

CURRICULUM VITA

ERIC R. SWANSON

CURRENT ADDRESS:

Department of Geological Sciences
The University of Texas at San Antonio
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ACADEMIC TRAINING

Ph.D. – 1977 – The University of Texas at Austin
M.A. – 1974 – The University of Texas at Austin
B.S. – 1968 – Western Michigan University, Kalamazoo, MI

AREAS OF EXPERTISE

Geology of the Sierra Madre Occidental, Mexico and the history its study, geo-science writing, ignimbrite stratigraphy and silicic calderas

UNIVERSITY POSITIONS

September 1979 to present: Assistant Professor to Professor, Division of Earth & Physical Sciences, Department of Earth and Environmental Sciences, now called Department of Geological Sciences, UTSA, San Antonio, TX
September 1999 to September 2000: Interim Director, Division of Earth & Physical Sciences, UTSA, San Antonio, TX
September 1976 to September 1979: Assistant Professor, Geology Department, Wayne State University, Detroit, Mi

SCHOLARLY WORK

BOOKS

Swanson, E. R., in prep., *The Third Planet: Its History and Ours*
Swanson, E. R., 1995, *Geo-Texas: A Guide to the Earth Sciences*: Texas A&M University Press, College Station, Texas, (Currently in fourth printing), 208 p.

CHAPTERS IN BOOKS

Swanson, E. R., 1998, Anatomy of a Volcano: An Example of the Nature of Geological Inquiry, in *Modes of Inquiry: Voices of Scholars Across the Fields of Study*, Martinello, Cook, and Woodson (eds.), Alliance Press, Carrollton, Tx. p. 117-122. (Revised Edition published in 1999)
Muehlberger, W. R., Gucwa, P. A., Ritchie, A. W., and Swanson, E. R., 1977, Global Tectonics: Some Geologic Analyses of Observations and Photographs from Skylab, in *Skylab Explores the Earth*, NASA Special Publication 380, 527 p.

REFEERED JOURNAL ARTICLES & SCIENCE ENCYCLOPEDIA ENTRIES

Swanson, E.R., in prep., History of Field Studies and Field Observations on Volcanic Rocks of the Sierra Madre Occidental and Adjacent Regions of Northwestern Mexico, 30 manuscript pages
Swanson, E.R., Kempter, K., McDowell, F., McIntosh, W. C., 2006, Major Ignimbrites and Volcanic Centers of the Copper Canyon Area: A View Into the Core of Mexico's Sierra Madre Occidental, Geological Society of America - GeoSphere, v. 2, no. 3 p. 125-141.
Swanson, E. R., 2001, 1815: Tambora: in Natural Disasters, Marlene Bradford (ed.) Salem Press Inc., p. 897-899

