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[00:00:00] Begin Track 2, Disc 1.

Pauline Silvia: Well, the whole [Operation] Upshot-Knothole, for example, when you look at the literature and that is—maybe I'm just missing—I'm not looking in the right places insofar as they—

Mary Palevsky: *Over there they didn't have a lot about the early testing. Yes, I think that that's right.*

Yes, because everything after that was how big a hole we could make.

Right. But the '53 stuff, the early testing stuff.

There was a paper that someone put out about Upshot-Knothole in terms of proposing some further studies. Maybe you can fill in the blank, but to me there's a real blank in terms of that.

Yes, I don't know. I was just looking in the book [DOE/NV—209, United States Nuclear Tests, July 1945-September 1992] *about what Upshot-Knothole was. We're getting a little ahead of ourselves but let's get ahead and then we'll go back. They were all weapons tests.*

Tower shots and air drops, yes.

Right, but it looks to me from the literature, and I'll have to ask one of the scientists on it, that they were trying to figure out what different designs did, in addition to the work that you did on what the effect was.

I knew that at the cyclotron at the University of California, which is part of the scientific method: You do A but you always have to be able to replicate it in order to make it science. And so that was one of the things that we did.

Let's talk about that. You can explain that to me more. But that's really an interesting point that I hadn't thought about, which is right. You have the test here, but then if you want to draw any conclusions, you need to replicate it. That's interesting that you just didn't see a lot about that era of testing in the [Atomic Testing] museum itself.

Maybe I've missed it. I don't know.

I've only been through once, but there was so much stuff in there that I was somewhat overwhelmed when I went through the first time, and I have to go back now and go through a little more slowly.

Maybe I just didn't stand tall enough and it went over my head.

As I said when we were talking, what I like to do at the very beginning is just ask people that I'm speaking with to give their full name, where they were born, when they were born, and then we'll just talk a little bit about your upbringing and how you ended up through your education or life circumstances to be doing the work that you were doing. Like your life in five minutes kind of thing.

Oh, OK. Five minutes? Well, my full name is Pauline Helena Silvia and I was born on the 25th of January 1930. I was named Pauline because I was born on the Feast Day of the Conversion of St. Paul; my grandmother Silvia decided that I should be named after St. Paul. I was born and raised in Newport, Rhode Island and went to Catholic schools there and went to a Catholic high school. I had a nun, Sister David Francis, she was my science teacher and she was the one who encouraged me and my interest in science. Then I ultimately graduated from Salve Regina College with a baccalaureate degree. They didn't give a **[00:05:00]** Bachelor of Science degree at that time, but I was a science major. And I after I graduated from Salve there was a fellowship program at St. Joseph's Hospital in Providence [Rhode Island], a fellowship in medical

technology, which was a great serendipity for me because I went to the program of medical technology and that gave me all of the skills that got me into the research project. So that was my background. I joined the [U.S.] Navy.

Let me back up—I'll do this sometimes. I'll back you up a little bit. OK, that's fine. We can back up a little bit. If you're born in '30, then you're a young teenager during World War II. I was wondering, how conscious you were of the war. What I'm leading to is if you were aware of the A-bomb when it was used at the end of the war.

To be honest with you, no. I think it was in my level of awareness, but it didn't have a high priority in my mind. I don't think I thought along that line at all. I remember vividly December 7 [1941]. That was the beginning. That was the Pearl Harbor attack. I remember we were all at my aunt's place. But as far as the detonation of the first atomic bomb, it was something that I read about in the paper, but I have to be honest I didn't process it.

Well, you were pretty young then.

I had no idea I was going to go in that direction at all.

Sure. And tell me a little bit about your interest in science. When did you realize that was something interesting to you, or was it something that your teachers noticed?

Well, I think I was always interested in science, and Sister David Francis gave me an opportunity to participate in a science fair that the *Providence Journal* newspaper in Rhode Island established. It was the first year that they had it and she provided me with fetal pigs that had been injected for the different systems; the venous system, the arterial system, and lymphatic system. I dissected them. I entered the science fair; it was the first one in Rhode Island and I think I was the only student from Newport. I won a second grant—I think it was something like that—so that

was very encouraging. But Sister David Francis was the one who really encouraged me in science.

And biology obviously was the main interest? Were you interested in any other sciences as well?

Yes. Well, I was at one time. When I was on the faculty at the School of Nursing I taught chemistry and physics, but my primary interest is in biological sciences; microbiology.

How interesting. So you went to school at Salve Regina, you said?

That was the college I went to, yes.

Now, that was a Catholic college, I'm imagining.

Sisters of Mercy. I was in the first graduating class; 1951.

And was it a women's college, is that right?

Yes, it was a women's [college]. It was established in the Goelet estate. Mr. Goelet donated it to the Sisters of Mercy. It was one of the so-called mansions in Newport, on the cliff. It was a beautiful building and we had all of our classes there. I was a day student. I didn't board there. All of our classes were in that building. It's a beautiful building.

Now let me again jump back a little bit. You'll notice I tend to do this sometimes. But your own parents, had they been to college?

No. My father was in the automobile business. When automobiles were manufactured they needed batteries, my father ran a business where he built the batteries for the automobiles.

So he had that engineering-science thing.

Well, he had no education but he knew how to build the batteries and he was very productive doing it. He was in the automobile business all of his life.

So were they proud of you for going to school? Did it matter? Sometimes people say my parents didn't want me to go to college because they didn't go to college.

[00:10:00] Well, to be honest with you, my father was reluctant, I'll put it that way, for me to go to college. But eventually he came around when I found a college where the tuition wasn't that expensive. Money was the issue; tuition.

Sure. So did you have a focus on science in college?

I did, yes. Salve didn't give a Bachelor of Science, they gave a Bachelor of Arts. I had to take all of the liberal arts subjects, but I did have all of the sciences and that's what got me into the School of Medical Technology at St. Joseph's.

OK, so that's where you go next or where does the Navy fit in then?

I think I went into the Navy in 1952. My daughter M.T. has all of that history.

We don't have to worry about exact dates.

Yes, I went into the Navy in 1952, I think. I went to Officer Indoctrination Program at Newport and then from there, when that was completed, then I went to San Francisco [California]. M.T. was going through some of the materials the other night and they evidently gave me a choice of duty stations and areas of work that I wanted to go in. Evidently I had written "San Francisco" and "research." I don't remember doing that but she has documentation to that effect.

Yes. So you must have done it. And so you go to the officer training school and then you are what rank when you get out of there?

I was commissioned ensign before I went in. A lot of the women that came in were commissioned at the end of the program, but I had been commissioned before I went in.

Why was that?

When I think about it, there was a group of us who joined the [U.S.] Naval Reserve when we were in college. I don't remember the specifics of it but that was the way that happened; unfortunately I can't remember that.

It's a minor detail. I'm just curious. Knowing very little about the military, I always ask these kinds of questions because I'm trying to understand how it works. So when you left school, you're then another rank? You graduate as another—?

