

## Selected Publications:

- Cloos, M.**, Sapiie, B., Quarles van Ufford, A., Weiland, R. J., Warren, P. Q, and McMahon, T. P., 2005, Collisional delamination in New Guinea: The geotectonics of subducting slab breakoff: Geological Society of America Special Paper 400, 48 pp.
- Quarles van Ufford, A., and **Cloos, M.**, 2005, Cenozoic tectonics of New Guinea: American Association of Petroleum Geologists Bulletin, v. 89, p. 119-140.
- Paterson, J. T., and **Cloos, M.**, 2005, Grasberg Porphyry Cu-Au Deposit, Papua, Indonesia: 2. Pervasive Hydrothermal Alteration: *in* Porter, T. M., ed., Super Porphyry Copper and Gold Deposits: A Global Perspective, PGC Publishing, Adelaide, p.303-319.
- Paterson, J. T., and **Cloos, M.**, 2005, Grasberg Porphyry Cu-Au Deposit, Papua, Indonesia: 1. Magmatic History: *in* Porter, T. M., ed., Super Porphyry Copper and Gold Deposits: A Global Perspective, PGC Publishing, Adelaide, p. 321-345.
- Sapiie, B., and **Cloos, M.**, 2004, Strike-slip faulting in the core of the Central Range of west New Guinea: Ertsberg Mining District, Indonesia: Geological Society of America Bulletin, v. 116, p. 277-293.
- Cloos, M.**, 2001, Bubbling magma chambers, cupolas, and porphyry copper deposits: International Geology Review, v. 43, p. 285-311.
- Sapiie, B., Natawidjaya, D. H., and **Cloos, M.**, 1999, Strike-slip tectonics of New Guinea: Transform motion between the Caroline and Australian plates: *in* Developments in Indonesian Tectonics and Structural Geology, I. Busono and H. Alam, eds., Proceedings of Indonesian Association of Geologists - Volume I. The 28th Annual Convention, Jakarta, Indonesia, 30 November - 1 December 1999 p. 1-15.
- Weiland, R. J., and **Cloos, M.**, 1996, Pliocene-Pleistocene asymmetric unroofing of the Irian fold belt, Irian Jaya, Indonesia: Apatite fission-track thermochronology: Geological Society of America Bulletin, v. 108, p. 1438-1449.
- McDowell, F. W., McMahon, T. P., Warren, P. Q., and **Cloos, M.**, 1996, Pliocene Cu-Au-bearing igneous intrusions of the Gunung Bijih (Ertsberg) district, Irian Jaya, Indonesia: K-Ar geochronology: Journal of Geology, v. 104, p. 327-340.

- Cloos, M.**, and Shreve, R. L., 1996, Shear zone thickness and the seismicity of Chilean- and Mariana-type subduction zones: *Geology*, v. 24, p. 107-110.
- Cloos, M.**, 1993, Lithospheric buoyancy and collisional orogenesis: Subduction of oceanic plateaus, continental margins, island arcs, spreading ridges, and seamounts: *Geological Society of America Bulletin*, v. 105, p. 715-737.
- Cloos, M.**, 1992, Thrust-type subduction zone earthquakes and seamount asperities: A physical model for seismic rupture: *Geology*, v. 20, p. 601-604.
- Cloos, M.**, and Shreve, R. L., 1988, Subduction-channel model of prism accretion, melange formation, sediment subduction, and subduction erosion at convergent plate margins: 1. Background and description: *Pure and Applied Geophysics*, v. 128, p. 455-500.
- Cloos, M.**, and Shreve, R. L., 1988, Subduction-channel model of prism accretion, melange formation, sediment subduction, and subduction erosion at convergent plate margins: 2. Implications and discussion: *Pure and Applied Geophysics*, v. 128, p. 501-545.
- Shreve, R. L., and **Cloos, M.**, 1986, Dynamics of sediment subduction, melange formation, and prism accretion: *Journal of Geophysical Research*, v. 91, p. 10,229-10,245.
- Cloos, M.**, 1986, Blueschists in the Franciscan subduction complex of California: Petrotectonic constraints on uplift mechanisms: *Geological Society of America Memoir* 164, p. 77-94.
- Cloos, M.**, 1985, Thermal evolution of convergent plate margins: Thermal modeling and re-evaluation of isotopic Ar-ages for blueschists in the Franciscan complex of California: *Tectonics*, v. 4, p. 421-433.
- Becker, D. G., and **Cloos, M.**, 1985, Melange diapirs into the Cambria Slab, a Franciscan trench slope basin near Cambria California: *Journal of Geology*, v. 93, p. 101-111.
- Cloos, M.**, 1984, Landward dipping reflectors in accretionary wedges: Active dewatering conduits?: *Geology*, v. 12, p. 519-522.
- Cloos, M.**, 1984, Flow melanges and the structural evolution of accretionary wedges: *Geological Society of America Special Paper* 198, p. 71-79.
- Cloos, M.**, 1983, Comparative study of melange matrix and metashales from the Franciscan subduction complex with the basal Great Valley sequence,

California: Journal of Geology, v. 91, p. 291-306.

