

Nordic Heritage Museum
Nordic American Voices

Interview of Ted Beck

March 5, 2011

At Seattle, Washington

Interviewed by Mari-Ann Kind Jackson and Caitlin Cotter

Mari-Ann Kind Jackson: [0:03] This is an interview for the Nordic-American Voices Oral History Project. Today is March 5th, 2011, and we are interviewing Ted Beck. We are at the Nordic Heritage Museum in Seattle, Washington. My name is Mari-Ann Kind Jackson and with me is Caitlin Cotter. Ted, would you please state your full name and when and where you were born?

Ted Beck: [0:35] OK, Theodore Richard Beck and I was born in Seattle, April 11, 1926. My father, Theodore Beck, came from Denmark. My mother, Ludwynda Eline Fodderingdotter, came from Iceland. I'll start with my mother first. [1:06] Her father died. Well, her mother died, actually, when she was about seven years old. Her father remarried and had a second family. She left the farm in the north of Iceland, northeast Iceland. The farm was called Grausesar. She left at age 16 in 1914. She traveled with a friend, also from the north of Iceland, and the son of her friend, who also got here to Seattle later, Thor Viking.

[2:00] When my mother emigrated she went to Manitoba to a farm where her aunt lived, the sister of her mother. She was there for a couple of years then moved to Winnipeg and worked for the telephone company, then came out to Seattle, about 1920.

[2:28] My father emigrated from Denmark, from a town called Soring, which is near Silkovo. He emigrated in 1921, as I recall. All his life he was in the dairy business. The first thing he did when he came over was to go to a dairy school. He went to a dairy school before he left Denmark. He went to another dairy school in Spokane, when he first came over. He followed his brother, Peter, my Uncle Pete, who came to America first.

[3:14] Anyway, my father moved over to Seattle and that's where he and my mother met. They were married in Blaine in 1925 at the home of one of her relatives. It would have been a second

or third cousin. I was born April 11, 1926 here in Seattle, and they lived in the north part of Seattle. My mother died when I was about two years old. My father and I boarded with a family of which the woman was an Icelandic friend of my mother's from Winnipeg.

[4:21] When I was about five-and-a-half years old, my father thought that this is not a long-range solution to the problem of raising a little kid.

[laughter]

Ted: [4:33] So he took me to Denmark with the intention of leaving me with his parents, my grandmother and grandfather, and his sister, who was also living with them, unmarried. We drove his Model A Coupe. He drove back to the East Coast to New York. [5:11] I don't remember very much of that trip, except I do remember seeing Niagara Falls on the way. When we got to New York, he found out that the big ship Leviathan was leaving the next day. So he quickly bought me a sailor's suit, stored the car, and off we were to Europe. On the trip he met a Danish woman, who was a bit younger. She had been over in New York working as an au pair for a Danish doctor there, Dr. Anderson.

[6:05] Anyway, we got to Denmark and to Silkeborg. That's where Bestafar and Bestamar were then living. Then so we were there about six months, and I remember bits about Silkeborg. I remember my Aunt Marie, Tante Marie, took care of me, and she took me around town, over across town to visit Uncle Soren and Tante Katrina. Uncle Soren was a brother of my father.. I remember they had two boys. The youngest, Igo, was 12 and Hoggar was in his teens.

[7:10] I remember living with Bestophar and Bestovar. He raised pigeons. He was retired by that time. He had been a pottery salesman. Originally. Bestophar was a potter over in Soring, near Silkovo. He got lead poisoning. Then he continued on as a pottery salesman. He did reasonably well for that period of time.

[7:46] When he retired he moved to Silkovo and raised pigeons. I remember he had a round stack of cordwood out in the paved area in back of the house. I remember in winter people ice-skating on Long Lake, which was just a couple of blocks away from where we lived. They had a big 55-gallon drum that they burned wood in to keep warm.

[laughter]

Ted: [8:20] I remember once I went with Dad up to Copenhagen to visit Elsa's, that's his new wife, home, Elsa Hammerbach. Her father was a policeman in Copenhagen. I remember some of the sights of Copenhagen, like going out to see the Little Mermaid. What's the name of the other one, the fountain where the strait between Denmark and Sweden was plowed to make the strait? And so it went in to form Denmark, from the Norse sagas? [9:21] What else do I remember about Denmark? Well, we did one time on a weekend, go out to Elsa's family plot of ground outside of Copenhagen. Where they had a little house and they raised vegetables and things. I remember one time when we were there, Elsa's younger brother took me out and there was a house being torn down across the street. They tried to frighten me and tell me it was a haunted house.

[laughter]

Ted: [10:05] We only stayed in Denmark for about six months and we were back on Leviathan again for New York, from Hamburg, took the train to Hamburg. Then we drove across the country in the Model A coupe. [10:33] I remember a few things about the trip. We took a generally southern route, which took us out to Los Angeles and then back up to Seattle. I remember we stopped at the natural bridge in Virginia. I was walking in the river and I slipped on the algae at the bottom and was quite embarrassed to fall in.

[11:05] I remember just a few things about crossing the country.

[11:11] But we came back up to Seattle. We were living north of Seattle. I've looked up the address in subsequent times. My mother died when I was not quite two years old. We lived with the Jacobsen's. I said the woman, which was mothers' friend from Winnipeg.

[11:49] I'm confusing the story now. That happened before. Erase that.

[laughter]

Maryanne: [11:59] That's OK.

Ted: [12:02] So.

Mari-Ann: [12:06] I have a question.

Ted: [12:07] Yeah.

Mari-Ann: [12:09] Did your father marry this young lady that he met on the boat going over to Denmark?

Ted: [12:15] They were married in Copenhagen, yes.

Mari-Ann: [12:18] Oh, I see. OK, and she came back with you and your father on the boat?

Ted: [12:22] That's correct, yeah.

Mari-Ann: [12:23] And then you settled in Seattle?

Ted: [12:25] Right.

Mari-Ann: [12:26] OK.

Ted: [12:28] OK. So we came back right in the middle of the Depression in 1932. My father had a few part-time jobs until he got full employment again. We lived out in Madison Park, 38th Avenue, just a block from the Gilmer School. That's where I started school. [13:00] I had several friends during that time. Up the alley from us was Pete Boynton, my age. I remember that we were catching bees. He was living with his grandmother and his mother, who was divorced at that time.

[13:29] I remember that Pete and I were catching bees in his grandmother's flowers in quart jars. I remember a big windstorm one November when I thought the trees were going to blow over it was so strong.

[13:50] Pete left with his mother to move to Los Angeles after about a year. Wonder of wonders, in about 1964 when I was at Boeing who should I meet about 100 feet from me in a desk? Pete Boynton. Another friend was Shell Sofk. He and I on rainy days, played in his basement with apple boxes and orange crates making Buck Roger spacecraft. He was not an outdoor type.

