

CURRICULUM VITAE

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Date of Birth September 4, 1941
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Academic Qualifications

Ph.D. University of California (Berkeley), 1969
B.Sc. University of London (Kings College), 1963

Employment

2000- Chair, Department of Geological Sciences, California State University San Bernardino (CSUSB)
2000- Professor, Department of Geological Sciences, CSUSB
1980-2000 Professor, Department of Geology, University of Puerto Rico, Mayaguez (UPRM)
1979-2000 Director, Department of Geology, UPRM
1973-1980 Associate Professor, Department of Geology, UPRM
1969-1973 Assistant Professor, Department of Geology, UPRM
1969 (6 mos.) Lecturer, Department of Physical Sciences, Chico State College, Chico, California
1968-1969 (6 mos.) Lecturer, Department of Geology, University of Nevada, Reno, Nevada

Professional Memberships and Activities (see page 27 for acronyms used)

2001-	Member - Sigma Xi
2000-	Professional Geologist (Puerto Rico)
1995-	Associate Scientist - Montserrat Volcano Observatory
1994-	Member - IAVCEI Commission on Explosive Volcanism
1989-	Scientific Correspondent - Smithsonian Institution Global Volcanism Network
1981-	Member - Phi Kappa Phi
1980-	Member - Geological Society of America
1975-	Member - IAVCEI
1968-	Member - American Geophysical Union
Peer Reviewer (Grants)	NSF; NOAA; NSERC
Peer Reviewer (Papers)	Geological Society of America - Bulletin, Geology, Special Paper, D. N. A. G. volume on the Caribbean; Bulletin Volcanologique/ Bulletin of Volcanology; Tectonophysics; Volcanic Hazard Atlas of the Lesser Antilles
NSF panel member	PIRE program

Appointments and Positions

2009	Member College of Natural Sciences Curriculum Committee
2009	CSU representative at UC/CSU Faculty STEM Summit, UC Irvine
2008	CSU representative at C-ID workshop, San Francisco
2005	CSUSB representative at System-wide Lower-Division Transfer Pattern Workshop for Geology/Earth Sciences
2004-	Co-chair of working group to develop the Professional Science Master in Environmental Sciences at CSUSB
2003-05	CSUSB representative at CSU Applied/Professional Masters Program Curriculum Development Forums
2002-05	Member Geological Society America Committee on Women and Minorities in the Geosciences
2001-06	Member College Natural Sciences Professional Awards Committee
2001	Member of CSUSB review committee for 5-year self-study of Environmental Studies and Geography programs
1997	Visiting consultant - DMMR, Jeddah, Saudi Arabia
1997-00	Director - Puerto Rico CREST Program
1997	Visiting consultant - Governments of Saba and St. Eustatius
1996	Visiting consultant - DMMR, Jeddah, Saudi Arabia
1995-	Member - Volcanic scientific team to monitor eruption of Soufriere Hills, Montserrat

- 1995 Visiting Lecturer - Governments of St. Martin, Saba and St. Eustatius
- 1994-99 Working Group Leader - Recent Volcanism IGCP Project 364
- 1993 Invited Speaker - Conference on Natural Hazards in the Caribbean, Trinidad
- 1989-00 Coordinator for Puerto Rico - National Geographic Society "National Geography Bee"
- 1988 Visiting consultant - DGMR, Jeddah, Saudi Arabia
- 1986- Member - IAVCEI Commission on Explosive Volcanism
- 1983 Participant - UNESCO Regional Workshop on an International Mobile Early Warning System for Volcanic Eruptions and Seismic Activity, San Jose, Costa Rica
- 1980- Member - Standing Committee for the Caribbean Geological Conferences
- 1980 Editor - Special Issue on Circum-Caribbean Volcanism, Bulletin Volcanologique, vol. 43, no. 2
- 1980 Participant - NATO Advanced Summer Institute on Tephra, Iceland
- 1980-81 Member - Steering Committee, LPI Caribbean Plate Project
- 1979-81 Consultant - Netherlands Geological Survey: "Volcanic hazards of Saba and St. Eustatius, Netherlands Antilles"
- 1978 Participant - UNESCO Workshop on the Geology and Geophysics of the S. E. Corner of the Caribbean, Barbados
- 1977 Participant - Workshop on Atlantic Island Arcs, University of Leeds, England
- 1977 Participant - Workshop on Volcanic Hazards IAVCEI Assembly, Durham, England
- 1976-79 Member – *ad hoc* Committee for U. S. Caribbean Geodynamics Program
- 1976-77 President - Geological Society of Puerto Rico
- 1975 Participant - OAS Seminar on Seismic and Volcanic Risk, San Jose, Costa Rica
- 1974-79 Coordinator - Recent Volcanics Working Group, Caribbean Study Group of Working Group 2 of the International Geodynamics Project
- 1974 Participant - UNESCO Regional Seminar on the Surveillance and Prediction of Volcanic Activity, Guadeloupe, French West Indies
- 1974 Principal Investigator - Cruise E-1-D74, R/V Eastward
- 1973-74 President - Geological Society of Puerto Rico
- 1972 Participant - NATO Advanced Study Institute on Feldspars, Manchester, England
- 1972 Associate Investigator - Cruise E-3-B72, R/V Eastward
- 1970 Principal Investigator – Cruise R/V Advance II

