All right. This is a United States Holocaust Memorial Museum interview with Wes Orlowski. We are meeting today on May 23, 2019. This is a second interview with Wes. The other interview was conducted in October 2018.

Wes, we ended our last conversation talking about the end of the war. But we want to back up a little bit to talk about your father's experiences when he was deported to Auschwitz and then spent time in different camps.

Yes, so my father was outside of our home, about 25 kilometers from us, in the center of Warsaw, when he was arrested by Germans, taken to the temporary headquarters where he was tortured. They didn't extract much from him because he didn't know what they were expecting him to know. And then he was transported to Auschwitz.

Do you know when that was?

Yes. I found the exact date when he was registered in Auschwitz. It was on 6 of July 1943. So a few weeks earlier he was arrested in Warsaw.

In Auschwitz, depending on the period of time, but by the end of war, Germans were more lenient. It comes to the allowing families of prisoners and prisoners themselves to communicate between themselves. So we're allowed, by the end of war, to send some short letters written in German and small packages. Packages had to be limited in size and weight, and mostly vegetables, which he had to share with his inmates who were in the same room.

A particular one which I visited many years later, they had nine beds in one room, 11 of them. And so when he received a parcel, as well as if they did, they had to share it with the inmates.

Do you know which barracks he was in?

Yes, I have all of that. It's written on-- I have two letters from my father, authentic or original letters, written in German, one from Auschwitz and one from Mauthausen. And they are in span of two months. It means shortly before he was deported to Mauthausen and then shortly after he arrived to Mauthausen.

So my father survived both camps because of several factors. One of them, he knew some German. But he was learning very fast due to the presence-- he befriended some people there who knew German. And they were kind of teaching themselves. So my father was participating in these informal classes.

Second, he was relatively healthy. He was entrepreneurial. Because in files, I found that he was listed as a gardener. I never knew that my father had any talent for gardening. But he was a gardener in Auschwitz.

And then what I knew was that he had skills as an accountant. And they employed him in the office for keeping some records, probably suitcases, shoes, and whatever they-- as we know, Germans are very systematic. And they were keeping records of everything.

So my father survived. And also he had some access to the kitchen as a help. And then, if you are in the kitchen you try to steal as much as possible so you can have food later. Everybody was doing that.

There are some reports my father didn't do that. But people were carrying bread in their pockets to the end of their life, long time after the liberation. And they were 50 years later, but they're still carrying bread in their pockets. You can imagine what kind of the insecurity people were going and what kind of fears they went through.

What information did your father tell you about his experiences there? My father was telling me how he participated in the death march. So there were hundreds of prisoners organized in groups. And they with guards. They were chased by foot from Auschwitz camp, many, many miles along the streets and roads, to the railroad station which had the connection with Austria. And they were packed into the cars. And then unloaded in Vienna, in Austria, near the camp, Mauthausen.

Contact reference@ushmm.org for further information about this collection

So I received-- I still preserved one letter from before leaving the Auschwitz, and then I have one letter which was sent to sister of my mother. She lived in Silesian region, which was Southern Poland, much closer to Austria. Letters written, obviously, in German, with-- both cases, there are his numbers which he had engraved on his hand. He mentioned also the exact place where he was located at that time, which block, which-- how did he call it? Block and Stube, for example.

So he left on the death march in--

And he survived it--

--in January?

--because many-- no, it was before the end of 1944.

Oh. OK.

Thank God he survived this March. Because if anybody became weaker, and the neighboring prisoners working with him couldn't carry him holding his elbows, now he had to be left on the side of the road. And the last German guard who was passing him would shoot him. And then they would leave the body for the local-

But he was strong enough to survive the march.

My father was strong enough. And apparently he took care of himself.

And one of the aspects which I didn't mention was that he became very strong believer in God and was praying a lot. And the claims that kept his sanity more or less stable. Because there were many cases that people couldn't take it anymore. So they were throwing their bodies on electrical fences and electrocuting themself to death.

