

## **P. WILLIAM LIMPISATHIAN**

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## EDUCATION

University of Oregon – Eugene, OR <b>Ph.D. Candidate in Geography</b> Areas of Concentration: Neurogeography and Cartography Advisor: Dr. Amy Lobben Lab Affiliations: Spatial Cognition, Computation and Complexity (S3C) Lab, InfoGraphics Lab, Social Science Instructional Labs (SSIL) Dissertation: Neurological role of cartographic visual contrast in mediating geospatial cognition	2022 (anticipated)
The Pennsylvania State University – University Park, PA <b>M.S. in Geography</b> Areas of Concentration: Cartography and GIScience Advisor: Dr. Cynthia Brewer Lab Affiliation: GeoVista Center Thesis: Evaluating visual contrast and hierarchy relations of cartographic features across multi-scale map displays	2017
The Pennsylvania State University – University Park, PA <b>B.S. with Distinction (cum laude) in Geography – GIScience Option</b> Minor: Information Sciences and Technology for Earth and Mineral Sciences Areas of Concentration: Cartography, Spatial Analysis Advisor: Dr. Cynthia Brewer Lab Affiliation: Peter R. Gould Center for Geographic Education and Outreach	2015
GRANTS, AWARDS AND HONORS	
University of Oregon Department of Geography Rippey Dissertation Writing Grant	2022
National Science Foundation Doctoral Dissertation Research Improvement Award	2021
North American Cartographic Information Society Annual Meeting Student Travel Grant	2021
University of Oregon Doug Foster Geography Community Building Service Award	2021
North American Cartographic Information Society Annual Meeting Student Grant	2020
North American Cartographic Information Society Annual Meeting Student Travel Grant	2019
International Cartography Association Outstanding Scholar Award	2019

International Cartography Association Outstanding Scholar Award2019U.S. National Committee to the International Cartographic Association ICC Delegation Grant2019University of Oregon Department of Geography Rippey Research Award2019AAG Environmental Perception and Behavioral Geography Specialty Group Travel Grant2019North American Cartographic Information Society Annual Meeting Student Travel Grant2018North American Cartographic Information Society Annual Meeting Student Travel Grant2017Penn State Geography C. Gregory Knight Graduate Endowment in Geography2017University of Oregon Dean of the Graduate School Promising Scholar Award2017

	U.S. National Committee to the International Cartographic Association ICC Dele	gation Grant	2017
	American Association of Geographers Cartography Specialty Group Master's Th	esis Grant	2016
	Penn State Geography Ruby S. Miller Endowment for Geographic Excellence		2016
	Best Research in the Combustion/Catalysis/Gasification Category at Energy Day	s Conference	2016
	HERE Maps Insider Program Invitation		2016
	Penn State Geography C. Gregory Knight Undergraduate Endowment in Geogra	iphy	2015
	Penn State College of Earth and Mineral Sciences Dean's List (all consecutive se	mesters)	2011 - 2015
	Agricultural Research Development Agency - Royal Thai Government Scholarsh	ip	2011
	His Majesty the King of Thailand Royal Student Achievement Award and Schola	rship	2009
PF	OFESSIONAL AND RESEARCH EXPERIENCES		
	University of Wisconsin-Madison   Madison, WI		
	Assistant Professor of Geography in Cartography and Geovisualization	Starting	g January 2023
	Tenure track faculty member of the Department of Geography and UW Cartogr	aphy Lab.	
	Conduct research in cognitive cartography and exploratory		
	neuroscientific methods for map and spatial cognition.		
	Develop and instruct introductory cartography courses and advanced seminars.		
	Apple, Inc.   Remote/Cupertino, CA		
	Cartography Summer Research Fellow	July 20	22 – August 2022
	Cartographer / Data Analyst IV Data	ecember 2020 -	- September 2021
	Senior Geographic Information System Technician Se	ptember 2020	– November 2020
	Led and coordinated team in charge of evaluating cartographic		
	integrity across Apple Maps products.		
	Conducted topic data evaluation and research to assess completeness,		
	accuracy, and quality of ingested data.		
	Authored reports on data state for leadership and interfaced with		
	relevant teams for resolution follow-up.		
	Represented the Cartography team at cross-teams meetings to set		
	project scope, priority, and timeline.		
	Department of Geography, University of Oregon   Eugene, OR		
	Graduate Employee-Cartographer for the InfoGraphics Lab		ry 2018 – Present
	Produce high-quality custom cartography for clients' atlases, books and project	S.	
	Review cartographic productions to ensure appropriate implementation of		
	cartographic theories and visual contrast and color perception principals.		
	Graduate Employee-Research Assistant to Dr. Amy Lobben	June 2018 -	- September 2019
	Conducted research to support NSF research project on neurogeography and		
	geospatial cognition.	(	
	Assisted in the development of fMRI neuroimaging experiment methodologies	TOr	
	neurogeographic research on neurological correlates of geospatial cognition.		
	Conducted literature review of transdisciplinary research on neuroaesthetics,		
	neurological perception and cognition of cartographic contrast variables.		

