



**ASSOCIATION  
OF PACIFIC COAST  
GEOGRAPHERS  
83RD ANNUAL MEETING**

San Diego State University  
October 14-16, 2021

# APCG 2021

## Association of Pacific Coast Geographers 83<sup>rd</sup> Annual Meeting

**Geographies of Transition**  
**October 14-16, 2021**  
**San Diego, CA**

Hosted by the CSU San Marcos Geography Program and  
SDSU Geography Department

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# LAND ACKNOWLEDGEMENT

We stand upon a land that carries the footsteps of millennia of Kumeyaay people. They are a people whose traditional lifeways intertwine with a worldview of earth and sky in a community of living beings. This land is part of a relationship that has nourished, healed, protected and embraced the Kumeyaay people to the present day. It is part of a world view founded in the harmony of the cycles of the sky and balance in the forces of life. For the Kumeyaay, red and black represent the balance of those forces that provide for harmony within our bodies as well as the world around us. As members of the San Diego State community we acknowledge this legacy from the Kumeyaay. We promote this balance in life as we pursue our goals of knowledge and understanding. We find inspiration in the Kumeyaay spirit to open our minds and hearts. It is the legacy of the red and black. It is the land of the Kumeyaay.

*Eyay e'Hunn* My heart is good.

Kumeyaay Land Acknowledgment created by Mike Connolly  
Miskwish (Kumeyaay)

<https://sacd.sdsu.edu/diversity-resources/land-acknowledgment>

# SUMMARY SCHEDULE

## Wednesday, October 13

6:30 pm Social Hour, Wood Ranch Mission Valley, 7510 Hazard Center Dr., San Diego, CA 92108  
<https://goo.gl/maps/t2NpbW7F1F8a4e428>

## Thursday, October 14

7:30 am – 8:45 am Executive Committee Meeting | Montezuma Lounge  
8:00 am – 11:45 am Registration | Courtyard outside of Templo Mayor  
9:00 am – 9:15 am Opening Remarks, Mike Pretes, APCG President | Templo Mayor  
9:15 am – 11:45 am Concurrent Sessions  
10:30 am – 11:45 am Poster Sessions | Templo Mayor  
11:45 am – 1:30 pm Graduate Student Lunch | Templo Mayor  
1:00 pm – 4:30 pm Registration | Courtyard outside of Templo Mayor  
1:30 pm – 2:45 pm Concurrent Sessions  
4:00 pm – 5:15 pm Keynote Lecture | Dr. Marilyn Raphael | Templo Mayor  
5:30 pm – 8:00 pm Reception | 3<sup>rd</sup> Floor Terrace

## Friday, October 15

8:00 am – 11:45 am Registration | Courtyard outside of Templo Mayor  
9:00 am – 11:45 am Concurrent Sessions  
11:45 am – 12:30 pm Women's Network Lunch | 3<sup>rd</sup> Floor Terrace  
12:30 pm – 1:30 pm Women's Network Awards | Templo Mayor  
1:30 pm – 3:00 pm Donald W. Meinig's Southwest at Half-Century | Templo Mayor  
1:30 pm – 3:00 pm Encoding Geography: Geocomputation Curriculum | Mata'yuum  
3:30 pm – 5:00 pm Keynote Lecture | Dr. Park Williams | Templo Mayor  
5:15 pm – 6:45 pm APCG Business Meeting | Templo Mayor  
7:00 pm – 9:30 pm Awards Banquet and Presidential Address | Templo Mayor

## Saturday, October 16

[Asian Pacific Historic District Walking Tour \(self-guided\)](#)  
[San Diego Craft Beer Walking Tour Itinerary \(self-guided\)](#)

## Additional Information:

Campus and Parking maps are at the end of the program.

Downloadable program at <https://www.csusm.edu/geography/apcg2021.html>.

Virtual program at <https://aag-connect.secure-platform.com/a/organizations/main/home>.

