Domaine de Claris, 2554 Route de Saint Chalies, 47500, Blanquefort sur Briolance, France |+33 648 79 67 68

http://drthomasmauduit.org | thomas@mauduit.org

Personal Details: 06/12/1967 | France | French | Male

# Expert in Structural Geology, Tectonics, Geomodelling and Seismic interpretation

# Highly accomplished exploration professional with expertise in project management, entrepreneurship, research, teaching and operational leadership.

Solid background in oil and gas exploration (30 years), as well as Structural geology, Tectonics, and Seismic Interpretation. Demonstrated leadership ability in a wide range of settings and environment. Equipped with advanced interpersonal, negotiation, and communication skills. Fluent in French, English, Spanish, Portuguese, proficient in German, Dutch and Italian.

Entrepreneurship Founder and MD Tectonics Experts since 2008 Founder and MD GIGA since 2015 Founder and MD GAGE since 2022 Research Earth Sciences Tectonics Structural Geology Geophysics Management Company Leadership Quality Control Organizational Development **Teaching** Geology Geophysics Seismic Interpretation

# PROFESSIONAL EXPERIENCE

Global Agency of Geosciences Experts, GAGE, France, 2021 – Present
Founder and CEO, GAGE is an agency providing G&G trainings for Oil Companies in several languages.
www.gage.agency

• Global Institute of Gemologist Associates, GIGA, United Kindom, 2015-Present **Founder and CEO,** GIGA is an association of world experts in certified gemstones. <u>https://www.globalgemology.org</u>

• Tectonic Experts, Aberdeen, UK, 2008-Present

# Founder and CEO

# https://globaltectonics.org

- o Oversee and operate an independent consultancy agency specializing in complicated structural environments.
- o Establish and develop a robust client portfolio through comprehensive service delivery.
- o Champion regulatory compliance and best business practices to promote the highest quality standards.

Multiple Oil Companies (25), Several Locations (65 Fields, 35 countries)

# Tectonics and Senior Structural Geology Expert

- Served as a Subject Matter Expert in structural geology and tectonics.
- Led a wide range of projects and initiatives for multiple employers across the globe.

2008 - Present

- Attained and achieved prolific results in various studies within 30 countries, 35 basins and over 60 fields in the UK, Norway, Ireland, Netherlands, Denmark, Mauritania, Egypt, Liberia, Gabon, Congo, Angola, Nigeria, Peru, Bolivia, Venezuela, Cuba, California, Falklands, Malaysia, Irak, Sierra Leone, Suriname, Azerbaijan and India.
- Composed and authored high-resolution 3D static and structural models conducive toward daily operations.
- Fostered continuous improvement in cross-functional teams through regular training and coaching.
- Conducted regional geological studies to ascertain business-critical data and information.

Multiple Employers, Several Locations Tectonics and Senior Structural Geology Expert 1997 - 2008

# SPECIALIST SKILLS AND CAPABILITIES

Seismic interpretation expert, 2D/3DPetrel (2019), SMT Kingdom, Seisworks, 123 DI, Paradigm (Gocad Skua), Charisma, Seisware, Traptester... depth conversion, well to seismic correlations...

**Structural geology expert,** in extension, compression, strike slip, salt tectonics and gravity driven deformation (T7, Traptester)

**Expert Geomodeler,** QC, rebuilding or building of static models in all fields studied (Over 65, 35 in the North Sea) before moving to following phases (New Dynamic Models-(Eclipse))

Structural restoration 4D, 3D and 2D (Move and others)

**Fracturation expert** 

Fault and top seal expert

Turbidite specialist

Basin modeler

# Software developer

New releases of Fractures interpretation softwares, *FracRes* (JIP, Elf Golder Associates)

# Website developer

Drthomasmauduit.org, GIGA, GAGE and Global Tectonics are all my work

# **Office applications**

Every usual softwares (MS Office...), under Windows, Mac, or Linux

# Every drawing and video softwares

# Extensive profile on my website

Illustrator, Photoshop, Premiere, QuarkXpress...

Diverse internal softwares under Unix on Sun or Silicon Graphics computers.

Mapinfo, ArcGis, QGis and other internal platforms

# EMPLOYMENT HISTORY

2023

**External Subject Matter expert in Structural Geology for Cairn India/Vedanta, New Delhi, India** First time interpretation of Mesozoic in Barmer, Sanchor, Cambay and Kutsch Basin, leading to dozens of new prospects.