Awards

2006	Wang Family Excellence Award -CSUSB
1999	Productivity Award - UPRM
1997	Productivity Award - UPRM
1990	Scholarly Productivity Award - University of Puerto Rico.- EPSCoR
1989	Scholarly Productivity Award - University of Puerto Rico.- EPSCoR
1984	Certificate of Merit for Research - Faculty of Arts & Sciences, UPRM

Grants (PI on multiple investigator grants underlined)

2009-10	CSUSB CNS Summer Research Pod “Stratigraphy, Granulometry, Chemistry and Mineralogy of the Deposits from the 1902 Eruption of Soufriere, St. Vincent, Lesser Antilles”: \$14,360
2009-10	CSUSB Course Development Grant – “GEOL 552: Development of a Field-based Course in Volcanology and Volcanic Hazard Assessment”. \$4,385
2008-09	CSUSB Faculty Mini-grant, “Isotopic analyses of volcanic rocks from Dominica, Lesser Antilles”: \$5,000
2008	CSUSB CNS Summer Research Pod “ Development of a Stratigraphic Framework for Dominica”: \$8,600.
2008	CSUSB Summer Research Fellowship “ Geology of the sea cliffs on Dominica”: \$3,000
2007-08	CSUSB Faculty Mini-Grant – “Plinian Deposits on Dominica”: \$4,400
2007-08	CSUSB Professors Across Borders grant “Field Work on Dominica” - \$2,204
2007	CSUSB Summer research Fellowship – “Revision of the Geological Map of Dominica”: \$3,000
2006-08	NSF-REU: - “Collaborative Research: REU Site in Dominica, West Indies: Integrated examination of dynamic volcanic systems using field volcanology, satellite geodesy, and modeling” (<u>Smith</u> , Fryxell): \$225,594
2006-07	CSUSB Faculty Mini Grant – “ Geochemistry of the Older Centers on Dominica”: \$4,994

- 2006 CSUSB Summer Research Fellowship – “Granulometric Studies of Pyroclastic Deposits from the Soufriere Hills, Montserrat”: \$3,000
- 2005-06 CSUSB Course Development Grant – “Development of Unknown Mineral and Rock Thin Section Sets for Courses GEOL 321 and GEOL 325”: \$5,000
- 2005 CSUSB Summer Research Fellowship – “Volcanic Hazard Assessment on the island of Dominica”: \$3,000
- 2003-04 CSUSB Course Development Grant – “Development of course specific laboratory manuals for courses Geol 321 and Geol 325”: \$5,000
- 2002 CSUSB Summer Research Fellowship – “Completion of research and preparation of manuscripts on Caribbean volcanology”: \$5,000
- 2002-03 CSUSB Faculty Development Grant – “ Age and Petrogenesis of volcanic rocks from Providencia island, western Caribbean”: \$5,000
- 2001-04 NSF-Diversity in the Geosciences – “Earth Science Pipeline: Recruiting and retaining under-represented ethnic groups in the Earth Sciences from 6th grade to college” (Brunkhorst, Fryxell, Leatham, McGill, **Smith**): \$644,797.
- 2000-01 UPR Seed Money - “Volcanology and Petrology of Grenada” (**Schellekens**, **Smith**): \$3,890
- 1998-99 UPR Seed Money - “Petrological Evolution of the Soufriere Hills Volcano, Montserrat”: \$4,140
- 1997-00 NASA-MTPE - “Dynamic topography, gravity, and surface deformation: applications to hazard assessment of an erupting island arc volcano, Montserrat, BWI” (**Mattioli**, **Jansma**, **Smith**): \$198,209
- 1997-00 NSF-CREST - “Caribbean Volcanism” (Jansma, **Mattioli**, Santos, **Schellekens**, **Smith**): \$244,195
- 1997-98 UPR Seed Money - “Assessment of volcanic hazards - Distribution of the latest deposits on the islands of Saba and St. Eustatius”: \$4,580
- 1996-99 DoD ARPA - "Generation of digital topographic data and geomorphic feature recognition in high relief tropical terrain" (**Jansma**, **Mattioli**, **Smith**), \$562,073

