Interview with Annti Jaar/Virta Date: 03/10/2015 Location: Marquette, MI Interviewer: Russell Magnaghi

Interviewer: Ok, interview with Annti Jaar/Virta, Marquette, Michigan; March 10, 2015. Alright, today's interview is going to do with Annti who had worked for 20 years with Tsu-Ming Han for the Cleveland Cliffs Iron Company and he's going to give us some background information about himself and where he came from, how he got to Ishpeming and so on and then we'll get in to the story of Tsu-Ming Han. So Annti, could you tell us a little about your background; you were from Finland?

AJ: Yes, I came to this country 1960. I work for American Climax Company in New Jersey, first. My boss was Doctor Smeknovik, he was Norwegian. And then my brother left the place where we were working there and he came to Marquette and started his own business and we were making.... Or developing, ore wells, copper based ore wells for Calumet & Hecla.

RM: Oh, okay now this was after you came to... after 1960.

AJ: Yes.

RM: What town were you from in Finland?

AJ: Pori, P-O-R-I.

RM: Ok, and that's located where.

AJ: It's in the western part of the country, close to the ocean.

RM: Ok, by Oulu, is it that far North?

AJ: No, it's south.

RM: North of Turku?

AJ: Yes, north of Turku. By seashore.

RM: Ok, and what did your family do in the old country?

AJ: My grandfather was a farmer and also business man, he had a saw mill. But when the depression time came he lost everything, and so I was born in Pori. My father had to... we had 9 children in the family, and I was the youngest one. I still have three sisters in Finland.

RM: Oh! Okay, and the rest have passed?

AJ: Yes, the rest have passed. My brother passed just away in Minnesota, he was 89.

RM: Oh, okay. Now what was your birthday? I should have asked this.

## AJ: 05/27/35

RM: So you decided then in 1960 to come to the United States?

AJ: Yes my brother was here first so...

RM: Uh-huh, Uh-huh, What was the name of his company?

AJ: Salvaging for metal research. The deal with the Calumet lasted only three years and my brother went back to east and I went to White Pine. I was working for Rock Street taking research, and Dr. Harnnonen. And then we went back to Finland for three years. Then they wrote me a letter from White Pine, they had an opening for me now that "come back we need you." So I came back and when I got to the White Pine they said "We are closing the doors," you have to have to go forth and work for somewhere else, and I had 35 dollars in my pocket (laughs), but then I got work in... here in CCI... and I worked I worked a year or so in private land. Then I went to the lab in Ishpeming. I worked doing flotation work for maybe four years. Then Dr. Tsu-Ming wanted me, so I went to work for him and I worked under him. He had three technicians working for him.

RM: Now he was pretty much the man in charge wasn't he? (Laughs)

AJ: Yes he was our boss.

RM: Ok, Ok. So he kind of led a team of people, but he was the head person.

AJ: He was the head yes, and that's where I started to work with him. I was preparing specimens for microscopic studies and taking pictures, studying microscopes, counting grain sizes and those things, and then developing those pictures, different projects all the time. He just gave me the project and I started to work with it, reported to him, and he wrote of it further.

RM: Could you tell us, or could you tell me about your memories of him; his personality, how he moved around?

AJ: He was very much for work, all of the time. Some would say he was overworked. He was there even Sundays, because he told me that's his hobby, he likes his work, I mean he did, and I did like my work also, but I was there only five days a week and so on (laughs). Then he could (gong sound interrupts audio) too. One of us I remember was... Norman... wanted to have more money so I guess he was asking him, and he got the raise. Then Norman was telling us that "See, greased wheel get always..." I mean... "Squeaky wheel can always be greased." And Tsu-Ming he was laughing and smiling in his office and he said "Yeah! But in can be also replaced" (laughs). So he was... I liked him (laughs).

RM: So if either of you got the raise...

AJ: (Interjecting) I didn't get the raise.

RM: No, no. But, I mean Norman got the raise, also he had to continue working.

AJ: (Interjecting) Oh yes.

RM: Or else he'd let him go.

AJ: Mhmm.

AJ: (thinking out-loud nostalgically) The wheel is also greased. But it can be replaced!

RM: Do you have any other memories or any other stories of Dr. Han, because I'd like to use these in the biography, you know showing, telling a little about the man.