Department of Geography, The Pennsylvania State University   University Park, PA	
<b>The Peter R. Gould Center Graduate Cartographer</b> Principal student cartographer tasked with producing high-quality custom cartography and maps for specific needs of clients. Interfaced and coordinated with individual clients on cartographic	May 2017 – August 2017
specifications and content requirements for each project.	
Graduate Research Assistant to Professor Donna Peuquet Reviewed, updated and improved course materials and assignments for the "Mapping Our Changing World" introduction to GIScience online course. Planned and developed course material, outline and structure for a future intermediate resident GIS course. Conducted a review of advanced-level geographic courses for department-level curriculum assessment and long-term planning.	May 2016 – August 2016
<b>Graduate Research Assistant to Professor Robert Brooks</b> Assisted with research related to watershed, floodplains and riparian conservation and protection as part of a research grant. Gathered and processed GIS data from wide range of sources for spatial analysis to support the work of the Riparia interdisciplinary research center. Conducted analysis of historical river discharge data to support hydrographic survey research of the Mississippi River and its tributaries.	January 2016 – May 2016
Graduate Research Assistant to Assistant Professor Kirby CalvertAssisted with research related to the development of abandoned agriculture landsfor energy purposes as part of a research grant.Gathered GIS data from wide range of sources and processed data for spatialanalysis.Processed statistical data of land cover raster data to infer energy productionpotentials.	August 2015 – December 2015
<b>Undergraduate Research Assistant to Assistant Professor Kirby Calvert</b> Assisted with research related to historical resource flow and distribution. Gathered GIS data from wide range of sources and process data for basemap generation for use in energy mapping. Processed raw statistical data of energy resource flow and distribution to create temporal flow maps.	January 2015 – August 2015
<b>Undergraduate Research Assistant to Professor Cynthia Brewer</b> Assisted with cartographic research on map symbology design. Gathered GIS data from wide range of sources and processed those data into custom cartographic figures and maps. Assisted in the execution of the project to publish a new edition of Dr. Brewer's Designing Better Maps book with ESRI.	June 2014 – August 2015

#### The Peter R. Gould Center Undergraduate Intern

Principal student cartographer tasked with producing high-guality custom cartography and maps for specific needs of clients.

Determined project scopes and coordinated client-specific cartographic

specifications and content requirements for each project.

Projects included small-scale productions for professors, researchers and units within the university as well as large-scale project for national clients like NPS, USGS, UNESCO

## TEACHING EXPERIENCES

## Department of Geography, University of Oregon | Eugene, OR Graduate Teaching Employee for "Data Driven Cartography" Spring 2022

Prepare, manage and teach labs on advanced data-driven cartography production.

Instruct and explain to student the process of data processing and map design using ArcGIS Pro.

Oversee office hours and extended lab sessions to assist students requiring additional help outside of class time.

