

Robert Leslie Gawthorpe

CURRICULUM VITAE Short Version, January 2018

Personal information

Nationality: British

Date of birth: 17 November 1960

Web site: <http://www.uib.no/en/persons/Robert.Gawthorpe>

My research focuses on the sedimentology, stratigraphy and tectonics of sedimentary basins and understanding the processes that control the dynamics of the landscape-sedimentary system. It is multi-faceted and is held in high standing in both academia and industry (oil and gas exploration and production industry). I have published over 140 peer-reviewed articles in specialist international geoscience journals or refereed special publications, many of which are widely cited (particularly on rift basins). My research is funded by research council and petroleum industry research grants, with projects typically employing over five postdoctoral research assistants and over five PhD students at any one time. In Manchester I instigated and led the Basin Studies and Petroleum Geoscience Group. I was awarded the VISTA Professorship by VISTA/Norwegian Academy of Science and Letters in 2018.

Education and membership of professional bodies

1982–1985 PhD, Department of Earth Sciences, University of Leeds, UK

1979–1982 BSc (First Class Honours), Department of Earth Sciences, University of Leeds, UK

- Fellow of the Geological Society of London
- Member of the Norwegian Geological Society (Norsk Geologisk Forening)
- Member of the American Association of Petroleum Geologists
- Member of the International Association of Sedimentologists
- Member of the Society for Sedimentary Geology (SEPM)
- Member of the Geological Society of America
- Member of the American Geophysical Union

Current positions

2018–present VISTA Professor, funded by VISTA/Norwegian Academy of Science and Letters

2010–present Professor, University of Bergen, Norway

Previous positions

2016–2017 Visiting Professor, Colorado School of Mines, USA

2010–2017 Visiting Professor, University of Manchester, UK

2008 Visiting Professor, Statoil Research Centre, Bergen, Norway

2000–2010 Professor of Sedimentology and Tectonics, University of Manchester, UK

1998–2000 Reader in Geology, University of Manchester, UK

1996–1998 Senior Lecturer in Geology, University of Manchester, UK

1989–1996 Lecturer in Geology, University of Manchester, UK

1988–1989 Elf Aquitaine Research Fellow, University of Durham, UK

1985–1988 Sedimentologist, BP Exploration Company Limited, UK

Supervision of graduate students and postdoctoral fellows

I am currently main or co-supervisor of nine PhD students and nine postdoctoral fellows in Norway and UK. I have supervised or co-supervised a total of over 45 PhD students, most of whom have completed within four years and many of whom are now leading academics or senior geoscientists in industry.

Research grants and industry-funded research contracts (since 2012)

PI = principal investigator; Co-I = co-investigator; RF = research fellow; PDRA = postdoctoral research assistant; PGRA = postgraduate research assistant.

Dates	Funding body	Title	Role	Staff	Amount
2017	OMV	Upper Triassic – Middle Jurassic of northern Barents Sea: Hoop-Haapet_Hoppen (H ³)	Co-I with Klaussen, and four others	2 PDRA's	3.3m NOK
2017	NFR	Source-to-Sink infill dynamics of the Lower Mesozoic Greater Barents Sea Basin (ISBAR) (PETROMAKS 2)	Co-I with Helland-Hansen	4 PDRA 1 PhD	14m NOK
2016–	VISTA	Basement structure and Permo-Triassic rifting, northern North Sea	PI with Fossen	1 PDRA	3m NOK
2016–	NFR	Syn-Rift Systems (PETROMAKS 2)	PI with collaborators at UiB, UdeL, UoA, UEA, UoL	4 PDRA's 5 PhDs	31m NOK
2016–	Statoil	Spatial-temporal reconstruction of basin fills	Co-I with Helland-Hansen (PI)	1 PDRA	3.8m NOK
2016–	Statoil	Turbidites, tectonics and topography (T ³)	PI with Rotevatn, Nemeč, and Helland-Hansen	1 PDRA 1 PGRA	6.8m NOK
2015–	VISTA	Fault network topology	PI	1 PDRA	2.6m NOK
2015–	Industry consortium	Prediction of Deposition, Deformation and Diagenesis (PD ³)	Co-I with collaborators at UiB, UoM, Bristol and Liverpool	3 PhDs	£450k
2013–	NFR	VOM2MPS (PETROMAKS 2)	Co-I with Buckley and Howell	2 PhDs	6m NOK
2013–	Shell Norge	Tectono-sedimentary evolution: Western Barents Sea	Co-I with Rotevatn and Helland-Hansen	1 PhD	3.7m NOK
2012–15	Shell Norge	Tectono-sedimentary evolution: Lofoten Margin	Co-I with Rotevatn and Helland-Hansen	1 PhD	3.7m NOK
2012–	NFR	MultiRift (PETROMAKS 2)	PI with collaborators at UiB, UiO, Imperial and UoM	1.5 RF 4 PDRA's 3 PhDs	24m NOK
2012–15	VISTA	Carbonate-evaporite-clastic systems in rift basins: Suez Rift, Egypt	PI	1 PDRA	2.6m NOK

Professional advisory work (since 2010)

2013 Member of Natural Environment Research Council, UK (NERC), Oil and Gas Doctoral College assessment panel

2010–2013 Member of Society for Sedimentary Geology (SEPM) Pettijohn Medal Committee

2008 Research Assessment Exercise (UK) 2008, Specialist Advisor UoA 17

2006–2010 Member of NERC, Peer Review College

2006–2009 Research Council of Norway, PETROMAKS peer review committee

Regular reviewer for proposals from national funding agencies in USA and UK

Regular reviewer for leading specialist journals

Regular consultant for promotions and tenure

Invited and keynote presentations since 2010

2017 GeoPRISMS Rift Initiation and Evolution Symposium, Albuquerque, USA

2016 Rifts III Meeting, Geological Society of London, UK

2014 William Smith Meeting, Geological Society of London, UK

2011 AAPG Annual Convention, Houston, USA

2010 Salt Tectonics, Geological Society of London, UK

Major research conferences and workshops organised (since 2010)

- 2010 Co-convenor, Geological Society of London, *Landscapes to Rock*, London
- 2010 Invited convenor, *Rift Basins* session, American Association of Petroleum Geologists Annual Convention

Academic Awards

- 2018 VISTA Professorship.: awarded by VISTA, a collaboration between the Norwegian Academy of Science and Letters and Statoil, to a scholar who is an international leader in their field to allow them to focus on research and research supervision.
- 2005 American Association of Petroleum Geologists Distinguished Lecturer. Delivering invited lectures on rift tectonics and sedimentation to 15 universities and geological societies in North America.
- 1993 Lyell Fund: awarded by the Geological Society, Britain's national learned society for geology, for my 'leading expertise in the dynamics of sedimentary systems'. The Lyell Fund is awarded to 'contributors to the earth sciences on the basis of noteworthy published research'.
- 1992 Partnership Awards: commendation for my third year undergraduate course in Sequence Stratigraphy.
- 1987 Fearnside's Prize: awarded by the Yorkshire Geological Society in respect of leading research into the geological evolution of northern England.

