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Tracy: Today is August 8, 1977, we're at the home of Sherlene and Daniel Bartholomeu on Green Ridge Avenue in White Plains, New York, continuing on with the oral History of H. Tracy Hall, who is speaking:

I was talking about our old Plymouth automobile, it was an old 1938 four door sedan, gray in color. I purchased it from my brother Eugene. He and his wife Joyce Hansen were also living in Stadium Village at this point, and Gene was going to Pharmacy school. .... have a hard time remembering who was in Stadium Village at the same time we were. There was George R. Hill there, who was superintendant of a junior Sunday School. I've forgotten what the arrangement was. This was the beginnings of student wards. Here was this huge development put in place by the University of Utah. I guess it was the first time there had ever been married students on campus, and here was this University Ward, which was the richest ward in the area, in those days. What are you going to do with all these students who are now in your ward boundaries? I remember hearing some of the brethren complain quite a bit about these students, who don't have any money, who want to come here and be in our ward. Now there was a .... I don't recall that there was a separate student ward organization in those days. It was the beginnings of such things. There was a special Sunday School for the kids from up there, a junior Sunday School, and George Hill was the superintendant of that, and Ida Rose was the Junior Sunday School coordinator. So George R. Hill, who was the son of the General Superintendant of the Sunday School under President David O. McKay. We have known George and his wife Melba for many years.

One thing I can remember at that ward ... This may have been in the years when I was a student by myself, unmarried, you see, after graduating from Weber College in ... I guess it would have been in June of 1939, I worked for this Denton Checketts to earn enough money to go down to the University of Utah. Now some of my friends had already gone on there because they could afford to do that, and I couldn't. At Weber College, I and some of my friends, including Lane Compton and Darrell Reader and Vern Stromberg and others, took their engineering course, their sort of pre-engineering course. The reason for this was that you got to take more science that way. So, I registered as though I was going into chemical engineering. And so did some of my friends. It also got us out of a lot of the kind of courses we didn't like too much. Some of the history, perhaps, and the general arts, and sociology, and what-not. But, taking an engineering course, you got to take neat things like geology, mechanical drawing, and drafting. Learn how to survey, take science up to your ears of everything available in physics and chemistry.

But, anyway, I graduated from there in what would have had to be June of 1939. Then worked for a year and went back to school then as a student at the University of Utah, where I found out they had no chemical engineering and the only thing I could do would be to take chemistry and then I had to go back and pick up all those liberal arts things. Including a foreign language, German, which I did, and which I liked. But, some of the sociology things and the health courses and other things, I didn't appreciate too much. It set me back a little bit, but I made it all up by going to school summers and what-not. I don't know that I went summer. I certainly didn't that year. Later on when I was married, I went to school constantly, summer and everything. I guess I didn't the following summer.

Anyway, I lived over on one of the Avenues. I think it was Oak Street, with a family. A friend, Jack Barrett, who couldn't find work in Ogden, came down and lived with me there later on. Just a sleeping room with a hot-plate so that you could warm up some soup. And Jack Barrett was down there working for an electric sign company. The rent was about \$15.00 a month, as I remember it. And I think that when we were together, she let

us split it, which was only \$7.50 a month, or perhaps \$8.00 or \$9.00 a month for each of the two of us. We had to sleep in the same bed.

Anyway, during that year, the Elder's Quorum teacher was a very wonderful teacher. His name was Nibley ... now let me see which Nibley, I've got to get him picked out. I can't think of his name, but he wrote a book, one of them which I have on Brigham Young. He was kind of a hitorian. He may have been an assistant church historian, or something like that, for all I know. But, his knowledge of church history was phenomenal. And he was the Elder's Quorum teacher, and it was really a pleasure to have him as a teacher. Now I cannot remember who the Elder's Quorum teacher may have been when we lived in Stadium Village, which would have been .. oh, six years later. I know that this man who was an uncle of Hugh Nibley of BYU and Reed Nibley, the concert pianist at the BYU. He may still have been teaching that, as it runs through my mind he taught that Elder's Quorum class in the Univeristy Ward for years.