No, I left as an ensign. I have an interesting tidbit about being in the Navy and the uniforms. My father was a very prominent businessman and there is the U.S. Naval War College in Newport, which is a very famous war college. There was a gentleman by the name of Mr. Lally who was the tailor for the Naval War College. When we got our uniforms, we had to have the ensign stripe and the line officer—I was a line officer—insignia on the sleeve. And so my father said, `Let me take them to Mr. Lally and he'll put them on for you and you'll have them right.` So he did and I had my ensign stripe and my line officer star.

And I can remember being at dinner one time and sitting across the table from a flag officer in the Navy. He said to me, `Are you a line officer?`

And I said, `Yes, I am.`

And he said, `You're an ensign.`

And I said, `Yes.`

And he said to me, `What are you doing wearing flag officer stars on your sleeve?`

And I said, `Well, I don't know,` and so I told him.

And he said, `Well, if you look at that closely, you'll see that there is a crystal bead in the middle of that star and those are flag officers' stars.`

And so I found that very interesting. I told my dad about it and he just got a chuckle. I never did change the star though.

Good. Good. A crystal bead.

Crystal bead, which they would put on the uniforms at the Naval War College.

[00:15:00] *I see. So you have this technical training, this scientific background, then you're in the Navy, you're trained as an officer, and they give you choices of what your preferences are, where you want to go, that kind of thing?*

When I look back on it, yes they did. And as I say, M.T., going through the material, she saw my written request for my duty station.

That's great. And you got what you asked for. They sent you out—

Yes.

Now had you ever been out west before?

No.

So what was that like? How did you get there and what did you do?

It was interesting. Who was it that asked me? Somebody asked me recently about when my first plane ride was, and I can't remember who it was. That was my first plane ride, when I left Green Airport in Providence, Rhode Island and flew to San Francisco. Those are the days of the propeller-driven aircraft, but that's how I got to San Francisco.

So it was around 1952, you were saying?

Yes, I guess. I'm not sure. I think I got there in 1952.

So you're pretty young still. So you're just twenty-two years old then.

Yes.

Did your parents have any concerns about you being so young and going so far from home?

I don't think so.

Some people do. I always am curious because sometimes that is the case, a daughter has to stay close to home. So what was it like when you got there? And where exactly did you go? Where exactly were you stationed?

Well, I was stationed at the Naval Radiological Defense Laboratory, which was in Hunters Point. There was a BOQ [Bachelor Officers' Quarters]; I lived in the BOQ. We worked in buildings right there, I think originally they were Navy barracks. The laboratories were set up in those buildings and they were obviously very old buildings, but that's where we were. In the meantime they were building their new building, which we moved into eventually.

Now just so I understand, this is the beginning of this whole science of understanding radiation and effects and nuclear energy and nuclear weapons effects. You're going out there to do this kind of research. I know that because I know what happened a few years later. But when you went out, how did you find out about the kind of science you would be doing and what was it like when you first arrived? I mean how did they teach you about that world?

I don't think I really had any orientation to "that world," as you put it. My orientation was that we had to do lab studies, we had to raise mice and we had to study thymuses and spleens and do blood studies on the mice; I had all those technical skills. Fortunately I had a group of hospital corpsmen, three of them were lab techs, and so they had those basic skills. I have to speak very proudly of Danny [Daniel] Amato who was one of the hospital corpsmen. Danny and I worked very close together and he did a lot of the work. We were doing blood studies. We were measuring, doing differential studies, looking at the white cells, the red cells, enumerating the white cells and the red cells, and looking at platelets. The mice would be euthanized and one of Danny's primary tasks was to remove the thymus and spleen—the thymus in a mouse was hardly a speck of tissue and you had to really know what that tissue looked like in order to remove it intact. We would remove them and do tissue studies, pathology studies and look at the changes that took place.

A couple of questions there. Science has really been such a male domain. What was it like there? Were you with other women in this kind of work or what was the situation? And I know in San Francisco for sure, in Berkeley, so many of the physicists were men. What was the atmosphere like at that lab as far as men and women?

[00:20:00] Well, I remember that there were women who worked there but they weren't in the Navy, they were secretaries. Some women worked in the Photography Department, but I don't ever remember meeting a fellow female officer doing research. I was the only woman who was with this Biomedical Division; that's what we were called initially, also when we went out to the [Nevada] test site. I worked with all male officers, physicians, medical doctors, and physicists and bacteriologists. I was the only woman within my Biomedical Division.

And the second question I had about what you said was with your work with the dissection of the mice. Did you start out by working on animals that had been exposed to radiation already when you first came? Do you remember?

The study was more or less already designed and my job was to select the mice and to get them randomized if that's what they wanted or to have their genetic link, their sibling links. They didn't call it "genetic link" in those days because we weren't into DNA, but essentially they were trying to make sure that they had the same bloodlines, if you will, so that we raised the animals in that way. I was given a prescribed program saying that X number of mice would be irradiated with X amount of irradiation with X amount of KVP, kilo voltage peak, of x-rays, and we would expose the animals. They were put into—I don't know if you want to know this—

Yes. These details are really important and interesting.

They were put into what I would call celluloid tubes. The tubes had perforations and one mouse would be put in here and then there was a wheel to which they would be attached. Then the

wheel was exposed to a source of radiation and the wheel turned around. The length of time would have been already prescribed by the project director saying that you wanted so many mice at this distance and this amount of radiation. Then we would go in and take the animals out of the tubes and put them back in their cages and then wait certain periods of time and study the tissue at different times.

I have several questions about the sequence of things from the lab then out to the test site, but before I get that, a question that arises for me is at this point in time, when you're working with radiation, are you aware of what the purpose is? I'm asking this question really badly, but I'm assuming the purpose of these studies are to extrapolate what the effects might be in humans. Is that right?

I think that part of the study that we started, I worked on in the fall of '52, I guess that would be, were preliminary studies sort of setting the groundwork so maybe we should do A, B, and C out at the test site. I can honestly tell you that I did not know that I was going to the test site until sometime in January of '53. I don't think that it was kept a secret from me, I don't want to infer that, but my frame of reference was such that I was still working there in the lab. I knew that we were raising different generations of mice. But then when it came time **[00:25:00]** to actually go to Nevada, my role shifted. I was getting the animals ready and getting the corpsmen organized and bringing the animals from San Francisco to the test site. Then I would take them back to San Francisco and we would study them there. There were certain intervals between the shots in which I would come back with another generation of mice. I was primarily working with mice at that time, although there were dogs being studied. Later on, when we got back to San Francisco, we started studying dogs. So that was the sequence. That was my work at that time.

So give me a sense of what it was like when you first went out to the test site. Did you fly there?

My first trip, I went by train.

And did you have to physically bring the animals with you?

Not on my first trip, no. I don't remember what shot that was.

Oh, I have that. The first shot in that Upshot-Knothole? Yes, we can look at that. I have it. It's Annie. Annie was the first shot in Upshot-Knothole and that was in March of '53.

