

Diana Stuart Sinton

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Education and Credentials

- June 2019 GIS Professional (GISP) Credential, GIS Certification Institute
- June 1996 Ph.D., Geography, Department of Geosciences, Oregon State University, Oregon
Dissertation: *Spatial and temporal patterns of windthrow in the Bull Run Watershed, Oregon.*
- June 1992 M.S., Geography, Department of Geosciences, Oregon State University, Oregon
- May 1988 B.A., *cum laude*, Religion, Middlebury College, Vermont

Professional Positions

- July 2021 – present Senior Research Fellow, University Consortium for Geographic Information Science (UCGIS). Co-PI for the TRELIS project for supporting academic women in leadership roles in the geospatial sciences; Co-lead of the Evaluation & Knowledge Transfer team of I-GUIDE (iguide.illinois.edu); Project Manager of the GIS&T Body of Knowledge (gistbok.ucgis.org).
- July 2013 – June 2021 Executive Director, University Consortium for Geographic Information Science (UCGIS). Sole employee responsible for daily operations of this non-profit organization, founded in 1995 to support and promote research and education in the geospatial sciences in higher education.
- Dec 2013 - present Adjunct Associate Professor, Soil & Crop Science Section, School of Integrated Plant Sciences, College of Agricultural and Life Sciences, Cornell University, Ithaca, New York
- July 2013 – June '17 Series Editor, SpatialLABS, Esri, Redlands, California
- April 2013 – Aug '15 Contributing Researcher, a *Watershed Based Approach to Food Security and Sustaining Biodiversity project*. Forest Stewardship Program, State and Private Forestry, Yap State Department of Resources and Development, Yap, Micronesia. Funded through the Institute of Pacific Islands Forestry, USDA Forest Service, Hilo, Hawaii. 2013-2015.
- Aug. '07 – July '13 Director of Spatial Curriculum and Research, University of Redlands. Redlands, California. Faculty rank of Associate Professor, 2009-2013; Assistant Professor, 2007-2009.
- Sept. '03 – Aug. '07 Chief Program Officer and GIS Program Director, National Institute for Technology and Liberal Education. Middlebury College, Middlebury, Vermont
- January – June '03 International Research Fellow, Agricultural Plant Physiology and Ecology Research Institute. College of Agronomy, University of Buenos Aires, Argentina

- Aug. '97 – June '03 Assistant Professor of Environmental Studies and Geography, and Director, Environmental Studies Geographic Information Systems Laboratory. Division of Environmental Studies, Alfred University, Alfred, New York
- January - August '97 GIS Analyst, National Marine Fisheries Service. National Oceanic and Atmospheric Administration, Narragansett, Rhode Island
- January – June '97 Adjunct Assistant Professor. Department of Natural Resources Science. University of Rhode Island, Kingston, Rhode Island

Honors & Achievements

- 2019 Roster, Fulbright Specialist Program (2019-2024)
- 2016 Journal of Geography Award for Best Article, National Council for Geographic Education
- 2016 Education Award, University Consortium for Geographic Information Science (UCGIS)
- 2013 Meid Mentor, Marymount College, Palos Verdes, California
- 2009 SPLINT (Spatial Literacy in Teaching) Fellow, Centres for Excellence in Teaching & Learning (University of Leicester, England)
- 2003 Ruth Berger Rubenstein Memorial Award for Excellence in Teaching, Alfred University
- 2002 International Research Fellowship, National Science Foundation
- 1996 Parenzin Research Award, Department of Geosciences, Oregon State University

Grants (since 2000)

- 2021 *HDR Institute: Geospatial Understanding through an Integrative Discovery Environment (IGUIDE)*. National Science Foundation #2118329, \$15,000,000. Subaward to UCGIS under PI Shaowen Wang (University of Illinois Urbana-Champaign).
- 2019 *Convergence Accelerator Phase I (RAISE): Open Knowledge Network for Spatial Decision Support*, National Science Foundation #1937908, \$999,739. Subaward to UCGIS under PI Sean Gordon (Portland State University).
- 2017 *TRELIS-GS: Training and Retaining Leaders in STEM – Geospatial Sciences*, National Science Foundation #1660400, \$420,194. Together with Kate Beard (University of Maine) and Laxmi Ramasubramanian (San Jose State University).
- 2015 *Communicating Uncertainty via Scientific Illustrations*, Visionary Grant from the Gordon Research Conferences, \$3,450. Together with J. Christiansen (Scientific American).
- 2011 *Visualizing Flow and Movement in the Humanities*, National Endowment for the Humanities, \$24,956.
- 2009 *Learning Spatially (LENS): Infusing Spatial Thinking into Undergraduate Education*, W. M. Keck Foundation, \$250,000.
- 2008 *Increased Effectiveness of Field-Based Courses Through Portable Technology*. Technology for Teaching Grant. Hewlett-Packard. Submitted with W. McIntyre and C. Sinton, University of Redlands. \$20,000.

