

Curriculum Vitae
ANGELOS G. MARAVELIS, PhD

Laboratory of Sedimentology, Department of Geology
University of Patras University Campus
Patras 26504, Greece
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Areas of Specialization

Sedimentology, Sequence-Stratigraphy, Basin Analysis, Hydrocarbon Exploration

Education

- 2009 **Ph.D. in Geology** (Emphasis in Sedimentology and Basin Analysis)
University of Patras (Greece), Department of Geology
Awarded September 2009
Dissertation title: *The detailed sedimentological and petrographical research of the flysch deposits on Lemnos Island, NE Greece. Palaeogeographic evolution of the NE Aegean Sea with respect to hydrocarbon field formation. 271 pages*
Advisors: Avraam Zelilidis, Nikos Kontopoulos and Vassilios Tsikouras
- 2004 **M.Sc. in Geology**
University of Patras (Greece), Department of Geology
Awarded September 2004
M.Sc. Thesis: *Sedimentological evolution and palaeocurrent analysis of deep-water sediments on Lemnos Island, NE Greece*
- 2002 **B.Sc. in Geology**
University of Patras (Greece), Department of Geology
Awarded September 2002
Honour's thesis: *Evolution of the alluvial fan sedimentation in North Peloponnesus, Patras, Greece*

Professional Experience and Appointments

- 2013-2016 *Lecturer in Geology*, University of Newcastle, NSW Australia
2010-2013 *Postgraduate fellow*, Department of Geology, University of Patras, Greece
2004-2009 *Teaching Assistant*, Department of Geology, University of Patras, Greece

External Funding

- 2005–2008:
European Union & the Hellenic Ministry of Development *Provenance, tectonic setting and source rock potential of the Paleogene shallow- and deep-water sediments on Lemnos Island northeast Greece. Insights into the geotectonics and hydrocarbon potential of the northeast Aegean Sea*
- 2013–Present:
Paradigm E&P Solutions *Access to Paradigm exploration and production (E&P) solutions*
- 2015:
Origin Energy *Establishing stronger lithostratigraphic correlations within the Walloon Subgroup in the Surat Basin (SB), Queensland*
- 2015:
Geological Survey of New South Wales *Unraveling the Upper Permian basin fill history of the Northern Sydney Basin (NSB): Stratigraphic Correlation between Nobbys Tuff and Althorpe Claystone*
- 2016:
Geological Survey of New South Wales *Unravelling long-distance stratigraphic correlations in the Northern Sydney Basin (NSB)*

Teaching Experience

- 2013–2016 *Lecturer in Geology*, University of Newcastle, NSW, Australia
First Year:
-Earth processes and products (instructor)
-Earth's dynamic systems (instructor)
Second Year:
-Earth's sedimentary rocks and environments (course coordinator)
-Earth science field course (instructor)
-Structural and field geology (instructor)
-Earth sciences placement (instructor)
Third Year:
-Basin analysis (course coordinator)
- 2004-2009 *Teaching Assistant*, Department of Geology, University of Patras, Greece

Manuscripts in Preparation

1. **Maravelis A.G.**, Catuneanu, O., Nordsvan, A., Landenberger, B. and Zelilidis, A. Eustatic-tectonic interplay as recorded by an Early to mid-Permian sedimentary succession (southern Sydney Basin, southeast Australia). To be submitted to *Journal of Sedimentary Research* (Estimated submission November 2016).
2. Nordsvan, A., **Maravelis A.G.** and Zelilidis, A. (*In Prep.*). Depositional environments and stratigraphy in an extensional setting (Myall Trough, southeastern Australia). To be submitted to *Journal of sedimentary research* (Estimated submission December 2016).
3. **Maravelis A.G.**, Pasadakis, N and Zelilidis, A. (*in prep.*). Hydrocarbon source rock potential of the Lower Permian mudstones of the Sydney Basin, SE Australia. To be submitted to *International Journal of Coal Geology* (Estimated submission December 2016).
4. **Maravelis A.G.**, Pantopoulos, G., Offler, R., Collins, W.J. and Zelilidis, A. (*In Prep.*). Provenance signatures and tectonic setting for the Lower Permian succession of the southern Sydney Basin, Australia. To be submitted to *Asian Journal of Earth Sciences* (Estimated submission January 2017).
5. **Maravelis, A.G.**, Papakonstantinou, M., Nordsvan, A., McDonald, J., Pasadakis, N. and Zelilidis, A. Source rock potential in an active continental margin: Myall Trough, southeastern Australia. To be submitted to *Australian Journal of Earth Sciences* (Estimated submission February 2017).

