

THE NINTH ANNUAL
DIMENSIONS OF POLITICAL ECOLOGY CONFERENCE

DOPE 9

February 21 - 23, 2019

University of Kentucky
Lexington, Kentucky, USA

The
Ninth Annual
Dimensions of Political Ecology Conference
February 21 – 23, 2019
#DOPE9
#DOPE2019

Conference program cover, and all associated DOPE 2019 promo, designed by Jonghee Caldararo.

Welcome to DOPE 2019

The Political Ecology Working Group, an interdisciplinary collective of University of Kentucky graduate students, has organized the Dimensions of Political Ecology Conference since 2011. The success of this annual summit – known widely as DOPE – has always relied on generous sponsors and keen participants. The organizers of the 2019 conference welcome y'all to DOPE 9 and thank you in advance for your contributions!

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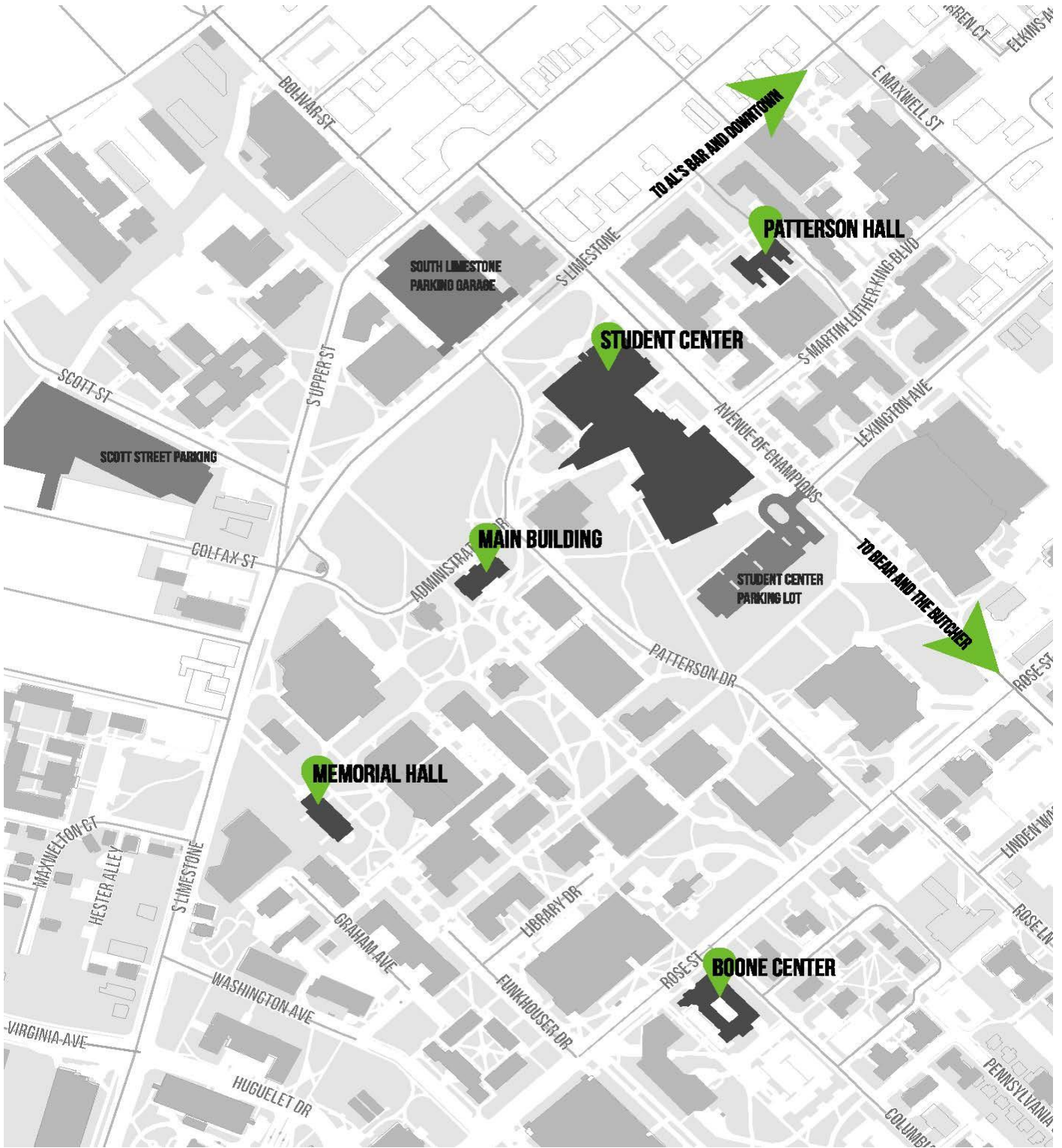
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University of Kentucky Campus Map



