

Nevada Test Site Oral History Project
University of Nevada, Las Vegas

Interview with
James Yamazaki
with Aki Yamazaki

October 14, 2005
Van Nuys, California

Interview Conducted By
Mary Palevsky

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Interview with James Yamazaki with Aki Yamazaki

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

Mary Palevsky: *Dr. James Yamazaki, thank you so much for meeting with me today. I thought we could start by just you telling me your full name, your date of birth, your place of birth, and before we started filming you were talking to me about your view of time and when your own ancestors came to this country, and maybe we can start out talking about that.*

James Yamazaki: I'd be very happy to talk with you about my thoughts on what you just said. I'm James Nobuo Yamazaki. I was born in Los Angeles in 1916 at the Hospital of the Good Samaritan, and delivered by Dr. Chalmers Francis who eventually became a good family friend and encouraged me to go into medicine.

You were talking about my views about Hiroshima and Nagasaki. And I try to express myself to students—and we instigated a course at UCLA [University of California Los Angeles]—my thought was on war and peace but eventually it became a political science course. But in that course I begin my talk with the picture prelude to World War II. In this section I show the map of Asia and how that the war is related, from somewhat a Eurocentric war, in that Japan is at the eastern limits of the European countries coming into Asia over a period of 500 years. It shows that the furthest, and this is just of Asia itself, but at the western edge is India. And then we show going on toward Malaysia, Indochina, China, and then to the south toward Indonesia and then to the Philippines; and show the involvement of the Portuguese and the Spanish, the English, the French, and the Dutch, and approaching then the 1900s with the Spanish-American War, [the] United States' role and the involvement in the Philippines and Hawaii. And then

eventually I relate this that one of the—because of my involvement in the work with the atomic bomb, we particularly saw the relationship of this time frame—of how the Spanish and the Portuguese in particular came to Japan.

And now that I'm approaching ninety years old, 500 years seems like a very short period—being that my father [John Misao Yamazaki] came to this country in 1904, and then my grandmother [Monica Ori] came to this country when I was around four or five years old and she was born before 1850. So now that's very recent times to me; all of these time frames now become to understand what happens in World War II, our relationship of the various countries, that this is a very short period to me now. Before it seemed like ancient history, because the Civil War seemed like a long time ago. But actually the United States' interest in Japan was somewhat sordid after Perry came in I think it was around 1853, because of [00:05:00] the Civil War. And then Japan, because of their involvement with the United States and the Western powers, had their own civil war. And then in the 1880s they went from a feudal government and became a constitutional government framed on the European pattern, especially they chose Germany. And during this period there was already bomb—this wasn't the first battle engagement. There was bombardment even of southern Japan, and it somewhat reminded me that one of the discussions about the atom bombing was if Japan didn't surrender after Nagasaki, they would still be thinking of invading Japan. But Japan already had experienced in the 1800s bombardment of their southern cities, Kagoshima and the straits of inland seas, they already had experienced bombing from the European forces at the time when the United States was involved in the Civil War. It was about that time frame. I don't know the exact dates. But I think we should keep in mind that at the opening of the 1900s, [the] United States was at the doorsteps of Peking [China] with the Boxer Rebellion. And all of this encounter between Europe [and] Asia is a very recent

story. And the United States was not absent in this effort. In fact they were at the doorsteps of Peking at the opening of the century. So that's the kind of time frame I see it, and that without discussing this and the atom bombing I think misses an important link.

What was interesting to me when we spoke on the phone a few weeks ago, and you mentioned it in some of your writing also that relates to this, is your own concerns about the war when you're a young man leading up to the war. So in other words, to come out of this larger time frame that you have at this point of your life, give me a sense of what your time frame and thinking was actually in the late 1930s, 1940s as a young person here in Los Angeles.

Actually it's earlier than 1930s. As we were growing up, we already knew that Asians were not welcome in this country. In fact there's much thought that we were the Yellow Menace and it was pervasive in our bringing-up.

Give me some examples of how that was in your own experience.

Well, if a person—there's a neighbor two doors from us that wanted to buy a home, and there's already a legislation that Asians could not purchase property in California, so in order to get around this, they would ask some Caucasian friends to sign papers for them. And this was of course a matter of friendship and trust that you would buy a home in the name of someone else and that person would, if he were a scoundrel, could actually take that property from you. It was in his name. He [the Asian purchaser] had no legal rights to this property. So in one hand there was this government saying you can't buy this property; on the other hand there was this friend that would say they would do this for you, and there was complete trust that you gave them funds to buy this property.

And then on a personal matter, as we were little kids, in the summertime there was a swimming pool there in the neighborhood, a private swimming pool, but we weren't allowed to

[00:10:00] go to the swimming pool. And so one of our friends [who] was our age group went to the owner and said, You clean the pool once a week on Tuesday. How about letting us swim in the pool the day they drain the pool, just before you drain the pool? And they said no, there's nothing—they wouldn't allow us to swim.

So those things sort of remains in I would say sort of bitter memories. It's hard to erase those things.

Yes. Now this is in Los Angeles that you're talking about.

Yes.

What area was that that you lived in in Los Angeles?

It was called Uptown, but in the city lexicon it was called the Fedora Ghetto.

Fedora Ghetto.

Yes.

Why?

Fedora is a street that's somewhat midway, and there was many Japanese living on that street, and there was a language school there that my father helped to establish.

So just so I know where, if I were to drive there today, what would be some landmarks?

Koreatown.

Koreatown.

Yes.

Which is—streets are—?

The boundaries would be Western and—north-south streets would be Western and Vermont, and Olympic would be the midline, and we lived at—which was—Olympic was then Tenth Street, and Tenth and Normandy is where we lived.

Now your father, tell me a little bit about your father.

Well, there's one other thing of interest is that we were old enough in 1924 that we had—that the Immigration Act was earlier in the 1880s somewhat, Chinese were no longer allowed to immigrate. Then in 1924—and I discussed it in some of my talk to students—in 1924 Congress enacted the immigration law [Immigration Act of 1924 (Johnson-Reed Act)] that no longer allowed Asians to come to this country, and so that was completely shut. And the fact was that this was something that alarmed the young bachelors because then they couldn't bring their wives here and start a family.

So it was—in the neighborhood the young men—how were they going to find a wife to bring to this country? And they knew this legislation would come up for final decision and that it would pass, knowing the strong anti-Asian feeling in the country. It was extremely strong. And the government had some clause that you could only bring—a man could bring his wife to this country only if he had a certain amount of funds to support them. And it was a substantial amount of money. And so they would have a little group of self-loan they called *tanimoshis* where people would put money and then get the loan. It's sort of a small neighborhood bank. And so that people put in—asked to get the loan from this neighborhood group.

And my father got involved in going to Japan with a group of young men to look for wives. He was a minister. And the young men, they went to Japan. And I remember clearly because the last family to come to the neighborhood was the family, the young lady was a niece of his brother's wife, and she came to this country. I remember the exact location—it was on Dewey Street—and the warm welcome that they received when they came to there. And that was the last family to come to this country, in our neighborhood. It was around somewhere before 1924. And we knew his kids and we grew up with them.

Now when you said “warm welcome,” so the whole community would be involved in this bringing of this young woman?

Yes. And the house, I remember the house and the people who were the neighbors. It's [00:15:00] still imbedded in me, the house they lived in and the neighbors and the street.

And what would happen? Would there be a party or would there be just a—?

Just a warm welcome, yes, so everybody knew who the family was.

Interesting. And this was the main part of Los Angeles where Japanese-Americans lived, is that right?

No, there were several enclaves. Several enclaves. But this was one of them, but it wasn't the largest.

OK. And your dad was a minister there, you say?

Yes. And then there was at the same time our citizenships rights that Congress legislated, and then it had to go to the Supreme Court because the—I don't know how these immigrants obtained their legal counsel or the movement that eventually it went to the Supreme Court about citizenship. And I think the basis was that—well, first of all, they weren't granting citizenship to those who were non-whites. And I can't remember what all the different clauses were, so that the angst that we felt was from the Supreme Court, from Congress, and the state: they didn't want us. From my point of view, I never felt the Constitution applied to us. I said how could you if you—all these things restriction. And we learned that in San Francisco there were segregated schools, as it was in the San Joaquin Valley. And that was the early part of the twenties.

Let me ask you a couple of questions about the citizenship issue. Your parents are citizens.

After the war.

After the war.

Yes.

OK, so before the war your parents were not citizens.

Could not become citizens.

Could not become citizens.

Yes.

But you're born here, so you're a citizen.

Yes. We had dual citizenship.

You had dual citizenship.

But you had to register with the Japanese government to have dual citizenship.

So otherwise being born here, you would've been an American citizen.

Right.

All right. What was your parents' and your father's attitude or teachings to you about—did you talk about the position that you were in as Japanese-Americans here?

Yes. I think that's pertinent to this war story because in Japan they have a thing called *yoshi*.

Many families that do not have a male heir go outside of the family and bring a male that [is] desirable that the family approves of to become the—assume the name. If, for example, they just had daughters, they'd need a male to carry on the family name and actually the family itself. And so the general idea was if you came to this country, this is where you made your bread, this is where you lived, you were in fact—owed your allegiance to that family, and in this instance to the country.

And my father never had the feeling that we were going back to Japan, so consequently we never were taught too much about the history. But more so that we would make every effort, despite all the antagonism toward the Japanese and Asians in general, that this was our home and

this is where we should do everything to make this our home. And I think this was somewhat enhanced by the fact that when he became interested in the plight of the immigrants and went into the ministry, the Episcopal Church sent him to New England to study; first to Trinity College and then from there he went to the Berkeley Divinity School in New Haven [00:20:00] [Connecticut]. And during that period he became immersed in America, its culture, its music, its arts. And from New Haven they went into New York on weekends and became quite—absorbed a lot of it, America there and developed friends.

And even as we were growing up he said—well, when we would raise a question as we became older that here's a Christian ministry and this is a Christian country. What's so Christian about all of these legislation, Congress and Supreme Court, denigrating the race? And we felt—we didn't feel inferior to anyone but we did resent and were bitter about being humiliated, almost to the point of anger, and yet we didn't know Japan, so this was the dilemma. And we didn't know the language. My father never strongly encouraged us to really study Japanese, though he had a school, language school in his church and in the neighborhood. He established two schools. But never the culture or the history. It was just so we could communicate with our parents better.

Yes. Now tell me your father's and mother's names.

My father was John Misao Yamazaki and my mother was Mary Tsune Tanaka.

I had a couple of questions about what you said. I want to make sure I understand what you meant alluding to the Japanese custom of bringing in a male heir. That somehow relates to coming to this country and taking on this country as your own, is that your point?

