



## J. KEITH BRIMACOMBE • IRON & STEEL SOCIETY

Order of Canada, and a fellow of the Royal Society of Canada, the Canadian Academy of Engineering, the CIM and TMS. He has received numerous awards, including the ISS's Hunt Silver Medal, John Chipman Award and Howe Memorial Lecturer. He has served in the boards of ISS, TMS, the Metallurgical Society of CIM, the Ontario Centre for Materials Research and Sherritt Gordon. He also was president of the Metallurgical Society of CIM and TMS. He has authored or coauthored well in excess of 250 papers, 17 of which have received best paper awards.

*I&SM* recently interviewed Dr. Brimacombe at his office in Vancouver to discuss what his goals are for the ISS for the coming year.

**I&SM:** You're the first ISS president with on-the-job association experience. You've been president of the Metallurgical Society of the CIM and TMS.

**BRIMACOMBE:** I do bring a certain expertise in running professional societies, but previous presidents of the ISS had enormous experience in running companies and very important parts of companies.

**I&SM:** But you are knowledgeable about associations. What are the strengths of the ISS?

**BRIMACOMBE:** The ISS's greatest strength is that it focuses on its membership. It is truly a member-run society, which is a tremendous credit to all the executive committees and all the members who have worked so hard for the ISS since its birth in 1974.

The Society is also doing well in its publications and programming. Its short course program is among the best that I've seen in any society in terms of its relevance to industry. In addition, I think the establishment of the ISS Foundation has been a wonderful happening. The support of students and their faculty is something that just has to be built in the future.

**I&SM:** What does "member-run" mean?

**BRIMACOMBE:** Member-run, to my mind, is something like democracy. It means the membership is running the committees. The membership's voice bubbles up through the board, to the individual divisions, etc., so that the membership's needs are addressed. The moment that stops happening, I think we, as a society, are in very serious shape.

**I&SM:** So as president, you're very willing to have people talk to you, aren't you?

**BRIMACOMBE:** Absolutely. I think that the job of president is twofold. One is to lead and to be a focal point – the pointing tip of the arrow – to identify opportunities, whether they be in the international arena, in the Society, or in working more with other societies for the benefit of our membership.

The other is that I must be very sensitive to the needs of the members, committees and particularly to the needs of the divisions.

**I&SM:** Can you elaborate on that?

**BRIMACOMBE:** One of the things that I think we should be doing is empowering the divisions more. The divisions should have their own activities beyond programming and publications – not to be independent of, or divorced from, the ISS, but within the ISS framework.

The divisions should have limited treasuries and, within guidelines of the ISS board, utilize those treasuries for the benefit of our membership.

It actually would be pushing power toward individual members. I think people would really enjoy the opportunity to work with their newly empowered divisions and see just what they might be able to do with them within the boarder ISS framework.

**I&SM:** Some may frown on an academic serving as ISS president. What role do academics play in the industry?

**BRIMACOMBE:** Academics bring young people to the iron and steel industry. So, if you don't like academics,

J. Keith Brimacombe is the new president of the Iron and Steel Society (ISS) for the 1995-1996 term. He comes from the academic side of the steel industry – he holds the Alcan Chair in Materials Process Engineering and is director of the Centre for Metallurgical Process Engineering at the University of British Columbia (UBC), Vancouver, British Columbia, Canada.

Although Dr. Brimacombe is perhaps best known for his work in continuous casting, he has conducted research on a broad range of processes. He has experience in rotary kilns, coke ovens, gas injection, reheat furnaces, hot rolling, extrusion, Stelmor cooling, flash smelting, zinc fuming, copper converting, direct-chill casting and fused-cast ceramics.

Dr. Brimacombe earned his bachelor's degree (honors) in metallurgical engineering at UBC in 1966 and, with the award of a Commonwealth Fellowship, studied at the Royal School of Mines, London, England, where he received his doctorate degree in 1970. That same year, he returned to UBC to establish teaching and research programs in process engineering. At UBC, he was named Stelco professor of Process Metallurgy in 1980 and Stelco/NSERC Professor from 1985 to 1991.

Dr. Brimacombe is an ISS Distinguished Member, an Officer of the



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then I don't know how you like the young people who come into the industry from the universities.

I would also say that the industry has been well served by academics. If you think about people like John Chipman, John Elliott and Denys Richardson – those people contributed tremendously to the industry. Additionally, past ISS presidents from the universities, Alex McLean and Dick Freuhan, were very effective leaders.

**I&SM:** Do you want the Society to reflect more of the industry it serves?

**BRIMACOMBE:** Absolutely. I think this is the society that should integrate all of the disciplines and bring together the people who are interested in the furnaces, continuous casting, rolling and scrap; struggling with environmental situations; trying to sort through human resource issues; and those who are just trying to run this industry and make it the best it can be.

We have to reflect our industry. At the same time, we have to try to lead it. I want to stress leadership, because I really do believe the ISS has provided marvelous leadership in the past.

