# Dr. Jennifer E. Baka

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# **EDUCATION**

Ph.D. Environmental Studies, Yale School of the Environment, 2012

- M.P.P. Goldman School of Public Policy, University of California Berkeley, 2007
- B.S. Economics, The George Washington University, 2000 Summa cum laude, Phi Beta Kappa

#### ACADEMIC APPOINTMENTS

- Associate Professor, Geography, The Pennsylvania State University, 2021-Present
- Assistant Professor, Geography, The Pennsylvania State University, 2016 2021
- Assistant Professor, Geography & Environment, London School of Economics, 2013 2016
- Postdoctoral Associate, Yale Center of Industrial Ecology, 2012-2013

# **ACADEMIC AFFILIATIONS**

- Director, Political-Industrial Ecology Initiative, The Pennsylvania State University, 2024-Present
- Associate, Earth and Environmental Systems Institute, The Pennsylvania State University, 2016-Present
- Faculty Member, Institute of Energy & the Environment, The Pennsylvania State University, 2016-Present
- Faculty Affiliate, Sustainability Institute, The Pennsylvania State University, 2018-Present
- Faculty Affiliate, Energy Institute, The Pennsylvania State University, 2023-Present

# **PUBLIC SERVICE**

• Pennsylvania Department of Environmental Protection, Environmental Justice Advisory Board Member, 2020-Present

# **GRANTS & FELLOWSHIPS**

- National Science Foundation CAREER Grant, 2022-2027
- Sloan Foundation, Just Energy Transitions, 2022-2025
- Health Effects Institute-Energy, 2021-2025
- National Science Foundation National Research Traineeship-INFEWS, 2018-2023
- Penn State Institutes of Energy and Environment Seed Grant, 2021-2022
- Penn State EMS Dean's Post-Doctoral Fund, 2019-2021
- Penn State John T. Ryan Faculty Fellowship, 2017-2020
- Penn State Institutes of Energy and Environment Seed Grant, 2017-2018
- Penn State Institute of Cyber Science Seed Grant, 2017-2018
- Penn State General Education Seed Grant, 2017-2018
- Canadian Social Science and Humanities Research Council, Insight Grant, 2016-2020

- Social Science Research Council Critical Agrarian Studies Alumni Workshop Award, 2014
- Fulbright IIE Student Award, India, 2009-2010
- Social Science Research Council Dissertation Proposal Development Fellowship, 2009
- Yale Graduate School Doctoral Award, 2007-2012
- Javits Foundation Fellowship, University of California Berkeley, summer 2006
- Richard & Rhoda Goldman Fellowship, University of California Berkeley, 2005-2007
- The George Washington University Presidential Achievement Scholarship, 1996-2000

# HONORS & AWARDS

- Best Poster Award, 3<sup>rd</sup> Place, Rural Sociological Society Annual Meeting, Portland, OR, July 2018
- LSE Student Led Teaching Award Nominee, 2013-14, 2014-15, 2015-16
- Best Student Poster Award, 6th International Society for Industrial Ecology Semi-Annual Meeting, Berkeley, CA, May 2011

# PUBLICATIONS (\* Graduate Student Supervisee; \*\* Postdoctoral Supervisee) Articles in Refereed Journals

2024 Harlan, T., Baka, J. "Stacked Energyscapes: Conceptualizing Fossil Fuel and Renewable Energy Entanglements in Low-Carbon Transitions" *Energy Research & Social Science* 115: 103648.

Caudill, H.\*, **Baka**, J. "Conceptualizations of Abandoned Mine Land Reclamation: A Case Study of the Daniel Boone National Forest" *Southeastern Geographer* 64(2) p. 241-260. *Project MUSE*.

2023 Spangler, K., Smithwick, E. A. H., Buechler, S., **J. Baka**. "Just Energy Imaginaries? Examining Realities of Solar Development on Pennsylvania Farmland" *Energy Research* & Social Science **108**: 103394.

Smithwick, E. A. H., **J. Baka**, D. Bird, C. Blaszscak-Boxe, C. A. Cole, J. D. Fuentes, S. E. Gergel, L. L. Glenna, C. Grady, C. A. Hunt, L. D. Iulo, J. Kaye and K. Keller. "Regenerative landscape design: an integrative framework to enhance sustainability planning." *Ecology and Society* 28(4).

Young, T.\*, **Baka**, J., He, Z.\*\*, Bhattacharyya, S., Lei, Z. "Grounding Despair: Exploring Opioid Use in an Appalachian Coal Community", *Energy Research & Social Science* **99**: 103046.

Jalbert, K., Dickinson, K., **Baka**, J., Florence, N. "Influence in the Right-of-Way: Assessing Landowners' Risk Decision-Making in Negotiating Petrochemical Pipeline Easements", *Extractive Industries & Society* **14**: 101276.

2022 Vaishnava, S.\*, **Baka, J.** "Unruly Mountains: Hydropower and Geological Surprises in the Indian Himalayas", *Environment and Planning E* **5**(3), 1123-1145).

