how to program it; all they had was the manual. So I went over and signed up for his class. I still had one child who was not in school, but I was able to manage for her care in order for me to go over and take the class. So I went over and took this class, which he sort of made up as he went along. Until very recently, I'd kept his notes on it, but I finally threw those out. But it was a difficult thing to program.

Charnley: The Mystic was the first major computer on Michigan State's campus?

Spence: It was the first computer at Michigan State, and it was designed on one from Illinois, I think. It was actually a copy of it, and I think Dean Von Tersch was very interested in building it here. I was very interested in learning to use it, so as soon as I heard that Dr. Weeg in the math department was giving this class, I signed up for it to come over. You punched tape for its input, and I can remember my youngest daughter wasn't in kindergarten yet, and she used to come over with me to punch tape. Instead of babysitting, I could take her along, and if no one was using all the machines, she could punch tape, which was a big treat for her.

Charnley: Would you go again over how was it that your husband got the offer back at Michigan State?

Spence: Dr. Osgood liked him as a graduate student. He was an outstanding student. As I say, I was always looking for a smart husband.

Charnley: So he, with his undergraduate degree from Michigan State, then it was—

Spence: No, he had his undergraduate degree from Cornell. He had his master's from Michigan State.

Charnley: Thank you. I guess I was confused on that. It makes sense, Cornell not being far from his home.

Spence: Better than that, it had some kind of a rule that it paid part of the tuition for people in the agricultural college, so he signed up for agricultural engineering and took all the physics courses he could but got part of his tuition paid.

Charnley: After you were married, after you left Yale, do you remember when you first came back to Michigan, to East Lansing?

Spence: Sure. John was still a baby. He was born in '45. We came back as soon as we could. Let's see. The war ended in August, and we came back that September. That's right. That was when we left Yale. We were there two years.

E. Spence: You came back before I was born.

Spence: Yes, we came back just before you were born.

E. Spence: I was born in '48.

Spence: But you were born in April of '48, so we must have come back in '47.

Charnley: So he started teaching then in the fall of '47?

Spence: That's right.

Charnley: Do you remember, had the campus changed at all in that time when you were first getting here?

Spence: During the war years, it was much different because they were teaching all these men who were in the army, but that was pretty well gone by then. The campus looked sort of rundown when we got back, because, of course, they'd had difficulty getting the students, maintaining the students. When we first came back, we lived in the brick apartments, yes.

Charnley: On Cherry Lane?

Spence: Yes. That first year, we had a one-bedroom apartment, and then after Elizabeth was born, then they gave us a two-bedroom apartment, and we lived there until after Janet was born.

E. Spence: One thing I remember was the Quonset huts. There were Quonset huts across from Cherry Lane that stayed there for quite a while.

Charnley: Where the students lived?

Spence: Yes, and some faculty.

E. Spence: They had put them up during the war as temporary housing, and they kept them for quite a while until they could build better housing.

Spence: Yes, but we didn't live in those.

Spence: Yes, they'd built all those Quonset huts, and there were also some other little detached—

E. Spence: Yes, some ticky-tacky little houses.

Spence: But Bob didn't want to live in one of those. He wanted to live in the brick building.

Charnley: Do you remember did the university provide those for housing for faculty, or did you have to pay monthly rent?

Spence: Oh, we had to pay for it, but it was inexpensive and there was not much housing to be had outside. So that was one advantage, it was cheaper. Then, besides that, it was within possible walking distance and we didn't have a car, so Bob would either walk or bicycle.

Charnley: Did you develop any close friends among the faculty that you lived with, neighbors, at that time?

Spence: Yes, we made some, one family that were very close friends named the Nobles, and he was also in physics. We knew them first while we were in the brick apartment, and we used to exchange babysitting with each other and were also friends. So that was some kind of a rule that after you got to be of an associate professor, you had to move out of those apartments or also, I think, after a certain number of years. I don't remember the rules. So we both were looking for new housing at the same time, the Nobles and the Spences.

We saw an ad in the paper, and I said to Bob, "Oh, I know that house. I walk by it." I used to push the baby carriage down that way. I said, "It's big and I like it and I think it's rundown enough so maybe we can afford it." So the Nobles and us went to look at it. They had two house, this one on Marigold and another one just two houses away on Marigold that was smaller. We

looked at them and we liked it and we liked the location, and so we both bought a house. But we got the big one because we had the bigger down deposit to make on it.

Charnley: Was that there in what they called the flowerpot district?

Spence: Yes, it was in the flowerpot area. It still stands over there. I forget its number now. They changed the numbering once.

E. Spence: It was 1063, I think.

Spence: I think so.