- 1996-97 UPR Seed Money - " Mechanism for Formation and Transport of Block Flows ": \$2,376
- 1996-99 NSF - "Temporal and spatial variations of magmatic volatiles and trace elements in glass fragments and phenocryst inclusions in pyroclastic rocks from Mt. Pelée, Martinique: evolution of the volatile budget of an historically active island-arc volcano", (Mattioli, **Smith**): \$91,500
- 1995-96 UPRM Seed Money - "Volcanic Stratigraphy of the Soufriere Hills, Montserrat": \$2,525
- 1995-00 NASA URC program - "Crustal deformation and the hypsometric evolution of the Lesser Antillean island arc", (Mattioli, Jansma, Dixon (UMiami), **Smith**): \$1,809,981
- 1993-95 NSF MRCE program - " Caribbean Island Arcs: Genesis and Evolution", (Jansma, Joyce, Mattioli, Schellekens, Santos, **Smith**): \$380,000
- 1992-93 UPRM Seed Money - "The role of volcanism, tectonics and global sea level changes in the development of carbonate rock sequences in island arc terranes (Martinique)", (Joyce, Schellekens, **Smith**); \$3,120
- 1991-92 UPRM Seed Money - "Volcanological and Petrological Studies of the South Soufriere Hills, Montserrat, Lesser Antilles": \$1,259
- 1990-91 UPRM Seed Money - "The role of volcanism, tectonics, and global sea level changes in the development carbonate rock sequences in island arc terranes (St Eustatius, St Kitts, Montserrat)", (Joyce, Schellekens, **Smith**): \$3,000
- 1989-90 UPRM Seed Money - "Mineral Geochemistry of Mt. Pelee Martinique": \$4,000
- 1988-93 NSF MRCE program - "Tectonic Evolution, Seismicity and Geologic Resources and Hazards of the N. E. Caribbean", (Joyce, McCann, Larue, **Smith**): \$1,360,000
- 1988-89 UPRM Seed Money - "Trace Element and Isotope Geochemistry of the Lesser Antilles" \$2,500
- 1987-88 UPRM Seed Money - "Stratigraphical and Dating Studies on St. Kitts and St. Eustatius": \$1,462

- 1986-87 UPRM Seed Money - "Petrogenetic Evolution of Puerto Rico": \$1,622
- 1986-91 NSF EPSCoR program - "The Geological Evolution of the Caribbean Volcanic Arc Terrane of Puerto Rico and its bearing on resource potential", (Joyce, Larue, Schellekens, Lopez, Pindell, McCann, **Smith**): \$360,000
- 1985-86 UPRM Seed Money - "Petrogenesis of Magmas in the Lesser Antilles": \$1,500
- 1984-85 UPRM Seed Money - "The Early Geological History of Puerto Rico - REE Evidence", (**Smith**, Schellekens) : \$3,500
- 1983-84 UPRM Seed Money - "Geochemical, Mineralogical, Petrological and Geological Engineering Studies in Puerto Rico and the Caribbean", (**Smith**, Joyce, Schellekens, Soto Troester): \$4,968
- 1980-81 American Philosophical Society, Hays Fund Grant # 106 - "Volcanic Hazard of Mt. Misery, St. Kitts, W. I": \$931
- 1979-81 Netherlands Geological Survey - "Volcanic Hazard Studies On Saba and St. Eustatius", (**Smith**, Roobol, Tomblin): \$30,000
- 1977-81 NSF grant EAR 77-17064 - "Volcanic Stratigraphy of the Lesser Antilles", (**Smith**, Roobol) : \$22,300
- 1976 American Philosophical Society, Penrose Fund Grant # 7744 - "Volcanic History of Mt. Pelée, Martinique": \$1,000
- 1973-76 NSF grant EAR 73-00194 - "Stratigraphy, Mineralogy and Geochemistry of Mt. Pelée, Martinique", (**Smith**, Roobol): \$23,800
- 1971 American Philosophical Society, Johnson Fund Grant # 958 - "Chemistry and Mineralogy of Volcanic rocks from the Lesser Antilles": \$800

Publications (* indicates student author)

Smith, A. L. and Carmichael, I. S. E., 1968, Quaternary Lavas from the Southern Cascades, Western U. S. A.: *Contributions Mineralogy Petrology*, v.19, p. 212-230.

