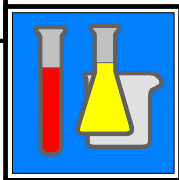




THE SOCIETY FOR ORGANIC PETROLOGY

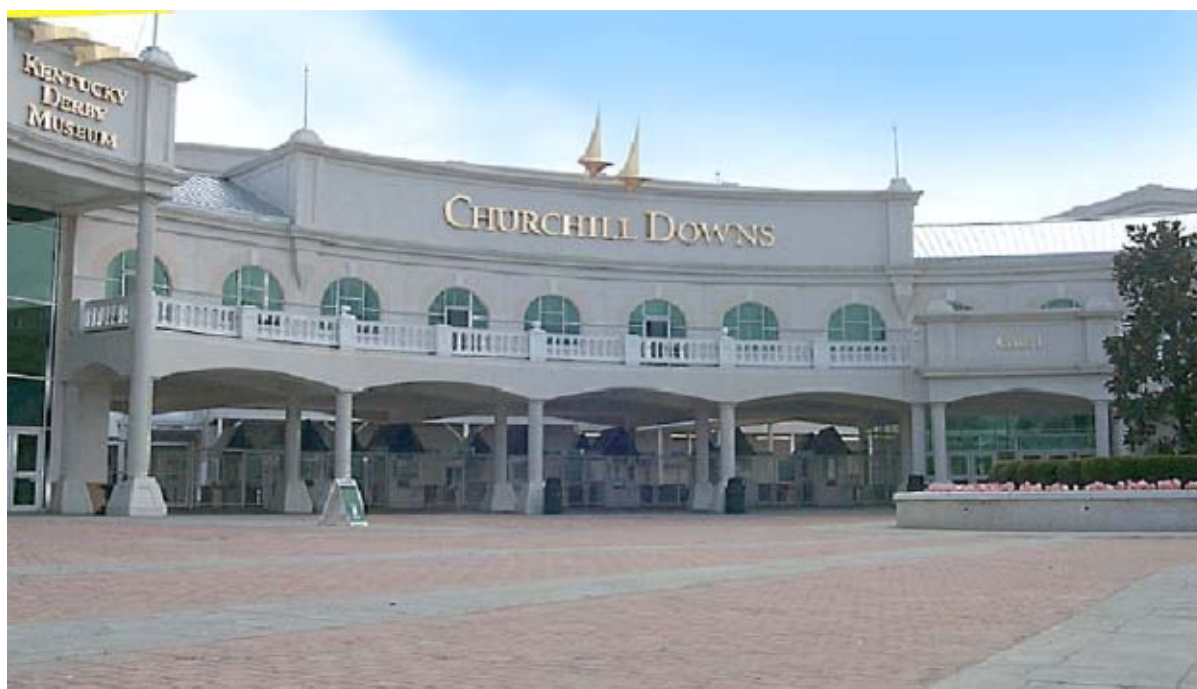


NEWSLETTER

Vol. 22, No. 2

June, 2005

ISSN 0743-3816



2005 Annual Meeting, September 11 - 14:

Louisville, Kentucky

Early registration discount ends July 31

Accommodation deadline is August 19

**2005 TSOP Meeting
September 11 - 14
Louisville, Kentucky, USA**

Early registration discount ends July 31

Accommodation deadline is August 19 - see page 10.

Conference themes will include

CO₂ sequestration
coal utilization
coalbed methane
coal petrography
organic geochemistry

Planned schedule includes

Sunday, September 11
CO₂ Sequestration Workshop (a.m.)
Field Trip: Falls of the Ohio (p.m.)
Monday, September 12
Technical Sessions
Reception, Louisville Slugger Museum
Tuesday, September 13
Technical Sessions
Wednesday, September 14
Post-meeting coal mine field trip

And mark your calendars now for the 23rd Annual TSOP Meeting

Beijing, China

September 15 - 22 , 2006

See page 19

The Society for Organic Petrology

TSOP is a society for scientists and engineers involved with coal petrology, kerogen petrology, organic geochemistry and related disciplines. The Society organizes an annual technical meeting, other meetings, and field trips; sponsors research projects; provides funding for graduate students; and publishes a web site, this quarterly Newsletter, a membership directory, annual meeting program and abstracts, and special publications.

Members may elect not to receive the printed Newsletter by marking their dues forms or by contacting the Editor. This choice may also be reversed at any time, or specific printed Newsletters may be requested.

Members are eligible for **discounted subscriptions** to the Elsevier journals *International Journal of Coal Geology* and *Review of Paleobotany and Palynology*. Subscribe by checking the box on your dues form, or using the form at www.tsop.org. You will then be billed by Elsevier. Contact Paul Hackley <phackley@usgs.gov> if you do not receive a bill or have any other problems with a subscription. For **subscription at the member rate** to AGI's *Geotimes*, see your dues form.

TSOP is a Member Society of AGI and an AAPG Associated Society.

The Society for Organic Petrology Newsletter

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DEAD- Sept. Issue: August 1
LINES: Dec. Issue: December 1

Writers, Photographers and Associate Editors Needed!

The TSOP Newsletter welcomes contributions from members and non-members alike. Submission methods: Text is preferred in WordPerfect, MS Word, RTF or plain text format. Photos as slides or prints (will be returned after use) or as digital files (300 dpi preferred) without strong compression on CD-ROM or as e-mail attachments (if larger than 5 MB, please e-mail me first). Zip disks are discouraged.

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Society Membership

The TSOP Newsletter (ISSN-0743-3816) is published quarterly by The Society for Organic Petrology and is distributed to all Society members as a benefit of membership. Membership in the Society is open to all individuals involved in the fields of organic petrology and organic geochemistry. For more information on membership and Society activities, please see:

<http://www.tsop.org>

For purposes of registration of the TSOP Newsletter, a permanent address is: The Society for Organic Petrology, c/o American Geological Institute, 4220 King St., Alexandria, VA 22302-1520 USA

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Cover photo: Churchill Downs in Louisville, Kentucky.

Enclosed with this issue (see page 10):
2005 Meeting Registration Form

President's Page

from Colin Ward

The President's Page for this issue, in one way or another, seems to be almost all about meetings.

The Society's traditional mid-year Council meeting was held on Friday, April 8. The core of the meeting took place at the US Geological Survey in Reston, Virginia, with telephone links to Joan Esterle in Brisbane, Zhongsheng Li in Sydney, and Jim Hower in Lexington, Kentucky. As President I would like to thank all who attended, either in person or by phone, and also express my thanks for the professional way in which the sometimes complex business of the meeting was conducted. In addition I would like to thank Paul Hackley, of the US Geological Survey, for taking over from President-elect Peter Warwick as Chair of the Society's Membership Committee.