Gawthorpe, R.L., Publications, January 2018

Pub No.

- 142 BELL, R.E., DUCLAUX, G. NIXON, C.W., GAWTHORPE, R.L. AND MCNEILL, L.C. (2017) High-angle, not low-angle, normal faults dominate early rift extension in the Corinth Rift, central Greece. *Geology*, DOI.ORG/10.1130/G39560.1
- 141 KHEL, C., BUCKLEY, S.J., VISEUR, S., GAWTHORPE, R.L., MULLINS, J.R. AND HOWELL, J.A. (2017) Mapping field photographs to textured meshes directly on mobile devices. *Photogrammetric Record*, 32, 398-423. DOI: 10.1111/phor.12213
- 140 DENG, C., GAWTHORPE, R.L., FINCH, E. AND FOSSEN, H. (2017) Influence of pre-existing basement weakness on normal fault growth during oblique extension: Insights from discrete element modeling. *Journal of Structural Geology*, 105, 44-61. DOI: 10.1016/j.jsg.2017.11.005
- 139 GAWTHORPE, R.L., ANDREWS, J.E., COLLIER, R.E.L., FORD, M., LEEDER, M.R., HENSTRA, G., HARALAMBOS, K. AND SKOURTSOS, E. (2017) Building up or out? disparate sequence architectures along an active rift margin—Corinth rift, Greece. *Geology*. <https://doi.org/10.1130/G39660.1>
- 138 GE, Z., NEMEC, W., GAWTHORPE, R.L., ROTEVATN, A. AND HANSEN, E.W.M. (2017) Response of unconfined turbidity current to relay-ramp topography: insights from process-based numerical modeling. *Basin Research*, DOI: 10.1111/br.12255
- 137 PECHLIVANIDOU S., COWIE, P.A., HANNISDAL, B., WHITTAKER, A.C., GAWTHORPE, R.L., PENNOS C. AND RIISER O.S. (2017). Source-to-sink analysis in an active extensional setting: Holocene erosion and deposition in the Sperchios rift, central Greece. *Basin Research*. DOI:10.1111/BRE.12263
- 136 DENG, C., FOSSEN, H., GAWTHORPE, R.L., ROTEVATN, A., JACKSON, C. A-L. AND FAZLIKHANI, H. (2017) Influence of fault reactivation during multiphase rifting: the Oseberg area, northern North Sea rift. *Marine and Petroleum Geology*, 86, 1252-1272. <http://dx.doi.org/10.1016/j.marpetgeo.2017.07.025>
- 135 GAWTHORPE, R.L., LEEDER, M.R., HARALAMBOS, K., SKOURTSOS, E., ANDREWS, J.E., HENSTRA, G.A., MACK, G., MURAVCHICK, M., TURNER, J. AND STAMATAKIS, M. (2017) Tectono-sedimentary evolution of the Plio-Pleistocene Corinth rift, Greece, *Basin Research*, DOI: 10.1111/br.12260.
- 134 KORNEVA, I., BASTESON, E., CORLETT, H., EKER, A., HIRANI, J., HOLLIS, C., GAWTHORPE, R.L., ROTEVATN, A. AND TAYLOR, R. (2017) The effects of dolomitization on petrophysical properties and fracture distribution within rift-related carbonates (Hammam Faraun Fault Block, Suez Rift, Egypt). *Journal of Structural Geology*, <http://dx.doi.org/10.1016/j.jsg.2017.06.005>
- 133 KRISTENSEN, T.B., ROTEVATN, A., MARVIK, M., HENSTRA, G.A., GAWTHORPE, R.L. AND RAVNÅS, R. (2017) Structural evolution of sheared margin basins: The role of strain partitioning. Sørvestsnaget Basin, Norwegian Barents Sea. *Basin Research*, doi: 10.1111/br.12253
- 132 ROMAIN HEMELSDAEL, R., FORD, M., MALARTRE, F. AND GAWTHORPE, R.L. (2017) Interaction of an antecedent fluvial system with early normal fault growth: implications for syn-rift stratigraphy, western Corinth rift (Greece). *Sedimentology*, DOI: 10.1111/sed.12381
- 131 HOLLIS, C., BASTESON, E., BOYCE, A., CORLETT, H., GAWTHORPE, R., HIRANI, J., ROTEVATN, A. AND WHITTAKER, F. (2017) Fault-controlled dolomitization in a rift basin. *Geology*, DOI: 10.1130/G38394.1
- 130 CLARINGBOULD, J.S., BELL, R.E., JACKSON, C. A-L., GAWTHORPE, R.L., AND ODINSEN, T. (2017) Pre-existing normal faults have limited control on the rift geometry of the northern North Sea. *Earth and Planetary Science Letters*, <http://dx.doi.org/10.1016/j.epsl.2017.07.014>
- 129 FINCH, E. AND GAWTHORPE, R.L. (2017) Growth and interaction of normal faults and fault network evolution in rifts: insights from three dimensional discrete element modelling. In: Childs, C., Holdsworth, R. E., Jackson, C. A.-L., Manzocchi, T., Walsh, J. J. & Yielding, G. (eds) *The Geometry and Growth of Normal Faults*. Geological Society, London, Special Publications 439, <https://doi.org/10.1144/SP439.23>
- 128 DUFFY, O.B., NIXON, C.W., BELL, R.E., JACKSON, C. A-L., GAWTHORPE, R.L., SANDERSON, D.J. AND WHIPP, P.S. (2017) The topology of evolving rift fault networks: Single-phase vs multi-phase rifts. *Journal of Structural Geology*, 80, 96, 192-202.
- 127 FAZLIKHANI, H., FOSSEN, H., GAWTHORPE, R.L., FALEIDE, J.I. AND REBECCA E. BELL, R.E. (2017) Basement structure and its influence on the structural configuration of the northern North Sea Rift.