I don't know how the animals got there. I came down on the train and was very surprised to realize when I got off the train, I got off right at what is the main street of Las Vegas. There was no train station building there and I remember that I was very much impressed with that. When I looked up I saw the cowboy that stands so tall with arm going up and down [Vegas Vic], that was my first introduction to Las Vegas. Then one of the hospital corpsmen picked me up and took me out to Camp Mercury.

So you came by yourself on the train?

Yes.

So you went out to Mercury. What was Mercury like in those days?

Well, my recollection was that you came through the gate and you went for a long distance; I couldn't tell you what the mileage was. But my recollection was that the main road that came in, our laboratory buildings—I was coming in on that road and I don't know whether I was going north, south, east, or west, but coming in on that road, the buildings would've been down to the left. It was kind of a slope that went down, sort of a flat valley kind of an area which is where the buildings were. They were very old buildings, reminded me of old barracks buildings; they were clapboard. They were not permanent buildings, whatever. You want to know about when I first arrived?

Yes, it's always interesting because it looks so different now than it did. Were there lots of people around or were there lots of uniformed people around?

Well, the first thing, I had to go to check in and present my orders, and I was to go for billeting. When I got there, I found out that billeting was just for male officers and they had no place for a female officer. I ended up eventually that day, they put up a tent which was a few yards away from where our laboratory building was and that was my billet, if you will. That's where I put my things. Of course I wasn't there for protracted periods of time. I would only be there for two or three days or maybe four or five days max. Toilet facilities and shower facilities were available in the laboratory building. So that was my first big surprise in coming. I reported to Dr. [Victor P.] Bond and Dr. [Robert] Carter. They were both full lieutenants in the Medical Corps. Dr. Carter was my immediate supervisor and Dr. Bond was the project officer, if you will, for the Biomedical Division. Two very nice people.

[00:30:00] *So did you witness the test when you went down the first time?*

Oh, yes, I did.

What was the procedures of what you did and then where you were when you witnessed the test?

Well the day before, our job was to get the animals out to drop site [ground zero]. They had huge lead spheres which had holes in them. Again we would put the mice into celluloid tubes and put them within these spheres. They were all numbered and we knew which group of mice were going into which sphere. Then those spheres were put out at different areas around ground zero; whether it was going to be a tower shot or an airdrop, and at different distances. That happened the day before and up until midnight, I think. Once you went past the security gates, you couldn't go back again the night before a shot. We would sit up all night, sitting on the hill, I don't know whether I'd call it a mountain or a hill, but we sat there and socialized and waited until daybreak

because the point when the sun would come up, that would be the time for the detonation. We sat there on the hill and would link arms and just hold on like this [demonstrating] and were told to put our heads down and not to look up and to keep our head down and then, I can't remember. Isn't it interesting? I don't remember which came first, the thermal effect or the shock effect. The thermal effect would've been the thermal energy that was coming along and you could feel it just whoosh over you and then the shock effect would come and that's why we were holding onto each other, because it was sufficient enough that it would push you back. Then at one point someone would say it's OK to look up, and then I could see the mushroom, actually see the aftermath and see the dust. We'd have to stay there a certain period of time until someone would say it's OK to go down. I think I only went down once to retrieve the animals from the spheres. Obviously the spheres could be blown in different directions and you'd have to go around hunting for them to find them.

Oh, so explain that to me. They're spheres so they would roll in different directions?

Well, the blast would be sufficient enough that that was one of the things that they didn't know, they had to do it to find out. Then they began to look at the spheres differently and how they were going to use them differently. But the initial time, if we put them in concentric circles around ground zero, they were never found in the assigned concentric circle. You had to go out and search for them to find them because they would've been blown such a distance away. We didn't bring the spheres back, we would take the mice out and put them in their marked cages and bring them back to the lab. We would do studies right there at that lab at Camp Mercury. And I think I had a group of twelve or thirteen hospital corpsmen and everybody had a task that they did, it was sort of like an assembly line, in examining the mice and recording the data.

Now this is a really ignorant question because how would I know this? Are the mice alive still?

Some of them are. Most of them are not.

[00:35:00] *Are they burned? Can you see them burned?*

Well, that was one of the things we found out is that the lead was a good shield against thermal injury, but not necessarily depending on what side of the sphere was exposed to the actual detonation. Then of course the other exposure for the animals, which we did in later shots, was to leave them there to find out how much post radiation they would receive and to study that.

So from a scientific point of view, I'm guessing now, you maybe would compare the ones that you took out and then you'd know that you'd taken them out at a certain time, and then later you leave them and you compare that data?

Yes, it would be something along that line. We could always identify the mice, we would number their ear. Unfortunately for them, we would make a tiny clip in their ear, kind of a half-moon, and 1, 2, 3, 4, 5, 6, 7, 8, 9, and we could look at the ear and know exactly which group they came from and who their littermates were.

Now I'm going to go back a little bit to the actual viewing of the detonation. M.T. gave me the shots you were on and one of them, the last one, Climax was really pretty big. It was sixty-one kilotons. That's three times, about, the size of Trinity and the Japanese bombs. So I wanted to ask you if you had any specific memory of that, but I'm going to do the bad thing and ask you two questions at once. The real first question is when you see these detonations go off, are you seeing them as a weapon? Some people say, I never thought of it as a weapon, it was just a really big, like a huge firework. And you're young. So are you thinking in terms of damage it could do in war at this point?

No. That was never my frame of reference, which is an interesting thing that dawns on me by post-diction, looking at this. All the time that I was there—now whether it was because I was so

naïve or whatever—viewing this as a weapon was not in my personal frame of reference. My frame of reference was that we were studying the effects of radiation. That was my frame of reference.

Right. That makes sense, though, and I appreciate your honesty, because sometimes people make up what they thought at the time. But I think everyone had very different responses and that's just an interesting example of one response. Plus you're focused so much on the task at hand, it seems to me.

That was one of the characteristics I had, I guess, is that I would focus on what my job was and how to do it and to get it done efficiently. I didn't think outside of that. Again, I don't think that there was anything in my environment that prevented me from doing it. I think that was something which was natural to myself; this is the job that you're doing, you know why you're doing it, you're studying the effectiveness, this is the mechanism, this is how you do it. My realization came many years later in terms of what did they do with that information? That comes later.

Right, and I would love to hear what you have to say about that. I think you said it really beautifully and I think that that is true of a lot of us. We're focused on the task at hand, and especially I think in something as detailed as what you're doing. Part of that process is to stay very narrowly focused on the task. So thank you for that.

So you were saying you'd go for a particular shot. Would you go back to San Francisco after every one?

There's the documentation as to when I would arrive and when I would leave. I remember **[00:40:00]** staying long enough to do some of the studies and I do remember leaving the site, having set expectations for the hospital corpsmen that I was working with and saying that you

have to do A, B, C, and D and complete that. They were very good at data collection, they were very well oriented to that. They would essentially complete that and I would go back to San Francisco to begin to set up for the next operation. But all of the tissues and the specimens that we had, they would eventually find their way back to San Francisco but I wouldn't always take them back. Some of the studies were just terminated right then and there because they would get the information that they needed, but if there was something unusual they would bring it back to San Francisco.

