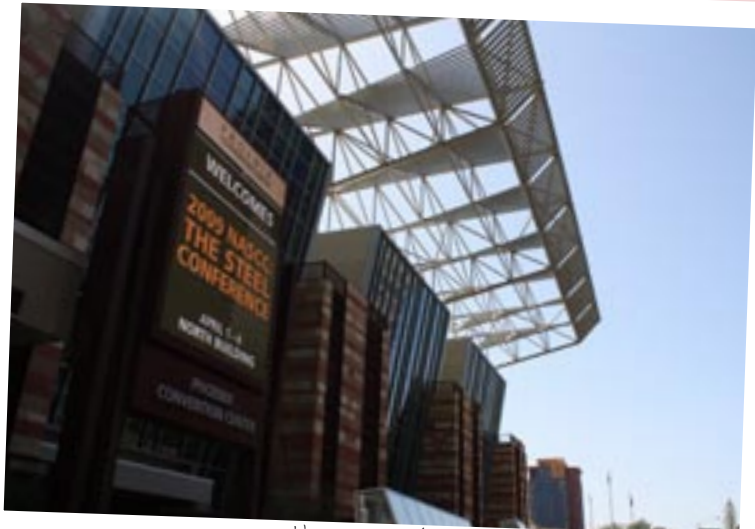


The Material —and weather— of Choice

Clear skies and ideal temperatures grace this year's Steel Conference in Phoenix.

BY GEOFF WEISENBERGER



the convention center, Phoenix, Arizona



at Wednesday's keynote speech

FOR THOSE OF US THAT LIVE UP NORTH, winter seemed to drag on way too long this year (as of this writing, it's *still* here in Chicago). So a trip to the desert was the perfect way to ease into spring, and this year's NASCC—which took place the first week of April in Phoenix—was a much-needed break from the cold (for those who traveled from other southern areas, well, it was a break from the humidity).

But this year, NASCC was a break from a different climate as well, one that's inescapable for everyone the world over: the current economic climate. The Steel Conference provided a temporary escape from the recession (or at least a chance to meet and grumble about it) and offered a chance to see the latest and greatest on the show floor, meet old friends and make new ones, and attend the more than 80 seminars offered this year.

In the Halls and on the Floor

On the show floor, a visit to AISC's booth provided visitors with a view of the Phoenix Convention Center that was perhaps even better than the real thing; the backdrop for the booth was a photo of the steel skeleton of the new wing, which opened earlier this year—and hosted NASCC. At the booth, attendees were able to step back in time and nurture their inner engineer-child by working on one of the many plastic erector sets available to create scale models of their favorite steel structures. And besides AISC's booth, attendees were able to visit more than 200 exhibitors.

Sessions were once again a mixture of technical, practical, and fun—and all were enlightening. "The Wal-Mart Effect and Your Business" touched upon adding value to engineering services in an effort to keep them from becoming a commodity and to increase profits. As an example, presenter Robert van Arsdall related an everyday occurrence to business, pointing out that

people will pay prices several hundred percent higher for vegetables or fruits that are already chopped and packaged than for whole vegetables or fruits. His lesson: people will pay more for this extra “service” and the same can apply to building design.

Another session, “New Developments in Fall Protection,” discussed how companies are adapting to ANSI Z359, *Standards for Fall Protection*, as well as new safety equipment. One of the points made is that while there is new safety equipment available, there are not necessarily new problems. “All fall issues have been solved before,” noted one of the presenters, who recommended discussing solutions with fall protection vendors “because they have solved the issue for someone else in the past.”

“The Art of Steel” was a lighter presentation, well-suited for Friday afternoon after three days of heavy, high-tech information. In it, Duane Ellifritt, creator of AISC’s now-famous steel teaching sculpture, presented a gallery of steel in artwork over the last 300 years and also drove home the point that art is truly in the eye of the beholder, displaying slides of steel sculptures (some beautiful and some, well, not as beautiful) from around the globe.

Onstage

This year’s Wednesday keynote address was presented by one of AISC’s own, chief structural engineer and vice president, Charles Carter. In a presentation that was destined to generate discussion and a bit of controversy, Carter delved into a topic that has been debated for more than four decades: where responsibility for connection design lies. Carter presented three options and explained how the next incarnation of AISC’s *Code of Standard Practice* will address them. You can read all about it in Carter’s article “Connection Design Responsibility: Is the Debate Over?” on page 28.

