

Daniel Imrecke

EDUCATION

Ph.D. Geology, University of Houston, Advisor: Alexander Robinson, December 2013

M.S. Geology, University of Houston, Advisor: Alexander Robinson, August 2010

B.S. Geology, (Minor – Biology), Stephen F. Austin State University, December 2007

RESEARCH INTERESTS

Structural Geology

Regional Tectonics

Metamorphic Petrology

Zircon U-Pb geochronology

RESEARCH EXPERIENCE

Ph.D. Dissertation: Tectonic evolution of the Waqia Valley and the Southeast Pamir

- I address several fundamental problems relating to the Cenozoic and Mesozoic tectonic evolution of the Southeast Pamir using U-Pb (zircon) geochronology, metamorphic petrology, microtectonic analysis, and results from structural field mapping. Our results are expected to 1) explain synorogenic extension in the Waqia Valley, 2) document the deformational history of Cenozoic and Mesozoic structures units, and 3) provide a more coherent understanding of the tectonic relationships in the Pamir.

Master's Thesis: The Chalk Draw Fault of Trans-Pecos Texas: An investigation into the structure and style of deformation as a result of extension

- I conducted structural field mapping with an emphasis on the collection of fault and fracture data to evaluate the kinematic history of the Chalk Draw Fault in west Texas. The results suggest the fault geometry was strongly influenced by the presence of pre-existing fracture networks and provide important implications in the relationship of pre-existing faults and fracture networks.

FIELD WORK

-West Texas (2008-2013)

-Montana (2008, 2013)

-Chinese Pamir (2010, 2011)

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WORK EXPERIENCE

Geology Instructor at Lonestar College – University Park – Aug. 2013-present

Graduate Teaching/Research Assistant at University of Houston – Jan. 2008 – August 2013

Geology Intern at Marathon Oil – Summer 2012

Geology Intern at Noble Energy – Summer 2009

PUBLICATIONS

Lewis A. Owen, Jie Chen, Kathryn A. Hedrick, Marc W. Caffee, Alexander C. Robinson, Lindsay M. Schoenbohm, Zhaode Yuan, Wenqiao Li, **Daniel B. Imrecke**, Jinfeng Liu. 2012. *Quaternary glaciation of the Tashkurgan Valley, Southeast Pamir*, Quaternary Science Reviews, Volume 47, Pages 56-72

PUBLICATIONS IN SUBMISSION

Imrecke, D.B., Robinson, A.C., Murphy, M.A., (*in submission*), *Kinematic evolution of the eastern Chalk Draw Fault during Basin and Range Extension.*

Robinson, A.C., Lewis A. Owen, Jie Chen, Lindsay M. Schoenbohm, Kathryn A. Hedrick, **Daniel B. Imrecke**, Wenqiao Li, Zahode Yuan. (*Submitted – Geology*). *No late Quaternary strike-slip motion on the northern Karakoram Fault.*

PUBLICATIONS IN PREPARATION

Imrecke, D.B., A.C. Robinson, T. Lapen. (*in preparation*). *Terrane correlation in the southeast Pamir.*

Imrecke, D.B., A.C. Robinson, M.A. Murphy, W. Li, Z. Yuan, K. Hedrick, L. Owen, L. Schoenbohm. (*in preparation*). *Neogene structural geology of the southeast Pamir: Implications for the tectonic evolution of the Pamir.*

PRESENTATIONS

Imrecke, Daniel, Alexander C. Robinson, Thomas J. Lapen, Chen Jie, Wenqiao Li, Xiaodong Yang, Zhaode Yuan. (2012). *Lithologic Correlations across the Eastern North Pamir Suggest Regionally Extensive Thrust Nappe*. AGU Annual Meeting

Imrecke, Daniel, Robinson, A.C., Chen, J., Li, W., Hedrick, K., Owen, L., Zahode, Y., Schoenbohm, L., Xiaodong, Y. 2011. *The Margin of a Gneiss Dome: Development of the Waqia Half-Graben, Southeast Pamir*. AGU Annual Meeting. Abstract #T43F-2449

Imrecke, Daniel, Robinson, A. C., Chen, J., Schoenbohm, L. M., Wenqiao, L., Zhaode, Y., Xiaodong, Y., Owen, L. A., Hedrick, K. 2010. *Neogene Basin Development in the Waqia Valley, Southeast Pamir*. AGU Annual Meeting, abstract #T43C-2239

Robinson, A.C., **Imrecke, D.B.**, Heizler, M., Ji, C., Wenqiao, L., Xiaodong, Y., Zhaode, Y., 2010, *Miocene West Directed Back Thrusting in the Southeast Pamir, China*. AGU Fall Meeting.

Imrecke, Daniel, Robinson, A. C, Murphy, M.. 2010. *Control By Pre-Existing Structures on the Southeast Directed Propagation and Termination of the Chalk Draw Fault, Trans-Pecos Texas*. GSA Annual Meeting

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GRADUATE COURSES

- 3D Seismic Interpretation
- Geodynamics
- Latin American Tectonics and Sedimentary Basins
- Isotope Geochemistry
- Advanced Structural Geology
- Terrigenous Depositional Systems
- Sequence Stratigraphy
- Plate Tectonics
- GIS for Geologists
- Metamorphic Petrology
- Microtectonics
- Sedimentary Petrogenesis
- Petroleum Systems Analysis

RELEVANT SKILLS

- Structural Geology
- Geological Mapping
- Zircon U-Pb isotope geochemistry
- Metamorphic Petrology
- Adobe Illustrator CS3 (3 years experience)
- ArcGIS (3 years experience)
- SMT (<1 year experience)
- Seisworks (<1 year experience)
- Midland Valley move®

HONORS AND AWARDS

- Houston Geological Society Outstanding Student - 2007
- Shreveport Geological Society Scholarship (\$2,000) - 2006, 2011
- Mark Hess Memorial Scholarship (\$500) - 2006
- Martin and Mary Jane Deuth Scholarship (\$5,000) - 2006
- Frank and Eva Hood Goldsberry Scholarship (\$300) - 2007
- Desk and Derrick Club of Dallas Scholarship (\$1,000) - 2007
- Graduated Magna Cum Laude (SFASU)
- Chevron Scholarship (\$1,000) - 2009
- Marathon Scholarship (\$1,000, \$2,500) - 2010, 2011, 2012
- Newfield Scholarship (\$1,000) - 2011
- Outstanding Field Geology (University of Houston Geosciences Department) - 2011
- Gorman Family Scholarship (Sigma Alpha Mu) (\$1,000) - 2011
- Crawford and Hattie Jackson Scholarship (\$5000) - 2011
- Marathon Scholarship (\$2,500) - 2012
- BP Academic Scholarship (\$4,000) - 2013

ORGANIZATIONS

- Geological Society of America
- American Geophysical Union
- American Association of Petroleum Geologists
- Houston Geological Society