69th Woodside Lecture

It is with pleasure that ASM-Detroit welcomes Professor William Hosford as our 69th Woodside Lecturer on Monday, May 9th at Vladimir’s. Exclusive to the Detroit Chapter, this historical lecture was created to honor both the speaker, for his contributions to our field, and to William Woodside, a founding member of both the Detroit Chapter and ASM International. ASM International is a monument to the integrity of Bill Woodside’s idea to form a society which would stimulate the mutual exchange of ideas.

This year’s honoree is author Bill Hosford, a retired professor of Materials Science at the University of Michigan who has published seven textbooks on mechanical behavior of solids and materials science. Bill graduated from Lehigh University in 1950 with a BS in Metallurgical Engineering. In 1951 he received a BE in Metallurgy from Yale and in 1959 a ScD MIT in Metallurgical Engineering.

Bill served as an Assistant Professor at MIT from 1959-63. In 1963 he joined the University of Michigan and remained there until his retirement in 2004. Since retirement, Professor Hosford has been writing books – mostly texts. His 10th book, Iron and Steel is under publication at Cambridge U. Press. Professor Hosford’s major interests have been in plasticity, metal forming and anisotropic yielding behavior.

Although trained as an engineer and having taught engineering for over 45 years, his non-academic passions are canoe camping and watercolor painting. He has paddled over 6,000 miles of wilderness rivers in Canada. He and his wife of 51 years have four children.

During his presentation, Professor Hosford will discuss several less-well understood aspects of materials properties and structure. The examples include whether the stained glass window of European cathedrals have undergone creep over the ages, the cause of the Hindenburg disaster; how residual stresses develop on quenching, how to spheroidize medium carbon steels, what are the sites for interstitial solutes in bcc metals and the microstructures of bcc metal wires.

ASM-Detroit Chapter Student Scholarship Winner

The Detroit Chapter of ASM International, as part of our mission to advance technical knowledge through education, awards a number of scholarships to very deserving students. The Scholarship Committee would like to thank all of this year’s applicants, as we had to make some difficult decisions when taking the graduation dates of some of the applicants into account, since all of them were very qualified.

This year’s Sustaining Members Meritorious Scholarship will be presented to Garret Huff of the University of Michigan –Ann Arbor. The purpose of this scholarship is to encourage and reward an ASM student/chapter member majoring in metallurgy or materials science who has a good scholastic record and financial need. They should have active extracurricular activities in the field of materials, and an interest in practical materials science.

Money raised during our 2010 golf outing will be earmarked for next year’s Scholarship Fund.

Meeting: Monday, May 9, 2011
Venue: Vladimír’s
28125 Grand River Ave., Farmington Hills

For reservations contact the Chapter Office at: (586) 573-0700 or email to admin@asm-detroit.org before Friday, May 6th.
5:45 p.m. Social Hour • 6:30 p.m. Dinner • 7:30 p.m. Speaker
Chairman’s Message

Our annual National Officers and Past Chairs Night in April went over very well, as we had about 70 members and guests present to see students recognized for winning the “Best Use of Materials Awards” from the ESD Future Cities Competition and also the Science and Engineering Fair of Metro Detroit and hear from our national officers. Stan Theobald, Managing Director of ASM International, provided a great update to the happenings at ASM International, including the headquarters’ renovation in Cleveland. Dr. Mark Smith, current ASM International President and Deputy Director at Sandia National Labs, then provided the audience with a very interesting talk on Materials Science and Technology used in national security applications. The ASM-Detroit Chapter, in large part due to the appreciated efforts of Past-Chair, Ron Radzilowski, was able to present the national officers with a signed and framed reprint of the 2006 ASM-Detroit Chapter Yearbook cover which contained a watercolor by William Hosford, who we will honor in May as our Woodside Lecturer. We hope to see it on a wall at the newly renovated headquarters upon completion. I would like to thank Kolene Corporation who sent several members to the meeting and for serving as the social hour sponsor for the evening.

