

Katherine G. Sammler

Curriculum vitae

CONTACT INFORMATION California State University Maritime (707) 654-1148
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EDUCATION

- 2016 Ph.D., University of Arizona, School of Geography and Development
Advisor: Dr. Jeffrey Banister
Dissertation: National Governance of Offshore Volumes: Challenging Geopolitics and Geophysicalities.
Minor: Remote Sensing & Spatial Analysis, Graduate Certificate in GIS
- 2009 M.S., University of Arizona, Atmospheric Sciences
Advisor: Dr. E. Robert Kursinski
Thesis: The Accuracy of Profiling O_3 via Radio Occultation
- 2005 B.S., University of Oregon, Physics

PROFESSIONAL EXPERIENCE

Academic Appointments

- 2020-Present Focus Group Lead, Marine Political Ecology, Helmholtz-Institute for Functional Marine Biodiversity (HIFMB) and Alfred Wegener Institute for Polar and Marine Research (AWI), at University of Oldenburg, Germany.
- 2016-2020 Assistant Professor, Global Studies & Maritime Affairs, California State University Maritime Academy, Vallejo, CA.

Research Appointments

- 2013 Intercultural Center for the Study of Desert and Oceans/Centro Intercultural de Estudios de Desiertos y Océanos. GIS marine spatial planning with artisanal fisher co-ops for sustainable governance in Gulf of California.
- 2009 Flood Hydroclimatology of Arizona, Climate Assessment of the Southwest (CLIMAS), University of Arizona. Analyzed historical flood data, flood frequency & magnitude, web and GIS platforms for bi-directional stakeholder communication.

- 2008 Border Climate Summary, Udall Center for Public Policy & Institute of the Environment, University of Arizona. Editor, bi-national climate quarterly. Interpreted climate content, made infographics, facilitated workshops in US & MX.
- 2008 Modeling O³ Measurement of GPS Radio Occultation. Atmospheric Sciences, University of Arizona. Atmospheric Temperature, Ozone, and Moisture Microwave Spectrometer (ATOMMS) satellite proof of concept.

PUBLICATIONS

Refereed Journal Articles

- 2019 Sammler, K. The rising politics of sea level: demarcating territory in a vertically relative world. *Territory, Politics, Governance*. doi:10.1080/21622671.2019.1632219.
- 2019 Sammler, K. & Lynch, C. Spaceport America: Contested offworld access and the everyman astronaut. *Geopolitics*, in special issue: Human rights & critical geopolitics of outer space. doi:10.1080/14650045.2019.1569631.

Book Chapters

- 2020 Sammler, K. “Kauri and the whale: Oceanic matter and meaning in New Zealand” pp. 63-84, in I. Braverman and E. Johnson (eds.), Blue legalities: The law and life of the sea, Durham, NC: Duke University Press.
- 2017 Sammler, K. “The deep Pacific: Island governance and seabed mineral development” pp. 10-31, in E. Stratford (ed.), Island geographies: Essays and conversations, New York, NY: Routledge. 198pp.

Conference Proceedings

- 2014 Sammler, K. Emerging resource management strategies and deep seabed mining in South Pacific island nations. *Islands of the World conference*, Penghu, TW 22–27 Sep.
- 2010 Kursinski, E.R., Young, A., Otarola, A., Stovern, M., Wheelwright, B., Ward D., Sammler K., Stickney, R., Groppi, C., Al Banna, S., Schein, M., Bell, S., Bertiger, W., Miller, M., and Pickett, H. Laboratory and ground testing results from ATOMMS: The Active Temperature, Ozone and Moisture Microwave Spectrometer. *21st International Symposium on Space TeraHertz Technology*, Oxford, 23-25 Mar.

- 2009 AlBanna, S., Groppi, C., Walker, C., Schein, M., Bell, S., Wheelwright, B., d'Aubigny, C., Young, A., Golish, D., Kursinsk, E.R., Otarola, A., Ward, D., Sammler, K., Bertiger, W., Miller, M., & Pickett, H. A Single 30 cm aperture antenna design for the operation of 2 widely separated frequency bands for the Active Temperature, Ozone and Moisture Microwave Spectrometer (ATOMMS). *20th International Symposium on Space Terahertz Technology*, Charlottesville, VA 20-22 Apr.
- 2008 Kursinski, E.R., Ward, D., Otarola, A., Sammler, K., et al., The Active Temperature Ozone and Moisture Microwave Spectrometer (ATOMMS), *ECMWF GRAS SAF workshop on GPS radio occultation*. Shinfield Park, UK. 16-18 Jun.