AJ: Yeah, I have some papers here to read you, would you like to see?

RM: Oh! Just a second!

RM: Okay, were you involved in any of this, or working with any of this?

AJ: (Interjecting) Yes, I was taking specimens for him from this rock that they found....

RM: Oh, so these pictures that we see of the... of the surface with... the surface of the fossils is your work. Cutting it?

AJ: I was probably many times... He wanted... So I was the one... and for that he gave me a chunk of... I had chunk like this.

RM: Uh-huh, so about a foot square?

AJ: At least. It's about this size. And it has this living...

RM: A fossil.

AJ: Fossils in...

RM: OK. Well, were there some other stories about his humor you'd want to tell us?

AJ: (Laughs) No not really, like I said, he was very much for work... and... precise, really precise and smart. I'll tell you he was really smart.

RM: He had you... So he would have you do the preparation work?

AJ: Preparation and taking pictures.... and those, and he studied them.... Pictures, make reports, I took those pictures and put them in the reports.

RM: Ok and then he did a lot of the report work, right?

AJ: Yes, final report. I'm sure he...

RM: Yeah, yup. Did he ever bother you on the weekends calling you, and get in your head? Did he.... Leave you alone?

AJ: Uh sometimes he ask me weekends, but I have not... I told him straight that I have my family too.

RM: Right, right.

AJ: I have to take time for them too.

RM: Yup, work wasn't your whole life.

AJ: No, not a whole life.

(Laughs)

RM: Did you ever go fishing with him?

AJ: No, no. No....

RM: You didn't get into all that.

AJ: A couple of times we went to eat. You know, in the restaurant here.

RM: Uh-huh.

AJ: When one of us retired, Johnson retired then we went to restaurant and some other times, so... He was social.

RM: Did he ever have you over to his home for dinner?

AJ: No. No, but uh... I was... he wanted me to carry sofa once, and I did go to help him at his home. But no I never went to his home otherwise.

RM: How did the other people deal with him, work with him, and so on?

AJ: I think everybody liked him.

AJ: Once because I am a foreigner too, and my language is what it is... once we were many, many technicians in the room, one room, and Tsu-Ming steps in and the others took off, and they told me that let those foreigners stay here because they understand each other. But that was just a joke, you know? (Laughs)

RM: Uh-huh, yeah, yeah. Ok.

RM: So you had been trying that in photography, taking photographs?

AJ: I've been taking those most of my life, and then... I've been working on this type of thing, and then also at White Pine and also here. I'm in Finland also, at the McKinney. When I was In Finland I was working on physical metals and copper... and copper based ores. Radiating, domestication, and those things.

RM: What kind of training did you get? Did you go to a technical school for that?

AJ: I... After basic school... Outokumpu Company arranged.

RM: Now how do... Could you spell the name of the company?

AJ: Outokumpo is not.... Not present, there is no Outoukumpu anymore but it's uh.... O-U-T-O-K-U-M-P-U Company. That was Outokumpu Company I first started to work with, in Finland, I was 20 years old... Something like that.

RM: Now did you... So you didn't have any special training out of basic school?

AJ: Yes, I had Outokumpu Company arranged.... Outokumpu.... Lessons, courses, and those things for me. So that was my basic that I started.

RM: Oh ok. So you were working for them and then taking night classes?

AJ: Well my father, he talked to them. I went to work I was 12 years old. High school I went at night time. And then after that I worked for Outokumpu Company and they arranged my studies, and also I got my basic from them.

RM: Ok, and this was in metals... or metal technology?

AJ: Metals and chemistry and those things first, I also... this type of, that type of equipment. First I was making like a little plants, in the water under a scope and we were testing them. So I would do that. Then from that I went to the crucible and so on and so on. And I liked my work, very much.

RM: Now let's go back, what was your father's name and spell his name.

AJ: It's Carlo.

RM: Carlo?

AJ: Yes, Carlo.

RM: Ok, now what did he do?

