## **Cornel Olariu**

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## **EDUCATION**

2005, Ph.D., Geosciences, University of Texas at Dallas

2002, M.S., Geosciences, University of Texas at Dallas

1995-1996 - Graduate courses, University of Bucharest, Bucharest, Romania

1995, B.S. – Geology Engineer, University of Bucharest, Bucharest, Romania

## WORK EXPERIENCE

Fall 2005 –present – The University of Texas at Austin, Department of Geological Sciences Research Associate since fall 2008

Postdoctoral Fellow (2005-2008): Delta sedimentary environments; tidal bars; continental shelf morphology

Summer 2004-Shell International E&P, Houston

Researcher: - Reservoir characterization; statistics on unconfined turbidite deposits.

2000-2005, University of Texas at Dallas, Geosciences, Richardson, Texas

Teaching and Research Assistant

Summer 2002-Shell International E&P, Houston;

Researcher: - Reservoir characterization; statistics on channelized turbidite outcrops.

1996-2000, National Institute for Marine Geology and Geo-ecology (GeoEcoMar), Romania; Research Scientist; projects on the Danube River, Danube Delta and littoral-Black Sea.

## **PUBLICATIONS**

- Olariu C., Steel, R.J., and Petter, A.L., 2010, Delta-Front Hyperpycnal Bed Geometry and Implications for reservoir modeling: Cretaceous Panther Tongue Delta, Utah, AAPG Bulletin, v. 94, p. 819-845.
- Olariu C., and Steel, R.J., 2009, Influence of Point-Source Sediment-Supply on Modern Shelf-Slope Morphology: Implications for Interpretation of Ancient Shelf Margins, Basin Research, v. 21, p. 484-501.
- Olariu, C., and Bhattacharya, J.P., 2006, Terminal distributary channels and delta front architecture of fluvial-dominated delta systems. Journal of Sedimentary Research, v. 76, p. 212 233.
- Olariu, C., Bhattacharya, J.P., Xu, X., Aiken, C.L.V., Zeng, X., and McMechan, G.A., 2005, Integrated study of ancient delta front deposits, using outcrop, ground penetrating radar and three dimension photorealistic data: cretaceous Panther Tongue sandstone, Utah, *in* Liviu Giosan and Janok P. Bhattacharya, River Deltas—Concepts, Models, and Examples, SEPM Special Publication 83, p. 155-177.
- Giosan, L., Donnelly, J.P., Vespremeanu, E., Bhattacharya, J.P., Olariu, C., and Buonaiuto, F.S., 2005, River delta morphodynamics: Examples from the Danube delta, *in* Liviu Giosan and Janok P. Bhattacharya, River Deltas—Concepts, Models, and Examples, SEPM Special Publication 83, p. 393-411.

- Lee, K., Zeng, X., McMechan, G.A., Howell, C.D.Jr., Bhattacharya, J.P., Marcy, F., and Olariu C., 2005, A GPR survey of a delta-front reservoir analog in the Wall Creek Member, Frontier Formation, Wyoming: AAPG Bulletin, v. 89, p. 1139-1155.
- Olariu C., Szobotka St., Fulga C., and Mihaila E., 2000, Sedimentological aspects at the river mouth zone in Iron Gate I dam lake. Revue Roumaine de Geologie, Tome 44, p. 32-39.

#### **BOOKS**

Dan C. Jipa and Cornel Olariu, 2009, Dacian Basin: Depositional Architecture and Sedimentary History of a Paratethys Sea, Geo-Eco-Marina Special Publication no. 3, GeoEcoMar, Bucharest, 264 p.

## **Unreferenced articles**

- Stănică A., Ungureanu Gh., Rotar C., Olariu C., Ilina S., 2005, "Evaluation of the annual wind transport rate in the dune area of the Sf. Gheorghe beach Danube Delta, Black Sea.", GEO-ECO-MARINA vol. 9-10, p. 41-46.
- Jipa, D.C., Olariu, C., Marinescu, N., Olteanu, R., and Brustur, T., 2008, A Late Neogene Marker Sequence in the Dacian Basin (Paratethys Realm). Genetic and Stratigraphic Significance, GEO-ECO-MARINA vol. 13, p. 121-138.