Book Reviews

- 2017 Sammler, K. Book review of Seascapes: Shaped by the sea edited by Mike Brown & Barbara Humberstone. *The Canadian Geographer/Le Géographe canadien* April, 61(2).
- 2015 Sammler, K. Territory as political technology - A review of The birth of territory by Stuart Elden. *Contrivers' Review*. March 2.
- 2013 Sammler, K. Book review of Island enclaves: Offshoring, creative governance and subnational island jurisdictions by Godfrey Baldacchino. *Cultural Geographies* 20(2): 262. Special issue: Islanding cultural geographies.
- 2013 Sammler, K. Book review of Island enclaves: Offshoring, creative governance and subnational island jurisdictions by Godfrey Baldacchino. *Current Issues in Comparative Education* 15(1): 182-184. In special issue: Education in small states: Fragilities, vulnerabilities and strengths.

Manuscripts in Preparation

- Sammler, K. & Lynch, C. (in review). Observation and occupation: Settler colonial space-times and space science infrastructure in Hawai'i.
- House-Peters, L. & Sammler, K. The robotic mine: New technologies for subaqueous and subterranean sensing and extraction.
- Sammler, K. Atmospheric water within a hydrosocial framework.
- Sugg, Z. & Sammler, K. Deep sea aquifers and the territorialization of water underwater.
- Sammler, K. An intimate space: Gravity, waste, and the spatial orientation of bodies.
- Sammler, K. Animate sand: erosion, suspension, and extraction from mountain to sea.

Other Publications

- 2018 Sammler, K., Vibranium and the super nature of earthly materials. Museum of the Moving Image: Sloan Science & Film.
- 2013 Sammler, K., House-Peters, L. Tracing L.A.'s marine topographies: Climate, currents, & calamari. *Assc. of Am. Geographers Newsletter* 48(1).

AWARDS & HONORS

Scholarship Awards

- 2019 Cal Maritime Outstanding Scholar, \$1,000.

Teaching Awards

- 2016 Graduate Student Council, Outstanding teaching award, \$100.

Paper Awards

- 2015 Tom McKnight & Joan Clemens Award, Outstanding student paper, Assn of Pacific Coast Geographers (APCG). *From ocean abyss to vacuum of space: Privatization in the vertical commons*, \$500.
- 2015 Honorable mention, Political Geography Specialty Group, Association of American Geographers (AAG). *Ocean governance and seabed mineral development in the South Pacific*, \$150.

GRANTS & FELLOWSHIPS

Fellowships

- 2014 National Science Foundation, East Asia Pacific Summer Institute (EAPSI). *Investigating ocean territory & resource sovereignty through seabed mining in South Pacific island nations*, \$5,000.
- 2014 Social Science Research Council, Dissertation Proposal Development, Oceanic studies: Seas as sites & subjects of interdisciplinary inquiry. *Environmental governance of the deep: Pacific seabed mining*, \$5,000.
- 2009 Science Foundation Arizona. Graduate Research Fellow, environmental sustainability, \$30,000.

Research Grants

- 2019 CSU Chancellor's Office Research, Scholarship and Creative Activities Award (RSCA). *Hydro-Social Atmospheric water management in Western U.S.*, \$4,700.
- 2018 RSCA. *From mountains to sea: Sovereignty and nature in Aotearoa New Zealand*, \$5,000.

- 2017 RSCA. *Colonial pasts and futures atop Hawaii's sacred peaks*, \$4,300.
- 2016 RSCA. *Legal construction of ocean jurisdictions*, \$1,500.
- 2014 Arizona Social & Behavioral Sciences Research Institute, Dissertation grant. *Environmental governance of the Deep: Pacific seabed mining*, \$1,500.
- 2014 Arizona Graduate and Professional Student Council. *Environmental governance of the deep: Pacific seabed mining*, \$1,000.