- Smith, A. L.** and Carmichael, I. S. E., 1969, Quaternary Trachybasalts from Southeastern California. : *American Mineralogist*, v. 54, p. 909-923.
- Carmichael, I. S. E., Nicholls, J. and **Smith, A. L.**, 1970, Silica Activity in Igneous Rocks: *American Mineralogist*, v. 55, p. 246-263.
- Smith, A. L.**, 1970, Sphene, Perovskite and Coexisting Fe-Ti oxide minerals: *American Mineralogist*, v. 55, p. 264-269.
- Peterman, Z., Carmichael, I. S. E. and **Smith, A. L.**, 1970a, $^{87}\text{Sr}/^{86}\text{Sr}$ Ratios of Quaternary Lavas of the Cascade Range, Northern California: *Geological Society America Bulletin*, v. 81, p. 311-318.
- Peterman, Z., Carmichael, I. S. E. and **Smith, A. L.**, 1970b, Strontium Isotopes in Quaternary Basalts of Southeastern California: *Earth Planetary Science Letters*, v. 6, p. 381-384.
- Gunn, B., Roobol, M. J. and **Smith, A.L.**, 1974, The Petrochemistry of Pelean-type Volcanoes of Martinique: *Geological Society America Bulletin*, v. 85, p. 1023-1030.
- Roobol, M. J. and **Smith, A. L.**, 1974, Stratigraphic Studies of Mt. Pelée, Martinique: *Transactions VII Caribbean Geological Conference*, p. 399-407.
- Smith, A. L.** and Roobol, M. J., 1974, Petrologic Studies of Mt. Pelée, Martinique: *Transactions VII Caribbean Geological Conference* p. 407-412.
- Roobol, M. J. and **Smith, A. L.**, 1975a, Mt. Pelée, Martinique: *Proceedings Symposium "Andean and Antarctic Volcanological Problems" (Santiago, Chile, 1974)*, p. 190-202.
- Roobol, M. J., Petitjean Roget, H. and **Smith, A. L.**, 1975, Mt. Pelee and the island populations of Martinique: *Proceedings. VI International Congress for the study of pre-Columbian Cultures of the Lesser Antilles*, p. 46-53.
- Roobol, M. J. and **Smith, A. L.**, 1975b, A comparison of the recent eruptions of Soufriere, St. Vincent and Mt. Pelée, Martinique: *Bulletin Volcanologique*, v. 39, p. 214-240.
- Smith, A. L.** and Roobol, M. J., 1976, Recent Volcanic History of Mt. Pelée, Martinique: *Revista Geofisica*, v. 5, p. 277-283.
- Roobol, M. J. and **Smith, A. L.**, 1976, Mt. Pelée, Martinique: a pattern of alternating eruptive styles: *Geology*, v. 4, p. 521-524.
- Seiglie, G., Pannella, G. and **Smith, A. L.**, 1978, Siderite Spherulites of the San Sebastian Formation, Oligocene, Northern Puerto Rico: *Bulletin American Association Petroleum Geologists*, v. 63, p. 370-375.

