



AMERICAN INSTITUTE OF MINING,
METALLURGICAL, AND PETROLEUM ENGINEERS

ORAL HISTORY PROGRAM

Michael Strelbisky: A Distinguished AIST Member Influencing the Steel Industry

PREFACE

The following oral history is the result of a recorded interview with Michael Strelbisky conducted by Karim Alshurafa on May 9th, 2019. This interview is part of the AIME and Its Member Societies: AIST, SME, SPE, and TMS Oral History Project.

ABSTRACT

A prominent member of the iron and steel community for over 30 years, Michael Strelbisky, an engineer from the Steel Town of Canada, has been an international influencer on steel technologies. Since taking over the family business at 28, Strelbisky has been the president of Tallman Technologies and has worked to grow the company by learning from other steelmakers and AIST. From his patents on lance tips and involvement in AIST committees and conferences, Strelbisky has contributed to the growth of the steel industry and AIST's international footprint. Strelbisky helped establish AIST's Study Tour program and serves as an international ambassador for the society. As a distinguished member and fellow of AIST, Strelbisky promotes the steel industry and member societies and their opportunities to network and learn from other professionals in the industry.

Readers are asked to bear in mind that they are reading a transcript of the spoken word, rather than written prose. The following transcript has been reviewed, edited, and approved by the narrator.

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00:14 Introduction

Alshurafa:

This is Karim Alshurafa of SMS Group. and member of the AIST, Association for Iron and Steel Technology. I'm here at AISTech 2019 in the Westin Hotel on May 9th with Michael Strelbisky, President of Tallman Technologies. Michael has been a prominent member of the iron and steel community for over 30 years. We are doing an oral history capture for the American Institute of Mining, Metallurgical, and Petroleum Engineers. Thank you, Michael, for being here with us today and sharing your experiences.

Strelbisky:

Karim, thank you very much for inviting me to share my experiences in this oral history project.

00:45 Engineer From the Steel Town of Canada

Alshurafa:

Mike, you've had a distinguished career in the iron and steel industry. In 2017, you were named as a Distinguished Member and Fellow by AIST. The award stated, "For his relentless scientific drive to improve steel-making process and technology, his passion to serve as a global ambassador for the AIST, and his instrumental role in the evolution of the AIST study tour program, which has fostered the international exchange of ideas and fellowship on the path towards creating a sustainable iron and steel industry."

We are interested to know how it all started and how you got here. So, today we're going to go through a series of questions to dig deeper into that.

Mike, you and I used to be neighbors at one point, has Burlington always been home for you?

Strelbisky:

Well, interestingly, I feel that I've grown up in Burlington, but I was born in Hamilton. I went to a high school in Hamilton and met my wife in Hamilton. So, Hamilton has always been in my heart. It's the steel town of Canada. It has influenced a lot of the areas of Burlington and Hamilton and less so Toronto. I was born in Hamilton at St. Joseph hospital, the Catholic hospital in Hamilton. I went to school in Burlington grade school, but then went back to high school in Hamilton where I met my wife, my high school sweetheart. I met her in French class, which was interesting because I went to a boy's school, and she went to a girl's school. So, trying to meet a date for the prom was always very difficult. So then, from Hamilton, I went to University of Waterloo, and my very first co-op job was at Stelco in Hamilton. So, again, I leave Hamilton, I then come back to Hamilton. It seems to draw me back.

03:07 Tallman Technologies' Influence on My Career

Alshurafa:

That's great. You also met your high school sweetheart there. Did you always think you would be growing up in a steel town?

Strelbisky:

I thought that I would be involved in the steel industry in some way, but not necessarily contributing to the development of the steel, actually as a supplier. So, the company that I worked for, Tallman Technologies, was my father's company. He started there in 1958, and I started there in '85 as a process engineer in the foundry. So, I was focused on copper castings and, really, the manufacturing of the parts. It wasn't until later that I found that I got involved in the steel industry.

Alshurafa:

So, Tallman Technologies has been a family business. So, did you know in school that you were going to be ending up in the family business? Was that the plan from the start?

Strelbisky:

It was the plan from the start, but I think the plan was very different. The plan was mostly to be a process engineer and to handle production. My job now is to visit steel plants around the world and to help to improve their processes and productivity, far different than what I thought when I first started at Tallman.

04:37 Beginning My Lifelong Journey in the Steel Industry

Alshurafa:

So, you said that you went to Waterloo University. Is that the school that you chose because of that specific career path?