My father somehow was able to survive all these atrocities. And later he told me-- and I complemented my knowledge by reading more about that-- the conditions for prisoners in Mauthausen were much, much worse than in Auschwitz. Mauthausen was considered one of the most severe German camps where first prisoners in the camp were sent already after the Anschluss of Austria in 1938, I believe. They started this camp in the quarry. They're digging huge, huge area of quarries in the side of the mountain to prevent this place to be bombed by the enemy's bombers.

And there were the entire factories. The planes, they were built there. The ammunition was put together from the parts. And they're working to shifts, sometimes three shifts. They're taking turns. The prisoners had very poor average life span. For the prisoner in Mauthausen, it was two months. And my father survived seven months. And it was liberated in 1945, on May 5, by a unit of US Army.

Do you know what kind of work he was doing in the camp?

All kinds of activity. They were shifting them so that he was working with the ammunition for some time. Sometimes he was in the office, bookkeeping again. Which fortunately the knowledge of German by my father, his German was quite good to the extent that they were employing him in the less physically strenuous situations. The worst was for the people who had to push heavy carts filled of stones or where they were not enough people to-- so they were overextended physically. And luckily for my father, he hasn't had to do a lot of menial work.

Consequently, he walked from Mauthausen, in Austria, to GÃ³ra Kalwaria in Poland. Very rarely he was able to get on some freight. He was nearby of the railroad station. And the freight was just stopped. And so he could climb the train. But there was no regular transportation by train in 1945.

Did he talk about liberation and his emotions at liberation?

No, they're all ecstatic. But they were in such poor physical condition that joy was limited to the food which they could

Contact reference@ushmm.org for further information about this collection eat and the stomach problems they had. Because when they started to eat, they didn't know where to end. Then their stomachs were not accustomed to have normal food and plenty of food. So they were really suffering. Many of them had digestive programs. And so they were quickly learning how-- both the prisoners and the people who were giving them food-- to be very careful how they transitioned to their normal life.

When your father got back home, do you remember seeing him for the first time after the war?

Yes, obviously I remember that. When he came, he was dressed in very funny-- because as he walked from Austria, they were able to enter the empty houses which were abandoned by German population in Western Polish territory. And so they take, sometimes, clothing which didn't fit them, or they were partially broken, or something. So he was very funnily dressed. That first struck me.

And second, his behavior was considerably changed, and to the extent that my mother had a major conversation with him. And he went to live with his mother and his sister. And eventually my parents divorced because it was very difficult for my mother to raise me as a child. I was 10 and 1/2 at the time.

What kind of personality changes did he have?

Nightmares, short temper, sometimes kind of illogical statements. And there was no-- one could not have a longer conversation with him quietly. Because he was very-- level of anxiety, while he recovered physically, the level of anxiety gradually was increasing. And on the one hand, he was happy that he was liberated, obviously. But on the other hand, this lifestyle which they had, changed their-- every person, obviously, every prisoner, was reacting in a different way.

But their outlook of the world outside changed so radically that they didn't know, quite often, how to express it. They didn't understand what was going on with them. There were a lot of what you would call, today, PTSD. It was not known at the time. But all forms of that kind of the trauma was engraved deeply.

There was not enough time to rest and recover for them. So they were still living, so to speak. They're waking in the morning. And they were surprised that they don't have to go to work, for example.

Do you think, later in his life, he found ways of dealing with it, of coping with it, and changed?

He must have. Because he started another family and eventually had two children. But I hadn't been in close contact with him at that time at the end of his life. He lived till the age-- he was 79 when he died. He was born 1905 and died in 1983.

And I've been to his grave, but I haven't seen in the last many years before his death. I will in the United States already, then, besides, for many years.

So to return to our life, in 1944, we became refugees.

What do you mean? You were kicked out of your home?

We are told to leave our home at a short notice. Entire town, and neighboring villages, and the whole strip along the Vistual River. And the reason was that we live on the Western shore of the Vistula River. And on the eastern shore, Soviet army approached, chasing Germans. And the Vistula River became the border line between two armies-- German army and Soviet army.