# THURSDAY, OCTOBER 14

San Diego State University Conrad Prebys Aztec Student Union

7:30 am – 8:45 am Executive Council Meeting | Montezuma Lounge

8:00 am – 11:45 am Registration | Courtyard outside of Templo Mayor

9:00 am – 9:15 am Opening Remarks, Mike Pretes, APCG President | Templo Mayor

9:15 am – 10:30 am Paper Sessions

**Resource Management** (Templo Mayor)

Chair: **Yolonda Youngs**, California State University, San Bernardino

9:15 am | **Lily House-Peters**, California State University, Long Beach  
*Digital Ecologies of the 'Smart Mine'*

9:30 am | **Gabriela Morales**, San Diego State University  
*A Mixed-Methods Assessment of the Quantification Settlement Agreement in Imperial Valley, California*

9:45 am | **Rebecca Galvan**, Cal State LA  
*Environmentalism in Latin American Ports: A Historical Geographical Perspective*

10:00 am | **Yolonda Youngs**, California State University, San Bernardino  
*Braided Channels and Golden Lines: Tracing the Cultural Geography and Environmental Management of Rangers and Commercial Guides in Grand Teton National Park, Wyoming*

## Student Paper Competition

\* Undergrad

\*\* MA

\*\*\* PhD

## **Water** (Mata 'yuum/Virtual)

Chair: **Aquila Flower**, Western Washington University

9:15 am | **Birendra Rana**, University of Nevada Reno

*Hydropower Benefit Sharing Arrangement-Rural Development Nexus: A New Framework*

9:30 am | **Kassandra Lisenbee**, University of Nevada Reno

*What Influences does Mining have on Water Rights in Nevada?*

9:45 am | **Adam Bringham**, Northern Arizona University

*Why Here? Identifying how Stream Sites get Prioritized for Restoration*

10:00 am | **Aquila Flower**, Western Washington University

*Creating an Atlas of the Salish Sea Bioregion*

## **10:30 am – 11:45 am Paper and Poster Sessions**

### **Planning and Redevelopment** (Mata 'yuum)

Chair: **Lorne Platt**, Cal Poly Pomona/CSULA

10:30 am | **Albert Roßmeier**, University of Tübingen, Germany

*San Diego's Hybrid Urban Borderlands – Using Landscape and Border Theory to Understand Inner-Ring Neighborhood Redevelopment in America's Finest City*

10:45 am | **Clare Beer**, UCLA **RESCHEDULED TO 10AM, FRIDAY MOUNTAINS & FORESTS**

*Philanthro-environmentalism & Project Finance for Permanence in Chilean Patagonia*

11:00 am | **Tiana Fain**, CSU – Long Beach Department of Geography

*Desert Space, Place, & Art: Site-Specific Art Installations in California Desert Communities*

11:15 am | **Richard Lycan**, Portland State University, Institute on Aging

*Developing the State of Aging Portland Website*

11:30 am | **Lorne Platt**, Cal Poly Pomona/CSULA

*Cultivating Learning among the Gardens: William Pereira's Plans for Structure, Scholarship, and Nature in California*

## **Poster Session** (Templo Mayor)

**Alejandro Beltran Cortez**, California State University Long Beach

*Neoliberal Impacts on Migration: A Spatial Analysis on Migration Patterns from Mexico to the United States*

**Charlie Burling**, California State University Fullerton

*Using Dendrochemistry and LA-ICP-MS to Explore Potential Lithium Mining Pollution*

**Christopher Espino**, California State University, Los Angeles

*California Highway 99: A essential highway for California's economy*

**Paul Lewis**, California State University, Fullerton

*Qualities of accessible cities: Their attributes and reasons for implementation*

**Melanie Mejia**, California State University, Northridge

*Menstrual Health Red Zones: A Report on Period Poverty in the San Fernando Valley*

**Leyna Olivares**, Department of Geography and Environmental Studies, California State University, San Bernardino

*Environmental and Economic Impact of the El Dorado Fire, San Bernardino and Riverside Counties, California*

## **Virtual Poster Session**

**Warren Bristol**, University of Arizona- School of Geography, Development & Environment

*Mapping Trump's Border Wall: A Collaborative Approach*

**William Helmer**

*Military expeditions and botanical collections in the West--John C. Frémont and the Sacramento River Massacre of 1846*

