

## Dr. CLAIRE A. JANTZ

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### EDUCATION

Ph.D. (2005), Geography, University of Maryland, College Park  
M.A. (2000), Geography, University of Maryland, College Park  
B.A. (1997), Summa Cum Laude, University of Tennessee, Knoxville  
Major: College Scholar Program, concentration in Ecology and Anthropology

### POST-GRADUATE EMPLOYMENT

Director, Center for Land Use and Sustainability at Shippensburg University (January 2016 – present)  
Professor, Shippensburg University Department of Geography and Earth Science (September 2015 - present)  
Associate Professor, Shippensburg University Department of Geography and Earth Science (August 2010 – August 2015)  
Assistant Professor, Shippensburg University Department of Geography and Earth Science (August 2005 – July 2010)  
Research Associate, The Woods Hole Research Center. Woods Hole, MA (July 2003 – July 2005)

### PEER REVIEWED PUBLICATIONS

#### *National and International Journal Publications*

Stubbs Q., I.Y. Yeo, M. Lang, J. Townshend, L. Sun, K. Prestegaard, and **C.A. Jantz** (2020). Assessment of Wetland Change on the Delmarva Peninsula from 1984 to 2010. *Journal of Coastal Research* 36 (3), 575-589

Woltemade, C.J., T.W. Hawkins, **C.A. Jantz**, S. Drzyzga (2020). Impact of changing climate and land cover on flood magnitudes in the Delaware River Basin, USA. *JAWRA Journal of the American Water Resources Association* <https://doi.org/10.1111/1752-1688.12835>

Johnson L.R., T.L.E. Trammell, T.J. Bishop, J. Barth, S. Drzyzga, and **C.A. Jantz** (2020). Squeezed from All Sides: Urbanization, Invasive Species, and Climate Change Threaten Riparian Forest Buffers. *Sustainability* 12 (4), 1448

Wentz, A. A.M. York, M. Alberti, L. Conrow, H. Fischer, L. Inostroza, **C.A. Jantz**, S.T.A. Pickett, K. Seto, and H. Taubenbock (2018). Six fundamental aspects for conceptualizing multidimensional urban form: A spatial mapping perspective. *Landscape and Urban Planning* 179:5 5-63. <https://doi.org/10.1016/j.landurbplan.2018.07.007>

Bhaskar, A.S. **C.A. Jantz**, C. Welty, S.A. Drzyzga, and A. Miller (2016). Coupling of the water cycle with patterns of urban growth in the Baltimore metropolitan region, United States. *Journal of the American Water Resources Association* 52(6): 1 – 15 DOI 10.1111/1752-1688.12479