Technical Meetings – Successful Outcomes

The core of the Society's existence is the presentation and publication of papers at its Annual Meetings. Peter Warwick, as meeting convener, has advised that proofs of 11 papers from those presented at the 2003 Annual Meeting in Washington have now been checked, and the papers will appear shortly in a special issue of the *International Journal of Coal Geology*. On behalf of the Society I would like to thank Peter and the editorial team for bringing this collection of papers to fruition. Neil Sherwood further reports that some 25 papers from the 2004 Annual Meeting in Sydney have been submitted for publication. Neil, Joan Esterle and Tim Moore are currently seeing these papers through the editorial process, with another special issue of the *Journal* to follow in due course. Also in connection with the Sydney meeting, I would like to thank David Glick for production and distribution of CDs containing the Abstracts and Program together with other material from TSOP 2004. This continues the Society's practice of providing the Abstracts and Program from its meetings to all members, even those who were unable to attend the meeting itself.

TSOP sponsored a technical session at the 2005 Gussow Geoscience Conference on *Coalbed Methane: back to the basics of coal geology*, organised during March by the Canadian Society of Petroleum Geologists (CSPG) in Canmore, Alberta. The TSOP session,

chaired by Peter Warwick, attracted more than 180 participants, and is further discussed on page 13 of this Newsletter. A volume of papers, with Lavern Stasiuk as lead editor, is expected to be published from the meeting.

Several TSOP members attended the very successful World of Coal Ash meeting (see page 9), held in Lexington, Kentucky, during April. Jim Hower, co-convener of the 2005 TSOP Meeting in Louisville, was also one of the principal organisers of this function ("I will never again chair two technical conferences in the same year"), which attracted more than 500 registrants from a wide range of countries. Further emphasising the TSOP connection, a poster by Agnieszka Drobniak, Maria Mastalerz and several co-workers, entitled *Association of mercury in Indiana coals and their fly ash; Insights from a sequential extraction technique*, was selected from a diverse and very competitive field as the best poster presented at the meeting.

Technical Meetings – Coming Up

Planning is now well advanced for the 22nd Annual Meeting of the Society, to be held in Louisville between 11 and 14 September, 2005. At last count a total of 57 papers had been offered for presentation, covering a wide variety of organic petrology topics. A pre-meeting workshop on CO₂ sequestration, pre- and post-meeting field trips, a special student function, and the formal conference reception at Louisville's Slugger Museum combine to make this a meeting not to be missed. Further information is provided on page 10 of this issue, with registration forms, accommodation details and other information on the TSOP web site. Again I would like to thank Jim Hower, Maria Mastalerz, Jen O'Keefe and all the other members of the Organising Committee for putting together such an attractive program, and for setting up what looks like being another memorable TSOP event.

Planning also continues for the 23rd Annual Meeting of the Society, to be held in Beijing, China, between September 11 and 22, 2006. The Organising Committee for that meeting have drawn up a very comprehensive program of technical sessions, short courses, social functions and field trips, covering topics of interest to a wide range of applications. It looks like being a worthy successor to the Louisville meeting, so mark the dates in your diary and start looking into travel arrangements.

Other Items from the Council Meeting

Another decision made at the mid-year Council Meeting was to recognise the contributions of our founders by re-naming two of the Society's key awards. Our most prestigious award, that of Honorary Membership, will now be known as the John Castaño Honorary Membership Award (or, perhaps in shorter form, the John Castaño Award), and the Student Research Grant will be known as the William Spackman Student Research Award (or, more simply, the Spackman Award). As well as honouring the respective people for their roles in establishing the society and the science of organic petrology, it is hoped that the changes, which are described on page 6, will add prestige to the awards themselves, and more clearly define their standing in the organic petrology community.

Guidelines for advertising in the TSOP Newsletter were also clarified at the Council Meeting. Adverts that support the goals of the Society, such as short ads for job openings or simple notices of meetings in organic petrology and related fields, may, at the Editor's discretion, be printed without cost as a service to TSOP members. This provides a basis for using the newsletter as a means of communication on matters of mutual interest. Industrial Sustainers of the Society are also entitled to place an appropriate advertisement of up to one half-page in each issue of the TSOP Newsletter free of charge. Other advertisements for services or equipment, and larger job or meeting notices with special layout or graphics are also welcome, and indeed, encouraged, with charges at the prevailing (and generous) Society rates.

The final issue discussed at the Council Meeting (which finished well after midnight) was the proposed restructuring of the Society's Council, to provide a two-year term for the President, the amalgamation of the positions of President-elect and Vice President, retaining only the name of Vice President, and the separation of the positions of Secretary and Treasurer. This will keep the size of the Council at seven (as it is now), with the Vice President, after a two-year term, to succeed to the position of President for a further two years, unless there is a Council resolution to the contrary. A sub-committee of Council is currently finalising the necessary changes to the Society's By-laws, which will be put to the membership for consideration and ballot after they are endorsed by Council. As noted separately on this page, a draft of the proposed changes has been placed on the

TSOP web site, for the information of members. I would be happy to pass any comments from members concerning these changes on to the Sub-committee or to Council.

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Council Changes - Members' Comments Encouraged

TSOP Council continues to consider significant modifications to the Bylaws which would change the elective offices making up the Council (see President's letter, above). The President and other Council members, and a sub-committee chaired by Bob Finkelman, have engaged in considerable discussion over more than a year. A draft of the proposed changes has resulted and is posted on the TSOP web site at <http://www.tsop.org/changes/> (there is also a link from the main page). Members are encouraged to examine this draft and provide any comment to President Colin Ward. Discussion and changes to the draft may also appear on the web site. Following approval by Council, the final step will be a vote on the changes by the membership.

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Hackley Assumes Membership Chair

TSOP is pleased to welcome Paul Hackley to the position of Membership Committee Chair. He takes over from Peter Warwick, with whom he has been collaborating on Membership Committee work for several months. Contact him at:

Paul Hackley, TSOP Membership Chair
U.S. Geological Survey
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Reston, VA 20192 USA
Phone: 703-648-6458 Fax: 703-648-6419
E-mail: phackley@usgs.gov

Please remember to submit any changes or corrections in your contact information to Paul, who will update the member database and distribute the new information as needed for TSOP activities, such as Newsletter mailing. Questions about discounted subscriptions to the *International Journal of Coal Geology*, *Review of Paleobotany and Palynology*, and *Geotimes* may also be directed to him.

H

New Names for TSOP Awards

by Jim Hower

TSOP Council has decided to name two of the Society's awards after individuals whose contributions have helped to build our profession and mold the society.