- 2002 *Understanding the invasion of exotic woody species and native shrubs into a protected area: a case study of El Palmar National Park, Argentina*. International Research Fellowship, National Science Foundation, \$75,000.
- 2001 Establishment of an Undergraduate Research Fund. Donaldson Foundation, \$25,000. Submitted with M. Hluchy, Alfred University.
- 2001 Steps to Integrate GIS into the County Government. Allegany County Board of Legislators, Allegany County, New York, \$14,500 (funding to support three students for summer work).
- 2000 Geographic Information Systems Curriculum for Grades 7-12. Office of Curriculum, Instruction and Assessment, Department of Education, New York State, \$34,763. Submitted with G. Niles, Alfred University.
- 2000 Integrating Spatial Analyses into an Environmental Studies Curriculum. National Science Foundation, Division of Undergraduate Education: Course, Curriculum and Laboratory Improvement Program, \$57,794. Submitted with M. Hluchy and G. Godshalk, Alfred University.
- 2000 Enriching the Geospatial Technology Resources Available for Students in Alfred, New York. Geographic Information Systems / Spatial Information Group, Rochester, New York, \$500. Submitted with A. McLaughlin, SUNY Alfred.

Publications

(* = undergraduate student, # = graduate student)

Journal Articles

- Du, J., Wang, S., Ye, X., **Sinton, D. S.**, and Kemp, K. (2021). GIS-KG: building a large-scale hierarchical knowledge graph for geographic information science. *International Journal of Geographic Information Science*. DOI: [10.1080/13658816.2021.2005795](https://doi.org/10.1080/13658816.2021.2005795).
- Blanford, J., Bowlick, F., Gidudu, A., Gould, M., Griffin, A., Kar, B., Kemp, K., de Roiste, M., de Sabbata, S., **Sinton, D.**, Strobl, J., Tate, N., Toppen, F., and Unwin, D. (2021). Lockdown lessons: an international conversation on resilient GI Science teaching. *Journal of Geography in Higher Education* 46(1). DOI: [10.1080/03098265.2021.1986687](https://doi.org/10.1080/03098265.2021.1986687).
- Wikle, T. and **Sinton, D. S.** (2021). Where Have the Cartographers Gone? The Status of Cartography Instruction within U.S. Geography Departments and Programs. *Cartography and Geographic Information Science*. 48:2, 140-150, DOI: [10.1080/15230406.2020.1852971](https://doi.org/10.1080/15230406.2020.1852971)
- Wikle, T. and **Sinton, D. S.** (2020). The Administration of Academic GIS Certificates: A Survey of Program Coordinators. *Transactions in GIS*. 24(6): 1681-1694. DOI: [10.1111/tgis.12677](https://doi.org/10.1111/tgis.12677).
- Sinton, D. S.** and Kerski, J. J. (2020). GIS&T Education and Training. The Geographic Information Science & Technology Body of Knowledge (1st Quarter 2020 Edition), John P. Wilson (ed.). DOI: [10.22224/gistbok/2020.1.4](https://doi.org/10.22224/gistbok/2020.1.4)

Dony, C.C., Nara, A., Amatulli, G., Delmelle, E.M., Tateosian, L., Rey, S., and **Sinton, D.S.** (2019) Computational Thinking in U.S. College Geography: An Initial Education Research Agenda. *Research in Geographic Education*, 21(2): 39-54.

Sinton, D. S. (2019). Observations on the Gaps and Opportunities for Geocomputation. In *Proceedings of GeoEd'19:1st ACM SIGSPATIAL International Workshop on Geo-computational Thinking in Education Proceedings*. ACM, Chicago, IL, USA, 4 pages. DOI: [10.1145/3356393.3365370](https://doi.org/10.1145/3356393.3365370).