**Cloos, M.**, 1982, Flow melanges: Numerical modeling and geologic constraints on their origin in the Franciscan subduction complex, California: Geological Society of America Bulletin, v. 93, p. 330-345.

## **Graduate Student Dissertations and Theses Supervised**

### **Ph.D. Dissertation Supervisor:**

Brook C. D. Riley, Laramide exhumation and heating in southeastern Arizona: Low-temperature thermal history and implications for zircon fission-track systematics: May, 2004

Richard J. Weiland, Emplacement of the Irian Ophiolite and unroofing of the Ruffaer Metamorphic Belt of Irian Jaya, Indonesia: May, 1999

Benyamin Sapiie, Strike-slip faulting, breccia formation and porphyry Cu-Au mineralization in the Gunung Bijih (Ertsberg) Mining District Area, Irian Jaya, Indonesia: May, 1998

Eric C. Beam, Tectonothermal effects of mid- and upper-crustal magmatism: August, 1996

Andrew I. Quarles van Ufford, Stratigraphy, structural geology, and tectonics of a young forearc-continent collision, western Central Range, Irian Jaya (western New Guinea), Indonesia: May, 1996

Richard A. Ketcham, Distribution of heat production in two metamorphic core complexes, Basin and Range Province, Arizona: Quantitative constraints on models of regional thermal structure: May, 1995

Timothy P. McMahon, Pliocene intrusions in the Ertsberg (Gunung Bijih) mining district, Irian Jaya, Indonesia: Petrography, geochemistry, and tectonic setting, August, 1994

Leslie A. White (Wahrmund), Thermal history of the Western Transverse Ranges and surrounding region, southern California, based upon apatite fission track analysis, May, 1992

K. Denise Apperson, 1. Tectonic stress fields and shallow seismicity at convergent plate margins. 2. Mechanical models of compressional fault-

related folds, May, 1992

Jeffrey D. Corrigan, On apatite fission-track analysis and heat transfer processes in the upper crust: 1. Himalayan cooling and heat transfer through the central Indian Ocean crust: Constraints from apatite fission-track analysis of distal Bengal Fan sediments; 2. Thermal anomalies in the central Indian Ocean: Evidence for dewatering of the Bengal Fan; 3. Inversion of apatite fission-track data for thermal history information; 4. Apatite fission-track analysis of Oligocene strata, south Texas Coastal Plain, December, 1990

**Ph.D. Dissertation Co-Supervisor:**

Stefan S. Boettcher, (co-supervisor with S. Mosher) Crustal shortening, extension, and unroofing in the Dome Rock Mountains, Arizona, December, 1996.

Scott D. Davis, (co-supervisor with C. Frohlich) Investigations concerning the nature of earthquake aftershocks and earthquakes induced by fluid injection: December, 1989

**M.S./M.A. Thesis Supervisor:**

John J. Perri,, Structural analysis of the Pickett Peak Terrane near the Coast Range Fault and its tectonic implications, Eastern Franciscan Belt, northern California: December, 2005

Charles H. Gregory, Structural geology and mineralization at the Big Gossan Cu-Au orebody, Irian Jaya, Indonesia: December, 2004

John T. Paterson, Magmatic and pervasive hydrothermal mineralogy of the Grasberg Cu-Au porphyry deposit (west New Guinea): May, 2004

Daniel F. Harrington, Deformation of blocks and matrix in Franciscan melange, San Simeon, California: Implications for melange genesis; December, 2001

- Kirk Chatawanich, Structural geology of the Pacheco Pass area, Diablo Range, California: Exhumation of a coherent blueschist terrane in the Franciscan Subduction Complex; May, 2001
- Brian D. Knight, Thermal, chemical and strain analysis of a granitic tectonite from the western Salinian block, Monterey County, California, May, 2001
- Cori A. Lambert, Subsurface meso-scale structural geology of the Kucing Liar and Amole Drifts and petrology of the heavy sulfide zone, South Grasberg Igneous Complex, Irian Jaya, Indonesia, May, 2000
- Roy B. Luck, Structural geology of the Grasberg Lime Quarry and Amole Drift: Implications for the emplacement of the Grasberg Igneous Complex, Irian Jaya, Indonesia, August 1999
- Sarah C. Penniston-Dorland, Veins and alteration envelopes in the Grasberg igneous complex, Gunung Bijih (Ertsberg) District, Irian Jaya, Indonesia; December, 1997
- Monika S. Bartelmann, Spatial and temporal variability in soil moisture on a hill-slope: Rattlesnake Hill, Austin, TX; December 1997
- Paul Q. Warren, Petrology, structure and tectonics of the Ruffaer Metamorphic Belt, west-central Irian Jaya, Indonesia; August, 1995
- Glenn A. Klimchuk, Provenance and depositional setting of the Pliocene Era Formation, Aure fold and thrust belt, Papua New Guinea; December, 1993
- Richard J. Weiland, Plio-Pleistocene unroofing of the Irian fold-and-thrust belt south of the Gunung Bijih (Ertsberg) mining district, Irian Jaya, Indonesia: Apatite fission-track thermochronology, May, 1993
- Arten Avakian, Structural geology of the Hermit Creek area of the northern Last Chance Range, east-central California: Faults of the Mesozoic Last Chance Thrust reinterpreted as Cenozoic normal faults, December, 1989
- William B. Copeland, Structural and metamorphic constraints on fault displacement between coherent blueschist terranes near Ball Mountain, Eastern Belt, Franciscan Complex, northern California, August, 1988
- Trevor A. Dumitru, Plate tectonic controls on time-varying geothermal gradients in the Great Valley forearc basin, California: Fission track analysis and computer modeling; August, 1986
- Erik K. Davidsen, Petrology and structure of greenstone blocks encased in