- Jantz, C.A.** S.A. Drzyzga, and M. Maret (2014). Calibrating and validating a simulation model to identify drivers of urban land cover change in the Baltimore, MD metropolitan region. *Land*. 3(3): 1158-1179; doi:10.3390/land3031158
- Jantz, C.A.** H.K. Kubach, J.R. Ward, S. Wiley, and D. Heston (2014). Assessing land use changes due to natural gas mining operations in the Marcellus Shale formation in Bradford County, PA. *Geographical Bulletin* 55(1): 18-35.
- Ciavola, S.J., **C.A. Jantz**, J. Reilly, and G. Moglen (2014). Forecast changes in runoff quality and quantity in the DelMarVa peninsula. *Journal of Hydrologic Engineering* 19(1): 1-9  
DOI10.1061/(ASCE)HE.1943-5584.0000773
- Jantz, C.A.** and J.J. Manuel (2013). Estimating impacts of population growth and land use policy on ecosystem services: A community-level case study in Virginia, USA. *Ecosystem Services*, 5: 110-123.
- Goetz, S.J., **C.A. Jantz**, M. Sun (2011). Forecasting future land use and hydrology: a case study of the Upper Delaware Watershed. *Watershed Science Bulletin*. Fall issue: 18-26.
- McConnell, W.J, J.D.A. Millington, N.J. Reo, M. Alberti, H. Asbjornsen, L.A. Baker, N. Brozović, L.E. Drinkwater, S.A. Drzyzga, J. Fragoso, D.S. Holland, **C.A. Jantz**, T.A. Kohler, H.D.G. Maschner, M. Monticino, G. Podestá, R.G. Pontius, Jr., C.L. Redman, D. Sailor, G. Urquhart, and J. Liu. (2011). Research on coupled human and natural systems (CHANS): Approach, challenges, and strategies. *Bulletin of the Ecological Society of America* 92 (2): 218-228.
- Jantz, R.L., P.G. Marr, and **C.A. Jantz** (2010). Body proportions in recent Native Americans: Colonization history vs. ecogeographical patterns. In: *Human Variation in the New World: the integration of archaeology and biological anthropology*. Edited by Benjamin M. Auerbach. Center for Archaeological Investigations Occasional Paper No. 38.
- Jantz, C.A.**, S.J. Goetz, P. Claggett, and D. Donato (2010). Modeling regional patterns of urbanization in the Chesapeake Bay Watershed. *Computers, Environment and Urban Systems* 34:1-16.
- Roberts, A.S., S.D. Prince, **C.A. Jantz**, and S.J. Goetz (2009). Effects of projected future urban land cover on nitrogen and phosphorous runoff to Chesapeake Bay. *Ecological Engineering* 35(12): 1758-1772.
- Goetz, S.J., Jantz, P.A., and **Jantz, C.A.** (2009). Connectivity of core habitat in the northeastern United States: parks and protected areas in a landscape context. *Remote Sensing of Environment* 113(7): 1421-1429.
- Jantz, P.A., S. J. Goetz and **C.A. Jantz** (2005). Urbanization and the loss of resource lands in the Chesapeake Bay watershed. *Environmental Management* 36(6): 808-825.
- Jantz, C.A.** and S.J. Goetz (2005). Analysis of scale dependencies in an urban land use change model. *International Journal of Geographical Information Science* 19 (2): 217-241.
- Dougherty, M, R.L. Dymond, S.J. Goetz, **C.A. Jantz** and N. Goulet (2004). Evaluation of impervious surface estimates in a rapidly urbanizing watershed. *Photogrammetric Engineering and Remote Sensing* 70 (11): 1275-1284.
- Claggett, P.R, **C.A. Jantz**, S.J. Goetz, and C. Bisland (2004). Assessing development pressure in the Chesapeake Bay watershed: an evaluation of two land use change models. *Environmental Monitoring and Assessment* 94: 129-146.

**Jantz, C.A.**, S.J. Goetz, and M. K. Shelley (2003). Using the SLEUTH urban growth model to simulate the impacts of future policy scenarios on urban land use in the Baltimore-Washington metropolitan area. *Environment and Planning B* 31 (2): 251-271.

#### *Regional Journal Publications*

Rosenberger, J. J. Chester, and **C.A. Jantz** (2018). Spatiotemporal analysis of long-term and short-term land cover trends along the Kittatinny Ridge Corridor in Pennsylvania's Appalachian landscape. *Middle States Geographer* 51:33-45

**Jantz, C.A.** (2011). The dynamic hinterland of New York City: the transition from farming to watershed protection in Delaware County, NY. *Middle States Geographer* 44: 9-17.

Duxbury, B. and **C.A. Jantz**. (2011) Urban revitalization and neighborhood dynamics in Harrisburg, PA, 2006-2011. *Middle States Geographer* 44: 65-73.

Dantonio, N. and **C.A. Jantz** (2008). Long-term evaluation of benthic macroinvertebrate community response to watershed urbanization: Valley Creek Watershed, Chester County, Pennsylvania. *The Pennsylvania Geographer* 46(2):56-70.

**Jantz, C.A.** and P.G. Marr (2008). Gentrification and neighborhood dynamics in Harrisburg, Pennsylvania. *Middle States Geographer* 40: 68-77.

#### BOOK CHAPTERS AND INVITED PAPERS

**Jantz, C.A.** and S.J. Goetz (2007). Can Smart Growth Save the Chesapeake Bay? *Journal of Green Building* 2 (3): 41-51. (Invited paper). (International journal)

Elvidge, C., P. C. Sutton, T. W. Wagner, R. Ryznar, S. J. Goetz, A. J. Smith, **C. Jantz**, K. C. Seto, M. L. Imhoff, Y. Q. Wang, C. Milesi, and R. Nemani. (2004). Urbanization. In *Land Change Science: Observation, Monitoring, and Understanding Trajectories of Change on the Earth Surface*. Eds. G. Gutman, D. Skole, and C. Justice. Springer, New York.