2021 Pearsall, H., Gutierrez-Velez, V. H. Gilbert, M. R., Hoque, Eakin, S., H., Brondizio, E. S., Solecki, W., Toran, L., Baka, J.E., Behm, J. E., Brelsford, C., Hinrichs, C., Henry, K. A., Mennis, J., Roman, L. A., Rosan, C., South, E. C. and Valletta, R. D. "Advancing Equitable Health and Well-Being across Urban–Rural Sustainable Infrastructure Systems." *npj Urban Sustainability* 1(1): 26.

Robb, D., Cole, H.\*, **Baka**, J., Bakker, K. "Visualizing Water-Energy Nexus Landscapes", for *WIREs Water* 8(6): e1548.

2020 **Baka, J.**, Vaishnava, S.\* "The Evolving Borderland of Energy Geography", *Geography Compass*, 14(7), e12493.

**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 and Social Science*, 70, 101734.

2019 **Baka, J.**, Hesse, A., Weinthal, E., Bakker, K. "Environmental Knowledge Cartographies: Evaluating Competing Discourses in US Hydraulic Fracturing Rule-making", *Annals of the American Association of Geographers*, 109(6), 1941-1960.

Neville, K.J., Cook, J., **Baka, J.**, Bakker, K., Weinthal, E. "Can Shareholder Advocacy Shape Energy Governance? The Case of the US Antifracking Movement", *Review of International Political Economy*, 26(1) 104-133.

- 2018 **Baka, J.**, Neville, K.J., Weinthal, E., Bakker, K., "Agenda Setting at the Energy-Water Nexus: Constructing and Maintaining a Policy Monopoly in US Hydraulic Fracturing Regulation", Review of Policy Research, 35(3), 439-465.
- 2017 Newell, J., Cousins, J., **Baka, J.** "Political-Industrial Ecology: An Introduction", Geoforum, 85, 319-323.

Neville, K.J., **Baka, J.**, Gamper-Rabindran, S., Bakker, K., Andreasson, S., Vengosh, A., Nem Singh, J., Lin, A., Weinthal, E. "Debating Unconventional Energy", *Annual Review of Environment and Resources*, 42, 241-266.

**Baka**, J. "Making Space for Energy: Wasteland Development, Enclosures and Energy Dispossessions", *Antipode*, 49(4) 977-996.

Calvert, K., Kedron, P., **Baka, J.**, Birch, K. "Geographical Perspectives on Sociotechnical Transitions and Emerging Bio-Economies: Introduction to a Special Issue", *Technology Analysis and Strategic Management*, 29(5), 477-485.

2014 **Baka, J.**, Bailis, R., "Wasteland Energy-Scapes: A Comparative Energy Flow Analysis of India's Biofuel and Biomass Economies", Ecological Economics, 108, 8-17.

**Baka**, J., "What Wastelands? A Critique of Biofuel Policy Discourse in South India", *Geoforum*, 54, 315-323.

- 2013 **Baka, J.**, "The Political Construction of 'Wasteland': Governmentality, Land Acquisition and Social Inequality in South India", Development and Change, 44(2), 409-428.
- 2011 Bailis, R., **Baka, J.**, "Constructing Sustainable Biofuels: Governance of the Emerging Biofuel Economy", Annals of the Association of American Geographers, 11(4), 827-838.
- 2010 Bailis, R., **Baka, J.**, "Greenhouse Gas Emissions and Land Use Change from Jatropha Curcas Based Jet Fuel in Brazil", Environmental Science & Technology, 44(22), 8684–8691.
- 2009 **Baka, J.**, Roland-Holst, D., "Food or Fuel? What European Farmers can do to Contribute to Europe's Transportation Energy Requirements and the Doha Round", Energy Policy, 37(7), 2505-2513.

#### **Under Review**

Harrington, O.\*, Shaheen, S.W.\* and **Baka**, J. "Producing a "Regime of Imperceptibility" at the Unconventional Oil and Gas Development-Water- Health Nexus in Washington County, Pennsylvania."

Shaheen, S. W.\*, Wen, T. Zheng, Z.\*, Xue, L, **Baka, J.** and Brantley, S.L.. "Wastewaters Generated During Unconventional Oil and Gas Development Drive Regional Increases in Groundwater Salt Concentrations."

Baka, J. "Cracking Appalachia: A Political-Industrial Ecology Perspective".

#### **Edited Collections**

*Geoforum*, "Political Industrial Ecology", co-organized with Joshua Newell (Michigan SNRE), Joshua Cousins (Suny ESF) 2017 85.

*Antipode*, "Agrarianisms: Past and Present", co-organized with Aaron Jakes (New School), Greta Marchesi (Berkeley), Sara Safransky (Vanderbilt). 2017 49(4).

*Technology Analysis and Strategic Management* "Socio-technical Transitions in the Emerging Bio-economy: Geographical Perspectives", co-organized with Kean Birch (York), Kirby Calvert (Guelph), and Peter Kedron (Ryerson) 2017 29(5).

#### Non-Peer Reviewed Articles/Book Chapters/Book Reviews

- **Baka, J.** "Review of "Carbon Sovereignty: Coal, Development, and Energy Transition in the Navajo Nation". Environment and Planning E: Nature and Space 41(4).
- 2023 **Baka, J.** Review of "When Fracking Comes to Town: Governance, Planning, and Economic Impacts of the U.S. Shale Boom"." Pennsylvania Geographer 60 No. 2(Fall/Winter): 41-45.
- 2019 **Baka, J.** "Do Wastelands Exist? Conflicting Perspectives on "Productive" Land Use in India's Rural Energy-Scapes" *Rachel Carson Centre Perspectives*, 2, 57-64.

