

# Edward Clennett

Jackson School of Geosciences & Institute for Geophysics, The University of Texas, Austin, TX, USA

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## Education

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- 2020-2025 **University of Texas at Austin**, Jackson School of Geosciences & Institute for Geophysics **PhD**, Geological Sciences. Current GPA: 4.00.
- Awarded a Fulbright Scholarship to support my studies in the USA.
  - Proposed PhD thesis: “*Plate Motion and Continental Deformation Through Time: Insights from Plate Driving Force Calculations*”. Supervised by Thorsten Becker.
  - Methods include: *GPlates* plate modelling, python coding, Linux/Unix scripting, synthesis of geological data, ArcGIS, and numerical inverse methods in FEniCS.
  - Looking at the Arabia-Eurasia collision and Hawaiian-Emperor Bend as case studies.
- 2015-2019 **University of Oxford**, Exeter College & Department of Earth Sciences **MEarthSci**, Earth Sciences. Classification: First class.
- MEarthSci thesis: “*A Quantitative Tomotectonic Plate Reconstruction of Western North America and the Eastern Pacific Basin*”. Supervised by Karin Sigloch. Placed 1<sup>st</sup> in year, grade: 1<sup>st</sup> class.
  - BA Extended essay: “*The relative importance of static and dynamic stress changes in triggering aftershocks*”. Advised by Jessica Hawthorne. Grade: 1<sup>st</sup> class.
  - BA Independent mapping project: “*Geology of Kekerengu, South Island, New Zealand*”. Grade: 1<sup>st</sup> class.
- 2008-2015 **Reading School**  
A Levels: Mathematics A\*, Further Mathematics A\*, Chemistry A\*, Physics A\*, Geography A.  
GCSEs: 9 A\*s, 2 As and FSMQ: Additional Maths – A.

## Professional Experience

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- 2022-Present *Teaching Assistant*, Jackson School of Geosciences, The University of Texas at Austin.  
2019-2020 *Researcher*, Department of Earth Sciences, University of Oxford.  
08-09/2019 *Scientist*, RV Investigator, CSIRO Marine National Facility/University of Sydney.  
11-12/2018 *Visiting Research Student*, EarthByte Group, School of Geosciences, University of Sydney.  
07-08/2018 *Scientific Research Intern*, National Institute of Space Research, Brazil.  
2016-2018 *Volunteer*, Oxford University Museum of Natural History.

## Awards and Grants

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- 10/2022 **1<sup>st</sup> place, SEG Challenge Bowl World Finals** – \$1000 prize for winning first place in the international competition as part of a two-person team, and personally got the highest individual score out of everyone in the competition (30 competitors/15 teams).
- 04/2022 **1<sup>st</sup> place, SEG Gulf Coast Challenge Bowl** – \$1000 prize for winning first place in the Society of Exploration Geophysicists regional quiz.
- 2021-2022 **Graduate Fellowship** – \$51,281 scholarship to cover tuition, insurance and salary from the Jackson School of Geosciences, University of Texas.
- 2021 **Top Downloaded Paper Award, Geochemistry, Geophysics, Geosystems**: awarded for writing a paper downloaded at the top 10% rate during 2020-2021 (Clennett et al., 2020).
- 2020-2021 **Fulbright All Disciplines Postgraduate Award** – \$45,000 scholarship awarded by the US-UK Fulbright Commission to support postgraduate study in the USA.
- 07/2020 **Second Prize, Halliburton Landmark Earth Model Award** – Global industry-recognized award for master’s geoscience projects.
- 02/2020 **UKOGL Prize** – awarded by the Geologists’ Association, for an outstanding UK master’s thesis.
- 06/2019 **BP Prize for Best Master’s Project** – awarded by the Department of Earth Sciences, Oxford.
- 06/2019 **Fitzgerald Prize** – awarded by Exeter College, Oxford, for achieving a 1<sup>st</sup> class honours degree.
- 12/2018 **University of Sydney Prize for Best Seminar on Natural Hazards** – at the Geological Society of Australia Earth Science Student Symposium New South Wales 2018 Conference.
- 11/2018 **Burdett-Coutts fund** – travel grant awarded by the Department of Earth Sciences, Oxford, to support a research visit to the University of Sydney.
- 07/2018 **BP Scholarship** – to fund an internship at the National Institute of Space Research, Brazil.