# Professor in Structural Geology and Tectonics and Geophysics for all exploration managers, for First Quantum Mineral, London.

2022

Global Tectonics website, creation development and promotion

2021

#### GAGE website, creation development and promotion

2020

- Tectonics, Structural Geology Seismic Interpretation teacher/ Sapura OMV, Kuala Lumpur, Malaysia
- Teaching Fault seal, capillary pressure and Structural Geology to the entire exploration team of Sapura OMV in Kuala Lumpur

# **Tectonics, Structural Geology Seismic Interpretation teacher/ Socar, Baku, Azerbaïdjan** Tectonic and structural geology expert for the Caspian Sea

Teaching new techniques in Seismic Interpretation, Structural Geology and Tectonics to the entire exploration team of The State Oil Company of Azerbaïjan Republic

2019

#### Tectonics, structural Geology, Seismic Interpretation Expert/ StaatsOlie, Paramaribo, Suriname

- Expert Interantion Member in the Integrated Guyana Basin Study group (Petroleum Contracts team). Interpreting all seismic data (2D and 3D) acquired in Suriname by Staatsolie and all partners (Exxon, Equinor, Repsol, Petronas, Tullow, Hess, Cairn, Apache, Kosmos, Cepsa, Plus Petrol). Building a basin scale consistent tectonics study. Identifying and ranking all prospects for the authorities.
- As the expert in the Petroleum Contract team (Governmental authority within Staaatsolie). I am the only one (including in StaatsOlie) that has access to all data ever acquired in the

# Extensive profile on my website

Guyana Basin. This evidently allows me to have a better understanding of the evolution of the Guaina basin since the Jurassic, than any company doing exploration in Suriname.

#### 2019-Present

#### **Property Renovator**

I have been using all my spare time over the last 5 years to renovate a 15<sup>th</sup> property in Dordogne.

2008-Present

Tectonics Experts Ltd. CEO, Global

#### 2015-Present

#### GIGA. CEO, Aberdeen, UK

Due to the unprecedented oil price drop, my oil industry activity has been reduced over this period. I have developed new activities in gemology. I am now the CEO of Global Institute of Gemologists Associates (GIGA). Please visit: http://globalgemology.org

#### 2014

# Tectonics and Senior structural Geology Expert/ Fairfield, Aberdeen, UK Group Expert in structural

Geology and Tectonics. North Sea: Skye, Osprey, Dunlin, Darwin

#### Tectonics and Senior structural Geology Expert/ Noble Energy, Houston, USA

Expert in structural Geology and Tectonics Scotia plate and Falklands

#### 2013

#### Tectonics and Senior structural Geology Expert/ EnQuest, Aberdeen, UK

Group Expert in structural Geology and Tectonics. Worldwide.

UK: Don, Thistle, Deveron, Heather, Broom, Osprey. Malaysia: Bambazon

#### 2012-2011

# Tectonics and Senior structural Geology Expert/ Dana-KNOC Group, Aberdeen, UK

#### Group Expert in structural Geology and Tectonics. Worldwide.

Basins studied:Norway:Barents (6 months) and Voring (6 months)Field studied:UK: Banff, Western isles, Pharos, Bittern, Guillemot, Norway: Mandal High,Iraq: Sangaw (KNoc field), Nederland: De Ruyter, Egypt: East Zeit, Mauritania:Pelican, Sierra Leone;Venus, Mercury, Liberia: LB 18-28 Cameroon: N'Gosso (with MOL) Bakassi (with Harvest)

2011-2010

#### Senior structural Geology Expert/ Orion California LP, Bakersfield, USA

Expert in structural Geology and Tectonics. Building of high resolution, 3D static Model. (Petrel 2010.2).

California, San Joachim Basin: South Belridge

#### 2009-2010

#### Senior structural Geologist/ E.On Ruhrgas AS Norge, Stavanger

Expert in structural Geology and Tectonics. 21<sup>st</sup> round, Norway.

Building of a robust 3D structural Model (Petrel). Norway: Voring -Gjallar ridge, Nyk High and Hel Graben

#### Senior structural Geologist/ Shell Europe, Aberdeen

Expert in structural Geology and Tectonics. Shell "Home team" (i.e. Shell Experts team) HPHT adviser. Building, improvement and quality check of every Shell Asset Team static models. Support and training of junior staff. North Sea and Ireland Sea: Bittern, Guillemot, Shearwater, Starling, Puffin, Heron, Egret, Skua, Gannett A, B, C and D, Hermione, Hove, Pierce and Nelson.