Parking & Transportation

Downtown Parking

Several parking decks and off-street parking are available in downtown Lexington. Check out www.parkme.com for real time parking availability and pricing.

South Limestone Garage (PS #5)

409 South Limestone

Visitor parking is \$2/hour (\$16 per exit maximum). Normally open Monday – Friday 5:30 AM – 6:00 PM. Free parking begin Fridays at 7:00 PM. Visit the University of Kentucky's [Visitor Parking](#) page for more information.

Scott Street Parking

301 Scott Street

Visitor Parking free all-day Saturday.

Street Parking

Public pay parking is \$1/hour. Free on weekdays after 5:00 PM and all day on weekends (see www.lexpark.org for details and parking maps).

Public Transportation

LexTran, Lexington's public bus system, services downtown, campus, and the surrounding urban area. See www.lextran.com for details and route maps. Routes that service campus include 1, 3, and 5. Cost \$1/trip. Limited service during weekends.

Campus Shuttles

Campus shuttles are provided free of charge to UK students, employees, and visitors. All areas of campus are less than a 5-minute walk from a bus stop with buses arriving every 7-10 minutes. You can track shuttles in real time at <http://uky.transloc.com/>.

Taxi Services

Bluegrass Cab: (859) 231-8888

Yellow Cab: (859) 231-8294

Rideshare

Lyft and Uber are both available.

Campus Resources

Internet Access

UK-Guest: Register for a guest account to access the University of Kentucky's UK-Guest network, which will give you access for 5 days. You can register from your [mobile](#) or [computer/laptop](#).

Lucille Little Fine Arts Library

160 Patterson Drive

One of the University of Kentucky's smaller campus libraries with quiet places to sit. Open Fridays 7:30 AM – 6:00 PM, closed on Saturdays.

W. T. Young Library

401 Hilltop Avenue

The University of Kentucky's main campus library location with ample seating available on each of the library's five floors. Open for 24 hours Mondays – Thursdays, closes at 8:00 PM on Fridays, opens from 8:00 AM – 8:00 PM on Saturdays.

Printing Services

Ricoh Document Service Center: White Hall Classroom Building, Room CB-29 (Basement). Open Mondays – Fridays from 8:00 AM – 5:00 PM. Phone: (859) 257-1813.

Johnny Print: 561 South Limestone. Open Mondays – Fridays from 8:30 AM – 5:30 PM, Saturday 10:00 AM – 12:30 PM. Phone: (859) 254-6139.

FedEx Office: 333 East Main Street, Suite 130. Open Mondays – Fridays from 7:00 AM – 9:00 PM, Saturday 8:00 AM – 6:00 PM. Phone: (859) 253-1360.

Coffee

Coffea (next to BurgerFi): 385 Rose Street. Coffea is a local coffee shop offering coffee/espresso drinks, cold brews and pour overs, an array of loose-leaf teas, and a tasteful selection of pastries and food. Open Mondays – Fridays from 7:00 AM – 8:00 PM, Saturdays – Sundays from 9:00 AM – 8:00 PM.

Common Grounds Coffee House (On-Campus in Jewell Hall): 394 South Martin Luther King Boulevard. Common Grounds offers a variety of sandwiches, wraps, pastries, and coffee drinks featuring locally roasted beans. Open Mondays – Thursdays from 8:00 AM – 10:00 PM, Fridays from 10:00 AM – 2:00 PM, closed on Saturdays and Sundays.

Common Grounds Coffee House (Off-Campus): 343 East High Street. Open Mondays – Thursdays from 7:00 AM – 10:00 PM, Fridays – Sundays from 8:00 AM – 8:00 PM.