Instructional Grants

- 2018 Instructionally Related Activities Grant (IRA), CSU Maritime. Support undergraduate students to present research at the Association of Pacific Coast Geographers conference in Reno, NV. \$1,750.
- 2017 IRA Grant, CSU Maritime. Support undergraduate students to present research at the Association of Pacific Coast Geographers conference in Chico, CA. \$1,750.
- 2017 Provost's Curriculum Redesign Grant, CSU Maritime. *Ocean Politics increased freshman retention*, \$1,000.
- 2016 IRA, CSU Maritime. *GPS Coastline Measurement and Mapping. Purchase of handheld GPS units for GIS Mapping & Spatial Analysis*, \$1,500.

External Travel Grants

- 2018 AAG-NSF junior scholar. International Geographical Union, Quebec \$1,400.
- 2016 AAG-NSF junior scholar. International Geographical Union, Beijing \$2,000.
- 2015, 2012 Women's Network, Association of Pacific Coast Geographers. \$200.
- 2014 Islands of the World Conference–Penghu Island, Taiwan. \$1500.

INVITED SPEAKER

- 2020 University of Leicester, School of Geography, Geology and the Environment research seminar. *Benthic Geopolitics: Seabed mining, offshore aquifers, and undersea cables*. Virtual gathering, 11 Nov.
- 2020 Moss Landing Marine Laboratory, seminar series. *The rising politics of sea level: demarcating territory in a vertically relative world*. Moss Landing, CA, 5 Mar.
- 2018 Visions of the Wild: Film & Arts Festival. *California water politics*. Lecture tour on the Carquinez Strait, Vallejo, CA, 23 Sep.

- 2018 Leibniz Center for Tropical Research. *Drawing a line in the sand: Boundary making, seabed mining & dispossession off New Zealand's coast*. Bremen, Germany, 20 Jun.
- 2018 Mining the deep sea frontier, New Museum Triennial: Songs of Sabotage. *New frontiers: extractivism & activism*. New York, NY, 17 Feb.
- 2017 International training program for delegation from Hainan Province, San Francisco State University, College of Extended Learning. *The rising politics of sea level*. San Francisco, CA, 25 Sep.
- 2017 Visions of the Wild. *Follow the drop: A hydro-social tour of California H₂O*. Lecture tour on the Carquinez Strait, Vallejo, CA, 10 Sep.
- 2017 SF Maritime National Historical Park, Blue Room lecture series. *Measurement and meaning: Rising sea levels and sinking elevations*. San Francisco, CA, 29 Jul.
- 2017 San Francisco State University, College of Extended Learning, Huaihai Institute of Technology international training program. *Impacts of seabed mining*. San Francisco, CA, 21 Jul.
- 2017 University of California Berkeley, Office of Resources for International and Area Studies, The view from the sea: Oceans in world history summer institute for k-12 Educators. *An oceanic gaze*. Berkeley, CA, 28 Jun.
- 2015 National Science Foundation: East Asia Pacific Summer Institute orientation. Investigating ocean territory & resource sovereignty in the South Pacific. Arlington, VA, 3 Apr.
- 2012, 2011 AZK-12 center: STEM camp. *Interact with air, land, & sea*. Tucson, AZ, 1–6 Jun.

CONFERENCES

Papers Presented

- 2020* Sammler, K and L. House-Peters. The Rise of the Mining Robots: New Technologies for Subaqueous & Subterranean Sensing for Iron Extraction in Oceania. *Society for Cinema and Media Studies*. Denver, CO. 1-5 Apr (*Postponed).
- 2019 Sammler, K. Intimate outer space: Gravity, waste and the spatial orientation of bodies. *Association of Pacific Coast Geographers (APCG)*. Flagstaff, AZ, 16–19 Oct.
- 2019 Sammler, K. Entangled Elements: Between Sand & Sea. Society for Social Studies of Science. New Orleans, LA 4–7 Sep.
- 2019 Sammler, K. From mountain to sea: The erosion and extraction of sovereign sands. Institute of Australian Geographers Conference. Hobart, Tasmania, 9–13 Jul.