Sinton, D. S. (2016). Spatial Thinking and GIS. In H. Burte, T. Kauppinen, & M. Hegarty (Eds.), *Proceedings of the Workshop on Teaching Spatial Thinking from Interdisciplinary Perspectives (TSTIP 2015) at COSIT 2015 in Santa Fe, NM*. CEUR-WS.org, online: ceur-ws.org/Vol-1557/.

Baker, T.R., Battersby, S., Bednarz, S.W., Bodzin, A., Kolvoord B., Moore, S., **Sinton, D.** & Uttal, D. (2015). A Research Agenda for Geospatial Technologies and Learning, *Journal of Geography*, 114:3, 118-130, DOI: [10.1080/00221341.2014.950684](https://doi.org/10.1080/00221341.2014.950684). **Winner of the 2016 Journal of Geography Award from the National Council for Geographic Information.**

King, A. M., Larsen, L. I. and **Sinton, D. S.** (2012). The Spatially Interactive Literature System Study Tool: A GIS Classroom Tool for Interpreting History. *International Journal of Applied Geospatial Research*, 3(3): 70-85. DOI: [10.4018/jagr.2012070105](https://doi.org/10.4018/jagr.2012070105).

Howarth, J. T. and **Sinton, D. S.** (2011). Sequencing spatial concepts in problem-based GIS instruction. International Conference: Spatial Thinking and Geographic Information Science. *Procedia – Social and Behavioral Sciences* 21:253-259. DOI: [10.1016/j.sbspro.2011.07.042](https://doi.org/10.1016/j.sbspro.2011.07.042).

Sinton, D. S. (2009). Roles for GIS within Higher Education. *Journal of Geography in Higher Education*, 33(1): S7-S16. DOI: [10.1080/03098260903034046](https://doi.org/10.1080/03098260903034046).

Sinton, D. S. and Huber, W. (2007). Mapping polka and its ethnic heritage in the United States. *Journal of Geography*, 106: 41-47. DOI: [10.1080/00221340701487913](https://doi.org/10.1080/00221340701487913).

Sinton, D. S. and Jones, J.A. (2002). Extreme winds and windthrow in the western Columbia River Gorge. *Northwest Science*, 76(2): 173-182.

Sinton, D. S., Jones, J. A., Swanson, F. J., and Ohmann, J. (2000). Forest composition, structure, and disturbance by wind in the Bull Run basin, Oregon. *Ecology*, 81(9): 2539-2556. DOI: [10.1890/0012-9658\(2000\)081\[2539:WDFCAS\]2.0.CO;2](https://doi.org/10.1890/0012-9658(2000)081[2539:WDFCAS]2.0.CO;2).

Books

Sinton, D. S., Kolvoord, B., Gersmehl, P., Bednarz, S. and Uttal, D. (2013). *The People's Guide to Spatial Thinking*. Washington, DC: National Council for Geographic Education.

Sinton, D. S. and Lund, J. J. (Eds.) (2006). *Understanding Place: GIS and Mapping across the Curriculum*. Redlands, CA: ESRI Press.

Book Chapters

Sinton, D. S. (2020). Mapping. *Digital Pedagogy in the Humanities*. Eds. Rebecca Frost Davis, Matthew K. Gold, Katherine D. Harris, and Jentery Sayers. Modern Language Association. <https://digitalpedagogy.hcommons.org/>

Sinton, D. S. (2017). Critical Spatial Thinking, in Richardson, D., Castree, D. N., Goodchild, M., Liu W., Kobayashi, A., & R. Marston, R. (Eds.) *The International Encyclopedia of Geography: People, the Earth, Environment, and Technology*. Hoboken, NJ: Wiley/AAG. DOI: [10.1002/9781118786352.wbieg0706](https://doi.org/10.1002/9781118786352.wbieg0706).

Sinton, D. S. (2014). Spatial Learning in Higher Education, in Montello, D. R, Grossner, K., & Janelle, D. G. (Eds.), *Space in mind: Concepts for spatial learning and education*. Cambridge, MA: MIT Press: 219-238.

Sinton, D. S. (2012). Making the case for GIS in higher education, in Unwin, D., Tate, N., Foote, K. and DiBiase, D. (eds.), in *Teaching Geographic Information Science and Technology in Higher Education*. London: John Wiley & Sons (UK): 17-36.

Sinton, D. S. (2011). Spatial Thinking, in Stoltman, J. (ed.), *21st Century Geography: A Reference Handbook*. Thousand Oaks, CA: SAGE Publications: 734-744.