## Graduate Employee-Acting Assistant Manager of the Social Science Instructional Labs Fall 2017, Winter 2018, Spring 2018, Fall 2019, Winter 2020, Spring 2020, Fall 2020, Winter 2021, Spring 2021, Winter 2022

Provided instructional support and assistance to faculty, staffs and students. Assisted in managing day-to-day operations of lab spaces and equipments. Advised and tutored students and faculty that require technical GIS guidance in a diverse range of topics.

## Graduate Teaching Employee for "Web Mapping" Fall 2021

Prepared, managed and taught labs on advanced web cartography development.

Instructed and explained to student the process of coding web maps using HTML, CSS and JavaScript.

Oversaw office hours and extended lab sessions to assist students requiring additional help outside of class time.

Department of Geography, The Pennsylvania State University | University Park, PA

## Graduate Teaching Assistant to Professor Donna Peuguet for "Mapping Our Changing World" Spring 2017

Prepared, managed and taught labs on introductory GIScience.

Instructed and introduced students to GIS applications such as ArcGIS.

Oversaw office hours and extended lab sessions to assist students requiring

additional help outside of class time.

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# Graduate Teaching Assistant to Dr. Peter Koby for "Geospatial Revolution" Spring 2017

Prepared, managed and taught labs on introductory GIScience.

Instructed students on web mapping and analysis using ArcGIS Online and CARTO.

Oversaw office hours and extended lab sessions to assist students requiring additional help outside of class time.

## Graduate Teaching Assistant to Dr. Justine Blanford for "Geospatial Analytics" Fall 2016

Prepared, managed and taught labs on spatial statistics and geospatial analysis.

Instructed students on conducting advanced geospatial and geo-statistical analysis using ArcGIS, SPSS, and GeoDa.

Oversaw office hours and extended lab sessions to assist students requiring additional help outside of class time.

## Undergraduate Teaching Assistant to Professor Rudy Slingerland for "ArcGIS for Geologic Mapping" Spring 2014

Assisted students with lab assignments and class projects. Instructed students on constructing geologic maps using ArcGIS. Oversaw special office hours and extended lab sessions to assist students requiring additional help outside of class time.

## Undergraduate Teaching Intern to Professor Cynthia Brewer for "Introduction to Cartography" Fall 2013

Co-conducted lab sessions and helped students with lab assignments and projects as part of a comprehensive teaching internship experience. Assisted students with during the cartographic design process in ArcGIS.

## PEER-REVIEWED JOURNAL PUBLICATIONS

Lobben, A. and **Limpisathian**, **P. W.** (2021). *Perception and Cognitive Processing of Geographic Phenomena*. The Geographic Information Science & Technology Body of Knowledge (4th Quarter 2021 Edition), John P. Wilson (ed.). DOI: 10.22224/gistbok/2021.4.1

Brooks, R. P., **Limpisathian, P. W.**, Gould, T., Mazurczyk, T., Sava, E., & Mitsch, W. J. (2018). *Does the Ohio River flow all the way to New Orleans?*. JAWRA Journal of the American Water Resources Association, 54(3), 752-756.

## INVITED COLLOQUIA

\* Denotes Limpisathian as presenter

"Neuro-Carto Visual Contrast: A Modern Reframing and Beyond"

## P.W. Limpisathian\*

Invited colloquium at University of Wisconsin-Madison Department of Geography

Madison, WI March 2022

"Neuro-Carto Visual Contrast: A Modern Reframing and Beyond"

#### P.W. Limpisathian\*

Invited colloquium at Texas State University Department of Geography San Marcos, TX

February 2022

## "Neuro-Carto Visual Contrast: A 21st Century Reframing"

P.W. Limpisathian\*

Invited colloquium at Carto Lab event by Apple Maps University Cupertino, CA (Virtually) **October 2020** 

## OTHER ACADEMIC PUBLICATIONS AND PRESENTATIONS

\* Denotes Limpisathian as presenter

"A More Inclusive Career Panel"