Tectonics, 36, 1151–1177, doi:10.1002/2017TC004514

- 126 KHEL, C., BUCKLEY, S.J., VISEUR, S., GAWTHORPE, R.L. AND HOWELL, J.A. (2017) Automatic illumination-invariant image-to-geometry registration in outdoor environments. *The Photogrammetric Record*, 32, 93-118, DOI: 10.1111/phor.12188
- 125 GE, Z., GAWTHORPE, R.L., ROTEVATN, A. AND THOMAS, M.B. (2016) Impact of normal faulting and pre-rift salt tectonics on the structural style of salt-influenced rifts: The Late Jurassic Norwegian Central Graben, North Sea. *Basin Research*. doi:10.1111/bre.12219.
- 124 GE, Z., NEMEC, W., GAWTHORPE, R.L. AND HANSEN, E.W.M. (2017) Response of unconfined turbidity current to normal-fault topography. *Sedimentology*, 64: 932–959. doi:10.1111/sed.12333.
- 123 WHIPP, P.S., JACKSON, C. A-L., SCHLISHE, R. W., WITHJACK, M.O. AND GAWTHORPE, R.L. (2016) Spatial distribution and evolution of fault-segment boundary types in rift systems: observations from experimental clay models. In: Childs, C., Holdsworth, R. E., Jackson, C. A.-L., Manzocchi, T., Walsh, J. J. & Yielding, G. (eds) *The Geometry and Growth of Normal Faults*. Geological Society, London, Special Publications 439, <http://doi.org/10.1144/SP439.7>
- 122 HENSTRA, G.A., GAWTHORPE, R.L., HELLAND-HANSEN, W., RAVNAS, R., AND ROTEVATN, A. (2017) Depositional systems in multiphase rifts: seismic case study from the Lofoten margin, Norway. *Basin Research*, 29, 447-469, doi: 10.1111/bre.12183
- 121 NIXON, C.W., McNEIL, L.C., BULL, J.M., BELL, R.E., GAWTHORPE, R.L. et al. (2016), Rapid spatiotemporal variations in rift structure during development of the Corinth Rift, central Greece, *Tectonics*, 35, 1225-1248. doi:10.1002/2015TC004026.
- 120 ELLIOTT, G.M., WILSON, P., JACKSON, C. A-L., GAWTHORPE, R.L., MICHELSEN, L. AND SHARP, I.R. (2015) Late syn-rift evolution of the Vingleia Fault Complex, Halten Terrace, offshore Mid-Norway; a test of rift basin tectono-stratigraphic models. *Basin Research*, 29, 465-487, doi: 10.1111/bre.12158
- 119 LEWIS, M.M., JACKSON, C.A-L. AND GAWTHORPE, R.L. (2015) Tectono-sedimentary development of early syn-rift deposits: The Abura Graben, Suez Rift, Egypt. *Basin Research*, 29, 327-351, doi: 10.1111/bre.12151
- 118 NGOC LE, A., HUUSE, M., REDFERN, J., GAWTHORPE, R.L. AND IRVING, D. (2015) Seismic characterization of a Bottom Simulating Reflection (BSR) and plumbing system of the Cameroon margin, offshore West Africa. *Marine and Petroleum Geology*, 68, 629-647.
- 117 DUFFY, O.B., BELL, R.E., JACKSON, C. A-L., GAWTHORPE, R.L., AND WHIPP, P.S. (2015) Fault Growth and interactions in a multiphase rift fault network: Horda Platform, Norwegian North Sea. *Journal of Structural Geology*, 80, 99-119.
- 116 WILSON, P., ELLIOTT, G.M., GAWTHORPE, R.L., JACKSON, C. A-L., MICHELSEN, L. AND SHARP, I.R. (2015) Lateral variation in structural style along an evaporite-influenced rift fault system in the Halten Terrace, Norway: Influence of basement structure and evaporite facies. *Journal of Structural Geology*, 79, 101-123.
- 115 LEWIS, M.M., JACKSON, C.A-L., GAWTHORPE, R.L. AND WHIPP, P.S. (2015) Early synrift reservoir development on the flanks of extensional forced folds: A seismic-scale outcrop analog from the Hadahid fault system, Suez Rift, Egypt. *American Association of Petroleum Geologists Bulletin*, 99, 985-1012.
- 114 HENSTRA, G.A., ROTEVATN, A., GAWTHORPE, R.L. AND RAVNAS, R. (2015) Evolution of a major segmented normal fault during multiphase rifting: The origin of plan-view zigzag geometry. *Journal of Structural Geology*, 74, 45-63.
- 113 KLAUSEN, T.G., RYSETH, A.E., HELLAND-HANSEN, W., GAWTHORPE, R.L. AND LAURSEN, I. (2015) Regional development and sequence stratigraphy of the Middle to Late Triassic Snadd Formation, Norwegian Barents Sea. *Marine and Petroleum Geology*, 62, 102-122.
- 112 DUFFY, O.B., BROCKLEHURST, S.H., GAWTHORPE, R.L., LEEDER, M.R. AND FINCH, E. (2015) Controls on landscape and drainage evolution in regions of distributed normal faulting: Perachora Peninsula, Corinth Rift, Central Greece. *Basin Research*, 27, 473-494.
- 111 PECHLIVANIDOU, S., VOUVALIDIS, K., LØVLIE, R., NESJE, A., ALBANAKIS, K., PENNOS, C., SYRIDES, G., COWIE, P. AND GAWTHORPE, R.L. (2014) A multi-proxy approach to reconstructing sedimentary environments from the Sperchios delta, Greece. *The Holocene*, 24, 1825-1839.
- 110 WHIPP, P.S., JACKSON, C. A-L., GAWTHORPE, R.L., DREYER, T. AND QUINN, D. (2014) Normal fault array evolution above a reactivated rift fabric; a subsurface example from the northern Horda Platform, Norwegian North Sea. *Basin Research*, 26, 523-549.