Strelbisky:

The reason I chose Waterloo, it had a very good co-op (cooperative education) program. And, I didn't realize that my first job would be at Stelco, so that was interesting. And then, my second internship was with TransCanada Pipelines, again, related to steel because they use so much steel in their pipelines. And then, finally, I went to work at Petro-Canada and was involved in corrosion of steel. So, in one way, I didn't think I'd get there; and, yet, when you look back, you see how all these things have influenced my life and how I ended up here.

Alshurafa:

Yes, that seems like an incredible influence towards bringing some important experience back to the family business. Now, was there any other political or cultural events that influenced you at a young age?

Strelbisky:

Well, I wouldn't say political or cultural. I think I would say that the recessions of the 1980s and the '90s had an effect on the jobs that I took, and it affected my work career.

Alshurafa:

So, how did you get your first professional job in the industry?

Strelbisky:

Well, I got my first professional job because I was predestined to work at my father's company. So, it wasn't

too much of a stretch. I really didn't have, I would say, a lot of choice, because I'm very fortunate to be able to get involved in and to learn the business. So, if you talk to my wife, she said, "You always said you wanted to be a pilot, so why didn't you become a pilot?" Well, it's a little bit more difficult. But, looking back, I'm so thankful that I did choose the career I chose.

06:34 Predestined for the Family Business and Working as a Process Engineer

Alshurafa:

So, working for your father in the family business must've been interesting. How did you start? What position did you take? What kind of job duties did you have?

Strelbisky:

My first job at Tallman was estimating for castings. The person I was taking over for had been with the company for 49 years. He first started delivering castings in Hamilton on his bicycle. So, it was large shoes to fill. And, from there, I went to process engineering in the plant and looking at developing processes for making castings, more than anything. I then started to learn how to design lance tips for blowing oxygen into BOF furnaces. My most important mentor was Tom Langs, which was my father's partner. My father was the financial person, and Tom Langs was basically the engineer and the idea man. He went to school at MIT, so he was a very smart guy. And, he had started developing lance tips back in the 1950s for Dofasco.

Dofasco was the first BOF steel plant in Canada and actually the second in the world. And, we started making lance tips all the way back then. So, in 1985, when I joined, I mean, when you look back at it, you see that calculators were relatively new. So, it was a lot more difficult to design things back then, than it is today.

Alshurafa:

Wow. It seems like you did have big shoes to fill coming in there, but it also exposed you to a lot of experiences. Now, was it difficult to transition into this profession?

Strelbisky:

At the beginning, I was focused more on the plant side, so it wasn't so difficult. It was when I had to reach out and go out into the industry that it was a little bit more difficult because for me it was uncharted waters.

08:44 Major Steel-Making Projects and Developing New Products for the Industry

Alshurafa:

Oh, absolutely. What was your first major project like?

Strelbisky:

Well, my first major project related to steel-making was in designing a special type of lance tip for blowing oxygen. Going back into history, we were heavily involved in the steel industry in the 1950s, '60s, and '70s. Then, due to a lot of different circumstances, we didn't really pursue that industry very much. It was only in the 1990s that I had the idea that we should really go back to our roots and actually look at going back into

the industry and trying to develop a new product that the industry would accept. I didn't want to have a sort of "me-too" product. So, in 1992, I developed a special type of SWIRL COOL lance tip, using what was then very interesting technology called CFD, computational fluid-dynamics simulations. The university that I went to, University of Waterloo, was a pioneer in this technology. So, it was just fortunate that I was able to access this technology when it first came out.

Alshurafa:

Fantastic! Now, you mentioned the first BOF at Dofasco. Do you have any stories to share?

Strelbisky:

Yes. One of the stories is, in one of the conferences about 10 years ago, I met somebody named Robert Lee, a very distinguished member. People should probably recognize Lee and Savard. They were the first people [who] developed *tuyeres* for steelmaking. And, Robert came over to me, and he said he saw that I was working for Tallman. And, he said, "You know, I remember, back in 1955, when Dofasco first started building the steel plant, that you'd supplied the lances. I said, "Wow, that's really interesting." He said, "Not only that, though, there's a funny story behind it." Dofasco had decided to build the steel company. And, at the time, they were supposed to get a license from Voestalpine. Well, at first, they decided they weren't going to get the license, and then they changed their mind. So, they were going to invite Voestalpine to Hamilton, but they didn't want them to see what they've done. So, what they did is they buried the complete steel plant, including the lances, and invited Voestalpine to come. And, Voestalpine came, they signed the contract, and then, the next day, they started digging up the lances and the BOF. So, it was quite an interesting story.

