



American Institute of Professional Geologists Kentucky Section Newsletter

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Outreach Volunteer Program

Field Trip Guidebooks

Schedule of Upcoming Events

Member Contacts



Volunteer Outreach Program

Meeting at Kentucky Geological Survey 9:30 a.m., July 7. All are invited to attend

Geology is facing an identity crisis in modern society. Although most of the major problems facing us today are related in one or more fashions with the geosciences, geologists are rarely involved in either problem-solving or in decision-making concerning the proper methods of evaluating or attacking them. The major reason for this lack of involvement is that most people know nothing about us or about our value in attacking the problems we face. Geologists on the whole have been very poor in public relations concerning what we do and what we are capable of doing. The only time the public is informed about geology is when oil companies or mining companies make “excessive profits” or are assigned blame for environmental problems.

AIPG and KSPG have jointly formed an outreach program whose purpose is to alleviate the situation by increasing the public visibility of our profession, enhancing the quality of the product we provide, and expanding the knowledge base of the public concerning the real science behind the problems we face. The outreach program is directed toward increasing involvement of geologists in all aspects of modern society, including the following:

- 1.) Public service lectures and forums;
- 2.) Training sessions to upgrade existing geologists;
- 3.) Cooperative programs with universities in lectures, mentorship, and departmental support;
- 4.) Involvement in pre-college teacher training programs;
- 5.) Public planning and zoning; and
- 6.) Public relations with media and with legislators.

To accomplish these goals, we need **volunteers** to serve as public lecturers, advisors in academic programs and training sessions, mentors, and support systems. At

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2007 Spring Field Trip & Awards Banquet, May 12

Lower Paleozoic Stratigraphy of the Maysville Area with a Limestone Mine Tour at the Carmeuse Maysville Operation

On the morning of May 12, participants at the 2007 KY-AIPG field trip gathered at the Blue Licks Battlefield State Resort Park. From here we proceeded to our first stop, a tour of the underground limestone mining operation at Carmeuse Lime in Maysville, Ky. After a brief introduction and safety class, we went down 900 feet to the mine operation.



At Carmeuse getting an introduction and safety briefing.



Entering the elevator that will take us 900 feet below ground.

Once we returned to the surface, we toured the kilns that calcinate the limestone to lime. The Carmeuse Maysville Operation mines a certain interface of the Upper Ordovician Camp Nelson Limestone just above the first white marker bed and below the contact with the Oregon Formation. This limestone meets their chemical requirements of calcium and magnesium ratio needed for the type of lime that they produce for special operations. The lime is then shipped up and down the Ohio River to a number of power plants that utilize sulfur-containing fossil fuels. The lime is used extensively in the flue-gas desulfurization process for control of sulfur dioxide emissions. The lime can efficiently remove 99 percent of the SO_2 while scrubbing flue gas from the high-sulfur fuel; the leftover residue is gypsum, which is 99 percent pure. The gypsum is shipped off to be processed into wallboard. Unfortunately, we were not allowed to take pictures in the mine or of the calcining operation.



White marker bed in the Camp Nelson Limestone below the Oregon Formation contact on an outcrop on Route 27 by the Kentucky River.

After the mine tour, we drove to Maysville for lunch by the Ohio River at Caproni's, located on Rosemary Clooney Street. Maysville got its start in 1773 and was originally known as Limestone because of the creek that ran by it. Maysville was an important port exporting bourbon, hemp, and tobacco for the whole region, as well as ferrying people up and down the Ohio River.



Caproni's down by the Ohio River.

After lunch we met with Dr. Carlton Brett and his graduate students from the University of Cincinnati, for some lower Paleozoic stratigraphy of the Maysville area. We examined large exposures of the upper half of the Kope Formation, the overlying Fairview, and much of the Grant Lake Formation. We were shown the depositional features and fossil assemblages associated with each.



Up on one of the ledges of the Kope Formation examining the Fairview Formation.



Dr. Carlton Brett and gang examining the Kope Formation.

Next we traveled to another location where the Kope Formation is also exposed. Here the roadcut shows the preservation of synsedimentary deformation, interpreted as seismites. The extremely deformed layers consist of plastically deformed ball-and-pillow blocks of laminated silt and fine calcarenite. In between these blocks were squeezed diapirs of clay called flame structures. Another interesting feature found on the deformed siltstones was deformed sole features and distorted burrow molds. It was suggested that the seafloor was firm enough to preserve these features, but could behave plastically during deformation events.

