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5-27-2015

Interview with Dr. Ralph Pschunder

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Recommended Citation

RCA Heritage Program, "Interview with Dr. Ralph Pschunder" (2015). *RCA Oral History Transcripts*. 34. https://rdw.rowan.edu/rca_histories/34

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File Name: 0806151412_Ralph_Pschunder.mp3

File Length: 00:20

[START OF TRANSCRIPT]

[0:07.5] Ralph Pschunder: Okay, my name is Ralph Pschunder. By a coincidence I got to RCA in 1959. I previously worked in Northern New York and from there I transferred to Moorsetown, New Jersey.

Speaker 2: Okay. Can you talk about the first project that you worked on at the RCA?

Ralph Pschunder: I was hired as a hydraulics engineer because that's what I did there in Watertown, New York. When I came here, there was a problem with a radar structure built out of some truss work. What was required to know was the natural frequency of it. My expertise there in hydraulics is the only thing I've never done at RCA. Everything else there came along and I had to dig into all of the problems there that were thrown at me. Reason was that I was becoming an analyst. In other words, if you have a structure out there that's worth a mega buck or more, you would like to know before you build it there if it's going to meet spec.

[0:02:00.2] Therefore, they had to find some guy who was able there to predict what the damn thing is going to do, if it will meet spec or if it needs improvement before you spend all the money in creating it and that is the thing there that I did when I got to RCA to the special group that did R&D. It was the group there that then produced all of the analysis, be it thermal for satellites, or be the structure for radars and into my lab was stomped there the care of the structures.

Speaker 2: Okay. And from that point, your career progressed and where did it go from there?

Ralph Pschunder: Well, the first project there that I solved was the natural frequency of a truss work structure...radar structure. What I used is some of the experience I had from my teaching days which was the Williot diagram that is a means of calculating the deflections of a truss work.

[0:04:00.0] Now, since nobody was there who could do it and I, fortunately, had remembered there that I have taught this damn thing, so I got to do it. For a thank you, I guess, they made me a double A (engineer). And ever since there I kept this despite the many layoffs that there were. Nobody could displace me.

Speaker 2: So did you feel like RCA recognized your work, appreciated your work? How do you think RCA received that?

Ralph Pschunder: Well, obviously, when somebody comes from Austria there and brags about his degrees and things like that, you don't trust it. So what you have to do is you have to watch them and you have to feed them their projects. If he solves them, good. Then he gets patted on the back and he gets an extra medal. That is what happened. I was lucky enough there to keep out of trouble and I never was caught with anything doing wrong.

Speaker 2: Well, you didn't just keep out of trouble, you received a Sarnoff Award.

Ralph Pschunder: Yeah, I received a Sarnoff Award for a special deed. It was a project there that RCA did in San Francisco. It was a thousand foot tower upon which there were several radio stations there were installed and it was quite an elaborate affair.

[0:06:00.0] One thing that was important to know was what happens to the structure if there's an earthquake. So the demand for an earthquake analysis there came up and had to be responded to. Well, Ralph Pschunder did it. I was able there to calculate the efficiency of the structure during a 7.5 Richter earthquake and satisfy the customer there that they could build up there and it wouldn't fall down or blow over if there was an earthquake. For which I got the Sarnoff Award.

Speaker 2: So what was the workplace like?

Ralph Pschunder: Well, the workplace was...a special group there that did special work. Additionally, we also had the summer students, so we had to introduce them there to the goodies and the baddies there of their future profession. And especially we had a number of girls or women engineers there to take care of. Some of them stuck with RCA and became leaders and managers and others there were male and they branched out into whatever labor used.

Speaker 2: What about your supervisors?

[0:08:00.0] How did your supervisors treat you?

Ralph Pschunder: My first supervisor was...what was his name? My poor brain. I know I wrote it down so that I could report it. Magnus.

Speaker 2: First name?

Ralph Pschunder: Herb Magnus. He was an excellent supervisor and he's the one who gave me my double A status so I'm thankful for that. My next

supervisor when Magnus was advanced to some other job was Dr. Fred Weiss. Dr. Weiss had a degree there from Vienna just like I did only he was after me...few years after me. And of course, we spoke the same lingo. We could speak in German if it had to be and we could speak in English because that was the common language that was spoken in the group and we didn't speak French.