- 109 OLUBOYO, A.P., GAWTHORPE, R.L., BAKKE, K. AND HADLER-JACOBSEN, F. (2014) Salt tectonic controls on deep-water turbidite depositional systems: Miocene, southwestern Lower Congo Basin, offshore Angola. *Basin Research*, 26, 597-620.
- 108 KLAUSEN, T.G., RYSETH, A.E., HELLAND-HANSEN, W., GAWTHORPE, R.L. AND LAURSEN, I. (2014) Spatial and temporal changes in geometries of fluvial channel bodies from the Triassic Snadd Formation of offshore Norway. *Journal of Sedimentary Research*, 84, 567-585.
- 107 BELL, R. E., JACKSON, C. A-L., ELLIOTT, G. M., GAWTHORPE, R. L., SHARP, I.R. AND MICHELSEN, L. (2014) Insights into the development of major rift-related unconformities from geologically constrained subsidence modelling: Halten Terrace, offshore mid Norway. *Basin Research*, 26, 203-224.
- 106 RARITY, F., VAN LANEN, X. M. T., HODGETTS, D., GAWTHORPE, R. L., WILSON, P., FABUEL PEREZ, I. AND REDFERN, J. (2014) Lidar-based digital outcrops in sedimentology and stratigraphy: workflows and techniques. In: Martinius, A.W., Howell, J.A. and Good, T.R. (eds.) *Sediment-Body Geometry and Heterogeneity: Analogue Studies for Modelling the Subsurface*. Special Publication of the Geological Society of London, 387, 153-183.
- 105 TVEDT, A.B.M., ROTEVATN, A., JACKSON, C.A-L., FOSSEN, H. AND GAWTHORPE, R.L. (2013) Growth Of Normal Faults In Multilayer Sequences: A 3D seismic case study from the Egersund Basin, Norwegian North Sea. *Journal of Structural Geology*, 55, 1-20.
- 104 LEWIS, M.M., JACKSON, C.A-L. AND GAWTHORPE, R.L. (2013) Salt-influenced normal fault growth and forced folding: The Stavanger Fault System, North Sea. *Journal of Structural Geology*, 54, 156-173.
- 103 GENNARO, M., WONHAM, J.P., GAWTHORPE, R.L. AND SÆLEN, G. (2013) Seismic stratigraphy of the Chalk Group in the Norwegian Central Graben, North Sea. *Marine and Petroleum Geology*, 45, 236-266.
- 102 WILSON, P., ELLIOTT, G.M., GAWTHORPE, R.L., JACKSON, C. A-L., MICHELSEN, L. AND SHARP, I.R. (2013) Geometry and segmentation of an evaporite-detached normal fault array: 3D seismic analysis of the southern Bremstein Fault Complex, offshore mid-Norway. *Journal of Structural Geology*, 51, 74-91.
- 101 DUFFY, O.B., GAWTHORPE, R.L., DOCHERTY, M. AND BROCKLEHURST, S.H. (2013) Mobile evaporite controls on the structural style and evolution of rift basins: Danish Central Graben, North Sea. *Basin Research*, 25, 310-330.
- 100 VACHTMAN, D., MITCHELL, N.C. AND GAWTHORPE, R.L. (2013) Morphometric signatures in submarine canyons and gullies, central USA Atlantic continental margins. *Marine and Petroleum Geology*, 41, 250-263.
- 99 STRACHAN, L.J., RARITY, F., GAWTHORPE, R.L., WILSON, P., SHARP, I.R. AND HODGETTS, D. (2013) Submarine slope processes in rift-margin basins, Miocene Suez Rift, Egypt. *Geological Society of America Bulletin*, 125, 109-127.
- 98 LEEDER, M.R., MARK, D.F., GAWTHORPE, R.L., KRANIS, H., PEDENTCHOUK, N., SKOURTSOS, E., TURNER, J., ANDREWS, J.E. AND STAMATAKIS, M. (2012) A “Great Deepening”: Chronology of rift climax, Corinth rift, Greece. *Geology*, 40, 999-1002.
- 97 AMEZCUA, N., GAWTHORPE, R.L. AND MCQUAKER, J.H.S. (2012) Cascading carbonate lakes of the Mayran Basin system, northeast Mexico: The interplay of inherited structural geometry, bedrock lithology and climate. *Geological Society of America Bulletin*, 124, 975-988.
- 96 ELLIOTT, G.M., WILSON, P., JACKSON, C. A-L., GAWTHORPE, R.L., MICHELSEN, L. AND SHARP, I.R. (2012) The linkage between fault throw and footwall scarp erosion patterns: an example from the Bremstein Fault Complex, offshore Mid-Norway. *Basin Research*, 24, 180-197.
- 95 DUFFY, O.B., GAWTHORPE, R.L., DOCHERTY, M. AND BROCKLEHURST, S.H. (2012) Mobile evaporite controls on the structural style and evolution of rift basins: Danish Central Graben, North Sea. *Basin Research*, 24, 1-12
- 94 WILSON, P., HODGETTS, D., RARITY, F., GAWTHORPE, R.L., AND SHARP, I.R. (2011) Half-graben-scale geocellular outcrop modeling of rift initiation strata from lidar-based digital outcrop data: The Nukhul syncline, Suez Rift, Egypt. In: Martinsen, O.J., Pulham, A.J., Haughton, P.D.W. and Sullivan, M.D. (eds.), *Outcrops Revitalized – Tools, Techniques and Applications*. SEPM Concepts in Sedimentology and Paleontology, 10, 51-68.
- 93 CATTERALL, V, REDFERN, J., GAWTHORPE, R.L., HANSEN, D. AND THOMAS, M. (2010) Architectural style and quantification of a submarine channel-levee system located in a structurally complex area: Offshore Nile delta. *Journal of Sedimentary Research*, 80, 991-1017.
- 92 FOSTER, D., BROCKLEHURST, S.H. AND GAWTHORPE, R.L. (2010) Glacial-topographic interactions in

the Teton Range, Wyoming, *J. Geophys. Res.*, 115, F01007, doi:10.1029/2008JF001135.