**I&SM:** In what areas?

**BRIMACOMBE:** I think one of the biggest areas is in the creation of the ISS Foundation. I think that ISS members really felt there was a big hole developing with respect to the education of young people and in bringing these young people into the industry.

Our industry has had an image problem. Steel plants are perceived as dirty and dangerous. Also, the industry has had a smokestack image in terms of the environment. Through the ISS Foundation, we are working to overcome our image problem and attract young minds.

The ISS also has provided leadership through its Advanced Technology Division and other divisions. They keep the membership abreast of new activities and new developments. I also look at the

quality of the short courses that are being offered and the response of the industry to them has been magnificent.

I think what you have to do is ask the question, "What would the industry be like without the ISS?"

**I&SM:** What would it be like?

**BRIMACOMBE:** I think it would be incredibly denuded. Today, any individual who is a professional, or working in a technical field, has to be involved in so-called "lifelong learning." The ISS is the vehicle for people in our industry to be involved in lifelong learning, whether they take short courses, go to conferences, or buy the publications and read the papers. They're plugged in to what's going on.

**I&SM:** What would you say to people who are thinking about joining the ISS?

**BRIMACOMBE:** I'd tell them it's the best investment they could make for \$55 a year. They will be exposed to knowledge, to a very dynamic industry, to the currents that flow through the industry, the changes and so on. I can't think of another society, certainly not another iron and steel related society, that offers so much for so little.

**I&SM:** How has your membership helped you?

**BRIMACOMBE:** I think the most important way it has helped me is through the people I've come to know. And that's through helping to organize conferences, going to all of the meetings – I don't think I've missed a steelmaking conference in 20 odd years. The whole thing comes down to this marvelous network of people around the world.

**I&SM:** So you really see us as a big town square.

**BRIMACOMBE:** Yes. When you look at why people go to conferences, most, of course, do go to listen to the papers. But, I would suggest that the very same people who go to listen to the papers get as much from conversations in the corridor and over dinner. So, yes, we are

a town square – a kind of iron and steel town square.

**I&SM:** Do you have any thoughts about the local sections in ISS?

**BRIMACOMBE:** I hope in the coming year to become much better acquainted with them. I think they are extremely important, and I know many of the sections are looked upon with great affection and support by the local industry. I think the local sections deserve all the support we can give them. We have to try to find out what it is they need to serve the industry locally.

**I&SM:** We've done one side of the coin – the ISS's strengths. What areas do you think, in your term, you would like to try to improve?

**BRIMACOMBE:** I think one of the big areas that we have to work on is our international relationships. We have to develop stronger relationships with sister societies in other countries and, as appropriate, set up new ISS sections in other countries. We are in a global steel industry, and we are a global society. The new Mexican Northern Section is proof of this. We have the strength and the wisdom to work with the global industry. If we don't, I think it's going to diminish us.

Another area where I think we have to work very hard is publishing the conference proceedings currently with the meetings. I think this is a tremendous way of serving our membership and also of improving the quality of what we do. That brings me to quality. I think we have to work hard on quality across the board. That does not mean to say that we're not achieving marvelous things – that's not the issue. The issue is just that we're got to be doing things somewhat better.

We're going to have to begin to examine our programming with respect to whether we want to begin to amalgamate conferences. There is enough interest in the industry to examine the issue extremely carefully. It reflects the changes that are occurring in the steel industry.



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We also need to do much more strategic planning as far as where the Society is and where the Society is going and how we're going to best serve our membership.

Another area, which is related to strategic planning, is financial planning. We have to do it for a whole host of reasons, not the least of which is to make sure our nerve center, our headquarters, has the tools to do its job.

**I&SM:** You've spent a lot of time in steel mills. In what way can the ISS help plants succeed?

**BRIMACOMBE:** That's an incredibly important question. I think what people have to understand is that wealth is not created in the board room. It is created on the shop floor. The issues are: how do you get knowledge into the hands of employees on the shop floor to make it work, and, thus, help companies succeed?

One of the ways I think we can do this is through continuing education. There is nothing to stop our continuing education program from addressing the hourly person. Another alternative would be to use expert systems. We've done this at the university with billet casting.

**I&SM:** Can you sum up your foals for your term as ISS president?

**BRIMACOMBE:** My goals are to make the Society membership stronger, improve the quality and timeliness of publications, and empower the divisions. We've also got to do strategic planning and financial planning.

We must build international relations. Expand our continuing education. There are tremendous opportunities, not only in terms of our own professionals, but in somehow bringing more knowledge to the shop floor and empowering our industry, or at least giving it added strength of knowledge. The establishment of student ISS chapters is also something I think we've got to work on.

**I&SM:** You really sound excited about

the job ahead.

**BRIMACOMBE:** I really look forward to the task with great anticipation. I think the Society has a super outlook and, yet, a tremendous amount of work to do. But that's just part of the challenge of today.  
*I&SM*