The annual Woodside Lecture, honoring William Hosford, Professor Emeritus from the University of Michigan, will be on Monday, May 9th. This is the last chapter meeting of the year, one that is sure not to disappoint. The lecture honors William (Bill) Park Woodside, who organized a group of 20 men for their first meeting of the Steel Treaters club on October 4th, 1913 at the old Fellowcraft Club (Robinson Furniture Co. Bldg.). The club was organized to further the concepts of sharing metallurgical and technological advances and began admitting technical members in 1913. In 1918 the name was changed to Steel Treaters Research Society of Detroit and the first standards activities were started. This effort led to publications that described the proper heat treatment practice necessary to produce the desired physical properties in steels. By 1919, the group had expanded to 13 states with 236 members and the exchange of information between the members was growing. In the following year, Col. Albert E. White of the American Steel Treaters Society of Chicago combined his group with the fledgling organization and the name of the Society was changed to the American Society for Steel Treating. In 1933, the name was changed to the American Society for Metals which remained the same until 1987 when it was changed to ASM International. Now, ASM International has over 36,000 members worldwide. Personally, I am excited to see one of my former professors from U of M honored, as he has touched so many in materials and metallurgical engineering over his long teaching career. It was nice to see over 10 college students at our April meeting, and since the students at U of M on their summer break won’t have any exams to study for, we hope they can make along with some of the members who have interacted with Bill through the years.

Our chapter season is quickly drawing to a close. As announced during the April meeting, the date of the joint ASM/AFS golf outing is Sunday, August 14th at Fellow’s Creek Golf Course in Canton, MI. We will be looking for hole sponsors and door prizes donations and of the proceeds for the event will contribute to our scholarship and ASM Materials Camp funding.

I look forward to seeing everyone on Monday, May 9th.

Jason Coryell

Josiah Cornett Awarded Young-Member-of-the-Year

Josiah Cornett, a graduating senior at the University of Michigan-Ann Arbor, will be presented with the Young-Member-of-the-Year Award by the ASM-Detroit Chapter. Josiah is being recognized for his academic excellence in Materials Science and Engineering as well as his extra-curricular involvement in the Michigan Materials Society (President), SAE (Vice President), and as a member of Tau Beta Pi National Engineering Honor Society, as well as many other professional and volunteer organizations.

Josiah has recently received the Edward J. Dulis Scholarship by continued on page 3
ASM-Detroit Chapter Announces a New Website

Soon our website will be re-directed before eventually being decommissioned for good. The ASM-Detroit officers are excited to announce that our new website has now been made public and can be found at the following URLs (Bookmark them today):
www.detroit.asminternational.org OR www.asminternational.org/portal/site/detroit/

That's right: The ASM International Detroit Chapter is now benefiting from ASM's Global Community information technology infrastructure to deliver a superior online experience. This site is free of charge to our Chapter and contains great new features.

- **Local Ownership**: Our site offers the capabilities of the ASM Global Community Site with local Chapter ownership and focus. Our officers have decision-making power over our sites, reflecting the unique culture of the Detroit Chapter. We can highlight and feature the information that is most important and relevant to us.
- **The Local Information You Need**: Chapter information and content is gathered, uploaded and maintained by the volunteer webmaster or web team. The local content is always kept in the prime online locations, and ASM content is secondary. You will now have the ability to register for Chapter meetings and events on our site.
- **Chapter Identity**: Our site has a unique design that was selected by our Chapter officers, while still maintaining the brand identity of the ASM Global Community allowing users to feel and be more tightly linked to our Chapters and all of ASM.
- **Timely Updates**: Because content from the ASM Global Community Site is linked to our Chapter site, updates take place automatically. Whenever new content is added to the ASM site, it updates on the local Chapter site, giving local users the latest information.
- **Current Member Information**: When you log into our chapter site, you can obtain the same individual profile, account, membership information that you would find on the ASM site. This keeps all data as current as possible with the master membership database at ASM.

Visit our new site today and start navigating through all the new benefits it offers you and our Chapter.

ASM/AFS Joint Golf Outing-Make Plans Now!

