

ASHRAE Leadership Recall (formerly Leadership Recalled)
Transcription

Interview of: Olli Seppanen

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Interviewed by: Dick Worth

Note: Finnish accent is hard to understand in some parts and those words are designated with a (?).

Dick Worth

Good morning. I'm Dick Worth. I'm a member of the ASHRAE historical committee also region twelve historian. And today I have the pleasure of introducing to you Olli Seppanen, ASHRAE member who is to be inducted as an ASHRAE fellow later this afternoon and who also has quite a history with ASHRAE. Olli, welcome.

Olli Seppanen

Thank you very much.

D.W.

To start off, could you please tell us a little bit about your background? Where you were born, where you live and your family, etc.

O.S.

I'm from Helsinki, Finland. I was credited there. From the high school '63, went to the university, Technical University of Helsinki. Graduated from there in '69. After that I did some post credit studies in Kansas State University and then returned back to Helsinki, studied again at Helsinki University of Technology and accredited there. Worked a couple of years there and worked for, after that for consulting and then back to the university. And I'm very active in ASHRAE since that. My family and my father was a mechanical engineer. And that's probably the reason I got interested in mechanical engineering. My brother is an architect and he got me interested in buildings and combining architecture and mechanical engineering. That was kind of beginning of my career in the heating and air conditioning business.

D.W.

That is a great introduction into this business. I really got into it without knowing an engineer or architect and to have family members involved just has to be an outstanding introduction. Tell me about your first job.

O.S.

That's a difficult question because I started work in the summertime in various places. But the really kind of first professional job somewhere with my brother. He had, he's a couple of years senior to me. He has a business and I did some design for his buildings and I have a couple of years of common engineering and architecture company. But I got more interested in research and started than at the university, teaching research assistant and continued my studies there, got in the various consulting businesses after that.

D.W.

Have you been a professional educator then over the years or mostly a consultant or a combination?

O.S.

Yeah, I worked for some years as a chief engineer in our laboratory, heating and air condition laboratory at the university and then about ten years as a consulting engineer. It's the biggest consulting engineering company at that time in Finland. And they had an office also in Seattle, Washington. And I've worked a couple of years there and then got, again, more interested in science and went back to the university and have served as a professor at Helsinki University of Technology since 1982.

D.W.

What did you teach specifically?

O.S.

I did, specially my chair is called heating, ventilation, and air conditioning. So it's exactly what ASHRAE is doing.

D.W.

So it's design specialization course?

O.S.

Not only design but also research and various modeling techniques. Air conditioning, advanced heat and mass transfer and now specifically energy efficiency of the buildings and indoor environment. My specialty is really the indoor air quality and its relation to human responses.

D.W.

Olli, during your early laboratory career, what types of projects did you work on? Just want a little bit of background, the kinds of things that might be of interest to the people watching this interview.

O.S.

I think that my whole career has been very much influenced by the first energy crisis in 1973. And at that time we started a lot of research in that area and tried to improve the energy efficiency of the buildings. Then after that came, kind of ventilation problems, indoor air quality problems and kind of was transferred from that, my interest more, more, kind of making people more comfortable and healthier and productive in the office via our technology.

D.W.

With the use of less energy.

O.S.

Exactly. Right. That's really the key issue that develop a technology that which at the same time can improve the energy efficiency and the indoor environment. And that's going to keep for the future.

D.W.

What types of ASHRAE committees have you worked on Olli?

O.S.

I think the most important has been my input in Environmental Health Committee and I think it's very, has to be very important that ASHRAE selected as a part its activity also, it's environmental health. So technology is for people. And so we have to in the future also keep in the mind to combine that environmental health aspects and technology on healthy buildings. And I think my input in that area has been most important also in other environmental committees like thermal comfort, indoor air quality, and indoor air modeling has been my committees.

D.W.

One of the situations that I got involved with during my early career in Oakridge, Tennessee was heat stress. Have you got involved in any of the thermal heat stress studies?