John Castaño



William Spackman

The Honorary Member Award will now be known as the **John Castaño Honorary Membership Award**. John Castaño was part of the group that led the 1983 transition of the society from the North American Coal Petrographers to The Society for Organic Petrology. Arguably the most active of the Houston-based group of founding members, John served as inaugural Vice-President, and later President of TSOP. He was an organizer of three TSOP meetings in the Houston area, and was made an Honorary Member in 1995. He served TSOP in many capacities until his death in 1997; a memorial article was published in the June, 1997, issue of the TSOP Newsletter.

The TSOP Student Grant will now be known as the **William Spackman Student Research Award**. William Spackman, throughout his career at The Pennsylvania State University, played a leading role in educating many people who are now active in the organic petrology field. Many in TSOP were either Bill's student or had Bill serve on their graduate committee. Graduates at schools such as Southern Illinois, Kentucky, South Carolina, and others, represent the second generation of Bill's influence. His long dedication to coal education makes it appropriate to name this award after him. Bill was highly influential throughout the history of the North American Coal Petrographers, and was the first President-Elect and second President of TSOP. He was made an Honorary Member in 1994. H

2005 Spackman Award Applications

by Suzanne Russell

A total of eleven applications have been received for the 2005 Spackman Award, formerly known as the TSOP Graduate Student Research Grant. The applications have been submitted by students attending universities in Brazil, Canada, Germany, India, New Zealand and the U.S.A., with two submissions from the University of Calgary and two from the University of British Columbia. The applicants include six Masters candidates and five PhD candidates. The grant will be awarded at the TSOP Annual Meeting in Louisville, Kentucky.

The 2005 applicants' research topics and institutions follow:

Indian School of Mines: Geological and Petrographic investigations for blending of coal to make coke.

Louisiana State University: Palynological, biogeochemical and mineralogical signatures in sequence cycles: Carbon cycling dynamics in Upper Devonian Frasnian-Famennian black shales.

The Pennsylvania State University: Petroleum and petroleum/coal blends as feedstocks in Laboratory-scale coker to obtain carbons of potentially high value.

RWTH Aachen University: The charge history of the Gidgealpa oilfield, Cooper Eromanga Basin.

Universidade Federal do Rio Grande do Sul: Organic Petrology, organic geochemistry and palynofacies of Jurassic sediments from the Tectono-Stratigraphy Unit Placetas, Cuba.

University of British Columbia, Vancouver:

1) Methane gas potential of the Lower Cretaceous shales of Northeastern British Columbia and 2) Geologic controls on methane adsorption in marine organic-rich mudrocks - unlocking Canada's gas shale resource.

University of Calgary: 1) Geological controls on oil sands reservoir and bitumen heterogeneity and 2) Oil to source rock correlation within the Triassic petroleum system of the Western Canada Sedimentary Basin.

University of Canterbury, Christchurch NZ: Organic and inorganic compositional controls on coal permeability and its implications for coalbed methane production.

University of Kentucky: The role of terrestrial organic matter in the Late Devonian-Early Mississippian Appalachian marine basin: Implications for the expansion of land plants, paleo-atmospheric oxygen levels and organic-rich black shale accumulation.

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Energy Exploration Position West Virginia University

The Department of Geology and Geography at West Virginia University invites applications for the Marshall S. Miller Energy Professorship in Geology. For full information, see http://www.geo.wvu.edu/energy_position.htm

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Fluorescence Microscopy References Added to TSOP Web Site

TSOP is grateful to an anonymous contributor for providing a page of references on Fluorescence Microscopy, which has been added to the References section of the TSOP web site. Additional references for this or any of the other pages of references, or entire new pages, may be submitted to Internet Committee Chair David Glick (see page 3).

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Newsletter Contributions Invited

Readers are invited to submit items pertinent to TSOP members' fields of study. These might include meeting reports and reviews, book reviews, short technical contributions including those on geologic localities or laboratory methods, as well as creative works such as poems, cartoons and stories. Photographs and illustrations are welcomed; printing in color may be possible in some issues. Please contact David Glick, TSOP Editor (see page 3; individual e-mails should be limited to 5 MB).

H

ASTM News

by Paul Hackley

Task groups of ASTM subcommittees D05.15 and D05.28 met at the Sheraton-Station Square, Pittsburgh, PA on May 18, 2005. Attending were D05.15 chair Tommy Pike (ABC Coke), D05.28 chair Kevin DeVanney (CoalTech Petrographic Associates), Dave Spong (Dofasco Chemical Laboratories), Jason Fannin (Alpha Coal Sales Co., LLC), Dan Mooza (Hampton Roads Testing Laboratories), Doug Lowenhaupt (Consol Energy), and Peter Warwick and Paul Hackley (U.S. Geological Survey). Topics of discussion for standard D2799 (*Microscopical determination of volume percent of physical components of coal*) included: repeatability and reproducibility statistics for round robin maceral analyses and vitrinite reflectance, abandonment of the term sclerotinite and incorporation of secretinite and funginite, and the incorporation of vitrinite subcategories into the standard. Standard D5671 (*Polishing and etching coal samples for microscopical analysis by reflected light*) is due for re-approval; TSOP members who regularly etch coal samples are hereby solicited for their comments on the standard (e-mail to phackley@usgs.gov). ASTM D05 subcommittee members will next meet in Dallas this October.

At the Canmore Gussow CBM conference in March, a group met to discuss the possibility of writing an ASTM Guide or Practice for coalbed gas field desorption methods. The outcome of the informal meeting was that a committee was formed to review the Australian CBM Standard AS 3980-1999 to see if it could be modified for use in North America, and possibly revised to form a new Guide or Practice for inclusion in the annual ASTM Book of Standards.

At present, Charles Barker, Jeff Levine, Maria Mastalerz, Tim Moore, Charles Nelson and Peter Warwick are reviewing the Australian CBM Standard and will determine how to prepare the text for the new ASTM CBM Guide or Practice. In the meantime, if you have any comments or suggestions, or would like to help in preparing the text for the ASTM Guide or Practice, please feel free to contact Peter Warwick at pwarwick@usgs.gov or call +1 703-648-6469. H

57th ICCP Meeting Patras, Greece 18 - 23 September, 2005

The International Committee for Coal and Organic Petrology (ICCP) will hold its 57th meeting on the campus of the University of Patras, between the cities of Patras and Rio, Greece. An extensive announcement available from the ICCP web site <http://www.iccop.org/pdf/PatrasInfo.pdf> reports that all three Commissions will convene for four days (September 19 - 20 and 22-23). A pre-conference excursion to Megalopolis Mines in Pleistocene lignite and the archeological site and museum at Olympia will take place on September 17 - 18. The meeting will break on the 21st for a one-day excursion to Delphi's archeological site and museum and an underground bauxite mine at Vagonetto. After the conference, a four-day excursion will visit several geological sites, modern analogs of peat-forming environments, archeological sites and museums, and a power plant. Meeting and travel details are covered in the web site document. H

Geological Society of Australia Bowen Basin Symposium 2005 The Future For Coal - Fuel For Thought

Rydges Capricorn Resort, 12 - 14 October 2005

from Joan Esterle

Coal geology is ever evolving in response to mining and market needs. The Bowen Basin Symposium 2005 conference will present experts from Queensland's Bowen Basin mines and other domestic and international view points on these critical issues.