Beyond that I don't remember a great deal about church organization there. I don't even remember holding any church jobs while I was in Stadium Village. And that may have been true of a number of people there. I just don't know. It seems to me, though, that now that I reflect on that situation a little bit, we did have our own separate branch, and that Reed Burnett, who we knew later on in Schenectady. Because they went to Schenectady as an electrical engineer, or as a mechanical engineer, and Verna May his wife. I think that Reed was the Branch President there in the University Ward area.

As I remember those years at Stadium Village, it was study, study, study. Mom knew lots of people and Mom will talk about people to this day, and I can't remember them to save my neck. But those were years that required a very great deal of study because a background in chemistry that probably wasn't as good as if you had been at some other universities, and Henry Eyring and other new people were bringing in material that was very advanced and took an awful lot of work and effort to do that and take care of your family as much as you could, so our social life and church life during Stadium Village deals, about all I can remember, is that they were enoyable. Let me ask Mom, she just walked in.

When we first went to Stadium Village, did we right off have a branch orrganization for Stadium Village or were we with the University Ward and it gradually ...

Ida Rose: No. No. It was always a branch. We were never connected with the University. Now stay here for a minute. I get mixed up, I guess, because when I was there alone, before I was married, I get those days at University Ward confused with ..

Ida Rose: Oh, you mean when we were at Stadium Village.

Tracy: Stadium Village.

Ida Rose: Oh, I was thinking of Schenectady.

Tracy: Stadium Village. Was Reed Burnett the Branch President there in Stadium Village?

Ida Rose: Yes, and that was after they cut us off the University Ward

Tracy: That was later wasn't it?

Ida Rose: The University Branch was connected .. while we were at Lucy's, we were always with the University, That's where we went. We went to the University Branch *Ward*

while we were at Lucy's, but when they organized the Stadium Village Branch. I think for a little while we went to the University, the student branch. But then there were so many of us with so many kids they organized a separate branch and they put us in the University Ward, but we were a separate branch, and they didn't like us there, because we had so many kids.

Tracy: There was one other reason .. One other thing, too, that just comes to my mind, as I try to search it for these years ago. I was the organist for the YMMIA and the YWMIA when Victor Beard was the Young Men's President in a ...

Ida Rose: That was before the war

Tracy: In another ward. Not the University Ward.

Ida Rose: That was while we were down on ... when we came back. That was after Sherlene was born.

*309 13th East moved from Lucy Van Cat's.*

Tracy: And I don't remember the exact circumstances there. I don't know that we went to church there. He just had me special coming over for MIA because he couldn't get anybody ... I've forgotten. And I don't remember anybody else ..

Ida Rose: I think that was the ward we were in because the

Tracy: I don't think I can remember having had a church job during the two years we were at Stadium Village. Is that right?

Ida Rose: You had one. Was I even a home teacher?

Ida Rose: I don't even remember you being a home teacher.

Tracy: I don't either.

Ida Rose: There were so many students, and I, I ... I don't think they had organized the home teachers. They just operated differently. No, I don't think you had a church job.

Tracy: I don't remember one.

Ida Rose: I was just going over that on our tape and I decided the same thing.

Tracy: Well, anyway, ...

Ida Rose: You had to take care of the kids. When a woman had a church job, it was the Sunday School, and then they left the man free for Sunday School. Were you teaching ... No, you weren't teaching nights. You were teaching in the department during those years.

Tracy: Well, getting back to our trip to Schenectady, we had bought this old car, which didn't work too well, but, oh, we enjoyed that car after we bought that from my brother Eugene. [The accident that the car had been involved in left the hood pointing off toward the left, so that drivers coming toward it had the fearful feeling for a moment that the car was headed directly toward them, and some even veered away in an effort to avoid a collision. Although the car was headed straight down the street, the impression it gave was otherwise.] It was the first car we had in our marriage, and we traveled places we had never seen before in our life on Saturdays. Up the canyons and around Salt Lake and exploring places we had never been. All close to home there in the Salt Lake City area.

Sherlene: And you did all the driving, because I can remember you teaching Mom how to drive.

Ida Rose: Oh, I should have put that on my tape. That was something else.