- Fisher, R. V., **Smith, A. L.** and Roobol, M. J., 1980a, Destruction of St. Pierre, Martinique by Ash Cloud Surges, May 8 and 20, 1902: *Geology*, v. 8, p. 472-476.
- Wright, J. V., **Smith, A. L.** and Self, S., 1980, A Working Terminology of Pyroclastic Deposits: *Journal Volcanology and Geothermal Research*, v. 8, p. 315-336.
- Roobol, M. J. and **Smith, A. L.**, 1980, Archeological implications of some radiocarbon dating on Saba and St. Kitts: *Proceedings. VIII International Congress Caribbean Archeology*, p. 168-176.
- Fisher, R. V., **Smith, A. L.**, Wright, J. V. and Roobol, M. J., 1980b, Ignimbrite Veneer Deposits or Pyroclastic Surge Deposits: *Nature*, v. 286, p. 912.
- Gunn, B., Roobol, M. J. and **Smith, A. L.**, 1980, Geochemistry of the volcanoes of Basse Terre, Guadeloupe - an example of intra-island variation: *Bulletin Volcanologique.*, v. 43, p. 403-411.
- Roobol, M. J. and **Smith, A. L.**, 1980, Pumice Eruptions of the Lesser Antilles: *Bulletin Volcanologique.*, v. 43, p. 277-286.
- Smith, A. L.**, Roobol, M. J. and Gunn, B., 1980, The Lesser Antilles: A discussion of Island Arc Volcanism: *Bulletin Volcanologique.*, v. 43, p. 287-302.
- Smith, A. L.**, Fisher, R. V., Roobol, M. J. and Wright, J. V., 1980, Pyroclastic Flows and Surges, Examples from the Lesser Antilles: *NATO ASI Series*, (Self, S. and Sparks, R. S. J., eds), v. 75, p. 421-426.
- Wright, J. V., **Smith, A. L.** and Self, S., 1980, A terminology for pyroclastic deposits: *NATO ASI Series*, (Self, S. and Sparks, R. S. J., eds), v. 75, p. 457-464.
- Roobol, M. J., **Smith, A. L.** and Wright, J. V., 1981, Revisions in the pyroclastic stratigraphy of Mt. Misery, St. Kitts, Lesser Antilles: ^{14}C ages and recognition of pyroclastic flow deposits: *Journal Geological Society London*, v. 138, p. 713-718.
- Roobol, M. J. and **Smith, A. L.**, 1981, A classification of pyroclastic deposits from the Lesser Antilles: *Transactions IX Caribbean Geological Conference*, p. 343-348.
- *Handler, A., **Smith, A. L.**, Wright, J. V., Roobol, M. J., Self, S. and Fisher, R. V., 1981, Textural Characteristics of Pyroclastic Surge deposits: *Transactions IX Caribbean Geological Conference.*, p. 341-342.
- Wright, J. V., **Smith, A. L.** and Roobol, M. J., 1981, Ignimbrite (Pumice and Ash) Deposits from Island Arcs and Continents: A comparison of examples

from the Lesser Antilles and Mexico: *Transactions IX Caribbean Geological Conference*, p. 367-378.

- Wolff, J., Wright, J. V., **Smith, A. L.**, Clough, B., Roobol, M. J. and Self, S., 1981, Mixed Pumice Eruptions: Field Characteristics: *Transactions IX Caribbean Geological Conference*. p. 355-366.
- Roobol, M. J., Wright, J. V. and **Smith, A. L.**, 1983, Calderas or Gravity-Slide Structures in the Lesser Antilles Island Arc?: *Journal Volcanology and Geothermal Research*. v. 19, p. 121-134.
- Wright, J. V., Roobol, M. J., **Smith, A. L.**, Sparks, R. S. J., Brazier, S. A., Rose, W. I. and Sigurdsson, H., 1984, Late Quaternary explosive volcanism on St. Lucia, West Indies: *Geological Magazine*., v. 121, p. 1-15.
- Roobol, M. J., **Smith, A. L.** and Wright, J. V., 1985, Dispersal and characteristics of pyroclastic fall deposits from Mt. Misery Volcano, West Indies: *Geologische Rundschau*, v. 74, p. 321-335.
- Smith, A. L.**, Roobol, M. J. and Rowley, K., 1985, Pyroclastic Character of the Active Volcanoes of the Northern Lesser Antilles: *Transactions 4th Latin American Geological Congress*, Trinidad, 1979, p. 467-473.
- Roobol, M. J., **Smith, A. L.** and Wright, J. V., 1987, Lithic Breccias in Pyroclastic Flow Deposits on St. Kitts, West Indies: *Bulletin of Volcanology*, v. 49, p. 694-707.
- Schellekens, J. H., **Smith, A. L.** and Joyce, J., 1987, Geological Studies in western Puerto Rico, a new look at an old problem: *Trans. X Caribbean Geological Conference*, Cartagena 1983, p 222-228.
- Roobol, M. J. and **Smith, A. L.**, 1989, Volcanic and Associated Hazards in the Lesser Antilles: *IAVCEI Proceedings in Volcanology*, v. 1, p. 57-85.
- Smith, A. L.** and Roobol, M. J., 1990a, Mt. Pelée, Martinique - A study of an active island arc volcano: *Geological Society America, Memoir 175*, 105p.
- Smith, A. L.** and Roobol, M. J., 1990b, Characteristics of Volcanic Centers from the Lesser Antilles: *Transactions XII Caribbean. Geological Conference*, p. 319-328.
- Schellekens, J. H., Montgomery, H., Joyce, J. and **Smith, A. L.**, 1990, Late Jurassic to Late Cretaceous Development of Island Arc Crust in southwestern Puerto Rico: *Transactions XII Caribbean. Geological Conference*. p. 268-281.
- Smith, A.L.**, Severin, K. and Larue, D.K., 1991, Stratigraphy, Geochemistry and Mineralogy of Eocene rocks from the Toa Baja Drillhole: *Geophysical Research Letters*, v. 18, p. 521-524.