- 2017 **Baka, J.** "Political-Industrial Ecologies of Energy" *Handbook on the Geographies of Energy*, Edward Elgar, Calvert, K. & Solomon, B. (eds).
- 2016 Hesse, A., **Baka**, J., Calvert, K. "Energy, Extractive Industries, Enclosure and Exclusion," in *Handbook of the International Political Economy of Energy*, Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern, F., Klare, M.T., (eds) Palgrave Press.

#### **Refereed Conference Proceedings**

2019 Wallgruen, J. O., Chang, J.-K., Sajjadi, P., Zhao, J., Oprean, D., Murphy, T., Baka, J., & Klippel, A. K. For the Many, Not the One: Designing Low-Cost Joint VR Experiences for Place-Based Learning. Proceedings of the *EuroVR 2019 International Conference*, 126-150.

#### **Policy Papers**

- 2010 Roland-Holst, D., Karl, F., Khanna, M., Baka, J., "Clean Energy and Climate Policy for U.S. Growth and Job Creation an Economic Assessment of the American Clean Energy and Security Act and the Clean Energy Jobs and American Power Act", University of California.
- 2007 **Baka, J.**, Roland-Holst, D. "Greener Pastures for Globalization: How European Farmers can Help Save the Planet as well as the Doha Round", Giannini Foundation of Agricultural Economics: Agricultural and Resource Economics Update, ARE Update Volume 11.
- 2006 **Baka, J.**, Ling, F, Kammen, D. "Towards Energy Independence in 2025", Renewable and Appropriate Energy Laboratory, UC Berkeley.

#### **CONFERENCE AND WORKSHOP ORGANIZATION**

- 2023 Shale Network Workshop, Penn State University, University Park, PA.
- 2022 Shale Network Workshop, Penn State University, University Park, PA.

Energy and Environmental Justice Panel, Energy Days, University Park, PA (hybrid).

2021 Shale Network Workshop, Penn State University, University Park, PA (held virtually).

The Local Social and Economic Context of Energy Transitions, Penn State University, University Park, PA (held virtually).

- 2020 Shale Network Workshop, Penn State University, University Park, PA (postponed to 2021 due to Covid-19).
- 2019 Shale Network Workshop, Penn State University, University Park, PA.
- 2014 SSRC DPDF Critical Agrarian Studies Workshop, Berkeley, CA.

#### **INVITED LECTURES, COLLOQUIA & WEBINARS**

2024 "A Virtual Reality Tour of Eckley Miners' Village", Weatherly, PA, July 20.

"Cracking Appalachia: A Political-Industrial Ecology Perspective", Duke University, University Seminar on Environmental Policy, Durham, NC, February 5.

2023 "Using Geoscientific Analysis and Community Engagement to Analyze Exposures to Potential Groundwater Contamination Related to Hydrocarbon Extraction in Southwestern Pennsylvania", Health Effects Institute-Energy webinar, December 18 (virtual).

"Cracking Appalachia: A Political-Industrial Ecology Perspective", Department of Earth Sciences, Montana State University, Bozeman, MT, December 7.

"Using Geoscientific Analysis and Community Engagement to Analyze Exposures to Potential Groundwater Contamination Related to Hydrocarbon Extraction in Southwestern Pennsylvania", 2023 Shale and Public Health Conference, League of Women Voters of Pennsylvania, Pittsburgh, PA, November 14 (virtual participation).

"Penn State Energy-Water-Health Nexus Study", BREATHE Project Weekly Meeting, August 24.

"Cracking Appalachia: A Political-Industrial Ecology Perspective", Department of Geography and Spatial Sciences, University of Delaware, Newark, DE, February 17.

2022 "The Vulnerabilities of Environmental Vulnerability Analysis: Evidence from Hydraulic Fracturing Wasteflows in Pennsylvania, Energy Research Group Seminar, University of California Berkeley, April 13 (held virtually).

"Energy Development and Health Risks," Cancer and the Environment Workshop, Penn State Health, State College, PA, September 29.

"Using Geoscientific Analysis and Community Engagement to Analyze Exposures to Potential Groundwater Contamination Related to Hydrocarbon Extraction in Southwestern Pennsylvania," HEI Energy Investigator Workshop: Exposure Research Related to Water Quality, HEI Energy, Boston, MA (held virtually), June 7.

"Environmental Justice and the Energy Sector," Department of Environmental Engineering Seminar Series, Saint Francis University, Loretto, PA. November 4.

- 2021 "Cracking Appalachia: A Political-Industrial Ecology Perspective", EnGRG Seminar Series, Royal Geographical Society, May 28 (held virtually).
- 2020 "Cracking Appalachia: A Political-Industrial Ecology Perspective", Cornell University Development Sociology Seminar, September 11 (held virtually).

2019 "Cracking Appalachia: A Political-Industrial Ecology Perspective", Clark University Department of Geography Colloquium, November 21.