11:26 My Father – One of the Most Significant Influencers of my Life and Career

Alshurafa:

That was interesting, an incredible story, Mike. Now, you mentioned Tom Langs as an influencer or a mentor.

Strelbisky:

Yes.

Alshurafa:

Did you have any other mentors growing up?

Strelbisky:

Growing up, my father was one of my big mentors. I've never heard him swear or say a bad word to anyone. He influenced me in going to French class and that influenced me in meeting my wife. He helped me when we first started working together. He was a very conscientious person. So, he's [played] a significant role in my life.

12:09 A 28 Year Old President of Tallman – Running the Company at an Early Age

Alshurafa:

What other positions did you hold as you were progressing through the ranks at Tallman Bronze?

Strelbisky:

Well, first, as an estimator, then as a process engineer, and then, actually, as the President at an early age. So, I became President of Tallman's in 1990. So, I was just five years out of university, and my father had a major stroke and had to retire. So, [I] had pretty big shoes to fill when I was 28, not only trying to learn our industry, but I had to start running the company when I was very young.

Alshurafa:

So, what direction did you decide to take the company at that age?

Strelbisky:

So, at the age, that was in 1990, there was a major recession. So, we had to go through a major downsizing. And, in one way I was thankful, that, at 28 years old, I really didn't realize what we were going through. I just put my head down and continued to operate. And, we went from, basically, 25 people down to about 8 people and never really thinking how dramatic that was until after, when I looked back. And, I said, "Wow, we survived."

Alshurafa:

Incredible.

Strelbisky:

So, one of the most important people in my career and developing my career was my father's partner, Tom Langs. Tom Langs was a pioneer in the steel industry in regard to designing nozzles. Dofasco was in Hamilton. We were located in Burlington at that time, and we were developing steel-making nozzles for them, starting off with a single hole nozzle, then going to a two hole and a three hole. He did all this design work himself, all on a drafting board and [with] a pencil.

Looking back at it, it was amazing how he could do all these designs. When I joined the company in 1985, as I mentioned before, calculators were relatively new. Everything was being done by hand drafting. We got the first computer in Tallman's in, I think 1986. I think that was a big computer, [it] had 20 megabytes. We eventually got to 60 and 80 megabytes, but [it was] still very difficult to design things. Now, today everything's designed in 3D and things like that, much simpler. So, for him to design these nozzles and to make them work was quite impressive.

14:43 Learning the Steel Industry – A Major Challenge of My Career

Alshurafa:

What are some of the biggest technical challenges you experienced in your career?

Strelbisky:

Technical challenges? So, it's easy to look back and see what the challenges are. When you're moving

forward, it's very difficult to determine where the challenges are going to come from. But, when I look back, a lot of the challenges had to do with understanding the steel industry. So, I grew up, and my first job was to make these lance tips. But, really, the important thing is how to use them, how to adopt them in the steel industry. So, I had to go back and learn the steel industry. I knew how to make parts, but I didn't really know the steel industry. So, that was a major challenge, and I was already finished [with] school. So, I couldn't really go back to school and learn steel-making. So, one of the big things about the association was I was able to come into the association and learn a lot about steelmaking; and, by talking to other steelmakers, I really learned a lot. So, that helped. So, one of the challenges was trying to learn the steel industry.

The other challenge was how do you approach, how do you get to these steel companies? Why do they want to see you? Everybody's so busy. One of the challenges was to develop something that they would be interested in. So, in 1992, I developed this lance tip. It was using the latest technologies of CFD analysis to design the water cooling and effect. That was my first patent back in '92. So now, I had developed this thing, and now I have to figure out where I'm going to sell it to. So, at the time, the North American market wasn't really open. So, I had to find another country to go to. So, I'm thinking, okay, some country that speaks English, is similar, and I had to have some sort of connection to get there.

So, I was working with a colleague who had just moved to Australia. So, my first big move was actually to try to sell this product in Australia. Probably, the other end of the world.

17:00 AIST Steel-making Committee Experience and Professional Influences

Alshurafa:

So, Mike, you mentioned getting involved in associations to build on your steel-making knowledge and also meeting people there, colleagues, building colleagues and relationships. Do you recall any significant experiences working with colleagues that you can share?