- 2019 Sammler, K., L. House-Peters, C. Lynch. Botties not bodies: Analogs and robots in hostile environments. *American Association of Geographers (AAG)*. Washington DC, 3–7 Apr.
- 2019 House-Peters, L., K. Sammler, C. Lynch. The ‘robot’ in the coal mine: Emerging regimes of extractivism in the robotic age. *AAG*. Washington DC, 3–7 Apr.
- 2018 House-Peters, L., K. Sammler. As above, so below (part 1): New robotic regimes of resource extraction. *APCG*. Reno, Nevada, 24–27 Oct.
- 2018 Sammler, K., L. House-Peters. As above, so below (part 2): Frontier robots. *APCG*. Reno, Nevada, 24–27 Oct.
- 2018 Sammler, K. Colonial pasts and futures atop Mauna Loa and Mauna Kea. *International Geographical Union Regional Conference*, Quebec City, Canada, 6–10 Aug.
- 2018 Sammler, K. Drawing a line in the sand: The rising politics of sea level. *Shifting baselines, altered horizons: Politics, practices, and knowledge in environmental science and policy*. Max Planck Institute for the History of Science, Berlin, Germany, 21–22 Jun.
- 2018 Sammler, K. Meta Earth, virtual Mars: Science & colonialism on Hawaiian mountains. *Islands of the World*. Terschelling, Netherlands, 10–14 Jun.
- 2018 Sammler, K. Ship vs boat: Extractivism & activism at sea. *AAG*. New Orleans LA, 10–14 Apr.
- 2017 Sammler, K. Fog, clouds, and rain: Incorporating the atmosphere into a hydrosocial framework. *APCG*, Chico CA, 26–28 Oct.
- 2017 Sammler, K., Lynch, C. Spaceport America: Contested offworld access & the everyman astronaut. *AAG*, Boston, MA, 5–9, Apr.
- 2017 Sammler, K. Material, technical, and political constructions of sea level. *AAG*, Boston MA, 5–9, Apr.
- 2016 Sammler, K. Critical physical geography of sea level. *APCG*, Portland OR, 5–9 Oct.
- 2016 Sammler, K. Territory, sovereignty and political geometry in the Pacific Ocean. *International Geographical Congress*, Beijing, China, 21–25 Aug.
- 2016 Sammler, K. Common heritage or private commodity: Political geography of sea, air, & space. *AAG*, San Francisco CA, 29 Mar–02 Apr.
- 2015 Sammler, K. From ocean abyss to vacuum of space: Privatization in the vertical commons. *APCG*, Palm Springs CA, 21–24 Oct.
- 2015 Sammler, K. Subsuming the submerged: Producing seabeds as political territories. *AAG*, Chicago IL, 21–25 Apr.

- 2015 Sammler, K. Knowing the abyss: Seeking geographies of ocean space. *Oceans and deserts: Charting transdisciplinary currents in environment and culture within the arts and sciences*, Tucson AZ 6–7 Mar.
- 2014 Sammler, K. Emerging resource management strategies and deep seabed mining in South Pacific island nations. *Islands of the World*, Penghu Archipelago, Taiwan 22–27 Sep.
- 2014 Sammler, K. The deep Pacific: Island governance and seabed mineral development. *AAG*, Tampa FL 8–12 Apr.
- 2014 Sammler, K. Sovereignty submerged: Deep sea mining, governance, & accumulation in the Pacific. *Dimensions of Political Ecology*, Lexington KY 27 Feb–1 Mar.
- 2013 Sammler, K. Ruin spreads over the deep: The production and materiality of ocean space. *AAG*, Los Angeles CA 9–13 Apr.
- 2012 Sammler, K. Redolent of spheres: On ocean law and sovereignty. *APCG*, Olympia WA 3–6 Oct.