Submitted manuscripts

1. Breckenridge J, **Maravelis A.G.**, Ruming K, Holmes E. and Collins W.J. Outcrop analysis and facies model of an Upper Permian tidally-influenced fluvio-deltaic system: Northern Sydney Basin, Southeast Australia. Submitted to *Sedimentary Geology*.

Peer-Reviewed Publications

1. **Maravelis, A.G.**, Pantopoulos, G., Tserolas, P. and Zelilidis, A. (2016). Reply to comment by Caracciolo et al. on: Maravelis et al. 2015. "Accretionary prism-forearc interactions as reflected in the sedimentary fill of southern Thrace Basin (Lemnos Island, NE Greece)", *International Journal of Earth Sciences (in press)*.
2. Zelilidis, A., Papatheodorou, G., **Maravelis, A.G.**, Christodoulou, D., Tserolas, P., Fakiris, E., Dimas, X., Georgiou, N. and Ferentinos G (2016). Interplay of thrust, back-thrust, strike-slip and salt tectonics in a Fold and Thrust Belt system: An example from Zakynthos Island, Greece. *International Journal of Earth Sciences* 105, 2111–2132.
3. Zelilidis, A., Tserolas, P., Chamilakia, E., Pasadakis, N., Kostopoulou, S. and **Maravelis, A.G** (2016). Hydrocarbon prospectivity in the Hellenic trench system: organic geochemistry and source rock potential of Upper Miocene-Lower Pliocene successions in the eastern Crete Island, Greece. *International Journal of Earth Sciences* 105, 1859–1878.
4. **Maravelis, A.G.**, Boutelier, D., Catuneanu, O., Seymour K.St. and Zelilidis, A. (2016). A review of tectonics and sedimentation in a forearc setting: Hellenic Thrace Basin, north Aegean Sea and mainland Greece. *Tectonophysics* 674, 1–19.
5. **Maravelis, A.G.**, Panagopoulos, G., Piliotis, J., Pasadakis, N., Manutsoglu, E. and Zelilidis, A. (2016). Pre-Messinian (sub-salt) source-rock potential on back-stop basins of the Hellenic Trench System (Messara Basin, Central Crete, Greece). *Oil and Gas Science and Technology* 71(1), pp. 1-16. DOI: 10.2516/ogst/2013130.
6. Zelilidis, A., **Maravelis, A.G.**, Tserolas, P. and Konstantopoulos, P.A. (2015). An overview of the petroleum systems in the Ionian Zone onshore NW Greece and Albania. *Journal of petroleum geology* 38(3), pp 331-348.
7. Zelilidis, A., and **Maravelis, A.G.** (2015). Adriatic and Ionian Seas: Proven petroleum systems and future prospects. *Journal of petroleum geology* 38(3), pp 247-253.
8. **Maravelis, A.G.**, Manutsoglu, E., Konstantopoulos, P.A., Pantopoulos, G., Makrodimitras, G., Zoumpouli, E. and Zelilidis, A. (2015a). Hydrocarbons plays and prospectivity of the Mediterranean Ridge. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 37, pp. 347–355.