Einstein Bros. Bagels (On-Campus in Chemistry-Physics Building): 505 Rose Street. Einstein Bros. Bagels offers freshly baked bagels and “shmears,” morning pastries, sandwiches, and sweets. Open Mondays – Thursdays from 7:00 AM – 4:00 PM, Fridays from 7:00 AM – 2:00 PM, closed Saturdays and Sundays.

Einstein Bros. Bagels (Off-Campus): 631 South Limestone. Open Mondays – Thursdays from 7:30 AM – 6:00 PM, Fridays from 7:30 AM – 3:00 PM, closed on Saturdays and Sundays. This location offers Wi-Fi.

Great Bagel and Bakery (Off-Campus): 396 Woodland Avenue. A local favorite offering hand-crafted bagels in a range of flavors, plus sandwiches, salads, and espresso drinks. Open daily from 7:00 AM – 3:00 PM.

Starbucks (On-Campus in W. T. Young Library): 401 Hilltop Avenue. Located on the first floor. Open Mondays – Thursdays from 7:00 AM – 11:00 PM, Fridays from 7:00 AM – 8:00 PM, Saturdays – Sundays from 9:00 AM – 8:00 PM.

Starbucks (On-Campus in Gatton Student Center): 160 Avenue of Champions. Open Mondays – Fridays from 7:00 AM – 9:00 PM, Saturdays from 8:00 AM – 8:00 PM, Sundays from 9:00 AM – 6:00 PM.

Conference Locations

Bear & The Butcher

815 Euclid Avenue

Pre-Conference Social: An informal gathering where conference organizers get to mingle with participants over drinks. [Bear & The Butcher](#) is a casual contemporary restaurant located in the heart of the Chevy Chase neighborhood that showcases farm-to-table meats, gastropub inspired shareables, and innovative entrees (some vegetarian and gluten-free options available) as well as two full bars featuring craft beers, creative cocktails, and wine. See you Thursday evening, 7:00 PM – 10:00 PM.

Patterson Hall

342 South Limestone

Registration Desk (Room 118): Conference check-in begins Friday at 7:30 AM. Come and grab your nametag and say hello! The Registration Desk will remain staffed by friendly DOPE 9 volunteers happy to answer your questions all day Friday and Saturday.

Breakfast and Coffee (Room 118): A complimentary breakfast buffet will be served Friday and Saturday morning (first come, first serve). Coffee will also be provided all day Friday and Saturday.

Conference Sessions (Rooms Vary): Individual sessions will take place on the first and second floors of Patterson Hall.

Seating and Quiet Areas: There are various seating areas and study rooms spread throughout the building, including in 118. Room 228 is reserved as a Quiet Room. Please feel free to make use of these spaces as you need them.

Nursing Room (Room 206): This room is reserved for those who need to breast-feed/bottle-feed their infants and would like some quiet or privacy.

Gatton Student Center

160 Avenue of Champs

Welcome Address (Worsham Cinema): Dr. Priscilla McCutcheon will deliver this year's welcoming plenary address Friday afternoon at 1:50 PM.

Memorial Hall

610 South Limestone

Plenary Panel: Our second plenary event, featuring Drs. LaToya Eaves, Hanna Garth, and Rachel Watkins, will take place Friday evening from 5:30 PM – 7:00 PM.

Keynote Address: Dr. Carolyn Finney will present the DOPE 9 Keynote Address, “TBA,” Saturday evening from 5:30 PM – 7:00 PM.

Hilary J. Boone Center

500 Rose Street

Opening Reception: Hot and cold hors d’oeuvres will be served at this catered reception. A cash bar featuring local beer and bourbon will also be available. The reception will begin Friday evening at 7:15 PM.

Al’s Bar & Beer Garden

601 North Limestone

After Party: Join the organizers and other participants for a post-conference celebration. [Al’s Bar & Beer Garden](#) is a well-known venue offering bar food, craft draft beer and many Kentucky bourbons along with frequent live music and poetry readings. Their kitchen is run by [Fida’s Caribbean Café](#), which provides authentic Caribbean cuisine. Festivities will begin Saturday night, following the Keynote Address, at 7:30 PM.

