

Editorial

Materials Week '93 is now history. This old-timer remembers when the event was called "The Metal Show." Some things change, like fashionable titles—some things don't, like the elements science has to work with. There really isn't anything new under the sun. What is new is the way we're using those elements—putting them together in ways previously undreamed; that is the progress of materials science. Of Materials Week, here another kind of progress left its mark on history, as well: ASM and TMS, taking their cue from their members' wishes, for the first time offered Materials Week '93 attendees one price/one badge for the whole event. The result was more practical, useful, and pleasurable than any previous Materials Week. ASM and TMS, two of the world's leading professional societies for materials scientists and engineers, truly stand behind their commitments to provide their members, and the entire technical community for that matter, with as much materials technology information as is possible to garner in one place at a time.

So, with carte blanche, I set out to take in as many of the week's opportunities as was humanly possible. Following are some highlights of that journey:



Professor Carolyn Hansson of Queen's University, Kingston, Ontario, Canada, delivered the Edward DeMille Campbell Memorial Lecture. She followed her excellent presentation, comparing concrete with steel use/tonnage, with observations on the general lack of understanding of the basic mechanisms responsible for the properties exhibited by concrete. Here's a material we've used for centuries, and we're still learning about it. What an eye-opener!

The ASM/TMS Distinguished Lectureship in Materials and Society, "Materials Technology and the Materials Industry: A Critical Transition," given by Dr. Donald R. Muzyka, President, Special Metals Corp., New Hartford, New York, brought the interrelationships of R&D, investment, market needs, and government regulations into sharp focus. In an exceptionally well-delivered talk, Don also expressed a concern close to the hearts of many attendees—the ability of small, independently owned companies to compete and prosper in a business environment where most new cooperative ventures are being created on a world-wide scale, and these among organizations who only months ago couldn't even legally discuss topics of mutual interest at a technical meeting such as Materials Week.

More than 190 terrific technical sessions were staged, offering the latest information on such "hot" topics as magnetic materials—practical performance data and excellent presentations on the motion of magnetic domain walls; microgravity solidification; low-carbon steels—all aspects; damping materials—their mechanisms and mechanical spectroscopy; superconductors—long wire preparation; composites—preparation, machining, testing; fracture mechanics—crack growth, life prediction; tribology; surface engineering; and, a special symposium honoring Klaus Schulze for his work on refractory metals. Every hour meant another difficult decision as to which session I would attend, and which I would have to miss.

It was a week of provocative possibilities and challenges—the Materials Exposition full of new manufacturing and metallographic equipment—numerical, computerized microscopes with wonderful samples displayed, chosen with care for their clarity, contrast, and spectacular definition. (We know we have to work like the dickens to get our own samples to look even half as good!) Publications and information/database services, in support of our quest to solve the most perplexing design problems, were in abundance. The show floor was really the pivotal experience of the week for me—the exhibitors presenting the latest equipment, so willing to explain its relationship to the R&D/industrial activities that have just been reported "upstairs." It was the colorful ribbon of hands-on, demonstrated technology that ties up the entire package.

Opportunities abounded for everyone working anywhere in materials science: engineering, technology, fabrication, sales, management/supervision—and a *great* attendee/guest social program for spouses and accompanying friends, as well. My wife, Linda, still finds much upon which to reflect of her inspiring trip to Fallingwater,

the home designed by Frank Lloyd Wright, for the marvelously creative ways in which Wright integrated the use of so many types of materials into the design of the structure and its immediate environment.

To be sure, Materials Week '93 made some significant history. The heightened spirit of cooperation between the sponsors, ASM and TMS, was symbolized by even the choice of location at the convergence of the mighty Ohio, and great Allegheny and Monongahela Rivers. There, for one exciting week, 3,750 Conference/Exposition attendees were able to experience a convergence, as well, of the science and technology of all materials: ceramics, composites, elastomers/plastics/polymers, electronic/magnetic materials, and metals, hosted by the great city of Pittsburgh, Pennsylvania, representing the steel backbone memberships of both societies.

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