"Cracking Appalachia: A Political-Industrial Ecology Perspective", Penn State University Department of Geography Coffee Hour, September 6.

"Advancing Sustainability Science: A Political-Industrial Ecology Perspective", International Symposium for Sustainable Systems and Technology, Portland, OR, June 26 (with Josh Cousins).

2018 "Contract Farming and Dispossession: Jatropha Biofuels Control Grabbing in Tamil Nadu, India" Singapore Metropolitan University, Singapore, July 27-29.

"Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Penn State University, Department of Geosciences, February 6.

"Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Texas State University, Department of Geography, January 26.

2017 "E-Governance as a Data Source for Evaluating Stakeholder Positions in Hydraulic Fracturing Regulation", Shale Network Workshop, Penn State University, May 19.

"Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Penn State Beaver Campus, April 15.

"Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", University of North Carolina, Department of Geography, March 2.

- 2016 "Towards Political-Industrial Ecology: Landscapes, Livelihoods and Metabolisms" Spatial Adventures on Energy Studies, Windsor, UK, May 30-June 1.
- 2015 "Energy Policy Landscape Governance", London School of Economics, Cities, Spaces and Development Seminar, November 17.

"Fracturing Regulation: How Industry Plays a Two-Level Game to Amend, Avoid, and Attenuate Hydraulic Fracturing Rules in the US", King's College London, October 28.

"Wasteland Energy-Scapes: Biofuels, Land Politics and Social Inequality in South India" at the "Biofuels and (Ir)responsible Innovation", (invited keynote), Eindhoven University of Technology, Eindhoven, The Netherlands, April 13. "Miracle Crop or Miraculous Flop? Analyzing the Socio-environmental Impacts of Jatropha Promotion in South India" CABI Seminar, February 4.

2014 "Wasteland Energy-Scapes: Biofuels, Land Politics and Social Inequality in South India", Royal Holloway Geography Seminar, October 27.

"A Political Ecology of Wastelands", Political Ecology and Development: Resources, Power and Justice, Lancaster University, September 10.

"Energy Security for Whom? A Biopolitics of Wasteland Development in India", SSRC DPDF Critical Agrarian Studies Workshop, Berkeley, CA, March 16.

"Biofuels and Marginal Lands: Examining the Land Use Change Impacts of Jatropha Promotion in South India", Political Ecology Seminar Series, Cambridge University, January 28.

2013 "Biofuels and Marginal Lands: Interrogating the Land Use Change Impacts of Jatropha Promotion in South India, The London School of Economics and Political Science, February 20.

"Biofuels and Marginal Lands: Interrogating the Land Use Change Impacts of Jatropha Promotion in South India, The Pennsylvania State University, February 15.

"Wastelands, Biofuels and Land Grabs in South India", Human Dimensions of Global Environmental Change Seminar, University of Maryland, February 7.

2012 "Biofuels and Marginal Lands: Interrogating the Land Use Change Impacts of Jatropha Promotion in South India, Nicholas School of the Environment, Duke University, November 13.

"Biofuels and Marginal Lands: Examining the Land Use Change Impacts of Jatropha Promotion in South India", Union of Concerned Scientists, Washington, DC, December 11.

"Wastelands and Biofuels: A Comparative MEFA Analysis of South India's Biofuel and Biomass Economies", World Wildlife Fund, Washington, DC, June 6.

2011 "Biofuels and Wastelands: Energy Policy, Land Markets and Social Inequality in South India", ICTA, Autonomous University of Barcelona, December 19.

"Biofuels and Wastelands: Energy Policy, Land Markets and Social Inequality in South India", Jatropha State of the Art Workshop, UNESCO, Paris, France, December 15.

"Biofuels and Wastelands: Energy Policy, Land Markets and Social Inequality in South India", Critical Geographies Conference, Clark University, Worchester, MA, November 5.

#### **CONFERENCE PANELS/ROUNDTABLES**

2023 Review of University of Pittsburgh Energy Development and Public Health Study roundtable, Cancer & Environment Network of SWPA, September 7.

Research Collaborations with Social and Environmental Health Scientists, Health Effects Institute-Energy webinar, June 27.

2022 Coal Mining Decline and Opioid Overdose Mortality in Rural Central Appalachia: A Need for a Just Transition, Annual Conference on Environmental Politics and Governance University Park, PA, June 30.

"Cracking Appalachia: A Political Industrial Ecology Perspective," American Association of Geographers Annual Conference, New York, NY (held virtually), February 27.

"Landscapes of recarbonization? Problematizing pathways toward net-zero," American Association of Geographers Annual Conference, New York, NY (held virtually), February 25.

2021 "Community Engaged Research of Petrochemicals in Southwestern PA" League of Women Voters Shale and Public Health Conference, Pittsburgh, PA (held virtually), November 17.

"Getting to Negative: Strategies, Ethics, and Co-Benefits", Keynote Panel, Penn State Energy Days, University Park, PA (held virtually), May 19.

"Local Needs, Global Concerns: Environmental Justice in Pennsylvania and Beyond", Shippensburg University, Shippensburg, PA (held virtually), April 21.

