#### **EDUCATION**

Ph.D. Geosciences, 1991 M.A. Geological Sciences, 1985 M.B.A. Business Administration, 1978 B.A. Political Science, 1976 University of Arizona, Tucson, AZ SUNY at Binghamton, Binghamton, NY Duke University, Durham, NC Wellesley College, Wellesley, MA

#### **EXPERIENCE**

#### INDEPENDENT CONTRACTOR IN FREELANCE AND TECHNICAL WRITING

LSST Corporation – LSST E-News Writer.

Southern Arizona Families With Children From China Newsletter – Newsletter Editor and Writer.

Various other clients - Writer.

# University of Arizona, Tucson, Arizona, December 2000-Present. Arizona Water Institute (AWI), Tucson, AZ July 2006-Present.

**UA CAMPUS COORDINATOR** – Responsibilities include ensuring communication among water researchers across the university and among three state universities, coordinating and writing proposals, service on proposal review teams and on production of AWI communication products; project management; additional duties per direction of AWI Executive Director.

#### COLLEGE OF SCIENCE CENTER FOR ASTROBIOLOGY, JULY 2006-PRESENT.

**PROGRAM MANAGER** - Responsibilities in collaboration with Directors and Steering Committee include creation of framework for the Center, oversight of website development, development of business plan and establishment of interdisciplinary graduate and undergraduate program, grant writing and coordination of proposals, development and fundraising, workshop oversight.

#### STEWARD OBSERVATORY, DECEMBER 2000-JULY 2006.

PROGRAM MANAGER – ASSISTANT PROGRAM MANAGER – SPECIAL ASSISTANT TO THE DIRECTOR – Responsible for program management of the Life and Planets Astrobiology Center (LAPLACE) and for assistant program management (2004-2006) for the Large Optics Test and Integration Site (LOTIS) project. Responsibilities include financial, personnel and technical project oversight. As Special Assistant to the Director (2000-2004) responsible for completion of projects as designated by Director and Associate Director including Native American and other public outreach, project cost tracking, staff management and scheduling. Principal Investigator on Environmental Fuel Reduction Grant for Mt. Graham International Observatory (2003-2004). Author of public relations and outreach brochures. Liaison for environmental and outdoor lighting issues (2000-2005). Chair of Steward Observatory Human Subjects Departmental Review Committee. Service on Vice President for Research's Institutional Chemical Safety Committee (2004-present) and Arizona Tribes Initiative Working Group. Member of Pima County/City of Tucson Outdoor Lighting Code Committee (2003-2005). Alternate member of the Mt. Graham Red Squirrel Recovery Stakeholders Committee (2004-2006).

## SONORA ENVIRONMENTAL RESEARCH INSTITUTE, INC., TUCSON, AZ, APRIL 1994-DECEMBER 2000.

**RESEARCH ASSOCIATE** - Responsible for budget, administration, personnel management, contract negotiation and administration, and business development including proposal writing and business plan composition; conducted contract negotiations; administered grants and managed projects and ongoing programs including project scheduling, change orders, deliverables and project reports; liaisoned with federal and state agencies (EPA, NIH, ADEQ) on grant projects, Tohono O'odham Nation on federal grant, and with subcontractors;

responsible for patent application preparation; led and participated in research and development efforts including research into source apportionment of lead using ICP-MS technique, development of novel recycling technologies and instrumentation programming, development of sorting instrument for glass and plastic, business development for new products, database development for projects, and design and presentation of public outreach and educational activities and curricula.

#### PIMA COMMUNITY COLLEGE, TUCSON, AZ, AUGUST 1992-MAY 2001.

**ADJUNCT FACULTY MEMBER** - Designed and taught the course *Environmental Sampling and Monitoring*; designed and taught *The Solar System* and *Solar System Laboratory*.

#### PROSET, INC., TUCSON, AZ, APRIL 2000-DECEMBER 2000.

**CONTRACT TRAINER** – Designed and taught various courses in hazardous materials management and industrial safety to industry and municipal clients.

PIMA COUNTY SOLID WASTE MANAGEMENT DEPARTMENT, TUCSON, AZ, JULY 1992-MARCH 1994.

## TUCSON/PIMA COUNTY HOUSEHOLD HAZARDOUS WASTE PROGRAM (HHWP)

COORDINATOR AND ENVIRONMENTAL PROGRAMS MANAGER - Responsible for administrative, personnel (employees and volunteers) and operational management of HHWP; conducted contract negotiation and administration; managed development of databases for operational activities and personnel; oversaw subcontractors; planned and setup the Small Business Waste Assistance Program (SBWAP); oversaw and conducted compliance sampling and waste profiling; responsible for environmental and safety compliance with federal, state and local regulations; primary contact with federal, state and local agencies; conducted public outreach activities, public relations efforts, and curriculum development; responsible for technical and administrative management of the Landfill Environmental Studies Program.

#### ENVIROMD, INC., TUCSON, AZ, FEBRUARY 1991-JUNE 1992.

**ENVIRONMENTAL SCIENTIST** - Developed protocols and conducted site assessments, sampling, and hazardous materials evaluations; managed sampling and remedial action projects including leaking underground storage tanks, PCB contamination, and hazardous waste; conducted AHERA and OSHA compliance inspections; supervised subcontractors; negotiated project contracts; developed environmental training courses.