Sinton, D. S. and Schultz, R. (2008). GIS and Mapping Applications for Reasoning and Critical Thinking about the Environment and Society, in M. N. Solem and K. E. Foote (eds.), *Teaching College Geography: A Practical Guide for Graduate Students and Early Career Faculty*. Upper Saddle River, NJ: Prentice-Hall: 69-80.

Lund, J. J. and **Sinton, D. S.** (2006). Critical and creative visual thinking, in D. Sinton and J. Lund (eds.), *Understanding Place: GIS and Mapping Across the Curriculum*. Redlands, CA: ESRI Press: 1-18.

Sinton, D. S. and Bednarz, S. W. (2006). About that G in GIS, in Sinton, D. and J. Lund (eds.), *Understanding Place: GIS and Mapping across the Curriculum*. Redlands, CA: ESRI Press: 19-34.

Editorials

Mennis, J., Kemp, K., **Sinton, D.**, Read, J., and Shaw, S-L. (2021). UCGIS at 25. *Transactions in GIS*. [10.1111/tgis.12856](https://doi.org/10.1111/tgis.12856).

Giordano, A., Shaw, S.L., and **Sinton, D.** (2020). Guest Editors' Introduction: The Geospatial Humanities: Transdisciplinary Opportunities. *International Journal of Humanities and Arts Computing*. 14(1-2): 1-5. DOI: [10.3366/ijhac.2020.0241](https://doi.org/10.3366/ijhac.2020.0241).

Sinton, D., Freundsuh, S., and Chrisman, N. (2019). Introduction to special issue on frontiers of geospatial data science from the joint UCGIS symposium / Autocarto 2018 conference. *Cartography and Geographic Information Science*, 46(1): 1. DOI: [10.1080/15230406.2019.1524665](https://doi.org/10.1080/15230406.2019.1524665).

Editorial Production

Steinitz, C. (2012). *A Framework for Geodesign: Changing Geography by Design*. Redlands, CA: Esri Press.

Other Publications (selected ones since 2010)

Sinton, D. S. Regular writer for articles at *Directions Magazine*. Published collection available [online](#). February 2015 – 2019.

Giordano, A., Kemp K., and **Sinton, D.** (2019). Report on UCGIS Activities, 2018 and 2019. US National Report (US National Committee for the International Cartographic Association) (July 2019), accessed September 10, 2019, <https://cartogis.org/usnc-ica/us-national-report/>.

Freundschuh, S. M., **Sinton, D.S.**, and Smith, C. (Eds.), (2018). *Second Report Card on the U. S. National Spatial Data Infrastructure*, Compiled by the Coalition of Geospatial Organizations (COGO). December.

Sinton, D. S. (2011). A Spatial Literacy Initiative in Higher Education. *ArcNews* 32(4): 36-37. <http://www.esri.com/news/arcnews/winter1011articles/a-spatial-literacy.html>.

Invited Talks & Conference Presentations

Invited Talks (selected ones since 2010)

- 2021 *Teaching Ethics in the use of GIS and Spatial Data*. Ethics in Geographic Information, Symposium and Workshop. United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) Academic Network Americas (ANA). March.
- 2021 *Spatial Thinking for Everyone: Geographic Information Systems in Supporting Learning Across the Humanities and Social Sciences*. Live lecture recorded online for their ThinkSpatialUL Seminar Series. University of Limerick, Ireland. January.
- 2020 *Linking Spatial Questions and Digital Technologies to Understand Geographic Patterns*. Live lecture recorded online for the GeoEducation Collection. The Geographical Association, United Kingdom. November.
- 2019 *Directions and Trends in Geospatial Curricula*. Department of Geography Colloquium. Syracuse University, Syracuse, New York. September.
- 2019 *Internal & External Forces Influencing GIS&T in Higher Education Today, Or, You're Not the Boss of Me*. Journal of Geography in Higher Education Invited Lecture, American Association of Geographers Conference, Washington DC. April.
- 2018 *Strategic Bridge Building via Communication*. Panel on Geography, Civic Engagement, and the Future of Data Science. Illuminating Space and Time in Data Science, Center for Geographic Analysis, Harvard University, Cambridge, Massachusetts, April.
- 2018 *Teaching, Learning, and Communication within the Context of GIS&T*. Transactions in GIS Plenary Lecture, American Association of Geographers Conference, New Orleans, Louisiana. April.
- 2018 *Evolving Roles for GIS in Higher Education*. Women in Technology Seminar, Yale University, New Haven, Connecticut. January.
- 2015 *Spatial Reasoning and STEM Learning*. Department of Geography Seminar, Texas A&M University, College Station, Texas. October.
- 2015 *Spatial Thinking via Geography and GIScience*. Pre-conference workshop on Teaching Spatial Thinking through Multiple Perspectives at COSIT XII, Santa Fe, New Mexico. October.
- 2015 *Learning through Geospatial Analytics*. Geospatial Forum, Center for Geospatial Analytics, North Carolina State University, Raleigh, North Carolina. September.
- 2015 *Why Spatial Thinking Underlies Visual Thinking*. Plenary Presentation, Visualization in Science and Education, Gordon Research Conference, Bates College, Lewiston, Maine. August.
- 2014 *Building the next Generation of Knowledge about Geospatial Technologies and Learning*. Keynote Presentation, GI-Forum, University of Salzburg, Salzburg, Austria. July.
- 2014 *New Ways to Map and Be Mapped*. Wesleyan University, Middletown, Connecticut. April.
- 2013 *Maps and Spatial Perspectives*. Mapping Worlds Workshop, University of Vermont, Burlington, Vermont. August.