The annual ASM-Detroit golf outing will once again be held jointly with our friends at the Detroit-Windsor AFS Chapter on Sunday, August 14th at Fellowes Creek Golf Course in Canton. This is a great opportunity to have some fun and help support the future of engineering here in Michigan.

The day will begin at 8:00 am with a shotgun start, 18 holes of golf with cart, lunch at the turn, beverages on the course and complimentary beer pitchers during a steak dinner as well as door prizes and course contests. This year, every participant will also receive a free round of golf courtesy of Fellow's Creek Golf Course.

Our annual golf outing is one of only a few fund raisers for our chapter. Proceeds from this event directly fund student scholarships and ASM Teacher's Camp, so we encourage you to come out and bring a friend or colleague for a great day on the links and help us support future material engineers.

The chapter will also be soliciting hole sponsors, beverage sponsors and door prizes in the near future, so if you or your company would like to contribute to this event, please contact Caryn at the chapter office. Recognition for your contributions will be published in the Newsletter as well as on sponsor signs.

While this has been a time of great change for many, ASM and AFS are still moving forward, continuing our mission of advancing and disseminating scientific, engineering, and technical knowledge through our respective organizations.

Play a part in our success and join us for a great outing. For reservations, contact Caryn at the chapter office at (586) 573-0700 or via email to asmdeetroit.org.

Stan and Mark accepting housewarming gift for newly renovated HQ from Chairman, Jason Coryell

**Detroit Chapter presents ASM Int’l with gift**

Mr. Stan Theobald, Managing Director ASM Int’l, receives a token of appreciation from the Detroit Chapter in honor of the renovated ASM Int’l Headquarters to be dedicated later in 2011. The text in the framed picture describes the origin of the Detroit Chapter yearbook cover and its famous member, Prof. Bill Hosford.

An autographed reprint of a watercolor by Professor William F. Hosford, College of Engineering, the University of Michigan, commissioned for the cover of a Detroit Chapter Yearbook.

The watercolor depicts a microstructure of a FCC metal with annealing twins symbolizing materials, and an automobile symbolizing the City of Detroit as the Motor City.

Presented to ASM International on April 12, 2011, in honor of its newly renovated headquarters.

Josiah Cornett continued

ASM International and James W. Freeman Scholarship from the University of Michigan’s Materials Science and Engineering Department. Josiah has been instrumental in encouraging students to attend local chapter meetings and has served as a liaison to the ASM-Detroit Executive Committee. Despite the classes ending at U of M, the Chapter hopes to publicly recognize Josiah at the May 9th meeting and continue to see him in the future as an active member of the ASM-Detroit Chapter. Josiah will begin employment with Toyota Motor Company in Ann Arbor this summer.
Michael Blaziejewski started his career as a Technical Writer for UpJohn Industries in Kalamazoo, MI. After two years of writing and teaching an in-house computer information retrieval class, he took a position as a Senior Chemist with Ann Arbor Technical Service in Ann Arbor, MI. There he worked as an analytical chemist for eight years testing water, air, and soil samples for volatiles and semi-volatile compounds using GC and GC-MS EPA test methods. Presently, Mike is a Technical Service Representative with Park Metallurgical in Detroit. After eleven years as the Main Lab Supervisor for Park, he took his current position. Park sells a variety of heat treating salt products around the world for salt bath heat treat applications. Also, he offers technical support on Park’s stop-off/protective coatings products. Mike mostly works out the Detroit office, but travels to help customers on a regular basis. Mike earned a “Heat Treat Specialist” certificate through The Metal Treating Institute, and graduated from MTI’s “YES” program.

Bradley Hall has been a professional member of ASM-Detroit since 2009. Prior to becoming a professional member, he was a student ASM International member who began attending chapter meetings in 2004. Currently, Mr. Hall is a Process Metallurgist at Gerdau Macsteel – Monroe, an SBQ steel supplier located in Monroe, MI. He has been employed at this facility since completing his studies at Michigan State University in the summer of 2008. Upon graduation from MSU, Mr. Hall earned a master of science degree in Materials Science and Engineering.

