

Monday, January 28, 2019

Live Oak Room • Norris Conference Center • 816 Town and Country Blvd #210
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$40 Preregistered members; \$45 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

If you are an Active or Associate Member who is unemployed and would like to attend this meeting, please call the HGS office for a discounted registration cost. We are also seeking members to volunteer at the registration desk for this and other events.

HGS North American Dinner Meeting

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James Pindell (speaker)

*Rice University and Tectonic
Analysis Ltd., Sussex UK*

Brian Horn

ION Geophysical, Houston TX

The Greater Gulf of Mexico: What We Know, and What We Don't

This talk addresses the paleotectonic and paleogeographic evolution of the Greater Gulf of Mexico, covering the Gulf itself along with the Jurassic and Laramide events in Mexico and the progressive collision of the Antilles Arc with southern and eastern Yucatan and then the Bahamas Platform. An integrated evolutionary model for Gulf opening, supported by aeromagnetic and regional seismic reflection data sets, is set within the framework provided by Atlantic opening kinematics and the history of Caribbean-North American relative plate motion. For the Gulf of Mexico, we will review the extent of oceanic crust, image the sub-salt section, discuss pros and cons of various rift models, assess early subsidence history and some aspects of ongoing debate, timing of salt deposition in relation to basement tectonics, and some pertinent aspects of Cretaceous and Tertiary depositional history. For the Caribbean story along the southern and southeastern Gulf of Mexico, we document first arrival of flysch deposition into the Gulf margins, the timing of arc-continent collisions, and the opening of the Yucatan Basin which played an important role in the collision of the Cuban Arc with the Bahamas. We summarise what we can be confident about, what we shouldn't be confident about (but sometimes are), what is widely believed but is demonstrably wrong, and what remains unexplained. This talk is an appraisal of where we stand today and where we could continue to investigate. ■

Biographical Sketch

JIM PINDELL has directed Tectonic Analysis Ltd. since 1986, which integrates plate tectonic data with geology to create regional evolutionary syntheses and to constrain aspects of petroleum systems. Concurrently, Jim has held academic research positions at Lamont Earth Observatory, Dartmouth College, Rice University, and Cardiff University (Wales). Jim has a PhD in geology from the University of Durham, England (1985), a MS from SUNY Albany (1982), and a BA from Colgate University (1979). Jim teaches, consults and directs industrially-funded research programs, with past efforts in Colombia, Venezuela, Trinidad, Barbados, the Andes, the Atlantic and its margins, the Caribbean islands, Mexico, and the Gulf of Mexico. Jim has published about 80 papers and articles on these regions, and has been studying passive margin development with ION Geophysical in Houston since 2010.