**11:45 am – 1:30 pm**    **Graduate Student Lunch | Templo Mayor (advanced registration required) or lunch on your own**

**1:30 pm – 4:30 pm**    **Registration | Courtyard outside of Templo Mayor**

## 1:30 pm – 2:45 pm Paper Sessions

### **Geographic Methods** (Mata 'yuum)

Chair: **Chris Lukinbeal**, *The University of Arizona*

1:30 pm | **Wauren Richardson**, Oregon State University  
*Critical and Inclusive Approaches to Geography Education*

1:45 pm | **Soheil Boroushaki**, California State University Northridge  
*Weighted OWA Operators in Spatial MultiCriteria Decision-Making*

2:00 pm | **Barbara Quimby**, Arizona State University  
*Participatory Modeling: a methodology for community-engaged human-environment research*

2:15 pm | **Chris Lukinbeal**, The University of Arizona  
*The Mapping of 500 Days of Summer: A processual approach to cinematic cartography*

### **Social, Environmental, and Climate Justice** (Templo Mayor)

Chair: **Sanan Moradi**, *University of Oregon*

1:30 pm | **Zihui Lei**, California State University, Northridge  
*Afro-Latinx Communities in Southern California: Using Cartographies to Understand Social and Environmental Justice*

1:45 pm | **Cindy Chen**, Cal State LA  
*Growing an Equitable Future for L.A. Using GIS*

2:00 pm | **Jessica Embury**, San Diego State University  
*Tackling Food Insecurity in the San Diego Promise Zone: A Spatial-Demographic Approach*

2:15 pm | **Sanan Moradi**, University of Oregon  
*Resistance Territory: Indigenous Discourses and Symbolism in Street Demonstrations in Iranian Kurdistan*



**4:00 pm – 5:15 pm Keynote Lecture: Dr. Marilyn Raphael | Templo Mayor**

## **Antarctic Sea Ice – How important is it?**

### **Abstract**

Sea ice is a critically important component of our climate system. It controls the rate of flow of energy between the ocean and atmosphere. It has a high albedo, reflecting much of the solar energy incident on it. It helps to maintain the equator-pole temperature gradient, influences ocean circulation and the flow of energy in the deep ocean and is of great ecological importance. Antarctic sea ice has a pronounced annual cycle - in a typical year the total Antarctic sea ice area grows from a summer minimum of 3 to 4 million square kilometers in the Southern Ocean to a winter maximum of 17 to 20 million square kilometers. Hidden within this regularity is strong temporal variation on subdecadal timescales superimposed upon a small positive linear trend. Antarctic sea ice variability is also strongly regional - five distinct regions of variability have been defined. While exhibiting similar annual cycles, these regions vary in their times of advance and retreat as well as in overall sea ice extent. They also have different spectral signatures with interannual frequencies of varying strengths. Antarctic sea ice trends are also strongly regional with positive trends occurring, for example, in the Ross Sea and negative trends in the Bellingshausen-Amundsen Seas. Some of the intrinsic spatial variability in the sea ice is probably due to the effect of the geography of Antarctica and the influence of the ocean. Some is due to the influence of the largescale atmospheric circulation – the Southern Hemisphere Annular modes, Zonal Wave Three and the Amundsen Sea Low. In this presentation I give a broad overview of Antarctic sea ice variability and demonstrate its importance to climate, locally and globally. I discuss how components of the atmospheric circulation exert their influence on different regions of sea ice and how the sea ice extent might be expected to change as the atmospheric circulation changes.

### **Bio**

Marilyn Raphael, Professor and former Chair of the Department of Geography at the University of California, Los Angeles, is the Vice President of the American Association of Geographers (AAG). She is Director of the UCLA Institute of the Environment and Sustainability (IoES). Her research interests are in climate variability and change particularly in the high latitude Southern Hemisphere. Using both largescale observational databases and global climate models, her work explains the way in which sea ice and the atmosphere interact thereby creating potential for prediction of Antarctic climate change at the seasonal, interannual and decadal timescales. The results of her research have implications not only for Antarctic climate, but also for global climate change and for the global, societal response. She is currently Chair of the Scientific Committee on Antarctic Research's expert group, Antarctic Sea ice Processes and Climate (ASPeCt) and Co-Chair of the World Climate Research Programme's (WCRP) Polar Climate Predictability Initiative (PCPI). In these roles she promotes research on Antarctic sea ice observations and modeling and coordinates the efforts of the international science community bringing together expertise on the observational and modeling aspects of the climate.