[14:38] I had some other friends that I developed. Right kitty corner from us across the street lived the Ellsworths and Carol was right about my age and she had a sister, Anne, who was a

couple years older. Anne was a bigger sister to us little kids and she organized circuses. I remember I was on the bars swinging on one of her circuses. I remember they had a bear in a cage, a small bear in a cage, out in the yard and I wondered about that.

[15:23] I found out, I just happened to meet Carol again around 1980 by means of Shell Sofki. That's another story. She told me that her father owned some salmon canneries up in Alaska and apparently that's how he got the bear.

Maryanne: [15:48] He caught the bear?

Ted: [15:49] How he got it, who caught it, I don't know. All I remember is they had a bear in a cage in the yard. Then I had some other friends. One was Conrad Matland. He said he was Norwegian. Conrad and I had numbers of adventures together. He had a sister who was a little older than him and she liked to tease us little kids. His father was a painter and I remember he had white specks all over his face. [16:32] In the vacant lot next to the Matlands, Conrad and I dug up an underground camp. It was about probably four feet square and that much deep and we put lumber and brush and dirt over the top. His father said we had to get rid of it so we had to fill it in, but that's all right. There's not much you can do in a dank, underground camp.

[17:10] Then we moved across the street to a vacant lot across from the Sofki's and built another, more elaborate one with many rooms and passages between them. A fireplace at the end of one of them and we built a fire with some newspapers. It was so smoky it drove us out and that was the end of that camp. I had another friend who moved in next door to the Ellsworths, Bob Delson. He was a couple years older, but Bob and Conrad and I had lots of adventures.

[17:56] One of them, I remember, we rented a canoe down at Browns Boathouse, which is right at the south end of Madison Park swimming beach, and we paddled across the lake to Medina. I remember as we were getting close to the other side a couple of young guys in a small tugboat towing a small lug boat decided to run us down. We had to paddle like crazy to get away from them.

[18:34] I remember Conrad and Bob and I went on a hike down toward the lake on the outside of Broadmoor and somehow we got across the driving range over to Fosters Island and then from there we went over to the Montlake Bridge. On the way I remember as we were nearing the

bridge there was a deep ditch. It must have been more than six feet wide and six feet deep. That puzzled us for a long, long time what caused that.

[19:33] It wasn't until years later that I found out reading about it that that was the log flume that was used before Lake Washington was lowered. The logs went down this flume, down to the bay where the Seattle Yacht Club is now. We crossed the bridge and went west along the canal. We found the remains of a big sawmill. It was abandoned. We got into it. I just couldn't believe how big this thing was, the great big timbers they used to build it.

[20:22] I knew how much work it was to build underground camps and tree houses and I just couldn't imagine how anybody could build something that big. Then we went from there, we walked through the university and I remember we were looking down into the basement windows in Bagley Hall, the chemistry building, and the students down there were amused at the street urchins looking down at them.

[20:59] We had other adventures. There was a big vacant lot. How big was it? It was outside the Broadmoor fence. It went from the end of the paving on 38th down to the lake and it was bordered on the other two sides by houses. I remember there was a huge boulder there about 10 feet in diameter. I couldn't imagine where that came from. Now I know it was a glacial erratic, of which we have a number around Seattle.

[21:45] We built a tree house at one corner of that lot, which amused us for a while. We gathered pieces of cut off lumber from houses that were built and snatched a few nails to put it together. Another memorable thing is at the south edge of that big, vacant area was a place where there were some cut ditches that filled with water during the winter and I remember there were big bullfrogs and big polliwogs that were an inch and a half in diameter and about six inches long.

[22:43] That, in summer, had dried out and there were fires in that area. This was an area that was below water before the lake was lowered and so it was peat area. There were fires and I remember a number of times going down there to watch the fire, but put them out. I suspected at that time that it was the big boys that started the fires.

[23:17] What else did we do? In the '30s we had some pretty cold winters and there was a fair amount of sledding and I remember doing that. Then, at that time, the boys had to build a racing

bug. They'd get a two by six as a frame and two by fours to put the wheels on, so it was fun building, but I found out that it was not too good to use because where could you go without having traffic in the streets?

[24:08] That was like the underground camps. A temporary thing. What else do I remember? I remember Elsa and she was a good mother to me. I called her mother. She wanted to go to the Danish Lutheran church which was up on Capitol Hill, not too far from Garfield High School, St. Johns Lutheran Church, and my father never wanted to have anything to do with it so we never went.

[24:56] However, my mother, Elsa, was talking to a neighbor lady across the alley who was a Christian scientist who convinced her I should go to Christian Science Sunday school, which was a short trolley ride away up on Capitol Hill. It didn't take very well except once our Sunday school teacher. He was a kindly gent. Took us one Sunday afternoon on a weenie roast out on the arboretum, which was then under construction, and I thought that was OK.

[25:51] How are we doing on time? I would say that I was not a very good student in grade school. The teachers were wondering what's the matter with this little kid. When I was, how old? At the end of the fourth grade. At the end of the fourth grade we moved out to Beacon Hill and this time my father bought, or was buying, a house there. Then I went down the hill to Rainier Valley to Columbia schools for the rest of my grade school days.

[26:50] There I had some new friends. One was Don McAndy. He lived right next to Ferdinand Street where we lived, but farther to the west on Beacon Avenue. He came over, we went down to school together and back. We had a number of adventures. Another was Chilcott Nation who lived about a block from me in the other direction.

[27:31] Once Chilcott and Don and I built a platform in a great, big maple tree that was near Chilcott's house. Chilcott was fascinated by mechanical gadgets. He had a rope and pulley, which he used to bring things up to our platform and we got a piece of hose and the funnel. Made an instrument with it and also a rectangular coiled pipe thing that came from heating water in a coal furnace that was used in those days.

[28:29] We had two instruments that we played up there. It was Don that was the composer who composed the song we called "Robin Red-Breast Toenail" and it goes something like this.

[28:48] "Robin Red-Breast, Robin Red-Breast, Robin Red-Breast Toenail, Robin Red-Breast Toenail, Robin Red-Breast Toenail."

[29:09] Just a few blocks away there was an abandoned orchard that had cherries early summer and plums later and then apples and we boys were well-fed there. Don and I made frequent trips to Brochette's auto junkyard in Columbia City.

[29:38] There, we got ignition coils from Ford model T's. We broke open the wooden case and dug out the tar. Inside was a coil of wire, hair wire we called it. It was as fine as a human hair. We did a number of things with that. One of them was to fly little kites. I made a little kite that was about six inches long and it flew very well using hair wire.

[30:14] One day Don got the idea. "Let's use it to make a telephone line between our houses using hair wire." I found out that I could take apart a pair of headphones and use one as a transmitter and use the other as a receiver and vice versa.

[30:38] One afternoon after school we got some nails and we wrapped friction tape around the ends for insulation and the next day after school we pounded these nails into telephone poles and trees and ran this line of hair wire between our houses about five blocks away. Then we tried them out and by golly it worked. We were absolutely amazed. I'm still amazed today that it worked.