- Swanson, E. R., 1995**, Precious Metals: *in Gale Encyclopedia of Science*, Gale Research Inc. Detroit, MI, p. 2912–2915.
- Swanson, E. R., 1995**, Ore: *in Gale Encyclopedia of Science*, Gale Research Inc. Detroit, MI, p. 2616–2619.
- Swanson, E. R., 1993**, The science teacher's travel guide to Texas: The Texas Science Teacher, Science Teachers Association of Texas Journal, v. 22, no. 2, p. 2–9.
- Swanson, E. R., 1992**, A new type of maar volcano from the state of Durango – The El Jagüey–La Brena complex reinterpreted; A reply: *Revista del Instituto de Geología, Universidad Autónoma de México*, v. 9, no. 2, p.211–215.
- Swanson, E. R., 1992**, Texas Geology part IV: Natural resources of Texas: The Texas Science Teacher, Sci. Teachers Assoc. of Tx. Journal, v. 21, no. 2, p. 2–6.
- Swanson, E. R., 1992**, Texas Geology part III: Hazardous surface processes: The Texas Science Teacher, Sci. Teachers Assoc. of Tx. Journal, v. 21, no. 1, p. 2–6.
- Swanson, E. R., 1991**, Texas Geology part II: Geologic violence - volcanoes, earthquakes, meteorite craters: The Texas Science Teacher, Sci. Teachers Assoc. of Tx. Journal, v.20, no. 4. p. 2–6.
- Swanson, E. R., 1991**, Texas Geology part I: Introduction and geologic history: The Texas Science Teacher, Science Teachers Association of Texas Journal, v. 20, no. 3, p. 2–6.
- Swanson, E. R., 1990**, Platinum Group Metals: *in Magill's Survey of Science, Earth Science Series*, Salem Press Inc., Pasadena, California, p.2086–2093.
- Swanson, E. R., 1990**, Volcanoes: Calderas: *in Magill's Survey of Science, Earth Science Series*, Salem Press Inc., Pasadena, California, p.2086–2093.
- Swanson, E. R., 1989**, Are volcanic eruptions the ultimate geologic disaster?: The Texas Science Teacher, Sci. Teachers Assoc. of Tx. Journal, v. 18, no. 3, p. 8–11.
- Swanson, E. R., 1989**, A new type of maar volcano from the state of Durango: The Jagüey–Brena complex reinterpreted: *Revista del Instituto de Geología, Universidad Autónoma de México*, v. 8, no. 2, p. 243–247.
- Swanson, E. R., 1989**, The Jagüey–Brena complex: A new type of maar volcano from the Guadiana Valley volcanic field, Durango, Mexico: *South Texas Geological Society Bulletin*, v. XXIX, no. 6, p. 13–26.
- Swanson, E. R. and McDowell, F. W., 1985**, Geology and Geochronology of the Tomochic Caldera, Chihuahua, Mexico: *Geological Society of America - Bulletin*, v. 96, p. 1477–1482.
- Swanson, E. R., and McDowell, F. W., 1984**, Calderas of the Sierra Madre Occidental volcanic field, western Mexico: *Journal of Geophysical Research*, v. 89, no. B10, p. 8787–8799.
- Swanson, E. R., Keizer, R. P., Lyons, J. I., Clabaugh, S. E., 1978**, Tertiary Volcanism and Caldera Development near Durango City, Sierra Madre Occidental, Mexico: *Geological Society of America - Bulletin*, v. 89, no. 7, p. 1000–1012.
- Muehlberger, W. R., Gucwa, P. A., Ritchie, A. W., and **Swanson, E. R., 1974**, Global Tectonics: Preliminary Report of Skylab 4 Visual Observations and Hand-held Photography, *in Kaltenbach and others (eds.) Skylab 4 Visual Observations Project Report: NASA TMX-58142*, 250 p.

GEOLOGIC MAP

- Mitre–Salazar, L. M., Roldan–Quitana, Jaime, Ortega–Gutierrez, F., Sanchez–Rubio, G., Fuente, M. de la, Colleta, B., McDowell, F., Henry, C., and **Swanson, E. R., 1990**, Transect H–1, La Paz to Saltillo, Northwestern and Northern Mexico, North American Continent–Ocean: *Geological Society of America Transect #13*, text with 2 maps, 8 p.

GEOLOGIC FIELD GUIDE PAPERS

- Wark, D. A., McDowell, F. W., Kempter, K., **Swanson, E. R., 1992**, Geology and Magmatic History of the Tomochic Volcanic Center, Sierra Madre Occidental: *in Geology and Mineral Resources of Northern Sierra Madre Occidental*, Mexico, 1992 Field Conference Guidebook, El Paso Geological Society, Clark *et al.* (eds), p. 139–148.
- Swanson, E. R., and Wark, D., 1988**, Mid–Tertiary silicic volcanism in Chihuahua, Mexico: *in*

Stratigraphy, Tectonics and Resources of parts of Sierra Madre Occidental Province, Mexico, 22nd Field Conference Guidebook, Clark, Goodell, and Hoffer (eds.), El Paso Geological Society, p. 229–239.