#### Extensive profile on my website

#### **CEO, Tectonic Experts Ltd.**

Tectonic Experts Ltd. is a consulting company created to fulfil the needs of the Oil industry in sounding structural geology interpretation.

#### 2008

#### Structural Geology Expert / Excel Expro Norge, Stavanger

Structural geology quality checking of different project, Vøring and Barents Sea. 20<sup>th</sup> round, Norway. Basin studied: **Norway**: **Vøring** and **Barents** 

#### Senior Geologist, Structural Geology Expert / Pebercan, Havana, Cuba

Regional geology studies, Basin analysis, play concept, Fault and seismic interpretation (Petrel).

Basin studied: Cuba: Valparaiso, Colombia: Llanos, Ecuador: Putumayo Peru: Amazon, Argentina: Neuguen.

#### 2007 –2004

#### Structural geologist, tectonicist / Vrije Universiteit Amsterdam, NL

Seismic interpretation and analogue modelling VPM Norway (EuroMargin), International collaboration, Norway, Germany, USA. International meetings Quebec, Australia, Austria, France

Basin modelling, Lofoten, Vøring, Møhre Basins

Seismic interpretation and basin modelling in gravity driven deformation environments South Atlantic conjugates passive margins.

South Atlantic pre-rift series, Kwanza basin, Santos and Campos basins. Reducing exploration risks in pre-rift series. 3D seismic interpretation, gravi-mag and tomography interpretation, analogue modelling. Collaboration with Norsk Hydro Research (Bergen) and Exploration (Oslo).

3D Seismic acquisition on small scale models. Collaboration with TU Delft (Aerospace and Geophysics departments). Development of new geophysical investigation techniques allowing to access 4D stress and strain evolution (3D at any time interval), at lithospheric scale, basin scale and prospect scale. Project Leader.

Student supervision Msc and BSc.

Conferences on salt tectonics and on analogue modelling

#### 2004-2000

### Structural geologist, tectonicist/ Rennes 1 University, FR

Seismic interpretation at Lithospheric scale and Basin scale and analogue modelling Regional studies

CEO, Geodive consulting. Science teacher, Noumea (see tertiary qualifications)

Scuba Diving Instructor and Dive Centre manager, Noumea (see tertiary qualifications)

#### 2000-1997

#### Structural geologist, tectonicist, Seismic Interpreter/ Shell International, Rijswijk, NL

Seismic interpreter (4D, 3D and 2D), Presalt series and salt tectonics, Gabon, Oman, Nigeria and Argentina. Regional and reservoir scale (Landmark, Geoframe, Gocad, Petrel).

#### Extensive profile on my website

Head of the Shell analogue modelling laboratory and core member of the Structural Geology Research Team

Experiments at lithospheric scale and basin scale in extensional and compressional regime. Gravity driven deformation

Structural expert in gravity driven deformation, Geophysical support for Shell National offices Structural expert in

Lithospheric extension, Geophysical support for Shell National offices

Tectonic expert for the Carbonate Development Team. Outcrop studies. Oman, Spain and France. Reservoir fracturation simulation (*Frame*), flow simulation (*MaficOil*) in Oman (gravity driven deformation) and Argentina (compressionalsettings)

Regional stratigraphic and structural interpretation

Seismic interpreter Oman, Nigeria and Argentina. Regional and reservoir scale (Landmark, Geoframe, Gocad, Petrel)

Core member and Extra Mural Research focal point of the Fracture team Trade talks Collaboration with: *Stanford University, Leeds University, Montpellier University, Elf research.* 

Tectonic expert for the Carbonate Development Team 4D, 3D and 2D

Structural restoration (3D move)

Core member of the Fault and top seal team. Statistical investigation for Fault and top seals. New release of Shell softwares. Benchmarking of existing structural geology softwares

Lecturer in Tectonics and structural geology, Extensional, compressional regimes, gravity driven deformation and delta tectonics. Analogue modelling. Several sessions per year. Shell trainings

#### 1997-1996

#### Structural Geologist, Tectonicist, Rennes 1 University

Teaching tectonic and sedimentology to Earth Sciences and Natural Sciences graduate students heading towards a teaching career

Analogue modelling at lithospheric scale and basin scale in extensional and compressional regime.