Yes. Exactly. In fact to us one of our biggest fears as a kid is there would be war between Japan and United States. From the time we were small, we would go to San Pedro where Father had people from his hometown there and we'd visit there, and he was a ship chaplain, and so that we

saw this relationship, a trade, and coming into San Pedro. And at that time I think the headquarters of the Pacific Fleet was in San Pedro, then eventually it went to San Diego and then before the war in '39 to Hawaii. So as a little boy, we saw San Pedro filled with Navy, and then along the coastal, Fort MacArthur where the big guns [were] pointing toward—westward to Japan, right? And who else? And so we always had this potential of war hanging over us.

And then even when I was at UCLA, by that time my father had this church and he insisted that we help in his work just as much as many of the other Japanese who were gardeners, their sons helped their fathers, would mow the lawn, he says you have to help in the church work. When we were at UCLA, part of our work beside studies was you take care of the boys, and I was eventually a scoutmaster. And when we—singing in the choir and this kind of thing. And even after I graduated UCLA, the only jobs we could get was working on the farms or gardening, fruit stand—even application for being a postman, I thought if I got a postman I could still study if I didn't get into med school. Just delivering mail, I could study at night. But no response to my application. It was that kind of a time.

Now when you say “we” had this feeling, you're talking about yourself and your brother or other young men that you were growing up with?

Some. We had of course varying degrees of concern, but with taking the—like when I was at [00:25:00] UCLA, the scoutmaster—after we come back working on the farm, we still had to take care of the younger kids. And we brought them to a beach called Brighton Beach, which was not a Park-and-Recreation beach but it was a stretch of sand on Terminal Island where all the naval vessels, big naval vessels often parked, like the [USS] *Lexington* and [USS] *Saratoga*. And where [what] else would they be ready for except war, some military engagement with

Japan? What other conclusion could you come to? And so while we're taking care of the Boy Scouts, we could see all this going on.

Politically, beyond your own plight and the discrimination you were seeing, as a young man were you seeing political—were you aware of political situations that would fuel this fear about an eventual war?

Yes, I was because somehow I was involved enough that I—in high school even we had ROTC [Reserve Officer Training Corps] and I guess I was a little more concerned than the other Japanese boys because I joined the ROTC. On weekends I would go over to the library and look at this gray journal of foreign—what's that gray journal about foreign policy?

Foreign Affairs?

Foreign Affairs. Yes. Leaf through that and see what—there would be articles about Japan and Manchuria and God, they were fighting, already there was war. And this would be main issues in the *Foreign Affairs* book, and it seemed like—and the Hearst papers daily, and the *L.A. [Los Angeles] Times* was almost as strong about the Yellow Peril and war and the battles' insignias. At least to a kid it was very frightening.

Did you have any opinions about what Japan was actually doing or was it—?

Well, in some respects I didn't understand; in others I did. Australia was closed also. They wouldn't allow—and Japan in the midst of the Depression, the population expanding, we heard about that. In fact that was some of the reason the Japanese were immigrating to Hawaii and here, that they were not able to provide for their people, so many of them immigrated here and to—to the United States for a livelihood. It was closed.

At the same time in the early twenties the League of Nations was being formed. Somehow in our house, my father had every paper, the Japanese papers, there were two or three

papers, and then the daily morning and evening papers. Hearst Paper had a morning *Examiner* and the evening paper also. Then there was the *LA Times*. So our dining table was filled with papers of all events and we were always listening to what it was all about, the naval treaties. And then one that caught our attention, of course, was the naval treaty [Five-Power Treaty (1921)] where even though Japan was allied with the European powers during World War I, when they start building their naval situation, they were limited by England and the United States and I said, uh-oh, that's going to rankle some power.

And then the League of Nations, I think China and Japan asked the League in their opening documents, in the opening—I've never found the original situation where Japan asked that they be considered as part of the human race. And that was not accepted. And I thought, oh, that's bad news. Something's going to erupt. Then this burst of humiliation, and then anger, and then there'd be rage. Something's going to break. I wonder what's going to tip the vessel.

So it was a very Eurocentric American kind of feeling that was pervasive. And then as [00:30:00] kids, you know, it's not uncommon to read in the paper about the lynchings of the blacks. And then we were extremely concerned, too, about this Christian nation killing the Indians with superior weapons and even with cannons on villages. We thought, my God, what is this Christian nation doing? And we would bring this up with our fathers, especially after Sunday or sermon or something, as we got older. I said God—later I thought the temerity of us criticizing my dad's sermon when we weren't doing a lick about anything and this and just criticizing. And my dad would say, Well, look, even in Congress it wasn't 100 percent. He says, Look at the voting records. And there was a definite segment that said no to some of these situations. The Supreme Court hearing, too, it wasn't always a complete—so dad says, You got to think about, there are people who are not just

only friends but just want to have an equitable society. You should think about that, he would say.

So that sort of calmed me down, but I wasn't convinced. The Church would say one thing on Sunday and do anything else on the rest of the week. And the racial situation really concerned me, that if war should break out, if they could kill Chinese and subjugate the Indians and the blacks, what would the rage do with war? How would they turn on us? I was concerned.

You thought about it.

I very was concerned. I don't know—I didn't talk about it with the other kids but I was really concerned.

I have two questions from this. The first is, it sounds to me, and maybe you can give me some insight into this, your father had made some kind of decision that he was staying here and raising you here for some reason.

Oh, absolutely.

Do you have any—?

Well, he came here, and the immigrants are here, they established their lives so they'd make a living here, and he felt basically, I guess, that making a home here was—that we're not here to return to Japan. Yes, I think that's what he felt.

So he had in a sense chosen this country over Japan for some reasons.

No, he didn't choose one country over the other. Just that we were—this would be our place. Because there were families that decided they're going to return to Japan.

That's what I'm trying to say.

Yes. And because he would say, Look, we're here to stay. You go to Japan in case of outbreak of war, you're going to be involved, but this is our home. If war breaks out—it wasn't a matter of Pearl Harbor happening—If and when war breaks out,

the only way you're going to be able to stay here after the war is that you do the same thing as the Jones and the Smith boys, that you serve in the armed forces, and maybe that would give you a foothold after the war to stay here. He didn't say we would. He said at least that much would be a prerequisite.

So that leads right to my second question. You made the decision to go into ROTC, is that right?

Well, it wasn't that deep. In those days, you said if I was in the ROTC, maybe I could get in the cavalry and ride horses. We never had the money to ride horses. This is before tank days, right?

No, I wouldn't say I had that kind of a deep kind of thing but I thought, if I got in the Army, it was one way of making a living and ride horses.

No, I wasn't trying to imply that it was deep but I wondered if it had to do with deciding you'd be in better shape in case of war.

I don't know where that came up, but I knew that as I was in college I started thinking of all that.

Yes, sure, in high school it was just football and things like that, just playing in the band and this kind of stuff.

OK, that sounds right. It sounds right for high school.

Yes.

So you were born in 1904.

No, I was born in 1916. My father came to this country in 1904.

Yes, you're not 100 yet. Sorry —1916. [00:35:00] So I wanted to ask you what the situation was when Pearl Harbor finally came, but before I do that, is there anything else that you've thought of that you should mention?

You know, I think we knew the war in China, in Manchuria that I was telling you about, the *Foreign Affairs* magazine and the newspaper and all of that. And then in 1941, I came back from medical school in June, things were warming up. All the cargo ships from Japan, freighters were

floating in San Francisco harbor. I went to see my brother there. He wanted me to drop by when he was going—he was already in divinity school up there. And then about that time the embargo. First there was on steel, but then when it became oil I thought, that's it. We knew that Japan had no oil source and it had a war in China, so that means war. In fact I later learned from people, from Japanese that the day that the oil embargo was made, a wire went out to all ships at sea that expect any kind of eventualities from this day on. So that message went out right away.

Let me pick up the string. You graduated UCLA, then you applied to medical school.

Yes. I graduated in '39.

And where did you go to medical school?

At Marquette [University, Wisconsin]. So in '39 was when Poland, the *blitzkrieg* started, so already something was on flame. And then the United States was such a, at that time, what do you call that, the isolationist point of view. But then the *blitzkrieg* of a country was the first time we really could see the demolition of cities by air to the extent it was.

Yes. Had you always wanted to be a doctor? Tell me a little bit about wanting to become a physician.

Oh, I don't [laughing]. It could be that family doctor I told you about, Dr. Chalmers Francis. And when the kids in the household would have high fever, he's one of these—my dad would implore him that it's 104 [degrees], he needed someone to look at the kids, and Dr. Francis would come to the house. And he would draw little rabbits for us at the bedside. And by then my grandmother was in this country, and as we recovered she would tell us Japanese stories at the bedside. So eventually we did learn something about Japan and the general feeling of Japanese through these stories and through her, more than from my parents, I think, because that was old Japan, 1850s

Japan, right? And so it made a big difference in how I looked at Japan, I think, what kind of people they were, what the kids learned.

Two questions about that. What was your grandmother's name?

Monica Tae [sp]. Her maiden name was Ori.

And then again, before we started filming, I'm not sure that I understood your point correctly but you said something about how the 500 years that your grandmother's life somehow represented seemed shorter than the 100 years that had come after or—I think I misunderstood you but you were making a point—

Well, it wasn't that long ago. It's really current history to me. It's current for my lifetime.

The 500 years, you're saying.

At least the 150, and the life she had before then, if it translates to my time, if I'm relating to 150, 150 of her time, 300 before then. And then when I went to Nagasaki, I became more aware [00:40:00] of that and say hey, this all ties up just 500 years ago that Europe was coming into the lives of Japan.

So you see the historical connections.

Yes, the continuity, and all of this war, Pacific war and the atom bomb is related to this history, to the cultures, clashing of the cultures or the, if you want to call it, trying to absorb Europe into the lives of a completely indigenous type of culture that consists of China and Japan, all of Asia, that they were tied together. And the story of the coming of the Portuguese to Goa or somewhere around there in India. It's just very recent because they were aware of all this thing in Nagasaki, and that was the reason why eventually after the initial welcome to the Portuguese, they decided that this might result in taking over the country, so get them out. And that certainly can't be unrelated to the atom bomb. It's a continuity of all these feelings. And to think that Pearl Harbor

triggered this war is not quite correct in my mind. It's a continuous story that still is being played out to this day. I think at least when the piece that [Robert] McNamara wrote about Vietnam and that how those in [President John F.] Kennedy's cabinet, the Secretary of State, Secretary of Defense, all the security advisors had no clue about the history, the culture, the language of Vietnam and still they went into Vietnam, unaware of all this, and it resulted in this battle. And probably still the same kind of understanding is still pervasive in both Europe and here; this has to be part of our understanding if we're going to have peace. And what was the basic motive for Europe to come into Asia in the first place? Certainly in South America, America's gold and silver, and the same in Asia, all of the—and in obtaining that, it was almost a genocide at certain periods. If not genocide, it was a matter of humiliation and that resulted in eventual rage from those being subjugated. And then in World War II, this tremendous ethnocentric kind of feeling, human behavior was just appalling to me. What happened to the Jews in World War II is unbelievable, that this is the level to which human behavior could sink, and where would this lead eventually with the atomic weapons that we think it's OK to—? It's beyond genocide, the inability for us to realize this is what we're capable of doing and might undertake under certain situations, that this is correct behavior.