Tracy: Well, we decided to go to Schenectady, and my mother who lived in Ogden up on (there followed some discussion on which street. It was 2530 Fowler Avenue) near the Catholic School that used to be in Ogden there, for girls. And it was across the street from David J. Wilson, who was a political figure. [Not across the street, but in the neighborhood.] Anyway, my mother held sort of an open house there and invited my Uncle Aaron to come over. We learned from Uncle Aaron that his daughter June was living in Schenectady. I remember that was an enjoyable time there.

We sent our physical belongings on ahead via a van and headed for Schenectady in this car. Now we didn't have much money. We had three children, Sherlene, Tracy, and David. And we tried to sleep in the car, and that didn't work out too well. We staid in motels, the cheapest ones we could find. I was willing to sleep out on the ground on a blanket or a mattress, but Mom didn't like me out there. She was afraid the snakes or something would eat me up. But, we expected the east to be quite a bit like the west. That you could stop at motels, but we learned that you couldn't. There were guest cabins here and there. The last night we were out we staid in Pennsylvania at some kind of a guest cabin without any heat, and it was really cold. This was October ..

Ida Rose: Remember the one that we staid in, that was a white house, and it had of cement upstairs

Tracy: Oh, yeah, Bowling Green, Iowa, or some place like that. It was a bowling green.

Ida Rose: That was not bad!

Tracy: Yeah, and it was inexpensive! Well, we finally made it back to Schenectady. Came in on Route 7, which was all lighted up with the new sodium vapor lamps. Yellow, which General Electric and others had built, and it seemed like it was lighted up for miles with those lamps. That was something new for us to see. But, we came into Schenectady. I think we arrived in the daytime, and we were really disappointed. This was the back door to coming in on Schenectady. At least it was in those days! And it was a dirty industrial town with litter and paper and junk all over the place, and we were really disappointed coming in and seeing Schenectady from this point of view.

I left the kids in the car and went inside. I'm sure looking bedraggled and maybe a little unshaven-and I didn't have very good clothes in those days, none of us did, and I remember .. Oh, we went in to see this lady who had the assignment of finding places for people to live. Housing was just almost impossible in those days? But, I could tell from the way she looked at me, "Oh, what's this they've hired? Somebody from the backwoods?" but she was nice, and she arranged for us to stay with another family. Do you remember the name of the family we staid with? Anyway, we staid with this family for a few days. Very nice. He was an employee .. Was his name Zabriskie? It might have been Zabriskie. *Zabriskie was at U of U, I think) Z.R.*

Ida Rose: I don't remember that.

Tracy: Anyway, the few days we staid there we couldn't find anything except a house. Very tiny and very poorly constructed with a very poor arrangment of the interior. Not

even a place to put a kitchen table. The chimney was in the way. Our household goods arrived. They said it was going to cost us \$300.00. It cost us \$600.00 which was terrible. We had to put those goods in this house. Because arrangements had been made that we could somehow purchase this in a kind of a not too clear-cut deal. We got to investigating the developer and other things later on, and we really hadn't signed any papers that committed us, we just felt kinda morally obligated to move into that place. But as we looked at that place and the price, which I've forgotten, but which seemed horrendous, it was for the day, I'm sure, a terrible price. And the smallness of the facility, we decided we just couldn't go through with that.

Ida Rose: Was that in Coldbrook?

Tracy: No, that wasn't in Coldbrook! Anyway we succeeded in backing out of that deal. I don't know what we did with our furniture.

Ida Rose: I don't either!

Tracy: Anyway, not having any place to go and searching the countryside, we finally moved in with an LDS family. Sterling and Helen Barton, who were very kind to us. They had a big family themselves -- three kids or so in a small home. And we lived with them for six weeks, sharing household expenses, before we were able to locate anything. And then we located a house at 40 Bedford Road, which was a big house, adequate for our family, and we paid something like a hundred dollars a month .. later on we found out it was against the .. they still had war rules on housing, you couldn't charge beyond a certain amount and the legal amount they could charge was only \$60.00, and when we found that out, we got it changed to the \$60.00. But at the \$60.00 level these people couldn't make their payments on this house. They had recently bought it from somebody and then moved out to start with. And so they were forced to sell the house and eventually we had to leave.

