

Monday, November 6, 2006

Sponsored by University of Houston Department of Geosciences and UH Geoscience Alumni Association

# HGS Joint General and International Dinner Meeting

by Henry W. Posamentier

Westchase Hilton • 9999 Westheimer

Poster Judging 4:30-5:30 p.m.

Poster Viewing during Social Hour 5:30-6:30 p.m.

Dinner 6:30 p.m.

Cost: \$30 Preregistered members; \$35 non-members & walk-ups

The HGS prefers that you make your reservations on-line through the HGS website at [www.hgs.org](http://www.hgs.org). If you have no Internet access, you can e-mail [reservations@hgs.org](mailto:reservations@hgs.org), or call the office at 713-463-9476 (include your name, e-mail address, meeting you are attending, phone number and membership ID#).

HGS Joint General and International Dinner Meeting

*The Robert E. Sheriff Lecture Series and Dinner Meeting  
Sponsored by the University of Houston Department of Geosciences and UH Geosciences Alumni Association in association with the Houston Geologic Society International Group*

## Seismic Geomorphology and Seismic Stratigraphy from Shelf to Deepwater: Implications for Exploration and Development

3<sup>D</sup> seismic data can play a vital role in hydrocarbon exploration and development especially with regard to mitigating risk associated with the presence/absence of reservoir, source and seal facies. Such data can afford direct imaging of depositional elements, which can then be analyzed by applying seismic stratigraphic and seismic geomorphologic principles to yield predictions of lithologic distribution, insights to compartmentalization and identification of stratigraphic trapping possibilities. Benefits can be direct, whereby depositional elements at exploration depths can be identified and interpreted, or they can be indirect, whereby shallow-buried depositional systems can be clearly imaged and provide analogs to deeper exploration or development targets. Examples of imaged depositional elements from both shallowly and deeply buried sections are presented. Deep-water deposits, in particular, have benefited greatly from analyses of 3D seismic data. The understanding of the stratigraphic and geomorphologic evolution of these deposits has increased by orders of magnitude since the advent of 3D seismic-based analyses. In high-cost deep-water exploration settings, insights derived from such analyses are critical to reduce risk with regard to reservoir presence and reservoir compartmentalization to ensure economic success. Depositional elements in settings such as shoreface, shelf, estuarine and fluvial, as well as in carbonate environments, also benefit greatly from 3D seismic analyses. Common techniques for geologic visualization include 1) visualizing and illuminating stratigraphic horizons, 2) time slicing and

flattened time slicing, 3) interval attribute analysis (including seismic waveform analysis), 4) voxbody interpretation and mapping, 5) 3D perspective rendering and 6) opacity rendering. The key to successful application of this approach lies in the correct interpretation of geologically significant patterns revealed by these techniques. Workflows in conjunction with numerous examples from a variety of geologic settings will be shown. ■

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### Biographical Sketch

HENRY W. POSAMENTIER is the Chief Geologist for Anadarko Petroleum Corporation as well as Distinguished

Advisor. Prior to joining Anadarko in 2001, he was with Veritas Exploration Services (2000–2001), Atlantic Richfield Co. (1991–2000), Exxon Production Research Co. and Esso Resources Canada, Ltd. (1979–1991), and Rider University, where he was Assistant Professor of Geology (1974–1979). Dr. Posamentier earned his PhD and MS from Syracuse University (1973 and 1976) and his BS from the City College of New York (1970).



Dr. Posamentier's research interests have been in the fields of sequence stratigraphy and depositional systems analysis, where

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he has published widely. Most recently, he has employed an interdisciplinary approach to geologic prediction using 3D seismic visualization integrated with borehole data to interpret depositional systems and develop basin fill histories, in particular with reference to deep-water depositional settings. His current responsibilities involve ensuring technical excellence as well as integration of appropriate technologies into the exploration process. In 1971–1972, Dr. Posamentier was a Fulbright Fellow to Austria. In addition to numerous awards for excellence of presentations, he has served as an AAPG Distinguished Lecturer to the United States (1991–1992), former Soviet Union (1996–1997) and Middle East (1998–1999).

## AGI Announces New Executive Committee Officers

The American Geological Institute (AGI) welcomes three new officers to the positions of

President-Elect: Peter J. McCabe,  
Secretary: Mary M. Poulton, and  
Member-at-large: Lucy E. Edwards.

**DR. PETER McCABE** of the U.S. Geological Survey in Denver, Colorado will join the AGI Executive Committee as President-Elect. He is currently leading research studies on Deltaic Petroleum Systems of the World and Mesozoic-Cenozoic Arctic Depositional History. McCabe has also served in leadership roles for SEPM and AAPG and has been editor for several publications.

**DR. MARY POULTON** will be serving as Secretary of the AGI Executive Committee. She has been Chair of the Department of Mining and Geological engineering at the University of Arizona since 2000. Poulton has substantial consulting experience and has been an active contributor to many diverse professional and citizen-based initiatives.

**DR. LUCY EDWARDS** will be joining the AGI Executive Committee as one of the Members-at-Large. She currently works at the U.S. Geological Survey at Reston, Virginia. Edwards has diverse experience in the geosciences having worked in industry, academia and government. She is active in a number of professional societies and organizations.

The new members of the AGI Executive Committee will be installed during the annual Geological Society of America convention in Philadelphia, Pennsylvania on October 24, 2006. ■

## Thanks to Swift Energy and ConocoPhillips

HGS would like to thank **Swift Energy Company** for generously sponsoring twenty students and professors to attend the *Sheriff Lecture* this month. In addition, **Swift** will sponsor up to four students each month at subsequent International dinner meetings this year.

This augments the outstanding student program being funded again by **ConocoPhillips**. Students can call the HGS office for details.

With the fine lectures and courses available through HGS, **ConocoPhillips** and **Swift Energy Company** have provided a tremendous opportunity for geoscience students to gain practical knowledge in their field and to network with professionals. ■

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