And our house was on high shore of Vistula River, easily visible from the other shore of the river. And the snipers-how do you call them, sharp snipers, with the lunettes, they could see any moving object. And they were shooting. So for a short time, we were living in our house. But we had to go with our head down and almost crawl because we could easily be shot like ducks during the hunting.

Where did you go?

So we went with two suitcases and my cat hanging in a bag on my neck, we walked for about several miles. And then, eventually, we hired, for a small fee, a farmer with his cart and horse and several families we share that vehicle. And we went to one of the villages when we rented a small place in the barn. And then we rented one room in the house. And then we went to another village.

And that were Polish underground fighters from Warsaw uprising. It was 1944. We kept them from helping them to change dressings on their wounds. And after a few weeks, they left. They were taken by other units of underground movement during the night. But nearby there was a big artillery unit, German. And it was aiming, obviously, towards east, against the Soviets. Then, certain day, in the morning, we see they are turning their guns aiming to the west, 180 degrees reversal. We were completely shocked. Well, what's-- they're shooting their own unit?

Then we realized that they were ready to defend against the encircling which took place. The Russians broke the front at the beginning of January. Eventually the liberation of Warsaw took place on January 17, 1945. But before that, this German units which were in our neighborhood in the countryside, they were aiming towards us. They are not shooting at that time, but they were aiming towards west. Because Russian army already encircled them from the West. The only open area they had is towards Warsaw, towards north.

So eventually they put their stuff together. They hooked their artillery units to the trucks. And they left towards north. I don't know what happened to them, whether they were caught in encirclement or they were able successfully to go west.

Did you return home at that point?

At this point, we were free to go home. And we-- around the time of the liberation of the Warsaw, we came with our two suitcases to our home. And our home was really plundered. And whatever was able-- people who were stealing the items, they did a good job, I have to admit. And we barely found any belongings, including the front door.

When we were approaching our house, we saw a gentleman-- well, "gentleman," who my mother knew, he was cutting on his back, from door of our house. So my mother told him, you better leave it here. [CHUCKLES] And he grabbed the door, apologized-- because he didn't know whose house was it-- and he--

He didn't put it back on?

And my mother was his teacher. So he recognized my mother as a teacher. And, well, anyhow, after the war, life-- we are all ecstatic, obviously. But there were huge shortages of everything. And food was the most important. The farmers which were around did their best and to feed their families and have something to sell and feed us, people living in the small town.

We quickly started to grow food in a small garden. I was one of the main providers there. I learned a lot of skills at that time.

What were you growing?

Oh, basic root vegetables. Which we had good soil. Because chemicals were unknown. We were getting manure from farmers.

My mother was helping herself and helping children. A lot of children were behind the regular program in Polish language, math, biology, geography, all the basic subjects in the grammar school.

My mom was doing tutorials at home, after the regular school classes. So these children, on the way home, they were stopping by. Not that many-- two, three, one sometimes. But quite often, after regular school, there was somebody in my house where my mother was teaching.

Contact reference@ushmm.org for further information about this collection
And these children, most of them, they were children of farmers. And there was a barter agreement. And they were bringing eggs, a small can of milk, homemade cheese, a chicken, sometimes live, sometimes killed, but freshly.

So we are trying to survive. Because stores were empty at the beginning. And also there was shortage of cash. I mean, the whole organization of the life, it took many months before people could function normally-- so to speak, normally.

How did her job change with the communists in power?

Very interesting question. Because my mother and all her colleagues, they were pre-war teachers. So they knew the program. And some of them, they saved the books, or copies of the books, pre-war. They were not accepted officially by the communist authorities because they were-- especially history books. In math or biology, you cannot change much.

But history books, they were a no-no for the communist authorities. So a lot of teaching was based either from these fragments of the books which are saved by the teachers or from their memories, or teachers who are teaching one another some of that, depending who was behind the back, who was unofficial. And they were kind of the between the real facts and phantom history which communists wanted to teach.

And the history— as the older people knew, history is not only what's in the books, but what's in people's memory, especially older people's memory.