Strelbisky:

Well, my first real experience with getting involved in the steel industry is when I went to my first conference in the mid-90s. I went to Dallas, Texas, and, boy, it was very intimidating walking through the halls and seeing these people that were leaders in the steel industry. So, looking back, I guess the students that are coming here are probably seeing the same thing: this big show, all these people, everybody knows each other. At the beginning, I didn't know anyone. So, it was very difficult to work your way through the conference and to talk to people. But, I went to a few more conferences and then I said well, the best way to really understand this is to get involved. So, I got involved in the committees and that was at the time that the AISE and the ISS were being transformed into the AIST.

So, there was a brand-new steel-making committee, and Tom Russo, who was the president or general manager of Sparrows Point at the time, was very influential in starting this committee. He brought a lot of his people to the meetings, and it was really important that we establish a steel-making committee. I mean, here's a guy that runs the complete steel plant, and he was involved in the committee. And so, that really was a big influencer for me to see how somebody so senior could get involved in what I thought was just a small part of the industry. That was back in about 2000. And then, eventually I got on to become the membership chair. Again, that was a little intimidating because, as a membership chair, you have to contact all these people. Again, relatively new to the steel industry you start contacting people, asking people to come to meetings. And, there's these guys that are much more senior to you, and you're calling them, why aren't you coming to the meetings? That was an interesting part of the committee life. Then, going from

there to papers chair and looking at all these papers and really seeing how much effort there is to put together a conference. And then, from the papers, to vice chair, to chairman.

That time being chairman of the oxygen steel-making committee was for me a real [honor]. I was very proud to be there and to look back and see all the other people that had gone before me. So, being papers chair, and then vice chair, and then chair was significant. And, I was fortunate that, at the time of the rotation, I was elected to go onto the AIST board, which was another sort of step in the organization. You can get the scene what's happening around the organization and how they work, and actually being able to make some influence in the way the association was moving forward.

It was about at that time, around 2005, I went to another conference, a CIM conference, Canadian Institute of Metallurgy Conference, in Hamilton. I met another key influencer in my life Dr. Rolf Braukhouse, from Dillinger in Germany. He'd come to Canada to go to this conference, and I ran into him, and we started talking about different steel-making, how they did it in the US and Canada and how it differed from steel-making in Europe. At that time there was very little collaboration or contact between Europe and North America. So, we started talking about different things at that time. Slag splashing was a big innovation in the US and people were trying to get converter license of 60,000 or more in there. And, the Germans couldn't understand why you're doing this. Like, what is motivating you? Because they were getting life of like a thousand, two-thousand, three-thousand heats. So, we saw that maybe we should find some way to get together and try to compare the different types of steel-making.

So, it took a little while. But, in 2007, I started working on the first study tour, which, in our committee, we said, "Well, guys, let's try to go to Europe." In 2007, it was not so easy to get people saying, well yeah, maybe we should go to Europe. So, we decided to, with Rolf Braukhouse's help, we organized a tour through Germany. And, at that time, we shared the differences between how the North Americans made steel {and how the Europeans made steel. It was interesting, the exchange and how open it was. And, looking back from that a few years later, we saw that there was a real influence in this exchange. In around 2010, you start seeing the Europeans starting to slag splash, and you started seeing the North Americans slag splash less. You started seeing the North Americans start to look at different ways of making steel, using bottom stirring. That was very popular in Europe, but not very popular in North America. And so, Rolf was one of my major influences.

Alshurafa:

Oh, excellent!

23:01 Early International Experiences in Australia and India

Alshurafa:

Now you did mention earlier the whole international experience started in Australia, in the '90s. Do you feel that that was a big influence on your international adventures throughout the world?

Strelbisky:

I think it was my first sort of international foray, and just another little story about that. My children were very young at the time and postcards, we have email and everything, of that time, postcards. I wrote my son this postcard. It said, the next time I come back to Australia, I'll take you. So, we were doing some work at [19]94, and now we started to go back into the market probably about five years ago. And, I said, well, I think I have to go back to Australia. And, my son who is now about 25 runs downstairs, pulls out this

postcard and says, "Well, you got to take me." I said, "Why?" He said, "Well see, it says right here that the next time you go to Australia, that you're going to take me." So I haven't been back, but I expect to go back this year or next year.

Alshurafa:

That's great.