Posters Presented

- 2012 Sammler, K. Aquatic imaginaries: Navigating marine debris. *AAG*, New York NY 24–28 Feb.
- 2010 Sammler, K., Hirschboeck, K. Flood hydroclimatology data as a nexus for stakeholder interaction. *AAG*, Washington D.C., 14–18 Apr.
- 2009 Sammler, K., Kursinski, E.R., Ward, D. Profiling ozone via radio occultation. *American Geophysical Union*, San Francisco, CA 14–18 De

Sessions Organized

- 2020^o Sammler, K. & L. House-Peters. Thinking with portals I & II. *AAG*, Denver, CO, 6–10, Apr (^oMoved to digital platform).
- 2018 Jesse Swann-Quinn & K. Sammler. Assembling benthic power I & II. *AAG*, Washington DC, 3–7, Apr.
- 2017 Sammler, K. & Z. Sugg. Multispheres: Legal & political geographies of geophysical interfaces, I & II. *AAG*, Boston, MA, 5–9, Apr.
- 2016 Sammler, K. & A. ElVilaly. Point, line, plane, volume: Increasing dimensionality in geographic inquiry. *AAG*, San Francisco, CA, 29 Mar–2 Apr.
- 2013 Sammler, K. & T. Nurmi. Writing spaces of exception: The implications of illegible geographies. *AAG*, Los Angeles, CA 9–13 Apr.

Discussant

- 2020* *Territory, Politics, Governance* Annual Lecture: “Somatic States: On Cartography, Geobodies, Bodily Integrity” by Franck Billé. *AAG*, Denver, CO, 6–10, Apr (*Postponed).
- 2020* Contemporary issues and new horizons for the geographies of music III: Author Meets Readers: “Sound, Space, and Society: Rebel Radio” by Kimberley Peters. *AAG*, Denver, CO, 6–10, Apr (*Postponed).
- 2020[◊] Thinking with Portals. *AAG*, Denver, CO, 6–10, Apr (◊Moved to digital platform).
- 2018 Land and ocean conservation panel. Student sustainability coalition: *The State of the Environment Conference*. CSU Long Beach, CA, 20 Apr.
- 2018 Critical approaches to ocean planning. *AAG*, New Orleans, LA, 10-14 Apr.
- 2017 Critical geographies of subsurface, sky, & other inscrutable spaces. *AAG*, Boston, MA, 5–9, Apr.
- 2012 Author meets critics: “Island enclaves” by Godfrey Baldacchino. *AAG*, New York, NY 24–28 Feb.

CAMPUS TALKS

- 2018 *Who owns the rain? And other questions from the intersection of politics and geophysics*. Cal Maritime Scholar Series, CSU Maritime, Feb 22.
- 2015 *Seabed mining prospects in New Zealand*. Society of Earth Science Students, geosciences undergraduate club, University of Arizona, 9 Oct.

INVITED
WORKSHOPS

- 2020* NYU Gallatin School of Individualized Study. *Discard Studies: Exploring disposal's past, present, and future*. New York, NY, 23–25 Apr (*Postponed).
- 2018 Max Planck Institute for the History of Science. *Shifting Baselines, Altered Horizons: Politics, Practices, and Knowledge in Environmental Science and Policy*. Berlin, Germany, 21-22 Jun.
- 2017 National Science Foundation, *Center for Research, Excellence, and Diversity in Team Science* (CREDITS). Lake Arrowhead, CA, 12–14 Oct.
- 2017 The Baldy Center for Law and Social Policy, *Ocean Legalities: The Law and Life of the Sea*. Buffalo, NY, 23–24 Feb.
- 2016 University of California Humanities Research Institute (UCHRI), *Oceanic Ecologies and Imaginaries*. UC Irvine, CA, 26 Jun–2 Jul.
- 2016 Slow Science Institute, *Critical Physical Geography: Proposal Writing*. Berkeley, CA, 26–28 Mar.

- 2015 Critical Physical Geography: Defining a Discipline. Chicago,IL, 18-20 Apr.
2010 National Center for Atmospheric Research, Weather and Society*Integrated Studies. Boulder, CO, 5–13, Aug.
2008 University Corporation of Atmospheric Research, *4th Asian Space Conference & FORMOSAT-3/COSMIC*. Normal Taiwan Uni., Taipei, Taiwan.

TEACHING
EXPERIENCE

Primary Instructor

- 2018-20 Ocean Environmental Management.
2017-20 Comparative Maritime Policies.
2017-20 GIS Mapping & Spatial Analysis (ArcGIS).
2016-19 Ocean Politics.
2016-19 Environmental Policy.
2019 Political Geography.
2019 Citizen Environmental Science.
2016 Comparative Politics.
2015 Our Changing Climate, **online**.
2014-15 Introduction to Physical Geography, **online**.
2013 Environment and Society, **online**.
2012,15 Our Dynamic Landscape.
2011 Computer Cartography (ArcGIS).