- 2013 *Geospatial Thinking to Reason and Communicate*. Meid Visiting Mentor Program, Marymount College, Palos Verdes, California. March.
- 2012 *Geography and GIS Education in Higher Education*. GIS and Spatial Thinking in Higher Education, Bucknell University, Lewisburg, Pennsylvania. November.
- 2012 *A Few Things to Know about Geography and GIS Education in Higher Education*. New York State Geospatial Summit, Skaneateles, New York. October.
- 2012 *Digital Maps in Scholarship and Publishing*. Digital Humanities Initiative, Hamilton College, Clinton, New York. February.
- 2011 *Enhancing Learning and Scholarship with Mapping Technologies*. Center for New Designs in Learning and Scholarship, Georgetown University, Washington, DC. November.
- 2011 *Maps, Metaphors, Analogies and the Next Generation of GIS & Humanities Questions*. Mapping Place: GIS and Humanities Conference. Interdisciplinary Humanities Center, UC Santa Barbara, Santa Barbara, California. February.

Conference Presentations (refereed abstracts) (selected ones since 2000)

- 2013 *Students Becoming Spatially Informed Citizens?* National Council for Geographic Education, Denver, Colorado. August.
- 2012 *Education for Spatial Citizenship*. National Council for Geographic Education, San Marcos, Texas. October.
- 2012 *Building a Spatial Literacy Program in Teacher Education*. International Geographical Congress, Cologne, Germany. August.
- 2012 *On-line Geospatial Learning: Insights Gained and Lessons Learned*. Esri GIS Educational Conference, San Diego, California. July. Together with K. Lukens.
- 2012 *Mapping People Visual Library Catalog*. University Consortium for Geographic Information Science, Washington, DC. May.
- 2010 *Activities to Promote and Develop Spatial Literacy*. National Council for Geographic Education Annual Conference, Savannah, Georgia. October.
- 2009 *Teaching Spatial Thinking and its Implications for Teaching GIS*. ESRI's Education User's Conference. San Diego, California. July.
- 2008 *Spatial Reasoning and Geographic Thought at the University of Redlands*. ESRI's Education User's Conference. San Diego, California. July.
- 2008 *Integration of Engineering and Science with the Liberal Arts: Learning from Each Other*. Association of American Colleges and Universities Annual Meeting. Washington D.C. January.
- 2007 *Active Learning in Liberal Education with Geographic Information Systems (GIS) Technologies*. American Association of Colleges & Universities (AAC&U) Annual Conference. New Orleans, Louisiana. January. Together with M. Baber
- 2005 *Approaches for Integrating GIS on College Campuses*. Northeast Regional Computing Program (NERCOMP). Worcester, Massachusetts. April.
- 2004 *Teaching and Learning with GIS in the Liberal Arts*. National Council for Geographic Education, Annual Meeting. Kansas City, Missouri. October.
- 2002 *Exploring wind resources in Allegany County, New York*. 18th Annual New York State GIS Conference. Liverpool, New York. October. Together with C. DeMay*
- 2001 *The Influence of Settlement Patterns, Agriculture and Geography on Forest Patterns in Allegany County, New York*. American Society for Environmental History Annual Conference. Durham, North Carolina. April. Together with G. Clarke*