Goetz, S. J., D. Varlyguin, A. J. Smith, R. K. Wright, S. D. Prince, M. E. Mazzacato, J. Tringe, **C. Jantz**, and B. Melchoir. (2004). Application of multitemporal Landsat data to map and monitor land cover and land use change in the Chesapeake Bay watershed. In *Analysis of Multi-temporal Remote Sensing Images*, pp. 223-232. Eds. P. Smits and L. Bruzzone. World Scientific Publishers, Singapore.

Goetz S. J., **Jantz C. A.**, Prince S. D., Smith A. J., Wright R. and Varlyguin D. (2004). Integrated analysis of ecosystem interactions with land use change: the Chesapeake Bay watershed. In *Ecosystems and Land Use Change*, pp. 263-275. Eds. R. S. DeFries, G. P. Asner & R. A. Houghton. Geophysical Monograph Series, American Geophysical Union, Washington DC.

**Jantz, C.A.** (2002). "Cades Cove: reconstructing human impacts on the environment prior to Euroamerican settlement." In *Culture, Environment and Conservation in the Appalachian South*. Ed. Benita J. Howell. University of Illinois Press, Champagne.

#### REPORTS AND MANUALS

**Jantz, C.A.** (2020). A Review of Land Cover Data Products for the Delaware River Basin. Report to the William Penn Foundation, January 19, 2020. Available at: <https://drbproject.org/documents/>.

- Jantz, C.A.**, S.A. Drzyzga, A. Yáñez Morillo, J. Barth, A. Price, and C. Lucas (2017). DRB2070 version 2 baseline and alternative scenarios (data product). Available at: <http://drbproject.org/products/>
- Jantz, C.A.**, A. Price, S. Drzyzga, P. Claggett, and J. O'Neil-Dunne (2017). A framework for long-term land cover change monitoring in the Delaware River Basin. A report to the William Penn Foundation. Available at: <http://drbproject.org/documents/>.
- Jantz, C.A.** and A. Price (2017). A land cover mapping, modeling, and monitoring system in support of maintaining and restoring water resources. 2017 Final report to the William Penn Foundation. Available at: <http://drbproject.org/documents/>.
- Moglen, G., **C.A. Jantz**, J. Reilly, S. Ciavola, B. Ritter and A.J. Beck (2011). Developing a Decision Support System for the DelMarVa Peninsula: a Tool to Integrate Alternative Growth Scenarios and Selected Environmental Assessment Methods into Local Land Use Planning. August 2011. Final report submitted to Maryland SeaGrant. 133 p. Available at [http://www.gishydro.umd.edu/documents/seagrant/SeaGrant\\_Final\\_Report.pdf](http://www.gishydro.umd.edu/documents/seagrant/SeaGrant_Final_Report.pdf)
- Jantz, C.A.** and L. Morlock (2011). Modeling Urban Land Use Change in the Upper Delaware River Basin. March 2011. 29 p.
- Jantz, C.A.**, M. Mrozinski and E. Coar (2009). Forecasting Land Use Change in Pike and Wayne Counties, Pennsylvania. April 2009. 45 p.
- Jantz, C.A.** Simulating Urban Growth with the SLEUTH Model: A Training Manual. June 2009. 20 p.
- Jantz, C.A.** and J.J. Manuel (2009). Estimating Impacts of Population Growth on Ecosystem Services for the Community of Albemarle County and Charlottesville, VA. August 2009. 85 p.

#### CONFERENCE PROCEEDINGS

- Marr, P.G. and **C.A. Jantz** (2014). The distribution and forms of rural gas stations in south-central Pennsylvania. *PAST: Pioneer America Society Transactions* vol. 37: 71-84.
- Goetz, S.J., **C.A. Jantz**, C.A. Towe, and N.E. Bockstael (2007). Modeling the Urbanization Process across Maryland in the Context of Chesapeake Bay Restoration. Conference Paper 06. Smart Growth @ 10. College Park, MD. URL: <http://www.rff.org/rff/Events/SmartGrowthat10.cfm>.
- Jantz, C.A.**, S.J. Goetz, P.A. Jantz and B. Melchior (2005). Resource land loss and forest vulnerability in the Chesapeake Bay watershed. In Proceedings of the 4th Southern Forestry and Natural Resources GIS Conference, December 16-17, 2004, Athens, GA, pp. 84-95. Warnell School of Forest Resources, University of Georgia, Athens, GA. Eds. P. Bettinger, C. Hyldahl, S. D. Danskin, J. Zhu, Y. Zhang, W. G. Hubbard, T. Lowe, M. Wimberly, and B. Jackson, eds.
- Goetz, S.J., A.J. Smith, **C. Jantz**, R.K. Wright, M.E. Mazzacato, and B. Melchoir (2003). Monitoring and modeling urban land-use change using multi-temporal satellite data. Proceedings of the International Geoscience and Remote Sensing Symposium (IGARSS), 21 July.