Friday’s keynote address honored this year’s T.R. Higgins Award winner, Donald W. White, Ph.D., a professor at the School of Civil and Environmental Engineering at the Georgia Institute of Technology. White presented his paper on the revisions to the 2005 AISC and 2007 AASHTO provisions for flexural design of steel I-section members; these revisions were made to simplify the provisions’ logic, organization, and application in order to improve their accuracy and generality.

Other awards presented at NASSC included the J. Lloyd Kimbrough Award to Larry Griffis of Walter P. Moore and Associates, Inc.; the Geerhard Haaijer Educator Award to Joseph A. Yura of the University of Texas at Austin; the Lifetime Achievement Award to Charles G. Salmon at the University of Wisconsin–Madison, and Irwin Cantor; and Special Achievement Awards to Masayoshi Nakashima of Kyoto University (Japan) and Robert Tremblay of Ecole Polytechnique in Montreal. Former AISC regional engineer John Ruddy, who passed recently, was also honored with a Special Achievement Award.

Off-site

Of the 3,200-plus that made the trip to Phoenix for NASCC, more than 200 embarked on another journey, though this one only minutes from the Phoenix Convention Center: a tour of Schuff Steel’s fabrica-



AISC's booth



the sky's the limit!



the exhibit hall was bustling all week



D. Kirk Harman discusses connection design



AISC staff members were on hand to answer questions face-to-face

tion plant on the outskirts of downtown. The tour offered visitors a firsthand look at the steel fabrication process and provided an insider's view of the challenges and details that fabricators have to address on a daily basis. The tour was very informative—even to other fabricators. Shawn A. Alberts of Arrowhead Steel Fabricators was impressed with the size and technological advancements of the shop. "To see such massive members being fabricated was one area that stood out to us," he said. "Where we are from, we rarely, if ever, see projects and/or members the size of the ones that

Schuff was fabricating. The equipment that Schuff uses was also very impressive. With the majority of the machines being automated, we could see how it would be a great cost savings and would greatly reduce shop errors."

Another visitor, Liberto Aguiar of the Babcock and Wicox Company, called the tour one of the highlights of the show. "Schuff Steel came across as being a safety-conscious company, very organized, with a unique material-handling system," he said. "They have tours down to science and moved people through their facility as well as Disney World."

In other field trip news, John Cross, AISC's vice president of marketing, and other AISC marketing staff paid a visit to Arizona State University's Polytechnic Campus at Mesa to present a 2009 IDEAS² Award for the school's new addition: five new buildings that add 245,000 sq. ft of academic space to the campus in a beautiful collaboration between architecture and structure—and featuring a lot of exposed steel. Representatives from the project's design and construction team and the university accepted the award and gave brief comments in one of the facility's sunny, attractive courtyards (read about the project on page 42).

A New Day for Steel

For those of you that attended NASCC in Phoenix, you may have noticed a booth toward the back of the exhibit hall promoting something called "SteelDay." And you may have spent time busily scurrying from booth to booth in an attempt to complete your SteelDay puzzle. If you didn't make it to the show or the booth, here's the skinny on SteelDay...

Like many other "World" or "National" days/weeks/months, such as Earth Day or Breast Cancer Awareness Month, SteelDay is about promoting awareness. But more than that, it's about interaction—interaction between designers, engineers, developers, architects, owners, fabricators, and others in the structural steel industry. The ultimate goal is to build lasting relationships within and between these groups—and of course, convince more decision-makers to build with steel. And interaction is where it starts.

SteelDay will involve events around the country: facility and job-site tours, educational seminars, online interactivity, media coverage, etc. AISC's goal is to hold events in every state. Already, more than 100 events in more than 40 states are currently planned, and more will be added in the coming months (see a map of planned events at the web site below).

The date: September 18, 2009. Mark it on your calendar and consider hosting or attending an event. If you're interested in either—or just in learning more about SteelDay—visit www.steelday.org.



NASCC Visited by Robots from the Future (of Fab Shop Automation)

When you visit a show like FabTech International/AWS Welding Show, you're practically bombarded with robotics. As you may guess, that show focuses on welding in several different industries, of course including those that have long invested in robotic welding technology, such as automotive and aviation. For the structural steel audience at NASCC, robotic solutions have been more limited. The primary barrier is the prevailing attitude that there aren't enough repeatable processes to make automated welding a viable option.