The Bowen Basin Symposium (series) occurs only once every five years, so you are guaranteed significant insight from those leading the way in coal mining and marketing practice.

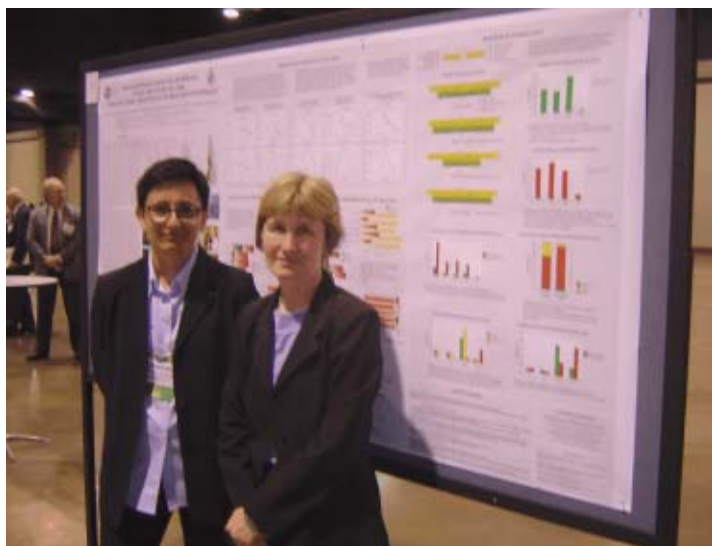
Papers on the following broad themes will be presented:

Regional Geology	Coal Quality
Gas Issues	Geophysics
Exploration	Education
Geotechnical & Mining Geology	Marketing

Website: <http://www.aig.asn.au/pdf/bowenbasin2005.pdf>
E-mail Contact: cngordon@tpg.com.au H

TSOP Represented at Inaugural World of Coal Ash Meeting

The World of Coal Ash meeting, the merger of the University of Kentucky CAER's International Ash Utilization Symposium and the American Coal Ash Association's technical meeting, was held in Lexington, Kentucky, in April. The symposium was a success, with 3 ½ days of four concurrent sessions attended by over 550 people, nearly double the previous attendance at ash conferences sponsored by either organization. TSOP was well represented, with presentations given by president Colin Ward and an award-winning poster presentation by Agnieszka Drobniak and Maria Mastalerz (photo top right).

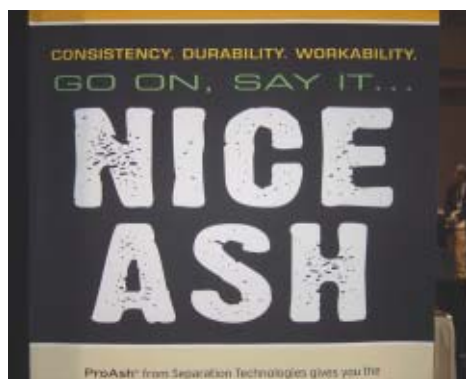


Additional photographs, reports of awards earned at the meeting, and information on the proceedings CD-ROM available in July may be found on the WOCA web site, <http://www.worldofcoalash.org/> A report of the meeting and photographs have also been published in the Energeia newsletter from University of Kentucky's Center for Applied Energy Research, available online at <http://www.caer.uky.edu/energeia/enerhome.shtml>

The sponsoring organizations are hoping to continue the WOCA series with a meeting in 2007, at a time and location yet to be announced. H



Undergraduate students working with Jim Hower (left to right: Bruce Hatcher, Wesley Buchanan, Maria Marks).



Photographs by Jim Hower



Louisville, Kentucky**11 - 14 September, 2005****22nd Annual Meeting of****The Society for
Organic Petrology**

from the 2005 Annual Meeting Committee

The Organizing Committee of the 22nd Annual TSOP meeting to be held in Louisville, Kentucky, USA, on 11-14 September 2005, would like to invite you participate in the conference. A **registration form** is included with this Newsletter and is also available on the meeting website <http://igs.indiana.edu/tsop2005/> Members without Internet access may contact the organizers to request that printed copies be mailed to them. Early registration discount ends on **July 31**. Please watch your e-mail and the web site for breaking information on the meeting.

We are delighted about the response to the meeting. So far about sixty abstracts have been submitted; they are in review process and the authors will be notified of their acceptance by the end of June. A tentative meeting agenda will be posted on the website shortly after the abstract review process has been completed.

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<http://www.indiana.edu/~geosci/people/>



The Brown Hotel, TSOP Meeting venue Kathie Sauer photo

Accommodation and Meeting Venue - Brown Hotel

Built by the philanthropist J. Graham Brown in 1923, the award-winning Camberley Brown Hotel has been at the center of the city's social life since its opening. Rooms and suites tastefully reflect the south at its comfortable best. The relaxed J. Grahams Café is ideal for traditional regional dishes, and the Grand Lounge is a stylish rendezvous for light meals and cocktails. The hotel offers a complimentary 24-hour fitness center. There is also a nearby facility with indoor swimming pool, basketball and racquetball courts and exercise equipment. Impressive golf courses and the famous Churchill Downs racetrack are convenient to the hotel.

Please make your reservations directly with the hotel. Mention the conference for a special room rate. The accommodation deadline is **August 19**.

Address: The Brown, A Camberley Hotel
335 West Broadway
Louisville, KY 40202

Web site: <http://www.brownhotel.com/index.php3>

Phone **1-502-583-1234**
Fax 1-502-587-7006
Reservations phone: 1-888-888-5252

For **other accommodations** see links on the Travel web page.

See page 12 for
Meeting Program
Workshop and Field Trip Information

2005 TSOP: A GAME PLAN FOR FUN IN LOUISVILLE, KENTUCKY

LINKS TO RESTAURANT/LOUISVILLE WEBSITES:

www.louisville.com
www.gotolouisville.com
www.brownhotel.com
www.hellolouisville.com
www.oldlouisville.com
www.louisvillehotbytes.com

Eat in the Brown Hotel's famous English Grill with 420 wines from which you may choose or walk four blocks along fourth street to 4th Street Live! at the Galleria.



Interested in visiting places near your hotel...