But there's one more story eventually I have to tell you about, our daughter Kathy. By then I had returned from the war, wondering—and somehow got into pediatrics. And we had a very nice professor, a lady who on Sundays would—she was respected so much that people [00:45:00] would come in from distance to go with her to see all the cases in the hospitals on Sunday morning. And about one time, I don't know if it was on a Sunday but she was talking about the care of the patients. And she said doctors are doing everything, making sure they assess the patient's medical situation. Do everything you can to take and say—and she said, well, in this

particular instance, if it was a very difficult thing and you—are you OK? You took care. You did try to be attentive and properly use all the medicines that's available and yet the patient's still having problems, and what would you do? Would you continue [to] study about this disease process or what this problem is? And granted you're busy taking care of patients, but if you're really concerned, you would try to understand this problem, study about it and read about it. And she just more or less said if you're not willing to do this, you have no business being here. And she almost said get out. You're making a commitment to people. A family brings your patients to you and you actually accept the responsibility for this kid and you're not going to that extent to take care of that kid or studying it, and she more or less said, if you're not thinking that way, why don't you get out of this business? So I think that kind of thing sort of had an influence on me. You should learn about it.

Now where were you in medical—this was you were back from the war, and where was this?

This was at the Children's Hospital in Cincinnati, where Dr. Sabin was developing the vaccine, polio vaccine.

Do you remember this lady doctor's name?

Oh, yes. Our daughter's named after her. Katherine Dodd.

And that's why you named your daughter Katherine.

Yes.

Aki Yamazaki: And the spelling, too.

James Yamazaki: Spelling, too.

That's a beautiful story. Thank you for telling me that. So that had an impact on you.

Yes. That's why when we went to Japan and we—it was so secret. We were never briefed on radiation before we went there. Never given the papers that was done about the initial studies.

And so when we returned, even though we saw Dr. [Stafford] Warren before we went to Japan, when we came back, of course he was very—kindly let us in the door and allowed us to do the research work there.

I want to wait a moment before we get to that story, which is the main part of the story that I want to get today, but I had a few things. When was your daughter Katherine born? What year was that?

Nineteen fifty-two?

Aki Yamazaki: That's when Paul was born.

James Yamazaki: No, Paul was born in '49. Paul was born before we went to Japan.

Aki Yamazaki: That's right.

OK. So Paul is your first child. He was born in '49.

No, this was our second child.

Oh, your second child. OK.

Yes. Our first child was when I was overseas. Then he—he didn't survive.

Aki Yamazaki: Didn't make it.

Oh, I'm so sorry. Oh, I'm sorry.

Aki Yamazaki: Yes, that was really—that was tough.

James Yamazaki: She got the "missing in action" and then the—

Aki Yamazaki: At the same time.

James Yamazaki: She lost the baby at the same time.

Oh, dear. Oh, dear. That's so sad.

Well, there's an interesting story about that, too, you know [for another time].

I did want to talk to you a little. Our tapes are about an hour long. We have ten minutes left on this tape. So we'll break in about ten minutes. But I wanted to—you've written about this a lot, so we don't have to go into great detail, but I did want you to talk a little bit about what happened in the war and the fact that you were in the Battle of the Bulge and that whole situation, and how that—that must've had a deep impact on you as well for when you came back.

Yes, I did, and I think so, what to do with the life.

Yes.

[00:50:00] Yes. So when I was recruited to go to Japan, the director of the hospital at Children's Hospital in Cincinnati was on the National Research Council [NRC], and he turned and he told us there was an investigation going about what happened in Japan [Atomic Bomb Casualty Commission]. Oh, by the way, he had taught in China at the Peking Union Medical College, and he said that opened up a new vista for him, his attitude toward people and medicine. And he said, Going to Japan, you'll learn about atomic medicine, you'll be on the ground floor, and you'll get an outlook you'll never—you won't—it's a chance to be on the ground floor. So he said—he knew Aki well because we had housing problems, too, and he said, Why don't you talk with Aki and see if she's willing to go? And she said yes and so that's when we decided to go see what it was all about.

Now what was this doctor's name?

Ashley Weech.

Ashley Weech. What a good name.

Yes, very fine man. He liked to sing and in fact he was asked to sing in China when they had weddings and things.

But you had been—let's see, how do I want to ask you this?

Aki Yamazaki: Overseas.

Yes, talk a little bit about what happened overseas.

Aki Yamazaki: In the Army.

In the Army.

Well, I think—we were an outfit that never had been in combat, and the original unit, this was early in 1944, by that time was assigned to the 106th Infantry Division. It was about the time D-Day was occurring. And so that with the casualties of D-Day, this unit that had been a comprehensive group training as a unit was being depleted by replacing the casualties, so they had to make almost completely overhaul of the division.

So we were a green outfit. And yet the war was progressing and they needed more soldiers for the invasion of Europe, and so we were one of those units. And so I don't think I ever went on a maneuver, and I assigned to be in charge of this what they call a battalion surgeon, the doctors that accompany the infantry outfit. And I had actually no training in combat other than the usual field exercises.

So we were to go to England, cross the [English] Channel, and then go toward Belgium, not too far from the German border, and since we were a green outfit, [they] said they'll place us there because nothing happens here. And then within ten days or so, the battle erupts. And so we're introduced to war. And the next five days, they called it the Battle of the Bulge. Well, our outfit was the bulge when the Germans made a big indentation. And so on the fifth day of the battle was when the casualties were the highest. Most of the 7,000 that became casualties out of 10,000 of the unit up front occurred on that day. And so that was our introduction to war.

And then we marched finally toward the Rhine [River] at Koblenz and got on a train—

Aki Yamazaki: Business of war.

James Yamazaki: Yes. And went north past Cologne and Düsseldorf, and as we approached the marching yard, which I later learned was Hanover, a bombing raid, we could hear the bombers approaching, and they locked us in the car and the Germans ran toward [00:55:00] the shelters, and the bombing started. So that I thought was the real war, you know, it's certainly a continuum. And so then they followed eventually in an 800-mile trek through Europe.

You had said that that was Christmas, is that what you said?

Aki Yamazaki: Yes.

James Yamazaki: Just about Christmas, yes, just before Christmas. But I think you certainly had a sense of having dodged a bullet, so to speak, with this first bombing raid, more so than the Battle of the Bulge because they're so direct. I never saw the other fellows in my outfit after that. When we went to the first prisoner-of-war camp, there was nobody from our division there. I was the only one.

Now explain to me—I'm really ignorant here— this is a German bombing raid?

No, Allied bombing.

An Allied bombing raid.

Yes. We're in Hanover, marching yard of Hanover, just approaching it.

All right. And then you said after that this 800-mile trek. Well, what happened so that—?

We went northward toward the first camp that we were in, Fallingbostal.

So you were captured there, is what you're saying.

No, we were captured on the battlefield.

On the battlefield.

And then we were put on these trains, and then we were being taken into Germany.

Were you afraid about whether you would survive or not at that point?

Well, I think with that bombing raid, I thought that was pretty close. Yes, like one of the guys I finally met at a beer bust, apparently he might've been at the same raid, he said to me, *Scary, wasn't it?* I said, *Yes, it was.* So I guess yes, I guess so. But we survived. We were still living. And then, see, the bombing raid is accompanied by a series of air raids initially at fairly long intervals. Then as the bombers approach closer and closer, it's a staccato kind because the intervals become shorter. And then when they're really letting go of the bomb, it's a sustained siren. And then finally there's an all-clear, and we're there when the all-clear sounded.

OK, we're going to stop right here.

Yes.

[00:57:50] End Track 2, Disc 1.

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

I'm back on. I want to make sure I have my sound here, and then we're going to go ahead and continue talking about Europe so we can get you back from Europe, but what I did want to ask you was, you made the point before you were taken prisoner that you were the head of this basically surgeons' group.

No. No, in fact it's just the opposite. It's not a big group. It's almost like a paramedics in infantry, in the combat. You don't have access to a surgical unit.

You don't.

No. The ambulance is supposed to come and take the people from the battlefield back to a unit like say in the, what is this, this unit in Korea?

Oh, like a M.A.S.H. [Mobile Army Surgical Hospital] unit?

Yes, it's not a M.A.S.H. unit. This is just one doctor and about ten kids, ten young men, soldiers that help you collect the battlefield casualties. And you just have a three-quarter-ton truck in

which you have several footlockers filled with medication and little basic instruments, mainly syringe, a few bottles of plasma, things of that sort. So in our Battle of the Bulge, we were immediately cut off, we have no access to ambulances, and so you use everything you have, and that's gone very quickly, and so it's just very basic triage and also just taking care of the kids, giving them whatever you could help them.

Now you're in charge of this?

Yes.

And you've got these ten, what, corporals like or—?

That's right. Two good sergeants. And by the time we're on the battlefield, we get to know each other and we're a sort of a small unit within the larger unit of this military unit, what they call a field artillery battalion. They have so many cannons they have to fire there, 105-millimeter howitzers.

And what was your rank at this point?

Lieutenant.

You're a lieutenant. And that must've been very difficult though with all these casualties and no supplies.

Well, you of course realize that's the—you accept what you have. I mean you have to deal with the situation. This is war. I guess that's the way we looked at it. In fact the chaplains concerned, there are two chaplains, one an Evangelical minister and another was a very quiet snow-haired-white Jesuit priest, and the question was what shall we do with all the casualties about it, to give them final rites or to bury them, and the thing is we had no personnel or time to bury them. That was the decision that they wanted, what do we do?

What did you decide?

I'm in no position to tell them what to do. It was almost obvious that you had to take care of the living first.

So they didn't bury them or—?

We had no time, nor the personnel. It was just a matter of doing what you could in the circumstances.

As a young doctor, because you must've been very young—

Not that young. I was old compared to the kids. The kids were eighteen. Many went in faking their age and so they could've been seventeen, and I'm twenty-eight, so they looked at me as an uncle, I think. Ten years to a seventeen-year-old kid is a big difference. And they knew that—here there was no racial problems. I was their doctor, period.

Well, that's interesting in and of itself. But what was that like for you as a doctor, having to deal [00:05:00] with so much suffering? Does your mind just click in to a work phase or—?

You just do what you can. This is the situation and deal with what you encounter. So most basically, to gather the scattered men in the forests and to do what you can for them. They say I amputated people, and that was one of the discussions, I was there. I saw you amputate this person's leg. And I said, I don't recall. So in all of this story of war, there's a tremendous gap of memory that you have to—just like the bombing, there's a certain amount of memory that you can recall or it was—the anguish or whatever it was, you just can't recall. And yet you can't help but recall somehow trying to compare with what happened in Hiroshima and Nagasaki. You might have a little more legitimacy to say what aerial war is on the population below. Of that you take exception to what the pilot in the air drops the bomb, what he says has nothing to do with what's happening below.