AJ: He was a farmer first. Then, when my grandfather had many houses, farmhouses. And he was in the lumber business, and when the depression time came he lost everything. Well, he was the one who bought the house... many of the farms for my father. My father was taking care of one of the farms but... when bad times came, he lost that too... everything so... My father and us kids, we both walked in to the street... nothing to do. So, there were a few types of work in the plant in Aasokart. So he was called to work in the factory... plant. But he went to school too, he was a... but that was only before time came, that was only hobby, you know? No income from that. And it was perfect politically too, during the war.

RM: Oh... Because he... To have some...

AJ: (Interjecting) Mhmm... Mhmm... Mhmm...

RM: Oh, ok.

RM: Now did the Winter War effect you, you seemed far to the West?

AJ: My home town was bombed.

IN. Was bombed?

AJ: Yes, and I remember my neighbor's house was burned down. One of the times there was this big bomb 50 feet from us, and exploded, and we were in the cellar. I was little kid then. The cellar doors is like this [gesture] and the power from that bomb open the doors and everything. I remember that, it was so... And then there was a person in my home town, and 28 people died in the same attack.

RM: Oh the bombs? These were the Russians?

AJ: Yes. And then the next morning I remember my father took us from the... we went to his home village where he was born. It was villages, and we lived there for a couple of years.

RM: Oh, during... during World War II?

AJ: During the Winter War, then a couple of years we were there and then we came back to...

RM: To Pori.

AJ: Pori, yes, and then we had original home in Finland now that my ancestors started uh, 1600... 1650, we'd go back every summer, it's uh... but my grandfather lost the land, so he had only maybe 100 acres or so anymore, but we have house.

RM: So had then... the land he had then was what? A thousand of acres?

AJ: He had thousands of acres, yes, because he owned many houses.

RM: Ah.

AJ: And he was in the lumber business so, he was making certain lumber all the way to Sweden and even other countries.

RM: Do you remember... I think it was in this area... do you remember the Finns making... tar... pine tar, Terva?

AJ: Uh... Yes! Pine tar, yes I remember. See, well home in Finland they still have this original... like a grain... where they use to make that.

RM: Oh really?!

AJ: Mhmm.

AJ: How is that? They do in my home!

RM: Oh, so they were making pine tar then... in your home town?

AJ: In.... in my home....

RM: (Interjecting) on the coast?

AJ: Yes.

RM: Ah, ok... Ok.

AJ: Now... It's something that's now a days because they are usually difficult to make up in those days. It's not to say...

RM: (Interjecting) Yeah but when you... Did you... Did they... There's a drink called... what is it... Terva schnapps?

AJ: Yeah! I take shots (laughs)

RM: (Laughs) It's a liquor so...

AJ: (Laughs) Yeah.

RM: (Laughs) No, I mention that because we went to... uh we went with Carl Pellonpaa... and we're not Finnish, but we always wanted to go with him, and we always wanted to go to the Scandinavian cinema, so the last time we went, we went with... there were about 50 people that went... We had an absolutely wonderful time with Carl and Doris and it was wonderful and after I got home I know I bought some stuff that, and I didn't know what it was, it was long and Finnish... and I ate it and it was like a cough drop, and I was... you know, "What is this?" So it's the middle of the summer and we're back here, and I almost threw everything out because I thought "This is terrible," and then I don't know, somehow, I just wanted to find out what Tarigoo was... It's pine tar, and so they had candies made with pine tar, and then they had liquor, there's a liquor—and then I had some friends who were going back to Finland, and they brought me back two bottles of other stuff, but it's... You can go on the computer and they have you know these silver cups, little cups, everybody is drinking the stuff but it's terrible. You've tried it?

AJ: Mhmm, I don't like it.

RM: No! So we had that bad experience and then I was on Carl's program and... one time a few years ago... and I talked about the whole industry of making tar, and it was usually referred to as "Swedish Tar", but it was all coming from Finland, and it really put Finland on to the global market because, all of a sudden, there was people making money with this pine tar. But I thought it was only made in the interior, where it's really all over.

AJ: Uh-huh. Yup, and there is a saying also like, "It's bad and good, so it's perfect" (laughs).

RM: So they would... So they would, for instance.... So they would eat the... because they had cookies and bread made with pine tar. I've never had any, I just.

AJ: No I have never had the cookies or...

RM: So you were... How did you feel when you immigrated to the United States?

AJ: I liked it.

RM: Did you?