**5:30 pm – 8:00 pm Reception | 3<sup>rd</sup> Floor Terrace**

# FRIDAY, OCTOBER 15

**San Diego State University Conrad Prebys Aztec Student Union**

**8:00 am – 11:45 am Registration | Courtyard outside of Templo Mayor**

**9:00 am – 10:15 am Paper Sessions**

## **Human, Cultural, and Political Geography (Virtual)**

*Chair: Kevin McHugh, Arizona State University*

9:00 am | **Özlem Özgür**, School of Geography, Development & Environment, The University of Arizona

*Participatory Video: Studying the World, Changing the World*

9:15 am | **John Menary**, California State University - Dominguez Hills

*Could World Geography be Extremist*

9:30 am | **Sam Roodbar**, University of California, Davis

*Geography of the Gut Microbiome: An invitation*

9:45 am | **Rajrani Kalra**, California State University, San Bernardino

*Exploring the accessibility of Indian Cultural Landscapes: A GIS Approach*

10:00 am | **Kevin McHugh**, Arizona State University

*Parable of the Parasite*

## **Mountains and Forests (Mata 'yuum/Virtual)**

*Chair: Katherine Sammler, Alfred Wegener Institute for Polar and Marine Research and University of Oldenburg*

9:00 am | **Scott Markwith**, Florida Atlantic University

*Beyond pre-Columbian burning: the impact of firewood collection on forest fuel loads*

9:15 am | **Asha Paudel**, Florida Atlantic University, Department of Geosciences

*Landscape heterogeneity due to multiple mixed-severity fires following prolonged fire suppression in northern Sierra Nevada conifer forests*

9:30 am | **Danielle Gerger**, Cal Poly, San Luis Obispo

*Forest Plantation Transitions in the Peruvian Andes*

9:45 am | **Katherine Sammler**, Helmholtz-Institute for Functional Marine Biodiversity (HIFMB)

*Granular geographies and oroimaginaries of Mt. Taranaki, Aotearoa New Zealand*

## **Sustainability** (Templo Mayor/Virtual)

Chair: **Michael Pesses**, Antelope Valley College

9:00 am | **Parveen Chhetri**, Department of Earth Science and Geography, California State University Dominguez Hills

*Climate change-related energy burden in Disadvantaged Communities*

9:15 am | **Sarah De Santiago**, California State University Long Beach

*Climate Change Activism in the United States: A Case Study of Citizens' Climate Lobby*

9:30 am | **Tara Jones**, Department of Earth Science and Geography, California State University Dominguez Hills

*Adoption of DER in Disadvantaged Communities in Los Angeles County, CA*

9:45 am | **Alex (Adriana) Perez**, Department of Earth Science and Geography, California State University Dominguez Hills

*Energy Burden in Disadvantaged Communities in Los Angeles County*

10:00 am | **Michael Pesses**, Antelope Valley College

*I Hope You Have A Big Trunk Cause I'm Putting My Bike In It: Cycling and the Failures of Automobility Resistance*

## **10:30 am – 11:45 am Paper Sessions**

### **Climate Change** (Templo Mayor)

Chair: **John Harrington**, Independent Scholar

10:30 am | **Jad Aljers**, CSU Northridge

*Behavioral Change About Meat Consumption in Younger Adults to Address Climate Change*

10:45 am | **Kris Bezdecny**, Cal State LA

*Climate change and tourism's relational impact on Iceland: A political ecological perspective*

11:00 am | **Antonio Santana**, California State University Los Angeles

*The Changing Climate of Los Angeles: Highlights from the last Three Decades*

11:15 am | **Cameron Calverley**, University of San Diego

*Drought Impacts and Water Management in Semi-Arid Regions: Analyzing Cape Town, South Africa's 'Day Zero'*