- 90 ZACHARIAH, A.J., GAWTHORPE, R.L., DREYER, T. AND CORFIELD, S. (2009) Evolution and strike variability of early post-rift deep-marine depositional systems: Lower to mid-Cretaceous, North Viking Graben, Norwegian North Sea. *Sedimentary Geology*, in press.
- 89 WILSON, P., GAWTHORPE, R.L., HODGETTS, D., RARITY, F. AND SHARP, I.R. (2009) Geometry and architecture of faults in a syn-rift normal fault array: the Nukhul half-graben, Suez rift, Egypt. *Journal of Structural Geology*, 31, 459-475..
- 88 WILSON, P., HODGETTS, D., RARITY, F., GAWTHORPE, R.L. AND SHARP, I.R. (2009) Structural geology and 4D evolution of a half-graben: New digital outcrop modelling techniques applied to the Nukhul half-graben, Suez rift, Egypt. *Journal of Structural Geology*, 31, 328-345.
- 87 ZACHARIAH, A.J., GAWTHORPE, R.L., DREYER, T. AND CORFIELD, S. (2008) Controls on early post-rift physiography and stratigraphy, lower to mid-Cretaceous, North Viking Graben, Norwegian North Sea. *Basin Research*, 21, 189-208.
- 86 FOSTER, D., BROCKLEHURST, S.H. AND GAWTHORPE, R.L. (2008) Small valley glaciers and the effectiveness of the glacial buzzsaw in the northern Basin and Range, USA. *Geomorphology*, 102, 624-639.
- 85 BATES, K.T., RARITY, F., MANNING, P.L., HODGETTS, D. VILA, B., OMS, O., GALOBART, A. and GAWTHORPE, R.L. (2008) High-resolution LiDAR and photogrammetric survey of the Fumanya dinosaur tracksites (Catalonia): implications for the conservation and interpretation of geological heritage sites. *Journal of the Geological Society, London*, 165, 115-127.
- 84 FRASER, S.I., FRASER, A.J., LENTINI, M.R. AND GAWTHORPE, R.L. (2007) Return to rifts - the next wave: fresh insights into the petroleum geology of global rift basins. *Petroleum Geoscience*, 13, 99-104.
- 83 MACQUAKER, J.H.S., TAYLOR, K.G. AND GAWTHORPE, R.L. (2007) High-resolution facies analyses of mudstones: Implications for paleoenvironmental and sequence stratigraphic interpretations of offshore ancient mud-dominated successions. *Journal of Sedimentary Research* 77, 324-339.
- 82 GEE, M.J.R. AND GAWTHORPE, R.L. (2007) Early evolution of submarine channels offshore Angola revealed by three-dimensional seismic data in press. In: Davies, R.J., Posamentier, H.W., Wood, L.J. and Cartwright, J.A. (eds.), *Seismic Geomorphology: Applications to Hydrocarbon Exploration and Production*. Geological Society Special Publication, 277, 223-235.
- 81 GEE, M.J.R., GAWTHORPE, R.L., BAKKE, K. AND FRIEDMANN, S.J. (2007) Seismic geomorphology and evolution of submarine channels from the Angolan continental margin. *Journal of Sedimentary Research* 77, 433-446.
- 80 LEPPARD, C.W. AND GAWTHORPE, R.L. (2006) Sedimentology of rift climax deep water systems; Lower Rudeis Formation, Hammam Faraun Fault Block, Suez Rift, Egypt. *Sedimentary Geology*, 191(1-2), 67-87.
- 79 GEE, M.J.R. AND GAWTHORPE, R.L. (2006) Submarine channels controlled by salt tectonics: Examples from 3D seismic data offshore Angola. *Marine and Petroleum Geology*, 23(4), 443-458.
- 78 JACKSON, C.A-L., GAWTHORPE, R.L. AND SHARP, I.R. (2006) Style and sequence of deformation during extensional fault-propagation folding: examples from the Hammam Faraun and El-Qaa fault blocks, Suez Rift, Egypt. *Journal of Structural Geology*, 28(3), 519-535.
- 77 GEE, M.J.R., GAWTHORPE, R.L. AND FRIEDMANN, S.J. (2006) Triggering and evolution of a giant submarine landslide, offshore Angola, revealed by 3D seismic stratigraphy and geomorphology. *Journal of Sedimentary Research* 76(1-2), 9-19.
- 76 JACKSON, C.A-L., GAWTHORPE, R.L., LEPPARD, C.W. AND SHARP, I.R. (2006) Rift-initiation development of normal fault blocks: insights from the Hammam Faraun fault block, Suez Rift, Egypt. *Journal of the Geological Society*, 163(1), 165-183.
- 75 BURNS, F.E., BURLEY, S.D., GAWTHORPE, R.L. AND POLLARD, J.E. (2005) Diagenetic signatures of stratal surfaces in the Upper Jurassic fulmar Formation, Central North Sea, UKCS. *Sedimentology*, 52(6), 1155-1185.
- 74 JACKSON, C.A-L., GAWTHORPE, R.L., CARR, I.D. AND SHARP, I.R. (2006) Normal faulting as a control on the stratigraphic development of shallow marine syn-rift sequences: the Nukhul and Lower Rudeis Formations, Hammam Faraun fault block, Suez Rift, Egypt. *Sedimentology*, 52(2), 313-338.
- 73 LEEDER, M.R., PORTMAN, C., ANDREWS, J.E., COLLIER, R.E.L.L., FINCH, E., GAWTHORPE, R.L., MCNEILL, L.C., PEREZ-ARLUCEA, M. AND ROWE, P. (2005) Normal faulting and crustal deformation, Alkyonides Gulf and Perachora peninsula, eastern Gulf of Corinth rift, Greece. *Journal of the Geological*

Society, 162(3), 549-561.