#### ZENITECH CORPORATION, TUCSON, AZ, JULY 1989-JANUARY 1991.

MANAGER, ENVIRONMENTAL SCIENCES AND SECRETARY-TREASURER - Coordinated contract administration, personnel, and resource management; managed sampling and remedial action projects including project scheduling, change orders, document control, reporting and closure; assisted companies with federal, state and local regulatory compliance; developed sampling procedures and protocols; and conducted safety and health training. Partial owner/founder.

### UNIVERSITY OF ARIZONA, TUCSON, ARIZONA, JANUARY 1985-JUNE 1989.

**RESEARCH ASSISTANT** - Programmed models to determine crystal growth during metamorphism (C language/UNIX system) and produce graphical representation; designed and programmed models to determine trace element concentrations during melting and solidification (FORTRAN language); constructed database for research; received three year NASA Research Fellowship for meteorite study.

WERNER SPITZ CONSTRUCTION CO., INC., ROCHESTER, NY, JUNE 1978-AUGUST 1983.

COMPUTER SYSTEMS ANALYST AND ASSISTANT COMPTROLLER - Responsible for computer software design and programming; assisted with proposal writing, bidding, contract negotiation and contract administration (government and private), project scheduling, reporting, review and change orders, project management; and conducted accounting/financial planning and other corporate duties for this multimillion dollar company with Comptroller and President. [Resigned position to enter M.A. program at SUNY Binghamton.]

#### COMMUNITY SERVICE AND VOLUNTEER ACTIVITIES

- **American Red Cross** First Aid, CPR and other courses Instructor (1989-present); Tucson Chapter Newsletter Editor (2001-2003).
- **Sonora Environmental Research Institute Inc.** Board Member. Secretary-Treasurer. CASA Advisory Board Member (1996-present).
- State of Arizona Site Steward Program Site Steward (2000-2007).
- **Southern Arizona Families with Children from China** Board Member; newsletter staff (2000-present, editor 2004-2006).
- Tucson/Pima County Household Hazardous Waste Program Collection Site Volunteer, Volunteer Trainer and Education Committee member (1989-1998); Volunteer Coordinator (2003-2006).
- **Project ASTRO** Astronomer (2001-2003).

#### SELECTED PUBLICATIONS

#### **Scientific Publications**

- Spitz, A.H. (2008) "Integrating Information to Manage Water Sustainability," *Backyards & Beyond: Rural Living in Arizona* 1(3): 13-14.
- Spitz, A.H. (2007) "Learning and Communicating Across Disciplines," Mercury 36(2): 32-36.
- Spitz, A.H. (2006) "Visiting the Moon Lady: A Celebration of Children and Culture." *Mercury*, 35(4): 24-29.
- Spitz, A.H. and The Exchange Village (2005) "It Takes a Village: Interdisciplinary Graduate Education in Astrobiology -The UA/NOAO "LAPLACE" University of Washington Exchange" Poster Presentation at NASA Astrobiology Institute Biennial Meeting.
- Wolf, A. A., Spitz, A. H., Olson, G., Závodská, A. and Algharaibeh, M. (2003) "Characterization of the Solid Waste Stream of Tohono O'odham Nation," *Journal of Environmental Health*, 65(8): 9-15.
- Spitz, A.H., Ratje, J. and Corbally, C. (2002) "Aiding local community efforts to implement an outdoor lighting ordinance", poster presentation at IDA Annual Meeting, March 15-19, 2002.
- Wolf, A. A, Kettler, L. E., Leahy, J. F. and Spitz, A. H. (1997) "Surveying Household Hazardous Waste Generation and Collection: Trends in Arizona", *Journal of Environmental Health*, 59(7): 6-11.
- Spitz, A. H., Wolf, A. A. and Ruiz, J. (1995) "Source Apportionment for Lead Exposure," *Proceedings of the Society of Women Engineers*:109-114.
- Wolf A. A. and Spitz, A. H. (1995) "Emerging Technologies for Rapid Testing of Pollutants," *Proceedings of the Society of Women Engineers*: 73-78.
- Spitz, A. H., Wolf, A.A., Holcomb, M., and Uthe, D. (1995) "Arizona Program Helps Solve Small Business Hazwaste Problems", *Environmental Solutions*, 8(2):45-48.
- Spitz, A. H., Wolf, A. A., and Holcomb, M (1994) "Implementing a Collection Program for Conditionally Exempt Small Quantity Generators of Hazardous Waste", Waste Age 25(8), 83-89.
- Spitz, A. H. (1994) Freon in Your Car... Now What?, *PDEQ Dialogue* 4(6).
- Spitz, A. H. (1994) Pollution Prevention: Using Worker Resources, *PDEQ Dialogue* 4(4).
- Spitz, A. H. and Boynton W. V. (1991) "Trace Element Analysis of Ureilites: New Constraints on Their Petrogenesis," *Geochimica Cosmochimica Acta*, 55:3417-3430.
- Spitz, A. H. and Ruiz, J. (1991) "Trace element analysis of ureilites using ICP-MS," *Lunar and Planetary Sciences Conference* XXII.
- Spitz, A. H. (1991) "Quality Assurance from Sampling to Final Report," *Proceedings of the Southern Arizona Environmental Management Society Seminar on Technologies for Hazardous Waste Site Investigations and Remedial Actions*.