Yes, so legitimacy because you've experienced it yourself?

Yes, or the people that experienced it has a much more vital way of—or that the person in this instance that made the bomb have absolutely no idea of what they were talking about when the bomb went off or what a bomb could do.

What was it like when you were captured? What was the situation there?

Well, one of the officers in our unit who I knew well surrendered, and then we were informed that we could gather the casualties. And basically we were doing what we could, gathering the men that were already casualties in the forest, and we continued that for several hours. After about five, six hours they said it was—the Germans said *you're stopping now*. So we left. The men still—we knew there were many men still in the forest that weren't accounted for and that were still there and we could hear their voices and things, so we had to leave them. And then we were marched off. Then in this other book where I mention about the encounter with the massacre of the black soldiers, and then we march on to I think maybe a day or so, we get to Koblenz where we were put in the trains.

Tell me about with the black soldiers.

Well, as we were being marched up the mountainside, we came to a crossroad and we saw a group of dismembered bodies in the snow. They were all blacks. And apparently they were singled out and killed at close fire. And so that was I guess about as devastating—in a way, it's equal to the bombing that we encountered in Hanover. Certainly you remember—remember because the bombing, we never saw what happened to the people, what the bomb did to the people. We were in this boxcar and we didn't see it. But here we saw the actual soldiers on the ground in a cluster, in a group.

And what, the Germans had singled out the black soldiers?

Yes. Oh, either singled out or they were together.

OK, you're right. They were in a unit together.

And eventually the Germans in the village made a little memorial for them, and there is a [00:10:00] memorial still. A more permanent memorial was erected recently for them.

This is all so terribly sad.

Yes.

So then you're imprisoned for how long? How does that work?

Well, so that's in December. That would be around December 20, and then eventually the bombing maybe occurred about December 22 or 23, and then by Christmas Day we are in a camp in a town called Fallingbostal north of Hanover. We're there for a month or so, and then a group of us are taken out of the camp and we go eastward till we finally reach a town, Magdeburg, close to Berlin. And that town had been bombed recently. And by then the Russians are coming from the east, and so instead of going toward Berlin we reversed course and are sent back west again, eventually make it toward the Main River, and that's where this camp called Hammelburg up in the mountains [is]. And so once we're there we could see the bombing raids of Frankfurt, which seemed to be continuous. So that town must've been devastated quite a bit. Of course at that point we didn't know anything about Frankfurt.

And then while we were there, for a month or so, by March, yes, toward the end of March, one day we hear the sounds of battle coming, some fighting. Everyone gets excited. Maybe the front is approaching toward this camp. And there was a Serbian general's staff that went out for work force and they say something's happening. And so we get ready for an eventuality kind of thing, signing names, where you're going to be after the war, how are we going to get together. The Serbs had treated us nicely with extra food since they were on a work

force. In fact it was the Serbian general's staff that was there, and very topnotch soldiers, God, gentlemen and fine guys.

Well, within twenty-four hours the tanks come into camp, and we thought it was liberation. And a little battle ensues but eventually that evening we're told that this tank unit was a special unit came to rescue 500 men and there was a few thousands in this camp, and so there's no way that this was a liberation. We go back to camp. That's the only recourse. But they'll take a few men but with the caveat that they had to get fuel to get back, and they're fifty miles from the front. We're deep in Germany. And so but there are a few—they would take a few with them on their tanks, and others they would give them rations and they could make their way back. And for some reason I decided to go with the tanks and the armored carriers. And long story short is that on the way out we could hear tanks and we knew they weren't ours, and when we saw the gun barrels we figured they got our number, so we ran into the forest. And the lead tank that I was supposed to be on, the tanker told me to get off, and I never saw that tank again. But all of that unit was—every vehicle was demolished. So here was these young kids came to rescue us. And I often thought, God, that wasn't fair to ask these kids—everyone should have one chance at least, but these kids came to rescue us—but I write a little about it in there [“Why Does a Pediatrician Worry about Nuclear War?” in *Asian Americans on War and Peace*, UCLA 2002].

Yes, I remember reading about it. I wanted you to tell me about it.

So we got recaptured within forty-eight hours.

[00:15:00] *And you go back to the same camp then?*

Well, no, the camp is being emptied out.

Oh, that's right, of course.

Yes, they surrendered. The camp was surrendered.

Oh, so they took you somewhere else.

We start going southward. I guess we passed Dachau. Later we learned we passed Dachau, toward Nuremburg. Stayed at Nuremburg for a while, and then on our way out there's a big thousand-plane raid. That was long. It started at seven in the morning; sky was black till three in the afternoon. And yet the town, it wasn't absolutely destroyed with that kind of attack. But we were at the head of the column and we didn't get hit, whereas the rear end of the column, some of our boys got hit.

The prisoners.

Yes. So we were just fortunate that day. Then we marched further east and south to Munich, a town called Fallingbostal. And then about a month later [General George S.] Patton came through and liberated.

Patton came through and liberated.

He kept going east.

Right. So what was it like the day you were liberated?

Sort of bizarre. The Germans ran away. And they said hey, don't scatter, you won't get a chance to go home [if] you go far away. They warned us that you'd better stay as a unit because you may just have one chance to get home with the transportation such as it was. But everybody scattered in looking for, scrounging for anything they could get. So we took cars and went through the neighborhood looking for—I guess you might call it looting—to see where all the storage unit[s] for materials and things. I got a big box of surgical instruments and carried it for a while until that was stolen. But you take it as, you know.

Right. Now this whole time during this capture and recapture, your wife just knew that you were missing in action, is that right?

No! That was an interesting story. Early, this was when we were in Fallingbostal, they said, We're going to send the messages and we're going to have some of you come to the radio station. You broadcast home, tell them you're OK. So everybody write a little script and we'll choose one of you to come and make a broadcast. And so we all wrote stories, and nothing happened, so we said, that's a ploy, just to raise our spirits that some communication [will] get back. Meanwhile the 106th story was so huge that it wasn't published in the papers back here. So they knew a battle had occurred; they didn't know what happened to the unit. And so unknown to me, they took my story and they put it on the wireless—on the shortwave. And she got notice, many cards, including some of the—

Aki Yamazaki: About twenty-one.

James Yamazaki: Some of the Nazi group in the country, saying I was happy and being well treated.

Nazi groups in this country?

Yes.

Amazing.

Wasn't there some swastikas or something on the card? As I recall.

Aki Yamazaki: Yes. But then I lost all that. I don't know what happened to it.

James Yamazaki: So the outfit, she got in touch with the other wives and told them some of the boys got through.

Oh, how amazing!

And we wound up in Reims [France] the night the lights went on when Eisenhower and that group was signing the treaty. That was before the formal treaty in Berlin. It was May 8 or 6, I can't remember. So we were there then. That was a historic night. Early in the morning the lights went on in Reims. So that was the end of the war in Europe.

How did you get home?

They had big convoys, stayed at what they called Camp Lucky Strike, and after several weeks our turn came up to get on the—several convoys kept going home.

Where was Camp Lucky Strike?

Near Le Havre [France].

[00:20:00] *Near Le Havre. OK. And you came home on a ship.*

Where I was a ship doctor. Supposed to try to make sure that the kids didn't eat too much, because these are all prisoners, and some of them died on the way home because they ate too much.

Aki Yamazaki: Because they ate too much.

Really!

James Yamazaki: Yes. Couldn't control it.

Oh, my gosh! What happens physically? You just—you can't—?

Oh, just the body can't handle all that food after a period of starvation. I guess you've got to go gradually. Or they might've been under some other illnesses that just—they couldn't. Maybe they were on their way out anyhow. It was a whole ship, so I wasn't doing physical examination of the soldiers. Everybody was just going home. Everybody's throwing their war loots that they gathered after they were released, liberated, they had all these crazy German souvenirs, hats, daggers. I think they all kept their guns, whoever got them.

But they threw the other stuff.

Yes, we threw everything over—at least I felt foolish coming home wearing a German tunic or something so we threw that overboard.

Oh, I see. I see what you're saying, yeah. Wow. What port did you come into here?

New Jersey. I just came into New York and their greetings, fire hoses and bands and dancing girls and all that. So two down and one to go as soon as we got off the ship, that was our first message.

“Two down.”

Yes.

Germany.

Italy.

And Italy. And Japan to go.

Yes, and the battle ensign flashing on the stage, that was our first message when we got off the ship. It ain't over yet.

“It ain't over yet.” Now were you in New York at that time?

Aki Yamazaki: No, my sister—

James Yamazaki: She just happened to be—they had banks of telephones at the dock, Red Cross. They—God! [As] soon as you put in your name, where's your family, because she was on the move still when I left her, I didn't know where she was. She happened to be in Mamaroneck.

Aki Yamazaki: My sister live in Mamaroneck. [A few overlapping words about sister]

James Yamazaki: So the same day I got home, I got to look her up.

Amazing. And had you known that she was pregnant or did you know that—?

Oh, yes, we knew that.

Aki Yamazaki: But you didn't know the baby was gone.

James Yamazaki: No, I didn't know about the baby. So that's what she had to tell me the first thing.

Oh, that's so sad.

Aki Yamazaki: Jim wanted to see the baby and, you know, he was gone.

Oh! Oh, I'm so sorry. So that's when? That's May that you get home?

James Yamazaki: June.

You got home in June.

June, yes, I think somewhere in mid-June, something.

Now what was the plan of where you were to go next as the war continued?

Well, they didn't give us any specific order.

They didn't?

No. And then eventually we got orders to—

Aki Yamazaki: They lost his papers.

James Yamazaki: Yes, they lost our papers. Eventually I guess we got to report in somewhere and they told us that we would—all the prisoners would be assigned to a rehabilitation area, and it was at the Grove Park Inn in North Carolina. Rest and recreation sort of thing. And so we reunited with some of our buddies. And first thing we get is two lectures that we had to attend: what are we fighting for and what is democracy. We sort of looked at each other, you know. What the hell's going on here? But I think they thought we got brainwashed. The thing is that they did give us *Mein Kampf* in the prison. English translation. But we were so happy to get it because we got toilet paper now. The Germans didn't [00:25:00] think about that. As precise as the Germans were, they didn't go to that level. We were happy to get them, of course. They didn't know what we were doing with them.

Aki Yamazaki: Using it for—

Oh, my gosh.

James Yamazaki: But that's where—while we were there, we heard about the [atomic] bombing. So the news came over—they closed up the bar and Asheville was off limits to us and so for twenty-four or forty-eight hours we were confined to the—

Aki Yamazaki: Our room.