- Smith, A.L.** and Roobol, M.J., 1993, Volcanic Hazards in the Lesser Antilles: *Trans. 1993 WOVO Workshop, Guadeloupe*, p. 30-31
- Dixon, T., (ed) and 38 others (G. Mattioli, **A.L. Smith**), 1994, SAR Interferometry and surface change detection: results from the NASA Boulder Workshop of February 3-4, 1993, *NASA Whitepaper*, Washington, D.C. 54p.
- Harkness, D.D., Roobol, M.J., **Smith, A.L.**, Stipp, J.J. and Baker, P.E., 1994, A Reappraisal of the Radiocarbon Dating of the Mansion "Series": *Bulletin of Volcanology*, v. 56, 326-334.
- Mattioli, G., Jansma, P., *Jaramillo, L. and **Smith A.L.**, 1995, Sector collapse in island arc volcanoes: a digital topographic and bathymetric investigation of the Qualibou depression, St. Lucia, Lesser Antilles : *Caribbean Journal of Science*, v. 31, p.163-173.
- Mattioli, G.S., Jansma, P.E., *Jaramillo, L. and **Smith, A.L.**, 1996, A desktop image processing and photometric method for rapid volcanic hazard mapping: Application to air photo interpretation of Mt. Pelée, Martinique: *Bulletin of Volcanology*, v. 58, p. 401-410.
- Frost, C.D., Schellekens, J.H. and **Smith, A.L.**, 1998, Nd, Sr and Pb isotopic characterization of Cretaceous and Paleogene volcanic and plutonic island arc rocks from Puerto Rico: in Lidiak, E.G. and Larue, D.K., ed., Tectonics and geochemistry of the northeastern Caribbean, *Geological Society America Special Paper 322*, p.123-132.
- Larue, D.K., Torrini, R., **Smith, A.L.** and Joyce, J., 1998, North Coast Tertiary basin of Puerto Rico: from arc basin to carbonate platform to forearc slope: in Lidiak, E.G. and Larue, D.K., ed., Tectonics and geochemistry of the northeastern Caribbean, *Geological Society America Special Paper 322* p. 155-176.
- Mattioli, G.M., Dixon, T.H., Farina, F., Howell, E.S., Jansma, P.E. and **Smith, A.L.**, 1998, GPS measurement of surface deformation around Soufriere Hills volcano, Montserrat from October 1995 to July 1996: *Geophysical Research Letters* v. 25, p. 3417-3420.
- Roobol, M.J. and **Smith, A.L.**, 1998, Pyroclastic Stratigraphy of the Soufriere Hills Center, Montserrat - Implications for the present eruptions: *Geophysical Research Letters* v. 25, p. 3393-3396.
- Smith, A.L.**, Schellekens, J.H. and *Muriel Diaz, A-L., 1998, Batholith emplacement in the northeastern Caribbean: markers of tectonic change: in Lidiak, E.G. and Larue, D.K., ed., Tectonics and geochemistry of the northeastern Caribbean, *Geological Society America Special Paper 322*, p. 99-122.

- Smith, A.L.**, Schellekens, J.H., Frost, C.D. and *Muriel Diaz, A-L., 1999a, Geochemistry, radiometric ages, and isotopic compositions of plutonic rocks in the NE Caribbean: Tectonic significance of their emplacement: *Transactions XIVth Caribbean Geological Conference (July 1995)*, p. 388-427.
- Smith, A.L.** Schellekens, J.H., Roobol, M.J. and Joyce, J., 1999b, The stratigraphy and age of the White Wall-Sugar Loaf sequence, St. Eustatius: *Transactions XIVth Caribbean Geological Conference (July, 1995)*, p. 2-12.
- Roobol, M.J., and **Smith, A.L.**, 2004, Volcanology of Saba and St. Eustatius Islands, Northern Lesser Antilles: *Royal Netherlands Academy of Arts and Sciences*, 310p.
- Smith, A.L.**, Roobol, M.J., Schellekens, J.H., and Mattioli, G.S., 2007, Pre-historic volcanism of the Soufriere Hills-South Soufriere Hills volcanic complex, Southern Montserrat, West Indies: *Journal of Geology*, v. 115, p. 115-127.