9. **Maravelis, A.G.**, Pantopoulos, G., Tserolas, P. and Zelilidis, A. (2015b). Accretionary prism-forearc interactions as reflected in the sedimentary fill of southern Thrace Basin (Lemnos Island, NE Greece). *International Journal of Earth Sciences*. 104 (4), pp. 1039-1060.
10. **Maravelis, A.G.**, Koukounya, A., Tserolas, P., Pasadakis, N. and Zelilidis, A. (2015c). Geochemistry of Upper Miocene-Lower Pliocene source rocks in the Hellenic Fold and Thrust Belt, Zakyntos Island, Ionian Sea, western Greece. *Marine and Petroleum Geology* 66, pp. 217-230.
11. **Maravelis, A.G.**, Makrodimitras, G., Pasadakis, N. and Zelilidis, A. (2014). Stratigraphic evolution and source rock potential of a Lower Oligocene-Lower/Middle Miocene continental slope system, Greek Fold and Thrust Belt, Ionian Sea, Northwest Greece. *Geological Magazine* 151 (3), pp. 394-413.
12. **Maravelis, A.G.** and Zelilidis, A. (2013). Discussion: 'Unraveling the provenance of Eocene-Oligocene sandstones of the Thrace Basin, North-east Greece' by Caracciolo et al. (2011), *Sedimentology*, 58, 1988-2011. *Sedimentology* 60, pp. 860-864.
13. Pantopoulos, G., Vakalas, I., **Maravelis, A.G.** and Zelilidis, A. (2013). Statistical behavior of turbidite bed thickness patterns from the Alpine fold and thrust belt of western and southeastern Greece. *Sedimentary Geology* 294, pp. 37-57
14. Konstantopoulos, P.A., **Maravelis, A.G.** and Zelilidis, A. (2013). The implication of transfer faults in foreland basin evolution. Application on Pindos Foreland Basin, West Peloponnesus, Greece. *Terra Nova* 25, 323-336.
15. **Maravelis, A.G.** and Zelilidis, A. (2012a). Paleoclimatology and Paleoecology across the Eocene/Oligocene boundary, Thrace Basin, Northeast Aegean Sea, Greece. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 365-366, pp. 81-98.
16. **Maravelis, A.G.**, Makrodimitras, G. and Zelilidis, A. (2012). Hydrocarbon prospectivity in Western Greece. *Oil and gas European Magazine*, 38 (2), pp. 84-89.
17. **Maravelis, A.G.** and Zelilidis, A. (2012b). Porosity-permeability and textural parameters of the Paleogene forearc sedimentary fill on Lemnos Island, NE Greece. *Turkish Journal of Earth Sciences*, 21, pp. 415-438.
18. **Maravelis, A.G.** and Zelilidis, A. (2011). Geometry and sequence stratigraphy of the Late Eocene-Early Oligocene shelf and basin floor to slope turbidite systems, Lemnos Island, NE Greece. *Stratigraphy and Geological Correlation*, 19 (2), pp. 205-220.
19. **Maravelis, A.G.** and Zelilidis, A. (2010a). Organic geochemical characteristics of the late Eocene- early Oligocene submarine fans and shelf deposits on Lemnos Island, NE Greece. *Journal of Petroleum Sciences and Engineering*, 71, pp. 160-168.
20. **Maravelis, A.G.** and Zelilidis, A. (2010b). Petrography and geochemistry of the late Eocene-early Oligocene submarine fans and shelf deposits on Lemnos Island, NE Greece: Implications for provenance and tectonic setting. *Geological Journal*, 45, pp. 412-433.
21. **Maravelis, A.G.**, Konstantopoulos, P.A., Pantopoulos, G. and Zelilidis, A. (2007). North Aegean sedimentary basin evolution during the late Eocene to early Oligocene based on sedimentological studies on Lemnos Island (NE Greece). *Geologica Carpathica*, 58, pp. 455-464.

Abstracts and Conference Proceedings

1. Zelilidis, A., Papatheodorou, G., **Maravelis, A.G.**, Christodoulou, D., Tserolas, P., Fakiris, E., Dimas, X., Georgiou, N. and Ferentinos G. Interplay of thrust, back-thrust, strike-slip and salt tectonics in a Fold and Thrust Belt system: An example from Zakyntos Island, Greece. AAPG Europe Conference, Bucharest, Romania, 19-20 **May 2016**.
2. Zelilidis, A., Triantaphyrou, M., Kostopoulou, S., Mpotziolis, C. and **Maravelis A.G.** Biostratigraphy of the upper Miocene-lower Pliocene sediments in the Hellenic Fold and thrust Belt, Zakyntos Island, Ionian Sea, Western Greece. 31st International Association of Sedimentologists regional meeting, Krakow, Poland, 22-25 **June 2015**.
3. Zelilidis, A., **Maravelis A.G.**, Tserolas, P. and Konstantopoulos, P.A. An overview of the petroleum systems in the Ionian Zone, onshore Greece. 31st International Association of Sedimentologists regional meeting, Krakow, Poland, 22-25 **June 2015**.
4. **Maravelis, A.G.**, Vassiliou, A., Tserolas, P. and Zelilidis, A. Structural elements and petroleum exploration on the Apulian platform, Hellenic Fold and Thrust Belt, Zakyntos Island (western Greece). AAPG European Regional Conference and Exhibition Barcelona, Spain, 13-15 **May 2014**.
5. Zelilidis, A., Konstantopoulos, P.A. and **Maravelis, A.G.** Hydrocarbon prospectivity in Apulian platform and Ionian zone, in relation to Strike-slip fault zones, Foreland and Back-Thrust basins of Ionian Thrust in Greece. AAPG European Regional Conference and Exhibition Barcelona, Spain, 8-10 **April 2013**.
6. Zelilidis, A., **Maravelis, A.G.** and Konstantopoulos, P.A. Hydrocarbon plays and prospectivity of the Mediterranean Ridge. AAPG European Regional Conference and Exhibition Barcelona, 8-10 **April 2013**.
7. **Maravelis, A.G.**, Konstantopoulos, P.A. and Zelilidis, A. Tectonic and sedimentary evolution of Pindos foreland basin in SW Greece: Geodynamic and depositional setting. 29th International Association of Sedimentologists regional meeting, Schladming, Austria, 10-13 **September 2012**, Book of Abstracts, 552.
8. **Maravelis, A.G.**, Konstantopoulos, P.A. and Zelilidis, A. The role of the outer arc ridge as major sediment input into the forearc basins. 29th International Association of Sedimentologists regional meeting, Schladming, Austria, 10-13 **September 2012**, Book of Abstracts, 423.