Professional Honors & Service

Advisory Boards

- *Collaborative Research: CyberTraining: CIU: Hour of Cyberinfrastructure: Developing Cyber Literacy for Geographic Information Science*. Eric Shook (PI), University of Minnesota. NSF Grant #1829708. 2018-2021.
- *Center for Geospatial Analytics*, North Carolina State University, Raleigh, North Carolina. 2018-present.
- *Exploring Links between STEM Success and Spatial Skills: Undergraduate GIS Courses and a Spatial Turn of Mind*. Nora Newcombe (PI), Temple University. NSF Grant #1660966, 2017 – 2020.
- *Certification Governance Board*, US Geospatial Intelligence Foundation. 2015 – 2020.
- *Collaborative Research: Cognitive and Neural Indicators of School-based Improvement in Spatial Problem Solving*. Robert Kolvoord (PI), James Madison University. NSF Grant #1420600, 2015-2018.
- Esri Education Advisory Board, May 2012 - June 2014.
- *GeoGames - a virtual simulation workbench for teaching and learning through a real-world spatial perspective*. Ola Ahlqvist (PI), The Ohio State University. NSF Grant #1124037, #1320259, 2011 – 2015.

Invited Memberships

- Geography Commission, United States National Section of the Pan American Institute of Geography and History (PAIGH), Organization of American States. June 2012 – present.
- *European Spatial Citizenship Project (SPACIT)*. Comenius Multilateral Project, European Commission, on behalf of the National Council of Geographic Education, 2012 – 2014.
- Geography Education Research Committee (GERC), *Establishing a Roadmap for Large-Scale Improvement of K-12 Education in the Geographical Sciences*. DRL – DR-K12 Resources and Tools, NSF Award #1049437, 2010-2012.

Professional Volunteer Activities

- 2016 Esri Education Ambassador, Belize City, Belize.
- 2011 – 2013 Co-Coordinator, Analysis Team, Standby Task Force, Crisis Mapping. Libya Deployment, 2011.
- 2006 GIS Corps, Medical Mission Exchange deployment.

Elected Memberships

- Research Committee, National Council for Geographic Education, 2009-2011.

External Evaluator

- *A New Collaborative Model for Geospatial Technology Education and Workforce Studies in a Rural Region*. Tora Johnson (PI), University of Maine, Machias. NSF Grant #0802417, 2008-2011.

Editorial Boards

- Journal of Geography in Higher Education (2012 – present)
- Spatial Humanities Step-by-Step, Univ. of Virginia, <http://spatial.scholarslab.org>

Conferences Organized

- Cornell University Geospatial Forum (CUGEO), Ithaca, NY, October 2014; October 2015; November 2019.
- Spatial Thinking across the College Curriculum, Santa Barbara, CA, December 2012
- Mapping People Symposium, Redlands, CA, October 2012
- LENS Institute: Mapping Communities, University of Redlands, June 2012
- LENS Institute: Mapping Migrations, University of Redlands, June 2011
- LENS Institute: Mapping People, University of Redlands, June 2010
- Geodesign Summit, Esri, Redlands, CA, January 2010, January 2011

Conference Sessions Organized

- Emerging Ideas in GIS Instruction. Association of American Geographers, Seattle, WA, 2010.
- Diverse Approaches and Strategies for Spatial Thinking. Association of American Geographers, Washington DC, 2010.
- Teaching and Learning GIS: Issues of Spatial Thinking, Educational Frameworks, and Student Needs and Abilities. Association of American Geographers, Las Vegas, NV, 2009.

Journal Reviewer

Journal of Geography in Higher Education; Journal of Geography; Transactions in GIS; International Journal of Geomatics and Spatial Analysis; The Professional Geographer; Landscape Ecology

Outreach Talks

- UCGIS, the GIS&T Body of Knowledge, and Future Directions. Graduate Seminar, School of Geographical Sciences and Urban Planning, Arizona State University, January 2022.
- SpatialLABS as Component of Servant Leadership. Plenary, Esri GIS Educational Conference, San Diego, California, July 2015.
- Open Educational Resources Presentation. Plenary, Esri GIS Educational Conference, San Diego, California, July 2012.
- Over 40 presentations to the general public and educational communities about spatial thinking, GIS, and its applications, 1998 – present.