"Energy Geography: Future Projections, Possible Directions", American Association of Geographers Annual Meeting, Seattle, WA (held virtually), April 10.

"After the Crash: Wither Hydrocarbons? The Rescaling of Oil and Gas in the (Post) COVID Conjuncture", American Association of Geographers Annual Meeting, Seattle, WA (held virtually), April 8.

- 2020 "Green Futures in Energy Education", Earth and Environmental Science Institute Earth Talks Series, Penn State University, University Park, PA (held virtually), May 18.
- 2019 "Conceptual and Methodological Opportunities for Data Production for Transdisciplinary SUS", Sustainable Urban Systems Workshop, Temple University, Philadelphia, PA, September 12.

"The Academic Career Path: 2. Research Universities," Survival Skills for Finishing Doctoral Students, Yale School of Forestry & Environmental Studies, New Haven, CT, February 13.

2018 "Environmental Legacies Related to Oil and Gas Production", National Academies of Sciences, Engineering and Medicine, Pittsburgh PA, November 15.

"Political Ecologies, Authoritarian Populism and Emancipatory Politics", POLLEN Bi-Annual Conference, Oslo, Norway, June 20.

"The Academic Career Path: 2. Research Universities," Survival Skills for Finishing Doctoral Students, Yale School of Forestry & Environmental Studies, New Haven, CT, February 15.

- 2017 "Researching the Public Health Impact of an Ethane Cracker and Petrochemical Development", League of Women Voters of Pennsylvania Shale and Public Health Conference, Pittsburgh, PA, November 13.
- 2015 "Political-Industrial Ecology", American Association of Geographers Annual Meeting, Chicago, IL, April 23.

#### **CONFERENCE PRESENTATIONS**

2024 "Cracking Appalachia: A Political-Industrial Ecology Perspective", Royal Geographic Society Annual Meeting, London, UK, August 30.

"Planetary Natural Gas: Fracking, Rent and Dispossession in Southwestern Pennsylvania", Conference on Global Coal Transitions, Columbus, OH, July 17. Given by Owen Harrington\*

"Cracking Appalachia: A Political-Industrial Ecology Perspective", International Symposium on Sustainable Systems and Technology Conference, Baltimore, MD, June 18.

"Political-Industrial Ecology Lightening Talk", International Symposium on Sustainable Systems and Technology Conference, Baltimore, MD, June 17.

"Planetary Natural Gas: Fracking, Rent and Dispossession in Southwestern Pennsylvania", Dimensions of Political Ecology Conference, Lexington, KY, February 24. Given by Owen Harrington\*

2023 "Something in the Water? Analyzing Community and Geoscientific Knowledge of the Energy-Water-Health Nexus in Southwestern Pennsylvania", Geological Society of America Conference, Pittsburgh, PA, October 17.

"The Vulnerabilities of Vulnerability Analysis: Evidence from Hydraulic Fracturing Wasteflows in Pennsylvania", American Association of Geographers Annual Meeting, Denver, CO, March 26. 2022 "Cracking Appalachia: A Political-Industrial Ecology Perspective", American Association of Geographers Annual Meeting, New York, NY February 27 (held virtually).

"Share Landscapes of Energy Transition", Energy and Environment Specialty Group Pre-AAG Meeting, January 29 (held virtually).

- 2021 "Influence in the Right of Way: Assessing Landowner's Power, Risk, and Responsibility in Pipeline Easement Negotiations", Shale Network Workshop, University Park, PA, May 14 (held virtually).
- 2020 "Influence in the Right of Way: Assessing Landowner's Power, Risk, and Responsibility in Pipeline Easement Negotiations", International Symposium on Society and Resource Management Annual Conference, Cairns, Australia (held virtually), June 22.
- 2019 "The Influence of Model Bills and State-to-State Information Sharing on Hydraulic Fracturing Fluid Disclosure Regulations," Energy and Society in Transition, Energy Research and Social Science, Tempe, AZ, May 28.

"Involving Communities in Environmental Decision Making: A Case Study of the Shell Ethane Cracker Facility", Shale Network Workshop, Earth and Environmental Systems Institute, University Park, PA, May 17.

"Analyzing the Social and Environmental Impacts of Biofuels: A Political-Industrial Ecology Perspective", Symposium on Biotechnology for Fuels and Chemicals, Society for Industrial Microbiology and Biotechnology, Seattle, WA, May 1.

"Cracking Appalachia: A Political-Industrial Ecology Perspective", American Association of Geographers Annual Meeting, Washington, DC, April 5.

- 2018 "Re-Industrializing Appalachia: A Political-Industrial Ecology Perspective", Rural Sociological Society Annual Meeting, Portland, OR, July 29.
- 2017 "Tribal Land and Water Discourses in US Hydraulic Fracturing Rulemaking", American Association of Geographers Annual Meeting, Boston, MA, April 7.

"Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", American Association of Geographers Annual Meeting, Boston, MA, April 6.

2016 "Landscapes, Livelihoods and Metabolisms: A Political-Industrial Ecology of Jatropha", Political Ecologies of Capitalism, Conflict and Contestation Conference, Wageningen University, The Netherlands, July 8. "Political-Industrial Ecology: Landscapes, Metabolisms and Livelihoods", American Association of Geographers Annual Meeting, San Francisco, CA, April 1.