The Brown Theater	www.brownhotel.com	(adjacent to Brown hotel)
The Louisville Palace	www.louisvillepalace.com	(1 block from Brown hotel)
Louisville Stoneware:	www.louisvillestoneware.com	(1 mile from Brown hotel)
Actor's Theater:	www.actorstheatre.org	(1 mile from Brown hotel)
Louisville Glassworks:	www.louisvilleglassworks.com	(1 mile from Brown hotel)
Louisville Ballet	www.louisvilleballet.org	(1 mile from Brown hotel)
Kentucky Center for the Arts:	www.kentuckycenter.org	(1 mile from Brown hotel)
Louisville Science Center:	www.louisvillescience.org	(1 mile from Brown hotel)
Louisville Slugger Museum:	www.sluggermuseum.org	(1 mile from Brown hotel)
Muhammad Ali Center	www.alicenter.org	(1 mile from Brown hotel)
Kentucky Museum of Art & Craft	www.kentuckyarts.org	(1.3 miles from Brown hotel)
Belle of Louisville	www.belleoflouisville.org	(2 miles from Brown hotel)
Speed Art Museum	www.speedmuseum.org	(2 miles from Brown hotel)

See the World's biggest baseball bat at the Louisville Slugger Museum or watch an IMAX film at the Louisville Science Center!

**For a tour of the city, contact:
Louisville Horse Trams at
502-581-0100 or online at
www.louisvillehorsetrams.com**

**OR for information on self-
guided walking tours go to:
www.oldlouisville.com/**



IF YOU WANT TO TRAVEL A BIT FARTHER IN A CAR...

Speed Art Museum	www.speedmuseum.org (3 mi from Brown hotel)
Churchill Downs	www.churchilldowns.com (4 mi from Brown hotel)
Kentucky Kingdom	www.sixflags.com (5 mi from Brown hotel)
Louisville Zoo	www.louisvillezoo.org (7 mi from Brown hotel)
BBC Brewing Co.	www.bbcbrew.com
Jim Beam's American Outpost	502-543-9877
Buffalo Crossing Family Fun Ranch	www.buffalocrossing.com
My Old KY Dinner Train	www.kydinnertrain.com
Maker's Mark Distillery	www.makersmark.com
Mammoth Cave National Park	www.nps.gov/maca

For a Kentucky map and a 2005 Travel Guide to KY, please go to www.kytravel.com

The Visitor Center Guide for Louisville may be accessed Online at:

www.gotolouisville.com/Pubs/VisitorGuide-Winter2003.pdf

We also encourage you to visit the TSOP website for information about the city of Louisville, the TSOP conference, and for featured activities in the region. The TSOP website for the 2005 meeting is:
<http://igs.indiana.edu/tsop2005/>

2005 MEETING PROGRAM

Watch for details and updates in the next issue and on the meeting web site
<http://igs.indiana.edu/tsop2005/>

SUNDAY September 11, 2005

Workshop:

Sequestration of CO₂ in coal beds 8:30 a.m – noon

Instructor: Curt M. White, National Energy Technology Lab

Limit: 30 participants

Cost: \$75 (includes workshop materials and refreshments)

Early registration: July 31, 2005

Field trip to the Falls of the Ohio noon-5 p.m.

The Falls of the Ohio at Louisville, Kentucky, is world famous for its fossil beds that expose a wide variety of Silurian and Devonian age strata. This trip will offer an excellent opportunity to observe these fossil beds via a walking tour through the state park. Fossils of Devonian and Silurian marine life have attracted scientists to the Falls for well over a hundred years. More than 600 species of marine fossils have been identified at this location, and include corals, algae, brachiopods, snails, trilobites and primitive fish. Weather and logistics permitting, we will also visit a nearby quarry that will provide collecting opportunities of this rich fauna.

<http://www.fallsoftheohio.org/>

Opening Reception

Student Icebreaker

Free for students! Bowling at Lucky Strike Lanes – a walk of just a few blocks from the meeting – a chance to get together with your fellow students from across the continent and around the world, and have some fun. Non-students are also welcome upon payment of a small fee. Watch for more details.

MONDAY September 12, 2005

Technical sessions

Reception at the Louisville Slugger Museum

<http://www.sluggermuseum.org/>

TUESDAY September 13, 2005

Technical sessions

WEDNESDAY September 14, 2005

Post-meeting **Field trip to a coal mine** 7:30 a.m. - 5:30 p.m.

This trip will examine outcrop and surface mine exposures of Lower and Middle Pennsylvanian strata (Langsettian – Bolsovian) on the eastern margin of the Illinois Basin. Outcrop exposures will highlight the nature and origin of Caseyville and Lower Tradewater Formation strata. Special emphasis will be placed on the origin of coal beds in this interval, using palynologic, petrographic and geochemical methods. Stratigraphic relationships with other areas, worldwide, will also be discussed.

Conference themes will include:

CO₂ sequestration

coal utilization

coalbed methane

coal petrography

organic geochemistry

A **symposium on dispersed organics** is being planned by Tom Algeo and Sue Rimmer. H

Student Travel Support

TSOP Council is pursuing funding to support student participation in the Louisville meeting. Please watch the TSOP web site <http://www.tsop.org> and the meeting web site <http://igs.indiana.edu/tsop2005/> for specific news.

Gussow Coalbed Methane Conference Report

by Peter Warwick

The Canadian Society of Petroleum Geologists (CSPG) 2005 Gussow Conference, called *Coalbed Methane: Back to the Basics of Coal Geology*, was held in Canmore, Alberta, March 9-11, 2005. The conference was co-hosted with the Canadian Society for Unconventional Gas (CSUG), the Canadian Society for Coal Science and Organic Petrology (CSCOP) and The Society for Organic Petrology (TSOP). Attendance at the meeting was over 180, with representation primarily from Canada, but also from the U.S., Australia, and France. A proceedings volume will be published in the Bulletin of Canadian Petroleum Geology. Many of the presentations, with both slides and streaming video, are now available on the following CSPG meeting web site http://www.cspg.org/body_gussow_-_cbm.html

The session hosted by TSOP was chaired by Peter Warwick. It focused on the technical aspects of coalbed methane from the lab and the field. Other sessions were sponsored by the Canadian Society for Coal Science and Organic Petrology (CSCOP) and the Canadian Society for Unconventional Gas (CSUG). A list of speakers for the TSOP session follows.