V. Knoppke-Wetzel, T. Buckingham, R. Wardley, H. Dormido,, **P.W. Limpisathian\*** Panel at the annual meeting of North American Cartographic Information Society Oklahoma City, OK **October 2021** 

"Neuro-carto Visual Contrast: A 21st Century Reframing"

P.W. Limpisathian\*
Invited presentation at Carto Lab event by Apple Maps University
Cupertino, CA (Virtually)
October 2020

"Neurocartographic Visual Contrast: Resolving the Conflicting Notions of Visual Contrast for Map Cognition"

## P.W. Limpisathian\*

Presentation at the annual meeting of North American Cartographic Information Society Tacoma, WA

October 2019

"Representations of Place in the Human Brain" A. Lobben, **P.W. Limpisathian\*** and M. Lawrence Referred presentation at the International Cartographic Conference 2019 (ICC2019) Tokyo, Japan July 2019 | As part of ICC2019 proceedings paper

"Representations of Place in the Human Brain" A. Lobben, M. Lawrence and **P.W. Limpisathian** Referred proceedings paper at the International Cartographic Conference 2019 (ICC2019) Tokyo, Japan **July 2019**  "Atlas of Yellowstone, 2<sup>nd</sup> Edition - Celebrating 150 Years: 1872-2022" W. A Marcus, J. E. Meacham, J. T. Menke, A. Y. Steingisser, **P.W. Limpisathian** and A. W. Rodman Poster presented at the International Cartographic Conference 2019 (ICC2019) Tokyo, Japan **July 2019** 

"Neurological Correlates of Cognitive Navigational Self-location" **P.W. Limpisathian\*** and A. Lobben Presentation at the annual meeting of the American Association of Geographers Washington, DC **April 2019** 

"From Cartographic Contrast Design to Neuro-geographical Contrast Cognition"

## P.W. Limpisathian\*

Referred presentation at the annual meeting of North American Cartographic Information Society Norfolk, VA **October 2018** 

"Atlas of Yellowstone, 2<sup>nd</sup> Edition - Celebrating 150 Years: 1872-2022"

W. A Marcus, J. E. Meacham, J. T. Menke, A. Y. Steingisser, **P.W. Limpisathian** and A. W. Rodman Poster presented at the Biennial Scientific Conference on the Greater Yellowstone Ecosystem Big Sky, MT

## September 2018

"Crowdsourced Aesthetics: A Reflection on Running Online Cartographic User Studies"

P.W. Limpisathian\*, and C. Anderson

Presentation at the annual meeting of the American Association of Geographers

New Orleans, LA

## April 2018

"Visual Contrast and Hierarchy Relations of Cartographic Features Across Multi-Scale Map Displays: Map Evaluation Results"

P.W. Limpisathian\*, and C. Brewer
 Referred presentation at the annual meeting of the North American Cartographic Information Society
 Montréal, Québec, Canada
 October 2017 | Based on master's degree thesis research

"Evaluating visual contrast and hierarchy relations of cartographic features across multi-scale map displays"

## P.W. Limpisathian

Master of Science Thesis, The Pennsylvania State University University Park, PA August 2017

"Evaluating visual contrast and hierarchy relations of cartographic features across multi-scale map displays" **P.W. Limpisathian\***, and C. Brewer Referred poster presented at the 2017 International Cartographic Conference (ICC2017) Washington, DC **July 2017** | Based on master's degree thesis research "Towards ContrastBrewer: Evaluating visual contrast and hierarchy relations of cartographic features across

multi-scale map displays"
P.W. Limpisathian\*, and C. Brewer
Presentation at the annual meeting of the American Association of Geographers
Boston, MA
April 2017 | Based on master's degree thesis research

"Shifting Gears: The Cartographic Implications and Opportunities of Recent Developments in Automotive GIS and Autonomous Vehicle Technologies"

P.W. Limpisathian\*
Presentation at the annual meeting of the Association of American Geographers
San Francisco, CA
April 2016