OK, so your superiors, the studies' designers, are looking at this data and they're saying well, now we need to do this or now we need to do that. Were you involved in any of that kind of—?

No, I was never involved in the actual design. I would receive the design and my job was to implement it, to study it and set it up, arrange it. They would say, `This is what we want to achieve`, and my job was to say, `Well, this is how we're going to do it, we need this and we need that and we'll set it up in this way`. But the original design was never mine.

Was it interesting for you to be doing that work?

It was. As a matter of fact, when you asked me the question about sitting on the mountain, I can remember thinking that I was a pretty hot-shot ensign, to be there and to be witnessing this sort of thing. That came into my level of awareness. But as far as it being a weapon, that didn't come into my level of awareness. But I was very much aware of the fact that I was a pretty lucky "boot ensign," as they would call us, to be involved in something of this nature. I knew it was important.

And the science itself, did you find it interesting or challenging?

I did. I know that the training that I had at St. Joseph's Hospital Medical Technology stood me well.

We sort of skipped over that a little bit but I'm glad you brought that up then. So that was good technical training for you.

It was excellent training.

So you would then come back with a new set of parameters for the next experiment, basically?

That's right, yes. I would be in San Francisco and meanwhile back at the bunkhouse in Camp Mercury they would be saying, `We've got to do A, B, C, and D.` Then I would get the communication that, `This is what we need and you get them together for us and bring them down`. That was always an interesting—maybe tell you how I got down there with the animals. The first time I came down on the train, but all of the other trips I came down in what were old, retired torpedo bombers. They were single-engine planes and the space where they kept the torpedoes was sealed off, this is where we would load the cages. We'd have hundreds of cages we would be loading in and securing them. And the pilots were what we called "weekend warriors," although it wasn't just on the weekend, but they were pilots who had to get in X number of hours in order to maintain their status within the Reserve, I guess it was. But they were all what we called "weekend warriors," and I had one experience in which we got the animals in and the hospital corpsmen always stood by until we left, but it would be myself and the pilot and the animals down in the bomb bay.

I think it's a bomb bay, yes. We'll check.

Yes. I'm not quite sure about that nomenclature. And this one time, I forget which sequence it was, but one time we took off and the plane left the ground and was airborne just a matter of **[00:45:00]** seconds and then it dropped down. When it dropped down, then it tipped and the

propeller hit the concrete. And long story short, obviously all of the cages in there just got moved all around and some of them got tipped over and the mice were loose. The pilot didn't realize, he said, I know you were bringing animals, but I didn't know what kind of animals, and he had them crawling all over him and he was furious. I just sat there and there they were, there was nothing I could do about it. And so the hospital corpsmen who were still there, they came and scooped them up and took them away. But we lost almost three hundred hours of work with those animals because raising them, et cetera. So we had to go back. We always had backup and it didn't delay the shot. We always had the backup, so we had to go back to San Francisco and pick up a whole different generation of mice to bring down there.

Well, you're lucky all it was was mice running around and not the plane falling apart.

It was an interesting experience.

That's a good anecdote actually, very good. But it also makes me appreciate the kind of—

[00:46:26] [There is an interruption at this point as the filmmaker makes adjustments.]

[00:47:05] [Interview resumes at this point.]

Oh, I know what I was saying, that it's interesting to hear you describe the science because I don't think in terms of having— you'd have to have these backup generations that you know all the data on so that you could interpret the data properly once that had happened. That's just an interesting realization for me.

Oh, yes. Well, that's a part of science.

Right. Oh, and that was the other thing that you mentioned, I think before we started recording, that you had to then replicate the experiment back up at the cyclotron?

When I finished in that spring, I guess it was, we already knew from the data that we had collected that there was important data there but we had to prove it. We had to prove it in a

controlled system so we had to replicate it in a controlled system, so that's when we replicated the doses, the types of animals. We used the cyclotron at the University of California, so we went through and studied fast neutrons and slow neutrons, and that was one of the things that they found out. It made a difference biomedically, whether they were fast or slow neutrons.

OK, so help me understand this process. You literally take the animals up to Berkeley, is that right?

Yes, we'd load them in a truck and I would drive over to Berkeley. The physicists would've told the people at Berkeley, [at] the cyclotron, `These are the doses that we want and this is the sequence.` My job then was to set the animals up and verify the dosages. I knew dosage and distance and that sort of thing, so my job was to set the animals up. I didn't do this alone, by the way, I had hospital corpsmen who were doing it with me.

So to understand this, some amount of data is gotten from the test site, that these are the kinds of things we're looking at and we want to somehow duplicate that or replicate that or verify that at the cyclotron, and so there was a correlation between what had happened on a particular test and what was being set up at the cyclotron. Am I getting that right?

Yes. We had to replicate it in order to make it science. It wasn't science if it didn't get replicated.

Correct. **[00:50:00]** *And how would you, since I know little about biology, what would you see in your dissections or your diagnosis of the cells that would let you know what kind of damage you had? How does that work? For a layperson to understand.*

Well, the thymus, for example, is an organ that belongs to the lymphatic system. We as humans all have a thymus, but at birth it's a relatively large gland, shall we say, according to the body mass of an infant. The purpose of it is, it belongs to the immune system and radiation destroys the thymus. Now as we grow older, that thymus decreases in size because our own immune

system takes over, so that the thymus is important to the infant but to the adult it's not important; I can't tell you when it's totally disappeared in the adult, I can't remember that information. But we studied the mice and the effect that it had on the thymus and the spleen. See, the thymus would be a reflection of the immune system, the spleen would be the hemopoetic system. What damage occurred within the spleen—the radiation would affect the spleen.

OK. That helps. So you're looking at those organs and you're beginning to be able to make judgments about what these effects are.

We would take out the spleen and thymus and weigh them, actually weigh them, and we're talking about tissue that's less than that amount [indicating tiny amount with fingers]. We had very special scales that we would weigh the organs and we had statistics on what a normal thymus for that age of mouse would weigh, so that afterwards we could compare the weights.

That's a tiny amount of weight that you're seeing differences in, so your instrumentation must've had to have been really good.

And a great deal of it depended on the skill of the hospital corpsmen. I used to do some of the dissections too, but I have to credit them and especially my friend Danny Amato because he did most of that work with me.

That's amazing. And then you found that you could draw conclusions once you went ahead and were up at Berkeley at the cyclotron and you're duplicating things.

Yes. I collected all of the data for everybody, for the Biomed Division. My job was to collect it and there was a level of interpretation that I could personally do with this data. But all of that information was then turned over to the designers; they did the interpretation and they wrote the papers. On the papers I think M.T. found there were four or five papers that I was co-**[00:55:00]** authored on. I never saw those papers until she showed them to me. It was that kind of thing, I

don't think that it was anything insidious in that, I think that was just the process. And the papers at the time when they were originated, they were classified and they didn't get declassified for a number of years later.

Sure. Well, I would love to get a copy of those to see also. It's always nice to interview someone and then see documents and pictures that fill it out.

I never wrote the papers.

I understand.

I wasn't an author. I was always listed as a co-author but I collected the data for the primary authors.