Speaker 2: And your co-workers?

Ralph Pschunder: Well, there were co-workers but if I recall there Fred Weiss did most of the thermal work and I did most of the structure work and I don't know what the others did. They were helpful in the areas there that didn't require there any specific skills.

[0:10:00.2] It was just a time before finite elements came up. So that was a time where your experience with structures there the old fashion way was important and not many of them had that. Later on, when finite elements became available, that was the specialty of the guy who did the finite element analysis and that again there was one guy alone. If you read there the papers there that paraphrases there you'll find out.

Speaker 2: Did you spend any time with your co-workers outside of work after hours?

Ralph Pschunder: Sure. We played volleyball. Well, we played volleyball and of course that was after hours and it was relaxing and it was good for your health.

Speaker 2: Did you end up with any lasting friendships from any of your co-workers or from anybody at RCA?

Ralph Pschunder: Well, I was on very good terms with my boss, with Dr. Weiss and his wife, Dr. Weiss. She was the English teacher in Moorestown and my wife there got along with her because we spoke the same language.

Speaker 2: Okay.

[0:12:00.0] As far as where you lived and what you observed in the development of South Jersey, do you feel that there was any RCA influence in the development of South Jersey?

Ralph Pschunder: Well, when RCA decided to put up a factory or place there where they were going to produce high class radar work, they chose a spot in Moorestown that had been a piece of farm and everybody there was happy that they had an outfit there plus they had a place there where a lot of jobs were available. And the feeling of the Moorestownians for RCA was certainly positive. Especially when

they had the yearly shindig there where they invited the people there to come and have a look and see, it was very popular. We all liked that.

Speaker 2: What was the downside of working for RCA? Was there anything bad in your experience in working for them?

Ralph Pschunder: Yeah, sure. I couldn't do any skiing anymore, whereas in Watertown, there I was able to do some skiing. In winter and in summer there, I had all of the water. I wandered in the St. Lawrence River.

[0:14:00.2] and in the Moorestown, there was Sunnybrook Ski Club. That wasn't bad. We just get used to it. And one good thing about Moorestown was the schools were excellent. So our offspring all got a first class education for which you can only be thankful.

Speaker 2: Okay. Well, we're almost finished with the interview. How would you sum up your career and your experience at RCA?

Ralph Pschunder: Well, when I look back at my career, I had two years of locomotive steam engine analysis and testing and railroading. One of the highlights of my life was that they let me get the control of a steam locomotive with a whole train loading back there and the whistle blowing. So they let me do this for 15 minutes then they kick me off and I had to than just stand there in the cabin there and watch the real locomotive conductor there do the job. My next job there was when I was a POW six weeks for the Americans and three years there for the French and then I had six years of teaching at an engineering school.

[0:16:01.3] Luckily there, my boss, Dr. Schluss, had worked with Tom Brown at the place there where the Germans build the rocketry. He picked up a lot of tricks there as a trade during his career there and when he came and got promoted and dumped his hours on me, I got his notes and I learned a couple of tricks which came in handy there when I was working at Watertown and Moorestown. The next job there in Watertown, New York of course was different from the one in Vienna where I had been a professor with tenure. My mom was an American and she didn't want to come back to Vienna because Vienna was surrounded by the Russians. She hated them and she said, well then she'd come to the United States and try it. Alright, so I took a leave of absence for one year from my teaching position and found a job there in Watertown, New York for aircraft pumps funny enough and I liked it. Five years, I created something that was called the pump bible according to which you should be able there to analyze the efficiency of any pump that came along. However, that's

something there I was hired at RCA and never did. When I got to RCA, I was indulged in structure analysis which actually wasn't the thing that I really had studied for. I studied for mechanical engineering and not for structure engineering. However, it tickled my fancy there and of course, I couldn't be pushed down there. I had to do it. So I had to do it and I was successful with it and all of my years at RCA which were 28 plus 4 years of consulting afterwards, they were successful and never caught me in a lie, although they tried.

[END OF TRANSCRIPT]