

# CURRICULUM VITAE

**Name:** Phillip Gans

**Rank:** Associate Professor III

**Education:** Ph.D. in Geology, Stanford University, 1987  
M.S. in Economic Geology, Stanford University, 1982  
B.S. in Engineering and Geology, Cornell University, 1978

## **Academic Appointments:** (Year, title, institution)

May 1998 - Present Associate Professor, University of California, Santa Barbara  
Jan 1999-March 1999 Visiting Professor, UC Education Abroad Program, Costa Rica  
Sept 1997 - Dec 1997 Visiting Professor, Scripps Institute of Oceanography  
July 1991-April 1998 Assistant Professor, University of California, Santa Barbara  
June 1989-June 1991: Research Associate, Stanford University  
Jan. 1989-June 1989: Visiting Scientist, Monash and LaTrobe Universities, Melbourne, Australia  
Sept. 1988-Dec. 1988: Research Associate, Stanford University  
Jan. 1988-May 1988: Acting Assistant Professor, Department of Geophysics, Stanford University  
May 1987-Dec. 1987: Post-doctoral Research Associate, Department of Geology, Stanford University

## **Professional Activities:**

2001-2004 Geologic advisor and consultant to US Borax: Geologic framework studies in the central Mojave desert  
2008-2009 Geologic advisor and consultant to BHP-Biilitan Minerals: District-scale mapping of Tintaya copper deposit, Peru  
2008-2010 Geologic advisor and consultant to Antares Minerals: District-scale mapping of Haquira copper deposit, Peru  
2008-2011 Geologic advisor and consultant to EMX – Australasian Exploration: Various projects – Australia, Nevada

## **Participation in Campus Governance:**

1998-2001 Faculty Representative to the UCSB Recreation Center Governance Board  
don't recall year Departmental representative to Academic Senate  
2012-2013 Committee on International Education

## **Extramural Support:**

2007-2012 Various external collaborators – subcontracts for argon geochronology investigations  
Nick Mortimer – New Zealand Institute of Geological and Nuclear Sciences, Ltd  
Nye County Department of Natural Resources – Nuclear Waste Repository Project  
Rio Tinto Exploration  
Direct Shopping Network  
Martin Wong – Colgate University  
Micah Jessup – University of Tennessee  
Total funding to Argon Income and Recharge accounts = ~\$60,000  
2012 Keck Project – Northern Snake Range (with Martin Wong) \$39,956

## **Publications:**

**Total number of scientific publications = 84**

## **Five most significant publications**

Miller, E. L., **P. B. Gans**, and J. Garing, 1983, The Snake Range decollement: An exhumed mid-Tertiary ductile-brittle transition. *Tectonics*, v. 2, p. 239-263.

**Gans, P. B.** 1987, An open-system, two-layer crustal stretching model for the eastern Great Basin. *Tectonics*, v. 6, p. 1-12.

Gans, P.B., Mahood, G.A. and Schermer, E., 1989, Synextensional magmatism in the Basin and Range Province: A case study from the eastern Great Basin: *Geological Society of America Special Paper 233*, v. p. 53 p.

**Gans, P.B.**, Large-magnitude Oligo-Miocene extension in southern Sonora: Implications for the tectonic evolution of northwest Mexico, *Tectonics*, v. 16, p. 388-408.

Wong, M. S. and **Gans, P. B.**, 2008, Geologic, structural, and thermochronologic constraints on the tectonic evolution of the Sierra Mazata´n core complex, Sonora, Mexico: New insights into metamorphic core complex formation, *Tectonics*, vol 27, 31 p.

## **Publications, 2006-Present**

Perez, W., Alvarado, G, and **Gans, P.**, 2006, The 322 ka Tiribí Tuff: Stratigraphy, geochronology, and mechanisms of deposition of the largest and most recent ignimbrite in the Valle Central, Costa Rica, *Bull Volcanol*, vol 69, pp. 25-40.

Wertheim, J., Herriott, T., Croft, D., Flynn, J. J., **Gans, P.**, Larsson, H., and Uhen, M. , 2006, Unusual fossil rodent faunas from south central Chile. *Journal of Vertebrate Paleontology*, 26(3), 137-138.

**Gans, P.B.**, Wong, M., MacMillan, I., Blair, K.D., Roldan, J., Till, C.B., Herman, S., 2006, Magmatic-tectonic interactions in the Gulf extensional province: insights from the Sonoran margin. Proceedings, MARGINS Workshop: Lithospheric Rupture in the Gulf of California — Salton Trough Region. <http://www.rcl-cortez.wustl.edu/Presentations.html>.

Kuntz, M. A., Skipp, B., Champion, D. E., **Gans, P. B.**, van Sistine, D. P., & Snyders, S. R. , 2007, *Geologic map of the Craters of the Moon 30 X 60 quadrangle, Idaho*. United States (USA): U. S. Geological Survey.

Mortimer, N., Herzer, R.H., **Gans, P.B.**, Laporte-Magoni, C., Calvert, A.T. & Bosch, D. 2007, Oligocene-Miocene tectonic evolution of the South Fiji Basin and Northland Plateau, SW Pacific Ocean; evidence from petrology and dating of dredged rocks", *Marine Geology*, vol. 237, no. 1-2, pp. 1-24.

Walsh, E.O., Hacker, B.R., **Gans, P.B.**, Grove, M. & Gehrels, G.E. 2007, "Protolith ages and exhumation histories of (ultra)high-pressure rocks across the Western Gneiss region, Norway", *Geological Society of America Bulletin*, vol. 119, no. 3-4, pp. 289-301.