[31:13] We no sooner said hello to each other and congratulated ourselves then we each had to go to dinner and by the time dinner was over the wind had got our line. It was fun doing it, but we decided not to get in the maintenance business. Another thing that Don and I did, we both got bikes and we went all over Seattle on our bikes.

[31:48] We went out to Angle Lake, which is near what is now the Sea Tac and went down along the waterfront. We visited the old guys in Hooverville. We stayed clear of the hobo jungle on the west side of Beacon Hill. That sounded too dangerous for us. We went all over Seattle.

[32:22] This gave me mobility. I could in the summers, bike out to Madison Park and visit my old buddies and go swimming. One day we went down to Sears Roebuck on our bikes and bought a chemograph set for five dollars. Don and I split the cost between us. I set up a lab in the basement of our house. That was fun.

[33:10] I did something, though, that led to a rather bad situation. I found that I stored a little alcohol burner in a jar with the lid on it. When I took the lid off and I put a match to it flame would flicker around the edge. I enlarged the experiment in the wood shop down at Columbia school and I blew up a can of alcohol, which put me in the hospital for a year.

Mari-Ann: [33:48] Oh my God!

Ted: [33:58] At first I was sent to Harborview where they were geared to take care of burn patients. Since my father had a job, I was no longer able to stay in Harborview. I was put in Columbia, Columbus Hospital up in Pill Hill. [34:25] They didn't have the facilities for taking care of burn patients. I had two skin grafts, neither of them worked. The doctor somehow got me back into Harborview where Dr. Shriner, who was an excellent physician at skin grafting. Had five more operations and I was out.

Mari-Ann: [35:01] How old were you then?

Ted: [35:05] Let's see. That was 1940. My mind is slipping at the moment. I was in the eighth grade. Then the following year I went to Franklin High and my father told me, "You lost a year of school. You're going to have to go through high school in three years." I started Franklin and I was still interested in chemistry, though. In fact, in the hospital somebody got me a high school chemistry book, which I read. [36:08] I was interested in math and science and nothing else. I got A's in math and science and chemistry and physics and C's and D's in everything else. When I started Franklin, I decided that I no longer wanted to be called Teddy, like I had been up until the time. I decided that I would be Ted from then on.

[36:50] In high school, another friend of mine, Jim Hawk, also interested in chemistry. Him and I were allowed to work in the private laboratory of our chemistry teacher, which was next to the class. We did some more advanced chemistry experiments there. While I was in high school, I

got a summer job, not a summer, a Sunday job down at Puget Sound Sheet Metalworks sweeping the floors and made a dollar an hour.

[37:40] Dad said, "OK, you can buy your own clothes now." I did get through high school in three years and started out at the UW in chemical engineering. I was going to major in chemistry, but one of the earlier students of our chemistry teacher in high school, Mr. Rajer, his name is Dan Pastel. He was a chemical engineer and he was getting a Masters in chem engineering and a second degree in electrical engineering.

[38:22] He said, "Don't take chemistry. Take chemical engineering, because you get all the chemistry that the chem majors get, plus engineering classes in mechanical, electrical, civil, and social. And you don't have to take any upper campus courses." Upper campus being the humanities and Asian history. That appealed to me.

[38:52] I did well at U Dub and I decided to stay on in graduate school and I got a Masters. I was aiming for a PhD but along the way I got a Masters just in case something happened and then I got a PhD in 1952. While I was at U Dub, I had to support myself. In the summer that I graduated from high school, I worked full time at Puget Sound Metalworks out with a roofing crew.

[39:47] One of the things I did was to work on the First Church of Christian Scientists up on the roof where I'd gone to Sunday school years before. In those days I made enough during the summer and Dad said, "OK, you can live at home for \$30 a month room and board." Tuition was \$35 a semester at that time. I was able to get through a year from working that summer.

[40:28] The next summer, I started out working in the shipyards as an electrician helper and that was the summer of 1945. What was VJ Day? August 10 was it? It was announced on the PA system that afternoon don't come back tomorrow. I found something else to do the rest of the summer. I worked as a dishwasher in a restaurant in Rhode's Department Store.

[41:06] I made enough that summer to get through another year, but I moved out to Eagleson Hall. That was the YMYW building next to campus. One of my chem engineering classmates was living there and he suggested I join him, which I did. I partly supported myself that school

year by getting my dinners at the Chalet, which was the restaurant down in the basement of Eagleson Hall run by Match Joes.

[41:52] It was a nice restaurant. I got my meals out of it. I cleaned up the kitchen every night. Anyway, it was about my senior year at the UW when I started going out in the mountains and the first one was a trip with Jim Hawk, who I worked together with in chemistry in high school. His grandfather had been the contractor who redid the Stevens Pass Highway and Jim had spent some summers up there so he knew some of that area so we went on a couple of trips up there, backpacking in.

[42:50] Then, in my senior year I also joined the mountaineers and took the climbing course and got pretty heavily into climbing for a few years. One of my friends who I met in Bagley Hall, Harvey Manning, he was a literature major but he didn't find a job doing that and he didn't want to go to graduate school and become a professor, so he was working as a stock room boy in the basement of Bagley Hall and that's where I met him.

[43:37] We've gone on many trips together. He later became one of the forces behind getting the North Cascades National Park and the Cougar Mountain area preserved by Issaquah. There's a bronze statue in there now in Issaquah. I had lots of fun times with Harvey in the mountains. I'm stretching this out a long time.

Mari-Ann: [44:21] We have lots of time.

Ted: [44:25] I started skiing also, being a member of the Mountaineers and going up to Meany Ski lodge at Stampede Pass and there they had folk dances in the evenings so I started folk dancing and from there to the Mountaineer's monthly dances in Polish Hall on Capitol Hill and from there to Scandia that Gordon Tracy started. That's where I met Ruth, who became my wife.

[45:07] Ruth and I were married in December, 1951 and I finally finished my PhD in the summer of 1952. I was lucky to get a job during this last half year at U Dub. Our major professor, Professor Molten, head of Chem engineering, got a consulting job with the Simpson Timber Company in Shelton. They made acoustic ceiling tile. I don't know if you've got any in here. Yeah, like that.

[45:54] They were making it with wood fiber and they wanted to get in the business of making it with mineral wool fibers. They had the formula they got from somebody and so at that time the University was encouraged to help local industries. We put together a plant to do this, mixing the binder, water, and starch and so forth and mixing it with mineral wool, spreading it out on sheets and forming those fixtures that you see there, and then putting it in a drying tunnel.

[46:53] Our machinist for chem engineering put all of this stuff together for us. I had a crew of about five undergraduates who would come in and work. We would put in an hour and make a batch of tile. That was interesting and I wrote the final report on it. I finished my thesis in the summer of '52 and I bought a car.