Invited Papers

- Smith, A. L.** and Roobol, M. J., 1982, Andesite volcanoes and their products, (b) Andesite pyroclastic flows: In: Thorpe, R. S., ed., *Orogenic Andesites and related rocks*, John Wiley and Sons, Inc., p. 415-433.
- Donnelly, T. W., Beets, D. J., Carr, M. J., Jackson, T. A., Klaver, G., Lewis, J. F., Lidiak, E., Maury, R. C., Schellekens, J. H., **Smith, A. L.**, Wadge, G., and Westercamp, D., 1990, History and tectonic setting of Caribbean magmatism: In: Dengo, G. and Case, J., eds., *Geology of the Caribbean, DNAG.*, v. H, Geological Society America, p. 339-374.
- Larue, D.K., **Smith, A.L.**, and Schellekens, J.H., 1991, Oceanic Island Arc Stratigraphy in the Caribbean region: don't take it for granite: *Sedimentary Geology*, v. 74, p. 289-308.
- Smith, A.L.** and Roobol, M.J., 1994, Eastern Caribbean Volcanic Hazards: *Trans. Caribbean Conference on Volcanoes, Earthquakes, Windstorms and Floods*. p. 220-229.
- Roobol, M. J., **Smith, A. L.** and Tomblin, J. F., 1997, An assessment of the volcanic hazard on the islands of Saba and St. Eustatius in the northern Lesser Antilles: *Report of the Geological Survey of the Netherlands*, 134p.
- Smith, A.L.**, and Roobol, M.J. 2005a, Saba, in Lindsay J., Roberstson, R., Ali, S., and Shepherd, J. (eds.), *Volcanic Hazard Atlas of the Lesser Antilles*, University of the West Indies, p. 183-192.

- Smith, A.L.**, and Roobol, M.J., 2005b, St. Eustatius, in Lindsay J., Roberstson, R., Ali, S., and Shepherd, J. (eds.), *Volcanic Hazard Atlas of the Lesser Antilles*, University of the West Indies, p. 195-204.
- Lindsay, J., **Smith, A.L.**, Roobol, M.J., and Stasiuk, M., 2005, Dominica, in Lindsay J., Roberstson, R., Ali, S., and Shepherd, J. (eds.), *Volcanic Hazard Atlas of the Lesser Antilles*, University of the West Indies, 1-25.
- Roobol, M.J., and **Smith, A.L.**, 2005, Geological Map of Dominica, scale 1:100,000: in Lindsay J., Roberstson, R., Ali, S., and Shepherd, J. (eds.), *Volcanic Hazard Atlas of the Lesser Antilles*, University of the West Indies. Plate 1
- Fryxell, J.E., **Smith, A.L.**, and Fernandez, L., 2007, Geological Research with undergraduate students on the island of Dominica, Lesser Antilles: *Nova Hedwigia*, v. 133, p. 305-315.

Abstracts (* denotes student author)

- Hay, R. L., Iijima, A. and **Smith, A. L.**, 1967, Nature and Origin of Palagonite Tuffs of the Honolulu Series, Oahu, Hawaii: *Geological Society America Program for 1967 Meeting of Cordilleran Section*, p. 40.
- Smith, A. L.** and Carmichael, I. S. E., 1968a, Petrology of some Recent Lavas from the Cascades: *Transactions American Geophysical Union*, v. 49, p. 363.
- Smith, A. L.** and Carmichael, I. S. E., 1968b, Spheene, Perovskite parageneses in volcanic rocks: *Abstracts Annual Meeting Geological Society America.*, p. 282.
- Smith, A. L.**, 1973, Preliminary results of the geology of some seamounts off Puerto Rico: *Proc. 10th Meeting Association Island Marine Labs. of the Caribbean*, p. 33.
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Publications in preparation

Smith, A.L., Roobol, M.J., and Schellekens, J.H., Providencia Island - A Miocene bimodal stratovolcano on the lower Nicaraguan Rise, western Caribbean: in preparation

Smith, A.L., Roobol, M.J., Wright, J.V., and Mattioli, G.S., The 2000 year B.P. Plinian eruption from Mt. Pelee, Martinique: Distribution, Grain Size Characteristics and Implications for Future Hazards: in preparation

Smith, A.L., Roobol, M.J., Mattioli, G.S., Schellekens, J. H., Daly, G., Fryxell, J.E., and Fernandez, L., Geology of Dominica, Lesser Antilles: under revision for Special Paper, Geological Society of America.

