Speaker: Trevor Shellhammer

Trevor Shellhammer received a BS and MS in Metallurgy, as well as MS in Quality Engineering, from Lehigh University, and for 32 years, worked for Bethlehem Steel, aka ISG, Mittal Steel USA, and Arcelor Mittal, in various capacities in the Bethlehem Plant (Foundries, Blast Furnace, & Structural Mill) and Homer Research Labs (Iron making, Coke making, Continuous Casting, & Refractories Research). He later worked for Kulp Foundry, East Stroudsburg, PA. In 2008, he formed TVR Technologies LLC, dba Shellhammer Consulting and now works with select ferrous and non-ferrous foundries and iron and steel plants across North America.

Trevor is a Past Chairman and current Director of the American Foundry Society Keystone Chapter, Life Member of the Lehigh Valley Foundrymen's Association, member of ASQ and AIST, Past Chair of AIST Philadelphia Chapter, and member of various AIST Technology Committees (Iron making, Oxygen Steel making, & Specialty Alloy and Foundry Technology). He is also a 46 year member of ASM, and this year was the recipient of ASM Lehigh Valley Chapter’s Bradley Sloughton Award.

Topic: 100 Years of Bethlehem Steel

Bethlehem Steel can trace its history to the early Saucona Iron Company, started in Bethlehem, PA in 1857. As the name indicates, they produced iron. This later became the Bethlehem Iron Company. The formation of Bethlehem Steel Corporation did not occur until 1904. Unfortunately, “The Steel” ceased to exist after filing for bankruptcy and being bought by International Steel Group in 2003, just missing their 100th Anniversary. As the Corporation, at one time the second largest steel company in the US, was an assembly of many smaller companies acquired over the years, it is important to note that many of those operations live on through Arcelor Mittal, now the largest steel company in the world, as well as several other entities. This presentation will cover some key events during the company’s history, but will offer no theories as to their demise.

Technical Chairperson: Tim Steber, Solar Atmospheres, Inc.

Meeting Sponsors: Rex Steber Engineering and Consulting

Menu: Roast Top Sirloin of Beef, Stuffed Breast of Chicken, Miniature Ravioli and Rosa, Classic Caesar Salad, Peas with Mushrooms, Horseradish Mashed Potatoes, and Ice Cream Croquette with Chocolate Sauce.

Social Hour: 6:00 - 7:00 pm Dinner: 7:00 pm Prices: Members & Guests: $35.00; Retirees: $24.00; Students: $15.00

Spouses and guests are invited and welcome.

Meetings held at Williamson’s Banquet, on the corner of Rt. 611 (Easton Road) and Blair Mill Rd., Willow Grove, PA 19044 For Directions: www.williamsonrestaurant.com.

Meeting Registration: PLEASE NOTE**: All reservations must contact Trevor Jones at 215-721-1502 ext 1220 or on our website at http://philadelphia.asminternational.org no later than 1:00 PM on the Tuesday before the meeting to guarantee dinner availability.
CHAIRPERSON’S MESSAGE
SEPTEMBER 2016

Greetings!

It’s exciting to kick off another year for the ASM Philadelphia Liberty Bell Chapter. I feel privileged to be a member of an organization that brings together such a wide variety of accomplished individuals and has so much to offer both personally and professionally. It is an honor to serve as the Chairperson for our chapter this upcoming year.

While we have enjoyed many meetings at the Williamson’s Banquet and Event Center over the past years, I am sad to inform you that this September’s meeting will be the last one at this location. Unfortunately, they are going out of business soon after our meeting. This change will be bittersweet because it will give us an opportunity to explore new scenes. Some of the venues we have lined up include Maggio’s in Southampton, as well as WE Automation and the Union League in Philadelphia. Due to popular demand, we will tour another brewery this year, and plan to add a winery tour as well.

