

# Harrison C. Cole

Department of Geography

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## Education

- 2022 **PhD, Geography**, *The Pennsylvania State University*  
Dissertation: Tactile Maps for Flood Mitigation Planning: Design and Evaluation  
Advisor: Dr. Anthony Robinson  
Lab Affiliation: GeoVISTA Center
- 2017 **MA, Geography**, *University of Kentucky*  
Graduate Certificate in Social Theory  
Thesis: Pigs, Pipelines and Patients: Biopolitics of Organ Transplant Logistics  
Advisor: Dr. Jeremy Crampton
- 2014 **BA, Geography** (GIScience concentration), *The University of Texas at Austin*  
Certificate in Russian, East European and Eurasian Studies

## Appointments

- 2022 - Present **Postdoctoral Scholar / Director of The GeoGraphics Lab**; *The Peter R. Gould Center for Geography Education and Outreach, Department of Geography, The Pennsylvania State University*
- 2020 - 2021 **Cartographic Consultant**; *Department of Comparative Literature, The Pennsylvania State University*  
Project: Cinemap  
Supervisor: Dr. Jonathan E. Abel
- 2019 - 2021 **Research Assistant**; *Department of Geography, The Pennsylvania State University*  
Project: Cracking Appalachia  
Principal Investigator: Dr. Jennifer Baka
- 2018 **Visiting Scholar**; *Department of Information Technology, Monash University, Melbourne, Australia*  
Supervisor: Dr. Bernhard Jenny

# Research

## Journal Articles

- 2023 (Under revision for resubmission) Baka, J., Jalbert, K., Lewellen, S., **Cole, H.** The Vulnerabilities of Environmental Vulnerability Analysis: Evidence from Hydraulic Fracturing Wasteflows in Pennsylvania. Target Journal: *Proceedings of the National Academy of Sciences*.
- (Under revision for resubmission) **Cole, H.**, Robinson, A. Thematic Tactile Maps for Accessible Flood Mitigation Planning: Design and Evaluation. *Cartography and Geographic Information Science*.
- (In press) **Cole, H.** Systemic Accessibility with Weathered Cartography: Tactile Maps for Collaborative Decision-Making. *Cartographic Perspectives*.
- 2021 Robb, D., **Cole, H.**, Baka, J., Bakker, K. Visualizing water-energy nexus landscapes. *Wiley Interdisciplinary Reviews: Water*. 8(6): e1548. July 29.  
<https://doi.org/10.1002/wat2.1548>
- Cole, H.** The Organ Supply Chain: Geography and the Inequalities of Transplant Logistics. *Transactions of the Institute of British Geographers*. 46(4): 1008-1021. April 20.  
<https://doi.org/10.1111/tran.12458>
- Cole, H.** Tactile cartography in the digital age: A review and research agenda. *Progress in Human Geography*. 45(4): 834-854. March 15.  
<https://doi.org/10.1177/0309132521995877>

## Refereed Conference Papers

- 2021 **Cole, H.** Thematic Tactile Cartography: Evaluating Tactile Mapping Techniques for Novel Applications. *Abstracts of the International Cartographic Association*. Florence, Italy. December 13. (3) 2021.  
<https://doi.org/10.5194/ica-abs-3-57-2021>
- 2020 **Cole, H.** Accessible Mitigation Planning: Tactile Hazard Map Design and Evaluation. In *ISCRAM 2020 Conference Proceedings – 17th International Conference on Information Systems for Crisis Response and Management*. Blacksburg, VA. 1031–1037.  
[http://idl.iscram.org/files/harrisoncole/2020/2294\\_HarrisonCole2020.pdf](http://idl.iscram.org/files/harrisoncole/2020/2294_HarrisonCole2020.pdf)
- 2019 **Cole, H.** Toward Accessible Hazard Mapping: Tactile Risk Maps and Disaster Preparedness. *Abstracts of the International Cartographic Association*. Tokyo, Japan: July 18.  
<http://dx.doi.org/10.5194/ica-abs-1-47-2019>
- Cole, H.** Evaluating Thematic Tactile Maps for Risk Assessment. *US National Report (US National Committee for the International Cartographic Association)*.  
<https://cartogis.org/usnc-ica/us-national-report/>

- 2018 MacEachren, A. M., Caneba, R., Chen, H., **Cole, H.**, Domanico, E., Triozzi, N., Xu, F., Yang, L. Is This Statement About a Place? Comparing two perspectives (Short Paper). *10th International Conference on Geographic Information Science (GIScience 2018)*. Melbourne, Australia: August 28-31. 44:1-44:6  
<https://doi.org/10.4230/LIPIcs.GIScience.2018.44>
- 2018 **Cole, H.** Geovisualization of Dream Spaces. *New Directions in Geovisual Analytics: Visualization, Computation, and Evaluation (GVIZ 2018)*. Melbourne, Australia: August 28. 3:2-3:5.  
<https://viz.icaci.org/GVIZ2018/programme/>