This ended the day, and we returned to the Blue Licks Battlefield State Resort Park to get ready for the banquet, award presentation, and a presentation by the Parks Program Service Supervisor. Ken Fishel, the recipient of the Lifetime Achievement Award, had to leave early and could not make the banquet. Dan Phelps, the Kentucky Section president, presented him his award in the parking lot.



Dan Phelps presenting Ken Fishel the Lifetime Achievement Award.



Seismite layer in the Kope Formation.

After we had eaten, Dan Phelps presented the rest of the awards. The Geologist of the Year Award went to Daniel Carey for his work on creating county land-use maps addressing various geological parameters and hazards for county planning commissions as well as for laypersons. These maps can be downloaded from the Kentucky Geological Survey Web site.

Dan Carey receiving the Geologist of the Year Award from KY-AIPG President Dan Phelps.



The first student award was presented to Wesley Smith, who attended Morehead State University. Wesley had worked with Professor Charles Mason on the Houghton-Mars project in the Arctic. Wesley will be applying to graduate schools, where he plans on pursuing a master's degree in the oil and gas field. The second student award went to Brian Thomas Scott, who attended the University of Kentucky. Brian has remained in the top of his class academically during his tenure at the University of Kentucky. In addition to being an outstanding student, Brian has been a nonscholarship walk-on place kicker for the University of Kentucky Wildcat football team, which won the 2006 Music City Bowl. The University of Kentucky football recruiter will have to concentrate his recruitment efforts toward geologists. Tim Crumbie, past president, was presented with a plaque. His tireless dedication for the section was very much appreciated. Some of Dan Carey's land-use maps can be seen mounted on the wall in the pictures below.



Professor Charles Mason accepting the student award for Wesley Smith who was attending graduation ceremonies.



Brian Thomas Scott receiving his student award.



Tim Crumbie receiving his past-president plaque.

The evening continued with our speaker, Paul Tierney, Parks Program Service Supervisor, on the history of the Blue Licks area. Throughout history, the salt springs (which no longer flow) have attracted prehistoric and contemporary animals, Indians, and pioneers. In the beginning of the 19th century it was a resort for people seeking rejuvenation in the therapeutic waters. The spot where the state park sits is more widely known as the site of the last Revolutionary War battle in Kentucky, even though the war had ended 10 months ago. Some British officers, 300 Indians, and a few Tories continued to wreak havoc on various stations to the north and west. They arrived at Bryan's Station and waited for an opportunity to raid. The settlers spotted the Indians and sent out for reinforcements. The settlers were told that artillery would soon arrive and were promised that if they surrendered they would be spared. Knowing from reports from other raided stations that that would not be the case and that as soon as they surrendered, they would be slaughtered, their reply was that they would not surrender. Attacks by Indians were mounted on one side of the station to lure the settlers to that side while the enemy would storm the opposite side. It did not fool the settlers. The enemy burned the outbuildings and the crops, then retreated before reinforcements arrived. The next day 40 men arrived from several outposts. Daniel Boone and his son Israel were among them. They followed the well laid tracks to the Licking River. They did not know they were being led into a trap and suffered tremendous losses, one being Daniel Boone's son. If they had waited one more day, they would have had 400 extra men and more than enough to overpower the enemy. The park is a must visit and stay.



Paul Tierney, Parks Program Service Supervisor.

present we have set up four subcommittees with joint membership between AIPG and KSPG. The subcommittees include Public Relations (media and public service groups), Academic Relations (University and pre-college interaction), Database Development (canned lectures and background slides), and Professional Relations (internal professional enhancement). To volunteer, please go to the link on the KY-AIPG Web site.

The Kentucky Section of the American Institute of Professional Geologists would like to thank the sponsors of this field trip and awards banquet for their generous contributions.

The guidebook for this field trip can be found on the KY-AIPG Web site.

Contributions toward the student scholarship awards funds can be made at any time.

Start thinking about the next recipients for the Lifetime Achievement Award and Geologist of the Year. Professors, keep in mind your candidates for the Outstanding Student.