2015 "Energy Policy Landscape Governance", Energy Landscapes Conference, Dresden, Germany, September 17.

"States, Congress and the Influence of Industry: Who Regulates Hydraulic Fracturing in the US?" American Association of Geographers Annual Meeting, Chicago, IL, April 23.

2014 "Wasteland Energy-Scapes: A Comparative Energy Flow Analysis of India's Biofuel and Biomass Economies", Royal Geographic Society-Institute of British Geographers Annual Meeting, London, UK, August 28.

"Wasteland Energy-Scapes: A Comparative Energy Flow Analysis of India's Biofuel and Biomass Economies", Association of American Geographers Annual Meeting, Tampa, FL, April 12.

- 2013 "Wasteland Biofuels and Land Grabs in South India", Association of Environmental Studies and Sciences Annual Conference, Pittsburgh, PA, June 21.
- 2012 "The Immutably Mobile Wasteland: How Wasteland Development Policies are Shaping Modern Land Politics in India", Second International Conference on Global Land Grabbing, Cornell University, October 18.

"Biofuels, Wastelands and Territorialization: How India's Biodiesel Policy is Reconfiguring Spatial, Class and Energy Provision Relationships", Association of American Geographers Annual Meeting, New York, NY, February 25.

2011 "What Wastelands? A Critique of Assessments and Perceptions in Rural South India", Interdisciplinary Workshop in Sustainable Development, Columbia University, New York, NY, May 7.

"Biofuels and Wastelands: Energy Policy, Land Markets and Social Inequality in South India", International Conference on Global Land Grabbing, University of Sussex, Brighton, England, April 10.

"Is there such a Thing as Wasteland? Biofuels and Wasteland Development in Tamil Nadu, India", 13<sup>th</sup> Biennial Conference of the International Association for the Study of the Commons, Dr. Marri Channa Reddy Human Resource Development Institute of Andhra Pradesh, Hyderabad, India, January 11.

# **POSTER PRESENTATIONS (\* Graduate Student Supervisee; \*\* Postdoctoral Supervisee, Presenter in bold)**

2024 **Harrington, O.**, Baka, J. "Planetary Natural Gas: Fracking, Rent and Dispossession in Southwestern Pennsylvania", Conference on Global Coal Transitions, Columbus, OH, July 18.

**Baka' J.**, Shaheen, S.\*, Wen' T., Harrington, O.\*, Xue' L., Brantley' S.L. "Unconventional Oil/Gas Development, Water Quality, and Environmental Hazards in the Oldest Hydrocarbon Basin in the US", HEI Annual Meeting, Philadelphia, PA, April 30.

- 2023 Shaheen, S.\*, Wen'T., Harrington, O.\*, Xue'L., Brantley'S.L., Baka'J. "Using Geoscientific Analysis and Community Engagement to Analyze Exposures to Potential Groundwater Contamination Related to Hydrocarbon Extraction in Southwestern Pennsylvania", HEI Annual Meeting, Boston, MA, April 25.
- 2019 **Baka, J.**, Hesse, A., Bakker, K., Weinthal, E. "Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Ecology Institute Faculty Mixer and Poster Session, University Park, PA, June 6.
- 2018 Wildermuth, G., Engle, E., **Baka, J.**, Brasier, K. "Media Representations Across Space, Place, and Time: Impact Framing of Ethane Plant Development in Southwest Pennsylvania", League of Women Voters of Pennsylvania Shale and Public Health Conference, Pittsburgh, PA, November 14.

**Wildermuth, G.**, Engle, E., Baka, J., Brasier, K. "Media Representations Across Space, Place, and Time: Impact Framing of Ethane Plant Development in Southwest Pennsylvania", Rural Sociological Society Annual Meeting, Portland, OR, July 27-29.

**Wildermuth, G.**, Engle, E., Baka, J., Brasier, K. "Media Representations Across Space, Place, and Time: Impact Framing of Ethane Plant Development in Southwest Pennsylvania", Energy Days Conference, University Park, PA, May 30-31.

**Wildermuth, G.**, Engle, E., Baka, J., Brasier, K. "Media Representations Across Space, Place, and Time: Impact Framing of Ethane Plant Development in Southwest Pennsylvania", Shale Network Meeting, May 17-18.

2017 Baka, J., **Hesse, A.**, Bakker, K., Weinthal, E. "Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Energy Impacts Conference, Columbus, OH, July 26-27.

**Baka, J.**, Hesse, A., Bakker, K., Weinthal, E. "Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", Penn State Energy Days, University Park, PA, May 22-23.

Baka, J., Hesse, A., Bakker, K., **Weinthal, E.** "Knowledge Cartographies: Evaluating the Mobilization of Competing Knowledge Discourses in US Hydraulic Fracturing Rulemaking", First Annual Conference on Energy Research and Social Science Conference, Sitges, Spain, April 2-5.