[47:45] I had enough money at that point, making this ceiling tile, to buy a car. During the spring I'd gone on an interview trip, a couple of interview trips. One of them, Ruth and I drove down the coast, west coast, and went to Las Vegas and next to Las Vegas was Titanium Metals Corp and interviewed them and I didn't get an offer, which was OK, but I did go back on an interview trip to Cincinnati to Proctor & Gamble and to Wilmington, Delaware, DuPont.

[48:35] They both made me an offer, but I decided I would learn more chemical engineering at DuPont than making soap with Proctor and Gamble so that's what I did. In September, Ruth and I took off, drove across country and visited national parks. We took a month to do it. I joined the organic chemicals department and my job was to work on the process to make one of the intermediates for making polyurethane foams.

[49:18] Polyurethane foams had not come to market at that point in time. The chemist was getting 85 percent yields in a flask this size. The 50 gallon reactor, which I inherited, that big, they were getting 75 percent yields and DuPont had put in a semi-works, half a million dollar semi-works plant, that was getting zero yield, nothing but tar, and so my job was to try to find out why.

[49:57] I did. It was a matter of mixing, the rate of mixing the reactants, and got a couple of patents for DuPont while I was there. After a year and a half there we were planning to leave. It was interesting to live in the east. We took a two-week vacation up in New England and did a lot of research before we left, before we went, so we knew where we should go.

[50:40] I should mention that the first day I was at the lab at DuPont a Dr. Donald Graham, who was a physical chemist near retirement at that time, came down to see me. He was originally from Seattle, interested in mountaineering, a member of the American Alpine Club, and he said, "The American Alpine Club is having its 60th year anniversary in a couple of weeks. Would you like to join me?" So we did.

[51:15] I had to rent a tuxedo to do that. It turned out that one of my friends from Seattle, Pete Schonning, was giving a talk there about his climbs in Alaska. I had climbed with Pete. He was really surprised to see me there in a tux in New York. In the second year, although we learned a lot about the east and did interesting things. Ruth and I went folk dancing with an international group in Philadelphia and went to a number of concerts in Symphony Hall in Philadelphia.

[52:15] Went to the opera once up in New York in the old opera house and went to Carnegie Hall and heard a lecture by, what was the name of the New Zealander who first climbed to the summit of Everest? I can't think of his name at the moment. Anyway, we did a lot of interesting things.

Mari-Ann: [52:46] Was that Hillary? No?

Ted: [52:50] Yeah, yeah. Hillary. Don Graham introduced us to the Wilmington Trail Club so we went up with them a number of times. The east was not the same as Seattle and the Pacific coast and we made the decision that I would quit the next summer and we would take the summer off and go up to Alaska and then go back to the west coast and look for a job, but fate intervened on that. [53:29] One day in November, before the next summer, I was contacted by Kaiser Aluminum and I had an interview with one of their reps. He was a former employee of Kaiser Aluminum, but he was consultant to them. He told me about a new laboratory in California, in the Bay area, and they had designed and were going to start up a 10,000 ampere aluminum cell, which is one-sixth the size of the cells in Spokane, would I be interested?

[54:26] Yeah, I really would. They did offer me a job. In February, we were off to California. We took a couple weeks to go there. That turned out to be one of the best places I ever worked. We had a really congenial group of people and I was the fourth group leader who was hired there

in the reduction technology group. One of them was responsible for electric chemistry, another for physical chemistry, and another for some chemical engineering and I ran the cells.

[55:21] They ran around the clock. I first had eight people working for me. We had an engineer and a technician on each shift and we had rotating shifts so we had to have eight people to do that. Then we put in another second cell and I was increased up to 18 people. Those were good years. The other number of the people belonged to the Sierra Club and we went on Sierra Club trips and we had slide parties.

[55:59] It was the only place that I've ever worked where we mixed socially with coworkers.

Caitlin: [56:11] Shall we stop right now and just change the tape?

Mari-Ann: [56:15] Sure.

Ted Beck.02

Ted Beck: [0:04] ...up to Paradise at Mount Rainier. We hiked up, this was in February. Beautiful, it was a gray day down here, but we got above the clouds. We hiked up to Camp Muir and back. Then I went on a little rock climb with Pete over in the Cashmere Crags once. I think those are the only trips I've been with Pete.

Caitlyn Carter: [0:31] Pete Schoening we are talking about.

Ted: [0:33] Yeah.

Caitlyn: [0:35] We were doing the interlude there so we didn't get his name. Thank you.

Ted: [0:39] Yeah. OK. We were in the Bay area. We went on a number of Sierra Club trips. We went up to the San Francisco Opera. We had season tickets there. During the time I was there, I joined the Electrochemical Society. We had our monthly meetings over in the faculty club at Berkeley. [1:26] That's where I met Professor Charles Tobias, who was Hungarian. He had come to this country in 1948. He was teaching electrochemistry, electrochemical engineering and doing excellent research with PhD students there. He was Professor of Electrochemical Engineering in this country, in fact, in the world. He and I became good friends. I was working

in the practical end of doing electrochemical engineering and he was working in the theoretical end.

[2:10] It happened in about 1958, that Kaiser Aluminum went through a bad recession. They had two new plants under construction, not operating yet, an aluminum reduction plant in West Virginia and an alumina plant that makes alumina that's fed to the cells in Baton Rouge, Louisiana. At the same time, there was a recession in the country and aluminum sales were down. Also at the same time, the government released aluminum from the stockpile that was built up during World War II.

[2:54] Kaiser Aluminum was in really bad shape. They laid off the whole engineering department up in Oakland, for example. Our budget was cut by two-thirds. My cells were shut down. I called myself, now, a groupless group leader. [laughs]

Caitlyn: [laughs] [3:12]

Ted: [3:16] Anyway, I figured that I had learned about as much about aluminum as anybody. It was a very slow-moving, very capital-intensive business and very slow to make changes. Unlike at DuPont where, in a year and a half I got a couple of patents, and I only got one technical paper and no patents for five years [laughs] at Kaiser. [3:43] I decided that it was time to leave. The other three group leaders and a number of other decided to go, too, because the future looked bleak. Charles Tobias told me about a position down in Henderson, Nevada, with American Potash and Chemical Corp. I interviewed them, and they offered me a job to do their electrochemical engineering work on their existing processes down there.

[4:25] They made sodium chlorate and ammonium perchlorate, which was used in the space effort, and manganese metal. It was a new technology that they were wanting to get into, so I did the laboratory work on it.

[4:44] Ruth didn't really want to go, didn't want to leave Palo Alto, which is a very nice place to live, and she was taking courses in anthropology. First she taught home ec in East Palo Alto. She also taught home ec in Wilmington, Delaware when we were there.

[5:04] But then she started taking some courses up at U Cal Berkeley, and we had a nice house there that we bought. She didn't really want to leave, but I couldn't find anything else in the Bay Area, so I decided to accept the job down there. It was, I would say, a very interesting time. The technology was very interesting.

[5:39] The desert fall, winter, and spring is great. We made a lot of trips out on the desert and really enjoyed it. I could have lived there forever. We lived in Las Vegas, which is a pretty scummy place in my view.