Smith, A.L., Roobol, M.J., Mattioli, G.S., Fryxell, J.E., Stratigraphy, grain size analysis and geochemistry of the historic eruptions of Soufriere St. Vincent: in preparation

Community Service

Various talks on geology to local schools (elementary and middle grades) and after-school programs

Science Fair judge at local middle schools

Talks on Caribbean Volcanology at UCR, Whittier College, Cal Tech, and joint meeting of IGS and SME (held at CSUSB)

Interviews by reporters on topics of geological interest

Students Supervised (1996-05)

Undergraduate (Supervisor of Undergraduate Research)

PR - Leandro Addrach, David Cuevas, Dominike Merle, Lissette Pagan, Ernesto Quiñones, Inara Ramos, Rosenelsy Marrero, Lizandra Nieves, Gandi Ayyad, Gretchen Chiques, Jeannette Arce, Antonio Soto, Meralis Plaza, Omayra Bermudez, Maria Cardona, Loida Rivera,

CSUSB - Sharla Fitzgerald, Sharon Thompson, Jessica Kirkley, Amber Rheubottom, Lucero Estrella, Rachelle Herlihy. George Daly, Sarah Schneider, Shelby Harrell, Venessa Fava, Stephanie Montgomery, Natasha Storni

REU – Beau Tinnin, Rebecca Garcia, Jessica Thompson, Darrilynn Williams, Anieri Morales, Kelly Deuerling. Nikki Killingsworth, Andrew Payton

Graduate Puerto Rico

Lorna Jaramillo (Graduate Committee Member)

Michael Martinez (Graduate Committee Member)

Lizzette Rodriguez (Graduate Committee Member)

Dominike Merle (Principal graduate advisor) MS Thesis: The White Wall-Sugar Loaf mixed volcanic-carbonate sequence in St. Eustatius: Evidence for the emergence of an island arc volcano

Ernesto Quiñones (Principal graduate advisor) MS Thesis: Petrological and volcanological studies of the last 3,000 years of activity of Mt. Pelée, Martinique

CSUSB

Rachelle Herlihy (Principal Graduate Advisor) MS thesis (Fall 2009)

COURSES TAUGHT
Department of Geology
University of Puerto Rico at Mayaguez

A. Undergraduate

Earth Sciences
 Life in the Past
 Introductory Geology Laboratory
 Earth Materials
 Mineralogy
 Morphological and Optical Crystallography
 Crystal Chemistry and Geochemistry of Mineral Systems
 Geology for Engineers
 Seminar in Geology
 Lithology
 Introduction to Volcanology
 Physical Volcanology
 Petrogenesis of Crystalline Rocks
 Sedimentary Environments and Lithogenesis
 Undergraduate Research
 Crystallography
 Optical Mineralogy
 Petrology of Igneous and Metamorphic Rocks
 Caribbean Geology

B. Graduate

Volcanic Petrology
 Volcanic Hazards
 Oceanic Igneous Rocks
 Volcanic Processes and Products
 Special Topics in Petrology

Department of Geological Sciences
California State University, San Bernardino

A. Undergraduate

Introductory Geology
 Volcanic Hazards, Surveillance and Prediction
 Regional Field Geology
 Mineralogy and Crystallography
 Optical Mineralogy
 Introduction to Geochemistry
 Igneous and Metamorphic Petrology
 Directed Studies
 Undergraduate Geological Research
 Advanced Topics in Geology (Volcanology)
 Natural Disasters

B. Undergraduate/Graduate

Volcanology and Volcanic Hazard Assessment

Acronyms used:

AGU - American Geophysical Union
CREST - Centers of Research Excellence in Science and Technology
CSUSB – California State University, San Bernardino
DGMR – Directorate General of Mineral Resources (Saudi Arabia, later renamed DMMR)
DMMR – Deputy Ministry of Mineral Resources (Saudi Arabia)
DNAG - Decade of North American Geology
DoD - Department of Defense
EPSCoR - Experimental Program to Stimulate Competitive Research
GSA - Geological Society of America
IAVCEI - International Association of Volcanology and Chemistry of the Earth's Interior
IGCP - International Geological Correlation Programme
LPI - Lunar and Planetary Institute
NASA - National Aeronautical and Space Administration
NATO - North Atlantic Treaty Organization
NOAA - National Oceanic and Atmospheric Administration
NSERC - Natural Sciences and Engineering Research Council (Canada)
NSF - National Science Foundation
OAS - Organization of American States
PIRE – Partnership for International Research and Education
UNESCO - United Nations Educational, Scientific, and Cultural Organization
UPR - University of Puerto Rico
UPRM - University of Puerto Rico, Mayaguez