- 72 GEE, M.J.R., GAWTHORPE, R.L. AND FRIEDMANN, S.J. (2005) Giant striations at the base of a submarine landslide. *Marine Geology*. 214(1-3), 287-294.
- 71 MALPAS, J.A., GAWTHORPE, R.L., POLLARD, J.E. AND SHARP, I.R. (2005) Ichnofabric analysis of the shallow marine Nukhul Formation (Miocene), Suez Rift, Egypt: implications for depositional processes and sequence stratigraphic evolution. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 215(3-4), 239-264.
- 70 FINCH, E., HARDY, S., AND GAWTHORPE, R.L. (2004) Discrete-element modelling of extensional fault-propagation folding above rigid basement fault blocks. *Basin Research*, 16(4), 489-506.
- 69 TAYLOR, K.G., GAWTHORPE, R.L. AND FANNON-HOWELL, S. (2004) Basin-scale diagenetic alteration of shoreface sandstones in the Upper Cretaceous Spring Canyon and Aberdeen Members, Blackhawk Formation, Book Cliffs, Utah. *Sedimentary Geology*, 172(1-2), 99-115.
- 68 BERNAL, A., HARDY, S., GAWTHORPE, R.L. AND FINCH, E. (2004) Stratigraphic expression of the lateral propagation and growth of isolated fault-related uplifts. *Basin Research* 16(2), 219-233.
- 67 RITCHIE, B.D., GAWTHORPE, R.L., AND HARDY, S. (2004) Three-dimensional numerical modeling of deltaic depositional sequences 2: Influence of local controls. *Journal of Sedimentary Research* 74(2), 221-238.
- 66 RITCHIE, B.D., GAWTHORPE, R.L., AND HARDY, S. (2004) Three-dimensional numerical modeling of deltaic depositional sequences 1: Influence of the rate and magnitude of sea-level change. *Journal of Sedimentary Research* 74(2), 203-220.
- 65 ALVES, T.M., MANUPPELLA, G., GAWTHORPE, R.L., HUNT, D.W. AND MONTEIRO, J.H. (2003) The depositional evolution of diapir- and fault-bounded rift basins: examples from the Lusitanian Basin of West Iberia. *Sedimentary Geology*, 162(3-4), 273-303.
- 64 YOUNG, M.J., GAWTHORPE, R.L. AND SHARP, I.R. (2003). Normal fault growth and early syn-rift sedimentology and sequence stratigraphy: Thal Fault, Suez Rift, Egypt. *Basin Research* 15(4), 479-502.
- 63 TAYLOR, K.G. AND GAWTHORPE, R.L. (2003) Basin-scale dolomite cementation of shoreface sandstones in response to sea-level fall. *Bull. Geol. Soc. Am*, 115(10), 1218-1229.
- 62 FRASER, A.J. AND GAWTHORPE, R.L. (2003) An Atlas of Carboniferous Basin Evolution in Northern England. Geological Society, London, Memoir 28, pp 79.
- 61 ALVES, T.M., GAWTHORPE, R.L., HUNT D.W., AND MONTEIRO, J.H. (2003) Cenozoic tectono-sedimentary evolution of the western Iberian margin. *Marine Geology* 195(1-4), 75-108.
- 60 ALVES, T.M., GAWTHORPE, R.L., HUNT, D.W., AND MONTEIRO, J.H. (2003) Post-Jurassic tectono-sedimentary evolution of the Northern Lusitanian Basin (Western Iberian margin). *Basin Research*, 15(2), 227-249.
- 59 CARR, I.D., GAWTHORPE, R.L., JACKSON, C.A-L., SHARP, I.R., AND SADEK, A. (2003) Sedimentology and sequence stratigraphy of early Syn-Rift tidal sediments: The Nukhul Formation, Suez Rift, Egypt. *Journal of Sedimentary Research* 73(3), 407-420.
- 58 COOPER, K.A., HARDY, S., AND GAWTHORPE, R.L. (2003) Stratigraphic and structural expression of the lateral growth of thrust fault-propagation folds: results and implications from kinematic modelling. *Basin Research* 15(2), 165-182.
- 57 FINCH, E., HARDY, S., AND GAWTHORPE, R.L. (2003) Discrete element modelling of contractional fault-propagation folding above rigid basement fault blocks. *Journal of Structural Geology* 25(4), 515-528.
- 56 GAWTHORPE, R.L., HARDY, S., AND RITCHIE, B.D. (2003) Numerical modelling of depositional sequences in half-graben rift basins. *Sedimentology* 50(1), 169-185.
- 55 GAWTHORPE, R.L., JACKSON, C.A-L., YOUNG, M.J., SHARP, I.R., MOUSTAFA, A.R., AND LEPPARD, C.W. (2003) Normal fault growth, displacement localisation and the evolution of normal fault populations: the Hamman Faraun fault block, Suez Rift, Egypt. *Journal of Structural Geology* 25, 883-895.
- 54 LEEDER, M.R., MCNEILL, L.C., COLLIER, R.E.L.L., PORTMAN, C., ROWE, P.J., ANDREWS, J.E., AND GAWTHORPE, R.L. (2003) Corinth rift margin uplift: New evidence from Late Quaternary marine shorelines. *Geophysical Research Letters* 30(12), art. no.-1611.
- 53 GAWTHORPE, R.L. AND HARDY, S. (2002) Extensional fault-propagation folding and base-level change as controls on growth-strata geometries. *Sedimentary Geology* 146(1-2), 47-56.
- 52 HARDY, S. AND GAWTHORPE, R.L. (2002) Normal fault control on bedrock channel incision and sediment

supply: Insights from numerical modeling. *Journal of Geophysical Research-Solid Earth* 107(B10), art. no.-2246.