Dr. Manish Mehta is Executive Director of Industry Forums/Sustainability and Technologies Research Corporation since 2001 at the National Center for Manufacturing Sciences, a cross-industry R&D consortium based in Ann Arbor, Michigan. His responsibilities include identifying new manufacturing technology needs, conducting emerging technology assessments, and organizing collaborative research and development projects in areas such as lightweight materials, net shape manufacturing, nanomanufacturing, sustainability, and alternative energy. Manish has lived and schooled in India, East Africa and Singapore. He obtained his B.S. degree in Mechanical Engineering from Bangalore University, India in 1984, followed by M.S. and Ph.D. degrees in Industrial Engineering from the University of Cincinnati, OH. He is a graduate of the University of Michigan Stephen M. Ross Business School’s Executive Program (Class of 2001). He has over 60 publications, including invited talks, authorship of three successive studies of nanotechnology commercialization trends in the US (2003, 2006, 2008), and a chapter in the Nanomanufacturing Handbook (Taylor & Francis, 2006). He was a two-term member of the National Academy of Sciences Board on Manufacturing and Engineering Design (2002-2007), and the Study Committee on Lightweight Materials (2010-2011). He was Peer Review Director of Michigan’s 21st Century Jobs Fund 2008 Business Plan Competition. He also volunteers as an India Cultural Ambassador to Ann Arbor SPARK, a state-sponsored business incubator promoting entrepreneurship. Manish is a member of the 2009-2011 ASM International Detroit Chapter Executive Committee, and a Fellow of the Engineering Society of Detroit (ESD). Manish is a Past President of the Rotary Club of Ann Arbor North and served as Assistant District Governor (2005-2006). In 1997, he led a month-long Group Study Exchange team of the Rotary Foundation to Bangalore, India to serve humanitarian causes including polio eradication. He has organized and successfully executed several joint social/rural development projects with Rotary Clubs in Bangla...
Executive Committee Candidates

Dr. Manish Mehta continued
Desh, India, Nigeria and Uruguay. He completed two terms on the Board of Washtenaw County American Red Cross (2001-2007). He is presently the Midwest Regional Vice-President of Federation of Jain Associations in North America (JAINA), a faith-based NGO with special consultative status with the Economic and Social Council of the United Nations. He is a 20-year resident of Ann Arbor with his wife Varsha (Professor of Pharmacy at University of Michigan), and two teenage sons, Anshul and Vishal.

Eric D. McCarty is the Metals Technology Director for Technikon Inc. and President of Materials Technologies Consulting providing technical project management services for the ARMY and USAMP in the areas of lightweight metals research programs, materials recycling and functional prototype castings. Eric earned his Bachelor of Science and Master of Science degrees in Metallurgical Engineering from Michigan Technological University and his MBA from Oakland University in 1990, 1993 and 2000 respectively. In 2009, Eric earned his Project Management Certification from the Program Management Institute. He is a member of AFS, ASM and AUSA and sits on the Industrial Advisory Board for the University of Windsor. Eric’s seventeen years of experience are primarily in the metals related fields with full life cycle considerations. After leaving Chrysler in 2008, Eric combined his experience with project management certification and found a new career in technical project management working on nano-ceramic coatings, powder forged titanium components, new casting processes, advanced high strength steel and recycling of high value metals and rare earth elements.

Roger W. Pryor, Ph.D. is the Vice President of Research for Pryor Knowledge Systems, Inc. and a COMSOL Certified Consultant. Dr. Pryor is a materials synthesis and applications expert. He has been awarded 23 US patents for his innovative materials work. Dr. Pryor has been an ASM member since the year 2000 and has worked with ASM to expand the availability of their extensive materials properties database. He received his Ph.D. and M.S. in Physics from The Pennsylvania State University. He received his B.S. in Physics from Worcester Polytechnic Institute. He has applied his skills and experience in optics, semiconductor devices, and electronics in industrial research and management positions with Bell Telephone Laboratories, Pitney Bowes, and Energy Conversion Devices. As a Professor at Wayne State University, he established and led the research efforts in the Diamond Research Laboratory. He is the author of two Multiphysics Modeling textbooks. Dr. Pryor looks forward to facilitating ASM growth and outreach in the local, national and international communities.