I mean it seems like in science that's right, the experimenters are absolutely the co-authors of the study because they make it happen.

Oh, yes. That's right.

I didn't ask you, and I don't know if you have any interesting stories about it, but because you were in the armed forces, if there was anything that stood out – I'm going back now – about getting your clearance. How had that happened?

Again I have to test my memory and maybe I could be wrong in my nomenclature but Queen [Q] clearance comes to mind. I remember that my parents were living on Eustise Avenue in Newport, Rhode Island and as a part of that clearance, in order for me to go to the test site, FBI [Federal Bureau of Investigation] agents came and interviewed the neighbors and they went to my school teachers. I think they even interviewed one of the priests at my church, you know, the typical FBI check. I remember my mother and father almost having apoplexy because the FBI were going around asking questions about their daughter and they had no idea; I had no idea it was going to happen or I could've told them. I didn't even know what the process was going to

be. I got a phone call from my father saying, What did you do now? And I said, I don't know what you're talking [about]. So we were able to remediate it by getting an explanation of what was going on. And I do remember I had a Queen clearance. I think that was the highest. I'm not sure.

I think so. And it's interesting. I think military people—I talked to a Marine, he was the first person I ever heard use "Queen" clearance. Everyone around here says "Q" clearance. I said, Wow, "Q" is "Queen"? He said, Oh, yes, that's what it was. I don't know if there's a King clearance but my understanding is that [Q] is the high clearance. You're the second person I've heard use that expression, "Queen clearance."

That's all I know about it.

So then you had it and then you didn't have to worry about it anymore. Well, thanks for that one because that's always an interesting story about how your family and neighbors deal with the FBI questioning.

Let's see, what can we talk about? Do you remember, and you don't have to if you don't, but as I said, when I was going through the book and I saw that you saw this fairly large test, do you remember different impressions of the different tests? I know some were smaller than others. You said some were tower and some were airdrop. Were there anything else you remember about witnessing those tests that might be interesting?

To be honest with you, my recollection would be that they were all the same. I wouldn't say I was jaded but I can't remember any particular differentiation between them.

Does it become routine at all or does it seem—?

Oh, yes, that's my recollection. It's time, we go, it's this time, you do this, you get this done, you sit up there on the hill and you wait, and then you go down and you get busy. It was repetitious. To me, it was.

Now Upshot-Knothole, that was the series of tests that you worked on.

Yes.

Did you go to the test site after that or did you ever go out—?

No. I went back with M.T. a few years ago, but I never went back to the test site.

So then you stay at Hunters Point and you continue to do radiation studies?

Yes, we moved into the new building at Hunters Point. And one of the changes that came [**01:00:00]** about was I was in the Biomedical Division and one day I remember Dr. Bond coming in and saying we have new experiments that we're going to be working on. He started telling me about it and he had this sign that was going to be outside my office, and the sign said, "Thermal Injury Branch." That was the start of a whole new series of studies. We then embarked on thermal injury studies.

Explain to me what that means, "thermal injury."

[Recording stopped for break]

[01:01:03] End Track 2, Disc 1.

[00:00:00] Begin Track 2, Disc 2.

Not at the time. But again by post-diction I began to process things and to think about things; of course many things had changed in my life at that time, but it became very difficult. I had pets and even most recently when I would take my pets to the vet office, the first time we went, I put my cat on the table and I could hear the cat's nails on the metal table and that all came back to me and I remember walking out of the room. Every year when I would take them for their

exams, I couldn't go in the room with them. I couldn't stand the sound. It was the thermal injury studies that I have the greatest regrets about. We did terrible things to the dogs and I'm not sure I can talk about it that much.

You just let me know if you want to take a break.

No, I'd just as soon go on and finish. I have pictures of myself holding these poor animals with these terrible thermal injuries and it was just wicked. I'm sure it was something that had to be done. I'm not proud of it. [Pause] Did you have another question?

Well, yes, but I guess I just had a statement which is that I just met you, so I don't know you, but it seems to me that you're describing an, enthusiastic young woman in the armed forces, right? So you're doing what your superiors tell you to do and you were raised in that time. It's very sad to me what you're saying, first of all. It's a sad story, it really is. It may make more sense to me as an outsider than it does to you as an insider that you would slip into something that later you would have other thoughts about that were different at the time. Part of that having to do with youth and part of that having to do with the way we do our jobs, in a certain sense, it seems to me. But that probably doesn't mean that you don't have deep feelings about it. It just means that I can see how that could have happened.

They wrote papers about it but that's about it.

Yes. I'll just follow your lead on how much you can tell me about what that was about because I know it's hard for you. But is this having to do with work that's being done at the test site or in the Pacific or how does that work?

Well, when we were going through the museum out there, they had the pictures of the houses that they had built. When M.T. and I came and went on the tour a few years back, the tour guide talked about the houses. The thing that impressed me at that time was that he was able to talk

about the house and how it was destroyed and how this house didn't get destroyed. **[00:05:00]** They have pictures of the mannequins toppled over in the houses and that but there's no mention made of thermal injury to the occupants of the house, and radiation illness for the occupants of the house. When we went on the tour, my impression was all they were proud of was how big a hole they could make in the Earth at that point. Of course that's my own personal, and maybe an incorrect, impression but nonetheless that's what I came away with. I was disappointed that on the tour they didn't talk about thermal effects and radiation effects on people as well as materials.

Obviously, they knew that they had to do studies of thermal injuries. Now somewhere along the line somebody must've collected data out at the test site about thermal injuries or at least anyway raised the question about thermal injuries. So what we did was our experiments were designed using x-ray machines, again different KVP, different dosages, and then also using the cyclotron. There was some gentleman who raised thoroughbred beagles and we would purchase them from him. Then we also got dogs from another source, some of whom were dogs that were just picked up off the street and then sold to us. There was no question in my mind but that's what was happening because you could see obviously when you were working with them that they were domesticated.

We had canvas slings and we would anesthetize, sedate the dogs and put them in these canvas slings and their legs would go through the holes, and that was how they were placed for radiation, either at the cyclotron or for x-ray radiation. That's all I can say about that.

That's all you have to say. And you were saying though that at the time you're doing your work; you're not concerned about the kinds of things that you were concerned about later.

No. Never came into my mind at all. Never entered my mind.

And how long was it that you did that kind of work, do you recall? A year? A couple of years?

Well, my tour of duty in the Navy was over. I got out of the Navy on a Friday and Monday I came back to work as a civil servant in the same job, because the studies hadn't been completed yet, so they created that job as a civil servant. I just continued on until we finished the studies. Then just at that point when the studies were finished, the data had been collected and the designers were in the process of writing it up, that's when the group that I worked with split up. They split up because, for example, because Dr. Carter went back to the University of Chicago. He was at Los Alamos [National Laboratory] as a very young man as a physicist, but he also was a pediatrician; he went back to his first love, which was pediatrics, at the **[00:10:00]** University of Chicago. And Dr. Bond went to Brookhaven [National Laboratory]. And it was just, everything was finished. And I don't know what happened to the other people. But the data was collected and somebody was writing it up.