## Commentary

- 2019 **Cole, H.** Review of Where the Animals Go: Tracking Wildlife with Technology in 50 Maps and Graphics. *Cartographic Perspectives*. 93: 93-95.  
<https://doi.org/10.14714/CP93.1571>
- 2018 Caswell, M., **Cole, H.**, Griffith, Z. Images, Silences, and the Archival Record: an Interview with Michelle Caswell. *disClosure: A Journal of Social Theory*. 27: 21-27.  
<https://doi.org/10.13023/disclosure.27.04>

## Conference Presentations

- 2021 Thematic Tactile Cartography: Evaluating Tactile Mapping Techniques for Novel Applications. *30th International Cartographic Conference*. Florence, Italy. December 16.
- 2021 Feeling the Flood: Evaluating Thematic Tactile Maps. *Annual Meeting of the North American Cartographic Information Society*. Oklahoma City, OK: October 14.  
<https://www.youtube.com/watch?v=AcaYW9xlMPA>
- 2020 Making Flood Maps Accessible: Designing Tactile FIRMs. *Annual Meeting of the North American Cartographic Information Society*. Online: October 16.  
<https://www.youtube.com/watch?v=-xVnAaXWPFo>
- 2020 Mapping Historically Black Colleges and Universities in OSM. *State of the Map 2020*. Online: July 4.  
<https://2020.stateofthemap.org/sessions/QYYC9T/>
- Accessible Mitigation Planning: Tactile Hazard Map Design and Evaluation. *17th International Conference on Information Systems for Crisis Response and Management*. Blacksburg, VA. (Conference postponed)
- 2019 Cartographic Accessibility Through History. *Annual Meeting of the North American Cartographic Information Society*. Tacoma, WA: October 18.  
<https://www.youtube.com/watch?v=TVamLzFChsE>
- Toward Accessible Hazard Mapping: Tactile Risk Maps and Disaster Preparedness. *29th International Cartographic Conference*. Tokyo, Japan: July 18.
- The Cost of Cartography: Mapping the Carbon Footprint of Mapping. *American Association of Geographers 114th Annual Meeting*. Washington, DC: April 6.

- 2018 Visions of Light: Mapping Lighthouses and Other Nautical Beacons. Presentation, *Annual Meeting of the North American Cartographic Information Society*. Norfolk, VA: October 19.  
<https://www.youtube.com/watch?v=SCfZ912xC4>
- Geovisualization of Dream Spaces. *10th International Conference on Geographic Information Science*. Melbourne, Australia: August 28.
- 2017 Pigs, Pipelines and Patients: Towards a Theory of Biologistics. *American Association of Geographers 113th Annual Meeting*. Boston, MA: April 5.

## Invited Talks

- 2022 Multisensory Cartographies: Mapping the Impacts of Climate Change Accessibly. *University of Wisconsin-Madison Department of Geography Yi-Fu Tuan Lecture Series*. Madison, WI: March 4.
- 2021 Tactile Cartography: Spatial Thinking with Weathered Technology. *Department of Geography and Geoinformation Science, George Mason University*. Online. November 9.
- Historically Black Colleges and Universities: Representation in OSM. *OpenStreetMap US Mappy Hour*. Online. August 18.  
<https://www.youtube.com/watch?v=fjvC4lrFYzc>
- Natural Disaster Planning Using Tactile Maps. *Image Access for All*. Online. August 5.
- 2018 Critical Approaches to Virtual Reality. *School of Design, Royal Melbourne Institute of Technology*. Melbourne, Australia: September 5.

## Published Cartographic Works and Contributions

- 2022 (In press) Jensen, D., Roy, M. (Eds.). *Water: an Atlas*. Oakland, CA: Guerilla Cartography.
- Boittin, J. *Undesirable: Passionate Mobility and Women's Defiance of French Colonial Policing, 1919-1952*. The University of Chicago Press.
- Abel, J. *Dream Super-Express: A Cultural History of the World's First Bullet Train*. Stanford, CA: Stanford University Press.
- 2020 **Cole, H.** Lions Gate 2. *Maplines Winter Edition 2020 - COVID-19 and mapping health*.  
<https://www.cartography.org.uk/maplines-archive>
- Baka, J., Hesse, A., Neville, K. J., Weinthal, E., & Bakker, K. Disclosing Influence: Hydraulic fracturing, interest groups, and state policy processes in the United States. *Energy Research & Social Science*, 70, 101734.  
<https://doi.org/10.1016/j.erss.2020.101734>
- Cole, H.** Stillness Map 1: Ports of Los Angeles and Long Beach. *Livingmaps Review*, 9.  
<https://livingmaps.squarespace.com/stillness-map-1>
- Cole, H.** Trouver refuge dans la blaine du Prince-William. *Visionscarto.net, Collection cartographique*, April 27.  
<https://visionscarto.net/refuge-prince-william>
- 2014 Norriss, J. Merging of industry and environment in Costa Rica. *University of Texas at Austin Research Week*. Austin, TX.  
<http://hdl.handle.net/2152/24353>