So they were very difficult times. My mother was very involved in the teachers union. Before war, she was participating in demonstrations in Warsaw. But after the war, obviously the teachers labor union was penetrated by communists, open or secret agents.

So we need to relearn quickly who to speak to, to what extent. We had to learn how to read between the lines what's in the newspapers. We had to learn quickly not to believe official propaganda. We have to relearn quickly how to man-- or woman-- a radio receiver and how to listen to Radio Free Europe or BBC from England.

Radio Free Europe stations were located just over the border between West and Eastern Germany, several transmitters on different frequencies. And to learn that the Polish authorities are having radio stations on the same frequency located in Poland, which those were sending huge noise, gobbledygook, mechanical noise. Which the purpose of that was just to squash the regular signals coming from Radio Free Europe from Germany.

What programs do you remember listening to?

Oh, they were all publicity programs. They were interviewing interesting people. And they were, you know-- at the beginning we believed whatever was said there. Because it was so different and refreshing what was the official propaganda. Gradually we started to learn how to read and listen with some criticism.

To the BBC and Free Radio--

[INTERPOSING VOICES].

-- and Radio Free Europe. They were a different type of propaganda, as we learned, after some time.

And was that in English?

No, it was in Polish. Everything was in Polish. No, no, it was directed to Polish population.

OK, and the BBC was also?

Yeah, but authorities were chasing it. So people were doing very secretly in the evening, not too loud so neighbors wouldn't hear. But a lot of people were doing it, even those who claim to be communists and believing in the theory of communism. We learned later they were listening to these radio stations as well.

So I'm sure you had neighbors that you could trust and neighbors you couldn't trust.

Yes, yes. During the war, from the very beginning, my mother had a saying that real friends, you recognized and distinguished from so-called friends when the people had to do the sacrifices and people have to do beyond their comfort zone. So the people-- many of our neighbors which we thought not very highly about them, they appeared full of sacrifices, ready to take their last shirt and give you if you needed, so to speak, symbolically. And people for whom we had high esteem appeared not worse, petty, so to speak. Because they became either selfish or they became agents. And they were ready to spy on you and report to authorities.

So learning whom you can trust and to what extent was one of the major human skills which one had to learn.

Did those neighbors change at all after the communists came into power? Were certain neighbors who you could trust during the war, could you no longer trust them after the war?

This was an interesting process. That was a dynamic process. And to the extent that these things are written and I witness the situations like that, people who were discovered by the Polish underground movement in the war, that they were cooperating with Germans, and they were caught and proven, they were taken on the site somewhere outside of everybody's view, and they were shot and killed by the special units of Polish underground movement. And there was very obvious reason-- to give a lesson to the rest of the society that's not the approved way of behaving. Plus they had to be removed because they are doing so much damage. So many people lost lives because of people like that.

So yes, there are all kinds of the behaviors. There are people who were indecisive that then became very cooperative. People who were cooperative and they change their mind and they became selfish. There were trial periods for everybody. Everybody was, certain way, exposed and tested. And there was nobody basically who could stay in their comfort zone and stay unengaged in any way.

So let's switch topics and talk about your education. So my education started from self-education. So when my mother was giving tutorials, I was sitting, playing with my toys, in the other room. Doors were open. I was on the floor. And my mother didn't know that I'm absorbing everything what she was teaching there like a sponge. To the extent that when I was ready to go to the first grade, teachers who where examining me, they said, no, you can go to second grade. You know more than that.

So my mother herself was surprised. But I went to the second grade. And from that second grade to the end of my high school, I was always—to the last class, I was always the best student. I had the best grades.

However, in the last two years of my high school, there was an-- older than all of us-- young man came. And he was studying at the seminary for priests. And he knew Latin like nobody else. He knew French like nobody else. And he was good, but not as good as I was in math.

[CHUCKLES]

But I had quite a problem. Because I was accustomed to being the best. All the kids were coming to me with problems to solve or something. I was helping. And I was not selfish. I was very helpful to other students.

However, in that last-- just before graduation, I had problem with competing with this young man. As I said, he was for four or five years older than us. And he had so much schooling in that seminary.