Yes, that's an interesting era.

Oh, sure. Without the secretaries, nothing would've gotten done.

Right.

Somewhere along the line, while I was still doing the thermal injuries, we got involved with Rongelap. When they realized how serious the radiation was on Rongelap, they evacuated the people off the island.

Right. Let me ask you about that a little bit because that's [Operation] Castle, Bravo test that takes place in '54, so I guess you're still a civil servant then?

Yes.

Do you have any recollection of hearing about that test?

It didn't come into my level of awareness, if you will, until the day that we received the animals. I was told that they came from Rongelap Island and we had to house them. We had a wonderful veterinarian, Colonel [Robert] Veenstra and he did the physicals on the animals. Then we had them to study. Let me see, we got two pigs, a couple of the chickens, a couple of dogs, I don't remember if we had cats, but I remember studying them. One interesting recollection about that was that I learned how to hypnotize a chicken; Colonel Veenstra showed me how to hypnotize them because we had to take blood from their wing. If you go to pick them up, they would try to get away from you. He taught me that you take the chicken, you put him under your arm and you put your finger to the chicken's eye and you make sure that the chicken is completely focused on your finger. Then you go quickly like that [demonstrating] and the chicken would go into a trance. Then we could lay him down and take the blood from under his wing. We just shook him to wake him up again.

How amazing. That just is an interesting thing, like what kind of brain is that that you could do that. I don't know if you could do that with humans.

I couldn't tell you what the science was behind it but that's how we did it.

How interesting. Now these were animals that had been on the island, correct?

They were family pets and belonged to families, yes.

Do you recall the kinds of data you got from that?

There were signs of radiation exposure in all of the animals that we got. We had two pigs, I'm pretty sure. Danny Amato, again he took over, herding them and getting them into housing **[00:15:00]** and cages and things like that; looking after them. He helped me with the studies.

And again it was a situation where you gathered the data and then other people would start—

Gave it to somebody else and then they did whatever they did with it. I never saw any printed information on the data that we had collected.

So how long did you stay in that kind of work as a civilian? I mean just give me a sense.

May of 1955.

OK, you know exactly when. OK.

Nineteen fifty-six, when M.T. was born.

OK. So May of '56. Now was she your first child?

No, she was my second.

So you had worked through the first.

Yes. I can remember—I don't know if I should say this or not but anyway, it was a reality. In doing my job, when I was pregnant with my first daughter, I had terrific morning sickness. They would send a car for me in the morning and take me to sick bay and give me Thorazine shots to help the morning sickness so I could go to work and do my job.

Thorazine! I'm just curious now. We don't have to include this if you don't want, but what effect did it have on you?

Well, it certainly cured the morning sickness, but the one thing they didn't tell me about is skin changes and exposure to sun, which is obvious when you look at my face and my neck.

Not obvious to me, but OK. All right. So then when your second child was born, you decided that you would not work anymore, is that right?

No. The project was essentially finished, as I say and everybody was going their own way. So I came back to Newport and I got a job working in the laboratory at the Naval Hospital. I did primarily microbiology studies while I was there.

Now what makes something a microbiology study? What kinds of things are you looking at there?

Oh, well, it was in the Naval Hospital and so people would come in with infectious diseases and they would take samples of blood and throat cultures and all kinds of cultures and then bring them down to the lab. Then I would set them up and study them, find out what the organism was and report it back and do antibiotic studies to make a recommendation as to which antibiotic they could use to treat the illness.

How interesting.

It was just commonplace work for a lab tech.

Was it?

Yes, it was.

Well, for me, the idea that you can figure out what antibiotic is going to make you better is really interesting because it's mysterious.

Yes. Well, I worked alone most of the time and I had to make and pour my own media—sterilize and clean Petrie dishes and that sort of thing. We also had to do the tests for the dairy products that were being served in the mess halls all over the Navy base, to study them for E. coli or contamination content, so that was another big part of my job.

Since we're moving a little bit down the time line, is there anything else about the radiation studies that I should've asked you about that you can think of?

I can't think of anything.

M.T. Silvia: *Mary, there's one little thing. She mentioned in the museum that she didn't recall eye protection or that kind of thing when they witnessed the shots.*

Pauline Silvia: Oh, yes. When we were going through the museum, there were pictures of people wearing the goggles, and we didn't have anything like that. We were just told to put our heads down, close your eyes hard. And I could still, even with the eyes closed, see the light from the detonation; I can remember experiencing that with my eyes closed and my head down.

[00:20:00] *And then you saw the light. But they would tell you when they wanted you to look up.*

That's right.

I don't really know. Some people were given goggles. Some people were told to turn around. Some people were told to duck their heads.

I think that was some of the things they told the foot soldiers to do. Going through some of the books that M.T. has, I see pictures of the soldiers with their backs to the detonation.

Right. Were you ever out there when they were doing any of those exercises? Do you recall?

I believe they did happen at some of the shots that I was at, that they had the foot soldiers in the trenches out there. But at that time, that was not in my level of awareness, if you will. It was when we got back to San Francisco and were sitting and talking about things, then I became aware of it. I often wondered how—and then you see later on they have shots out there where the foot soldiers—after Upshot-Knothole they had the foot soldiers out there and I can remember at the time it crossed my mind, what are they doing? We have information in terms of what the radiation can do. But I guess I just dismissed it or just didn't think about it anymore. I've thought about it since then.

Well, let's talk about that, but it's interesting that you seem to recollect that the question was at least raised in your mind: if you're doing this science, then what's going on with the guys?

Yes, how come you've got them out there?

Because our time is limited, I wonder if you would talk to me a little bit about what's going on. I know you already talked about the vet and you don't have to talk about that again, but it sounds again from someone who doesn't know you real well that there comes a point in your life where you start reflecting on these things in a different kind of way than you had before?

Yes.

About what era is that, let's say, what age are you at that point when these things start coming to you?

I don't think it was too long ago. I think there was a long span of time before—I think what precipitated it was when I came across some of these pictures of what we did to the dogs and that's what precipitated my questioning and my second thoughts about all of that.

These were your own pictures or you saw them elsewhere?

Well, no, they were my pictures in my collection. I came across them when I was going through papers. They were unclassified pictures; different animals that we had irradiated. When I started looking at the pictures, that's when it began to hit me in terms of, what did we do to those animals? I know that the science was important, there's no question about that. Then I started thinking about, what did they do with the information? Again that thought came back again, what did they do with the information in terms of exposing human beings? But I never did anything about it. I just processed it internally, I guess. There was no one to discuss it with anyway.

But I think that these are really important questions, particularly the second one which is, what happens to the scientific data that you're producing and how is it used, and is it used, as far as future decision-making is concerned?

Well, that was just the way—that the designers of the program were the one[s] who got the information, and my job was to collect the data and give it to them.