## Fellowships, Scholarships, Grants, and Awards

- 2021 International Cartographic Association Scholar  
International Cartographic Association U.S. National Committee Early Career Scholar  
North American Cartographic Information Society Travel and Participation Grant  
E. Willard Miller Award  
Ruby S. Miller Endowment for Geographic Excellence Academic Enrichment Award
- 2019 Penn State Global Programs Graduate Student Travel Grant  
International Cartographic Association Scholar  
Ruby S. Miller Endowment for Geographic Excellence Academic Enrichment Award  
International Cartographic Association U.S. National Committee Travel Grant
- 2018 Penn State Graduate Enrichment Fellowship
- 2017 Penn State Graduate School Academic Year Fellowship
- 2016 Barnhart-Withington Endowment Research Award
- 2015 University of Kentucky Graduate School Academic Year Fellowship

## Teaching

### Instructor of Record

- SU23 Geospatial System Analysis and Design: GEOG 583 (Online: asynchronous)  
*The Pennsylvania State University, John A. Dutton e-Education Institute*
- SP23 Geovisual Analytics: GEOG 580 (Online: asynchronous)  
*The Pennsylvania State University, John A. Dutton e-Education Institute*
- SP21, SP22, Maps and the Geospatial Revolution: GEOG 6N (Online: asynchronous)  
FA22, SP23 *The Pennsylvania State University*
- SP20, FA21 Maps and the Geospatial Revolution: GEOG 6N (In-residence)  
*The Pennsylvania State University*
- FA20 Maps and the Geospatial Revolution: GEOG 6N (Online: synchronous)  
*The Pennsylvania State University*
- SU18 Human Geography: GEOG 30 (In-residence)  
*The Pennsylvania State University*

### Teaching Assistant

- SP19 Geographic Information Systems: GEOG 363 (In-residence), *The Pennsylvania State University*
- FA18, FA19 Mapping and the Geospatial Revolution: GEOG 6N (In-residence)  
*The Pennsylvania State University*

- FA17 Mapping our Changing World: GEOG 160 (Online: asynchronous)  
*The Pennsylvania State University*
- SP18 Mapping our Changing World: GEOG 160 (In-residence)  
*The Pennsylvania State University*
- FA15, SP16, Digital Mapping: GEO 109 (In-residence)  
 FA16, SP17 *University of Kentucky*

## Online Course Development

- SU20 Maps and the Geospatial Revolution: GEOG 6N (Online: synchronous)  
*The Pennsylvania State University*

## Workshop and Conference Organization

- 2023 *Penn State Earth and Environmental Sciences Exposition. University Park, PA: March 15.*
- 2022 Penn State GEOPATH EnvironMentors Teacher Workshop. University Park, PA: July 20.
- 2021 Tactile Cartography: Spatial Thinking with Weathered Technology. *Penn State GIS Day.* University Park, PA: November 16.
- Cartographic Resources. *Annual Meeting of the North American Cartographic Information Society.* Oklahoma City, OK: October 15.
- Mapping For All. *Annual Meeting of the North American Cartographic Information Society.* Oklahoma City, OK: October 15.
- 2019 Spatial Cognition in Virtual Environments: Opportunities through Immersive Technologies. *American Association of Geographers 114th Annual Meeting.* Washington, DC: April 5.
- 2019 Digital Map Making for Science Journalists. *Science Writers 2019.* Pre-conference workshop. University Park, PA: October 25.

## Service

### Journals and Proceedings

- 2023 **Reviewer**, *International Journal of Geographical Information Science* (Taylor & Francis)
- 2020 - 2022 **Editorial Board** – Social Media, *Journal of Maps* (Taylor & Francis)
- 2022 **Reviewer**, *Cartography and Geographic Information Science* (Taylor & Francis)
- Reviewer**, *Heritage Science* (Springer Nature)
- Reviewer**, *IEEE VIS 2022 Papers*
- Reviewer**, *The Cartographic Journal* (Taylor & Francis)
- Reviewer**, *IEEE Transactions on Visualization and Computer Graphics* (IEEE Computer Society)

2021 **Reviewer**, *IEEE VIS 2021 Papers*

2017 **Editorial Board**, *disClosure: A Journal of Social Theory*

## University and Departmental

2020 **Graduate Representative**, College of Earth and Mineral Sciences Sustainability Council, The Pennsylvania State University

**Geography Representative**, College of Earth and Mineral Sciences Graduate Student Council, The Pennsylvania State University

2019 **College of Earth and Mineral Sciences Delegate**, The Pennsylvania State University Graduate & Professional Student Association

2018 **Graduate Representative**, Resident Program Committee, Department of Geography, The Pennsylvania State University

2017 **Graduate Representative**, GIS Lab Advisory Committee, Department of Geography, University of Kentucky

2016 **Graduate Representative**, Geotechnologies Committee, Department of Geography, University of Kentucky

## Professional

2020 **Student Director**, Cartography Specialty Group, *American Association of Geographers*

2014 **GIS Intern**, *Planning and Development Review Department, City of Austin*

## Memberships

American Association of Geographers (AAG)

North American Cartographic Information Society (NACIS)

Cartography and Geographic Information Society (CaGIS)