

American Institute of Chemical Engineers Knoxville-Oak Ridge Section

For additional information see our Web site at: <http://www.ornl.gov/sci/aiche/>
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May 2013 Meeting – Joint with SWE

Date: Thursday, May 16, 2013
Cost: \$5
Location: Frank H. McClung Museum, The University of Tennessee, 1327 Circle Park Drive, Knoxville, TN - Park along the circle drive in front of the museum (just across from the torchbearer statue). No parking passes are needed. Come in the front door, and a guard will be available to direct you to the correct location.
5:30 pm AIChE Executive Committee Meeting (All members welcome),
6:00 pm Pizza and soft drinks at the Museum
7:00 pm Program – Dr. Jan Simek, Department of Anthropology, University of Tennessee – *The Sky Above, the Mud Below*

Abstract - Dr. Jan Simek will give a presentation on ancient cave paintings at the McClung Museum on the UT campus. This presentation will look at prehistoric art in the Southeast of North America, with a particular focus on painted images on rock outcrops and in caves. Variability in chronology, subject matter, geographical context, and pigment chemistry will be discussed as these relate to cultural variation in the past.

Bio - Dr. Simek is an American archaeologist and educator and was the interim president of the University of Tennessee from 2009-2010. As a faculty member in the department of anthropology at the University of Tennessee, Knoxville, his research interests include Paleolithic archaeology, human evolution, quantitative analysis, spatial analysis, archaeology of the southeastern United States, and cave archaeology. He has been involved in the discovery and exploration of numerous "Unnamed Caves", a naming practice used to protect their location, in the Cumberland Plateau for the past fifteen years. He has been instrumental in the discovery of prehistoric artwork; dating back thousands of years and has also conducted important research in France at Neanderthal habitation sites.

Please make your reservations by noon on May 14, by contacting

Paula George, georgepm@ornl.gov, (865)576-0603 or
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***The Section will subsidize up to 15 students,
including graduate students***

Information about the Frank H. McClung Museum

The McClung Museum is a general museum with collections in anthropology, archaeology, decorative arts, local history, and natural history. The exhibits document ways of life, cultural trends, and technologies from prehistoric times to the present day, and showcase much of Tennessee's past — its geology, history, art, and culture. The McClung Museum is a special place — a place of discovery, a place to learn about the world around us.

As a part of the University of Tennessee, the Museum supports and participates in the university's mission to serve the state, region, and nation through scholarship, teaching, artistic creation, professional practice, and public service.

The professionalism and high caliber of the Museum are reflected in its accreditation by the American Association of Museums. The McClung Museum is one of only 12 museums in Tennessee to be so recognized.

CURRENT EXHIBITS AT MCCLUNG MUSEUM

- [Ancient Egypt: The Eternal Voice](#)
- [Archaeology & Native Peoples of Tennessee](#)
- [The Decorative Experience](#)
- [Geology & Fossil History of Tennessee](#)
- [Human Origins: Searching for our Fossil Ancestors](#)
- [The Battle of Fort Sanders](#)
- [Tennessee Freshwater Mussels](#)

Upcoming Exhibits – Birds in Art

Since 1976, the Leigh Yawkey Woodson Art Museum has organized *Birds in Art* annually, seeking to present the very best contemporary artistic interpretations of birds and related subject matter. 2013 marks the second year that this traveling exhibit has come to the McClung, having also hosted [Birds in Art in 2009](#).

The exhibition presents sixty original paintings, sculptures, and graphics created in the last two years by artists from the world over. From the plumed whistling duck to the colorful Amazonian parrot, these works represent numerous species and celebrate the timeless appeal of birds through fresh artistic interpretations.

Exhibition organized by Leigh Yawkey Woodson Art Museum, Wausau, Wisconsin.

Birds in Art is presented by the First Tennessee Foundation, the Henley W. & Peggy H Tate Museum Fund and the Ardath and Joel E. Rynning Museum Fund. Additional support is provided by the Arts and Heritage Fund, Knox County and the City of Knoxville.



Sandra Blair, Sun Catcher, 2011, Acrylic on Ampersand gesso board, 23 3/4 x 20 x 1 1/2 in.

UT Chemical and Biomolecular Engineering Department Award Winners

The local section presented monetary awards to the AIChE Outstanding Student and AIChE Outstanding Baccalaureate at the Chemical and Biomolecular Engineering Department's awards night on April 25th. Carrie Lloyd (Fig. 1) received the AIChE Outstanding Student Award and Hannah Haines (picture not available) received the AIChE Outstanding Baccalaureate Award. The section also presented small monetary awards to the two students who presented their research at the awards night. Ms. Akshitha Yarrabothula (Fig. 2) presented "The Design and Characterization of an EnvZ-OmpR Osmosensor Circuit in Escherich coli" and Ms. Morgan Baltz (Fig. 3) presented "Characterization of Influenza Hemagglutinin Mutants for the Elucidation of Key Residues' Effect on Activation".