# **PRESENTATIONS**

## 2010

- Olariu, C., and Steel, R.J., 2010, Autogenic Process Change in Modern Deltas: Lessons for the Ancient: From Depositional Systems to Sedimentary successions on the Norwegian Shelf Meeting at Stavanger Forum, May 4-6, Norway.
- Petter, A.L., Steel, R.J., Mohrig, D., Muto, T., Olariu C., and Robinson, P.J., 2010, Reinterpretation of the Lower Castlegate Sst. (Book Cliffs, Utah) based on autostratigraphic ideas of spatial sedimentation patterns: *From Depositional Systems to Sedimentary successions on the Norwegian Shelf* Meeting at Stavanger Forum, May 4-6, Norway.
- Olariu, C., and Steel, R.J., 2010, Delta Architecture and Process Variability During Cross-Shelf Transits; Autogenic and Allogenic Responses: AAPG Annual Meeting, New Orleans.
- Olariu, M.I., Carvaja, C., Steel, R.J., and Olariu, C., 2010, Process and Architectural Evolution During Deltaic Cross-Shelf Transits Fox Hills Deltas, Washakie Basin: AAPG Annual Meeting, New Orleans.
- Schoengut, J.A., Lemiski, R., Olariu, C., Gingras, M.K.., 2010, Ichnology, Sedimentology, and Dip Variability in Pleistocene Tidal Bars at Willapa Bay, Washington: AAPG Annual Meeting, New Orleans.

## 2009

- Olariu, C., Steel, R.J., Dalrymple, R.W., and Olariu, M.I., 2009, Distinguishing Tidal Bars from Tidal Compound-Dunes in Ancient Deposits Why Bother?, IAS Annual Meeting, Alghero, Italy.
- Olariu, M.I., Olariu, C., Steel, R.J., and Martinius, A., 2009, Architecture of Obliquely Migrating Tidal Bars: Esdolomada Member, Roda Formation, Graus-Tremp Basin, Spain, AAPG Annual Meeting, Denver, Colorado.
- Steel, R., Carvajal, C., Olariu, C., and Petter, A.L., 2009, Shelf-Edge Sand Belts, AAPG Annual Meeting, Denver, Colorado.

- Olariu, C., Steel, R., and Petter, A.L., 2009, The Wider- Than-Longer Sand Lobe of the Hyperpycnal Panther Tongue Delta, Cretaceous, Utah, U.S.A., AAPG Annual Meeting, Denver, Colorado.
- Steel, R., and Olariu, C., 2009, Reservoir Systems of the Shelf & Shelf Margin from a source-to-sink perspective, Norwegian Geological Society Annual Meeting in Bergen Norway.

## 2008

- Dalrymple, R.W., Olariu, C., Steel, R.J., Gingras, M., and Rubino, J.-L., 2008, Tidal Dunes of the Eocene Baronia Sandstone, Ager Basin, Spain: A Reinterpretation of the Type Area for the "Tidal-Bar" Facies Model, 7th International Conference on Tidal Environments Oingdao, China.
- Steel, R., and Olariu, C., 2008, Deltas and estuaries: how do they grow the shelf and shelf-margin prism, the Geological Society of London meeting: Rivers, Estuaries, Deltas & Beaches.
- Olariu, C., and Steel, R.J., 2008, Location of the Lowstand Depocenters along the Shelf-Edge and Influence on Shelf Margin Stratigraphy, GSA Annual Meeting, Houston, Texas.
- Olariu, C., and Steel, R.J., 2008, River Delta Behavior during Cross-Shelf Transits: a Step Forward toward Understanding Three-Dimension Architecture of the Continental Margin, AAPG Annual Meeting, San Antonio, Texas.
- Olariu, C., Steel, R.J., Dalrymple, R.W., Gingras, M.K., and Rubino, J.-L., 2008, Tidal Dunes of the Eocene Baronia Sandstone, Ager Basin, Spain: Distinguishing Tidal Dunes from Tidal Bars; Why Bother?, AAPG Annual Meeting, San Antonio, Texas.
- Naruse, H., and Olariu, C., 2008, Estimation of Hydraulic Conditions of Turbidity Currents by Inverse Analysis; Application on Cretaceous Panther Tongue Deposits, Utah, USA, AAPG Hedberg Conference, Ushuaia-Patagonia, Argentina.
- Olariu, C., Steel, R.J., and Petter, A.L., 2008, The Extent of Individual Hyperpycnal-Flow Beds in the Cretaceous Panther Tongue Delta, Utah, USA, AAPG Hedberg Conference, Ushuaia-Patagonia, Argentina.