- 2012 **Baka, J.**, Jain, G., Shenoy, M., "Marginal Lands and Biofuels" A Comparative MEFA of India's Wastelands", Gordon Research Conference for Industrial Ecology, Les Diablerets, Switzerland, June 17-22.
- 2011 **Baka, J.**, Jain, G., Shenoy, M., "Potential changes in Biomass Flows due to India's Biodiesel Policy: A Comparative Material Flow Analysis of the *Jatropha curcas* and *Prosopis juliflora* Economies in Tamil Nadu, India", International Society for Industrial Ecology, Berkeley, CA, June 7-10.
- 2010 **Baka, J.**, "Marginal Lands and Biofuels: The "Miraculous" Jatropha curcas", Gordon Research Conference for Industrial Ecology, New London, NH, July 11-16.

#### SESSIONS ORGANIZED AT PROFESSIONAL MEETINGS

- 2023 Co-organizer (with Heather Bedi) "New" Geographies of Environmental Justice, four paper sessions for American Association of Geographers Annual Meeting, Denver, CO.
- 2017 Co-organizer (with Elvin Delgado, Matthew Fry and Arielle Hesse) "Making a Resource: Science, Legal Frameworks, and Political Economies of Shale Fuels" two paper sessions for American Association of Geographers Annual Meeting, Boston, MA.

Co-organizer (with Karen Bakker) "Indigenous Water Governance: Global Geographies of Water Governance in Indigenous Communities" two paper sessions for American Association of Geographers Annual Meeting, Boston, MA.

Organizer, Energy and Environment Specialty Group Plenary, American Association of Geographers Annual Meeting, Boston, MA.

2016 Co-organizer (with Joshua Newell and Joshua Cousins) "Political-Industrial Ecology" four paper sessions for American Association of Geographers Annual Meeting, San Francisco, CA.

Organizer, Energy and Environment Specialty Group Plenary, American Association of Geographers Annual Meeting, San Francisco, CA.

Organizer, Future pathways in energy geographies: a panel discussion with past EESG, American Association of Geographers Annual Meeting, San Francisco, CA.

2015 Co-organizer (with Kean Birch, Kirby Calvert and Peter Kedron) and discussant, "Bioenergy, Biofuels and the Emerging Bioeconomy" four paper sessions for American Association of Geographers Annual Meeting, Chicago, IL.

#### TEACHING

GEOG30 web	PSU Introduction to Nature-Society Geography, first year online undergrad course
GEOG330	PSU Political Ecology, introductory undergrad course
GEOG332N	PSU Science & Policy of Greenhouse Gas Emissions, introductory undergrad course
GEOG432	PSU Energy Geographies and Policy, upper division undergrad course
GEOG437W	PSU Energy Geographies and Policy, upper division undergrad course, writing intensive
GEOG530	PSU graduate seminar in human-environment geography
GY121	LSE Sustainable Development, first year undergrad course
GY325	LSE Environment & Development, third year undergrad course
GY420/465	LSE Environmental Policy and Regulation master's course
FES689	Yale Advanced Industrial Ecology Seminar: Energy Industries and
	Technologies, with Bill Ellis, master's course

#### UNDERGRADUATE ADVISING

- S. Srivastava, honor's thesis advisor, 2021-22
- C. Kizis, reader for honor's thesis, 2020-21
- K. Harris, independent study, 2021
- M. Liu, reader for honor's thesis, 2019-20
- H. Willig, independent study, 2018
- A. Becker, independent study, 2016

# **GRADUATE ADVISING**

#### MSc Advisor

- K. Schoenecker, Penn State Geography, in progress
- K. Harris, Penn State Geography, in progress
- N. Hernandez, Penn State Geography, 2021-2023
- C. Henry, Penn State Masters in GIS Program, 2022
- H. Caudill, Penn State Geography, 2019-2022
- O. Harrington, Penn State Geography, 2020-2022
- M. Haxel, Penn State Masters in GIS Program, 2021
- J. Fraser, Penn State Masters in GIS Program, 2021
- S. Vaishnava, Penn State Geography, 2018-2020

#### MSc Committee Member

- M. Bauerlin, Penn State Geography, 2020-2022
- E. Kinkaid, Penn State Geography, 2016-2018

#### MSc Thesis Advisor

- G. Arenas, LSE, Department of Geography and Environment, 2013-14
- D. Durand-Delacre, LSE, Department of Geography and Environment, 2013-14
- D. Harris, LSE, Department of Geography and Environment, 2013-14

- Y. Li, LSE, Department of Geography and Environment, 2013-14
- K. Moberg, LSE, Department of Geography and Environment, 2013-14
- A. Moro, LSE, Department of Geography and Environment, 2013-14
- P. Pey, LSE, Department of Geography and Environment, 2013-14
- H. Reeve, LSE, Department of Geography and Environment, 2013-14
- N. Audi-Dor, LSE, Department of Geography and Environment, 2014-15
- Y. Braaten, LSE, Department of Geography and Environment, 2014-15
- I. Cuperstein, LSE, Department of Geography and Environment, 2014-15
- A. Lunden, LSE, Department of Geography and Environment, 2014-15
- A. Mohamad Hedar, LSE, Department of Geography and Environment, 2014-15
- S. Neoh, LSE, Department of Geography and Environment, 2014-15
- E. Weyer, LSE, Department of Geography and Environment, 2014-15
- J. Yates, LSE, Department of Geography and Environment, 2014-15
- R. Dabas, LSE, Department of Geography and Environment, 2015-16
- J. Fell, LSE, Department of Geography and Environment, 2015-16
- M. Habasque, LSE, Department of Geography and Environment, 2015-16
- A. Holderby, LSE, Department of Geography and Environment, 2015-16
- R. Parfett, LSE, Department of Geography and Environment, 2015-16
- S. Pickstone, LSE, Department of Geography and Environment, 2015-16
- L. Sette, LSE, Department of Geography and Environment, 2015-16