Strelbisky:

But, in terms of how it influenced me, after that, what happened? My next foray was going to India and then into Germany. Again, with India, they contacted us. They wanted to use some of our technologies and start a similar plant in India. So, I went to India, and I met very influential people. Again, I'm a young guy, and here I am meeting people.

24:45 Global Ambassador for AIST – Establishing the AIST Study Tour Program

Alshurafa:

Mike, you're distinguished member citation mentions your impact as a global ambassador for AIST and your instrumental role in establishing the AIST study tour program. Could you please elaborate on how that all started?

Strelbisky:

Well, it started just sort of coincidentally. I guess it started back in around 2005 when I went to a Canadian Institute of Metallurgy [CIM] conference in Hamilton. I ran into, now my good friend, Dr. Rolf Braukhouse. Dr. Rolf Braukhouse was from Dillinger Hütte in Germany. And, we started to talk about the different ways that steel was being made, and how the Europeans had one method and the North Americans had another method. And, it was interesting that both sides didn't quite understand why the Europeans were making steel one way and the North Americans were making it another way. So, we decided to get together and find a way that we could exchange ideas. We thought about, well, maybe you guys can visit Germany and maybe the Germans can visit the U S. So, it took about two years, but we've established our first study tour in 2007. We went to visit five steel plants in Germany. We were basically invited with open arms. We had a great technical exchange. We visited Dillinger Hütte Saerstahl Tisone. We were met by senior executives. So, at that point, I felt like an ambassador at that time, leading that tour and visiting all these steel plants.

Alshurafa:

So, Mike, your experience with that study tour, did you feel like it was building momentum towards other study tours?

Strelbisky:

Yes, from that there were lots of other questions that were still unanswered. So, from there, we'd visit Germany, and now the Germans wanted to come back. So, we had to sort of arrange a study tour in North America for the people from the companies that we visited. So, they came to the United States, and they started learning about how the Americans made steel. And, from there, the questions kept coming; well, what about steel-making in other regions? And, there were other people that wanted to go to Germany and Europe and try to understand the steel industry. So, it built, every year, we basically had some sort of

exchange. From Germany, we went to Austria, the Netherlands. Then, we got a little bit broader. We went to Brazil, Argentina, we've gone to Japan, Korea, and we're still learning new things. So, yes, it's still building, and there's now more study tours from the AIST, and I'm very proud to see what's happened with the study tour program.

Alshurafa:

Absolutely. And, from our experience, we've seen that also spread from the oxygen steel-making committee to other committees, electric steel-making, and also additional committees will have taken on these study tour programs because of these influences. So, thank you for that.

28:21 Patents and Lances – Developing North American Technologies for the World

Alshurafa:

I want to go back to the time where you mentioned the patents within your career at Tallman. You mentioned your first patent. Do you care to elaborate on the other patents that you've contributed as well?

Strelbisky:

Yeah. So I'm looking back, I'm trying to see what we have a patent in. In the early 2000s, we worked very closely with BOC gases, and we were developing a technology to try to improve production in the steel industry. At that time, there was big demand for steel, and we jointly developed a special type of lance tip that would increase productivity. So, that was probably my second patent. My third patent was more on other sort of designs on lance tips. And then, around 2009, we developed a special type of internal lance support system for these, they're called PCDs [Post Combustion Distributors]. And, these PCDs were very well known in North America. They were used to control buildup of skull on the lance and in the converter. But, one of the issues is they're made out of copper, and they would bend very easily. So, we developed this structure that allowed us to extend the heights of these lances and to have more flexibility. So, we went from this technology, [it] was basically a North American technology, and now that we were able to develop a lance that wouldn't bend, we started promoting it around the world. And, it's interesting that now we have over 40 customers in the world that use these lances, from Mexico, Brazil, Argentina, to Taiwan, Korea, in Europe, and now in Australia, again.

30:31 Career Milestones – From My First AIST Conference to Working with International Companies

Alshurafa:

It all comes back full circle. Thinking back in the industry and your time in the industry, what milestones do you think had the biggest impact over your time?

Strelbisky:

My first AIST, or I guess, at that time, it was an AISI or an ISS conference. I can't quite remember. I can still remember that that was a huge influence, just seeing how large the industry was and how many people were participating. My next big influence was probably a couple years later when we started getting involved with electric steel-making. At that time, this electric steel-making industry was growing tremendously. And, we had, again going back to the Dofasco, it seems they'd bought a new electric furnace, and they were having problems with their lances. They'd asked us to come into to help them with it, and we helped solve some of their problems. And then, the manufacturer of their furnace, Fuchs, said, "Well,

maybe you can help us?" So, we started working with Fuchs in the USA, and then Fuchs in Germany said, "Well, maybe you can help us in Germany?"