### ACTIVE RESEARCH GRANTS

- Jantz, C.A.** T. Hawkins, P. Jantz, A. Price, and A. Yáñez Morillo (2018-2021). Assessment of Natural Resource Condition for the Appalachian National Scenic Trail. National Park Service. Total budget: \$149,963.67.
- Jantz, C.A.**, T. Hawkins, A. Yáñez Morillo, and A. Price (2019-2020). Land Protection Impact Assessment for the Delaware River Basin. Open Space Institute. Total budget: \$66,136.
- Jantz, C.A.** (2018). Delaware River Basin Cluster Demographics. Appalachian Trail Commission. Total budget: \$14,950.00
- Jantz, C.A.** (2016-2021). Facilitate collaborative learning opportunities through UPDE service learning partnership with the Center for Land Use and Sustainability. National Park Service. Total budget: \$130,102
- Jantz, C.A.** S. Drzyzga, T. Hawkins, C. Woltemade, and P. Jantz (2017-2020). How will forest ecosystems and hydrologic processes in the Delaware River Basin be affected by climate change and land cover change? Delaware Watershed Research Fund. Total budget: \$485,924

### COMPLETED RESEARCH GRANTS

- Jantz, C.A.** C. Papinchak, and A.F. Price (2018). Mapping and graphic support for the Pennsylvania Parks and Forestry Foundation. PPF. Total budget: \$1,295
- Jantz, C.A.** (2017). Visualizing regional investments: Story map of South Mountain Partnership mini-grants. South Mountain Partnership. Total budget: \$2,000
- Jantz, C.A.** (2016-2017). GIS support for the Kittatinny Ridge Coalition. National Audubon Society. Total budget: \$4,920
- Jantz, C.A.** (2016-2017). Planning support for the Pocono-Kittatinny cluster. Pinchot Institute. Total budget: \$55,603
- Jantz, C.A.**, S.A. Drzyzga, P. Claggett and J. O’Niel-Dunne (2015 – 2017). A land cover mapping, modeling, and monitoring system for the Delaware River Basin (DRB) in support of maintaining and restoring water resources. William Penn Foundation. Total budget: \$1,015,000.
- Yeo, I, M. Lang, C. Huang, and **C.A. Jantz** (2012-2015). Mapping and monitoring of wetland dynamics for improved resilience and delivery of ecosystem services in the Mid-Atlantic region. Submitted to NASA’s Research Opportunities in Space and Earth Sciences (ROSES) Land-Cover/Land-Use Change 2012 solicitation (NNH10ZDA001N-LCLUC). Total budget \$749,849.
- Jantz, C.A.** (2013). Estimating 20th century land use change in and around the Chesapeake & Ohio National Historical Park (CHOH). Shippensburg University College of Arts and Sciences Faculty-Led Research Fund. \$995.
- Jantz, C.A.**, T. Erickson, and M. Ratcliffe (2013). Estimating the Completeness of TIGER Road Data Using the SLEUTH Urban Growth Forecasting Model. Summer at Census Program, U.S. Census Bureau. Stipend \$5,000.
- Jantz, C.A.** and Scott Drzyzga (2007-2013). Collaborative Research: Dynamic Coupling of the Water Cycle with Patterns of Urban Growth. Lead investigator: Claire Welty, University of Maryland Center for Urban Research and Education. NSF Division of Behavioral and Cognitive Sciences, Dynamics of Coupled Natural-Human Systems. Total budget: \$1,300,000.