But in the meantime, a newly converted church member, Bill Hefferman, whose wife was Ann Hefferman, who was a building contractor, had agreed to build us a house for \$11,600.00, in Colony on Bly Road. We later sold the house for \$18,000, seven years after first coming to Schenectady. We lived in the house on Bly Road for about six years. Well, we had to get out of this house, though, and the one on Bly Road wasn't going to be built for awhile. And we managed to get into a government housing project called The Marion Avenue Housing Project, in the Schenectady area, and we lived there for awhile.

Now our Schenectady experiences were some of the greatest times of our life. Our early married years with the growing children and with other people in the same situation and it would take about ten or fifteen tapes to tell you all that I remember about Schenectady. But, let's just say a few things that happened. We found out that we didn't know where the church would be or anything. We just took off assuming that anywhere you went you could find a place to go to church. It turned out to be somewhere around twenty families in the area who were church members. Most of them young men, either electrical or mechanical engineers, recently graduated from college who had gone back to work for the General Electric Company.

The president of the branch was Jack Hopper. He had a large family. His wife's name was Olga. We met in the local YMCA. There had been one of William Z. Terry's sons, Ike Terry. This William Z. Terry was my bishop when we were in the 18th Ward in Ogden, Utah. I haven't said too much about our 18th Ward days. There is much that could be said about that. This Ike Terry apparently wasn't too active in the church when he went away from home. In fact Jack says he can remember the days when he and Ike Terry

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used to drink beer down at some club. But Ike Terry was a very energetic man. He had done great things for General Electric. I had heard even before I went to Schenectady about this great man Ike Terry, who our bishop had told us about. Bishop Grant Lofgreen had told us about Ike Terry.

Apparently Ike Terry had gone as a young engineer to Schenectady and they sent him to the Phillipines to fix some generators that wouldn't work. After they had sent them clear to the Phillipines, these generators wouldn't work, and Ike Terry figured out what was the matter with them and made them work, and this sent him on his career with General Electric and he held several high positions in the General Electric Company before his retirement. But, he had moved from Schenectady by the time we went there. He apparently was active in civic affairs, and was active in the Young Men's Christian organization and as long as we purchased memberships in the YMCA we could hold church there, and we did. We had to clean up the cigarette butts and what-not before we could hold church each Sunday morning.

Following the war there was a great reorganization going on in companies, great expansion, trying to get in gear again to make automobiles and refrigerators and everything else. There had been quite a lot of scientific progress during the war. People in business had seen what science could do for the war effort and recognized that science could do a lot for just business effort. So General Electric, IBM, -- all the big companies were building brand new research labs and hiring hundreds and hundreds of PhD's and lots of engineers to work in developmental labs in various engineering things. So we were caught up with this in Schenectady where there was the central research laboratory for the company.

The company had smaller laboratores at Pittsfield, and other places for certain specialized things, but they were more the developmental labs. We were the prestigious General Electric Research Laboratory. We first were in Building 37, which was down near what they called, "The Works," where most of the manufacturing went on. We were down there when they were building a new huge big laboratory at what was called The Knolls. The Knolls was on the bank of the Mohawk River. The laboratory was located on a former estate and they used to say that the man made the money for this huge estate by selling pink pills for pale people. One of those like Liddy E. Pinkham's special compounds, sort of things. Sell the public nothing ... something that costs nothing for lots of money and get rich. To one side of us there was already located General Electric's Nuclear Engineering Laboratory where they were, I think, working in those days primarily on nuclear reactors for submarines. Well, after a year at the research laboratory in Building 37, we moved up to the Knolls and I was there for the remainder of my time at the G.E. Company.

I was at first put in a laboratory with Bill<sup>7</sup>Cass and Edward L. Brady. Later on, in the move to the Knolls, Bill Cass was moved to a different location and Edward Brady and I shared the lab for awhile until later on when I started to work on the diamond synthesis business, I shared a lab with Robert Wentorff. Now, in the days I was at Building 37, I was slow in getting underway on some kind of a project. We were told that we were hired ... this is an academic atmosphere around here. Work on what you want to work on, but it really wasn't that way. They wouldn't let you do it. I wanted to work on an academic problem relating to inorganic polymers, inorganic materials as an outgrowth of part of my thesis at the University of Utah that had to do with the nature of chromic salts in water solution. But, the company didn't want any of that, and as time went on it turned out their greatest interest was in a chloral floral carbon polymer.