AJ: I liked it here because we had not... at the time we had nothing in Finland. TV was just coming out. Russian TV I remember watching it in the store windows on the street... and a couple of times after work.

RM: And so there were a lot of Russian interns then when you were growing up in Finland?

AJ: Well, lots of Communists of course, but now it's different.

RM: Yeah! No... No.

RM: During the television programs... were Russian programs that they were showing.

AJ: No... They were Finnish already.

RM: Oh, ok.

AJ: (Inaudible) People didn't have TV's yet.

RM: No, no they didn't.

RM: Now were there... Were there people in Finland that were speaking Russian as one of their languages?

AJ: Not that time no, well actually there was some.

RM: But it wasn't... Because at one point, a lot earlier they tried to... what they called Russia-fication of Finland.

AJ: Oh yeah!

RM: Because everybody there could speak Russian.

AJ: Well, Finland has been always... I think we know things from other countries like Sweden and Russia, but Russia was always against Sweden, and Finland was always in the middle. So, it was hard to fight for Swedish or Russian, and so on. We were under either country.

RM: Yeah, yeah.

RM: What was the experience like when you finally came to the United States?

AJ: You had everything here.

RM: Uh-huh.

AJ: And I remember when I came here, I got sick. I was really ill. High-fever, I was working only for a couple of weeks but I had to stay home because of the fever and... So, Christmas time came and every time it was getting bonuses in the east, and I thought I will not get anything because I worked so little time and they gave me 500 dollars, at the time, 1960. So that was a good money, and it felt good (laughs).

RM: Now you said you came to Marquette, or the Upper Peninsula first?

AJ: No, east first. In New Jersey.

RM: In New?

AJ: New Jersey, yes.

RM: New Jersey. Ok, ok. And you worked in a metal company?

AJ: American Metal Climax Company.

RM: Ok. And then your brother came... was here.

AJ: My brother was working in the same company.

RM: Oh, oh, oh! Ok!

AJ: And then he left and started his own business here. So I came to work for him, and we were making like I said, those copper based ore wells for Calumet & Hecla.

RM: Uh-huh. Because Calumet & Hecla closed around 1969-1970.

AJ: I went to work for White Pine in 1967.

RM: Oh, ok. So it was already slowing down.

AJ: Yup.

RM: Even before... because I think they'd had a strike.

AJ: Yup.

RM: In 69-70, and then I think it sold out. Oh... so you got kind of caught in part of the Calumet & Hecla's decline then?

AJ: So my brother went back to east, he was working on... something out there... aluminum copper company. In 19 uhhh...

RM: Now, did he return to Finland?

AJ: No.

RM: No, he stayed here.

AJ: He stayed here and passed away a year ago. One year ago, in Minnesota.

RM: Now what... You were the only... The two of you were the only members of your family that came...

AJ: Yes, on my mother's side everybody was here.

RM: Oh, so you had relatives here?

AJ: I had lots of relatives.

RM: Oh, oh, oh. Ok.

AJ: But they were all over, so I really couldn't watch all.

RM: Uh-huh.

AJ: Like they say I had 15 cousins in Florida once, but never went down.

RM: Oh so they had gone... A lot of these people had been relocated to Florida and...

AJ: Ohio, Pennsylvania, California, Montana. Montana I went once. It was an Indian reservation.

Side B:

RM: Ok, you were saying you went to the Little Rock Indian Reservation?

AJ: Yes, I went there, and like I said... he used to... he was a teacher in Indian Reservations and his wife was full Indian, Crow Indian.

RM: Uh-huh, Uh-huh.

AJ: And I guess she inherited from her home 200-300 acres, something like that, and they were living there. But now he's gone too.

RM: So did you ever have a family reunion of all these people?

AJ: No, no... No.

AJ: Maybe once in a while somebody came to see us when we were here, but...

RM: Uh-huh.

AJ: Very few, and we had so many of them (laughs).

RM: Now what was your mother's maiden name?

AJ: Nieminen.

RM: Could you spell it?

AJ: N-I-E-M-I-N-E-N.

RM: And so there... The Nieminens then are in the Copper Country and around the Upper Peninsula?

AJ: I have second cousin living in the Copper Country, yes. And I saw him once. He had a farm in Allouez or something like that, but that's all.