- 51 JACKSON, C.A-L., GAWTHORPE, R.L., AND SHARP, I.R. (2002) Growth and linkage of the East Tanka fault zone, Suez rift: structural style and syn-rift stratigraphic response. *Journal of the Geological Society* 159, 175-187.
- 50 YOUNG, M.J., GAWTHORPE, R.L., AND SHARP, I.R. (2002) Architecture and evolution of syn-rift clastic depositional systems towards the tip of a major fault segment, Suez Rift, Egypt. *Basin Research* 14(1), 1-23.
- 49 ALVES, T.M., GAWTHORPE, R.L., HUNT, D.W., AND MONTEIRO, J.H. (2002) Jurassic tectono-sedimentary evolution of the Northern Lusitanian Basin (offshore Portugal). *Marine and Petroleum Geology* 19(6), 727-754.
- 48 YOUNG, M.J., GAWTHORPE, R.L., AND HARDY, S. (2001) Growth and linkage of a segmented normal fault zone; the late Jurassic Murchison-Statfjord North Fault, northern North Sea. *Journal of Structural Geology* 23(12), 1933-1952.
- 47 YOUNG, M.J., GAWTHORPE, R.L., AND SHARP, I.R. (2000) Sedimentology and sequence stratigraphy of a transfer zone coarse-grained delta, Miocene Suez Rift, Egypt. *Sedimentology* 47(6), 1081-1104.
- 46 GAWTHORPE, R.L. AND LEEDER, M.R. (2000) Tectono-sedimentary evolution of active extensional basins. *Basin Research* 12(3-4), 195-218
- 45 SHARP, I.R., GAWTHORPE, R.L., ARMSTRONG, B. AND UNDERHILL, J.R., 2000, Propagation history and passive rotation of mesoscale normal faults: implications for syn-rift stratigraphic development. *Basin Research*, 12, 285-305.
- 44 TAYLOR, K, GAWTHORPE, R.L., CURTIS, C.D., MARSHALL, J.D. & AWWILLER, D.N. 2000. Carbonate cementation in a sequence stratigraphic framework: Upper Cretaceous Sandstones, Book Cliffs, Utah-Colorado. *J. Sedim. Res.* 70, 360-372.
- 42 SHARP, I. , GAWTHORPE, R.L., UNDERHILL, J.R. & GUPTA, S. 2000. Implications of growth folding for syn-rift stacking patterns: evidence from the Oligo-Miocene of the Suez rift. *Bull. Geol. Soc. Am*, 112, 1877-1899.
- 41 HUNT, D.W. & GAWTHORPE, R.L. (eds). 2000. *Sedimentary Response to Forced Regression*. Geol. Soc. Lond. Spec. Publ. 172.
- 40 GAWTHORPE, R.L., SHARP, I.R., HALL, M.T. & DREYER, T. 2000. Forced regressions around propagating folds and faults. In: Hunt, D.W. & Gawthorpe, R.L. (eds.), *Sedimentary Responses to Forced Regression*, Geol. Soc. Lond. Spec. Publ., 172, 177-193.
- 39 MCMURRAY, L.S. & GAWTHORPE, R.L. 2000. Controls on the strike variability of forced regressive deposits: late Quaternary, northern Peloponnese, Greece. In: Hunt, D.W. & Gawthorpe, R.L. (eds.), *Sedimentary Responses to Forced Regression*, Geol. Soc. Lond. Spec. Publ., 172, 365-379.
- 38 RITCHIE, B.D., HARDY, S. & GAWTHORPE, R.L. 1999. Three-dimensional numerical modelling of coarse-grained clastic deposition in sedimentary basins. *J. Geophys. Res.* 104, 17759-17780.
- 37 GUPTA, S., SHARP, I., GAWTHORPE, R.L. & UNDERHILL, J.R. 1999. The impact of fault growth and linkage on syn-rift basin margin sedimentation in the Miocene Suez Rift. *Basin Research*. 11, 167-189.
- 36 HARDY, S. & GAWTHORPE, R.L. 1998. Effects of variations in fault slip rate on sequence stratigraphy in fan deltas: Insights from numerical modelling. *Geology*, 26, 911-914.
- 35 MACQUAKER, J.H.S., GAWTHORPE, R.L., TAYLOR, K.G. & OATES, M.J. 1998. Heterogeneity, stacking patterns and sequence stratigraphic interpretation in distal mudstone successions: examples from the Kimmeridge Clay Formation, U.K. In: J. Schieber, W. Zimmerle, and P. Sethi (eds.). *Mudstones and Shales: Recent Progress in Shale Research*. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart. Volume 1, 163-186.
- 34 GAWTHORPE, R.L. & HUNT, C. 1997. *Dynamic Stratigraphy: Controls and Products*, Version 2.0. University of Manchester for UK Earth Science Courseware Consortium, University of Manchester. (Computer-aided learning software.)
- 33 GAWTHORPE, R.L., SHARP, I., UNDERHILL, J.R. & GUPTA, S. 1997. Linked sequence stratigraphic and structural evolution of propagating normal faults. *Geology*, 25, 795-798.
- 32 UNDERHILL, J.R., SAWYER, M.J., HODGSON, P., SHALLCROSS, M.D. & GAWTHORPE, R.L. 1997. Implications of fault-scarp degradation for Brent Group prospectivity, Ninian Field, Northern North Sea. *Bull. Am. Assoc. Petrol. Geol.*, 81, 999-1022.