SESSION 3: TECHNICAL ASPECTS OF CBM FROM THE LAB AND THE FIELD

Charles R. Nelson, Energy & Environmental Research Center, Grand Forks, ND, USA

Best Practice Gas Content Analysis Methods for Low-Rank Coalbed Reservoirs

Peter J. Crosdale, Energy Resources Consulting Pty Ltd, Coorparoo, QLD, Australia

Inter-laboratory Comparative CH₄ Isotherm Measurement on Australian Coals,

Co-authors: Abouna Saghaifi and Ray J. Williams

Charles E. Barker, U.S. Geological Survey, Denver, CO, USA

Secondary Gas Emissions During Coal Desorption, Marathon Grassim Oskolkoff -1 Well, Cook Inlet Basin, Alaska,

Co-author: Todd A. Dallegge

Mohinudeen Faiz, CSIRO Petroleum, North Ryde, NSW, Australia

Microbial Activity in Australian Coal Seam Gas Reservoirs,

Co-author: Phil Hendry

Here are some thoughts about the Gussow CBM meeting.

1. New insights were provided about exploration and production in various North American and Australian basins. Many presentations focused on western Canada;
2. Marc Bustin's keynote presentation on the factors influencing gas content in coal was especially good. As he points out, the role of moisture in controlling gas content in coal should be investigated in more detail;
3. A new research focus on microbial contributions to gas generation was demonstrated;
4. Investigations into isotopic fractionation with desorption were interesting and should be pursued with more analyses of different rank coal from various basins;
5. Discussions about wide desorption variations within a single seam question the use of selective desorption measurements within a single seam to represent inter-seam variations;
6. Discussion of interlab isotherm results illustrates the lack of any standard procedures for isotherm analyses;
7. The formation of a discussion group to look at ways to standardize desorption and adsorption measurements is a significant beginning to establish guidelines for use in North American coal studies.

As described in the ASTM News article on page 8 of this newsletter, a group of people met to discuss the possibility of modifying the Australian Standard for coal gas desorption to fit methods used in North American Basins. H

Coal Atlas CD-ROM Revision *Coal Images Needed!*

An important revision of the popular Atlas of Coal Geology CD-ROM (AAPG Studies in Geology #45, produced in cooperation with TSOP) is now under way. Contributions of coal-related images are needed as soon as possible; a draft publication is expected by the end of September. See the 'Atlas of Coal Geology Request for Assistance' on the AAPG-EMD web site <http://emd.aapg.org/> for the complete story and instructions for submitting images to Alex Papp. It states, "We are particularly looking to improve the current image collection, to add more international examples, and include geological features and issues that were absent in the first edition. We plan to have a new section on recent peat deposition, coal education, and coal sequence stratigraphy." Sponsorship of production costs is also being sought. Please assist in improving this very useful publication; authors of selected images will be referenced in the image caption. H

The Mystery of the Coaly Waif (Conclusion)

by Alan Davis

With apologies to Sir Arthur Conan Doyle

In the first instalment, Sherlock Holmes and Dr. Watson, while visiting Teesdale in the north of England, were called upon to assist in identifying the body of a young boy found in a quarry. Holmes' investigation showed that death had been caused by a blow to the head with a spherical object about two and a half inches in diameter. Murder was indicated. Holmes collected some fine particles which appeared to be coal from the boy's fingernails and jacket. Strangely, no boy had been reported missing in the area or in the adjacent Durham coalfield. Back in London, Holmes sought the assistance of Marie Carmichael, a student specialising in palaeobotany and coal, in finding a source for the particles. Miss Carmichael's study of the particles in thin section revealed them to be jet and not coal. Holmes then conducted blowpipe tests on unusual muds collected from the dead boy's jacket and detected elements contained in polishing compounds. All of the evidence pointed to a location where jet was manufactured into jewelry. Holmes, Watson and Miss Carmichael arranged to travel to Whitby on the Yorkshire coast. Now read on.

3.

A fellow passenger on the first part of the journey up from London could have been excused for thinking that the well-dressed trio which was so inclined to spontaneous outbursts of laughter had spent too much time in the buffet bar before boarding the train. Their mirth was occasioned by their own and their companions' dress. Miss Carmichael was fetching in a tightly cinched knee-length green coat with wide white lapels below which was a well-pleated maroon skirt that swept the ground; she wore a wide pancake hat jauntily tilted forward and carried a dainty umbrella. Both Holmes and Watson sported high-buttoned coats, stiff white collars, cravats and straw hats. As their connection from Middlesbrough rattled across the North Yorkshire moors even the weather

began to reflect their mood as the heavy mists lifted revealing white crags and hillsides resplendent in purple heather. Miss Carmichael expounded on the vegetation and the relation between geology and landform. Holmes, not usually interested in science that could have no bearing on matters criminological or on the human psyche, was fascinated. They argued at length on the possible source of the coal that could have given rise to the sooty and sulphurous smoke that streamed past their window from the engine. Eventually they began to notice a few mine adits in the valley sides which they took to be jet workings in the Upper Lias and then they were slowing and stopping at Whitby station.

In the station yard Holmes paused to light a cigarette. Miss Carmichael had insisted that they travel in a non-smoking compartment, so he enjoyed the first puffs with obvious relish. Holmes asked for directions to the police station which happened to be directly across the street. Entering, Holmes asked the constable at the desk for the station sergeant to whom Holmes introduced himself and the others. In view of Holmes' uncharacteristic dress the sergeant at first had some difficulty in accepting this identification, but the detective's famous facial features and exploits were especially well known to England's police. Recognition and then embarrassment slowly dawned on the officer's face who introduced himself as Sergeant Higginbottom.

Holmes informed the sergeant that they were searching for the identity of a boy found dead near Middlesbrough and asked if any boys of about ten years were missing from the Whitby area. He produced a photograph of the boy's face. The sergeant examined it carefully and, after a deep breath, announced "My word, that's young Jemmy the waif. Last name Hopkins. We were told that he had headed off to relations in London. He was an orphan, you know." Pressed for further information the sergeant revealed that the boy had been employed at Falkinbridge's, an emporium specialising in jet jewelry. The factory manager, Mr Swales, allowed Jem to sleep in the factory, although they often had a falling out so sometimes Jem slept in local barns or down at the quayside. "Reet nasty bit o' work that Swales," put in the sergeant, leaning across to whisper

to Holmes and his companions. He screwed up his face while thinking of other pertinent pieces of information that he could pass on to the detective. "He were a hard-working kid that Jem. Once in t'while he helped out a't fish market to make a few more pennies." Holmes and Watson exchanged glances as the source of the fish scale found on Jem became clear. Then the sergeant asked if there was anything suspicious in the boy's death. Holmes informed him that it appeared to be murder. "Can't think why anyone would want to murder that luvly little bairn," opined the sergeant.