ABSTRACTS

- Swanson, E.R., 2007**, A History of Field Studies and Observations on Volcanic Rocks of the Sierra Madre Occidental, Mexico, Geological Society of America Abs. with programs, v. 39. no. 6
- Swanson, E.R. and Kempter, Kirt, 2005**, Major Ignimbrites and Volcanic Centers of the Copper Canyon Area: A view into the Core of the Sierra Madre Occidental: Geological Society of America Abs. with programs, v. 37, no. 3
- Swanson, E. R. and Kempter, Kirt, 2003**, Reconnaissance Geology along the Central Axis of the Sierra Madre Occidental in Chihuahua, Mexico, Geological Society of America Abs. with programs, v. 35, no. 6
- Birnbaum, Stuart, Fries, Carmen and **Swanson, Eric, 2003**, Determining What Students Know in Real Time, Not Geologic Time, in Large Classes, Geological Society of America Abs. with programs, v. 35, no. 6
- Swanson, E. R. and Kempter, Kirt, 2003**, Volcanic Stratigraphy of the Creel-Divisadero Area, Chihuahua, Mexico, Geological Society of America Abs. with programs v. 35, no. 4
- Swanson, E. R. and Kempter, Kirt, 2002**, Correlation between the Tomochic and Copper Canyon areas, the Sierra Madre Occidental, Chihuahua, Mexico: Geological Society of America Abs. with programs, v 34, no. 3
- Swanson, E. R. and Kempter, Kirt, 2001**, Reconnaissance Geology of Mexico's Copper Canyon Region: A Preliminary Report: Geological Society of America Abs. with programs, v. 33
- Swanson, E.R. and McDowell, F.W., 2000**, The Sierra Madre Occidental Volcanic Field: A History of Field Studies: GSA 2000 Abs., v. 32, no. 7, p. A-467 & 468.
- McDowell, F.W. and **Swanson, E.R., 2000**, Sierra Madre Occidental Volcanic Field: Recent Studies and Remaining Questions: GSA 2000 Abs., v. 32, no. 7, p. A-468
- Swanson, E. R. and Kempter, Kirt, 1998**, On the Road to Copper Canyon: Caldera hunting in Mexico's Sierra Madre Occidental: EOS, AGU Transactions, (abs.) v. 79, no. 45, p. F938.
- Swanson, E. R., 1996**, Geo-Texas: Improving the Secondary school science curriculum by making the local professional geologic literature accessible: GSA Abs. with programs, v. 28, no. 7, p. A411.
- Clark, K. F., Roldan, Q. J., **Swanson, E. R., Wark, D. A., 1993**, Geologic section between Santa Eulalia, Chihuahua and Hermosillo, Sonora: Proceedings of 3rd Symposium on Sonoran geology, Instituto de Geologia de Sonora, 4 p.
- Swanson, E. R., 1989**, The unique volcanic history of the Jaguey-Brena Complex, Guadiana Valley volcanic field, Durango, Mexico: Geological Society of America Abs. with programs v. 21, no. 1, p. 41.
- Swanson, E. R., 1983**, Geology and geochronology of the Tomochic Caldera, Chihuahua, Mexico: Geological Society of America Abs. with programs, v. 15, no. 1, p. 13.
- Swanson, E. R., and McDowell, F. W., 1983**, Calderas of the Sierra Madre Occidental volcanic field, western Mexico: EOS, American Geophysical Union, (abs.) v. 64, no. 45, p. 877.
- Swanson, E. R., 1978**, Remote sensing assisted field studies in the Sierra Madre Occidental, Mexico: GSA Abs. with programs, v. 10, no. 3, p. 149.
- Swanson, E. R., 1975**, Preliminary report of geologic investigations in the Sierra Madre Occidental of western Chihuahua: Geological Society of America Abs. with programs, v. 7, no. 2, p. 239.
- Keizer, R., and Swanson, E., 1974**, Ignimbrites of the Durango area, Durango, Mexico: Tx Journal of Science (abs.), v. 25 nos. 1–4, p.112.

SHORT JOURNAL/GUIDEBOOK CONTRIBUTIONS

- Swanson, E. R., 1992**, Dedication to Robert E. King and A brief history of Tomochic and : in Geology

and Mineral Resources of Northern Sierra Madre Occidental, Mexico, 992 Field Conference Guidebook, El Paso Geological Society Guidebook, Clark *et al.*(eds), p. 149 – 152 and p. IX - X.
 Clark, K. F., Roldan, Q., and Schimdt, R. H., with contributions from Wark, D. A. and **Swanson, E. R., 1992**, Road Log from El Paso, Texas, to Hermosillo, Sonora via el Parque Nacional de Basaseachic, in Mineral Resources of Northern Sierra Madre Occidental, Mexico, 1992 Field Conference Guidebook, El Paso Geological Society, Clark *et al.*(eds), p. 1 – 38 and p. 169 – 196.
 Maxwell, J. C., and **Swanson, E. R., 1987**, Some thoughts on the technical program, 1986, annual meeting in San Antonio: Geological Society of America News & Information, v. 9, no. 3, p. 61–62.

PUBLISHED REVIEWS: BOOKS AND VIDEO TAPES

Reviews published in CHOICE (Current Reviews For Academic Libraries), a publication of the Association of College and Research Libraries and the primary reviewer for academic libraries:

