## **Diana Stuart Sinton**

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## **SUMMARY of QUALIFICATIONS**

Geographic information science professional and educator with 25+ years of teaching, research, and administration experience in higher education and with non-profit organizations. Demonstrated success in research administration, organizational management, project design and completion, and proposal writing.

## **EDUCATION and CREDENTIALS**

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

## **WORK EXPERIENCE**

**Senior Research Fellow** 

July 2021 – present

University Consortium for Geographic Information Science, St. Charles, Missouri

- Co-leading the Evaluation & Knowledge Transfer team within the I-GUIDE Project
- Overseeing expansion of the GIS&T Body of Knowledge
- Coordinating the TRELIS program to increase and support women in the academic geospatial sciences

**Executive Director** 2013 – June 2021

University Consortium for Geographic Information Science, Ithaca, New York

- Sole employee responsible for daily operations of non-profit organization
- Managed finances, information technology, member relations, outreach, and communication
- Recruited for and oversaw regular series of online and in-person webinars and workshops
- Coordinated activities with the Executive Committee and Board of Directors for annual and strategic planning
- Administered and managed UCGIS subawards for all externally-funded research projects

#### **Associate Adjunct Professor**

2013 - present

School of Integrated Plant Sciences, Cornell University, Ithaca, New York

- Design and deliver course work on geographic information science and geospatial technologies for undergraduate and graduate students
- Primary advisor for students pursuing Master's in Professional Studies in Geospatial Applications
- Co-organizer of a semi-annual campus-wide event to promote applications of geographic information science and geospatial technologies

## **Director of Spatial Curriculum and Research**

2007 - 2013

University of Redlands, Redlands, California

Established and administered the LENS program (Learning Spatially) which provided professional
development for faculty teaching and research with geographic information science and geospatial
technologies. Worked directly with more than 30 faculty members from almost every university
department.

• Taught GIS and related mapping sciences courses to undergraduate and graduate students

### **Chief Program Officer and GIS Program Director**

2003 - 2007

National Institute for Technology and Liberal Education, Middlebury, Vermont

- Managed annual planning and budget for programmatic activities
- Designed and delivered professional development workshops focused on geographic information science and geospatial technologies for faculty and academic staff from a national set of 80+ liberal arts colleges

#### **International Research Fellow**

2003

Agricultural Plant Physiology and Ecology Research Institute, University of Buenos Aires, Argentina

- Contributed to research in spatial analysis and mapping on multiple projects involving invasive plant species in national parks
- The Fellowship program was part of the National Science Foundation's international activities

# Assistant Professor of Environmental Studies and Geography Director, Environmental Studies GIS Laboratory

1997 - 2003

Alfred University, Alfred, New York

- Designed and delivered coursework in geographic information sciences and geospatial technologies for undergraduate students
- Planned, designed, funded, and managed a GIS lab for undergraduate-focused research
- Consulted with faculty from natural and social sciences on integrating spatial analysis and mapping into their coursework

# **HONORS and AWARDS**

- 2021 Award for Excellence in Service Leadership, University Consortium for Geographic Information Science
- 2019 Roster, Fulbright Specialist Program (2019-2024)
- 2016 Education Award, University Consortium for Geographic Information Science
- 2003 Ruth Berger Rubenstein Memorial Award for Excellence in Teaching, Alfred University

## **SKILLS and EXPERIENCE**

- Communicate effectively about complex scientific topics to a varied set of audiences, in writing and orally
- Have delivered over 20 invited keynotes and plenary presentations and over 50 outreach presentations on geographic information science in the context of diverse academic and research disciplines
- Have served on the Advisory Boards or held External Evaluation roles for multiple different multi-year projects funded by NSF
- Have organized, planned, and delivered over 100 workshops, conferences, and conference sessions
- Have had extended international living experiences in Argentina, Spain, and Portugal
- Able to speak and read Spanish at an advanced level

# **SELECTED GRANTS RECEIVED**

- 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 Foundatoin #1660400 (plus Supplement in 2020), \$420,194. Subaward to UCGIS under PI Kate Beard (University of Maine).
- 2015 Communicating Uncertainty via Scientific Illustrations, Gordon Research Conferences, Visionary Grant for \$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.
- 2002 Understanding the invasion of exotic woody species and native shrubs into a protected area: a case study of El Palmar National Park, Argentina. National Science Foundation International Research Fellowship, \$75,000.
- 2000 Integrating Spatial Analyses into an Environmental Studies Curriculum. National Science Foundation, Division of Undergraduate Education: Course, Curriculum and Laboratory Improvement Program, \$57,794. Together with M. Hluchy and G. Godshalk, Alfred University.

## **SELECTED PUBLICATIONS**

- 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.
- 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. (*in press*). Lockdown lessons: an international conversation on resilient GI Science teaching. *Journal of Geography in Higher Education*. DOI: 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.
- 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.
- **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.
- 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.
- 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. *Winner of the 2016 Journal of Geography Award from NCGE*.
- **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.** (2009). Roles for GIS within Higher Education. *Journal of Geography in Higher Education*, 33(1): S7-S16. DOI: 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.
- **Sinton, D. S.** and Lund, J. J. (Eds.) (2006). *Understanding Place: GIS and Mapping across the Curriculum*. Redlands, CA: ESRI Press.
- **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.