Franciscan mud-matrix melange near San Simeon, California; May, 1986

Leslie E. Mashburn, Mineralized veins in the Franciscan melange and Cambria Slab trench-slope basin near San Simeon, California: A fluid inclusion analysis with implications for dewatering subducting and accreted sediments; May, 1986

Karen L. Herrington, Metamorphism, deformation and metasomatic alteration of an eclogite block in the Franciscan subduction complex near Mt. Hamilton, central Diablo Range, California; December, 1985

Kenneth D. Vogel, Deformation in the lower Great Valley sequence: The Paskenta Fault Zone of northern California; May, 1985

Susan L. Wygant-Young, Structural history of the Jordan Creek Area, northern Madison Range, Madison County, Montana; May, 1985

Barbara A. Luneau, Deformation and sedimentology of the Cambria Slab: A Franciscan trench-slope basin; December, 1984

Joel D. Schneyer, Geology of the Leppy Hills area, southern Silver Island Mountains, near Wendover, Utah; May, 1984

**M.S./M.A. Thesis Co-Supervisor:**

Richard E. Kilby, (co-supervise with M. Jackson), Thrust kinematics in the lower Congo Basin, deepwater southern Gabon, May, 2005.

Khib A. Kugler (co-supervisor with R. T. Buffler), Seismic structure and stratigraphy within the Aure fold and thrust belt, Gulf of Papua, Papua New Guinea, December 1993

Christoph E. Heubeck (co-supervisor with P. Mann), Geology of the southeastern termination of the Cordillera Central, south-central Hispaniola, Dominican Republic, August, 1988

Jeffrey D. Corrigan (co-supervisor with P. Mann), Uplift of the Burica Peninsula, Costa Rica; December, 1986 [Ph. D., University of Texas at Austin]

Clinton Cagle (co-supervisor with J. Austin), Seismic stratigraphy of the central Tonga Arc, southwest Pacific; August, 1986

## **Undergraduate Honors Theses Supervised**

John S. Larkin, Geology of the Weyland overthrust, Enarotali Map Sheet (1:125,000), western Irian Jaya, Indonesia: New Petrology and K/Ar ages, May, 2003

Petro K. Papazis, Cathodoluminescence imaging of veins in metasediments of the Franciscan Complex, Pacheco Pass, California: May, 2003

Christie M. Rogers, Jointing in the Gorman Falls Area and its relation to Gorman Spring, Colorado Bend State Park, San Saba County, Texas; December, 1997

Amy E. Gray, Petrology of the Ruffaer Metamorphic Belt, Rotanbrug map sheet (1:125,000), central Irian Jaya, Indonesia; December, 1995

Jennifer L. Bishop, Heavy mineral analysis of sandstones from the Era and Chira Formation of southeastern Papua New Guinea: Source terranes and diagenesis; May, 1993

Phillip G. Barnes, Geology of the Spring Creek Area, Inks Lake State Park, Burnet County, Texas; March, 1987

Michael McLeod, Petrographic and structural study of the Buchanan Joint Venture, Burnet County, Texas; December, 1986

Susan Roberts, Sediment provenance by fission track dating of detrital zircons, Great Valley sequence (Late Mesozoic), California; May, 1985

David L. Work, The Kirschberg collapse complex, Edwards Group: A study of three roadcuts along Interstate-10 in the southwest corner of Gillespie County, Texas; December, 1984

Mark Martin, Field and petrographic study of the Pico Creek ophiolite, San Simeon, California; May, 1984

Laurence Page, Conglomerates in Franciscan mud-matrix melange near San Simeon, California; May, 1984

David Becker, Geology of the Abalone Cove area and melange diapirism in the Cambria Slab, Cambria, California; May, 1984

Clayton Wilson, Mass movement and Balcones faulting in the Texas Hill Country State Natural Area; May, 1983

Erik K. Davidsen, Greenstone blocks in Franciscan melange near San Simeon, California; May, 1983.

James A. Kalinec, Structural geology and petrology of the San Simeon Ophiolite, San Simeon, California; December, 1982