- Moglen, Glenn, Jim Reilly and **C.A. Jantz** (2007-2011). Developing a decision support system for the Delmarva Peninsula: A tool to integrate alternative growth scenarios and environmental impact assessments into local land use planning. Maryland SeaGrant, NOAA. Total budget: \$232,311.
- Marr, P.G. and **C.A. Jantz** (2009-2010). Population concentration, village abandonment and accessibility in the Colchane region of northern Chile. Shippensburg University Research and Scholarship Program. \$16,600.
- Jantz, C.A.** (2008-2009). Forecasting land use change in the Upper Delaware Watershed. National Park Service. \$21,250.
- Jantz, C.A.** (2006-2008). Forecasting Land Use Change in Delaware and Sullivan Counties, NY. Delaware County Planning Commission. \$13,000.
- Mronzinski, M., **C. A. Jantz**, E. de Coulstoun and D. Forney (2006-2008). Forecasting Land Use Change in Pike & Wayne Counties, PA. Pennsylvania DCNR Community Conservation Partnership Program Grants. \$25,000.
- Goetz, S.J., S.D. Prince, N. Bockstael, R. Holmes, T. Stone and **C. Jantz** (2005-2008). Urban growth impacts on surface hydrology in mid-Atlantic and New England watersheds. NASA Energy- and Water-Cycle Sponsored Research (NEWS) NRA, Land Cover and Land Use Change Program. Total budget: \$570,000.
- Jantz, C.A.** (2008). Estimating ecosystem services in Albemarle County and Charlottesville, VA. Advocates for a Sustainable Albemarle Population (ASAP). \$25,000
- Marr, P.G. and **C.A. Jantz** (2008). Landscape influences on the collapse of the nitrate mining industry in the Tarapacá region of Chile. PASSHE Faculty Professional Development Council. \$5,862.
- Goetz, S.J. and **C.A. Jantz** (2004-2006). Modeling the rates and spatial patterns of future land use change in the Chesapeake Bay watershed. Chesapeake Bay Program, US Environmental Protection Agency. \$100,000.
- Goetz, S.J. and **C.A. Jantz** (2003). Modeling the effects of land use policies on urban land use patterns in Maryland. National Center for Smart Growth Research and Education Small Grants Program, University of Maryland, College Park, MD. \$20,000.

#### CONFERENCE PRESENTATIONS

- Johnson L.R., T.L.E. Trammell, T.J. Bishop, J. Barth, S. Drzyzga, and **C.A Jantz** (2020). Squeezed from All Sides: Urbanization, Invasive Species, and Climate Change Threaten Riparian Forest Buffers. International Association of Landscape Ecology-North American Chapter annual meeting, virtual presentation.
- Yáñez Morillo, A. and **C.A. Jantz** (2020). The effects of future urbanization and energy infrastructure expansion on forest fragmentation. International Association of Landscape Ecology-North American Chapter annual meeting, virtual presentation.
- Yáñez Morillo, A. and **C.A. Jantz** (2019). The effects of future urbanization and energy infrastructure expansion on forest fragmentation. Delaware Watershed Research Forum, Philadelphia, PA.
- Jantz, P.A., C. Quinn, T.W. Hawkins, and **C.A. Jantz** (2019). Bioclimatic modeling of tree species distributions in the Delaware Watershed. Delaware Watershed Research Forum, Philadelphia, PA.