E. Spence: John Hannah and Walter Adams, weren't they living in the Cherry Lane Apartments at the same time you were?

Spence: Not John Hannah, but Walter Adams was living in the Cherry Lane Apartments when we did, and I knew his wife. We used to meet down in the laundry.

Charnley: Pauline?

Spence: Yes, Pauline.

Charnley: You were busy raising your family and your husband was in the physics department? Was he teaching a lot of classes or were the students expanding?

Spence: He was teaching too many classes, yes, because he was really interested in research, and so it was hard to find as much time as he wanted to do research. So he solved the problem by going back in the evening. He'd come home for lunch, and then he'd come for dinner, and he'd take a brief nap, and then he'd go back in the evening. For me, the unfortunate part was he didn't drive. He wouldn't drive, and so I had to take him. As long as the Nobles lived next door, Bob Noble also would go back in the evening. But after they moved, I had to take him back in the evening and wake up and get him later when he'd call.

Charnley: Sounds like long hours.

Spence: Yes. I was crazy to do it.

E. Spence: Describe what it was like for a housewife with four children. We had a coal-burning stove that she shoveled the coal into the stove.

Spence: No, he did that.

E. Spence: Well, I saw sometimes you doing that.

Spence: No, he did that. He wouldn't let me do it. But I was always afraid he wouldn't close it properly, because once he left it open and the gas all escaped, so I had to wake up and check it anyway.

E. Spence: And no garage, so if it snowed, they had to get the car warming, dig out the snow, get it all done, get the kids dressed up into our snowsuits, and then get him off to work at night.

Spence: Yes, we didn't have a garage for a long time.

Charnley: Did you have any contact with President Hannah?

Spence: No. See, I was nothing but an instructor.

Charnley: Were you aware of your husband's contact with Dr. Hannah? Did he have any work with him directly?

Spence: No. Well, I shouldn't say. I don't really know. Off and on, Bob was head of the physics department. He never wanted to be head, but every now and then he'd fill in. But I don't think he ever did anything with Hannah, or saw him.

Charnley: So you had four children by this time?

Spence: Yes.

Charnley: How was it that you came to teach in the department of computer science?

Spence: It's a hard thing for me to remember for sure, but as I say, at the time of the Mystic, this Dr. Weeg from math taught the only class. I think the year he left, there was no one else who knew how to program it, and I used his notes and I gave one class when they were still using the Mystic. Then they began building other computers. Now this probably takes us back to when we first used those, and, you know, I forget what the different ones were. They went through different phases. Now, the Mystic was in—

Charnley: Was that in math or were they using it for physics or were different departments using the computing power of the computers?

Spence: The computer here was always under the engineering college. They built the Mystic and it got started there, so it was always part of the engineering college as long as I can remember.

Charnley: So computer science wasn't a separate department then?

Spence: Oh, no. For a long time, the people who were teaching computer science had never had a class in computer science. After all, it was just starting. Who was the name of the first person they

had who had ever gotten a degree in computer science? His name will come to me, but I don't remember it now. It was Page.

E. Spence: When you were first teaching in that department, were there any other women in the department, in the engineering department?

Spence: Engineering was a college.

Charnley: Were there specialized languages on the computers that you worked on at M.I.T.? They didn't have a separate name?

Spence: There weren't languages. They were just calculators. They did what a pocket calculator does today, only a little less.

Charnley: How was it that you got interested in computer languages?

Spence: I wanted to learn to use the computers. Whenever possible, I came over and worked on them, and eventually they needed people to teach. I never much liked teaching FORTRAN. I liked teaching the Assembly languages best and most people didn't, and so they'd hire me even if I didn't have a degree. My husband would say, "You should get a degree. They'd pay you more money. They're underpaying you," which they certainly were. I could have earned more going back to

teaching high school, but I didn't want to teach high school. I'd say, "But I don't want to go back and get a Ph.D. I like what I'm doing, and we don't really need the money. By the time, at my age, if I finished a Ph.D., there wouldn't be enough time left to make it pay."

E. Spence: It was interesting how you were first asked to come teach on a regular basis by the man who met you in Sears & Roebuck and—

Spence: Oh, Von Tersch. Lawrence Von Tersch – I believe he was Dean of Engineering at that time.

Charnley: What was that story?

Spence: Yes. I had not been teaching. Let's see, what had happened?

E. Spence: My parents were on sabbatical in Holland for a year.

Charnley: What city in the Netherlands were you at?

Spence: That was when we went with you girls. At that time, we lived near Eindhoren. But we were only there part of a year, unfortunately, and then when I came back, I think I met Dean Von Tersch down at Sears Roebuck. He said, "What are you doing now?" I said, "Nothing." He said,

“How would you like to teach FORTRAN?” I said, “I don’t know any FORTRAN.” He said, “You can learn it. Go out and tell Dick Reid to hire you.” So that must have been when it started here in ’66, I guess.