[laughter]

Ted: [5:59] But I was there two and a half years, and then it was decided to condense our laboratory at Henderson, Nevada, which is next to Las Vegas, to the laboratory in Los Angeles. I definitely did not want to go to Los Angeles--too many people, too many freeways, too much smog. I worked through my friends in Seattle. I had been in contact with Harvey Manning all this time, and we had been on trips together. [6:44] We'd flown up to Seattle a few times from the Bay Area, and he got in contact with some mountaineer friends who were working at Boeing and got to the right people. I was offered a job in the aerospace company doing the work on batteries and fuel cells for space vehicles, which was interesting. But after a couple of years, I could see that I wasn't doing any really original research.

[7:25] We were testing batteries, and we put together a fuel cell system, but other companies were way ahead of us on it. Pratt and Whitney had the fuel cell that went on the Apollo mission, and there was another company that had fuel cells on the early satellites. I didn't see a long-range future in the aerospace company doing that forever.

[8:01] I, in the meantime, had worked in a number of different electrochemical technologies--fused salt, making aluminum, the processes down in Nevada, batteries, and fuel cells. I decided I was going to write a textbook on the subject, so I made an arrangement to teach a graduate course in electrochemical engineering in the engineering department, which I did twice. Then I taught it, I think twice, as a Boeing off-hours training course.

[8:43] There I got to meet men who were doing various aspects of electrochemistry in the company from corrosion to anodizing aluminum for airplanes and electroplating for the

electronics parts and so forth. Then there was an organizational change in aerospace, and I would have to go work for... My boss, whom I enjoyed working for, was moved over someplace else.

[9:18] I didn't like the new arrangement, so I went over to the Boeing Scientific Research Laboratories and talked to the director over there, Gil Hollingsworth. He says, "Oh, I have just the job for you."

[laughs]

[9:29] "You know that Boeing wants to build the supersonic transport out of titanium, and there are a number of technical problems connected with it. The company is trying to make as many contacts in NASA with various technologies. One of them is a corrosion problem with titanium in the supersonic transport." He said, "We have a metallurgist that is already working on this problem, Martin Blackburn." He was Ph. D. from Cambridge, England. He says, "We need an electrochemist to work together with him." He says, "I'd like you to write a proposal to NASA to support your work here." He said, "If you get it, fine. If you don't, we'll support you anyway." Well, I did write a proposal and got it and worked for six years on continuing work.

[10:56] Martin and I got along fabulously. He was a very bright guy, and I enjoyed working together. We published a lot of papers. In fact, we became the leaders in the field of stress corrosion cracking of titanium anyway, this part of the whole technology. We went to a number of technical conferences in the U. S. and Europe. That was a marvelous time.

[11:37] While I was there, a couple of the engineers from the Boeing Airplane Company came over and told us about a corrosion. They didn't call it corrosion. They said it was an erosion problem in the hydraulic control valves that operated the tail, the wheel brakes, and so forth. He says, "The metering edges of these finely machined things were being eroded." They called it erosion. "We'd like you guys over here at BSRL to take a look at it."

[12:13] They made a presentation to the whole group of scientists at BSRL, and it turned out there were three of us that eventually worked on it. One was a new young Ph. D. from MIT and a very bright guy. Another was a physicist Ph. D. from Belfast, Ireland. Anyway, the three of us worked together.

[12:48] John Olsen first showed that it was not due to cavitation damage. I won't try to explain that, but [laughs] that was one of the theories. It's not due to erosion by particles of dust in the fluid. Those were the two theories in the airplane company. At that point I suggested that, "I think it's electrochemical, and it's caused by generation of static electricity in the fluid that goes through the valve."

[13:21] Turned out that that was correct, and the three of us wrote a couple of papers on the subject. Nobody believed us at first, but then you remember the time when the Boeing employment in the Seattle area dropped from 107,000 to 37,000 in a matter of two years? The Boeing Scientific Research Laboratories was a casualty of that. The company said "OK, you guys can stay. You can work down at the Aerospace Laboratory down at Kent." I stayed around for a while, trying to decide what in the heck to do.

[14:15] In the meantime, John Olsen had left early and he had joined another member of, I think it was the Flight Sciences group, who had started a company down in Kent called Flow Research. They were doing work on hydrodynamics for submarines, for example.

[14:46] But in the meantime, John Olsen had developed a high pressure water pump, up to 60,000 pounds per square inch. Shooting this through a small orifice, it could be used for cutting various materials, plastics, leather, frozen meat, even softer rocks. He went down to Flow Research and further developed it. They developed it into a working process. They sold pumps all over the world for cutting.

[15:40] After a couple of years, John convinced me I should come down there and bring my contracts with me, which I did, but I found that I didn't fit in all that well. I was doing electrochemistry, they were all doing fluid dynamics things. I decided to leave and start my own company here in Seattle, which was closer to home and to the University.

[16:14] I brought contracts with me again and started a new company in Ballard on Leary Way. We were there on Leary Way for about 10 years. Lucky for me, the first contract that I got was from the Boeing airplane company.

[16:43] I'll go back a little bit. When Olsen, Mahaffey and I finished our work on this problem of the wear of the metering edges of the valves, we wrote a report and said, "Well, here are four things you can try, four different possible solutions. It's your job now to reduce it to practice."

[17:12] But the first job that I got when I started my company was from the airplane company and they said "We don't really understand [laughs] this, and could you help us as a consultant?" I said, "OK, I'd be happy to do that, but the only way that I can help you is if you give me a contract to do the work here."

[17:39] I knew how the Boeing Company worked, that the technical staff was a group of people who would work on their own projects, but when there's fire, a project that needed them here, there, there, they'd have to go. They could never work continuously on one project. I knew that that would never work. I said, "The only way I can help you is if you can fund me to do the work here, and then I'll work with you guys."

[18:11] They bought that, and that went on for about I guess three years. We finally found the solution to the problem that worked. Boeing got a lot of credit for doing that for the airlines. The reason we did the work at the Boeing Scientific Research Labs is that it was costing \$100,000. Was it \$100,000 a year? Something like that, in replacing valves within the warranty period for the airplanes when they went out in the airlines.

[18:57] But I later made an estimate of how much this was costing the whole airline industry, and it was something like \$50 to \$100 million a year for the industry. The airline industry was happy that Boeing had solved this problem for them.

[19:18] I presented a final technical report in Washington D. C. for the airplane company, and I remember that the chief engineer for United Airlines in the maintenance base in San Francisco got up afterward. He thanked Boeing for the good work that Boeing did for them. [laughs]

[19:43] Anyway, in my own company I continued doing work on corrosion because that's where I had contacts in the contracting agencies in Washington with the Navy, the D. O. E., the Department of Energy, and NASA and so forth. I had contacts, so I continued doing that for a while.