Basin modeller, gravity driven systems, Brazilian (Campos, Santos Sergipe-Alagoas and African Atlantic margins (Gabon-Congo-Kwanza)

#### 1996-1992

#### Structural Geologist, Tectonicist, Elf and CNRS (Geosciences Rennes), Rennes 1 University.

Seismic interpreter (4D, 3D and 2D), West African Margin, 1992-1997, Elf Nigeria, Elf Congo, Elf Gabon, Elf Angola, Elf Namibia

Analogue modelling in gravity driven deformation regimes

Extensive profile on my website

# EDUCATION AND CREDENTIALS

Doctorate in Earth Sciences - Summa Cum Laude, Rennes University - France

DEA in Earth Sciences, Rennes University - France

Master of Sciences in Earth Sciences, University of West Brittany - France

Bachelor of Sciences in Earth Sciences, Maine University – France

#### Training and Memberships

IFP Training - Sequential Stratigraphy and Log Correlation

AAPG: member since 1996

SGF: (Société Géologique de France): member since 1992

ASF: (Association des Sédimentologues Français): member since 1992

**AGU**: member since 2005 \*\*\*\*\*\*\*\*\*\*

#### **Publications**

Mauduit T. and O. Dauteuil, 1996, Small scale models of Oceanic Transform Faults, Jour. of Geophys. Res. Vol. 101; NO B9, pp 20,195-20,209.

Mauduit T., G. Guerin, J.P. Brun and H. Lecanu, 1997, Raft tectonics: the effects of basal slope and sedimentation rate on progressive extension" Jour. of Struct. Geology. Vol 19, No 9, 1219-1230.

Mauduit T., V. Gaullier, G. Guerin and J. P. Brun, **1997**, On the asymmetry of turtle back growth anticlines, **Mar. and Petrol. Geol**., Vol 14. No 7/8, 763-771.

Mauduit T. and J. P. Brun, 1998, Growth fault/rollover systems: Birth, Growth and Decay,

Jour. of Geophys. Res. Vol. 103, No. B8, 18119-18136.

O. Dauteuil, O. Bourgeois and **T. Mauduit**, **2002**, Lithosphere strength controls oceanic transform zone structure: insights from analogue models. **Geophys. Jour. Int.** Edited by, J.R. Evans (Managing Editor). Vol. 150, 706-714.

Brun J. P. and **T. Mauduit, 2009**, Salt Rollers: Structure and Kinematics from analogue modelling, **Mar. and Petrol. Geology**. Vol. 26, 249-258.

Brun J. P. and **T. Mauduit**, **2008**, Origin of rollovers in salt tectonics, the inadequacy of the listric fault model. **Tectonophysics**. *Vol. 457, 1-11*.

Sokoutis D., G. Corti, M Bonini, J-P. Brun, S. Cloetingh, **T. Mauduit**, P. Manetti, Modelling the extension of heterogeneous hot lithosphere, **2007**, **Tectonophysics**, Vol. 444, 63-79.

#### Extensive profile on my website

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# **TERTIARY QUALIFICATION**

# Other managerial positions

#### GIGA. CEO, Aberdeen, UK 2015-Present

Due to the unprecedented oil price drop, my oil industry activity has been reduced over this period. I have developed new activities in gemology. I am now the CEO of Global Institute of Gemologists Associates (GIGA). Please visit: http://globalgemology.org

### CEO Geodive consulting 2001-2004, www.geodive.com

Geodive consulting was a diving company dealing with public and private sector contractors of all sizes all around the world: industries, municipalities, local and national government agencies and others

Dive Centre manager (Isle of Pine, New Caledonia), 2003-2004

Manager, UCPA white-water canoeing center, France, Summer 1990-1991 Canoë and Kayak

# Other Professional qualifications

Helicopter: Pilot

Scuba Diving: Master Scuba Diving Instructor, PADI MSDT 465984

Canoe-Kayak: Instructor

Trekking: Guide

Yachting: High sea pilot

Photography: http://thomasm.photo

# Sport activities

Scuba Diving: Instructor Level 2 (Master Scuba Diver Trainer), Nitrox Instructor; rescue diver and rebreather diver

2001: Instructor for open water divers.14 divers trained, 80 intro dives, 200 dives.2002: Instructor for dive masters and rescue divers. 58 divers trained, 170 intro dives, 350 dives

Swimming, motorbike riding, tennis, squash, photographer and drone pilot

# Languages

French, English, Spanish, Portuguese, German, Dutch, and Italian.

Extensive profile on my website