RM: Now how did you learn English when you came to... came to the United States?

AJ: High school first, then I went to high school here too, to learn English...

RM: Oh! You learned it in high school in Finland?

AJ: Yes.

RM: Oh!

AJ: Basic, you know just...

RM: Yes.

AJ: And then I went to high school here too, in New Jersey when I came. Just to learn English, and I was there one year after work.

RM: Did they have a special program?

AJ: Yeah, for foreigners.

RM: English for foreigners.

AJ: Yes.

RM: Oh, Ok.

RM: I'm just kind of curious, how did you find English compared to Finnish?

AJ: Well I always liked English language, but Finland is of course my home language, and grammar is very difficult compared to this grammar we have here in English.

RM: Oh you're saying English is easier to deal? Oh, interesting.

AJ: We have so many ways.

RM: I'm always kind of... I'm always curious as to how people... you know the challenge of learning... coming here and then learning English. So you didn't have any problems then with the... you know... assimilating in to American life?

AJ: Oh no, I love this country. This is beautiful country and each person in this area... just like Finland when I think of it. You have more hard words here than in Finland, but nice, beautiful country.

RM: So you felt when you came here, you felt at home then?

AJ: Yes, yes. I felt at home.

RM: OK, now how was it when you were in New Jersey? That must have been an urban setting?

AJ: Yes, and that's one thing I didn't like, it was too busy at the time. Too many people, and rush and rush. It was different to me and then climate of course. Summers were hot, really hot; and then winter time snow came and it last only a couple of days and it was gone.

RM: You're saying in New Jersey?

AJ: In New Jersey.

RM: Now how was it in Finland? Did you get a lot of snow?

AJ. We... Sometimes we did. Sometimes no, like nowadays they don't have too much snow, except middle part of Finland and then up in the Lapland. Place where I'm coming from, is low country comparing to the middle Finland and close to the ocean, so it's warmer somehow.

RM: Like here when you get closer to Lake Michigan and Southern Michigan there, you have a lot of breaks and vineyards, and fruit and what not.

AJ: Yes. I lived here in Marquette when I started to work for CCI. Then we bought the place in Skandia, but then my health started to go really bad, so we bought this place and our daughter bought our place in Skandia.

RM: Oh! So you exchanged homes then.

AJ: No, this was for sale. Somebody else owned this one.

RM: Oh, oh, oh!

AJ: So they sold their house in Harvey, and then they bought my place in Skandia, and we bought this one so...

AJ: I have macular degeneration going on, and I had my back surgery recent also.

RM: Well we live in... My wife and I live in Sand River, about 18 miles, and we're going to sell the place and move into town. As you get older, you want to be a little... I want to be a little closer to the hospital. In case you need to...

AJ: Yes that is my problem too.

RM: Just to be on the safe side.

RM: Well, an older friend of mine when he retired he moved out to right close to us there. I guess he's... And he had some heart trouble, so he was kind of going out there with a problem, but I don't know. He hasn't seemed happy.

AJ: Like in Skandia, I had a... I bought a tractor. I get rid of the snow with that, and if really lots of it came I had a bulldozer, and that took care of the place, but too much for me. So I decided to do this.

RM: So you have very good memories of Tsu-Ming Han?

AJ: Oh yes (laughs). You know, he was a nice man.

RM: Uh-huh.

RM: Well, were... what I want to do is... personally I feel he has not gotten his just rewards for all the work he did... and all the, you know? His team you and all the other people has been totally ignored by CCI, and so what I want to do is put together a book and make his story available, and you know all the people that were involved, you know, because what they did there under his leadership was to allow CCI to keep producing Iron, you know? They're lifeblood of the economy here.

AJ: When problems came, they came to him; and he knew what was wrong right there. He studied... and then he told them what to do and how to fix the conditions, like in the ore.

RM: And I guess that was very, very complicated that they... they tried to get the right...

AJ: Right, they had certain... certain like you said... certain things like magnesium, mangatet, the other elements, so that type of steel come out of that and so on. He knew... he knew his business.

RM: So it's really a very complicated... very complicated process.

AJ: Uh-huh. It is.