Tyler Reno is an Applications Engineer in the Technical Marketing department at Rolled Alloys in Temperance, MI. Tyler’s main responsibilities include oversight of the metallurgical lab and failure analysis for customers and potential customers of Rolled Alloys supplemented by materials selection assistance for applications involving high temperatures and/or corrosive environments. Tyler received a BSE in Mechanical Engineering with a minor in Structural Materials from Michigan Technological University in Houghton, MI. He has been an active member of ASM-Detroit for one year and is looking to increase his involvement in the ASM-Detroit chapter through volunteer work in the chapter functions.
In 1911, William Park Woodside established Park Chemical to manufacture an improved pack carburizing compound to replace the use of charred bone and leather for the surface hardening of steel.

In 1913, Bill Woodside gathered 20 fellow heat treaters in Detroit and formed the Steel Treaters’ Club which eventually grew into ASM International.

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Materials Column

This issue of Materials Column is about brain matter. Brains matter. We need to develop the future scientists and engineers of the future to stay globally competitive in the years ahead. And there is no more efficient way to accomplish that goal than to fund ASM Teachers’ Materials Camps due to multiplier effect – more on that later. As proof of the value of the program, this year we will have Camp II for the first time, in Ann Arbor, because Camp I was so successful and Camp I teacher graduates asked for more because their students asked for more. The students are engrossed with Materials Science and just can’t get enough. Materials Science is the hook that is keeping students focused on science and engineering. Camp I teacher graduates have seen the results of introducing Materials Science to their students – these students are going to college, are highly motivated, graduate and working in science and engineering.

The multiplier effect of having a Teachers’ Materials Camp is why so much good is accomplished for so little money. And the multiplier effect occurs two times.

Teaching one teacher results in 30 new students being introduced to the wonderful world of Materials Science in Middle and High school, and, in some cases, even in Elementary school.

If a teacher then teaches for another 30 years, that’s a total of 1 * 30 * 30 = 900 students being introduced to Materials Science. What a great Return-On-Investment!

Due to the old funding standbys going into lock-down mode, there is not enough money to fund all the teachers for the 2011 Ann Arbor Teachers’ Materials Camp. This year we are reaching out to individuals. Anyone can make a difference. Consider sponsoring just one out-of-town teacher for a week. If that is not possible, consider funding just one out-of-town teacher for one night’s hotel stay. There is always a way. Do you have unused Airmiles? They can be used for hotel stays. You will be personally thanked by the very teacher that you chose to support.

Contact our administrator Caryn Ruzich for details. Brains matter and our future matters.

2010-2011 ASM-DETROIT CHAPTER PROGRAM

May 9, 2011
Woodside Lecture
Professor William Hosford, Honoree
University of Michigan

August 14, 2011
Annual Golf Outing
Joint ASM Detroit–AFS Detroit-Windsor
Golf Outing
Fellows Creek Golf Course, Canton

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# Micro-Examiner

**Monday, May 9, 2011**

- **5:45 p.m. Social Hour**
- **6:30 p.m. Dinner**
- **7:30 p.m. Speaker**
- $25 with Reservation
- $30 without Reservation
- $20 Retirees/Unemployed
- $5 Students

For reservations contact the chapter office at (586) 573-0700 before Friday, May 6th

## 2011-2012 ASM International Detroit Chapter Nominating Committee Ballot

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<th>ROLE</th>
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<td>VICE CHAIRMAN</td>
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Mail or fax ballots no later than May 31, 2011 to:
ASM-Detroit Office
P.O. Box 1398 • Warren, MI 48090-1398 • Fax (586) 693-0727

BY NOMINATING COMMITTEE – Snu Smalinskas, Chair