Gender Inclusive Bathrooms

Various Locations

Gender-Inclusive Restrooms: Unfortunately, gender-inclusive restrooms are not available in Patterson Hall, but a list of inclusive restrooms in other parts of the campus can be found here: <http://www.uky.edu/lgbtq/inclusive-restrooms>.

Excuse Our Mess! Campus Construction

Our campus and Lexington are always growing and changing. Watch out for construction sites as you make your way to the different conference locations. Construction is occurring across the street from Patterson Hall and we will run into a construction site on our way to the Hilary J. Boone Center.



Memorial Hall Mural: Reclaiming Space

[The mural in the entryway to Memorial Hall](#) has been the source of dialogue, praise and criticism for decades at the University of Kentucky. The fresco painting, by University of Kentucky alum, Ann Rice O'Hanlon, was completed in 1934—a product of the federal [Public Works of Art Project \(PWAP\)](#). O'Hanlon's intent was to depict Kentucky's evolution from a frontier state to modern Commonwealth.

Over the years, concerns and criticisms have been raised about the failure of the mural to explicitly declare or accurately depict the immorality of slavery, thereby sanitizing the inhumanity that many experienced through subjugation during colonialism. The artwork shows Black musicians playing music for white dancers; Black slaves hunched over in a tobacco field; a group of Black onlookers, segregated from the rest of the white people in the scene, who are all staring at a passenger railway; and a lone Native American hiding behind a tree and wielding a tomahawk as a white woman kneels at a river collecting water suggesting a threat to tranquility. In late 2015, a group of 24 African-American students met with University of Kentucky President, Eli Capilouto, presenting a document titled, "African/African-American Student Concerns on Racial Climate." Objections to the mural were included in the document and numerous conversations about race and racism ensued.

In March 2017, story panels telling a more complete story about the mural and the dialogue around it were installed in front of the work. Then, the Memorial Hall Art Committee put out a call for artwork that would help create a thoughtful environment that links art of the past and present, and contributes to dialogue about history, race, and representation. A piece called "Witness" by Philadelphia-based artist [Karyn Olivier](#) was commissioned and now covers the domed ceiling to Memorial Hall's foyer, reclaiming the space and retelling the narrative. In "Witness," the controversial images of African-Americans and the lone Native American from O'Hanlon's painting make a reappearance. However, this time, the figures are set in front of a gilded background, intended to suggest their elevation from the oppressed to the divine. Olivier also included a quote from Frederick Douglass, which she believes still resonates today, "There is no a man beneath the canopy of heaven, that does not know that slavery is wrong for him."

Thus, it is appropriate that the plenary panel, titled "The Power of Erasure and Memory: Re-imagining the Subjugation of Black Bodies, Spaces, and Places," occurs in this space of contested memory. For, Memorial Hall was also built to memorialize the Kentuckian soldiers who lost their lives in World War I. But which bodies mattered and whose lives were collectively mourned?