- 06/2018 **AWE prize in Geophysics** – awarded by the Department of Earth Sciences, for best 3<sup>rd</sup> year performance in Geophysics and Mathematics.
- 07/2017 **Oxford University Expeditions Council** – grant to support fieldwork in Kekerengu, New Zealand.
- 07/2017 **Gilchrist Educational Trust** – grant to support fieldwork in Kekerengu, New Zealand.
- 07/2017 **Exeter College Academic Grant** – to support fieldwork in Kekerengu, New Zealand.
- 07/2017 **Department of Earth Sciences Travel Grant** – to support fieldwork in Kekerengu, New Zealand.
- 2017-2019 **East Scholarship** – Exeter College, Oxford, for 1<sup>st</sup> class marks in 2<sup>nd</sup> & 3<sup>rd</sup> year examinations.
- 2016-2017 **East Exhibition** – Exeter College, Oxford, for excellent performance in 1<sup>st</sup> year examinations.
- 08/2013 **Silver Medal, 2013 International Geography Olympiad, Kyoto** – placed 23<sup>rd</sup> out of 126.
- 05/2012 **1<sup>st</sup> place, Geographical Association Worldwide Challenge** – captain of a team of 3.

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## Teaching Experience

- Fall 2022 *GEO 416K Earth Materials, University of Texas at Austin* (Teaching Assistant).
- Michaelmas 2019 *GPlates Short Course, University of Oxford* (Tutor).
- Michaelmas 2019 *3<sup>rd</sup> Year Vector Calculus, University of Oxford* (Tutor).
- Hilary 2017 *Snowdonia Field Trip, Oxford University Geological Society* (Field Trip Leader).

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## Service and Outreach

- 2022-Present *Organizer, UTIG Discussion Hour, Institute for Geophysics, UT Austin.*
- 2022-Present *Co-organizer, Brewinar Discussion Group, Institute for Geophysics, UT Austin.*
- 2022 *Session Chair, Master's Saturday, Jackson School of Geosciences, UT Austin.*
- 2021-2022 *Treasurer, Texas Geophysical Society, Jackson School of Geosciences, UT Austin.*
- 2021 *Reviewer, National Science Foundation (NSF) Tectonics program.*
- 2019 *Convenor, Oxford University Earth Sciences 4th Year Mini-Conference.*
- 2016-2018 *Volunteer, Oxford University Museum of Natural History.*
- 2016-2019 *Student Ambassador, University of Oxford.*

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## Student Advising

### **Undergraduate Students:**

- 2022 Jada Nimblett, *UT Austin JSG RTX Program. Co-advised with E. Conrad.*

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## Fieldwork

Field experience in: *Western Alps* (structural geology and tectonics), *Coral Sea* (marine geology & geophysics), *Greece* (active tectonics), *Almería* (basin evolution), *Kekerengu* (independent mapping project), *Assynt* (metamorphic petrology and structural geology), *Snowdonia* (geology – field trip leader), *Dorset* (sedimentary geology and palaeontology), *Oxfordshire* (sedimentary geology), *Gloucestershire* (sedimentary geology), *Arran* (geology), *Pembrokeshire* (geology; fluvial geography), *Surrey* (fluvial geography), *Kyoto* (geography) and the *English Lake District* (geography).

