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AAPG Distinguished Lecturer Mohriak Focuses on Red Sea's Analogies

By Susan Eaton



Webster Mohriak

Current AAPG Distinguished Lecturer Webster Mohriak is one of the confirmed keynote speakers for the upcoming Atlantic Realm Conjugate Margins Conference, set this August in St. John's, Newfoundland.

Retiring in 2011 after a 30-plus-year career with Petrobras Brasileiro S.A., Mohriak is currently an oil and gas consultant and an adjunct professor of geology with the University of Rio de Janeiro State.

Mohriak, who attended the first conference in 2008, has been actively involved in the conjugate margin conferences' technical committees.

Mohriak will deliver his AAPG Distinguished Lecturer presentation, "Birth and Development of Continental Margin Basins: Analogies from the South Atlantic, North Atlantic and the Red Sea." His presentation is based upon a book, published recently by the Geological Society of London and titled "Conjugate Divergent Margins," which focuses on the South and Central Atlantic divergent margins.

Mohriak is enthusiastic when he discusses the Red Sea, which, he said, is in the "embryonic stages of opening."

"The Red Sea and the Gulf of Aden to the south are unique examples of basins that illustrate the process of break-up and the development of passive continental margins."

Salt deposition happened 10 to 15 million years ago in the Red Sea. In comparison, salt deposition occurred in the Scotia Margin (offshore Nova Scotia) 200 million years ago, and, in the South American offshore, some 115 million years ago.

The salt basins on the opposite side of the South Atlantic – in the conjugate margins of Brazil and Angola – were separated by oceanic spreading centers 100 million years ago. Today, these basins are geographically separated by thousands of kilometers.

In contrast, the salt basins in the Red Sea are just starting to drift apart. And, as the Red sea opens, parts of it are developing oceanic crust.

"The Red Sea gives us a glimpse of what happened in these margins after the salt was deposited," Mohriak said. "We can use the Red Sea as a unique natural laboratory to conduct conceptual, physical and numerical models."

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