James Yamazaki: Our room and to the inn, yes.

You were.

The whole unit, yes.

The whole unit was. Why? Why did they do that?

Well, I guess they thought we—

Aki Yamazaki: They thought they would tear up the hotel.

James Yamazaki: The town or something.

Oh, because the war was over.

Yes, but actually we were still grieving for our buddies. They were just glad that the war was over. Unlike you seen in New York and things, it was just the opposite, just sober.

That's interesting. So that's after the second bomb that they closed it down or after the—

Oh, I can't even remember first or second bomb. We weren't paying attention. It's just that the war was over.

Well, what an interesting position for you to—not interesting, just complicated position for you to be in, as a surgeon with the history you've told me, as a prisoner of war—

But in the meantime, when I was in uniform we got to New York, people come up in the street and I recall one guy saying, why don't you go back where you come from? And then we couldn't get a place to live. So we spent all the back pay staying in hotels because we couldn't rent apartments. And that remained for the next several years. Yes, five years at least. So when

we came here, even though they wanted to send us to do more postgraduate studies from UCLA, she said, We got a place to stay. Just stay here.

Now what were your thoughts at hearing of the end of the war and how it ended? Did you have any conception of this weapon? How much information did they give you?

No, no, absolutely no, had no idea. No interest, in fact.

Really.

I can't recall. It was just day to day, trying to find a place to live, what our assignment was, and I still was in the Army.

Now when were you discharged then?

In March.

And then you came here?

No, we were fortunate to get a residency at the U of Penn [University of Pennsylvania] Children's Hospital.

Aki Yamazaki: We were in Philadelphia.

That's right. So what year did you end up coming here [Los Angeles]?

James Yamazaki: In '49.

Aki Yamazaki: After we came back from Japan.

James Yamazaki: No. Oh, coming here?

Yes.

Oh, '51.

OK. So I have to back up a little bit. So I want to go to how you end up being involved in the atomic bomb research, casualty research, but I need to make sure I'm OK on the time line. So you went to Penn?

Yes.

Aki Yamazaki: Children's Hospital.

James Yamazaki: And it's the oldest children's hospital in the United States and just an excellent program.

And you knew you wanted to be a pediatrician?

No, we were going to take any residency. Everyone was looking for training after being in the service, and I just happened to be serving with a U of Penn outfit in my last Army post, and it was in Massachusetts, in Lovell General Hospital. It was run by the U of Penn people, the cadre, so they were professors from U of Penn, and one of them was kind enough to write a letter for me. And I wrote to them, and Aki wrote 100 letters looking for residencies, and they wrote back saying, You say you're interested in internal medicine. We're a children's hospital.

So I wrote back and said, I'm interested in internal medicine and children also.

And they said, Well, come for an interview.

So that's for your residency.

It began, yes. And then from there I went to Cincinnati.

[00:30:00] Aki Yamazaki: So he put in three years of training in pediatrics.

OK. And then from Cincinnati you go to Japan, is that right?

James Yamazaki: Yes. While I was in Cincinnati, a year before finishing, that's in '48, I was approached early in '48 that there's a study that's just beginning in Japan and that considerable kind of studies could be done, make proposals. First consider going to Japan, and then once we said we—and Dr. Ashley Weech in the story I told you, there were people that in Cincinnati, the research unit at Children's Hospital also supported two other persons. One of them was a person

who was interested in the effect of the environment on fetal development, and he was doing studies on fetuses, what would happen, and some of the studies was he was beginning to study the effect of radiation on the fetus.

Aki Yamazaki: Dr. Joseph Warkany.

James Yamazaki: A Hungarian émigré that was a very, very considerate kind of guy. So he took me under his wing and translated German articles for me and stuff like that. So eventually we decided maybe that was the focus we should do in Japan, is study what happened to the outcome of the pregnancies. And so for a year we, under his tutelage, got familiar with that field since it would be a field study not of an individual patient but of what happened to a whole group of people. It was a little outside of the sphere of taking care of one child at the bedside. So he guided me as to how we should undertake such a study.

So it was a research study really as opposed to, as you said, one child.

Right. He had me study the outcome of all diabetic mothers at the Cincinnati General Hospital, so we did a study on that.

So the effect on the fetus there.

Yes, right. So that study was proposed to the National Research Council. They said sure. But what they say in Washington and when you get to Japan is you have to start from scratch again. All they were interested in [was] signing you up. Just like the Air Force, the Army wants to get you signed up first. Orders will come later, right?

Give me a sense of the scope of how the studies in Japan in the broad view came about, the post-bomb studies. What was the overarching—?

Well, the first study was Manhattan Project people. Though I had had orders, specific orders, Dr. Warren was—

Aki Yamazaki: Stafford Warren.

Stafford Warren.

James Yamazaki: Stafford Warren would be the doctor to go to Japan, even before the bomb was dropped, to take off and be there as soon as possible. So he arrived with the occupation, at the beginning of the occupation of Japan in early September. And the orders are to assess what damage was done, overall damage, of course the medical thing. And so he goes to Hiroshima, and then they focus on Nagasaki, probably because the bomb was the same one they released in Trinity.

Correct.

So it seemed that he focused on Nagasaki because that's where he wanted—main thing was when could the armed forces safely enter Japan—the environmental contamination. So one of the big job[s] was for him to determine what was the distribution of the fallout. And by end of September, September 24, 25, the Marines finally landed, but he had a hard time convincing the [00:35:00] armed forces [of] the possible dangers of what they were trying to tell them. Nobody knew about the bomb in the first place.

Right. So you're saying the armed forces were reluctant to go in?

No.

They wanted to go in.

Hey, what's holding things up? I think that was the general idea. Yes. And so all this story comes out very piecemeal. And then in the meantime a surgeon, I think is in the armed forces that was still coming in toward Japan, wires back saying that this is a unique opportunity to study what the atomic bomb effects would be. He had no idea of the atom bomb when he's at sea except the news that another bomb was—but this Yale professor said, Hey, we've got to study this

thing. It's a unique opportunity. And of course the implication was that we got to know what happens, the medical implication. So by October 14 the armed forces, the Manhattan Project under General [Thomas F.] Farrell, I think, but actually Stafford Warren is the medical person that would have the say; and then that's already October 14 or 15, that's a month afterwards, and by then the Japanese had already been observing. They knew by then that it was an atom bomb and they had been doing this. And most of the people that were going to die from the bomb had died by then. There were still others dying. So the Japanese report was essential. And then you have reference to [Japanese radiologist] Masao Tsuzuki.

Yes, I was just going to ask about that.

Yes, and so he was the head of the Japanese group. And they did the basic gathering of the information. This was called the Joint Commission for the Study of Atomic Bomb Effects in Japan [Joint Commission for the Investigation of the Atomic Bomb in Japan]. And they—well, the American doctors worked in conjunction with the Japanese doctors. And Nagasaki, it was Shields Warren that was assigned. The overall initial thing was the purview of the whole effect for the Manhattan Project was done by Stafford Warren. And Stafford Warren has a document in which he summarizes the effect and sends it to General [Leslie R.] Groves, and we have a copy of that. Meanwhile this commission undertakes from October to December an overall assessment of what happened. And of course they do see the survivors, so most of those that survived passed that October 10 period but there still was dying, of course.

Meanwhile the report to the country was radiation effects, was sort of dampened by the denial that there was. There were two reports coming from an Australian news reporter and another American that there were some radiation effects, people dying from, and they described

it. And meanwhile General Farrell's group said there was none and that was the government's position, that it was minimal.

So that the effects was from the blast as opposed to the radiation.

That the radiation effect wasn't told in detail, or at least what they knew about it. And so the Joint Commission report is completed but that report, just to give [an] overview of that, is that in '51 the first section of it is declassified. It's in a mimeograph form so it's not have wide distribution. And by '54 the complete six volume[s] is declassified. But the book about it is [00:40:00] called *The Medical Effects of the Atomic Bomb in Japan*, and edited by Dr. [A.W.] Oughterson and Shields Warren, and that comes out in '56 as a Manhattan Engineering District Report. McGraw-Hill I think published it. But it's the kind of book that in today's market it wouldn't be in Barnes & Noble. In fact at UCLA there's only one volume of that report. And I have it here because nobody asks for it, and I thought I would be just as good a safekeeper as any.

I will look at it when we take a break.

And I also have the copy of the mimeograph.

Mimeograph. I was going to ask you.

I have both of them.

OK, I'd like to see that, yeah. So you go over in—?

[Nineteen] forty-nine.

Forty-nine. Talk about what that's like and what you do for your study.

Well, it took a little doing to get Aki to come with me, especially the baby, because the protocol was that no children could go into Japan, armed forces. But I said if the problem is about taking care of the kid, I'm a pediatrician, so I won't encumber their—and they finally gave in to that.

But as I get off of the boat, the first announcement I get is Aki can't accompany me to Hiroshima. That's after all kinds of paperwork saying she could come, and realizing that in a bombed-out city, housing would be at a premium, they wanted to make sure. And then when—they didn't tell me why. When I get to Hiroshima, it eventually turns out, Japan is divided into an American section and a British section, and the British section has administrative control of the Hiroshima area, called Chugoku [Region], the middle sections. And they have the same colonial policies, that those of Oriental descent cannot use their facilities, including housing. Well, the American compound was filled. So therefore Aki couldn't come. We eventually obtained a facility outside of the compounds, but at the time we are not—none of the amenities to the American servicemen are available to us, such as transportation, housing, PX [Post Exchange] privileges. They did allow one thing. We could go to the church. Here's Christian charity again, rearing its head. And so of course I raised a little—

Aki Yamazaki: Fuss.

James Yamazaki: And the kids couldn't go to school. There were some of these Japanese-American[s] that were also recruited and serving there but their kids couldn't go to school and they weren't raising a complaint; I couldn't understand, but being a pediatrician especially I go, what's all this nonsense about? And they thought I was raising too much unnecessary noise. And they finally said I could go home. It didn't meet with their pleasure. So I said, That isn't what I came for exactly, to go back as soon as I got here.

I think that might be the reason they assigned me to Nagasaki. There's nothing there, and it later turned out there was big discussion in Washington whether they should undertake a Nagasaki study. So the whole year I was there, that was a big discussion, and later reports show that between the AEC [Atomic Energy Commission] and the National Academy of Science[s] funding and all that, there was big discussion whether it should be continued. Finally, after the

war, many years later, I understood why we had all kinds of visiting dignitaries come to evaluate, some of them that just passed through and stayed overnight and they wrote reports saying “discontinue Nagasaki.” Finally a few months later, shortly before we came home, there was the associate director of the Atomic Energy Commission, Division of Biology and Science [Medicine] who spent a whole weekend from morning to night, thoroughly looked at [00:45:00] every aspect of the study, and so he was fully aware of what was being done and recommended that it be continued.

And who was that?