- Yáñez Morillo, A. and **C.A. Jantz** (2019). Analyzing Forest Fragmentation in the Delaware River Watershed, 2011 – 2100 (poster presentation). International Association of Landscape Ecology-North American Chapter annual meeting, Fort Collins, CO.
- T. Costlow, **C.A. Jantz**, T.W. Hawkins, A. Yáñez Morillo, and P.A. Jantz (2019). Introducing a natural resource condition assessment of the Appalachian National Scenic Trail (poster presentation). International Association of Landscape Ecology-North American Chapter annual meeting, Fort Collins, CO.
- Newdeck, P. and **C.A. Jantz** (2019). Empowering Land Use and Conservation Planning with Story Maps. American Association of Geographers annual meeting, Washington, DC.
- Thorpe, K., A. Yáñez Morillo, J. Chester, C. Hauser Hahn, J. Claster, A. Price, **C.A. Jantz** (2019). Development of a Web-based Geographic Information System to Support Project Review and Resource Management within the Upper Delaware Scenic and Recreational River Corridor (poster presentation). American Association of Geographers annual meeting, Washington, DC.
- Jantz, C.A.**, T. Costlow, T.W. Hawkins, A. Yáñez Morillo, and P.A. Jantz (2019). Introducing a natural resource condition assessment of the Appalachian National Scenic Trail (poster presentation). American Association of Geographers annual meeting, Washington, DC.
- Marr, P.G. and **C.A. Jantz** (2019). Primary Productivity Trends of High-Altitude Cushion Bogs (Bofedales) in Northern Chile, 2001-2013. American Association of Geographers annual meeting, Washington, DC.
- Lucas, C.M. and **C.A. Jantz** (2019). Evaluating energy infrastructure land use in the Delaware River Basin (poster presentation). American Association of Geographers annual meeting, Washington, DC.
- Marr, P.G., **C.A. Jantz**, and others (2018). Monitoring the restoration of high-altitude, peat-forming cushion bogs (*bofedales*) in northern Chile using MODIS. US Division of the International Association of Landscape Ecology annual meeting, Chicago, IL.
- Lucas, C. and **C.A. Jantz** (2018). Evaluating energy infrastructure land use in the Delaware River Basin. US Division of the International Association of Landscape Ecology annual meeting, Chicago, IL.
- Jantz, C.A.**, S. Drzyzga, P. Claggett, A. Yáñez Morillo, A. Price, J. Barth, D. Minnick, C. Lucas (2017). DRB2070: Lessons learned from basin-wide land use change forecasting. US Division of the International Association of Landscape Ecology annual meeting, Baltimore, MD.
- Yáñez Morillo, A., S. Drzyzga, **C.A. Jantz**, J. Barth, and A. Price (2017). Modeling suitability for urban development in the Delaware River Basin. US Division of the International Association of Landscape Ecology annual meeting, Baltimore, MD.
- Price, A., **C.A. Jantz**, S. Drzyzga, A. Yáñez Morillo, D. Minnick, J. Barth, and C. Lucas (2017). A community-driven approach to developing future land use scenarios at the river basin scale: An example from the Delaware River Basin. US Division of the International Association of Landscape Ecology annual meeting, Baltimore, MD.
- Jantz, C.A.**, S. Drzyzga, A. Yáñez Morillo, A. Price, and J. Barth (2017). Developing future land use scenarios for the Delaware River Basin. US Division of the International Association of Landscape Ecology annual meeting, Asheville, NC.

- Yáñez Morillo, A., **C.A. Jantz**, and T. Erickson (2016). The SLEUTH wizard: Python scripts to automate the SLEUTH urban growth model. US Division of the International Association of Landscape Ecology annual meeting, Asheville, NC.
- Marr, P. and **C.A. Jantz** (2016). Primary productivity trends of human-managed high-altitude cushion bogs (bofedales) in the central Andean puna, 2001-2013. US Division of the International Association of Landscape Ecology annual meeting, Asheville, NC.
- Jantz, C.A.**, A. Price, S. Drzyzga, and D. Minnick (2016). Perceptions of landscape values and threats in the Delaware River Basin. International Society for Landscape, Place, and Material Culture annual meeting, Oklahoma City, OK.
- Jantz, C.A.**, M. Ferry, I. Yeo, Q. Stubbs, and M. Lang (2015). Modeling the vulnerability of wetlands to urban development: a case study on the Delmarva Peninsula. Association of American Geographers annual meeting, Chicago, IL.
- Jantz, C.A.** and T. Erickson (2014). Estimating the completeness of TIGER road data using the SLEUTH urban growth forecasting model. Association of American Geographers annual meeting, Tampa, FL.
- Jantz, C.A.** and A. Moats. An investigation of land use change in the Tuscarora Creek watershed of Maryland. Association of American Geographers annual meeting, Tampa, FL.
- Ferry, M., **C.A. Jantz**, and S. Drzyzga (2014). Using MODIS enhanced vegetation index to identify wetlands in the puna region of northern Chile. Middle States Division of the Association of American Geographers annual meeting, York, PA.
- Marr, P. and **C.A. Jantz** (2014). Surface artifact assemblages from four abandoned Chilean nitrate plants. Middle States Division of the Association of American Geographers annual meeting, York, PA.
- Jantz, C.A.**, P.G. Marr and A. Moats (2014). Monitoring the degradation of cultural resources: a case study at the Chesapeake & Ohio Canal. Pioneer America Society annual meeting. October 9-11. Oklahoma City, OK.
- Marr, P.G. and **C.A. Jantz** (2013). Rural gas station reuse in south-central Pennsylvania. Pioneer America Society annual conference. October 9-12, 2013. Utica, NY.
- Jantz, C.A.**, S.A. Drzyzga, and M. Maret (2012). Calibrating, validating, and forecasting with the SLEUTH urban growth model in the Baltimore metropolitan area. Association of American Geographers annual meeting. Feb. 24-28, 2012. New York, NY.
- Session organizer** for “SLEUTH Symposium (sessions I, II, III): After 15 years with the SLEUTH model, what we’ve learned and where we’re headed.” Feb. 24-28, 2012. Association of American Geographers annual meeting. New York, NY.
- Jantz, C.A.**, S.A. Drzyzga, C. Welty, M. Maret, G. Frederick, and B. Ritter (2011). Complexity in urban systems: the Baltimore metropolitan region as a laboratory for understanding coupled human and natural systems. Association of American Geographers annual meeting. April 12-16, 2011. Seattle, WA.
- Drzyzga, S.A., **C.A. Jantz**, C. Welty, M. Maret, G. Frederick, and B. Ritter (2011). The space-time evolution of commuter flows in the Baltimore Metropolitan Region (1970-2010) and the need to model land use change as a function of competitiveness. Association of American Geographers annual meeting. April 12-16, 2011. Seattle, WA. (poster presentation)