Holmes said that he would like to question Mr Swales, of course with the concurrence and assistance of the local constabulary, but that first they would like to ask some questions at Falkinbridge's. "Swales will be doing his rounds at this time," said Sergeant Higginbottom. "He likes to get to the miners before they have a chance to peddle their finds around the other jewelers. I'll arrange for a conveyance to take us up along the cliffs in about an hour and a half's time if you like. You take your time at Falkinbridge's." Holmes informed the sergeant that they didn't know yet if they would be staying the night in Whitby and asked if they could leave their bags at the station. The constable gave them directions to Falkinbridge's - across the swing bridge over the Esk and turn left on Church Street.

As they walked down New Quay Road they could tell that they were in the heart of a bustling fishing and boatbuilding port. The cries of the gulls and fisherwomen and the smell of fish intensified with every step. Holmes paused before crossing the swing bridge and looked up to the Abbey ruins and old graveyard towering above them. You know that this view is what inspired my friend Bram Stoker to write "Dracula," he informed his companions. "Now," he added "we must make our plan to redress another kind of evil." He issued his instructions to the doctor and student and they walked up the cobblestoned Church Street, passing a few shops with displays of jet in the windows, until they arrived at Falkinbridge's on the left-hand side. Falkinbridge's appeared to be the classiest of the jet emporiums, with an impressive array of jet and other jewelry on display. As Holmes had directed, they lingered for some time peering through the window before entering the shop. The act

of opening the door set a bell ringing which immediately brought a well-dressed middle-aged lady from a curtained alcove. With relish, Miss Carmichael soon had the most expensive and elaborate jet necklaces laid out on the counter as she appeared to be vacillating about which item to purchase. She consulted her male companions who were of little help in the process and then went back to selecting one after the other to place on her neck and view in a wall mirror. After whittling her selection down to two of the finest pieces she said to the assistant "I find that when buying jewelry it is always nice to know something of their origin and how they are made. I wonder, would it be possible for us to have a look in the workshop?"

While this pretense was being acted out, a boy of teenage years had entered with a tray of jet items and waited while the assistant was busily engaged. At first the assistant was a picture of indecision but the prospect of an important sale was too much to pass up. "Mr Swales is out a't moment, but I suppose it will be alright if you have a look around. Sid here will take you," she said with poorly concealed reluctance. Led by the boy, they passed through the curtained nook and out through a door at the rear of the shop.

Immediately adjacent was a brick building from which a continuous rattling noise was emitted. As they entered the heads of a dozen and a half workers turned to stare at the intruders, and then, with apparent relief turned back to their tasks. The interior was a small wooden floored workspace with a high pitched roof, the slanting windows of which were the only source of illumination. A drive and pulley system, powered by an outside engine, ran around the perimeter of the workshop above head height, and whirring belts drove several lathes on the work benches below. Other benches were set up along the centre of the factory. The workers were men of a wide range in age, some in smocks, some waistcoated and all wearing hats of one sort or another, be it bowler, cap or even deer stalker. A lone boy in knickers, jacket and school cap was feeding coke into a stove, the pipe of which stretched all the way up to the middle of the roof. The men around the outside of the factory were engaged in grinding and polishing pieces of jet on wheels and brushes and wool and

leather laps mounted on lathes; those in the center of the room were sorting, cutting and carving jet and mounting the polished items into silver settings. Miss Carmichael and her male companions passed around the workers asking occasional questions, although conversation was difficult because of the clatter of the machinery and constant activity.

Holmes asked one worker what they used in the polishing process and was told that a special mud, rottenstone, from Derbyshire was best, followed by jeweler's rouge or lamp black. The detective picked a jar of green powder from an overhead shelf. "What's this?" he asked. "Chromium oxide," was the shouted reply. "Mr Swales had us to try it out for a while, but it weren't as good." Holmes looked up and could see that his companions also had comprehended the source of the green and reddish compounds found on Jem's jacket. He took the worker by the wrist and turned his hand so that they could all see the man's fingertips which were worn thin and bleeding with the constant polishing. Holmes passed on and his companions saw him bending low over Sid, apparently interested in the boy's task as he worked at the sorting table.

After a while the three went back into the shop. Miss Carmichael told the disappointed assistant that they were going to take a walk and give some more thought to making a purchase at this time. When they had passed out of view of the shop, Holmes had them pause. Miss Carmichael took the opportunity to remove her grey gloves and held out her hands for the two men to inspect. They were small and well cared for but when she turned them over the men saw that the tips of her fingers had been badly abraded. "Thin



The harbour mouth of Whitby on the Yorkshire coast, looking north.

A. Davis photograph, D. Glick digital editing.

sectioning will do this to you as well," she said. "Those workers, poor Jem and I have something in common."

Soon after, Sid came hurrying down the street. "I can't be long. I tawd 'em I had to check on me sick Mam and the gaffer'll have me wages docked for when I'm away." His accent was thick, but Watson knew that Holmes was an expert in all British accents and could understand the boy's speech. Watson could just pick out the story that although Jem had been assigned to odd jobs in the factory he had a natural flair for jewelry and Mr Swales sometimes let him polish the cheaper items. Sid went on to say "Jem might have been a young 'un but he wouldn't think twice about arguing wi' Swales even if it meant a skelpin'. The day afore Jem left the two on 'em got into a reet terrible fratch." According to Sid's account and as the police sergeant had implied, the upshot was that Jem had quit and gone to find his relatives in London without so much as saying goodbye to his friends. Much of what else was said was impossible for Watson to follow although he heard the word "bastard" on one occasion. "Tell me," Holmes asked the boy as he handed him a two shilling

piece, "This Mr Swales, is he a big man with a limp." Of course the boy had no cause to be puzzled by the question, but Watson and Miss Carmichael looked at each other in amazement which only deepened when the boy answered in the affirmative.

The trio arrived back at the police station to find that Sergeant Higginbottom had ordered a pony and trap with its lady driver. "We should find Swales somewhere along the Sandsend Road," said the sergeant. The constable joined them as they crowded into the little conveyance and set off. A couple of miles out of town the sergeant pointed to a horse and cart stopped near the cliff edge. The party alighted and, leaving the conveyance and its driver on the road, walked over towards the cliff. "That there's Mr Swales," said the sergeant in a hushed voice.

Swales was a hulk of a man with big hands and a pockmarked face made brutish by an unusually small chin. He wore a rough tweed suit and leather gaiters. As the party walked up to the cliff he had been shouting to someone on the beach way below. Miss Carmichael looked over and saw a man on the beach supporting the base of a crude ladder placed against the cliff face; another man's hind quarters and feet were sticking incongruously from a small hole in the cliff at the top of the ladder. When Swales realised that he was being approached he walked towards the intruders, enough to reveal a pronounced limp. Although it was obvious that he recognised the policemen he spoke no words of greeting but regarded them stonily.