E. Spence: Yes, that would be about right.

Charnley: 1966? And you didn’t like FORTRAN?

Spence: No. I liked the Assembly language best, so when they had Assembly language courses or some place available, I’d teach that, but back and forth.

Charnley: Were they using in 1966 IBM computers?

Spence: No, they used CDC here for the computing department. I think they used IBM over at administration or something.

Charnley: That was what, Control Data, the CDC?

Spence: Yes.

E. Spence: He wants to know if you ever did any cross collaboration with other departments? You didn't help some people calculate in the physics department every once in a while?

Spence: No.

Charnley: Besides Von Tersch, were there others that you worked with closely?

Spence: I never worked with him. Dean Lawrence Von Tersch was Dean of Engineering at that time. He was not in the computer science department, and never used the computer himself. He knew me because he was interested in the Mystic, and would sometimes stop by to see how it was going. Well, there's one other that— Have you ever met Lewis Greenberg?

Charnley: I have, yes.

Spence: And you've talked with him?

Charnley: I haven't done the interview with him, but I have met him.

Spence: As I recall, he was just a student here. I don't even think he was a graduate student then. I think as an undergraduate he may even go back to the Mystic. But it goes back a long way.

Charnley: He became the director of the computer lab?

Spence: Yes. Whenever I needed help with anything, I'd ask him. I remember one time and that was back on a machine that was using tape, so it must have gone way back maybe even to the Mystic. It must have. I could not find out why something didn't work. The logic was right, I was sure. So I asked him to look at it for me, and he said, "Yes, the logic's okay." Then he took it over and he ran it, and there was a light spot in the tape that it had read as a hole. It seems like some other time I went to him with some questions that was stupid that they couldn't find. He was really good.

Charnley: Were there any courses specifically that you taught ultimately in the course of your teaching career? Did they have a specialized name, or did you change over time?

Spence: I don't remember the names. It changed over time, because to begin with while I liked Assembly language best, they kept changing what they were using, and there were not usually names for the Assembly languages, I think. They had tried FORTRAN. One time they told us that they were going to begin the next year teaching something everyone was supposed to use called APL.

[Begin Tape 2, Side B]

Charnley: This is tape two, side B.

When the tape stopped, we were talking about APL, and you had studied a summer of APL language, and what happened?

Spence: They never used it. They changed their minds. I'm not quite sure what they chose to do instead. Perhaps it was Pascal. They went to that at one time.

Charnley: It seemed like you changed languages almost every semester or every quarter.

Spence: Oh, no, not that often.

Charnley: What were some of the other early computer languages that you learned?

Spence: I don't remember.

E. Spence: Then he has a series of questions on your philosophy of teaching and views of students.

Did you see any changes in the students during your tenure as a professor at Michigan State? Or what did you like most about teaching?

Spence: At one time, computers became the thing to study because there were jobs in them. So a lot of people who were not truly interested, only in getting the jobs, came over to study computer

science, and they weren't very good. It was different from the time when they came, just because they wanted to know it.

Charnley: This was in the late sixties or early seventies?

Spence: It must have been on in the sixties or early seventies. I don't know which.

E. Spence: You told me about one semester where they decided that they could take a computer language instead—

Spence: Yes, that was a funny one. For the graduate students, they had to have languages to get a Ph.D., and some of them found language very hard. But they had decided that if you took computer language, that would be easier. So they came over, these graduate students. I only had about two of them come, and they thought it would be easier to take this than to study a language.

Charnley: Like French or German?

Spence: Yes. And instead, they didn't even have a proper math background for it, they didn't think in a mathematical way, and it was with great difficult I gave them the minimum grade they would need to get credit for it. It was like maybe it was just a gift, I felt so sorry for them. But then word got around, don't do this.

Charnley: So it was easier to take French or German?

Spence: Yes. They couldn't write a program and make it run.

E. Spence: Did you see any changes from the Feminist Movement? Was there any influx of women after a certain point into the math and sciences or did it stay about the same?

Spence: I remember that there was a certain influx of women when that was the way they thought led to a job. This was not the Feminist Movement.

E. Spence: Did it ever equal out or what kind of growth did you see in that pattern of growth from how few women were there in the beginning to what percent would you guess there were at the end of your teaching?

Spence: I don't know.

Charnley: Was there any single thing that you enjoyed about teaching?

Spence: Not really.

E. Spence: Actually, as a daughter, I can say one thing. When I was going through high school and taking math classes, I never bothered to study because the night before the test she could communicate with me so completely that I understood exactly what I needed to do for the test the next day.

Spence: She got As in geometry without ever studying much.

E. Spence: It was like instantaneous communication, but I don't know if that was because she was my mother or not.

Spence: No.