11:30 am | **John Harrington**, Independent Scholar

*Aridification of the Warm Season Climate of Astoria, Oregon?*

## **Earth Science and Geospatial Technology** (Virtual)

Chair: **Dan Scollon**, Shasta College

10:30 am | **Tihomir Kostadinov**, CSU San Marcos

*AstroGeoVis: Solar Astronomical Code and Visualizations with Geosciences Pedagogical Applications*

10:45 am | **Benjamin Weinger**, Department of Geography, UCLA

*Thirty Years On: Planetary Climate Planning and the Intergovernmental Negotiating Committee of the UNFCCC*

11:00 am | **Dan Scollon**, Shasta College and **Cassandra Hansen**, Johns Hopkins University

*Mapping Wildfires: A Critical Assessment of Geospatial Capabilities*

## **Misinformation, Covid-19, and Post-truth Culture** (Mata 'yuum)

Chair: **Steven Graves**, California State University Northridge

10:30 am | **Matthew Balentine**, University of North Alabama

*Geographic Impacts of COVID-19 on the 2020 United States Presidential Election*

10:45 am | **Dydia DeLyser**, California State University, Fullerton

*Fighting misinformation through community-based publishing -- "Neon: A Light History"*

11:00 am | **Mike DeVivo**, Grand Rapids Community College

*A Covid Conundrum for South African Tourism: Forecasting American Travel*

11:15 am | **William Selby**, Santa Monica College

*Geo Integrity in a Post-truth Culture: Examples from California*

11:30 am | **Steven Graves**, California State University, Northridge

*COVID-19 in Los Angeles: A neighborhood level analysis of case rates and causal factors*

**11:45 am – 12:30 pm Women's Network Lunch | 3<sup>rd</sup> Floor Terrace (advanced registration required) or lunch on your own**

**12:30 pm – 1:30 pm Women's Network Student Awards | Templo Mayor**

**1:30 pm – 3:00 pm**    **Donald W. Meinig's Southwest at Half-Century, A Reflection and Appreciation | Templo Mayor**

**Organizer and Moderator:** Daniel Arreola, *Arizona State University*

**Abstract**

*Southwest: Three Peoples in Geographical Change, 1600-1970* is one in a series of monographs about regions of the American West published by D. W. Meinig in 1971. The short but comprehensive book gained wide appeal among historians as well as historical and cultural geographers, both as a research synthesis and a popular text in college-level courses. Remarkably, the book remains in print today—fifty years on—under its original publisher, Oxford University Press. This special session brings together a group of geographers including some of Meinig's former students as well as admirers of Meinigian geography. Participants reflect on their relationships with Meinig, their experiences with Southwest, and how this small but influential writing shaped their geographical perspectives.

**Panelists**

**William Wyckoff**, *Montana State University*

**Craig Colten**, *Louisiana State University*

**Paul Starrs**, *University of Nevada, Reno*

**Richard Nostrand**, *University of Oklahoma*

**1:30 pm – 3:00 pm    Encoding Geography: Developing Geocomputation  
Education Curriculum | Mata 'yuum**

**Organizer and Moderator:** *Atsushi Nara, San Diego State University*

**Abstract**

With the continuing growth of the geospatial technology industry, there is an increasing demand for effective geocomputation curricula that facilitate student learning, critical thinking, and technical proficiency in both geography and computer science. Yet, the nation presently suffers from a limited capacity to offer curriculum and learning pathways that combine training in both disciplines. Furthermore, there exists persistent underrepresentation of women and minorities in geography and computer science. Thus, broadening participation of underrepresented populations, perspectives, and experiences is critical to advance diversity and inclusion in the geospatial technology workplace. To address these challenges, the American Association of Geographers (AAG) piloted an Encoding Geography research-practice partnership (RPP) composed of geographers, computer science educators, and geospatial technology specialists experienced in serving underrepresented minority students and communities. The Encoding Geography RPP will lay the foundation for a replicable strategy to broaden participation in geocomputational education and careers. To facilitate discussion toward the RPP's mission, this interactive workshop aims to identify learners' and teachers' perceptions about the knowledge and skills needed to succeed in a geocomputation-related career and to identify gaps between learners, teachers, and professionals. The RPP is directed by two research questions: (1) how is geocomputation applied in professional work and civic engagements in ways that align with students' career and life aspirations, and (2) what geography and computer science knowledge, skills, and perspectives are necessary to perform these applications? This collaborative work is supported in part by the National Science Foundation under the grant numbers 2031418/2031380/2031407.