Teaching Experience

Cornell University

- Introduction to Mapping & Spatial Analysis with GIS, PLSCS 2200
- Geographic Information Systems, PLSCS 4200
- Spatial Modeling and Analysis, PLSCS/NTRS 6200 (with D. Rossiter)

University of Redlands

- Foundations of Spatial Thinking, EDUC 616 (traditional and online)
- Fundamentals of Geographic Information Science, GIS 611 (co-taught with other MS GIS faculty)
- Spatial Analysis and GIS, EVST 110
- First Year Seminar, New Ways to Map a Changing World
- Understanding Spatial Data Uncertainty workshop, GIS 650
- Territorial Politics, GOVT 362 (with S. Wuhs)
- Mapping People, Mapping Places, SOAN 365 (with W. Bernardini)

Alfred University

- Introduction to GIS, ENVS 220
- Advanced GIS Applications, ENVS 320
- Principles of Geography, ENVS 103
- Environmental History, ENVS 204
- Environmental Data Analysis, ENVS 205
- Environmental Research Procedures, ENVS 240/241
- Natural Resources Management, ENVS 415
- Research Planning, ENVS 440
- Senior Seminar, ENVS 490
- Senior Research Project, ENVS 499

Workshops Designed, Organized and Taught

University of Redlands

- *Visualizing Flow & Movement in the Humanities*. Two days. October 2012.
- *Short Spring Spatial Workshops*. Three days. April 2010; April 2011; May 2012.
- *Spatial Statistics*. Two days. May 2011. Organized with Esri.
- *Mini-Mapping workshops*. One hour.
 - *Introduction to Spatial Learning*: September 2009; September 2008; October 2007

- *Virtual Globes: Basics and Advanced*: October 2009; March 2009; January 2009; February 2008; January 2008
- *Map Mashups*: April 2009; November 2008; December 2007
- *Working with Census Data*: October 2008; April 2008; November 2007
- *Web Mapping Applications*: October 2009; April 2008
- *Basics of GIS with ArcMap*: November 2009 (with D. Smith); February 2009

National Institute for Technology & Liberal Education (NITLE)

- *Spatial Statistics*. Five days. Designed and co-taught with D. Unwin and B. Huber. Wheaton College, Norton, Massachusetts. May 2007.
- *iGIS, Introducing GIS*. Three days. Lawrence University, Appleton, WI, December 2005; Willamette University, Salem, OR, January 2006; Austin College, Sherman, TX, January 2006; Birmingham-Southern College, Birmingham, AL, May 2006; Pomona College, Claremont, CA, June 2006. Beloit College, Beloit, WI, December 2006; Lewis & Clark College, Portland, OR, January 2007.
- *Web-Mapping: Exploring Internet-Based Applications as Teaching and Learning Tools*. Four days. Pomona College, Claremont, CA, June 2006.
- *Managing and Supporting GIS*. Three days. Trinity University, San Antonio, TX, March 2006.
- *Teaching and Learning with GIS*. Five days. Middlebury College, Middlebury, VT, June 2004; June 2005.
- *GIS Across the Curriculum*. Five days. Middlebury College, Middlebury, VT, June 2004, June 2005; College of Wooster, Wooster, OH, January 2004; Furman University, Greenville, SC, January 2005; University of Puget Sound, Tacoma, WA, July 2005.
- *GIS for Urban Studies*. Three days. Trinity College, Hartford, CT, June 2005.
- *GIS for Landscape Ecology*. Four days. University of the South, Sewanee, TN, May 2005.
- *Student-Immersion, Faculty-Focus*. Twelve days. Middlebury College, VT, June 2005.
- *Teaching with GIS in the Liberal Arts*. Seven days. Colorado College, Colorado Springs, CO, August 2004.

Other Workshops

- *Intro to Mapping and GIS for the Citrus Valley High School*, Redlands Unified School District, Redlands, CA. Three days. Designed and co-taught with D. Smith and C. Fitzpatrick, May 2009.
- *EDGE Workshop: GIS and Mapping Technologies: Applications for Reasoning and Critical Thinking*. Three hours. Association of American Geographers Conference, Las Vegas, NV. Designed and co-taught with R. Schultz. March 2009.
- *GIS and Critical Thinking*. One day. National Geospatial Intelligence Agency, Fort Belvoir, VA. Designed and co-taught with M. Goodchild. July 2008.
- *Geographic Information Systems Technology for Grades 7-12*. Two-day workshop for fifteen middle-school teachers. Alfred University, Alfred, NY, March 2001.