9. Zelilidis, A., Konstantopoulos, P.A. and **Maravelis, A.G.** Submarine fan sequences of tritea, Hrisovitsi and Finikounda Group, an Eocene-Oligocene foreland basin fill in the Peloponnesus peninsula, Greece. 29th International Association of Sedimentologists regional meeting, Schladming, Austria, 10-13 **September 2012**, Book of Abstracts, 555.
10. Zelilidis, A., **Maravelis, A.G.**, Konstantopoulos, P.A. and Makrodimitras, G.: A review of the hydrocarbon potential seen in Greece. 29th International Association of Sedimentologists regional meeting, Schladming, Austria, 10-13 **September 2012**, Book of Abstracts, 358.
11. **Maravelis, A.G.** and Zelilidis, A. Geometry and sequence stratigraphy of shelf and basin floor to slope turbidite systems, Lemnos Island, NE Greece. 27th International Association of Sedimentologists regional meeting, Alghero, Italy, 20-23 **September 2009**.
12. **Maravelis, A.G.** and Zelilidis, A. Organic geochemical characteristics of the late Eocene-early Oligocene submarine fans and shelf deposits on Lemnos Island, NE Greece. 26th International Association of Sedimentologists regional meeting ('Bochum to Bochum'-Back to the Roots of Interdisciplinary). Bochum, Germany, 1-3 **September 2008**.
13. **Maravelis, A.G.**, Konstantopoulos, P.A., Pantopoulos, G. and Zelilidis, A. North Aegean sedimentary basin evolution during the late Eocene to early Oligocene based on sedimentological studies on Lemnos Island, NE Greece. 25th International Association of Sedimentologists regional meeting. Patras, Greece, 4-7 **September 2007**.
14. Pantopoulos, G., Konstantopoulos, P.A., **Maravelis, A.G.** and Zelilidis, A. Application of bed thickness distributions in turbidite deposits of Greece: Some preliminary results. 17th International sedimentological congress (From the highest to the deepest). Fukuoka, Japan, 27th August-1th **September 2006**.

Professional Memberships

1. International Association of Sedimentologists (I.A.S.).
2. American Association of Petroleum Geologists (A.A.P.G.)
3. Society of Exploration Geophysicists (S.E.G.).

Professional Service and Synergistic Activities

Reviewer:

Arabian journal of Geosciences, Palaeogeography, Palaeoclimatology, Palaeoecology, Journal of African Earth Sciences, Journal of Asian Earth Sciences, Organic Geochemistry.

Conference field trip organizing committee:

1. Nilsen, T., Zelilidis, A. and **Maravelis, A.** Exploration and development of turbidite reservoir Pindos Foreland-Greece, By Earth Recourses Exploration (EREX), Patras, Greece, 11-15 **October 1999**.
2. Ori, G.G., Zelilidis, A. and **Maravelis, A.** Coarse-grained fan deltas of the Pleistocene fan-deltas in the extensional Egean basin and of the Oligocene Kalabaka fan-deltas in the Eocene to Miocene Mesohellenic piggy-back basin. 25th International Association of Sedimentologists regional meeting. Patras, Greece, 4-7 **September 2007**.

Professional Development – Workshops attended:

Successful completion of the Paradigm online university (<http://www.pdgm.com/>).