[00:25:00] *And yet it sounds like you're telling me [that] you feel some level of responsibility there, even though you're not the decision-maker, you're not the person in power.*

Well, let me answer it this way, or say this, that if you asked me to do it today, I would say, no way. I would not have participated. When I look back on it, I don't think as a member of the Navy, I don't think, looking back on it, I could've said no, although I have to honestly say that never entered into my level of awareness, to say no. But I think that if I'd said no, then they would've said, *adios*. But I can honestly say that was never in my level of awareness, but again I would never participate in anything like that again.

What are your judgments now? What's your thinking now about what this all means, or your wisdom about it as you look back?

For example, people are always trying to get you involved as a nurse, they try to get you—by the way, I became a nurse many years after all of this—but they always want you to participate in some kind of a blind study or a study of this, that, or the other thing, and I have always refused. I see a physician at the Lahey Clinic for rheumatoid arthritis and there's a questionnaire that the patients are given every time they come to fill out. The first time I went there they gave me the questionnaire to fill out and I started filling out the questionnaire. When I turned the page over and got down to the bottom of it, in very small print it says down at the bottom that this information is being used for research and I just picked it up and tore it up and said no way. So when I go for my appointments now the nurses all say, `Oh, you're the lady who doesn't fill out the questionnaire.` So that's how I feel about these things. If someone were to come to me and say, `They've asked me to participate in a study,` I would say to them,

make sure that you are very well informed before you participate in anything like that. They offer people money and transportation and all of that, and I don't like that.

And that's connected to what you did?

Yes.

Help me understand how that's connected.

Well, the dogs and the mice had no say in it whatsoever. They were taken advantage of. And a lot of people—well, look what they did with the black gentlemen in the forties, how they treated them.

Tuskegee [US PHS Tuskegee Syphilis Experiment]. Yes.

Yes, look at those studies; those gentlemen didn't know what was going on and nobody felt **[00:30:00]** they had the right to know what was going on. I think that you have to be very careful about that today because people get so energetic and so enthusiastic, just like I was a hot-shot ensign doing all of this. In their enthusiasm, they forget to really give people all of the information that they need. And they almost make you feel as if you're not doing the right thing if you don't participate. That's part of the hard sell, you know, wouldn't you want to make a contribution? But I don't go for that sort of thing anymore, and it's based on my experience.

It's very interesting what you're saying because it raises so many really fundamental issues about what science is and what it isn't, the mindset that you get in when you do science, and the whole important question of, of course, research ethics is what you're talking about there.

Yes. And you're almost made to feel like you're a second-class citizen. [They imply]:`You mean to tell me you wouldn't want somebody to benefit?` You know that's sometimes the message that's given. I hear other people who are telling me about their experience with that

because I just don't entertain anything at all. Just tell me it's a research project and my answer is no.

That's very interesting.

And that may be very selfish on my part but that's based on my own experience.

Let me pause for a second here. I have to think for a second. There was something you said; I maybe want to ask you a question. I have to think of what it is. If you think of anything you want to say while I'm cogitating, go ahead.

[00:32:04] [At this point, the recording is turned off, and then turned back on mid sentence] —extrapolation of the data, but what was extrapolated from that, what was done with that information?

How was it put to use or not to use or what decisions were made based on it.

Exactly. See, I don't have any record of that and I didn't go to look for it anyway, so I'm not saying that I was being deprived of that information. The information very well may be out there, but I haven't accessed it.

I think it's an interesting and an important question to you personally and I think it's also an important question when you look at all the money that it's done [with] and all the studies that are done and how is it actually applied or not, I think is an important question. So let me see what else I had here. This is again a little off subject but now I'm curious, at what point do you decide to become a nurse? How does that all come about?

Oh. Let me see, what was I doing? I was working at the Naval Hospital and my children were coming along and summers were becoming a problem, when they would get out of school and I was working and I wasn't available to care for them, to look after them. So, I went back to Salve and got enough credits to get certification in secondary education in the state of Rhode Island.

Once I became certified in secondary education, I left the Naval Hospital and I taught for two years at a junior high school and then one year at the new high school.

What did you teach?

I taught sciences and health. And I didn't have a homeroom so that I was what was a corridor monitor, if you will. The students called me the "Dean of the Latrine" because it was my job to make sure that everybody was coming and going as they should, in and out. But I worked at the Berkeley-Peckham School for two years and then they opened a new high school and I worked there. I taught junior science at Berkeley-Peckham and health classes, but I wasn't a nurse at that **[00:35:00]** time. When I went into the high school, I can't remember exactly, I think I taught chemistry and general science and health again at the high school.

At the same time I was doing that, I was working nights at Newport Hospital on call as a laboratory tech. So I had been working there for a while and then I was contacted by the School of Nursing. They needed a science instructor. I don't know about the time frame on it, but I received a National Science Foundation grant where I went to the University of Connecticut and earned the master's degree. I don't know exactly what the sequence of time was there. I joined the faculty in the School of Nursing and my job started out with sciences, teaching chemistry, physics, microbiology, and pharmacology to the students. It was a diploma school of nursing. And I did that for a number of years.

Then I started looking at these people who were my students and saying, what is this in nursing that attracts these women? And we also began to bring men into the school. We were one of the first schools in Rhode Island to bring men into the diploma education. So I decided, well, I think I'd like to study nursing, and so I went back to Salve Regina and got my degree in nursing;

I finished that in 1969. I was not a young student nurse, I was thirty-nine years old when I graduated.

So then I changed from teaching the sciences to teaching nursing: fundamentals of nursing, bedside nursing, clinical nursing, freshman level, beginning level. Then I was teaching growth and development and pharmacology and nursing.

Did you practice nursing other than your student nursing?

I worked weekends and nights in order to get clinical experience at the bedside. I didn't work a lot at it but I did get clinical experience. Let me see, what else did I do? I became coordinator for the freshman program, in charge of the coordination of the program, and I wrote curriculum. I also was selected to go to the National League for Nursing and write test questions for the surgical nursing for nurse registration, I did that one year. So I stayed with the freshman program and then I was in guidance, doing guidance work with students. We had a grant in which we took married people and brought them into the program. It was a summer program and we prepared them, brought their high school—some of them came with GEDs [General Equivalency Diplomas]—up to par so that they could enter into the freshman program. But the real thing was having the summers off so I could be with my children during the summertime and be on their school schedule.

That's really impressive that you did that.

It was a wonderful program that they had. We produced some outstanding graduates that came into this summer program, who went on to master's and Ph.D.s. They did very, very well. Otherwise, if they didn't have that program, they would never have been selected. So, yes, they did good. And then I went—do you want me to tell you the rest of it?

Sure. Go ahead.

I guess I got tired of all of that and I needed a change. I can remember a professor in college telling us one time that a professional person should change every five years, come to the need for change, but in the process of doing it you had to achieve more academics in order **[00:40:00]** to make the change, and so I did that. They came to me and asked me if I would be the nurse manager on the psychiatric unit in nursing administration, so I left the School of Nursing and I did that for three years.