Sergeant Higginbottom began asking Swales what he knew about Jem Hopkins' sudden departure from Whitby; date and time and reason. Swales' answers were contemptuous and abrupt and in accord with what the police had already been told. Swales claimed that on the day Jem left town he had taken his cart to Port Mulgrave to collect from the jettiers up there; this was his invariable custom on a Wednesday. Higginbottom was not deterred by Swales' pat response and probed the manager's working relationship with the missing boy. While they were talking, the constable moved slowly over to the flat-bed cart where he was out of Swales' sight and sorted quietly through the sacks on the back. One contained an assortment of ammonites, large and small, some pyritised. Others contained large

lenses of jet, some still enclosed in rock, or handfuls of smaller fragments. Finally he pulled out from under the sacks and held up to view a twisted walking stick stout enough to be a cudgel; instead of a handle it bore a large root knob. The parties eyes were so riveted on the stick that Swales turned and saw the focus of their attention. He cursed and ran past the constable and away from his questioners. Inevitably he realised that he could not outrun those who began to pursue him and he started to scramble down the first part of the cliff which consisted of soil and weathered rock. He lost his footing and slid down to the point where the cliff became vertical and, after scrabbling at the soil, tumbled over. His cry, a roar of anger more than of fear, ended as he crashed onto the rocks below. The party at the top of the cliff viewed the scene in horror. The man on the beach hurried over to Swales' spreadeagled body and after a brief inspection called up "He's dead."

Sergeant Higginbottom instructed the constable to seek out a safe path to the beach in order to confirm the death. Holmes told the sergeant that he suspected the walking stick was the weapon that had killed the boy. Moreover the bruises found on the boy's body could have been the result of multiple beatings over time with a stick shaped like the twisted English blackthorn owned by Swales.

"The width and variation in width of the bruises," he said, to his companions as well as the sergeant, "indicated that it probably was a heavier and longer stick than carried by most. Its owner would therefore have been relatively powerful and tall. A shop manager like Swales would never have carried a stick as a fashion accessory, so even before meeting him I knew that he must have limped.

"As to motive, Sid informed me that Swales had begun insisting that certain workers insert a few pieces of 'bastard' or foreign or fake jet into some of the more expensive settings for the richer but unwary tourists. Whereas the men in the workshop did not have the will to resist Swales or were willing to collaborate, Jem had threatened to tell Mr Falkinbridge. There followed the deuce of a row which Jem's co-workers believed had precipitated his leaving."

Holmes told the sergeant that he thought Swales' story of going to Port Mulgrave on the day of Jem's disappearance would not be borne out upon investigation. A check at the railway station could prove that Swales had left his cart there and taken a train to Middlesbrough that day; also that he might have stowed a very large bundle wrapped in sackcloth in the guard's van. Holmes was not sure how Swales could have transported Jem's body to the quarry; possibly he had a friend or relative in the Middlesbrough area or took an accessory with him. The police could be counted upon to clear up such details.

"And now," said Holmes checking his watch, and addressing Miss Carmichael, "We will have to move very smartly if we are to catch the last train to connect to Darlington. That would enable you to catch the first train to Edinburgh in the morning. Or we can stroll back along the beach and stay in Whitby overnight. What would you like to do?"

Miss Carmichael made her choice without hesitation. "Walk back along the beach if you please. And then have a potted shrimp tea in town. In the morning I might have time to purchase some jet earrings. I am thinking of coming for Jem's funeral if he is brought back here and it coincides with my travel. Some Whitby jet would be an appropriate accessory."

"Good," said Holmes, and then to the sergeant, "Would you be kind enough to arrange for our bags to be delivered to the White Horse and Griffin Hotel. We passed it on Church Street and it looks quite suitable."

The three companions took their leave of the sergeant and walked back along the cliff until they found a path safe enough for them to descend to the golden sands of the beach. They walked arm in arm, Miss Carmichael at the center, although she frequently darted off to bring them a rock or to call them over to inspect some feature of a boulder. In this way they made slow progress back to town.

The tide had already reached its lowest point and was beginning to make its way up the beach, washing away all traces of the day's human activity. H



View from the old Whitby graveyard towards the north, Sandsend Ness, and the cliffs where the final scene of the story is played out. A. Davis photograph, D. Glick digital editing.

Calendar of Events

2005

August 28 - Sept. 1, 2005: American Chemical Society Meeting, Washington, DC

Sept. 11 - 14, 2005: 22nd Annual **TSOP** Meeting, Louisville, Kentucky, USA. See page 10.

Sept. 12 - 16, 2005: 22nd International Meeting on Organic Geochemistry (IMOG), Sevilla, Spain.
<http://www.eaog.org/meetings/meetings.html>
<http://www.imog05.org>

Sept. 18-20, 2005: Eastern Section, AAPG, Radisson Hotel at Waterfront Place, Morgantown, WV, USA, by the Eastern Section, AAPG. (Katharine Lee Avary, WV Geological Survey, Phone: 304/594-2331 FAX: 304/594-2575 EMail: avary@geosrv.wvnet.edu Web: <http://karl.nrcce.wvu.edu/esaapg/>)

Sept. 18 - 23, 2005: 57th Annual Meeting of **ICCP**. Patras, Greece. Followed by a four-day excursion.
<http://www.iccop.org/pdf/PatrasInfo.pdf>

Oct.16 - 19, 2005: Geological Society of America Annual Meeting, Salt Lake City.

2006

March 26 - 30, 2006: 231st American Chemical Society meeting, Atlanta, Georgia

Sept. 10 - 14, 2006: 232nd American Chemical Society meeting, San Francisco, California

Sept. 15 - 22, 2006: 23rd Annual **TSOP** Meeting, Beijing, China.

2006 TSOP Meeting, Beijing, China September 15 - 22

The 23rd Annual Meeting of TSOP will be held at the Xijiao Hotel, in the western part of Beijing. It is adjacent to many universities, including China University of Mining and Technology (Beijing) (CUMT), which will be the host organization and sponsor the meeting.

Key Conference Themes:

1. Organic petrology and geochemistry of non-marine source rocks;
2. Coal-derived hydrocarbons (coal-derived oil, unconventional natural gas and coalbed methane) exploration and development;
3. Coal petrology, coal-measure sedimentology and the hazardous elements in coal related to the environment and human health;
4. Organic petrology in coal mine security and coal utilization: mine fire, gas burst, coal slurry and other less-conventional utilization technologies;
5. New techniques in organic petrology/geochemistry.

See the TSOP web site for updates

www.tsop.org

Photo Gallery



Louisville meeting organizer Maria Mastalerz discusses the Danville Coal of the Dugger Formation in a surface coal mine in northern Sullivan County, Indiana.

Photo: Agnieszka Drobnik.