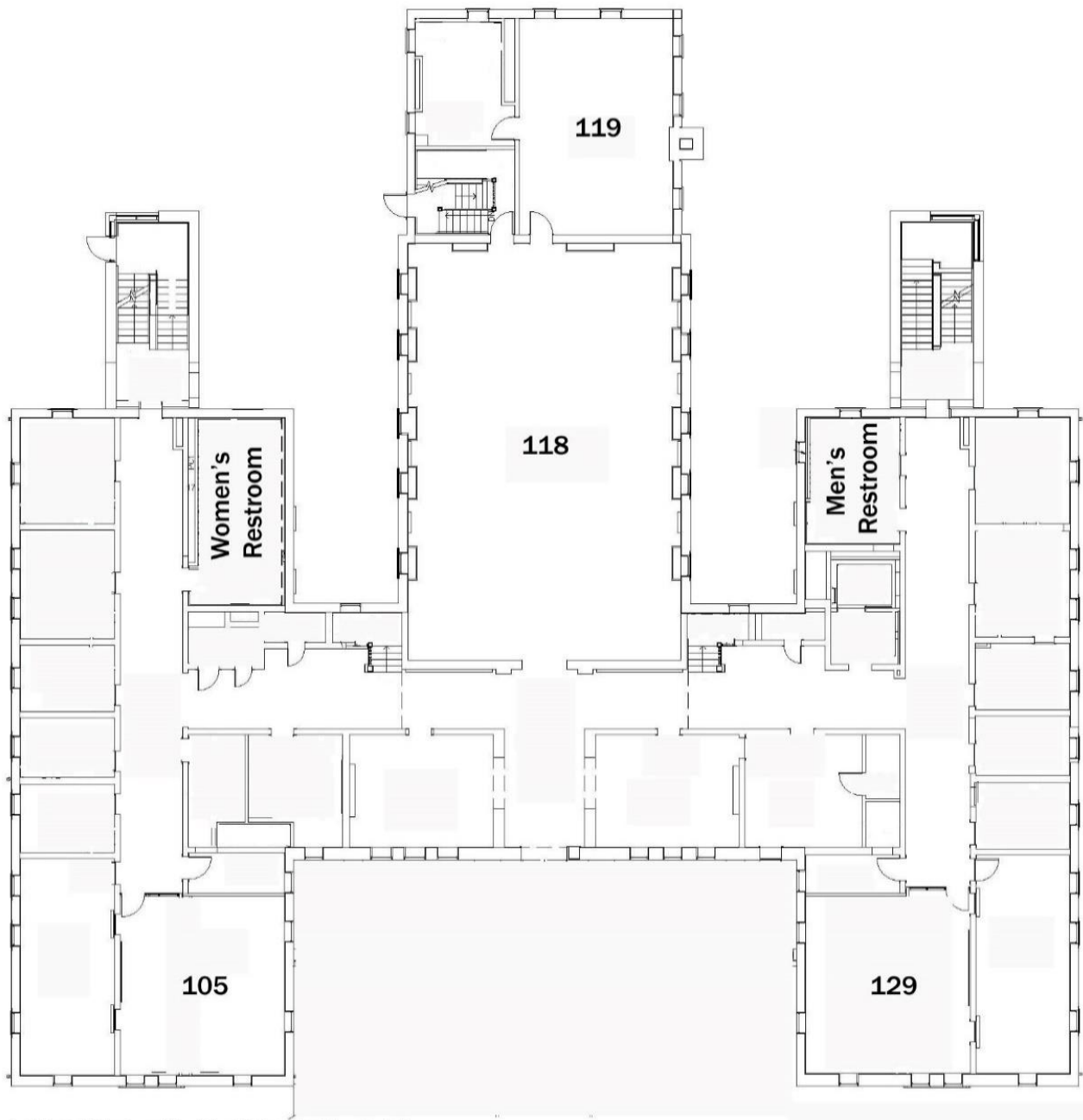
When you step inside Memorial Hall this weekend for the plenary panel and the keynote, remember to look up and look forward.