So anyhow, I graduated from high school in 1952, the same year I applied to Warsaw Polytech, to the Department of Electronics, which was a direction-- well, if young man ask older man where he should go in the movie The Graduate, I believe, he would say, "plastics." At that time, electronics was a popular direction. Everybody wanted to learn about electronics.

And we had competitive exams. I went through that starting in-- it was an 11-semester program. There was an

Contact reference@ushmm.org for further information about this collection experimental program where we couldn't get a BS, Bachelor of Science. We had to go for master's. So in one chunk, without interrupting there was the first course of that entire college. I had to go for master's degree.

So after almost 10 semesters, when I was done with my regular study at the class, when it was the time to write dissertation, myself and two of my closest friends, we started to work in industrial institute for telecommunications. And it was semi-military institution. But there was a lot of work there for civilians. In our case we were doing parts for radars which were later installed on commercial ships, ocean-going ships.

So when I was writing my dissertation, I had to do a lot of translations from literature, not only in English but in French. And I was fluent in French at that time, in Russian, in Italian, and obviously in Polish. So I had to be, from the technical translation point of view, fluent in five languages.

Did you learn all these languages in school?

Some of them in school. But like French, I was learning-- my first exposure with French was there were two workers working for Germans in the shop which was repairing. It was 1943-44. My father, at the beginning of that, was still visiting us from Warsaw. But then he was taken to Auschwitz.

That didn't prevent two contractual workers from France-- one was Russian origin, and another was the Polish origin. I remember their names-- StanisÅ, aw Malinowski and [? Lisen. ?] Mr. [? Lisen ?] was-- had background. His ancestors were White Russians, those who were murdered mostly during the 1917 revolution in Soviet Union.

So and his family escaped to Paris. And he was educated there. So he was fluent in Russian. And I remember he was talking a little bit of Russian to me, both of them talking French. And Mr. Staniså, aw Malinowski was knowing Polish, but kind of the broken Polish.

So an interesting conversation at the table. They were bringing some food with them. We were cooking together. And they were-- for example, first time I ate frogs, the frog legs, fried on butter and so on. And they were delicious. But I wouldn't eat them today.

Did they make you catch the frogs?

I went with them. I showed them where they are. And they were catching them. I knew where they were, where they frogs were.

So that's my first exposure with French. Then my mother's colleague, teacher of the French-- it was 1944, '45, and '46-- I was coming to her home and helping her with the chores, household chores. And she was speaking French exclusively to me.

She wouldn't allow me to speak Polish. So I was quite fluent. I didn't know much grammar, but I was fluent in everyday talk, just simple sentences. And eventually I was learning, in school, grammar.

So when I graduated high school I was good in Latin, four years of Latin, four years of formal schooling, in high school, in French. And learning Russian caught with me only in college. First time I had to go-- it was unusual. In my times, most of the high schools and the regular schools had to have Russian. Somehow my high school omitted-- they were able to avoid teaching there. They didn't have teacher. And that was not popular, Russian.

That was very helpful for me, French. But English, I started to learn preparing my dissertation, my master's degree dissertation. It was '56, '57, '58, '59. I graduated officially '59, with master's degree, from Warsaw Polytech.

Did you have any mentors at that time?

Yes. One of my colleagues-- and we happened to live in dorms, in the same room. I was lucky. And I asked him a lot of questions. He had dictionaries. So kind of informal tutorial. Because my first English self-taught words were-- the

Contact reference@ushmm.org for further information about this collection pronunciation of them, I found it in pictures. I didn't know how to pronounce the words. I knew what they meant. But I had to see them first before, realistically, I could comprehend.

That was everything helpful until-- all my life. Foreign languages were saviors many times in my life. I was lucky, I would say. Among other things, I was in the right place at the right time. That was part of the luck. But I developed the skills for languages. And also human skills. I think coming from that training during the war and after the war, and balancing act which we had to, all the time, whom to trust, to what extent, and how to build relationships and friendships, and how to value real relationships, the real friendships. Those are the skills you cannot easily learn or cannot learn at all in school.