Teflon had been invented by the DuPont people by this time and was coming on the market in various forms. General Electric always had an interest in insulative coatings for

wires for motors and all kinds of applications. And, of course, any new polymer that came along they would investigate it for possible use in this way. They were very interested in a polymer trade-named Kel F, I think invented at the Kellogg Company. And, as I remember Kel F, it had, if you consider two carbon atoms hooked together, on one carbon atom would be two chlorines and on the other carbon atom there would be one fluorine and one chlorine and this polymer would be the monomer and if this would polymerize you'd end up with a polymer that was called Kel F.

There was a lot of work going on trying coating on wire, and they didn't know too much of its physical properties. So they wanted to know some things about this from a physical chemical standpoint. I had been trained in the field of polymers, so I was sent to a school down at Brooklyn. I forget what University was down there where I spent a week learning things about physical chemistry of polymers and how you can measure things by light scattering, determine electrical weight by light scattering, learn some things from viscosity measurements and the other kinds of things they do with polymers. So, I was assigned to build a light scattering apparatus. Well, there were no good solvents for any of these polymers. There were no solvents whatever for the material called "Teflon." One solvent, and I have forgotten ... there's a scientific paper of mine that I was very proud of back in those days because the paper, which was on the solubility of the polytrifluoroethylene in various solvents. It was reviewed by the man who, the chemist in the United States, Hildebrand, the famous Hildebrand, who wrote a book or two on solvents. He reviewed the paper and he wrote me a very nice letter complimenting me. Usually, reviewers just review the paper and they are not known. You never know who they are. It's all anonymous, but he wrote a letter complimenting me on a nice piece of research I had done, which built my ego immensely.

Anyway, there was one solvent that was known for this material. I got the idea if you would go that if you would go to a slightly higher pressure with certain solvents

End of tape, side 9.

I found that you could seal solid Kel F in a glass tube with carbon tetrachloride and then heat it up. Now at the higher temperature and the higher pressure that's in the tube, I could completely dissolve the Kel F. So this was a new solvent I had found, but you had to do it under a slightly elevated pressure and a higher temperature. I think I found some other solvents, also. Well, having found this I conducted light scattering experiments and got estimated molecular weights from these. And I had to have elevated pressure and temperature for these light scattering experiments. This made the experiments extremely difficult to do, but I did build a light scattering machine.

It took a long time to build the thing. I was not much of a pusher at getting the shop to push along and I think the company was a little bit discouraged with my slowness on it. But I did come out with, really, the only physical chemical stuff that they ever had on that Kel F polymer. My colleagues would tell me that this was just a pet project that some of the bosses of Kel F was doomed to ever be of any use to them. And this proved to be true. They spent an awful lot of money, and had spent many years before I ever came to General Electric working on this thing. All the money went down the drain as it often does on research projects.

I don't know that I recorded the date that I started to work for the General Electric Company. It was the 8th of October, 1948. The company would size up all its new employees. We had the title of research associate. It was the only title that they had for their scientists. ... was research associate in those days. Everyone was a research associate. The director of the laboratory was Chauncey Guy Suits. He had been a protege

of Coolege, who had been one of the former directors. He was a rather pleasant fellow and fairly young. I liked him, although I had cause later on not to like him. I don't believe I was treated fairly at all in the synthesis of diamond business. That's recorded elsewhere.

The head of the chemistry section in which I was located was Abraham Lincoln Marshall. There was an analytical section, analytical and physical section under Liebhofsky. I can't seem to think of Liebhofsky's first name. He was from Texas. He knew Eyring because he had gone to school at the same time as Eyring up in Madison, Wisconsin. No, I can't think of Liebhofsky's first name. Herman! Herman Liebhofsky. He was always giving up smoking, but the guys used to say he just did it so he would have an excuse to borrow cigarettes from other people, which he was always doing - because he had given up smoking. When he had to have one, he didn't have one of his own so he borrowed it. I liked Herman. He was an interesting character.