2004, Volcanism by Hans-Ulrich Schmincke, Springer-Verlag, 324 p.
 2004, *Firefly Guide to Global Hazards* by Robert Kovach and Bill McGuire, Firefly Books 256 p.
 2004, *Lava Flows and Lava Tubes: What They Are, How They Form: A DVD* by Volcano Video Productions, Hawaii, 75 minutes total time with 30-minute Kilauea video
 2004, *Mind over Magma: The Story of Igneous Petrology* by Davis A. Young, Princeton University Press, 686 p.
 2003, *Plate Tectonics: An Insider's History of the Modern Theory of the Earth* by Naomi Oreskes (ed.), 424 p.
 2003, *Chasing Lava*, by Wendell A. Duffield, Mountain Press Publishing Company/J.S. Geological Survey Volcano Hazards Program, 169 p.
 2002, *Minerals of the World*, by Ole Johnson, Princeton University Press, 439 p.
 2002, *Volcanoes in Human History: The far-reaching effects of major eruptions*, by Zeilinga de Boer and Sanders, Princeton University Press, 295 p.
 2001, *Volcanoes in America's National Parks* by Decker and Decker, Odyssey Press, 256 p.
 2000, *Eye of the Storm: Inside the World's Deadliest Hurricanes, Tornadoes and Blizzards* by Jeffrey Rosenfeld, Plenum, 308 p.
 1999, *Out of the Crater: Chronicles of a Volcanologist* by Richard V. Fisher, Princeton University Press, 179 p.
 1999, *The Deep Hot Biosphere* by Thomas Gold, Springer-Verlag, 235 p.
 1998, *When Geologists Were Historians, 1665-1750*, by Rhoda Rappaport, Cornell University Press, 308
 1998, *Fire and Mud: Eruptions and Lahars of Mount Pinatubo, Philippines* by Christopher Newhall and Raymundo Punongbayan editors, University of Washington Press, 1126 p
 1997, *Volcanoes: Crucibles of Change* by R. V. Fisher, Grant Heiken and J. Hulen, Princeton University Press, 317p.
 1997, *Planetary Volcanism: A Study of Volcanic Activity in the Solar System* by Peter Cattermole, Wiley/Praxis, 417p.
 1996, *Music of the Earth* by Ron Morton, Plenum Press, 312 p
 1995, *Radiogenic Isotope Geology* by Alan P. Dickin, Cambridge University Press, 452 p
 1995, *Physics for Geologists* by Richard E. Chapman, University College London Press, 143 p

Book reviews for geology journals:

1997, *The Physiography and Geography of Texas, The Landscapes and Geology of Texas, The Geologic Story of Texas, The Rocks, Minerals and Fossils of Texas* and *The Mineral Wealth of Texas* produced by Instructional Video, Maumee, Ohio, reviewed for The Texas Science Teacher, Science Teachers Assoc. of Texas Journal
 1996, *Volcanoes of the World* by Tom Simkin and Lee Siebert, Geoscience Press Inc., 339 p. reviewed for the Journal of Geological Education
 1995, *Volcanoes and Society* by David Chester, Chapman and Hall Inc., 351 p. reviewed for the Journal of Geological Education
 1981, *Volcanoes of the World* by Simkin, Siebert, McClelland, Bridge, Newhall and Latter and published by Hutchinson Ross, 1981: reviewed for the Journal of Geological Education, v. 30, p. 53.

ORGANIZED COURSES TAUGHT (Last 5 years only)

INTRODUCTORY LEVEL

The Third Planet	Introduction to Earth Systems
The Third Planet (honors)	Introduction to Earth Systems (honors)

GEOLOGY UNDERGRADUATE COURSES

Petrology and Labs	Economic Geology and Labs
Volcanology	Mineralogy & Labs

FUNDED GRANTS & FUND DEVELOPMENT LEAVES OF ABSENCE (P.I. unless otherwise noted)

1977-78	Wayne State University Faculty Grant	\$3,800
1978-79	Wayne State University Faculty Grant	\$2,420
1981-84	National Science Foundation Grant	\$27,634
1984-85	UTSA Faculty Research Award	\$680
1987-88	UTSA Faculty Research Award	\$1,520
1988-89	National Science Foundation (Co-P.I.)	\$57,780
1990-91	UTSA Faculty Research Award	\$1,400
1990-92	National Science Foundation Grant	\$14,510
1998	Faculty Development Leave (spring semester 1998)	
2000-04	National Science Foundation Grant	\$79,478
2005	Faculty Development Leave (fall semester 2005)	

PROFESSIONAL ACTIVITIES

MEMBER: History of Earth Science Society, Geological Society of America, American Geological Institute, GSA History Division

MAJOR SERVICE:

Technical programs co-chairman for the annual meeting of the Geological Society of America (1986)

Technical Program Committee member for the annual meeting of the Geological Society of America (1986, 1989-91)

Treasurer, Geological Society of American, South-central Section (1996-98)

Reviewer of geology books for academic libraries for the American Library Association (1995 - 2004)

Reviewer for the NSF and journals published by the GSA, AGU and various guidebooks