Author: Paul Taylor



Fig. 1. Outstanding student award winner, Carrie Lloyd with Paul Taylor.



Fig. 2. Ms. Akshitha Yarrabothula.



Fig. 3. Ms. Morgan Baltz and Paul Taylor

Announcement: Technical Society of Knoxville Meeting – May 13

The May 13, 2013 meeting of the Technical Society of Knoxville will include a presentation on the University of Tennessee's proposed natural gas and oil development research project (fracking). The presentation will be given by Richard Evans, retired former Director of the UT Forest Resources Research and Education Center.

The University of Tennessee proposes to allow hydraulic fracturing to extract natural gas on a state-owned tract of rolling woodland and use the revenue to fund research into the environmental impact of such drilling — a proposal that environmentalists condemn as a conflict of interest.

All Technical Society meetings take place at the Crowne Plaza

Hotel on Summit Hill Drive in downtown Knoxville. Complimentary self-parking is available in the hotel garage. Meeting attendees receive a token for exiting the garage without charge after the meeting. Members and guests are invited to begin arriving around 11:30 am for a buffet lunch. The cost is \$13 per person. The technical portion of the meeting starts at 11:50 am and ends at 1:00 pm. Visitors are welcome.

For more information contact Bob Scott, Secretary, at 690-0705 or rrscott3@aol.com or go to the Technical Society website at, <http://www.technicalociety.net/>.

The Technical Society of Knoxville consists of individuals interested in technology and science, and

their effects on society, and in particular, on the community. The Society was founded in 1921 by Charles E. Ferris, the first Dean of the UT College of Engineering and a group of leading members of the community. It has been an important civic organization for the technical and scientific people in the greater Knoxville area for 92 years.

This meeting will provide attendees with one hour of professional development credit (PDH).

Activities Calendar

Date	Time	Topic	Speaker	Location
May 16	6:00 PM	The Sky Above, the Mud Below	Dr. Jan Simek - UT	McClung Museum
August		Local Section Planning Meeting		

Sponsoring Opportunities

We continue to accept advertising in the newsletter in order to provide funds to support student participation in the meetings.

Rates per newsletter are:

\$80 full-page advertisement

\$45 half-page advertisement

\$25 quarter-page advertisement

The section will also continue to accept individual or corporate sponsors to provide student meals at section meetings. The sponsor will be recognized at the meeting and in the Newsletter.

The cost to sponsor one meeting is **\$200**. It's a great way to encourage students to attend the local meetings and become future members in the Institute!



(CO₂ capture at PNNL - Electron Microscope picture of aftermath of Fayalite reacting with gaseous CO₂ to form Siderite – Source: <http://www.doedigitalarchive.doe.gov/enter.cfm>)

“Aerodynamically, the bumble bee shouldn’t be able to fly, but the bumble bee doesn’t know it so it goes on flying anyway.”

Mary Kay Ash
1918-2001

Founder of Mary Kay Cosmetics, Inc.

Officers

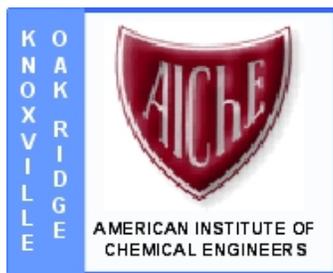
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We're on the Web!

See us at:
www.ornl.gov/sci/aiche/

Editor: B. Lewis

About Our Organization – eLibrary

As members of AIChE, we have access to a wealth of information through AIChE's eLibrary. The eLibrary is continually growing by adding new and critical research support. The eLibrary partners with Knovel and McGraw-Hill to provide access to leading technical handbooks, databases, and analytical tools. Over 200 critical titles can be researched through Knovel. New titles include:

- Applied Cell and Molecular Biology for Engineers
- Properties of Gases and Liquids, Fifth Edition
- Industrial Chemical Process Design
- Alternative Energy Systems in Building Design
- Nanobiophotonics
- Petroleum Fuels Manufacturing Handbook, Including Specialty Products and Sustainable Manufacturing Techniques
- Nano/Microscale Heat Transfer
- Global Program Management
- Ullmann's Chemical Engineering and Plant Design
- Fundamentals of Heat Exchanger Design
- Handbook of Nanomedicine,
- Wiley Guide to Chemical Incompatibilities
- Alternative Fuels Guidebook Handbook of Biomaterials Properties

Members can access the ever popular Perry's handbook and numerous other titles, such as those listed below, through McGraw-Hill's new scientific library – AccessEngineering.

(Excerpts from national AIChE web site:
<http://www.aiche.org/resources/elibrary>)

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