There was a mechanical investigations department within the chemistry section, which was a little unusual. It was an outgrowth of the wartime problems on jet engines and combustion in jet engines, and Tony Nerad was in charge of that section. There was no one definitely over the organic section. The rightful guy to have been over the organic chemistry would have been Bill Cass, but when they formed a very definite department, it was given to a fellow named Elliott. And many of us were surprised at this thinking that Bill Cass was the person. As a matter of fact we thought that Bill Cass was the logical choice to someday be the vice president of research and succeed Chauncey Suits. Guy Suits. He went by Guy. But, after I had left General Electric, Cass also left because he hadn't been given his just due. I know he worked for Arthur D. Little Company. I met him there one time when I visited Arthur D. Little. He and his wife had a barbecue chicken dinner for me. I've lost track of Cass since then. I don't know where he is or what he's doing. Cass was a very likeable guy who really tried to do right by everybody.

Raymond Fuas, a Jewish man, professor at Yale University, a physical chemist, a famous one, I think he had worked for General Electric at one time. At any rate, he was a consultant for General Electric while I was there and he would make a visit to G.E. once a month. He would talk to me a lot and I got to like him. I was asked to do some viscosity studies. I have an early paper on that. I did it with Zamane and Ed Brady and I've forgotten the details of that. I wrote these papers and as, I remember it, I did most of the work on this particular project with Zamane and Ed. But there is a paper there. Now, I think that that is the major work I had done concerned with this Kel F business and that sort of thing.

By the time the fall of 1951 had come along, which means that I would have been there three years, I hadn't received much in the way of raises. However, there was one interesting thing. You are not supposed to talk about what you make in a company or a university or anything else, but they do, and I learned that these young fellows straight out of college had received \$5900.00 a year salaries. I also found that I could hold my own and was just as knowledgeable, had just as good a background in science as the guys from Harvard, Yale, MIT, and the other places. Which was very comforting and reassuring, because I had worried about this when I had gone away to General Electric. Most companies were doing their hiring from the premier universities -- Princeton, Yale, Harvard, MIT, Cal Tech, etc., but I could hold my own with them. No problem. Furthermore, I was being paid \$6200.00. They were being paid \$5900.00. Now these fellows were a little younger than I. I had been married longer, had more kids, and I had wartime service. Most of them had not had the wartime service. This may have been a factor in the reason I had received higher pay.



I mentioned that the company tend to size up its new people. Abe Marshall, boss of the chemistry section, would make it a point to take each new guy in his Lincoln Continental to some meeting someplace. During the course of this meeting size a guy up. And I was sized up. And you were sized up for the possibilities of using you as leaders in the company in administrative positions. Now Abe Marshall before the days of Thruways, the New York Thruway was being slowly built at that time. There were stretches of it that may have even been open. There were routes like Route 20, and what-not, but Abe Marshall always traveled the back roads and he drove at tremendous velocities. He had all these neat instruments on his Lincoln Continental. He'd have an outdoor temperature thermometer, indoor temperature, humidity indicator and a compass and all the other things. But he would go 75 miles an hour on roads that were good for forty maybe. He'd give us instructions on how to at a meeting learn all you can from your competition, but don't give away any General Electric secrets, and those kinds of things. The early meetings I went to were in the field of high polymers. He was trying to get me oriented in that direction because a great deal of General Electric's interest was in the high polymer plastics area. The other guys were getting raises right along and I wasn't getting any. They weren't liking me too well.

Now, I think it was the fall of 1951, the company decided to start this diamond synthesis project. About 30 of the chemists were called into a meeting. Liebhofsky told us there was going to be this big secret project to make diamonds and they needed a couple of chemists to work on the thing. I was the only one who volunteered, so I got the job. The diamond story is told elsewhere on a tape that lasts at least an hour, perhaps 2 hours. I don't believe it's been typed up yet, but at least there is a reel of tape at home somewhere, in our home in Provo on this subject, so I won't say anything about that. But this diamond project was, of course, the most interesting project that I had while I was at the General Electric Company.