We have some impressive speakers lined up throughout the year. To kick off the year, we will have Trevor Shellhammer present “100 Years of Bethlehem Steel Corporation (Almost!)”. This meeting will also be a joint gathering with ASNT.

With the support of our seasoned Executive and Operating committee, I hope to serve the chapter well. I also hope you have had an excellent summer and I look forward to seeing you at the meeting on Thursday, September 15th!

Respectfully,

Nick Cordisco
2016-2017 Chapter Chairperson

2016-2017 UPCOMING EVENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Location</th>
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<tbody>
<tr>
<td>09-15-16</td>
<td>Thursday</td>
<td>100 Years of Bethlehem Steel, Trevor Shellhammer</td>
<td>Williamson’s Banquet, Willow Grove, PA (last time)</td>
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<tr>
<td>10-20-16</td>
<td>Thursday</td>
<td>Failure Analysis of an Early Wrought Iron Cannon, Craig Clauser, PE</td>
<td>Maggio’s, 400 2nd St. Pike Southampton, PA</td>
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<tr>
<td>11-17-16</td>
<td>Thursday</td>
<td>TBD</td>
<td>WE Automation</td>
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<td>01-19-17</td>
<td>Monday</td>
<td>From Cast/Wrought to PM, Germant Mauer - ASM Director</td>
<td>Union League, Philadelphia</td>
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<td>Sauveur Award Night</td>
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WELCOME NEW MEMBERS!

- Karen Hessler - Corrosion Texting Labs
- Darin J. Tallman - Chemours
- James Hahn - B&G Manufacturing
- Payam Ghafoori - Chiyoda
- Nicholas A. Pescatore - Drexel University
- David H. Bernard - Drexel University
- George H. Bernhard - Drexel University

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Another year and another fantastic class of high school students that attended the Materials Camp® – a collaborative effort between Drexel University’s and the Liberty Bell Chapter of ASM. The camp was hosted by Drexel the week of June 20-24 and was free to the 28 selected students (from 89 applicants) that have recently completed their sophomore or junior

Some spots were also offered to winners of the Delaware and Brandywine Valley Science Fairs.

The faculty and graduate students from Drexel's Department of Materials Science & Engineering navigated the class through an exciting combination of classroom and hands-on laboratory sessions and demonstrations. They experienced all phases of Materials Science & Engineering and put into practice the acquired knowledge in a team activity – the design and construction of a small composite beam. The project's goal was to achieve the highest strength to weight ratio. This year's winning ratio was 10.54kg/g.

On that Wednesday, Boeing’s Materials Engineering Group conducted tours of their materials department, which exposed the class to real-life materials testing and failure analysis in the Materials Lab, and of the CH-47 Chinook helicopter assembly line. After the tours, our friend from Boeing conducted several classes at Drexel University. Boeing has been a faithful sponsor of the camp since its inception and has been critical to the success and growth of the camp.

Materials Camp® provides us with the opportunity to expose eager young minds to the field of Materials Science & Engineering. Personally, the course I found most helpful when I was an undergraduate student in college was a mini-course that exposed me to all of the fields of engineering offered at the school. I chose Materials Science & Engineering as I felt it was the most important among the fields to the future growth of engineering as it is usually the limiting factor in the advancement of technology. I can only hope that the exposure these students receive has an impact. Judging by their survey responses at the end of the camp, it has!

We gratefully acknowledge and thank Drexel University's Department of Materials Science & Engineering and Boeing Rotorcraft for making available their facilities and staff. The following companies and individual provided financial support which enables ASM Philadelphia to conduct this very beneficial program. Without their generosity, Materials Camp® would not be possible.

GOLD SPONSOR: Boeing Co.
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BRONZE SPONSORS: Materials Research and Design, Laboratory Testing Inc., LTK, Penn Stainless, Superior Tube
STEEL SPONSOR: David Von Rohr

If you would like to be a sponsor for this incredible camp, please contact Brian Gorney at gorneybj@gmail.com or 586-354-5167. Your sponsorship will help us keep this camp free to students (including meals), which is incredibly important as many of the students would not be able to afford it otherwise.