## <u>Southern Arizona Families with Children from China (SAFCC) Newsletter and Activities</u> Feature and Other Articles:

- Chinese Agriculture 21<sup>st</sup> Century Issues for an Ancient Agricultural System. SAFCC Newsletter Spring 2007, Volume 7, Number 2.
- Drought, Floods and Thirst: China's Control of Water. SAFCC Newsletter Fall 2006, Volume 6, Number 4.
- The Ming Dynasty Explorations: Travels of the Treasure Fleet. SAFCC Newsletter Summer 2006, Volume 6, Number 3.
- When is Chinese New Year and Why is it a Different Day Each Year? SAFCC Newsletter Winter 2006, Volume 6, Number 1.
- Chinese Americans in Tucson, Arizona: From Early Settlers to Community Pillars. SAFCC Newsletter Summer 2005, Volume 5, Number 3.
- Children from Abroad Adapt Well. SAFCC Newsletter Summer 2005, Volume 5, Number 3.
- Origins of Chinese New Year Traditions. SAFCC Newsletter Winter 2005, Volume 5, Number 1.
- Balancing Act: Defusing Racist Remarks and Strengthening Identities. SAFCC Newsletter Fall 2004, Volume 4, Number 4.

#### **Book Reviews:**

- Beyond Good Intentions: A Mother Reflects on Raising Internationally Adopted Children by Cheri Register. SAFCC Newsletter Fall 2006, Volume 6, Number 4.
- Colors of the Mountain by Da Chen. SAFCC Newsletter Fall 2006, Volume 6, Number 3.
- At Home in this World....A China Adoption Story by Jean MacLeod and Qin Su (illustrator). SAFCC Newsletter Summer 2006, Volume 6, Number 3.
- Millicent Min, Girl Genius by Lisa Yee. SAFCC Newsletter Spring 2006, Volume 6, Number 2.
- China Inc.: How the Rise of the Next Superpower Challenges America and the World by Ted C. Fishman. SAFCC Newsletter Spring 2006, Volume 6, Number 2.
- The Chinese Century: The Rising Chinese Economy and Its Impact on the Global Economy, the Balance of Power and Your Job by Oded Shenkar. SAFCC Newsletter Spring 2006, Volume 6, Number 2.
- Balzac and the Little Chinese Seamstress by Dai Sijie, translated from the French by Ina Rilke. SAFCC Newsletter Spring 2006, Volume 6, Number 2.
- Beautiful Warrior: The Legend of the Nun's Kung Fu by Emily Arnold McCully. SAFCC Newsletter Spring 2006, Volume 6, Number 2.
- The Year of the Dog by Grace Lin. SAFCC Newsletter Winter 2006, Volume 6, Number 1.
- *Mei Mei Little Sister Portraits from a Chinese Orphanage* by Richard Bower. SAFCC Newsletter Fall 2005, Volume 5, Number 4.
- The Chinese in America by Iris Chang. SAFCC Newsletter Summer 2005, Volume 5, Number 3.
- On Gold Mountain: The One-Hundred Year Odyssey of My Chinese-American Family by Lisa See. SAFCC Newsletter Summer 2005, Volume 5, Number 3.
- Dragon Bones by Lisa See. SAFCC Newsletter Spring 2005, Volume 5, Number 2.
- Spring Pearl: The Last Flower by Lawrence Yep. SAFCC Newsletter Spring 2005, Volume 5, Number 2.
- Celebrating Chinese New Year by Diane Hoyt-Goldsmith. SAFCC Newsletter Winter 2005, Volume 5, Number 1.
- The Good Women of China: Hidden Voices by Xinran Xue. SAFCC Newsletter Fall 2004, Volume 4, Number 4.
  - *Chinese Eyes* by Majorie Ann Waybill, illustrated by Pauline Cutrell. SAFCC Newsletter Fall 2004, Volume 4, Number 4.

*The Seven Chinese Sisters* by Kathy Tucker and illustrated by Grace Lin. SAFCC Newsletter Spring 2004, Volume 4, Number 2.

## **Kids' Pages and Event Activities:**

*Thirsty Lands – China and Arizona.* SAFCC Newsletter, Fall 2006, Volume 6, Number 4. *The Treasure Fleet: China Ruled the Seas.* SAFCC Newsletter Summer 2006, Volume 6, Number 3.

China Rising! 21<sup>st</sup> Century Partners and Competitors. SAFCC Newsletter Spring 2006, Volume 6, Number 2.

Chinese New Year – When is It? SAFCC Newsletter Winter 2006, Volume 6, Number 1. Ancient Connections: The Silk Road. SAFCC Newsletter Fall 2005, Volume 5, Number 4. Summer Reading! SAFCC Newsletter Summer 2005, Volume 5, Number 3.