Back to the church in Schenectady. I was right away made the Sunday School Superintendent while we were still in the YMCA building, which was close to downtown Schenectady. Well, it was actually in downtown Schenectady. Later on in the branch, I don't know all the jobs that I held, but specifically, I was district councilman for a long time. That's like a high councilman. We were not in a stake. It was a branch. Our territory extended from the Canadian border on the north all the way up and down the Hudson River to West Point on the south. We were responsible for all the Latter-day Saints in that area.

There was a kind of a branch for cadets at West Point, and we had to take our turn at going down there and holding meetings. We put many many miles on our automobiles in those days running around looking up members and visiting and preaching and so forth at the branches. We had a branch in Gloversville, and very small branches in other places like, I believe, Hudson Falls, you could hardly call it a branch, just a very few people. There was something at Kingston, Poukeepsie, Crown Point. At Crown Point there was the Merrill family. Leo Merrill who later on went to school and eventually worked his way out to BYU, got his PhD and he has been working with me at BYU in high pressure for a long long time. He now .. I'm officially the director of the data center, but he runs it. His father still lives up in Crown Point, New York.

We had many interesting experiences. The New York Thruway in those days .. and it may still be the same. It was designed to be a thruway that went through the countryside. It didn't come close to the towns. And then there would be a long exit, several miles long to go from the thruway to a town. The thruway exits were about 20 miles apart on an average. We were driving late at night after being out working at one of these branches and missed a turn, you would have to go 20 miles down to the next turn and then come 20

miles back. A total 40 miles distance. So this happened on several occasions. We'd go in the Catskill Mountains and look for people. I remember some woman who was a Latter-day Saint down there who wanted to divorce her husband and I was assigned to that case. We worked and worked with that. John Clegg and his present wife, who was just your friend at that time, Helen Brown, I believe was her name, before she was married. I remember we were all in my car working with that lady trying to convince her not to divorce her husband. I don't know whatever happened.

I recall one time getting word that there was a Latter-day Saint family living way up north toward Plattsburg. There is a branch at Plattsburg nowadays, but there wasn't in our day. There wasn't a church near Plattsburg. As a matter of fact, I ought to mention that during my navy career, we had great difficulty going to church. Many people in the service had automobiles. We never had an automobile. There was nowhere we knew to go to church when we were in Hollywood, Florida. There was no place to go to church when I was in Plattsburg, New York. No place close in the Great Lakes area. However, we usually got off weekends and I'd go clear down to Chicago and go to the North Shore Ward. Of course, when I was on this ship sitting in San Francisco Bay, I always had weekend leave, and I would usually go look up my friend Frank Davis who lived in that area. He'd moved down there to work for IteI McCollough, who invented the first truly good high-powered electron tubes. And he lives in that area to this day. I'd go visit him and go to church where he went to church.

When we were in Boston in Cambridge area, we went to church there at the Cambridge Branch, which in those days met in an old home, a large home, and there was an older home that was the mission home right next door. In Brunswick, Maine, there was no place where we could go to church. There may have been something at Portland, Maine, but we had no transportation or way to get there. The Latter-day Saint servicemen I knew who were in the navy on the ships with me were non-existent, except for my first assignment at boot camp. There was no one in my company who was a Latter-day Saint, but there was a Ken Porter, who now works at the BYU in the Alumni development fund-raising area. He was in another camp there who was a Latter-day Saint.

In Honolulu, Hawaii, there were no Latter-day Saints in any of the outfits I was in, but, of course, I had weekend leave and I would go to the branch there in Honolulu, Hawaii. I might tell you one interesting experience while I'm back-tracking. I had one jeep ride during the war in Honolulu. By the way, Honolulu wasn't very well developed in those days. There were dirt roads around the island to a great extent. Open air meat markets -- flies all over the meat -- and everybody going around barefooted without shirts. Particularly all the native people. But I got to take this jeep ride with some guys up to a high spot. I think I know where that high spot is. I forget what they call it. It's where the wind blows hard.