[20:19] Later I got a contract from NIH developing a nerve-stimulating electrode. Later I got into some contracts with companies doing various kinds of electrochemistry. OK. I had this company for about 20 years. I finally closed my lab in 1996. I was 70 at the time. I say we started in Ballard on Leery Way and then we had to move. We bought a building up on Dexter Avenue North, which we had for the last 10 years. When I started the company, I realized that I was going to be awfully busy and it would be very good if Ruth was involved in it, too; otherwise, I would never see her.

[21:32] She got an accounting degree and she did the books for the company.

Woman 1: [21:39] What was the name of your company?

Ted: [21:41] It was called Electrochemical Technology Corp. If we go back a few years now, in addition to my employment, I got very involved in the Electrochemical Society. Professor Tobias was a little bit older than me and he was ahead of me going through the ranks of the Society. It started in the local section of the San Francisco section and then the national society. The offices were first in New York and then they moved on to Princeton, New Jersey. [22:36] Within the society, I was involved in our local section here in Puget Sound region, or the Pacific northwest, actually. I got involved in the industrial electrolytic division of the Society, the battery division, and eventually I was nominated for Vice President. Turns out, I was running against... My mind is slipping right now. It'll come to me.

[23:21] He was a Vice President of Bell Laboratories in New Jersey. Bruce. Bruce. It'll come to me. Anyway, it turned out that we were comparing notes. He had also gone to McIlroy School except he had come from the other side of the fence in Bryn Mawr. He had gone to Princeton and he had gone through higher levels than I did.

[23:56] However, in this race he won by 29 points. That was the closest election ever in the Electrochemical Society. The powers that be decided to put me up next year and I won handily against a professor from one of the colleges in the East. I served three years as vice president and then, president for one year.

[24:31] Through The Electrochemical Society, I reached a wide variety of friends in various aspects of electrochemistry. From the industrial people, the corrosion group, the battery group,

the so-called theoretical group, I got to know the top people in the field, which was a big help to me in starting my own business.

[25:09] That's my professional life.

[25:13] We have two daughters. The first one, Randi, was born shortly after we moved to Las Vegas. She has fun telling people that she was born in Las Vegas.

[laughs]

[25:28] Randi we put through med school, and she's a physician here in Seattle now at Group Health. For three years in a row, she was listed among the top docs in Seattle in "Seattle Magazine." Her specialty is physical medicine and rehabilitation. She's not married.

[26:02] Both of our daughters were put in the Seattle Youth Symphony. Ruth wanted to keep them very busy [laughs] when they were young. Randi has kept up her music, and she plays in the Lake Union--LUCA. Lake Union--what does the rest stand for? Anyway, she plays in that and she's been on the board of it, and she plays in a number of small groups.

Interviewer: [26:40] Is it Lake Union Community Orchestra?

Ted: [26:42] Yeah, Lake Union Community--LUCO--Orchestra. You got it, yeah. [26:50] Bruce Hannay was the name of the man that I ran against for vice president of the Society.

[27:00] OK, the other daughter, three years younger, Mauren, she was named after a sister of my father. She went through college, and she went to Wellesley.

[27:27] Well, when Ruth and I were both working in my company, Ruth put her in Lakeside because she figured that she'd have to work harder than she would in a public school. Randi went through public school, went to Roosevelt.

[27:55] Mauren is married to a fellow she met at Lakeside. They both played the cello in the Lakeside Orchestra. They live in Eugene, Oregon.

[clears throat]

[28:07] He has a tutoring service, and she has worked at odd jobs as an office manager. They have two boys. One of them is about to go to college this coming fall, and the other is in high school.

[28:33] That's the family. OK, now, the Icelandic thing.

Mari-Ann: [28:40] Yes.

Ted: [28:42] It was in 1971, yeah, 1971. I was still at the Boeing Scientific Research Laboratories, and both Martin and I were invited to a meeting in Portugal on stress corrosion cracking, which we'd been working on, that was supported by NATO. [29:23] That trip was in March, but in early February, Ruth was at home and she got a telephone call. The man said, "My name is Jim Edwards, and I work for Pan Am in New York." Ruth thought, "Oh-oh, this is a telephone ad," but it turned out that Jim Edwards had married one of my cousins in Iceland. He said, "The family in Iceland is trying to locate Mr. Beck." He, working in the head office in New York, had access to telephone books from every place, so he just looked up a Theodore Beck in Seattle, and he hit it.

[30:24] He told me that one of my aunts, one of my mother's sisters, had died. My mother had two twin sisters by our grandfather Avi's first marriage. Later there was a second family. One of the twins had died a couple of years before, and the family was trying to contact me. What I did was I rerouted myself home from Portugal through Iceland and spent a weekend in Iceland.

[31:04] There I met a half sister of my mother, Thorbjörg, who is married to a man named Christion Bender, and they lived in Reykjavik. Thorbjörg didn't speak any English, but Christion was very good at English. They showed me around Reykjavík, and I asked Christion to tell me something about my Icelandic family of which I knew nothing.

[31:40] He drew me the near relatives, and then he picked a little brochure off his bookshelf that took from about six generations back to the first settler of Iceland. Of course, every Icelander can do that because it's such a small country. It was 35 to 50,000 people through the centuries up until the twentieth century. Now there are 300,000. You go back six or eight generations, and everybody's related in Iceland, of course. I thought it was pretty impressive, though, on my first visit.

[laughs]

Interviewer: [32:34] My goodness.

Ted: [32:39] Then the next year in the summer of 1952, I took the family back, Ruth and the two daughters, and we spent three weeks in Iceland. We rented a car, a little Volkswagen, and Christion and Thorbjörg led us around the south part of the country. We went out to Thingvellir, where the First Parliament was established in the year 930, and other sights around South Iceland. [33:23] Then they went with us up to the north and introduced us to my aunts, uncles, and cousins up in the old farm up in the northeast. It was a very moving time for me.

Interviewer: [33:43] I can imagine.

Ted: [33:49] Since then, that was my first trip, and I've been to Iceland 25 times now. One of the things that my Icelandic family is very proud of, particularly Thorbjörg, was that the most famous Icelandic author in the early part of the twentieth century was Jón Sveinsson. He grew up in Akureyri, but his father died when he was about 12, maybe a little bit before. [34:40] There was a French count that offered two boys from Iceland education in Europe, and he was selected as one of them. Jón Sveinsson's father was Svet Thorenson and he was brother to my great grandfather, Thoren Thorenson, so that's how we're related.

[35:16] What happened to Nani, Jón Sveinsson, as a child, had the nickname Nani. He was on a boat that went to Copenhagen and that was right in the middle of the war that Germany declared on Denmark when they got the Schleswig-Holstein area from Denmark. He was in Copenhagen for a year. He met somebody who was a Catholic there and he converted to Catholicism and then he went on to become, what's the title I want for him in the Catholic church?

Woman 1: [36:13] Bishop or cardinal?

Ted: [36:15] No, he never reached bishop.

Woman 1: [36:19] Priest?