## 2007

- Olariu, C., and Jipa, D., 2007, Sedimentary Processes in the Last Filling Stage of the Dacian Basin (Late Neogene, Paratethys, Romania), 4th International Limnology Congress, Barcelona, Spain.
- Olariu, C., and Steel, R.J., 2007, Ichnofossil Assamblages Along Delta Clinoforms, Panther Tongue Sandstone, Utah, SEPM Ichnology Conference, Price, Utah.
- Olariu, C., and Steel, R.J., 2007, Distribution of Hyperpycnal Deposits in the Delta Front of Cretaceous Panther Tongue Delta, Utah, USA, AAPG Annual Meeting, Long Beach, California.

## 2006

- Olariu, C., and Steel, R.J., 2006, High Sediment-Supply Shelf-break Morphology, 17<sup>th</sup> International Sedimentological Congress, Fukuoka, Japan.
- Olariu, C., and Steel, R.J., 2006, High Sediment-Supply Shelf and Shelf-break Morphology; Implications for Interpretation of Ancient Shelf Margins, AAPG annual Meeting, Houston, TX.
- Olariu, C., and Ferguson, J.F., R.J., 2006, Stratigraphic Inversion Using a Genetic Algorithm: Lessons About Non-Uniqueness, AAPG annual Meeting, Houston, TX.
- Bhattacharya, J.P., and Olariu, C., 2006, Distributary Channels, Fluvial Channels and Incised Valleys, AAPG annual Meeting, Houston, TX.

## 2005

- Olariu, C, Ungureanu, G.V., and Stanica, A., 2005, Variation of the Sf. Gheorghe river effluent plume using remote sensing, Danube Delta, Romania, 4<sup>th</sup> Congress of the Balkan Geophysical Society, October 9-12, Bucharest, Romania.
- Olariu, C., and Bhattacharya J.P., 2005, Terminal distributary channels and distributary networks of river deltas. 8th International Conference on Fluvial Sedimentology, August 7-12, Delft, Nederland.
- Bhattacharya, J.P., and Olariu, C., 2005, Distributary channels, fluvial channels and incised valleys. 8th International Conference on Fluvial Sedimentology, August 7-12, Delft, Nederland.
- Olariu, C., and Bhattacharya J.P., 2005, Terminal distributary channels of fluvial-dominated delta systems. AAPG annual Meeting, Calgary, AB.

## 2004

- Olariu, C., and Bhattacharya J.P., 2004, Basin Topographic Influence on Delta Progradation, in the Modern Lacustrine Red River Delta, Lake Texoma, Texas/ Oklahoma. AAPG annual Meeting, Dallas, TX, AAPG Bulletin Vol. 88 (2004), No. 13 (Supplement).
- Olariu, C., and Bhattacharya J.P., 2004, Terminal distributary channels. SEPM field research conference, Recent advances in shoreline-shelf stratigraphy, Aug. 24-28, Grand Junction, Colorado, USA.

## 2003

- Olariu, C., Bhattacharya J.P., and Giosan, L., 2003, Architecture of Delta front deposits, more complex than basinward dipping clinoforms. CSPG annual convention, Calgary, AB.
- Olariu, C., 2003, Influence of Mouth Bar Processes on Delta Distributary Avulsion. AAPG annual Meeting, Salt Lake City, UT.
- Olariu, C., Bhattacharya J.P., Stern, R.J., 2003, Morphology of a modern lacustrine delta changes with river discharge; Red River Delta, Lake Texoma, Texas-Oklahoma. AAPG annual Meeting, Salt Lake City, UT.
- Olariu, C., and Bhattacharya, J.P., 2003, Avulsion of terminal distributary channels in modern and ancient delta deposits. AAPG SW Section meeting, Forth Worth, TX.
- Giosan, L., Olariu, C., Bhattacharya, J., and Vespremeanu E., 2003, Large Scale Coastal Behavior in Deltas: the Danube case. ComDelta, Comparing Mediterranean and Black Sea prodeltas, Aix-en-Provence, France.
- Bhattacharya, J.P., Willis, B.J., Howell, C.D., and Olariu, C., 2003, Top-truncated, structurally-confined lowstand deltas, AAPG Southwest Section Meeting., Program with Abstracts, p. 20.
- Bhattacharya, J.P., Willis, B.J., Howell, C.D., and Olariu C., 2003 Top-Truncated, Structurally-Confined Lowstand Deltas. AAPG SW Section meeting, Forth Worth, TX.