**The effect of climate change on water, wildfire, and life across western North America**

**Abstract**

The earth has been collecting its own environmental data for far longer than we have and those records tell us that when global climate changes, the distribution of continental water, and therefore life, changes as well. The current human-caused climate event should be no different according to climate models, and modern observations corroborate this. In the western United States (US) and northern Mexico, paleo-evidence, climate models, and modern observations all indicate that global warming events consistently correspond with local environmental drying. In recent decades, this region has seen reductions in streamflow, soil moisture, and water storage in our largest reservoirs, promoting unsustainable rates of ground-water extraction and, in some cases, disappearance of accessible water entirely. Here I'll use tree-ring records to show that drought severity during 2000–2021 in the western US and northern Mexico has very likely exceeded the severity of the so-called “megadroughts” of the past millennium, infamous for their dire impacts on Native populations and viewed by water managers today as worst-case scenarios. I'll use climate modeling to demonstrate that human-caused warming has been an important contributor to the recent drying trend, accounting for approximately 25–50% of the drought's severity.

I'll then turn to one of the most visible consequences of the 21st-century drought: forest fire. In the western US, the annual forested area burned has increased by over 1200% over the last four decades, increasingly putting people and property in harm's way locally and also exposing large populations to hazardous smoke remotely. The dramatic trend toward increasing wildfire activity and its consequences for people have stoked intense and politicized debate as to the causes. Here I'll show that the dominant cause of the forest-fire increase has been rapid drying of the environment. However, this effect has been amplified in many forests due to our aggressive and unsustainable practice over the past century of attempting to eliminate wildfire from ecosystems that have relied on fire since time immemorial. By improving our understanding of the causes of western North America's recent drought and wildfire trends, I hope this research can motivate plans for how society can sustainably transition into its drier future.

**Bio**

Park Williams is an associate professor in UCLA's Geography Department whose research aims to understand the causes and consequences of hydrological extremes such as drought. Much of his research focuses on climate science in its own right, and much also aims to improve understanding of how hydrological extremes affect life on earth. Questions that he finds especially interesting involve the effects of human-caused climate change on the hydrological cycle, ecological systems, and humanity through extreme events such as heat waves, wildfires, and flooding.

**5:15 pm – 6:45 pm    APCG Business Meeting | Templo Mayor**

**7:00 pm – 9:30 pm    Student Awards Banquet and Presidential Address |  
Montezuma Hall**

**The Geographer as Bibliophile: Geographic Adventure During a Global Pandemic**

Dr. Michael Pretes, Department of Geography, University of North Alabama and President,  
Association of Pacific Coast Geographers



# ACKNOWLEDGEMENTS

## Conference Organizers

Elizabeth Ridder, California State University San Marcos

Atsushi Nara, San Diego State University

Yolonda Youngs, California State University, San Bernardino

## Student Volunteers

Emily Deardorff

Corrie Monteverde

Reza Mortaheb

Dan Grafton

## Program Design

Elizabeth Ridder

## Executive Council

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Memory Counselor: Bob Richardson

## Editors

*Yearbook Journal*: Craig S. Revels, Central Washington University

*Pacifica Newsletter*: Michael Pesses, Antelope Valley College

## Webmaster

Jim Keese

## Special thanks to:

The members of the Budget Committee, Women's Network Committee, Larry Ford Fieldwork Scholarship in Cultural Geography Committee, Awards Committee, Distinguished Service Award Committee, Margaret Trussell Scholarship Committee, Nominations Committee, Latina/o American Travel Scholarship Committee, Indigenous Student Travel Scholarship Committee, and African Descent Student Travel Scholarship Committee.