- 31 CHURCH, K.D. & GAWTHORPE, R.L. 1997 Sediment supply as a control on the variability of depositional sequences: an example from the Namurian of northern England. *J. Geol. Soc.* 154, 55-60.
- 30 CORFIELD, S.M., GAWTHORPE, R.L., GAGE, M., FRASER, M.J. & BESLY, B.M. 1996. Inversion tectonics of the Variscan foreland of the British Isles. *J. Geol. Soc.*, 153, 17-32.
- 29 GAWTHORPE, R.L. & HUNT, C. 1995. Dynamic Stratigraphy: Controls and Products, Version 1.0. University of Manchester for UK Earth Science Courseware Consortium, University of Manchester. (Computer-aided learning software.)
- 28 ELIET, P.P. & GAWTHORPE, R.L. 1995. Drainage development and sediment supply within rift basins the Sperchios basin, central Greece. *J. Geol. Soc.*, 152, 883-893.
- 27 TAYLOR, K, GAWTHORPE, R.L. & VAN WAGONER, J.C. 1995. Stratigraphic control on laterally persistent cementation, Book Cliffs, Utah. *J. Geol. Soc.*, 152, 225-228.
- 26 BRIDGE, J.S., ALEXANDER, J., COLLIER, R.E.LI., GAWTHORPE, R.L. & JARVIS, J. 1994. Point-bar deposits documented in 3-D using ground-penetrating radar and coring. *Sedimentology*, 42, 839-852.
- 25 MACQUAKER, J.H.S. & GAWTHORPE, R.L. 1994. Mudstone lithofacies in the Kimmeridge Clay Formation, Wessex Basin, southern England: implications for the origin and controls of the distribution of mudstones. Reply. *J. Sed. Pet.*, A64, 930-932.
- 24 ROBERTS, G.P. & GAWTHORPE, R.L. 1994. Strike variation in deformation and diagenesis along segmented normal faults: An example from the eastern Gulf of Corinth, Greece. In: LAMBIASE, J.J. (ed), *Hydrocarbon Habitat in Rifts*, Geol. Soc. Spec. Publ. 80, 57-74.
- 23 COLLIER, R.E.LI. & GAWTHORPE, R.L. 1994. Neotectonics, drainage and sedimentation in central Greece: insights into coastal reservoir geometries in syn-rift sequences. In: LAMBIASE, J.J. (ed), *Hydrocarbon Habitat in Rifts*, Geol. Soc. Spec. Publ. 80, 165-181.
- 22 ALEXANDER, J., BRIDGE, J.S., LEEDER, M.R., COLLIER, R.E.LI. & GAWTHORPE, R.L. 1994. Holocene meander-belt sedimentology evolution in an active extensional basin, southwestern Montana. *J. Sed. Pet.*, 64, 542-559.
- 21 GAWTHORPE, R.L. FRASER, A.J. & COLLIER, R.E.LI. 1994. Sequence stratigraphy in active extensional basins: implications for the interpretation of ancient basin fills. *Mar. Petrol. Geol.*, 11, 642-658.
- 20 DART, C.J., COLLIER, R.E.LI., GAWTHORPE, R.L., KELLER, J.V.A. & NICHOLS, G. 1994. Sequence stratigraphy of (?)Pliocene-Quaternary syn-rift, Gilbert-type fan deltas, northern Peloponnesos, Greece. *Mar. Pet. Geol.*, 11, 545-560.
- 19 CHURCH, K.D. & GAWTHORPE, R.L. 1994. High resolution sequence stratigraphy of the late Namurian in the Widmerpool Gulf (East Midlands, UK). *Mar. Petrol. Geol.*, 11, 528-544.
- 18 MACQUAKER, J.H.S. & GAWTHORPE, R.L. 1993. Mudstone lithofacies in the Kimmeridge Clay Formation, Wessex Basin, southern England: implications for the origin and controls of the distribution of mudstones. *J. Sed. Pet.*, 63, 1129-1143.
- 17 GAWTHORPE, R.L. & HURST, J.M. 1993. Transfer zones in extensional basins: their structural style and influence on drainage development and stratigraphy. *Journal of the Geological Society, London*, 150, 1137-1152.
- 16 TAYLOR, A.M. & GAWTHORPE, R.L. 1993. Application of sequence stratigraphy and trace fossil analysis to reservoir description: examples from the Jurassic of the North Sea. In: PARKER, J.R. (ed), *Petroleum Geology of Northwest Europe: Proceedings of the 4th Conference*, Geol. Soc. London, 317-335.
- 15 ROBERTS, G., GAWTHORPE, R.L. & STEWART, I. 1993. Surface faulting within active normal fault zones: examples from the Gulf of Corinth fault system, Central Greece. *Zeit. für Geomorph. Suppl.* 94, 303-328.
- 14 ALEXANDER, J. & GAWTHORPE, R.L. 1993. The complex nature of a Jurassic multistorey, alluvial sandstone body, Whitby, North Yorkshire. In: NORTH, C.P. & PROSSER, D.J. (eds), *Characterization of Fluvial and Aeolian Reservoirs*, Geol. Soc. Spec. Publ. No. 73, 123-142.
- 13 GAWTHORPE, R.L., COLLIER, R.E.LI., ALEXANDER, J., BRIDGE, J.S. & LEEDER, M.R. 1993. Ground penetrating radar: application to sandbody geometry and heterogeneity studies. In: NORTH, C.P. & PROSSER, D.J. (eds), *Characterization of Fluvial and Aeolian Reservoirs*, Geol. Soc. Spec. Publ. No. 73, 421-432.
- 12 BENTHAM, P. COLLIER, R.E.LI., GAWTHORPE, R.L., LEEDER, M.R., PROSSER, S.D & STARK, C. 1991. Tectono-sedimentary development, uplift and unroofing of an extensional sedimentary basin: the

Neogene Megara Basin, Greece. *J. Geol. Soc., London*, 148, 923-934.

- 11 FRASER, A.J. & GAWTHORPE, R.L. 1990 Tectono-sedimentary development and hydrocarbon habitat of the Carboniferous in northern England. In: HARDMAN, R.F.P. & BROOKS, J. (eds.). *Tectonic control on British hydrocarbon reserves*. Spec. Publ. geol. Soc. London, 55, 49-86.
- 10 GAWTHORPE, R.L., HURST, J.M. & SLADEN, C.P. 1990 Evolution of Miocene footwall-derived coarse grained deltas, Gulf of Suez, Egypt: implications for exploration. *Bull. Am. Assoc. Petrol. Geol.*, 74, 1077-1086.
- 9 GAWTHORPE, R.L. & GUTTERIDGE, P. 1990. Geometry and evolution of platform-margin bioclastic shoals, late Dinantian (Mississippian), Derbyshire, UK. In: Tucker, M.E. *et al.* (eds.) *Carbonate Platforms*. IAS Spec. Publ. No. 9, 39-54.
- 8 GAWTHORPE, R.L. & COLELLA, A. 1990 Tectonic controls on fan-delta systems in rift basins. In: Colella, A. & Prior, D.B. (eds.) *Coarse-grained deltas* IAS Spec. Publ. No. 10, 113-128.
- 7 WESTAWAY, R.W.C., GAWTHORPE, R.L. & TOZZI, M. 1989. Seismological and field observations of the 1984 Lazio-Abruzzo earthquakes: implications for the active tectonics of Italy. *Geophysical Journal* 98, 489-514.
- 6 GAWTHORPE, R.L., GUTTERIDGE, P. & LEEDER, M.R. 1989. Late Devonian and Dinantian basin evolution in northern England and north Wales. In: GUTTERIDGE, P., ARTHURTON, R.S. & NOLAN, S.C. (eds.). *The role of tectonics in Devonian and Carboniferous sedimentation of the British Isles*. Yorkshire Geological Society Occasional Publication, No. 8, 1-23.
- 5 LEEDER, M.R. & GAWTHORPE, R.L. 1987. Sedimentary models for extensional tilt-block/half-graben basins. In: COWARD, M.P., DEWEY, J.F. & HANCOCK, P. (eds.). *Continental extensional tectonics*. Spec. Publ. geol. Soc. London No. 28, 139-152.
- 4 GAWTHORPE, R.L. 1987. Burial dolomitisation and porosity development in a mixed carbonate-clastic sequence: an example from the Bowland Basin, northern England. *Sedimentology* 34, 533-558.
- 3 GAWTHORPE, R.L. 1987. Tectono-sedimentary evolution of the Bowland Basin, northern England, during the Dinantian. *J. geol. Soc. London* 144, 59-71.
- 2 GAWTHORPE, R.L. 1986. Sedimentation during carbonate ramp-to-slope evolution in a tectonically active area: Bowland Basin (Dinantian), N. England. *Sedimentology*, 33, 185-206.
- 1 GAWTHORPE, R.L. & CLEMMY, H. 1985. Geometry of submarine slides in the Bowland Basin (Dinantian) and their relation to debris flows. *J. geol. Soc. London* 142, 555-565.