So tell me what life was like going from a relatively small town to Warsaw, which is a very interesting city.

That's a very good question. Because I would assume that this country would be something of similar nature. Small towns are in kind of the dream certain way. Everybody knows everybody. They have expectations you have to follow. In big cities, people disappear. They don't really care for neighbors anymore. They could be on the same corridor, have doors, and they don't say good morning to one another. They pretend that they don't-- they avoid other people.

This is not the case. Warsaw, at that time, had a lot of population coming from smaller cities and from the countryside. So this people brought a culture of small town plus the experience, the older generations, you know, the war. People were much more friendlier, helpful, paying attention one to another, not being afraid to look into other people's eyes.

When I came to this country, one of the first warnings I was told, not to look into the eyes of young men especially, being young man. Because that is considered as a challenge. And can end up being beaten up.

[CHUCKLES] Do you think you were misled by that?

I never experienced a beating in this country. But observing other people, I think that was not bad advice to be on the cautious side, not to be too trustful and direct people and to be too friendly.

What advice did your mother give you when you moved to Warsaw?

My mother, being born in the countryside and then living more years in a small city, never have much to offer in the sense of practical, how to behave. More helpful was to have some friends acquaintance of the acquaintances, or her pupils, or her co-workers who moved to Warsaw. So I could-- not to live with them, but I could come sometimes for advice, for-- this times, there were huge problems with supply of basic goods.

So having friends, acquaintances, always allow people to ask for favors and give favors. For example, if I was walking in the streets and I see the line of people in the front of this store-- because it's not enough room in the store, so people are outside, long line, 20, 70, 40 people standing in line. Most of the people, what they do, without asking, they will first stand up and take the place in line. And then they started to ask what they give here. "Give." Notice that. Not because you're paying with money obviously, but delivery was just coming.

Truck came. And it was delivery of toilet paper, let's say. So you wouldn't buy two or three or a small block of paper. You bought 20 or 30 toilet papers. And you took a string, you put them through the string, and you'll make like a--

Like a necklace? A garland?

Like a garland. And you are hanging them, let's say, three times or four times around your head. And you are walking in the street like that, which looks funny. But you are not alone in the street. And then you came home and, to your good friend, you sold them half or whatever of your supply.

So everybody was trading with everybody else. And life was full of activity. Nobody was bored. Because to survive, you had to be industrious, active, working with others, helping one another, not to be afraid to ask for help, but also be ready to give a hand or to share your goods which you received. And you consider yourself lucky.

Did you have any interaction with the Jewish community in Warsaw after the war? Or did you have classmates who were Jewish?

Only in Góra Kalwaria. And those are the people who incidentally are recorded already for the US Memorial Museum. I was listening to their testimonials. One is Mr. Heinrich Price. Another one is Mr. Kartman. Another one is Mr. Majewski.

And did you know them?

Yes, I knew them quite well. Especially Mr. Price was working some social organizations together was my mom in $G\tilde{A}^3$ ra Kalwaria in '50s, '60s. So I knew him. I knew his family. And he had one daughter, Malgosia. And she's one of the three people I'm going to recommend for the museum to interview. Mr. Price and the others died. Mr. Price had 101 years when he died. It's amazing.

But you didn't have any classmates who were Jewish when you were going through college for your master's program?

Several.

Oh, there were several?

Yeah, there were several. But as it happens, many of them, they had Polish names. And they were not-- either they were converts or they were coming from mixed family, where mother was Jewish or father was Jewish but had Polish name.

So several of them, I was friendly. And certainly only after I became friendly I learned that they were Jewish or had some Jewish background. Part of it was the country were-- there were all kinds of the experiences. And it's just not the place now to-- this is a longer story. But people of Jewish origin were involved whole spectrum of activities. Some of them, they were part of the communist establishment. Some of them they were against. They work in underground army.

The ethnic origin was not enough to make any judgment. Depending how these people were behaving, what they were doing, were they doing something good for their environment, for where they live, for the people where they-- or they were involved in arrests and other not-popular causes.