O.S.

Heat stress, yes. Yes I know it's more problem in our climate, you know the climate, in industrial work. It's certainly has an influence on productivity in factories. But in general I think that the European countries, specifically the Scandinavian countries, we have a kind of stricter rules, standards related to occupational health and safety. So that the temperature in the in the factories is not allowed to increase very high. But definitely this problem and there's a certain rules that in high temperatures workers has to have specific time, percentage of time in a cooler temperature during a working day.

D.W.

That's very similar to what we have in this country. What affiliate organizations or competing organizations do you work with in Europe that may have interaction with ASHRAE?

O.S.

I think my affiliation with ASHRAE on that level started when I was president of the International Society of Indoor Air Quality and Climate. That's the international organization with that cooperation we helped ASHRAE get acquainted and get the connections in this indoor environment area. And that's still a very strong international society. And in 1990, I organized international conference on indoor air quality and climate with help of ASHRAE in Helsinki, Finland with twelve thousand participants just focusing on indoor air quality and climate issues. And then I have been also the president of ISIQC. International Society of Indoor Quality Climate. And that organized and health buildings conference in 2000 in Helsinki and also in that area ASHRAE was very helpful. Now the connections to ASHRAE are even more close and active. I am president of European Federation of Heating and Air conditioning Associations. At the moment we have 29 countries as a member societies and total presenting of more than one hundred thousand experts in this area and we have an annual meeting with ASHRAE presidents and executive staff and kind of developing common projects. At the moment one of the most important is the international dictionary. They published, REVA published an European dictionary a couple of years ago with several languages. And now we are working a new of one with 25 languages. So, and ASHRAE's actively participating in that and helping to create the kind of basic list of all the terms and translations for those not only other languages but also for American English. It is a little bit different from European. European broken English.

D.W.

Let's go back to Kansas State for a few minutes. You told me earlier that you joined ASHRAE when at Kansas State, as a student member?

O.S.

Yeah at that time as a student member. I was working in the environmental institute there. Dr. Preston McNall was my supervisor and adviser at that time. He introduced me to ASHRAE and the first meeting was in Kansas City in 1970. I was very impressed that meeting and since that I've been a member of ASHRAE. We had a very nice crew of experts working in the same lab like you, most ASHRAE people know the famous names as Dick Hayter, one of the presidents and then Jim Butz (?), Larry Berglund. Those are kind of, were studying at the same time, at the same group and a very nice, very nice and a good year for me.

D.W.

Was there a local chapter in Finland?

O.S.

No we don't have a local chapter. We have quite a lot of members of ASHRAE in Finland. Kind of a policy has been that that ASHRAE hasn't been active in Europe because we have the European organizations and we try to go in the higher level than chapter level. Each European country have their own HVAC association and journals. So that's the way it works at the the moment.

D.W.

Outside of the people who influenced you at Kansas State, have there been any other ASHRAE colleagues over the years that have had significant influence on your career?

O.S.

Yes I think that Ralph Nevins, I had the opportunity to meet him before he passed away and then of course Preston McNall and other people working in the Kansas State University effected a lot. And then of course said Dick Hayter while he was a president visited several times, Finland, and we had long discussions about how to improve the cooperation and effectiveness of the society. Jim Butz (?) also a longtime friend and his interest. He actually worked as a consultant when I was consulting company, in consulting company. He helped us in some problems related to how to apply ASHRAE standards in some difficult buildings in Arab countries. So that's a little of good friends in ASHRAE still and even more nowadays.

D.W.

I was wondering if a lot of design had been done for the Arab countries in Helsinki or in Scandinavia or in Finland?

O.S.

I think it used to be more than what's nowadays. But when I was of consulting in late 70s and early 80s, there was a lot of activities in Iraq, Iran and even Libya, Syria and those countries. Now not so much after all these political problems. But now getting more and more interest in kind of those, how would say, peaceful countries at the moment. But of course there's a lot of competition in that market area. For most imporantt for Finland, which is close to the Russian market, Moscow and Saint Petersburg area in the business.