"Spatial Analysis of Bio-refining Potential in the Northeast U.S." **P.W. Limpisathian\***, R.E. Baxter and K. Calvert Poster presented at the annual meeting of the Association of American Geographers San Francisco, CA **March 2016** 

"Planning for Automated Labeling of U.S. Routes with Multiple Shields and Names" C. Brewer, E. Guidero, K. Fishburn, **P.W. Limpisathian**, and W. Chittester Referred presentation at the annual meeting of the North American Cartographic Information Society (NACIS) Minneapolis, MN **October 2015** 

"Custom Cartography of Frank Lloyd Wright Sites for UNESCO World Heritage Nomination" **P.W. Limpisathian\***, C. Brewer and S.W. Perkins Poster presented at the annual meeting of the North American Cartographic Information Society (NACIS) Minneapolis, MN **October 2015** | Based on ICC2015 proceedings paper

"Custom Cartography of Frank Lloyd Wright Sites for UNESCO World Heritage Nomination" C. Brewer, **P.W. Limpisathian**, and S.W. Perkins Presentation at the International Cartographic Conference 2015 (ICC2015) Rio de Janeiro, Brazil **August 2015** | As part of ICC2015 proceedings paper.

"Custom Cartography of Frank Lloyd Wright Sites for UNESCO World Heritage Nomination" **P.W. Limpisathian**, C. Brewer and S.W. Perkins Referred proceedings paper at the International Cartographic Conference 2015 (ICC2015) Rio de Janeiro, Brazil **August 2015**  "Making a New Edition of Designing Better Maps"

C. Brewer, E. Guidero, A. Dennis, **P.W. Limpisathian**, C. Frye, P. Raposo Presentation at the annual meeting of the Association of American Geographers Chicago, IL **April 2015** 

"Custom Cartography of Frank Lloyd Wright Sites for UNESCO World Heritage Nomination" **P.W. Limpisathian\***, C. Brewer, H. Clauss and S.W. Perkins

Illustrated paper presented at the annual meeting of the Association of American Geographers Chicago, IL

April 2015 | Based on ICC2015 proceedings paper.

"The Relations & Effects of Environmental Factors to the Seasonal Change and Green-up Process of Bo Trees in Pichaya Suksa School, Nonthaburi Province, Kingdom of Thailand"

P.W. Limpisathian\* and colleagues

Presentation at the Global Learning and Observations to Benefit the Environment (GLOBE) Conference Goa, India

April 2009

## CARTOGRAPHIC PUBLICATIONS AND CONTRIBUTIONS

## "Atlas of Yellowstone, Second Edition"

Topic Expert and Contributing Cartographer. Book by W. Andrew Marcus, James E. Meacham, Ann W. Rodman, Alethea Y. Steingisser and Justin Menke. University of Oregon. University of California Press January 2022

## "Vision and Place: John Wesley Powell And Reimagination of the Colorado River Basin"

Contributing Cartographer. Book by Daniel McCool, Thomas Minckley, Jason Robison. University of California Press **October 2020** 

## "Luchas en red o luchas colectivas en la Amazonía del Ecuador: el caso de Tzawata"

Cartographer. Referred paper by Belén Noroña. Journal of Latin American Geography, Volume 19, Number 2 March 2020

## "Nomination to the World Heritage List by the United States of America (Revised 2019 Renomination): The 20th-century Architecture of Frank Lloyd Wright"

Project Cartographer. Nomination dossier (book) by Frank Lloyd Wright Building Conservancy and National Park Service. US Departments of the Interior and State **December 2018** 

"Wild Migrations: Atlas of Wyoming's Ungulates"

Contributing Cartographer. Book by Matthew J. Kauffman, James E. Meacham, Hall Sawyer, Alethea Y. Steingisser, William J. Rudd and Emilene Ostlind. University of Oregon. Oregon State University Press **October 2018** 

#### "Violent rural environments amid the War on Drugs"

Cartographer. Presentation by Gabriel Tamariz at the annual meeting of the American Association of Geographers, Boston, MA **April 2017** 