Charnley: The ability of a teacher to make some things complex understandable seems to be—
Sounds like a skill that you have that ability.

E. Spence: Another thing, as a daughter, I can remember is there was always a line of students to see her, and she spent incredible amount of time with each student.

Spence: Yes. I liked teaching programming classes, and so they'd come in with their programs to see why they didn't run. It's often harder to find a mistake in a program than to write a program.

Charnley: Yes, to troubleshoot the problem.

Spence: We had some graduate assistants, but they weren't too good at this.

Charnley: Did the students respect you as a female instructor?

Spence: Respect, I don't know, it's a funny word. I can remember two occasions. Once I said something to one of my fellow teachers about I had— They were always trying to sign up for my class, and I said to him, "I guess they sign up for my class because they think I'm an easy grader." He said, "Oh no, you have a reputation of being a hard grader."

Then I remember another class, and it was funny. I really liked it and it was a good class. I can't remember quite what course it was in, not too elementary a one. What they gave me, was it a Christmas card or something, that said, "To Grandma Spence. It's amazing how much a little old lady knows about computing," and they'd all signed it.

Spence: But I didn't know how to take it. I knew they liked me as a teacher, but I wasn't quite sure how to take the grandma part. At that time, I was probably in my sixties, though.

Charnley: You had done most of your work on a mainframe computer. What did you think of the development of the personal computer?

Spence: I didn't particularly like them. The thing is, I was interested in Assembly language. The personal computers didn't go very well. I think once we did— Did they try once giving an Assembly course on some of those? It was awful.

Charnley: In terms of the retirement, when did you ultimately retire from the university from teaching?

Spence: I stopped teaching full time in 1987 when I was 72. I taught part time until early 1989.

Charnley: Did your husband retire about the same time, or did he—

Spence: He retired in 1985.

Charnley: After your retirement, were you involved in any local activities here in town, clubs, or groups?

Spence: Let's see. What I decided to take on as a retirement project was teaching English to foreigners, and so I went to some kind of a class or something. Then I got assigned a woman from Vietnam to help, and so she knew a little English but not very good English. So I began going to see her once a week, but it quickly changed from teaching her English to helping her with all sorts of other things. She had three children. There was Vee, there was Lunh, and there was Keit.

E. Spence: She was Vietnamese.

Spence: She had a lot of difficulties. They'd brought these Vietnamese here. They'd given them some kind of financial support, found them some kind of housing, and then I was going to help her with languages. But she needed so many other kinds of help, it soon came to just helping her. I'm still sort of friends. I've sort of lost touch with her, but I still see one of her daughters fairly regularly because this particular daughter had had special needs. She was very smart, but she had various health problems. Let's see. What were the various things she had? At one time, she had ringworm. And what was the other thing? She had some heart problems. She got involved at one time in a terrible accident where a car had lost a wheel and hit these children who were gone out to collect mail. It was some day that was really a legal holiday, a birthday.

Charnley: As you look back on your time at Michigan State, both as an undergraduate student many years ago and through the time as an instructor, is there anything that comes to mind that you remember as being most important?

Spence: Yes. When I was here as a student, it was the depression. The students were as a whole very, very poor. There wasn't much of anything in the way of scholarships for any of them, and they were mostly working and going to school, and things were very difficult. If you went on a date, you probably would go over and have a Coca-Cola together or something like that or

occasionally if they had a little money, you would go to a movie. Probably hitchhike downtown if you were going to a movie downtown.

I can remember having lunches with a favorite boyfriend. We'd have lunch together. He'd provide the lunch. He had some people, some friends, who worked on some of the college farms, and they'd bring things like a quart of cherries they'd picked. I don't know if they were supposed to keep them or not, but anyway, I never asked. And a bag of day-old rolls, and a quart of milk you could get cheap from the dairy, and we'd have lunch.

When I came first as a college student, I had the cheapest room in the cheapest dorm, and I lived on campus for a year. That was what was called the Women's Building in those days. It's now Morrell Hall, I think. We had a room in the basement with six girls in it, and one fair sized closet for all of us. We had a desk and a bed and a closet. It was no place to study, a six-girl room, and you had to keep hours. But up until you had to be in, you'd go other places to study, the library, or you'd find some quiet spot you could go to. Sometimes the People's Church had some open rooms you could go in and study. Then you had to be in by ten o'clock. But by then, while the other girls were fixing their hair and getting ready for bed, I'd find a quiet parlor upstairs I could go to and study. But the lack of money colored everything.

Charnley: That's changed quite a bit now.

Spence: Oh, it has.

Charnley: I want to thank you on behalf of the project for your time and your insights. Thank you very much.

E. Spence: Thank you for coming.

Spence: It was a pleasure.

[End of interview]

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