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## Publications

**Clennett, E. J.**, Sigloch, K., Mihalynuk, M. G., Seton, M., Henderson, M. A., Hosseini, K., Mohammadzaheri, A., Johnston, S. T., & Müller, R. D. (2020) A Quantitative Tomotectonic Plate Reconstruction of Western North America and the Eastern Pacific Basin. *Geochemistry, Geophysics, Geosystems*, 21, e2020GC009117. <https://doi.org/10.1029/2020GC009117>

*In Prep:* **Clennett, E. J.**, Holt, A. F., Tetley, M. G, Becker, T. W., & Faccenna, C. Assessing Plate Reconstruction Models using Plate Driving Forces. *In prep for submission to Earth and Planetary Science Letters.*

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## Science Articles

Chui, F., **Clennett, E. J.**, Orth, K., & Marrison, M. (2019) Keeping it plutonic with underwater hot rocks. *CSIROscope blog*. <https://blog.csiro.au/underwater-rocks-coral-sea/>

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## Conference Presentations

**Clennett, E. J.**, Becker, T. W., Holt, A. F., Tetley, M. G., & Faccenna, C. (2022) Investigating Plate Driving Forces in Plate Reconstruction Models using pyGPlates. Presented at Jackson School of Geosciences Research Symposium 2022, Austin, TX, 26 Mar.

**Clennett, E. J.**, Becker, T. W., Holt, A. F., Tetley, M. G., & Faccenna, C. (2021) Investigating Plate Driving Forces in Plate Reconstruction Models using pyGPlates, Abstract G25C-0379. Presented at 2021 Fall Meeting, AGU, New Orleans, LA, 13-17 Dec.

**Clennett, E. J.**, Becker, T. W., Tetley, M. G., Holt, A. F., & Faccenna, C. (2021) On the Consistency of Plate Driving Forces in Plate Reconstructions. Presented at Jackson School of Geosciences Research Symposium 2021, Austin, TX, 6 Mar.

Sigloch, K., **Clennett, E.**, Mihalynuk, M. G., Seton, M., Henderson, M. A., Hosseini, K., Mohammadzaheri, A., Johnston, S. T., & Müller, R. D. (2020) Tomotectonic Reconstruction of Cordilleran North America and the Eastern Proto-Pacific, Abstract T050-01. Presented at 2020 Fall Meeting, AGU, San Francisco, CA, 7-11 Dec. **[INVITED]**

**Clennett, E.**, Sigloch, K., Mihalynuk, M., Seton, M., Henderson, M., Hosseini, K., Mohammadzaheri, A., Johnston, S., & Müller, D. (2020) Reconstructing western North America using lower mantle slabs. Presented at the Mini-Workshop on Feedbacks Between Mantle Composition, Structure, and Evolution, 14-16 Sep.

**Clennett, E. J.**, Sigloch, K., Mihalynuk, M. G., Seton, M., & Müller, R. D. (2019) A Quantitative Tomotectonic Plate Reconstruction of Western North America and the Eastern Pacific Basin, Abstract T33C-04. Presented at 2019 Fall Meeting, AGU, San Francisco, CA, 9-13 Dec.

**Clennett, E. J.** & Naccarato, K. P. (2018) Electrostatic field patterns produced by ordinary and severe storms in the region of Campinas. Presented at GESSS NSW 2018, Sydney, NSW, 3-4 Dec. **[INVITED]**

## Departmental Seminars

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10/2022	UTIG Discussion Hour Seminar, University of Texas at Austin.
04/2022	UTIG Discussion Hour Seminar, University of Texas at Austin.
12/2021	LDE Seminar, Jackson School of Geosciences, University of Texas at Austin.
06/2021	Pirate Seminar, Department of Sciences, Roma Tre University.

## Professional Memberships & Societies

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2022-present	Seismological Society of America – Member
2021-present	Texas Geophysical Society – Member, Treasurer (2021-2022)
2020-present	Geologists' Association – Member
2019-present	American Geophysical Union – Student member
2017-present	Institute of Materials, Minerals and Mining – Young member
2015-present	Oxford University Geological Society – Member, field trip representative (2016-2017)