Dr. John Bugher.

Oh, yes, of course, I've heard of him.

And he was a very fine—he was a Rockefeller doctor who had studied the situation in Africa, calming down the waters and some of the tribal problems in Africa. And he asked me to come to Washington after I got home. And he made a thorough report of the situation, describing the differences in the conduct in Hiroshima and Nagasaki and why we should continue Nagasaki.

Let me ask you a quick question about why there was debate. Was it because it was going to be redundant to do both or—?

Yes, that was one. Cost. Personnel. And then in the middle of that, the Korean War broke out, see, in June of, was it '50?

Yes. When did the Korean War break out?

In June of '50. So that there's additional burden on personnel, finance, and people wondering whether they should send family home because there were air raids—

Aki Yamazaki: It's pretty close.

Yes, it's close. Did you have any concern about your little baby son being in a city that had been bombed by an atomic bomb?

James Yamazaki: Well, it was not on radiation but about tuberculosis.

So you had no concern about radiation.

No, I didn't know anything about it. We couldn't get any information. Dr. Warren, even after I saw him before I left, he said, Oh, we don't have much information. And he wasn't allowed to say anything about it. The secrecy. There was complete secrecy about radiation effects. There's a lot known. After all, you know, ever since the Curies and all that—Becquerel, there's a lot of information on radiation. There were experimental studies done. But we weren't offered any guidelines or introduction to that thing, to that data that was really available in the libraries, a lot of it, if we knew where to look for it.

So you were more worried about tuberculosis.

Yes. And there was this live TB vaccine that we should give. My kid was only a few months old, and the experience of giving a live vaccine to a newborn kid, I said, well, gee, they're giving it to all the Indians in the villages and all over the world and countries with tuberculosis are giving this BCG. I said gee, they know more about it than we do here. And I have respect for doctors everywhere. And I was accused of giving something to my kid about something I knew too little about. But we did give it to my son. And when we got to Japan, eventually it turned out we had to dismiss 10 percent of the employees because of tuberculosis.

Now the other question I had, it's just a detail, are you a civilian at this point or are you still—?

Civilian, yes.

You're a civilian but it's under an Army—

Yes, we're all the, what do you call it, the support things from the services.

Aki Yamazaki: Australians.

James Yamazaki: Yes, in fact a train would come into Nagasaki every two weeks loaded with provisions and appliances just for the American personnel of which there was, by the time we got organized, about just a handful. A special train would come in to the station. And it was rationed—of course the country was still—all the food and things are rationed out. We weren't supposed to go on the Japanese market for it, so this was our supply train.

We've got about ten minutes left on this, a little less than ten minutes left on this tape. Time is sure flying. I'd like to know actually from both of you but I know you [Aki Yamazaki] are sitting back there. But anything you want to say, please do, about what your response was when you get to Nagasaki and what you see there.

[00:50:00] Nagasaki was a completely different situation from Hiroshima.

OK. Well, talk a little bit about Hiroshima and then—

Well, Hiroshima is an organized group, a big complement of doctors, administrators, equipment from the United States, pathologists from Yale, obstetricians, internists, a whole hierarchy. So they were ready to start the investigation and it was still underway. Whereas there was no one virtually in Nagasaki.

Aki Yamazaki: Nothing.

James Yamazaki: And I was just told to go and that I would be in charge and to see and develop rapport with the people and to see what kind of working situation we could develop with the medical community, without any specific introductions. So one way you could look at it, I was given a carte blanche, and another way you could look at it, I was just dispatched to see what I could do. Here's a young kid just out of residency, right? And I have to go see these distinguished professors and faculty that survived the bombing, and when I see them I say hey,

these guys are pros, they had a big school, and eventually as I learned the history of the place, oh, just looking at them, I knew it was a highly organized medical faculty that was trying to recover from the bomb.

Physically, what did you see in the city and what did you make of it, having been in Europe at the end of the war?

Well, first of all I had no idea about the bombing and what happened. And all during the steps here, I'm introduced to going in early in 1948 and I get to Japan in September of '49, and during that time we're never given any briefing of what the atomic bomb had done, or any of its health consequences or about radiation. So I think they were somewhat—it didn't take them long to find out I didn't know a whit about anything, and here I was, a person of Japanese descent, coming into town, and I could just imagine what—the tales must've been flying in town. But both the administrative people in Japan, the governor of the prefecture [Sojiro Sugiyama] and the dean of the medical school, I think assessed that here was a young Japanese-American that just doesn't know anything about what happened to us, and they started from that premise. And I admit I know nothing, and they started to tell me what happened. With the community, all of the initial contact with the community was between the military government and the prefectural governor, and he happened to be a very charismatic and cordial guy.

The governor.

Yes.

Aki Yamazaki: And his wife was, too.

James Yamazaki: He would introduce us to his staff not by formal meeting by invite us to *geisha* parties, and this is the way Japanese do business. But they would find out a lot, apparently, about me, I guess, just in the informal thing about what I'm doing and all that. And

so eventually I'm introduced to their people in the government who I'd have to deal with. But then word gets out that she's by herself, without any friends, and quite unhappy, because there are maids in our house. We had to officially have two maids in the house and apparently they're the channels.

Ah, they're the channels. All right.

And so the governor finds out she's very increasingly more unhappy as time goes by, my going [00:55:00] out [to] *geisha* parties and she's at home and what's Jim doing? Well anyhow, he gets the message and sends his wife to Aki, a very charming, cordial, gracious lady, and [she] befriends Aki, and eventually to the point that they invite us—their thing is OK, you got to know what we're all about. They invite us to all their social functions. And by then shipbuilding is resumed and we go to their ship launching, which is a half-day holiday, and other occasions, athletic events and some more of the cultural things that we're invited to, and apparently they want us to get to know them.

Yes. Now what was the governor's name and his wife's name?

[Sojiro] Sugiyama.

Sugiyama? And his wife's first name was?

I can't remember.

Aki Yamazaki: I can't remember either.

But they were Sugiyama.

Very nice couple. And the medical faculty, the dean said, I wasn't in town that day. I was in another nearby town at the time of the explosion. You'll have to talk to the Professor Shirabe who was there and he will be your mentor. He will guide you.

Professor—?

[Raisuke] Shirabe. And he was extremely cordial and all during my stay he sort of led the way for me and told me about what happened in the bombing and introduced me to the other faculty members, organized the first meeting for me to explain to the faculty what we would like to do, and we eventually obtained their collaboration.

Again we're coming close to the end of the tape, so I think this is a good place to stop and evaluate what we should do. So you are now in Nagasaki and you're meeting these people.

[00:57:16] End Track 2, Disc 2.

[00:00:00] Begin Track 2, Disc 3.

One of the questions that arose for me when you were talking before we broke for lunch was, was the purpose of the United States sending people to Hiroshima and Nagasaki to understand the effects on the Japanese, to understand possible future effects? What was your understanding of what you were to be doing there as far as the purposes of the scientific study you were doing?

There were two basic assignment[s] that I considered they were told to think about. The foremost scientific concern at that time was the genetic effect, and this was under Dr. James Neel and that was the initial and primary motivation to take a long-term study, what would happen to future generation[s]. They also asked us to undertake, being a pediatrician, what would happen to the children. At first the focus was what was happening to a young child; they knew that radiation had a stunting effect so they said to study how it'll affect the growth and development of a child. Then Dr. Warkany of Cincinnati was involved in studying the environmental effects on fetal development; He was studying the effect of vitamin deficiency and then eventually got also involved in the study of other environmental toxins on the human body, on the developing fetus. Then it became obvious that the biochemical reactions of radiation was indeed a toxic reaction. And there had been studies about what radiation effects would affect the fetus; studies that had

been done in the twenties of women who were pregnant that received radiation therapy for diseases around the pelvis, and such pregnant women gave birth to children with neurological defects, brain defects also involving the eye, and stunted growth. So this information was such that radiologists in general had measures by which they would not expose pregnant women. So this was in the twenties and this was well established. And so it's no stretch of the imagination that radiation from the A-bomb might produce such studies. On the other hand we had to be careful under the wartime condition[s] what role the—with the known effect on nutrition over ten years of war in Japan with nutritional deficiency. Also the emotional impact of the bomb would have on the subsequent development of the fetus. So we could not—if we did observe defects, was it absolutely sure that it was from the radiation? Was it the nutritional deficiency associated with it? Or was it also the psychological effect on a pregnant woman from the trauma of the bombing and its aftermath? So those were our concern[s] in conducting this study, and how would we be absolutely sure it was the radiation that produced this effect. And so the first was to identify women who were actually pregnant at the time and to identify where they were and what happened to them. Meanwhile we had to establish a rapport with the communities to undertake these studies, to submit to these examination[s], how would we go about it?

Now when you arrive, what's the state of Nagasaki? Is it still pretty much as it was as far as the buildings are concerned right after the bombings? Has building begun? What was your impression when you arrived there?

[00:05:00] I didn't know what to expect. And our first introduction to the city and its aftermath was when I—we knew that Japan carefully monitored its citizens during the war and before, and they had a careful identity of people in different sections of town. And this was under a group called the Kempei. It was a police force. So they knew who came into the city and who went out.

And so I assumed that when I went there, they had a lot of information about me already, and that I shouldn't waste any time in introducing myself, knowing that they knew quite a bit about me already.

And so I went to see this individual and he told me that he was the air raid warden at the time of the bombing and that's he's now the chief of police. And so I admitted I knew nothing about what had happened and told him we were never informed. And then he realized I really didn't know much and so he told me exactly what happened that day soon after the bombing and spent considerable time telling me. And apparently people had documented that I had gone there and that I'd had this interview with him. And of course after hearing his story of what happened right after the explosion, basically that he immediately sent a detachment to see what happened at the scene. It was from this area called Urakami—I'll show you on the map shortly—and so he sent the detachment to the valley. They returned within a short period of time, fifteen, twenty minutes, when they couldn't get into the valley because it was all aflame and the fire prevented them from entering it. Two, three hours later people came out of this valley. They had to climb the crest of a ridge and they came into the second valley and passed by his office and he described to me what their state was. And after listening to the description of the people there, immediately the next day I proceeded to go to see what the valley was like.

So that was my introduction to this valley of Urakami where the bomb was detonated. The main features of the valley was that there was a river that came through the valley, just bisected the valley. On either side of the valley, which was about two miles long and a mile wide, was a mountain ridge and there was these huge armament factories. Surrounding the armament factories was smaller factories that supported the armament factories, and intermingled among these areas was people's home[s], so the valley was filled with people. And

then only [a] half-mile away was the medical school, the principal medical school of the city.

And then it turned out that about equidistant was a Catholic church, which this was the principal outstanding Christian edifice in the Far East. Beyond that at the northern edge—that would be the northern edge of this valley—was another armament factory that developed torpedoes. So the description was that within minutes after the bomb blast, the whole valley was ignited and was a roaring inferno. And then he continued to describe the escape of those survivors from this inferno.