But that's beginning to change, as evidenced by a couple of first-time exhibitors at this year's Steel Conference. One of them, SmartTCP, makes a robotic welding system for small batch steel fabrication, building modular and flexible systems in the fab shop for structural steel parts up to 60,000 lb. Efi Lebel, SmartTCP's CEO, noted that his company is currently targeting medium to large fab shops with

several welders and multiple small batch operations. The company's goal at its first Steel Conference, he said, was to get people educated on welding robotics in general and demonstrate that welding automation can now be economically implemented for one-off and low volume parts (visit www.smarttcp.com). The company found show attendees very interested in its robotic welding solution, which integrates software and hardware components to automate both the robot programming and the welding.

The second company, JITECH, approaches robotics from the software side. While they've been in the robotics software business for 25 years, their structural steel solution, StruCIM, is new. The company, which sells to robot manufacturers but also works with fabricators, produces 3D simulation software that allows fabricators to quickly simulate and evaluate alternative methods for automating the fabrication of structural steel. According to Ivan Jivkov, JITECH's president, "The steel industry needs to get rid

of the mentality that it can't automate." Jivkov cited the lack of interest in manual labor amongst younger people entering the workforce and positioned the use of robotics in fabrication shops as one way of addressing this labor shortage. "People are eager for this," he said, adding



A robot-welded assembly from SmartTCP.

that his firm's goal at this year's show, like SmartTCP's, is to educate (visit www.strucim.com)—and he did see a lot of interest from booth visitors in automating welding in their shops.

For more on automated/robotic welding, see "Robotic Shop" on page 52.

Kicking Back

As a former Texan, I can tell you that there are fewer things nicer than walking into a place and being greeted with a margarita. And that's just how folks were welcomed to the Corona Hacienda and Rodeo Grounds, a short bus ride away from downtown Phoenix, for this year's conference dinner. Besides the tasty salt-time concoctions, guests were treated to an authentic Southwestern rodeo, complete with trick roping, bull and bronco riding, and death-defying equestrian stunts. One of the highlights was seeing AISC Chairman of the Board Rex Lewis on horseback in full Western regalia. Following the show, attendees enjoyed Southwestern fare—enchiladas, fajitas, quesadillas, and more—and live music, some opting for the festive dancehall and others choosing to dine under the stars.

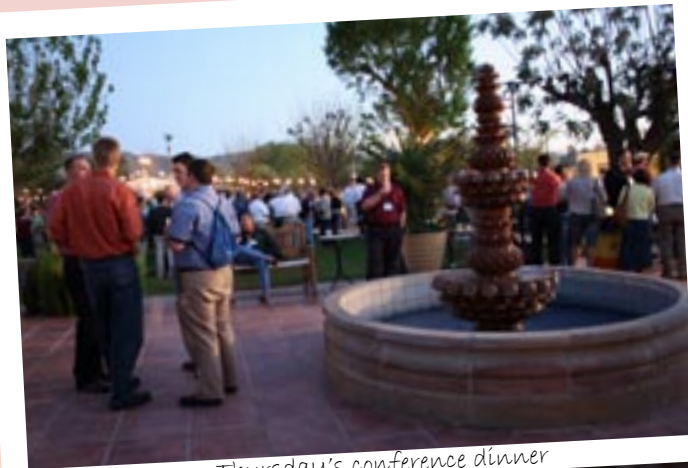
Next year, NASCC trades its cowboy hat for mouse ears and heads to Orlando. Information for the 2010 Steel Conference, which will collocate with Structures Congress, will be posted soon at www.aisc.org/nascc. In addition, photos from this year's show are posted online at tinyurl.com/nascc2009.

Getaways—even when they involve industry trade shows—can be invigorating, and in the case of this year's Steel Conference, perhaps

even provide invigoration to tackle the current economy, come out of the recession strong, and do both as a united industry (clichéd as it may sound, we *are* all in this together). It appears that many in the industry understood this, as the show's total attendance made it the third-largest Steel Conference of all time—not too shabby for a down economy. MSC



sponsored by...



Thursday's conference dinner



Escaramuza performing at the rodeo