## 2002

- Olariu, C., Stern, R.J., and Bhattacharya, J.P., 2002, Evolution of a hyperpycnal lacustrine delta, River Delta/ Lake Texoma, Texas-Oklahoma. GSA National Meeting, Denver, CO.
- Olariu, C., Stern, R.J., and Bhattacharya J.P., 2002, The Red River Delta, Lake Texoma: A remote Sensing Study of Delta. GSA South-Central meeting, Alpine, TX. GSA Abstract with programs, v.34, no.3, p. A-31.
- Olariu, C., and Bhattacharya, J.P., 2002, Modern deltas as a model for study of ancient "terminal" distributary channels in fluvial-dominated delta front deposits, Cretaceous Panther Tongue Sandstone, Utah. AAPG annual Meeting, Huston, TX.

- Olariu, C., Xu, X., Aiken, C.L.V., Ge, R., and Bhattacharya, J.P., 2002, Digital mapping of outcrops, techniques for building 3-D delta front architecture. Example from the Cretaceous Panther Tongue Sandstone, East-Central Utah. AAPG annual Meeting, Huston, TX.
- Bhattacharya, J.P., Howell, C.D., Marcy F., McMechan, G.A., Olariu, C., and Zeng, X., 2002, Facies architecture of an ancient delta front deposit using GPR: Cretaceous Wall Creek Member, Frontier Formation, Wyoming, AAPG annual Meeting, Huston, TX.
- Bhattacharya, J.P., Willis, B. J., Howell, C. D., and Olariu C., 2002, Structurally-controlled versus fluvially-incised valley fills, SEPM Research Conference, Incised valleys: Images and processes, Aug. 18-24, Casper, Wyoming, p.2-12.

## 2001

- Olariu, C., Bhattacharya, J.P., Ge, R., Xu, X., Aiken, C.L.V., Marcy, F.D., Zeng, X., and McMechan, G.A., 2001, Study of "terminal" distributary channels in fluvial-dominated delta front deposits, using ground-penetrating radar and digital mapping techniques, Cretaceous Panther Tongue Sandstone, Utah, USA. GSA annual Meeting, Boston, MA.
- Olariu, C., and Bhattacharya, J.P., 2001, "Terminal" distributary channels in fluvial- dominated delta front deposits, Cretaceous Panther Tongue Sandstone, Utah. IAS Fluvial Sedimentology meeting, Lincon, NE.
- Bhattacharya, J.P., Corbeanu, R. M., Olariu, C., 2001, Downstream causes of avulsion in distributary channels, as seen in Cretaceous sandstones of Central Utah: 7th International Conference on Fluvial Sedimentology, program and abstracts, Open-File report 60, Conservation and Survey Division. Institute of Agriculture and natural resources, University of Nebraska-Lincoln, p. 59.

## **HONORS/MEMBERSHIPS**

Society for Sedimentary Geology American Association of Petroleum Geologists

## **RECOGNITION AND AWARDS**

2003 – Honorary mention II – poster, Canadian Society of Petroleum Geologists 2003 – 1<sup>st</sup> place for Geology Poster at AAPG/SEG Spring Student Expo

## OTHER SCIENTIFIC ACTIVITIES

Teaching Short Course (with Ron Steel and Andy Petter):

June 2009, *Sediment* SEPM-CE Meeting, Krakow, Poland; April 2008, AAPG Annual Meeting, San Antonio, Texas; February 2008, Bucharest University, Romania; February 2007, Vrije University, The Netherlands;

Co-convener for 2008 AAPG Hedberg Research Conference, "Sediment Transfer from shelf to deep water", March 3-8, Ushuaia, Argentina

Co-trip leader for 2008 SEPM Clinoform Field Conference, Rawlins WY.