[00:10:00] And then in due time, on that day I did go—of course I was intrigued by the description of the hospital, the medical hospital, university hospital—it was completely deserted, and still the debris had not been completely cleared. And I looked in and there's no one there. Still desolate. The factories were just the concrete pavement of the buildings were there and some of the lathes and heavy equipment was still bolted to the floor but there was no roof. And so all of the images that I had of what kind of industrial valley this was, was just erased. There was just the concrete slab, all that remained. And I descended into the mid-valley and there was a berm there with a wooden pylon indicating this was where the bomb dropped and it indicated 70,000 people were killed and so many homes were destroyed, and that was all that was there.

And so that was my introduction to the atomic holocaust. So that prompted of course when I saw eventually the doctors of the hospital, they began to tell me step by step what happened. Because the university hospital was just 800 meters from where the bomb burst, anybody within that distance were immediately killed. The reason the doctors were there was because the concrete hospital acted like a concrete bunker. It was reinforced concrete. Even though it blew out the windows and ignited the buildings, enough people were able to escape that half of the—about 60 percent of the people in the concrete buildings were able to survive, even

though some became ill from the radiation sickness and eventually died. Those in the wooden buildings were all—all perished almost instantly. So you get this demarcation of what happened at 800 meters, and here you have the doctors who are about as close as you could get to the bomb and still survived, so they would tell me the stories. And so even though I never was briefed from our government of what happened, I learned about it here at Nagasaki from these doctors.

So at the time that you're there, this section, this hospital is still deserted, is that right?

Yes. It's just the remains. When I went to the center of the valley and looked up, it looked like a macabre scene, the church way in the distance, just the little remnants of the building, and you could see the medical school on the side. And so that was the kind of ruins that I faced. And some of the people were living there.

That was my next question.

Yes. Some were a little more structured buildings, a few. Others were buildings made out of scavenged material. For example, one distinguished person, eventually he was quite distinguished, was a radiologist who lived right in that area. And his house was built of the scavenged material, with just enough room to be with his two children that survived and himself, a place to sleep and a little place to cook his food. So this was the professor's home.

He eventually wrote about the children. What he did was have the children write their [00:15:00] stories. Those that couldn't write, they told it to the teachers, and so there's a story about the—it's just an oral history really, so there's a little booklet about it.

Now what was his name?

Nagai. So bit by bit I learned from the doctors their personal stories, beside[s] formal seminar[s] where they gathered. For the first time the doctors in the university cleared one room and they had a symposium, and they asked doctors from Hiroshima to come down to participate. So that

was our first formal gathering where they told us their story. And this story was written up—I think the only article told by a Japanese doctor about what happened that day that's printed in a medical journal in the United States.

Oh, really. OK. But you had the—go ahead.

This was the overall story of what happened. There's other stories of memoirs and thing[s] but this was the description that was directly printed in the United States journal.

When we finish, I'll see if I can get that citation from you.

Oh, I have the article. And we were involved in editing that article.

All right, I would like to see that. So you call the symposium so you can begin gathering the information.

And we asked the doctors to—they wanted to hear what we had to say and we wanted to hear what happened so we would have an understanding of their experience.

So then you go about beginning to do your own study?

No, it was first to work there—we had nowhere to do our studies yet. We had no building. And so that was step-wise we had to un—how we would collaborate because they were the ones that—we had no knowledge and obvious that they were eager to be involved in what happened in the aftermath to their people; albeit they let me know, not the doctors but the people who were aware of the studies would say that our intent was not out of any compassion for them. This was told to me indirectly by a taxicab driver, just talking with someone; apparently this was general knowledge and the feeling of the people that here were the victors coming into town and wanted to know what happened because what would happen in the event [the] United States was hit—which was—I didn't of course directly answer their query but just recognized that that was something that would make common sense. So it was one of those things that they didn't directly

ask me to comment but they wanted to let me know what their thoughts were. So the only thing that we discussed with the doctor that we had a common understanding that it was important to find out, for whatever reasons, what does happen after exposure to the atom bomb, the radiation of the atom bomb.

But these studies still continue.

Yes. I was talking about the Joint Commission. The Joint Commission, Secretary [James] Forrestal was made—the report was directed to the president, Truman, and President [00:20:00] Truman acknowledged—Forrestal said there's ample reason to the Joint Commission report that we should—that the injury that was sustained was sufficient that we should think about the long-term effects, and that was the judgment of the Commission study report. So he directed the National Academy of Sciences and National Research Council to undertake a long-term study.

So the first thing you have to do is find a place to have as your headquarters, is that right, basically?

Yes. So the valley where the bomb exploded encloses this ridge of mountains on both sides, and there was another main valley that sustained less damage because of the shielding factor of this ridge of mountains; and so there was several buildings, albeit damaged to a certain extent depending on the distance from where the bomb exploded, that were still intact, even though damaged and was repaired. And there was one building that was available that the initial occupation forces obtained, and that was transferred for studies by the Atomic Energy Commission.

So I know we don't have really the time today to go into a lot of detail about what was involved in the studies that you did, but maybe you can give me an overview of how you begin to go about

doing this and what your tenure there involved as far as actually carrying out this kind of research study.

Well, this study of course in general was approved in Washington, but then the actual conduction of the study was determined by a committee in Hiroshima, so you would have to present your study in detail to this committee. We did present it in Hiroshima but then eventually by the time I got to Nagasaki and all the initial negotiation to get approval for the laboratory to get started, the remodeling of this building obtained into a clinic, would take almost another year. And meanwhile there's other studies going on. And so it was on that basis that eventually we had to resubmit our studies.

In a way it was a statistical epidemiological study, so people involved in that had to stamp their approval. There had to be a census of the whole city to identify the pregnant women, and that was the major—and fortunately there was a census, a national census going on, so that this was tied in with that, and eventually a manual was presented with detailed addresses and identification of individuals in the whole city, of where they were at the time of the bombing. And from that it was eventually also a ration program for the pregnant women in that women who were pregnant would obtain a certain amount of rations; so there was some idea about the number of ratio of the number of women present in the city to the number of pregnancy, which was generally known but it still had to be verified. Then from assessing that type of figure, the committee in Hiroshima eventually said OK, we'll identify the pregnant women because we have all this backup information about current pregnancy in the genetic studies. And so a group of pregnant women were identified. And eventually when the clinic was opened in about a year after we arrived, that was in September of '50 we finally started to see the patients.

In the meantime we had to develop a cadre of physicians who would examine both the [00:25:00] genetic study patients and work with us. All Nagasaki was part of the national education system, and so that all tenure promotions and all those regulations were regulated by Tokyo. And if they were going to allow a doctor to work with us from the university, tenure was involved. That had to be improved. How would they work with a foreign institution by a foreign government and still retain tenure in a national government thing? And the whoever professor came to work with us, who would want to risk their tenure being at risk? All this kind of thing had to be—and then the university asked, the doctors asked that they update the young physician who was going to work with us as to what is the state of the art of medicine in the United States and give lectures. Who am I to give it who could barely speak the language? And yet I'm the only one there to do it. So we made effort to give lectures at least once a week of some of the problems of the state of the art in the United States that would immediately be applicable to the studies that we were to undertake. So that was kind of the situation.

Complicated, it sounds.

Yes. So I tried to work with the young physician[s], journal clubs, things of this sort.

Is there a way for you to summarize, looking back now, what your understanding of what you found out during this time was? What do we know now about these genetic effects in Nagasaki, in Japan?

Well, at the time the genetic studies was the best-organized studies, by Dr. James Neel of the University of Michigan, and also carried out in Japan while we were there by Dr. Jack Schull. And so there was a cohesive program that was reviewed by the geneticists of the country, with the modalities to study genetic effects then, which were mainly clinical: examining the newborn itself, what happened to the state of miscarriages, stillbirths, the condition of the child at birth,

what happened to them especially in the first year—all this kind of data was had to be systematically recorded. In the subsequent year with the advance in genetic studies with the genome studies progressing so rapidly, all the modalities that developed were being applied to the studies as it is now, with the oversight from geneticists worldwide to comment on how the study was progressing. And now 500 of the most heavily radiated individuals with control individuals and to the offspring of these people, samples of blood have been obtained that they could be obtained for studies in the future with any new modalities to study genetic effects, to study genetic injury.

I want to make sure I'm understanding you. So as the science has progressed over the last sixty years, there's new modalities by which to analyze—

Genetic injuries.

Genetic injury, which has changed obviously since you were there.

Right.

So this is ongoing now.

Ongoing now. But so far no definite genetic findings have been found. On the other hand, even [00:30:00] from the beginning they realized that the number of survivors receiving a large dose of radiation would be small—they have a dose which will kill—units of radiation, say around 400, 600 rad would kill half the population if they received that dose; but the actual number of survivors receiving radiation doses around 35 to 50 rads, so the number of people with large dose[s] of radiation are small, but yet they have [a] few that have received those doses and of course they were watched carefully and are being watched carefully. And now they are actually trying to find what happened to these offspring, what's the characteristic of these survivors.

Meanwhile, in the absence of definite scientific evidence of genetic effects, the people participating in the studies, that is, survivors' children themselves know that all of this intense interest in the genetic effects—the likelihood of not having found it but all animal studies, plant studies do show genetic mutations—they are worried what would happen to their children; many will no longer participate in the studies because they don't want to be tainted as individuals that were exposed to radiation, the offspring of such people. They would be looked on and actually be not segregated by they would be identified as maybe not as welcome member[s] to be—for marriageability, say, introduced into the family tree.

I understand. Yes. So you might not want that information public, is that what you're saying?

That's right, and so they refuse to come to these studies. But this is a very significant effect of the bomb.

Yes. Different kind of effect.

And the doctors, when I last went to Japan, said this is a real concern for the surviving population's offspring. What happens to the next generation? And even the World Health [Organization, WHO], United Nations [UN] of course have been following all of these studies carefully, and they're wondering what happened to the Chernobyl people, kind of genetic things, and they're studying the animals in the area [to] see what kind of genetics.

Right. Now what do you as a scientist make of this, your view about the genetics? Do you have a sense of what it all might mean or is the science too young to really understand if and how there are effects of radiation if no genetic effects seem to come forth?

Well, as I understand it as a physician, I don't consider myself a scientist but as really a physician, most physicians consider themselves probably try to interpret science in the care of their patients as best they can. If the modalities to detect—it's obvious that there are some

genetic effects because the development of cancer is clear-cut, leukemia, breast cancer, thyroid cancer, and that there is change in the—a toxic effect is—the toxic effect of radiation is a biochemical effect that instantly occurred. The question is how much repair is there, and how much permanent injury remains. And depending on the dose, animal studies, plant studies show there is permanent damage. And when will they manifest this effect, in the next generation or will it skip generation[s], and that to a relatively small population like here Hiroshima or Nagasaki is [00:35:00] one thing, of the surviving population we're talking about. In contrast to a worldwide nuclear war what would the genetic effects be, that's a horse of a different color, and yet that reality remains, that this is something that has to be addressed and the public at large should have a voice in and understand the actual scientific rationale that exists.