That jeep ride was so hard and then the navy arranged for a bus ride clear around the island that you could pay \$1.50 or something and go around the island. I went on that one day. We came around to one place to where ... We hadn't been seeing anything on the bus ride. Just a little bit of the ocean and the volcanic rocks and the trees, and then suddenly out of nowhere as we came around a bend, here is this lovely beautiful building. And everybody looked out the window, "What's that? What's that? Hey, a club, maybe we can get some beer?" And, of course, I recognized it. It did take me maybe 10 or 15 seconds to recognize it. It was our Hawaiian Temple. Just out in the jungle in those days. No paved roads, no nothing. And then they were told by the driver, "Oh, we're stopping here. This is the Mormon Temple. You can't go inside, but you can go over and look around." "Ahhhh ... " everybody thought, but when they got over there and started to look at it and walk around, they changed their minds. It was just a very beautiful place,

you know, and, of course, they had questions about what went on in there, "What's this all about?"

8 minutes of tape too faint and unintelligible

I did almost of the grocery buying in Schenectady. Mother didn't seem to mind being out there in the woods with the children and just enjoying it there. Satisfied with just going in to church on Sunday and Relief Society whenever and wherever that was held. But I would stop on the way home from work and pick up the groceries. There was a general store at the foot of Bly Road. I call the foot its junction with the Troy Road. Now we were up at a fairly high elevation, probably 250 - 300 feet above sea level and we'd go up the road and turn a corner toward the Mohawk River and get on the high rise of the hill where there were some old expensive estates and then down the hill toward the Mohawk River, take the back road, I'd cross the Troy Road and take the back roads past some radio station towers on the way up to the Knolls. A seven mile route.

There was a general store at the bottom and I had the name of that store on the tip of my mind. It's gone now, we passed this in Schenectady last year and it was no longer there. The general store and post office, and as I remember it, we were Box, .. was it 117 Bly Road? Anyway, things were more expensive in that store. We would just buy things that we needed awfully bad and didn't want to take time to go to a big store. We bought at the AT&T mainly down, I think, on the Troy Road towards town. I'd buy the groceries. Bring them home.

There's an unfinished basement in <sup>our</sup> the house there and we had an oil furnace and we had a septic tank which did not drain too well. It gave us some problems. We had two septic tanks in series, and a drain field. One time we had a truck bringing in some sand to put over those septic tanks. The truck was too heavy and broke through. We had to get a winch and hook it on a tree to pull the truck out. And then I had to lift off the pieces of the broken lid. I put on my .. essentially swimming trunks and tennis shoes and got down in the sewer in that septic tank to get all those broken pieces of caved-in material out and then I restored the septic tank. Built a new lid and put it back in operation. Probably the messiest and dirtiest job I ever had to do in my life. Actually get down in the sewer stuff in that septic tank to get it cleaned out so that I could fix things. Get the broken sides and the broken lid and what-not out of the thing.

The only firearm I have ever owned, to this point in my life, was a 22 rifle, that I bought from a fellow who joined the church there, who also worked in Liebhofsky's analytical laboratory. I can't seem to remember the name of that fellow. But, he sold me a 22 rifle. I got it to try and shoot some of the things that kept us from having a vegetable garden. The rabbits and crows. And one day I took that 22 and crept as quietly as I could when I knew the crows were out, about 6:00 o'clock in the morning to my front door, and those crows, they seemed to have a sixth sense. They know when you are around. Time and time again I would go to the front door with that gun to try and take a shot at the guardian crow at the top of one of the high trees and they'd sound the signal and fly away. But I managed to get there quietly enough one day that he didn't. I pointed my 22 at him -- it was only a single shot. I shot one shot and I killed that crow.

Now there was an ad running in those days in one of the scientific magazines that there was some guy who would take (another period of silence on the tape) the main feathers from the tip of each wing, and you would get paid twenty-five cents a feather. So, I took those out of the crow and shipped them off to the guy at this company, and sure enough he sent me twenty-five cents. Two dollars and half for those feathers. The rabbits were bad. They would eat most everything that we would plant in the garden.

Some of the sad things that happened in Schenectady. Ann Hefferman died. Her husband had a hard time with the Word of Wisdom and other things and was kind of a trial to Ann. He was an interesting, very likeable guy, but he just had a hard time with the Word of Wisdom. He had joined the church and came into the church all the way

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just felt there was no reason to start acting like a slob, and the commander seemed to appreciate that. I was one of