So it was a judgmental call each time. Yes, but I have several friends, good friends, who are of Jewish origin, including the older friend of mine who came from France. And where he was part of the French underground movement. His brother became the owner of the major circles in Warsaw. And this friend of mine taught me how to make coq au vin. It means chicken in wine-- how to cook--

What was his name.

--chicken. His name was-- it just escaped me this moment. Maybe I'll recall it.

So when did you finish your master's program?

I got the diploma which is dated 1959. But the program itself, I would say majority of my colleagues graduated-- there was not the one day of graduation where we're done with our master's. Most of us were already working because we were stripped of money. We couldn't support ourselves. So we were looking for jobs, working as young engineers. And the salaries were poor, but they allow you to survive. And that's where it counted.

I didn't have my apartment in Warsaw. I couldn't travel to my work in Warsaw from Góra Kalwaria because there was narrow-gauge train which took almost one hour and a half, like one hour and 20 minutes, one way. So I had to live in Warsaw.

Contact reference@ushmm.org for further information about this collection

So what was your first job out of school? After the college, my first job was in that industrial institute, where I was doing research work, experimental research work, with the behavior of semiconductor devices in high-frequency electromagnetic fields.

There were big-dimensional rectangular in cross-section tubes in which the electromagnetic signals were sent. And these semiconductor devices were put inside. And there were measurements how they were detecting that and all kind of-- based on their really cutting-edge science.

One of the funniest things is, which probably many people in the West didn't know, that there was an embargo on the communist countries. And normally you couldn't get the most modern equipment. And for the electronic engineers, having good-- like today you have a computer. At that time, in '50s, you had to have an oscillator. And one of the best oscillators in the world was American tectronics. And we had the most modern tectronics, which were embargoed by the US.

How it happened-- there were go-betweens in Switzerland which would, for cash, they would sell you that equipment. But what they would do, they would mechanically remove the serial number on that so that nobody could trace it back who sold to whom. So it was a lot of equipment which we had in our laps through the purchasing agents which were having cash with them. They went to Switzerland, purchased them, and brought them behind the Iron Curtain. And we had the most modern equipment.

So what brought you to the US?

A Fulbright Fellowship.

Mm-hmm. When did you receive that?

In 1970. I applied in 19-- I was working then at the Polish Academy of Sciences in one of the institutes-- two institutes I worked for Polish Academy of Sciences. One, for a short time, was Institute of Basic Technical-- I don't know how to translate it. Another one was called Institute of Electronic Technology, where I am doing support research because I do not have a PhD. And unofficially I have advanced work towards a PhD experimentally. But I didn't start the coursework yet at that time.

So there was the work in that institute. Then I worked for a company which was managing communication in air corridors. So we're in charge of radio beacons in the corridors or instrumental landing system. I had several responsible positions. One of them was I was in charge of installation of the first instrumental landing system in Okecie International Airport in Warsaw. That was 1962, I believe. That was one of the first instrumental landing systems installed in Eastern Europe. It was a British equipment [INAUDIBLE]. That's where knowledge of English was helpful.

Later, when I was working and had a little bit of time-- my workday was ending usually at 3:00-- for another hour or two, I was working another job with the same institution, which was paid separately. And there was research for some companies. And I had another job, which was the translation of the aircraft manuals, civilian aircraft, from English into Polish.

And I had hand written, and then I have a typist who was typing it by conventional type-- or electric maybe she had.

That's a lot of pressure to have to translate that--

I was doing it the evenings--

It's very important information.

-- and weekends. And it requires a lot of technical knowledge involved. It is not just your regular English.

No.

[BOTH CHUCKLE]

It is not an easy text. And so I have to consult with the aircraft engineer sometimes. But it allowed me to save enough money to buy apartment in Warsaw. Finally I had enough money to buy. And I got the bank loan obviously, the mortgage, for that.

When I left for the United States in 1970, my mother moved from her apartment to this apartment. And I was sending her some money to finish paying that mortgage. And then I paid it to the end and became the owner.

OK, we'll take a break.

Yeah.