Roger Jones Nominated to ASM Board of Trustees

Souderton, PA, June 21, 2016- Roger Jones, corporate president of Solar Atmospheres, was nominated as a trustee on the ASM International Board of Trustees effective October 2016. The board of ASM, The Materials Information Society, is comprised of four officers and nine trustees. Three new trustees are elected by the membership every year, and each serves a three-year term.
The inaugural Henry M. Rowan ASM Materials Camp- Teachers Year Two was held from July 25th to the 29th at Rowan University. It was a collaborative effort between Rowan University’s Henry M Rowan Department of Engineering and the Philadelphia Liberty Bell Chapter of ASM as well as ASM’s Materials Education Foundation. The funding for the camp came from the initial grant by the Henry M. Rowan Family Foundation, Inc. back in 2013.

The participants were teachers that have been to a previous ASM Teachers Camp. A total of 16 teachers attended and came from as far as Canada (two from Ottawa and one from Toronto) NC and MI. Several were attending for the 4th time and one had been to the other Year 2 Teachers Camp at Ohio State (this year that camp was at University of Michigan). The teachers are taking back even more materials information than ever to their classrooms that range from 12th grade down to the 7th grade.

The master teachers that lead the course are trained by the ASM Materials Education Foundation and are the best. We were fortunate to have Debbie Goodwin as the camp’s lead. She recently retired after 31 years of teaching at the High School and middle school science and specifically taught Materials Science and Technology for 17 years.

She has served as a Master Teacher for ASM’s Teachers Camp program since 2002. She hails from the state of Missouri and was assisted by Rebecca (Becky) Heckman and Lonnie Dusch.

Becky has been teaching more than 20 years and has presented at NSTA conventions. Lonnie has been teaching science courses including chemistry, math, and physics for 18 years. Both Lonnie and Becky have been teaching at the same High School; Princeton HS in Cincinnati, Oh. All three were - and are - inspirational leaders and we were fortunate to have them continue to inspire our 16 attendees. The facilities at Rowan University’s engineering building were ideally suited to our camp, even though it is undergoing an extensive renovation and expansion. The classroom was adjacent to the spacious lab where various experiments and hands on demonstrations were performed. The support- Doug Cleary- Associate Professor, and Cherish DiSante- Assistant Director. Dough in particular was available to render whatever support was needed throughout the week. Cherish handled the behind the scenes logistics such as the organizing of the food and housing needs of the teachers.

The week consisted of reviewing and deepening the knowledge of the Year One camp contents that the teachers were previously given. It also included troubleshooting labs and demonstrations that teachers have tried, but weren’t fully successful. It also allowed teachers to perform and practice the labs and demos in a supportive environment.

Unfortunately, Virginia Smith, the daughter of Henry Rowan was unable to attend. However, she sent an inspirational message that was read at the Awards Luncheon on Friday. As a member of the Board of Trustees at Rowan University she helped with setting up the initial meeting with the College of Engineering back in November of 2015 superheaded the efforts and made this camp possible. We want to gratefully acknowledge the Henry M. Rowan Family Foundation for their generous grant that also made this all possible.
AWARDS ANNOUNCED AT MAY 2016 MEETING

The following awards were announced at the May meeting:

Delaware Valley Materials Person of the Year........ Micel Barsoum, Drexel
Adolph Schaefer Special Achievement Award......... Ed and Terry Mazeika
Meritorious Service Award.................................. Jim Walters, Delaware Valley Utility Advisors
Outstanding Company Support Award................. Solar Manufacturing
President’s Award............................................ Al Singmaster
Young Member Award...................................... Katie Jo Sunday, Drexel

The following two awards will be presented in 2016-2017:

William Hunt Eisenman Award............................... Craig Clauser
Albert Sauveur Lecture Award................................ Germ Maurer

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