So, I went back to Germany, and then that sort of started my foray into Europe, going back and forth to Germany to visit Fuchs. And then, I would visit other steel companies. And, I became very comfortable with traveling. And, that also helped with the study tours, because most of the study tours involved either customers or companies that I've already contacted. So, that was a big influence in my career, going from my very first conference to working with an international company to traveling to Europe. And then, again, to be involved in the oxygen steel-making committee was a big milestone for me.

32:43 The Pinnacle of my Career – Being Awarded AIST Distinguished Member and Fellow

Alshurafa:

Looking back at your career, the awards and honors you received, which one of those do you care to mention and elaborate on?

Strelbisky:

Well, I guess most of these awards have come from being involved with the association in one way or the other. So, the first award I received was actually being the chair of the steel-making. It wasn't quite an award, more of a citation, and I hung that very proudly on my wall. Then, the next citation was for being involved in the study tours, and I was very proud of that. But, the pinnacle, really, of my career was to be nominated and awarded the distinguished member and fellow of the AIST. It was unexpected.

But then, looking back, we can see the real influence the study tours had on the industry. Now, you look at the AIST and see how international it is. Now, we have committees or chapters in Brazil, and Korea, and in Europe, and the new chapter forming in the Middle East. I feel a lot of that's come from the study tours and the technical exchange that we've had and for people to be opened up to other ideas in the steel industry. So, I felt that that was one of the major contributions, and probably why I received some of these awards. But, I didn't start out to look for an award, it just sort of ended up based on, I guess, what happens in life.

34:41 Membership Societies' Impact – The Opportunity to Learn and Gain Confidence in My Career

Alshurafa:

So, we talked about how impactful society membership was for you. When did you first hear about AIME AIST, AFS, and how did you first come about contributing to them?

Strelbisky:

I always knew they were there, but I really didn't know how to participate. How do you get involved in the association? You can visit conferences, but it doesn't really get you involved. So, you need to have somebody sort of introduce you to the association. And, one of the people that introduced me to the association was one of our salespeople that formerly worked for Fuchs. He was heavily involved in the association, and he said, "Mike, you've got to come to these conferences." I said, "No, no, let me just do my work." I always felt a little intimidated because these are huge companies that you're dealing with, and the people that you're dealing with are sort of pillars in the steel industry. But, he said, "No, no, try to get involved." So I went to a few conferences, then I got on some committees, and from there I just started to get involved.

Alshurafa:

So, what's the first association you joined?

Strelbisky:

Since the company, Tallman, was a foundry and my first position was as a process engineer in the foundry, my first association was the American Foundry Society [AFS], And, I belong to the local chapter, went to some local meetings, and then I got involved in the committees. When I started there, it was a smaller society, a local chapter. [I] got involved in, again, a membership and then to education chair and scholarship chair, and eventually was the chair of the association in Ontario.

Alshurafa:

Wonderful. How do you see societies benefiting people in the industry today?

Strelbisky:

Well, looking back, it's very interesting because I can see how the society has molded me and influenced me significantly. I wouldn't be here without the association. They gave me the opportunity to learn, to network, to meet people, to gain confidence in myself and to learn how to talk to people in industry.

37:27 My Influence as an International Ambassador on AIST's International Position

Alshurafa:

Mike, you're recognized at AIST as an international ambassador. On their behalf, it seems that you've done quite a bit of work on the study tours. What influences do you think this had on the international AIST participation?

Strelbisky:

Well, I'd like to start a little bit about how I started this traveling. As I mentioned, I went to Australia back in the early 90s, and then I sort of got a little bit of the traveling bug. I said, well if I can sell things in Australia, maybe there's other countries I could visit. So, I was really interested in Brazil. So, I decided to contact somebody in Brazil, and through my network at the AIST, I was able to meet other suppliers that have already worked down there. So then, I went to Brazil and visited all the steel companies there [and] saw how they made steel very differently than North America or Europe.