- Maret, M, **C.A. Jantz** and S.A. Drzyzga (2011). Using the SLEUTH urban growth model to identify “drivers” of development in the Baltimore metropolitan region. Association of American Geographers annual meeting. April 12-16, 2011. Seattle, WA. (poster presentation)
- Ritter, B and **C.A. Jantz** (2011). Demographic and urban land use changes on the Delmarva Peninsula. Association of American Geographers annual meeting. April 12-16, 2011. Seattle, WA. (poster presentation)
- Jantz, C.A.** (2010). The dynamic hinterland of New York City: the transition from farming to watershed protection in Delaware County, NY. Pioneer America Society annual conference. October 13-16, 2010. Castleton, VT.
- Drzyzga, S.A., **C.A. Jantz**, and C. Welty (2010). Analyzing and visualizing the evolution of commuter flows in the Baltimore region. Association of American Geographers annual meeting. April 14-18, 2010. Washington, DC.
- Jantz, C.A.** (2010). Complexity at the urban fringe: reconnecting and disconnecting urban-hinterland relationships. Association of American Geographers annual meeting. April 14-18, 2010. Washington, DC. (Session organizer)

#### INVITED PRESENTATIONS AND PANELS

- Invited speaker.** Assessing natural resources for the Appalachian Trail. A.T. Landscape Partnership. December 2019. Shepherdstown, WV.
- Invited speaker.** Land use dynamics, climate change, and hydrologic processes in the Delaware River Basin. University of Maryland Center for Environmental Science - Appalachian Lab. September 9, 2019. Frostburg, MD.
- Panelist.** “Watershed Protection Modeling – 1.” Organized by Stephanie Kroll. American Water Resources Association annual meeting. November 3-6, 2013. Tyson’s Corner, VA.
- Panelist.** “Monitoring and Forecasting Urban Growth: Lessons Learned and Moving Forward From Two Workshops.” Organized by K. Seto. Feb. 24-28, 2012. Association of American Geographers annual meeting. New York, NY.
- Participant.** “Forecasting urban land-use change: a NASA-sponsored UGEC workshop.” Arizona State University, April 1-3, 2011. Scottsdale, AZ.

#### TEACHING

Regularly offered courses:

- Geo 101: World Geography
- Geo 244: Land Use
- Geo 301: Biogeography
- Geo 322: Urban Geography
- Geo 533: Science of Land Use Change
- Ess 108: Introduction to Environmental Sustainability

Recent field courses:

- Geo 191: Field Studies in Curacao
- Geo 491: Field Studies in Northern Chile

### GRADUATE THESES

- Papinchak, Courtney (chair). Spring 2017. Wetland condition assessment in Pennsylvania.
- Moore, Molly (committee member). Fall 2015. Evaluating the influence of riparian forests on stream geomorphology in an urban landscape, Montgomery County, Maryland.
- Park, Gon (committee member). Fall 2014. Using cost-benefit analysis and building compactness to determine the most effectiveness to install green roofs.
- Duxbury, Brandon (committee member). Spring 2012. Transportation policy change in Olympic host cities: a case study of Vancouver's transportation system in preparation for the 2010 Winter Olympics.
- Pompeii, Bill (committee member). Spring 2010. Assessing urban heat island mitigation using green roofs: a hardware scale modeling approach.
- Gross, Eliza (chair). Fall 2008. Ground water susceptibility to elevated nitrate concentrations in South Middleton Township, Cumberland County, Pennsylvania.