## "Designing Better Maps: A Guide for GIS Users, Second Edition"

Contributing Cartographer. Book by Cynthia A. Brewer. Esri Press January 2016

## "Nomination to the World Heritage List by the United States of America: Key Works of Modern Architecture by Frank Lloyd Wright"

Principal Project Cartographer. Nomination dossier (book) by Frank Lloyd Wright Building Conservancy and National Park Service. US Departments of the Interior and State

August 2015

#### MEMBERSHIPS AND SERVICE

Current Service

## North American Cartographic Information Society (NACIS)

Conference Hybrid Communication and Engagement Coordinator – 2020 to Present Student Director-at-Large – 2019 to 2020 Member – 2014 to Present

#### ColorBrewer.org

Social Media Manager (Twitter) – 2015 to Present

MaptimeEUG Co-organizer – 2017 - Present

#### Cartography Specialty Group of the AAG (CSG-AAG)

Student Director – 2019-2020 Member – 2016 to Present

#### Associated Graduate Students in Geography at UO (AGSG)

Member and Emeritus Chief – 2021 to Present Chief Graduate Representative and Faculty Liaison – 2020 to 2021 Graduate Representative and Treasurer – 2019 to 2020 Chair for Social and Orientation Activities – 2019 to 2020 Founding Member and Provisional Executive Councilor – 2018

#### Association of American Geographers (AAG)

Member – 2014 to Present

#### Cartography and Geographic Information Society (CaGIS)

U.S. National Committee to the International Cartographic Association Conference Delegate – 2019 U.S. National Committee to the International Cartographic Association Conference Delegate – 2017 Student Member – 2016 to Present

#### Past Service

Alpha Tau Chapter, Gamma Theta Upsilon Geography Honor Society and Professional Fraternity (GTU) Graduate Chair – 2016 to 2017 Member – Inducted May 2014

## Geospatial Information Science Coalition at Penn State (GIS Coalition)

Co-founding Member – 2013 to 2015

## Graduate Student Affinity Group of the AAG (GSAG-AAG)

Member - 2018 - 2020

MaptimeSCE Co-organizer – 2016

## No)Boundaries Conference (No)Bo Conference)

Organizing Committee Member - 2015 to 2016

## Supporting Women in Geography (SWIG) Chapter at The Pennsylvania State University

Member – 2015 to 2016

## Thai Student Association (ThSA) at The Pennsylvania State University

Counselor to the President – 2016 to 2017 Past President and Counselor to the Co-presidents – 2015 to 2016 President – 2014 to 2015 Secretary of the Association – 2012 to 2014 Member – 2011 to 2012

#### Undergraduates of the Department of Geography at Penn State (UnderDOG)

Graduate Student Liaison – 2015 to 2017 Member – 2013 to 2015

## TECHNICAL SKILLS AND MISCELLANEOUS

#### **GIS & Cartography Software**

ArcGIS Suite (ArcMap applications, ArcGIS Pro, ArcGIS Online), Adobe Create Cloud (Adobe Illustrator, Adobe InDesign, Adobe Photoshop), CARTO Builder, GeoDa, HERE Map Creator, IBM SPSS, IDLE, Inkscape, LP360, Mapbox Studio, Microsoft Access, Microsoft Excel, Microsoft SQL Server Management Studio, Microsoft Visio Pro, Minitab, RStudio

#### **Neuroimaging Software**

FMRIB Software Library, ExperimentBuilder

## **Programming Experiences**

HTML, PHP, Python, R, SQL, JavaScript, CSS

## Certifications

University of Oxford Wellcome Centre for Integrative Neuroimaging fMRI Software Library (FSL) Course Certification, 2018

UO Lewis Center for Neuroimaging MRI Safety Certification, 2017 (Subsequent biannual recertification) Collaborative Institutional Training Initiative (CITI) Certification for Human Subject Research, 2015 (Recertified 2017, 2019, 2022)

## Languages

Native in English with proficiency in Thai