RM: And I ask that just so we have it on the record because, you know, people will say... you know people will kind of ignore it and [say] "Well anybody could have done that," and so on, but that was not true.

AJ: Uh-huh.

AJ: You have to know. You have to live in it. Like my boss in White Pine, he used to say "Rock lives also," it's a living rock. Like any other element.

RM: Yeah, yup, yup.

RM: You would have to deal with it like a friend.

AJ: Uh-huh. Yes.

RM: Interesting, Interesting.

AJ: Like uh, one thing I don't understand, they do a lot of nuclear waste and everything down in the ground, there's no rock that keeps it for a while... for, forever, because every rock has a grade, and those grades start to (laughs)... they too... in time.

RM: Yeah, yeah, yeah. Interesting, yeah you don't think about it, in those terms.

RM: Well! I don't, oh, and I have to get your wife's name down. Now you got married in Finland?

AJ: In Finland in 1963. I went back to Finland to... and she caught me (laughs).

RM: (Laughs) Oh, very good! You look like you're two very happy people.

AJ: We've been married 51 years now.

RM: Oh wonderful, yeah.

RM: And your name is?

AJ Wife: Aino. A-I-N-O.

RM: A-I-N-O. Ok. Just so we have it. It will all be in the records.

AJ: And she's a farm girl. She used to ride horsebacks standing.

RM: Really?

AJ: Yeah (laughs).

RM: Oh, ok.

RM: Well, I think that's everything that I wanted to ask you and I wanted to give you... I wanted to talk to people who knew Tsu-Ming Han so that, you know, we get more of a personal... a personal result. You're not just looking at the record and he was, you know, this, this, and this; and we have... I had a group of—well the family that everybody organized a few years ago... and I didn't... we probably... maybe weren't in time, but we have it in October of 13, 2013 maybe... and we have all the people that had worked with Tsu-Ming get together and then we did... I did a general interview, so you would say, because people didn't have a lot to say, but they had some important things to say, so everybody added a little... gave a little... some ideas and so on.

AJ: I understand I am the only technician that is still living that worked under him.

RM: Oh! Ok.

RM: Oh, and how many technicians did he have?

AJ: He had Johnson, Norman, Lenny, and me.

RM: Four?

AJ: Yes.

RM: Why don't you give us the names? And spell them if necessary.

AJ: Johnson, was the first name.

RM: Johnson? And what was his first name?

AJ: Oh. He's gone so long time so I don't...

AJ: Then there's Lenny Rivers and Norman Juhola and me.

RM: Ok, and then how do you spell Juhola?

AJ: Juhola.

RM: Juhola.

AJ: Norman Juhola is J-U-H-O-L-A.

RM: And so those... that was the... his crew that worked with him?

AJ: Yes. Mhmm, yes.

RM: Ok.

RM: Were there any other... Did they hire people after the summer time? Students to help out?

AJ: Uh not, no. Not that time no.

RM: And was the... the office and what not, and the lab was kind of... what would I say? Secret? Did CCI... Did they make a big fuss about it? Because of the... patent... industrial espionage.... Not long...

AJ: Yeah, that I don't know.

RM: Yeah, yeah. Well I asked sometime why they didn't make more of a fuss because they were talking about, you know, all of the things they do and it's like, so and so could call his laboratory and they didn't want to bring that up because other companies could pick up on things that they were doing well so they kept it very quiet. And so you guys, the four technicians, and Tsu-Ming were all...

AJ: Yes, and there was once they sent me to the pilot plant, Tsu-Ming sent me. There was a doctor from Michigan Tech, I think he was doctor Yang, or something like that, and he had a special flow sheet to get the concentrate out of the ore... and I was the one that did the work for him. So flotation every once and a while, even for Tsu-Ming, and then the other work, like microscopic and preparing specimens was my main work for him.

RM: Now were the other technicians doing similar work, or they were doing some other topics?

AJ: Similar.

RM: Similar, ok. So preparing everything for him to, you know...

AJ: Yes. Mhmm.

RM: He would come up with the final conclusion.

AJ: Yes.

RM: Oh, ok.

RM: Well! I think that's it unless there's something I left out. Do you want to add?

AJ: No, no. No, I think that covers it.

RM: Ok, very good, well thank you!

AJ: You are welcome.