Then they asked me if I would become an assistant director in nursing service for special care areas. I had psychiatry, labor and delivery, operating room, emergency room, and ICU [Intensive Care Unit] were the special care areas that I was the Nursing administrator. So I was an assistant director of nursing service. I did that for a few years and I decided I wanted to go back to nursing education. The CEO [Chief Executive Officer] of the hospital, I spoke to him about it, and there was a job opening in the School of Nursing, and he asked me—he was creating a new position of a vice-president for nursing which was a whole new reorganization—he said, I'm recruiting out there for a vice-president. Would you please stay until I find this person? Well, it took him two years to find the person, and then when she came, the job opened at the School of Nursing again and I said, I'd like to go back there, and he said, Could you just stay until she gets oriented?

So I stayed for another year, and then finally I said to him, There's a job opening in teaching psychiatric nursing in the School of Nursing and I want to go back there. And so I did, I went back and I stayed teaching psychiatric nursing and senior med/surg nursing. I went back in 1983, I think. I left nursing service and went back, and then the School of Nursing closed in 1990. And that was my experience in nursing education.

Did you retire then?

No, I didn't. There were positions opening for the faculty at the Community College of Rhode Island and at the University of Rhode Island, and many of my peers on the faculty went into those positions. And for a reason I will not address, I chose not to do that, so I had a job in risk management at the hospital. We were in the DRG, Diagnosis-Related Grouping, which determined the charges that the hospital could be reimbursed by Medicare. So I worked doing that, going through charts and making sure that the diagnoses and all of the care that was given was documented in the charts. But I had injured my back in April of 1990, I think it was, but long story short, in '91 I just could not work anymore, so that precipitated my retirement.

What an amazing career. Really very interesting. We've been talking a long time, so I think we should probably wrap it up. I don't want to tire you. But I had sort of a closing set of questions about what you talked about and looking back on what you've done. How do you put that in perspective? Because I'm hearing the story of a really fine career, of a lot of accomplishment, and then this sense that at the beginning of that career, you have serious misgivings. I guess what I want to communicate to you is how much I really respect that, that you're looking at your life in that way and evaluating what you did. But do you think that any of the decisions that you made later in life were based on any of your reflections about what you'd done earlier?

I can't specifically say that. You have to understand that my looking back on it didn't happen till **[00:45:00]** almost forty years later. I mean I'm not thinking about this.

So we're talking really recently, then, maybe after you retired you start thinking about these things?

Yes, right.

OK. I misunderstood that, then.

Ninety-two was when I met the Benedictines and started on my spiritual journey, if you will, and that became a part of it, too.

Oh. Can you explain a little bit about that? You met the Benedictines. You became more religiously active?

Well, I had been on a spiritual journey for a few years before that; I had been a Roman Catholic and had been disenchanted and had not practiced. I had become Episcopalian in 1992, that's a whole long story which I won't go into. At the Weston Priory, M.T. and I went there together, I picked up a book by Norvene Vest. Do you know her?

Yes.

Preferring Christ was the center page of it, that was the title of it. It was about the rule of St. Benedict and how it applied to your daily life. I purchased that book while at the library at the Weston Priory, took it home and started reading it, and became completely fascinated with it. I'm not great for writing letters, so I picked up the phone and one way or another I got Norvene Vest on the telephone. We talked for an hour-and-a-half and she was the one who directed me to the Benedictine sisters in Erie, Pennsylvania. She was just this wonderful person. I mean here's this author of all of this to give me an hour-and-a-half time on the telephone, and we talked about a lot of good things.

So I contacted Sister Rita at Erie, Pennsylvania and she invited me to visit; she was the oblate director at that time. I went down to Erie and made application. I went through my one year of, I guess, postulancy or whatever it was, but it was kind of hard being there in Erie and I'm in Rhode Island, but I had constant communication with the sisters. I was accepted as an oblate in 1992. As a matter of fact, this past Sunday was the time for recommitment and you would make your statement and send it in to the prioress and then on the fourteenth, whatever the

date that Sunday was, they had the commitment service and the accepting of new oblates into their program in Erie, Pennsylvania. Ordinarily I would be going down there but with my health problems and that, I hadn't been down there as frequently as I used to go. My paper would be put on the altar, received by the prioress, and was received to continue my participation in the oblate program. So I've been there with the sisters since 1992. That was all part of the spiritual journey and as a part of that you become retrospective and looking at things and looking at your life.

Yes. Well, thank you for explaining that. Then I'm going to give you one last question, again out of my own ignorance. What kinds of things are you committed to do in your daily life or in your life as an oblate that you wouldn't have done otherwise?

Well, the sisters of Erie, Pennsylvania give you their corporate statement in terms of their mission of peace. They work primarily with women. For example, during Lent, the Stations of the Cross, a contingent of sisters go to places where domestic violence have occurred and those become the Stations of the Cross. The contingent walk from the monastery and they visit these sites as the Stations of the Cross during Lent, that's part of their interest in women. As part of the peace movement, they have missionaries down in Mexico. I try to give financial support. That's the easiest thing to do. But I have made a commitment of reading the Liturgy of the Hours; they read the Psalms twice a day, morning and evening, and then they have a reading **[00:50:00]** at the [chapel]—so I read the Psalms. I have their book. That's the Liturgy of the Hours, that's what it's called, and that's my connectedness to them, because when I'm reading in my book at home, I know that the sisters are singing the Psalms in the chapel and we're both on the same page, if you will. I know what the program is, what week it is, but it's essentially reading the Psalms. I try to participate in the peace movement and that sort of thing and helping women. That's it.

Wow. That's really beautiful to have that picture of you reading the Psalms while they're singing the Psalms.

It's probably not the exact same time but—

Well, you're a scientist who can keep a little time-space variation there. It will be OK.

They have the morning and then the evening Psalms.

Well, thank you for explaining that to me. Thank you for everything you've told me. You've told me a lot of really meaningful things and I appreciate it. We've been going quite a while so if there's something that's popping up in your mind that you want to say, feel free.

I don't have anything more I can contribute at this point, but thank you for asking.

OK. Well, you did a lot, and thank you very, very much.

You're quite welcome. It's been a pleasure meeting you.

Yeah, same here.

[00:51:42] End Track 2, Disc 2.

[00:00:00] Begin Track 3, Disc 2. *[Pauline Silvia asked to resume recording for closing thoughts]*

It kept coming through my head periodically during the interview that I wanted to tell you why I was here. I was here because of M.T.; I would never have come if she hadn't had this interest and she's researched all of this over the years. She's had an interest in what I did and if it wasn't for her, I would not be here today. I have come here because of M.T; I did come of my own volition, however, I did not initiate the idea, but I came because M.T. was interested. And as she said to me last night, this is the story about us, M.T. and her mother and the experiences. So that's all I wanted to say as the addendum.

Great.

Cameraman: *It's ironic, I'm not sure that I've ever heard a mother say of her daughter, if it wasn't for her, I wouldn't be here.*

Pauline Silvia: That's interesting. Right.

Cameraman: *That's pretty good. You're even rarer than I thought you were.*

Mary Palevsky: *OK, thank you.*

Pauline Silvia: Thank you, Mary. It's been great meeting you.

It's really wonderful meeting you. We'll see each other in the next couple of days.

[00:01:42] End Track 3, Disc 2.

[End of interview]

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