Ted: [36:20] Yeah, he was a priest. He wrote 12 books, mostly about his childhood in Iceland and in Copenhagen and later one on his travels. They were published in just about every

language except English. Just one of them was published in English in 1927 in Ireland. One time when I was visiting Nanihoos I found out that there was a nun in California that had translated eight of his books from German--he wrote them in German--into English. [37:12] There they were, in a notebook in the museum in draft form. I told the people at the Nanihoos Museum, "If I could get these copied I will publish at least one of them for you." They went along with that and we had a copier in Akureyri to copy these and I carried these manuscript copies back with me and got them in good form for submission to a publisher and published 200 each of them, which have been sold in the museum there. One of them went back for a second printing.

[38:10] Just a week ago I got the manuscript back from the publisher and sent them back to the museum because it's not cheaper. With the bad exchange rate that Iceland has, it's not cheaper to publish in Iceland...

Interviewer: [38:28] Than here. Yeah.

Ted: [38:28] ...than here. When I did it some years ago, it was cheaper here. [38:39] I've been around the Ring Road in Iceland three times, and I've met lots of cousins. I was introduced to the genealogist for the northeast part of Iceland. I got him to give me my family history. I got about 3,000 names from him, which are in my computer now, and I'm trying to get biographies.

[39:12] One time, a few years ago, one of my cousins over there said, "You should come over here for the sheep roundup in September." Ruth and I did that. Ruth is a weaver and spinner, and so, she likes sheep. She enjoyed that.

[chuckles]

Interviewer: [39:31] Beautiful.

Ted: [39:32] We chased the sheep down from the hills. The sheep spend their summers out in the hills. Then, in September, they're driven down to the home field, and they're separated by farm by the tags on the ears. That was an interesting experience. [39:56] Then, my same cousin said, "Why don't you come back here next February for the Thorrablot." Do you know about the Thorrablots we have here?

Interviewer: [40:05] Yeah.

Ted: [40:06] I said, "That sounds like fun." Ruth didn't want to go, but I did. I thought that was the best Thorrablot that I'd ever been to, out in the country where there were a couple of dozen farms. Everybody knew each other. Each farm had its own table, and they provided their own food. They put on a good show in the evening. [40:35] One of them was, well, the young ladies were teasing the organizers of the Thorrablot. One of them was one of my cousins, or the son of one. Yeah, he was a cousin. There were lots of laughs over that.

[40:56] Then, just before midnight, they had a little skit. There were two fellows sitting at opposite ends of a table with a barrier between them so they couldn't see each other. They were dressed up like their wives, and they were talking about their husbands. I guess it was hilarious because it got lots of laughs.

Interviewer: [laughs] [41:19]

Ted: [41:23] Then, at midnight, the dancing started, and it went on until 3:30 in the morning. [41:31] It turned out that there was a reporter from the newspaper over in Húsavík, which is the nearest town. He stayed over at one of the farms, and on Sunday, he interviewed me, and I got a full-page write up about the Kildekvarian. This little part of Iceland is called Kildekvari. Kildukfarian came back...

Interviewer: [42:05] Very good.

Ted: [42:08] ...and danced just like the lambs. What more can I add?

Interviewer: [42:19] You have been involved in the Seattle Icelandic community for quite some time and done a lot of work.

Ted: [42:28] Yeah. Well, it was around 1990, I think, that things were slowing down for me in my business. This was after I had been to Iceland a number of times and got interested in the Icelanders. I joined the club and was on the board for a few years. [42:57] Then I got involved here in the Iceland Room in the museum, working with Helge Thorgosson who was one of the designers and constructors of the Iceland room and Sig Johnson, who took care of the room itself.

[43:16] They asked me to take care of the archives, which we have in the little annex which used to be a cloakroom for the school. I've done that ever since. I've been involved on and off on the board of the club.

Interviewer: [43:40] You have also been involved in the Nordic Heritage Museum board.

Ted: [43:44] Yeah, I was on the board...

Interviewer: [43:44] You can talk about that, too.

Ted: [43:46] I was on the board a couple of years. I was secretary of the board. Another thing I forgot is after I had been to Iceland, I decided to try to learn some Icelandic. It started here. There was an Icelandic young woman, who was teaching Icelandic here. I think there were three of us students. [44:25] Then somehow, at some meeting like a Thorrablot I happened to be talking to Ed Palmerson. They had had somebody teaching them, a group of western Icelanders having somebody teaching them. I told him about this young woman who taught here and he got interested in it. She was hired to teach a group of us.

[45:06] That went on for a couple of years. She went back to Iceland. She was a schoolteacher back there. Her husband was an architect who worked on the design of the new city hall for Reykjavik.

[45:24] But anyway, we then got other teachers. But then people dropped out. A number of the times we met in my office, in my lab. But people gradually dropped out. We kept going. Three of us kept going. One was Baird Bytherson.

Interviewer: [45:43] Oh yes.

Ted: [45:47] The other was Will...

Interviewer: [45:53] Will Larson?

Ted: [45:54] Will Larson, yes. Both MDs, Will is a psychiatrist. Well, they retired during this period, actually. Each time one of our teachers was about to go back to Iceland, we'd ask her to get us another teacher. We'd always get nice looking young ladies. My wife accused us of picking the prettiest girls in Iceland as teachers. [laughs]

Anyway, we continued this for about 15 years. Toward the end we were reading children's books. I said "Why don't we do something useful? Why don't we translate these articles about the Icelanders and [indecipherable 46: [46:28] 48] Roberts, Blaine and Billingham that were in the 'Almanac,'" which is an annual publication from Winnipeg. They agreed to that.

[47:01] We did. We used that as a class project. We each translated about two pages each week and our teacher would correct them. Then I'd get the typed copies and put them together in Word, finally got it all together. I got the pictures out of the "Almanac" of some of the people that were there, all the pictures of all the people that were there, put them in.

[47:34] Then we had an Icelandic woman, from Iceland, but she was living here, Oda Emmels.

Interviewer: [47:42] Oh yeah.

Ted: [47:43] You know Oda? She agreed to do the final proof reading. Then I looked around for a publisher, and I found one that looked good that was in Nebraska. They did a good job for us. I subsequently got two of the 90 books, the translations. I got them. I smoothed them out in Word and put them together and had them published.

Interviewer: [48:26] How wonderful. So you are fluent now?

Ted: [48:30] No, no, I'm not at all fluent. I can read children's books. But to pick up the Morgunbladid, the newspaper in Reykjavik, I can read about every tenth word [laughs] .

Interviewer: [48:49] Do your children share your interest in all things Icelandic also?

Ted: [48:55] Well, to a certain extent. Rondi was back on her own there once. Let's see. Oh, I didn't mention that I took the family back, Ruth and Rondi, and Mauren and her husband and two kids for a family reunion up in the north, which... What year was it? I don't remember the year. But we had a family reunion. There were 90 people who came out of a possible 115 relatives, aunts, uncles, cousins. [49:51] It was held up in the north, near the farm where my mother grew up, and I still have cousins living there. There's only one uncle who is still alive from my mother's family. He was born 17 years after her. He's 95 or 96 now, and he lives in an old people's home in Húsavík. But he still drives his car and goes back to the old farm, Garasiga, on

weekends. Amazing guy. He was a champion sheep raiser, and he showed me a chart of the genealogy of his sheep. He said, I do for my sheep what you're doing for the family.