### GRADUATE SEMESTER RESEARCH PROJECTS

- Ferry, Maegan. 2017. Using MODIS enhanced vegetation index and Landsat NDVI to identify bofedales in the puna region of northern Chile.
- Weaver, Lauren. 2017. Analyzing walkability in Lancaster City, Pennsylvania using GIS technology.
- Barnett, Patrick. 2016. GIS-based environmental suitability analysis for vineyards in Adams County, Pennsylvania.
- Baese, Morgan. 2014. Conservation and Recreation: A Multi-Criteria Evaluation of the Shenandoah National Park Land Uses.
- Otis, Trent. 2012. Evaluating SLEUTH model accuracy at different geographic scales around two National Parks.
- Ward, Jake. 2011. Changes in the spatial and temporal distribution of gray catbird (*Dumetella carolinensis*) territories in a riparian corridor of Bronx Park, NYC from 2003 to 2006 amidst floodplain and vegetation restoration.
- Maret, Michael. 2011. Using the SLEUTH urban growth model to identify "drivers" of development in the Baltimore metropolitan region.
- Stretton, Karen. 2010. Evaluation of changes to the quality of riparian forest buffers in the Susquehanna River Watershed.
- Atkins, Eric. 2010. Forest fragmentation in the Upper Delaware Watershed.
- D'Antonio, Noah. 2008. Long-term evaluation of benthic macroinvertebrate community response to watershed urbanization: Valley Creek Watershed, Chester County, Pennsylvania.
- Forst, Mark. 2006. The convergence of integrated coastal zone management and the ecosystems approach to natural resource management.
- Gibbony, Meredith. 2006. Acid coal drainage in an acid rain environment.

## UNIVERSITY, DEPARTMENT, PROFESSIONAL, AND COMMUNITY SERVICE

### ***University committees, current appointments:***

Director. Center for Land Use and Sustainability, Fall 2015 – present.

Elected – University Forum, at large representative. Shippensburg University, Fall 2014 – present. Chair, 2018 – 2019.

Appointed – Center for Faculty Excellence in Scholarship and Teaching – Grants, Shippensburg University, 2014 - 2016.

Appointed – Provost's Grants Task Force 2.0, co-chair (with Chris Wonders). Shippensburg University, 2014 – 2016.

Technical representative – Shippensburg University's participation in the Chesapeake Watershed Cooperative Ecosystems Studies Unit (CESU) since SU entered the CESU in 2012. I was also the lead on the proposal to join the CESU.

### ***Department committees and service, current appointments:***

Department Internship Coordinator. Geography-Earth Science, Shippensburg University. Summer 2007 – 2019.

Departmental Professional Affairs Committee. Department of Geography-Earth Science. Shippensburg University. 2007-present.

Initiated (Spring 2009) and cooperatively manage departmental Facebook site to better communicate with current students and alumni. Internship and job opportunities, department events and activities, websites, alumni accomplishments, etc. are posted here. Our Facebook page has over 950 followers. <https://www.facebook.com/ShipGeoESS>

Initiated (Spring 2009) and co-manage (with Christopher Woltemade) an annual departmental photo contest to highlight the experiences of students and faculty in the field. Photos are displayed in Shearer Hall, on our website, and on our Facebook page.

### ***Professional service:***

Leadership committee member, South Mountain Partnership. 2015-present.

Panelist, National Science Foundation's Dynamics of Coupled Natural and Human Systems Program (CNH) 2013 Large Grants Panel

Book Review Editor, *Material Culture*, the journal of the Pioneer America Society (now International Society for Landscapes, Place and Material Culture (ISLPMC)), 2007-2019

### ***Community service:***

Chair (inaugural), Friends of Michaux State Forest. 2019-present.

Member, Rotary Club of Shippensburg. 2015-present.

President, Furry Fun Days (a 501c3 devoted to raising money for local shelters), 2016-present.

Member, Borough of Shippensburg Zoning Hearing Board. 2014-present.  
Member, Borough of Shippensburg Tree Commission. 2015-present.  
Team organizer. 2014 Cumberland Valley Rail Trail Run, Ride, and Ramble.  
Workshop presenter for the 2012 – 2014 Cumberland Valley ESTEEM conference, a science conference for middle school girls.

#### PROFESSIONAL MEMBERSHIPS

Member, International Association of Landscape Ecology (IALE)  
Member, Association of American Geographers (AAG) and Middle States Division of the AAG  
Member, Pioneer America Society (PAS) (now International Society for Landscapes, Place and Material Culture (ISLPMC))