# PhD Advisor

- S. Vaishnava, Penn State Geography, 2020-Present
- O. Harrington, Penn State Geography, 2022-Present

# PhD Committee Member

- A. Fenske, Penn State Department of Civil and Environmental Engineering, 2024-Present
- L. Garcia, Penn State Department of Landscape Architecture, 2023-Present
- M. Jones, Penn State Department of Recreation and Tourism Management, 2023-Present
- E. Chiaroni, Penn State Rural Sociology, 2022-Present
- B. Turley, Portland State University Geography, 2021-Present
- N. Johnson, Penn State Energy and Mineral Engineering, 2021, graduated December 2021
- Z. Goldberg, Penn State Geography, 2019-Present
- B. Hinger, Penn State Geography, 2019-Present
- C. Jackson, Penn State Geography, 2018-2019
- K. Misquitta, Penn State Geography, 2019-Present
- T. Young, Penn State Geography, 2017-2021
- H. Whitley, Penn State Rural Sociology, 2020-Present
- Y. Wu, Penn State Energy and Mineral Engineering, 2020-Present
- K. Yoo, Penn State Energy and Mineral Engineering, graduated May 2019
- M. Dejani, LSE, Department of Geography and Environment, graduated May 2019

# PhD Qualifying Exam Member

• C. Flanagan, Penn State Geography, 2020

- B. Tian, Penn State Geography, 2019
- B. Hinger, Penn State Geography, 2019
- P. Backhaus, Penn State Geography, 2018
- W. Hu, Penn State Geography, 2018

# PhD Independent Studies

- S. Vaishnava, Penn State Geography, 2020
- Z. Goldberg, Penn State Geography, 2019
- T. Young, Penn State Geography, 2017

# **PROFESSIONAL SERVICE**

- Editorial Board Member, Nature Society, Annals of the American Association of Geographers, 2020-Present
- Editorial Board Member, The Professional Geographer, 2019-Present
- Board Member, Energy and Environment Specialty Group, American Association of Geographers, 2017-22
- Chair, Energy and Environment Specialty Group, American Association of Geographers, 2015-17

# **UNIVERSITY SERVICE**

- Member, Promotion & Tenure Committee, Penn State Department of Geography, 2022-Present
- Member, Awards Committee, Penn State Department of Geography, 2022-Present
- Member, Faculty Advisory Committee, Penn State Department of Geography, 2021-Present
- Senator, Penn State Faculty Senate, 2020-Present
  - Chair, Faculty Senate Benefits Committee, 2024-2025
  - Vice Chair, Faculty Senate Benefits Committee, 2021-2022
  - Member, Faculty Senate Benefits Committee, 2020-2021
  - Member, Faculty Advisory Committee for Campus Childcare Centers, 2021-Present
- Member, Earth and Environmental Science Institute Strategic Planning Steering Committee, 2019-2020
- Member, Faculty Search Committees, Penn State University, (n=5), 2018-Present
- Member, Academic Integrity Committee, Penn State College of Earth & Mineral Sciences, 2019-2021
- Chair, Elevating Research Department Committee, Penn State Department of Geography, 2020-2021
- Chair, Department Policy Committee, Penn State Department of Geography, 2019-2020
- Director, PLACE Lab, Penn State Department of Geography, 2017-2019
- Graduate Admissions Committee, Penn State Department of Geography, 2017-2019
- Undergraduate Awards Committee, Penn State Department of Geography, 2017-2018
- Public Presence Committee, Penn State Department of Geography, 2016-2017
- Seminar Co-organizer, LSE Environment, 2015-2016
- Director of Undergraduate Environment Programs, LSE, 2013-2016

# JOURNAL REVIEWER (\*Denotes multiple reviews for journal)

Annals of the American Association of Geographers\*, Area, Biomass and Bioenergy, Energy Policy, Energy Research and Social Science\*, Environment & Planning A\*, Environment & Planning C, Environment & Planning E\*, Environmental Policy and Governance, Environmental Science & Technology\*, Geoforum\*, Global Environmental Politics, Journal of Industrial Ecology, Journal of Agrarian Change, Journal of Peasant Studies\*, Journal of Responsible Innovation, Progress in Human Geography, Regional Environmental Change, Review of Policy Research, Sustainability Science, World Development.

# **GRANT REVIEWER**

• National Science Foundation

# ACADEMIC AFFILIATIONS

- American Association of Geographers (AAG), 2010-Present
- International Society for Industrial Ecology (ISIE), 2007-Present
- Royal Geographic Society, Institute of British Geographers (RGB-IGS), 2013-2016

# CERTIFICATIONS

• UK Postgraduate Certificate in Higher Education, Associate Level