Then, I was, again, personally interested to visit Turkey. I saw that they were like ranked number 10th in the world in steel. [I] said "Well, that's a good opportunity; I can go there and sell my products." So, I phoned up the Canadian embassy, and they said, "Oh yeah, we have this person that you'd be interested to talk to." So, I got to Turkey there and crisscrossed all around the world to Japan, Korea, Argentina. I'm thinking, I can't remember all the countries, but many, many countries.

I saw how they made steel in different parts of the world and how things influenced steel-making: raw material selection, the type of scrap that they had, if they had scrap, and the local factors that affected how they made steel. Again, when I talked about meeting Dr. Braukhouse, I saw that there was different ways I wanted to share that, and we tried to figure out a way of sharing that. And so, it was through the study

tours that we were able to share experiences all around the world. And, it was through those study tours that the AIST started to grow internationally. Some of the chapters that started, for example, in Brazil, were actually a result of a study tour done in I think around 2010.

And then, you look at the European chapter- I think, through our many study tours in Europe, we attracted more people from Europe to come to the AIST. Now, we're forming the European chapter. The newest chapter, which is the Middle Eastern chapter, is really exciting because now the people around the world see the AIST is a great place to network and to be, and we want to be involved. We want to be a chapter. So, I felt that I've been influential in helping the AIST grow internationally, and I'm very proud to be an ambassador.

40:33 Societies Are A Platform for the Exchange of Ideas

Alshurafa:

How do you see societies benefiting people in the industry today?

Strelbisky:

The societies are a platform for networking. I find that networking is extremely important. For me, networking helped me learn the steel industry, and networking helps the steel-makers learn from others. So, I think the association is really important. It's a platform for exchange of ideas.

Alshurafa:

If you were to recommend your member society to a new graduate, what would you tell him or her about it?

Strelbisky:

I would first tell them to get involved. And, once you're involved in the committees or some other subcommittee, you get to then start to network and start to learn from other people and networking for exchange of ideas, networking to find opportunities, for jobs, and networking to make friends. All of these, I think, are a great platform that these associations offer.

41:39 The Secret to My Success – Networking and Learning from Others

Alshurafa:

We know Tallman has a long legacy. It is also a family business for you, but is there anything about Tallman's legacy that you'd like to share with us?

Strelbisky:

Well, Tallman is a very old company. It was founded in 1875 as Phoenix Foundry in Hamilton. And, the Tallmans, at the time, worked for Phoenix, and they eventually started their own company, and it was a copper foundry. They made all sorts of other parts. They made parts for the model A's, the model T's, we made windshield wipers, many different things. But, because we were in Hamilton, we were very influenced by the steel industry, and we started making parts for open hearth furnaces and then BOF. So, there's very long history in Tallman. It's a very well-established company in Hamilton. My father started

there in 1958, and he eventually bought the company in 1982. I started in 1985. I took over, I became president in 1990, as a very young person because my father, unfortunately, had a stroke, and I had to take over. I bought the company in '95. My son is now involved in the industry, in the company, and I'm looking forward to his continued success.

Alshurafa:

Mike, what has made working in the field meaningful to you? You clearly had a successful career. What do you think your secret to success is?

Strelbisky:

My secret to success, I think, is my ability to network and to bring other people together to share ideas. So, by doing that it makes the society stronger, the steel company is stronger, and steel companies are our customers. So, it's important to make them strong. So, the secret to my success, again, is I believe in networking, bringing other people together and having them learn from each other.

Alshurafa:

Mike, you've had a very distinguished career. Is there anything else you'd like to share with us?

Strelbisky:

Yeah, there's one thing that I'm very proud of is one of my inventions, which is a supersonic carbon injector. It's designed to inject carbon into an electric arc furnace, and it can reduce the amount of carbon consumed by up to 50%. We're looking forward, and with this global climate change, I really think that this invention could have an impact on society. So, I'm really excited about the continued adoption and development of this technology around the world. Right now, we have it in US, in Brazil, in Korea, in Germany, all over the world. We hope that steel-makers will adopt this and look at carbon reduction as a way to reduce their impact on the environment.

Alshurafa:

Mike, I have to say, this was a fascinating interview. We got to dig deep into your career and life you've had throughout the years, and it has been a pleasure to spend this time with you today. Thank you so much again, for your willingness to share your story with AIME.

Strelbisky:

Well, I'm truly honored to be here and to be able to share my story and my experiences. And, I hope that this will lead other people to look into the steel industry as a career path, because it's not only a career path, but it's also a way of meeting friends, lifelong friends. So, I'm very honored to be able to speak to you today.