[laughs]

Interviewer: [50:49] Oh my gosh, amazing.

Ted: [50:58] What else can I think of? I've had an interesting life. I'll say that.

Interviewer: [51:04] You certainly have.

Ted: [51:04] Never a dull moment. Through consulting, Professor DeVius recommended me to consult to the Argonne National Laboratories, who is developing a new--this is when I had my company--developing a new kind of battery, a lithium-sodium battery. I did that for a couple years. Then one of the people there at the Argonne labs plus a man in the Department of Energy in Washington asked me if I would organize a committee on electrochemical technology and make recommendations for what the Department of Energy should fund to further the electrochemical industries. [52:05] As I said earlier, I knew all the major actors in electrochemistry, and I got people from the aluminum industry, from the chlor-alkali industry, from the metal refining, copper and zinc, and from electro-organic. We had five committees, and they each organized their own committee. We had about 25 members of this committee, and we started looking for things that should be funded by the Department of Energy.

[52:47] I suggested that one of the first things we ought to do is develop a handbook of physical-chemical data. That would be valuable to the industry. I invited some people from the Bureau of Standards to join us, and they were interested in doing that, but they didn't want to use the industry data. They wanted to start over, [chuckles] to do it from scratch. This was around '78 or '79 that I was doing this.

[53:32] When Reagan came to power in 1980, his first objective was to eliminate the Department of Energy. Then, somebody told him that the Department of Energy makes the plutonium for the atomic bombs, and he backed off and just cut the budget. Well, he cut it enough that there wasn't enough for our committee, and so, it was disbanded.

Interviewer: [54:02] Goodness sakes.

Ted: [54:07] That was another adventure.

Interviewer: [54:08] Yeah. Well, you certainly have had a very illustrious career and life.

Ted: [54:17] Yeah, it's been fun. I published over 80 technical and scientific papers and a dozen patents. I'm still not done, actually. I'm still working on some new technology to make aluminum.

Interviewer: [54:32] Are you?

Ted: [54:34] I'm working in collaboration with an Icelandic friend who has a company that sells equipment to aluminum companies around the world. If we can make this new idea... Ideas, it involves a lot of ideas in this new technology. If we can make it to go, it'll save about 20 percent in the capital costs of a new aluminum plant and about 20 percent in the operating costs, and it'll make oxygen rather than carbon dioxide.

Interviewer: [55:09] Wow.

Ted: [55:11] As I mentioned earlier, the aluminum industry is very capital-intensive, very slow to move. I sold the original patents in 1998. I had four patents. I sold them to an aluminum company down in Oregon. They got money from the Department of Energy. They got \$4.5 million, and they had to put in \$1 million of their own. About \$6 million has gone into the idea so far, and it's still got a ways to go. [55:50] Two years ago I was over in Sweden, and we ran another test on a new idea that...

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Ted Beck.03

Ted Beck: [0:03] ...part time.

Interviewer: [0:07] But your company and your building down in...

Ted: [0:10] Well, we sold the building. That was one of our good investments. [laughs] We bought it at a good time and sold it at a good time. Yeah, I have a new patent, which was submitted December 2000. Two years ago anyway. My friend in Iceland paid for it, and we have an agreement that we share royalties whenever it's successful--80/20. 80 him, 20 me. He's taking the fiscal risk, not me. [1:02] He's working on the next step to do some further work in Iceland. There's a new technical university that's been formed during the past year or two that is housed in the NATO base that was abandoned a couple years ago that was up near the airport. So he's got an agreement with the powers that be in this new university that we can get some graduate students to work on it. So I'm hoping that this is going to work out OK.

Interviewer: [1:44] Yeah, good. So do you go back frequently then to work with him and check up on...

Ted: [1:52] I'm going to have to go over there at some point. I'm hoping that when the equipment is put together, we can do it by Skype. But I'll get a camera that I can put on my computer. So we can talk to each other, share notes, drawing, and so forth. That's what I'm hoping to do, and then just spend not more than a month back there. [2:29] Ruth, my wife, is not too eager that I go because I've got a heart pacer and I'm on some meds. Aspirin, which gives me nosebleeds, and another. At least I'm off of Coumadin.

Interviewer: [2:57] Good, good. Well, we really want to thank you for sharing this with us today.

Ted: [3:03] Well, it's kind of a rambling presentation, going back and doing flashbacks. [laughs]

Interviewer: [3:12] Very few flashbacks. You were very consistent in your chronological story, so that was very well done. We appreciate it. We appreciate you sharing it with us. This will be a valued part of the museum's archive. When we are finished, you will be presented with a DVD and a hard copy of what we have done here today. So perhaps this will present some new things for your family to share.

Ted: [3:46] Yeah. Well, I've been working on my autobiography for quite a few years. I put it aside for a while, but now I'm back on it. Ruth suggested I go to a group down at the Park Department who's having a group get-together about writing.

Interviewer: [4:16] Oh, yes. Is that the one down on Sand Point Way?

Ted: [4:19] No. It's right down below us on One Hundred and Tenth and Thirty-fifth.

Interviewer: [4:26] Oh, OK.

Ted: [4:30] I can't think of their name right now. That's another problem in growing old. You get forgetful. [laughter]

Interviewer: [4:45] I know all about that. [laughter]

Ted: [4:48] Everything's in there. It just takes time to connect. [laughs]

Interviewer: [4:51] Yeah, exactly. Exactly. I'm finding that, too.

Ted: [4:57] Meadowbrook is the place.

Interviewer: [4:58] Meadowbrook. That's it, yeah.

Ted: [5:02] Another odd coincidence. [laughs] When I was living in the Bay Area, some of us from the Kaiser Lab went up skiing together at the Sierra Club Lodge at Donner Pass. Who should I meet there one day but Shell Softky, my childhood friend from Madison Park? He was still working on his Ph. D. in physics at U Cal Berkeley. I had finished my Ph. D. three years earlier. [5:45] He had also skipped a grade in about the second grade, so he was already a year ahead of me through high school. But I guess he had a good time in graduate school. I looked him up in Google recently. I found he has quite a few publications during his time when he was at the RAD Lab at Berkeley. So he was having a good time.

[6:07] Then I met him again when I was at Boeing. I visited various places. We were doing work on batteries, and I went and visited Stanford Research Institute in Palo Alto. Whose name should I see on the door but Shell Softky?

[laughter]

Woman: [6:29] Oh, wow!

Interviewer: [6:31] Many full circles.

Ted: [6:34] Yeah. Amazing the number of coincidences in my life.

Interviewer: [6:37] Yeah. That is so great. All right. Thank you again.

Ted: [6:44] OK. [laughs]

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