Study Abroad

- 2019 International Experience lead, New Zealand. 20 undergrads, 3 weeks.
2017 International Experience lead, Vietnam. 28 undergraduates, 3 weeks.

Lab Instructor

- 2012 Geographic Applications of Remote Sensing (ERDAS).
2012 GIS for Natural & Social Sciences. (ArcGIS).
2011 Introduction to Remote Sensing (ERDAS).

Teaching Assistant

- 2016 Our Diverse Biosphere.
2015 The Political and Cultural Geography of Globalization.
2015 Introduction to Sustainable Development.
2008–07 Weather and Climate.

Mentorship

- 2020 Advisor, National Renewable Energy Laboratory, Collegiate Wind Competition Team, policy team students.
- 2019 External examiner, Emerald Naylor M.S. thesis “More than Sun and Pineapples: A Look into the Culture of Astronomical Sciences in Hawai’i,” in Island Studies at University of Prince Edward Island.
- 2017 Supervisor, Lizzie Orr undergraduate research on “Legal Construction of Ocean Jurisdictions” in Global Studies at Cal Maritime.

SERVICE & OUTREACH

Professional

- 2018-20 Committee Co-Chair, Women’s Network, Association of Pacific Coast Geographers (APCG).
- 2018-19 Nominations committee, APCG.
- 2019 Ad hoc reviewer, Environment & Planning C: Politics & Space; Environment & Planning E: Nature & Space; Sustainability Science.
- 2018 Reader, College Board AP Human Geography.
Reviewer, National Science Foundation graduate proposals.
Ad hoc reviewer, Geography Compass; Environment & Planning D: Society & Space; International Social Science Journal; Political Geography; Routledge.
- 2017 Ad hoc reviewer: Environment & Planning A: Economy and Space.
- 2015 Ad hoc reviewer: Island Studies Journal.

University

- 2019-20 Curriculum development, Environment & Ocean Studies program, CSUM.
- 2017-20 Political action committee chair, California Faculty Association, CSUM.
- 2017-20 Assessment, The Institution-Wide Assessment Council, CSUM.
- 2017 Search committee, Global Studies & Maritime Affairs Chair, CSUM.
- 2016-18 Assessment, department learning committee, CSUM.
- 2015 Search committee, associate dean for research, Social & Behavioral Sciences, University of Arizona.
- 2011-2015 Judge, Graduate & Professional Student Council Travel Grant, UA.
- 2011 Development Committee, newsletter, alumni fundraising. School of Geography & Development, UA.

Community

- 2017-18 Visions of the Wild. Film and Arts Festival, Vallejo, CA.
- 2017-18 Maritime Film Festival organizer, CSUM.
- 2015 Founder, Space Society science fiction reading group, Tucson, AZ.
- 2014 Organizer, McGuinness Foundation seabed mining stakeholder roundtable. Wellington, NZ.
- 2012 Judge, South Side Community School Science Fair, Tucson, AZ.
- 2010 Founder, Tucson Aquatic Enthusiast Society. Tucson, AZ.

Professional Membership

- Association of American Geographers (AAG)
- Association of Pacific Coast Geographers (APCG)
- International Geographical Union (IGU)
- International Small Islands Studies Association (ISISA)
- Society for Social Studies of Science (4S)
- Institute of Australian Geographers (IAG)
- Native American and Indigenous Studies Association (NAISA)

LANGUAGE

Spanish reading: good, writing: good, speaking: conversational.

ADDITIONAL SKILLS

Computer Skills ArcGIS, ERDAS Imagine, Fortran, GrADS, IDL, iWork (Pages, Numbers, Keynote), LaTeX, Mathematica, Matlab, Microsoft Office (Word, Excel, Powerpoint), Nvivo, Unix.

Other NOLS Wilderness First Certified 2019, CITI Human Subjects Training renewed 2013; PADI open water SCUBA 2008, screen printing and design.