Invited talks for petroleum and seismic exploration companies:

- Ratio Oil Exploration (three days' workshop and field seminar in Greece).
- Energiean oil & gas.
- GeoEnergy, Inc.

Mentoring:

Current

PhD students

1. **Sofia Kostopoulou**, University of Athens, Greece (Committee member; Primary supervisor: Ass. Professor Maria Triantaphyllou, PhD thesis: BIOSTRATIGRAPHIC AND PALEOENVIRONMENTAL ANALYSIS OF THRACE BASIN, IN THE CONTEXT OF THE GEODYNAMIC EVOLUTION).

M.Sc. students

1. **Alexandra Noti**, University of Patras, Greece (Committee member; Primary supervisor: Professor Avraam Zelilidis, M.Sc. thesis: STATISTICAL TREATMENT OF BED THICKNESS DISTRIBUTION IN SUBMARINE FAN DEPOSITS: AN OUTCROP EXAMPLE FROM THE CENOZOIC PINDOS FORELAND BASIN, WESTERN GREECE).
2. **Vassiliki Savva**, University of Patras, Greece (Committee member; Primary supervisor: Professor Avraam Zelilidis, M.Sc. thesis: CONGLOMERATE CLAST COMPOSITION ANALYSIS IN A SUBMARINE FAN DEPOSITIONAL ENVIRONMENT: A STATISTICAL APPROACH IN THE PROVENANCE OF THE CENOZOIC FORELAND BASIN. PINDOS BASIN, WESTERN GREECE).

- 3. Nikolina Bourli**, University of Patras, Greece (Committee member; Primary supervisor: Professor Avraam Zelilidis, M.Sc. thesis: ICHNOFAUNA RESEARCH AS A TOOL FOR UNRAVELING THE PALEOCLIMATOLOGY AND PALEOECOLOGY IN ACTIVE CONTINENTAL MARGINS: A CASE STUDY FROM THE CENOZOIC SUBMARINE FANS OF PINDOS FORELAND BASIN, WESTERN GREECE).

Honours students

- 1. Sean Melehan**, University of Newcastle, NSW Australia (Primary supervisor, Honours Thesis: UNRAVELLING LONG-DISTANCE STRATIGRAPHIC CORRELATIONS OF THE NORTHERN SYDNEY BASIN).

Past

Honours students

2016: Jake Breckenridge, University of Newcastle, NSW Australia (Primary supervisor, Honours Thesis: STRATIGRAPHIC CORRELATION: NOBBYS TUFF – ALTHORPE CLAYSTONE).

2015: Luke Sammons, University of Newcastle, NSW Australia (Primary supervisor, Honours Thesis: ESTABLISHING STRONGER LITHOSTRATIGRAPHIC CORRELATIONS WITHIN IN THE JURASSIC WALLOON SUBGROUP OF THE SURAT BASIN).

2014: Adam R. Nordsvan, University of Newcastle, NSW Australia (Supervisor, Honours Thesis: FACIES ANALYSIS AND STRATIGRAPHY OF THE EASTERN MYALL TROUGH, NEW SOUTH WALES, AUSTRALIA).

Fieldwork Experience in Sedimentology-Sequence Stratigraphy and Basin Analysis

- 1. Pindos Basin (PB), Western Greece 2014 (10 days)**
Anatomy of a complex foreland basin affected by internal thrusting: Facies analysis, sequence stratigraphy and oil-geological analysis.
- 2. Thrace Basin (TB), Northeast Greece 2014 (5 days)**
Development of a two-sided forearc setting: Environments of deposition, sequence stratigraphy and provenance.
- 3. Myall Trough, Southeast Australia 2015 (3 days)**
Deciphering the basin-fill conditions in a Carboniferous extensional setting: Facies analysis, palaeoflow directions and high-resolution sequence stratigraphy.
- 4. Southern Sydney Basin (SSB) Southeast Australia 2015 (4 days)**
Permian Depositional history of an unincised valley: Depositional environments, sequence stratigraphy and climatic conditions.
- 5. Northern Sydney Basin (NSB), Southeast Australia 2015 (3 days)**
Stratigraphic evolution from deltaic to fluvial depositional systems during regression: Insights from the Upper Permian sedimentary succession in the NSB.

Professional Qualifications

U-Pb Geochronology: LA-ICP-MS

Organic geochemistry: (Rock-Eval Analyser)

Image analysis: Petrog

Petroleum system modeling: Petromod

Statistical analysis: Origin

Directional data analysis: Stereonet