Wong, M. S., and **Gans, P. B.** , 2008, Geologic, structural, and thermochronologic constraints on the tectonic evolution of the Sierra Mazatan core complex, Sonora, Mexico; new insights into metamorphic core complex formation. *Tectonics*, 27(4), 31.

Garrison, N. J., Busby, C. J., **Gans, P. B.**, Putirka, K., & Wagner, D. L. (2008). A mantle plume beneath California? the mid-Miocene Lovejoy flood basalt, northern California. *Special Paper - Geological Society of America*, 438, 551-572.

Flynn, J. J., Charrier, R., Croft, D. A., **Gans, P. B.**, Herriott, T. M., Wertheim, J. A., & Wyss, A. R. (2008). Chronologic implications of new Miocene mammals from the Cura-Mallin and Trapa Trapa Formations, Laguna del Laja area, south-central Chile. *Journal of South American Earth Sciences*, 26(4), 412-423.

Mortimer, N., **Gans, P. B.**, & Mildenhall, D. C. (2008). A middle-late Quaternary age for the adakitic arc volcanics of Hautere (Solander Island), Southern Ocean. *Journal of Volcanology and Geothermal Research*, 178(4), 701-707.

- Singleton, J. S., & **Gans, P. B.** (2008). Structural and stratigraphic evolution of the Calico Mountains; implications for early Miocene extension and neogene transpression in the central Mojave Desert, California. *Geosphere*, 4(3), 459-479.
- Busby, C. J., DeOreo, S. B., Skilling, I., **Gans, P. B.**, & Hagan, J. C. (2008). Carson Pass-Kirkwood paleocanyon system; paleogeography of the ancestral Cascades arc and implications for landscape evolution of the Sierra Nevada (California). *Geological Society of America Bulletin*, 120(3-4), 274-299.
- Busby, C. J., Hagan, J. C., Putirka, K., Pluhar, C. J., **Gans, P. B.**, Wagner, D. L., and Skilling, I. (2008). The ancestral Cascades arc; Cenozoic evolution of the central Sierra Nevada (California) and the birth of the new plate boundary. *Special Paper - Geological Society of America*, 438, 331-378.
- Hacker, B. R., Wallis, S. R., McWilliams, M. O., & **Gans, P. B.** (2009).  $^{40}\text{Ar}/^{39}\text{Ar}$  constraints on the tectonic history and architecture of the ultrahigh-pressure Sulu orogen. *Journal of Metamorphic Geology*, 27(9), 827-844.
- Shockey, B. J., Gismondi, R. S., **Gans, P.**, Jeong, A., & Flynn, J. J. (2009). Paleontology and geochronology of the Deseadan (late Oligocene) of Moquegua, Peru. *American Museum Novitates*, 3668, 24.
- Till, C. B., **Gans, P. B.**, Spera, F. J., MacMillan, I., & Blair, K. D. (2009). Perils of petrotectonic modeling; a view from southern Sonora, Mexico. *Journal of Volcanology and Geothermal Research*, 186(3-4), 160-168.
- Walker, R. T., **Gans, P.**, Allen, M. B., Jackson, J., Khatib, M., Marsh, N., & Zarrinkoub, M. (2009). Late Cenozoic volcanism and rates of active faulting in eastern Iran. *Geophysical Journal International*, 177(2), 783-805.
- Wong, M. S., **P. B. Gans**, and J. Scheier (2010), The  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology of core complexes and other basement rocks in Sonora, Mexico: Implications for Cenozoic tectonic evolution of northwestern Mexico, *J. Geophys. Res.*, 115, 31 p
- Faulds, J. E., Price, L. M., Snee, L. W., & **Gans, P. B.** (2010). A chronicle of Miocene extension near the Colorado Plateau-Basin and Range boundary, southern White Hills, northwestern Arizona; paleogeographic and tectonic implications. *Special Paper - Geological Society of America*, 463, 87-119.
- Mortimer, N., **Gans, P. B.**, Palin, J. M., Meffre, S., Herzer, R. H., & Skinner, D. N. B. (2010). Location and migration of Miocene-Quaternary volcanic arcs in the SW Pacific region. *Journal of Volcanology and Geothermal Research*, 190(1-2), 1-10.
- Mortimer, N., Herzer, R. H., Pelletier, B., Palin, J. M., **Gans, P. B.**, Hoskin, P., and Eccles, J. (2010). Some rock samples from the Dentrecasteaux zone and Rennell Trough. *Geological Society of New Zealand Miscellaneous Publication*, 129A, 196-196.
- Young, D. J., Hacker, B. R., Andersen, T. B., & **Gans, P. B.** (2011). Structure and  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology of an ultrahigh-pressure transition in western Norway. *Journal of the Geological Society of London*, 168(4), 887-898.
- Hacker, B. R., Kelemen, P. B., Rioux, M., McWilliams, M. O., **Gans, P. B.**, Reiners, P. W., . . . Vervoort, J. D. (2011). Thermochronology of the Talkeetna intraoceanic arc of Alaska; Ar/Ar, U-Th/He, Sm/Nd, and Lu/Hf dating. *Tectonics*, 30(1)
- Alvarado, G. E. and **Gans, P. B.**, 2012 (in press), Geochronological synthesis of magmatism, metamorphism, and metallogeny of Costa Rica, Central America, *Revista Geologica de America Central*, v 46,
- Mortimer, N., **Gans, P.B.**, Hauff, F., and Barker, D.H.N. , 2012 (in press), Paleocene abyssal tholeiites and alkaline lavas from the Resolution Ridge, Tasman Sea, *Australian Journal of Earth Sciences*, Rev. 5/23/2013