D.W.

Is Finland and importer of oil and natural gas from Russia?

O.S.

Yes, yes we are. But we are not dependent only on that source. So we have kind of a our energy policy isbecause we have to import most of the fuel that we have to pay multiple sources of energy ?. No country can rely on one source. And Russia just tested last week the political influence of their gas pipe and ? supply. A couple days ago they cut 30 percent of ? the supply to Finland and a couple of weeks ago they closed the gas pipe to western Europe just a test what is the effect and there is a drastic effect in the newspapers.

D.W.

I would imagine. The electricity in Finland, is that mostly generated with fossil fuels or with nuclear or hydro-electric.

O.S.

Again multiple sources. But 30 percent nuclear, 20 percent hydro, rest is combination of wood fires, boilers, peat fired coals, boilers and coal, and gas fired. So it's a mixture of, just to be sure that we survive if somebody is...

D.W.

In the politically unstable world I guess is one way to put it. What issues are you most proud of in your ASHRAE career?

O.S.

I think that the, my major contribution has been really the creation, the close relation between in organizing the three conferences. This indoor air conference, '93 and then health and wellness conference, 2000, and now the next conference is 2007. REVA conference which is organized in Helsinki also. We have today a meeting, ASHRAE meeting specifically for that conference. Then I think that I have influenced ASHRAE's interest on indoor air quality issues. I specifically at the moment, the very topic of how we can convert, kind of economical effects of indoor environment so that building owners and employers understand the meaning or importance of the indoor environments. That means that it effects on the work performance and productivity. So we have developed a kind of quantitative relationship between several indoor environment parameters and productivity. And that's part of the work I have done in cooperation with my colleague Bill Fisk in Lawrence Berkeley Laboratory in Berkeley, California. We actually spent last winter there and developed some of the new concepts in that area. Actually my first paper in ASHRAE Transactions was related to measurement of the thermal insulation value of clothing like, and how my stuff effects on the comfort temperature. And it was awarded as the best paper at the time, 1970 I think. Long time ago.

D.W.

One of the things we started off with, I sort of asked about your family and I don't remember hearing, do you want to talk about family?

O.S.

Sure, it's very important for me. My wife Tula, I think she has traveled with me in all ASHRAE meetings and I think she knows more ASHRAE people even than what I do. She enjoys very much, not only the professional contacts but the spouses, contact with the spouses, lovely people and so friendly. And we feel always so welcome to be here. So she is helping another Finnish lady today, just now to shopping because our friend lost luggage yesterday and now she has to buy something new, you know, things.

D.W.

My wife wouldn't need the excuse of loosing luggage. She's shopping anyhow.

O.S.

We have two daughters. Grownups. The one is psychologist and the other one is has a masters degree. She is working in the Netherlands for Unilever company and the younger one, the psychologist is working for in her area in Helsinki.

D.W.

Are there any finishing comments that you would like to make that we haven't gone over or things that you'd like to see happen in the future?

O.S.

Yeah I think we are both, ASHRAE and REVA, are focusing on kind of similar problems at the moment. I kind of, we sort of more think global but act local. Especially with the global warming issues and

environmental issues, healthy buildings. I think those are the future issues that we have to improve the quality of indoor environment in buildings with the less use of the resources and energy and what it pays. That's kind of huge challenge for ASHRAE and REVA. Specifically with a very similar kind of cultural background in the States and Europe, I think we have a lot of a common goals and a lot of similar way of thinking on the problems and their solutions and I think that we sort of learn from each other and sort of combine the forces to find the solutions of these very important problems. But I certainly hope that this cooperation with ASHRAE and European organization and REVA continues as it has done this far.

D.W.

I hope so too. Well it was enjoyable talking to you today. And I appreciate it very much and congratulations on your fellowship and...

O.S.

Oh, thank you. It was a pleasure.