I think I understand you but let me say this thing back to you and you tell me whether I've got it right. There are known effects of radiation that cause certain cancers. That's what you're saying.

Yes. There's immediate biochemical reaction that changes the genetic material.

In the individual that's exposed.

Yes.

And these manifest themselves as various illnesses?

Yes. And the human body is such that for all toxins there's a spectrum, a sensitivity. Some people are more sensitive than others, and they don't know how to ferret that out yet.

So the question then becomes, if there's a toxic effect in the person exposed and it's on a genetic level because there's a cancer of some kind, the question then becomes, does it get passed on?

Does it repair itself so that it become something that goes to future generations?

Yes.

Is that what it is?

Yes.

OK. That's very interesting. You're helping me understand this better. And then your last point, you're talking about a limited population after the two bombs in Japan, but the question is a diff—

Limited surviving population.

Thank you. OK. So the question would change completely if you're trying to extrapolate to a more global catastrophe?

Or we might be able to tell—the reality might be what would happen if a larger population sustained this? For example, to a fallout, like from Bravo where there's thousands of acres, several thousand square miles, and the people in that, if we took a large metropolitan area, several thousand square miles, that's a lot of people of what would happen in subsequent generations.

But I guess the question also when you think of testing and radiation, radioactive fallout worldwide, the question also becomes, what can we know about those effects, of things like Bravo or other testing, on populations?

Well, it matters again to how to find that out, how much each individual that you're studying, what kind of dose they received. How would you ever get to the point where you could assess that kind of dosage?

I think generally my question is, and maybe this is the question for the quote, unquote "scientist" as opposed to the physician but you've obviously thought about this, how does this get translated in a way that people can understand what nuclear weapons or even nuclear testing signifies as far as environmental effects?

Well, I think the basic thing is that they have to remember radiation is an instant biochemical reaction, and the worst scenario is you have enough of that biochemical reaction, you get killed. So what happens to the survivors, and that you could get this radiation when a bomb explodes from several ways, like in Hiroshima and Nagasaki, it was an instant one-time thing and the fallout was not of major concern there. Now if you have another situation like Bravo, if you have a population there where you get a larger number of individuals but the radioactive particle actually is inhaled or ingested and causes a sustained reaction in the body, what happens to that individual over a period of time? It's something that we don't know.

We don't.

No.

OK. To jump a little bit off of the chronology, though, since we've gotten to this question of [00:40:00] Bravo, you were saying at lunch that those studies were done, the studies of the Marshallese were done at Brookhaven [National Laboratory], is that what you said, or from Brookhaven?

No, there was a team from Brookhaven. The administrative organization was done from a group at Brookhaven in conjunction with the Atomic Energy Commission. The funding was done through, of course, through the AEC initially, then to the Department of Energy [DOE].

What's the sort of general state of understanding of that situation as far as long-term effects? I just don't know enough about it yet.

Well, they identified that the radioisotope that had the greatest biological effect was iodine, and that it affected the—say if you take—and the number of people that were actually exposed that they actually carefully observed was a very small number. And the doctors involved identified a small group on this island called Rongelap who were evacuated after forty-eight hours, and

during that time received sufficient radiation that some of them got sick and developed radiation illness. There were changes in their blood, and they received skin injuries from some of the radioactive particles that did not penetrate the body but burned the skin, and the others got immediate radiation from the smaller particles that immediately penetrated the body, that could by itself cause radiation sickness, and then the ingestion and inhalation of radioactive particles into the body. And they found that the radioactive iodine was the one that caused the most permanent injury to humans. And of course they left a lot of animals there and studied them afterwards and what happened to their structures. I don't have too much information about that. But the number of children exposed were also very small, but all of the children under ten developed some thyroid abnormalities, almost 100 percent. And the ones that developed the most serious injury were those who were the youngest, say one years old, enough to completely almost destroy the thyroid. So they developed a condition almost similar to a child born without thyroid function or low thyroid function, called cretinism, so you could actually recognize their features, the stunted growth, slow mental development, and their facies was characteristic. And by the time they found out that this was one of the problem[s] and effect[s] of the radiation, recognizing this they gave the iodine, which is the standard treatment for treatment of this deficiency, and the individual actually improved and almost appeared normal.

Really. They were young enough, I guess, that there could be those—

Yes, so that this was the one therapy that was available. I don't know about all the rest of the animal studies, what happened to—Among the adults, too, they developed thyroid abnormalities, and there's a[n] increased incidence of cancer of the thyroid. I think in the children there were one or two that it developed. And to prevent any development of cancer, some of the children

were brought to the United States, and they developed these thyroid tumors, [00:45:00] a large number of them, and some of them were operated on.

Now in that case also, is there any sense of what is known about genetic effects or does that again—I mean that are passed on?

Oh, the numbers were so small—

I see. That you could never do that kind of study.

Yes. There were a few pregnant mothers and out of that small number there were not enough to make a[n] outright statement, but there were a couple of children that had small heads.

Because you read things in the press about significant birth defects and things like this and I just—I don't know.

Yes. But in the Marshall Islands, the numbers were so small that you couldn't say.

Yes. You can't say.

Though the pediatrician, Dr. [Wataru] Sutow, did identify the number of pregnant women and that among them were—gave birth to children with small heads. So the numbers were small and so you couldn't get a conclusive statement.

Yes. Well, thank you for helping me—this is all for me so I can start to begin to understand the state of the science. But let's now jump back to Nagasaki, because I want to get a sense—we've got about fifteen minutes left here and then we'll take a break; it'll be an hour. Tell me if you can what the arc of that whole time in your life was and where things were when you—by the time you left, what had you come to there and where were you in your own development, let's say?

Well, certainly the Korean War was on our mind. There was this whole became—somehow we got the picture about the study's continuing, the continuance of the study, and that they were—I hadn't realized what a major decision that was going to be in Washington, but it was. Had it been

discontinued, it would certainly be—they would have lost a very important information that was important to medicine as a whole and to the effects of weapons on a human population. So we certainly became interested enough that as soon as we got back that we would want to continue studies. And at UCLA the Medical Center was still not developed but there were people who were very supportive of continuing these studies, and so the people in the Brain Research Institute that was being developed gave strong support and not only introduced me to some of the ways that we could study—say in the monkey, and they thought of one individual who was going to return from a postdoctoral study in England, that he might be someone that I could work with. It turned out he was—joined to help develop an interdisciplinary study of the effect of radiation on the developing brain, and those studies continued for about ten, twelve years. That was UCLA.

And what's his name?

Carmen Clemente [sp]. So many, I think, studies were conducted at UCLA with a group that eventually joined. There was a biochemist, embryologist, people in nuclear medicine, and the Pathology Department, Radiology Department, so as equipment became available, studies were [00:50:00] conducted that were presented at national and international meetings. So I think that this group did make some contribution to our understanding of the radiation effect on the developing brain. In fact one of the first international studies was organized in a very great degree by the group from UCLA on the effect of radiation on the developing nervous system.

And how did Stafford Warren's work intersect with all this? Was he—?

Stafford Warren, as soon as he came to UCLA, obtained the support of the Atomic Energy Commission to study the environmental effects, and that consisted of seeing the—of course mainly to the testing in the Nevada Test Site [NTS], but also he was—it was an incomplete study

of what happened in Trinity studies. And he was concerned about that from the very beginning and he had to convince General Groves about what happened to all that radioactive material after explosion when it came down on [the] population.

In Trinity.

Yes. To the degree that, say, after the testing, if the cities of Albuquerque or surrounding—a population center were exposed to a bomb, how were they to control the safety of the population, to inform the population, at the same time keep the secrecy of the bomb intact? And so that was Stafford Warren's principal concern and he got onto a plane and looked over the whole desert surrounding, and I assume he looked at the Apache people. There's a big Apache reservation nearby, downwind, to the east. So that was our point of interest when we went down there, to see how they were faring.

Oh, when you went down with the story—?

Yes, when we visited our daughter. We gradually saw this relationship of what Dr. Warren, when he looked over this whole area, of course he would go over the Indian area, too.

So what year did you go?

Oh, that's quite a few years later. That's after Katherine was up there, when we went to visit her. Aki noticed on the TV one day that here was a tribe of Indians who were successfully recovering, developing their land to—the economy was being rebuilt—not rebuilt but being built so that they would have nice homes. They developed a large resort area where they would derive economic improvement of the area, and then they had control of the mountains where hunting was allowed for certain areas, and they would have lotteries. That gave them some income and yet they were in control of the area.

Yes. So you were thinking about the effects of Trinity all those years before.

Yes.

We might as well close with this story that you said we'd have to wait till later but let's just get it because I'm curious now. So you said you went to Trinity, not realizing that you could only go in a couple of days a year.

Right.

And then you headed down to Apache land and—

How did that go? Yes, there was a big powwow we heard about, so we were staying at this Indian resort.

Oh, you were.

Yes, we stayed there. Nice golf course and there's lakes and tennis courts and all that, and it was managed very well. And so we went to this powwow, and then of course we had never heard about this Trail of Tears or this kind of thing, and then that terrible forced march of the Indians [00:55:00] into Oklahoma and all that, and their imprisonment for I think twenty-five years or something. And they were celebrating the release. There was a celebration of the release from their imprisonment at this powwow. So that's where this feather [displayed in room] comes in.

So you saw the powwow and you got that feather?

Yes, that's another story.

Tell me in a couple of minutes how you got that feather, before the end of this. Did someone give it to you or—?

A[n] Indian stopped us and said, Could you give me a ride? And in the powwow town they said, Oh, well, there's a certain time, and then when I said, Oh, it's that time, they said, Oh, it's Indian time we're talking about. Anytime. So they said later in the day, no special time, just stick around.

So this Indian man came and said, Can you give me a ride?

I said, To where?

He said, Oh, down the road just a little ways.

So we kept driving and driving and I said, Where?

And he said, Oh, just a little way down.

Finally we were off of the reservation and we came to a liquor store or a bar or whatever.

And he said, Wait a minute.

So I guess he went and had a drink and when he was plenty—had his drink, he came out and said, Yes, OK, we go back now.

So we drove him back because we were waiting for the powwow. We drove him back and he said, Thanks very much, and when we got there he took a feather off and says, Golden eagle feather. I didn't know the significance but he says, you know, he indicated he wanted to thank us. We took a picture but we didn't ever get that picture. So that's the story of this golden eagle feather.

Thank you. That's a great story. OK, let's stop here then.

OK.

[00:57:05] End Track 2, Disc 3.

[End of interview]