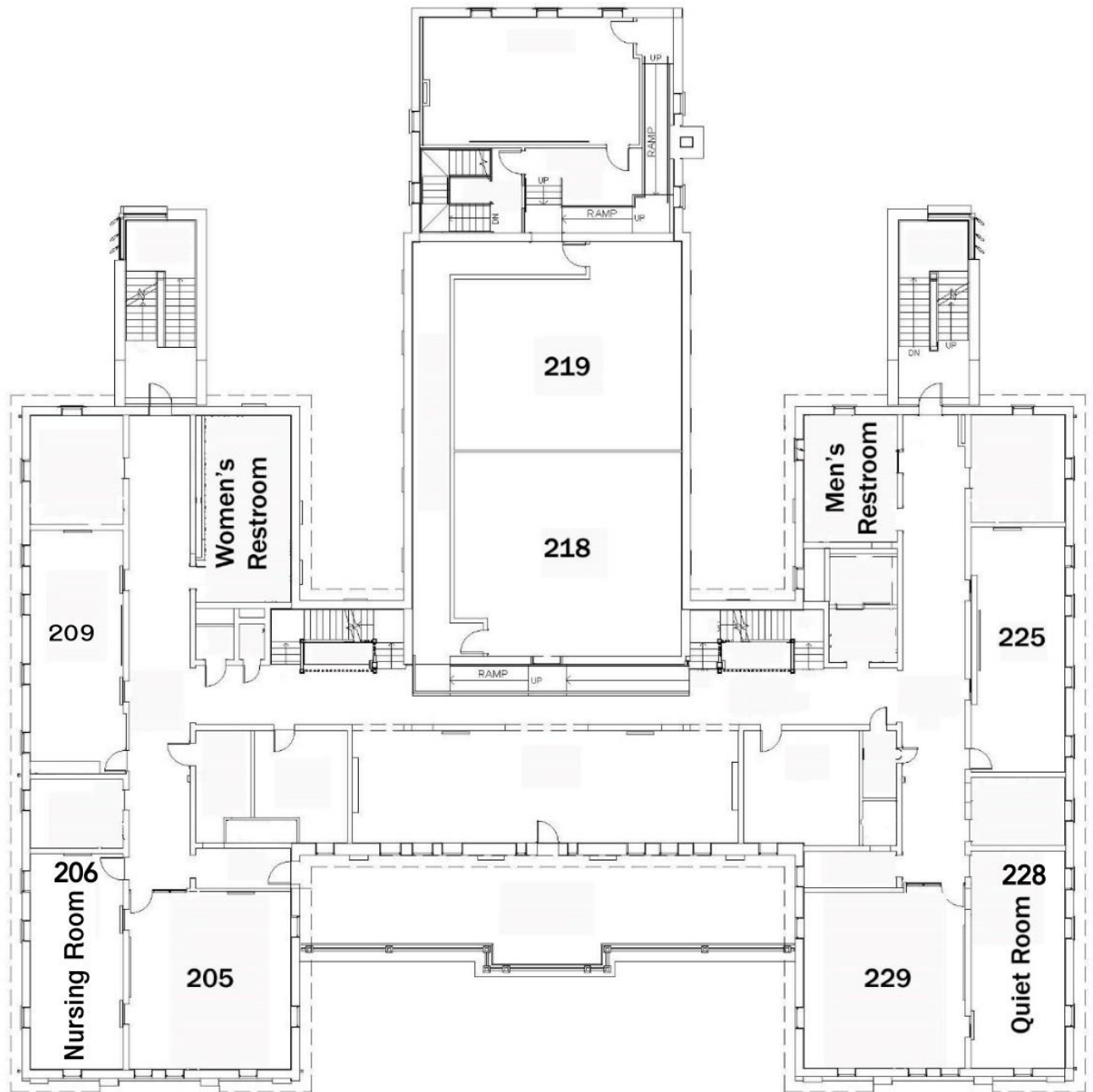
Artwork by Karyn Olivier in the ceiling of Memorial Hall's foyer. Credit: [University of Kentucky Office of the President](#)



Mural by Ann Rice O'Hanlon at the entrance to Memorial Hall's seating area. Credit: Tim Webb, University of Kentucky (from [Hyperallergic](#))



**FIRST FLOOR PLAN
PATTERSON HALL**



**SECOND FLOOR PLAN
PATTERSON HALL**

Thursday, February 21

Pre-Conference Field Trips

All Day

Our 2019 DOPE field trips include the Landscapes of Eastern Kentucky Tour to Little Elk Mine and Robinson Forest; the Bourbon Tour at Buffalo Trace Distillery; and the Aquaponics Tour at West Sixth FoodChain.

Pre-Conference Social

Bear & The Butcher, 815 Euclid Avenue

7:00 PM – 10:00 PM

An informal gathering where conference organizers get to mingle with participants over drinks. This year's social will be held at [Bear & The Butcher](#), a casual contemporary restaurant located in the heart of the Chevy Chase neighborhood that showcases farm-to-table meats, gastropub inspired shareables, and innovative entrees. Some vegetarian and gluten-free options are available. There are also two full bars featuring craft beers, creative cocktails, and wine.

Friday, February 22

Registration – Patterson Hall, 118

7:30 AM – 4:00 PM

Check in, grab your nametag/program, and say hello. A friendly volunteer will be available all day to answer questions and welcome you to DOPE 2019.

Breakfast Buffet – Patterson Hall, 118

7:30 AM – 10:00 AM

A complimentary breakfast buffet is provided for all conference participants, including hot coffee and assorted teas.

Session Block 1 - 8:30 AM – 10:10 AM

Break - 10:15 AM – 10:25 AM

Session Block 2 - 10:30 AM – 12:10 PM

Lunch (on your own) - 12:10 PM – 1:45 PM

Welcome Address – Gatton Student Center, Worsham Cinema

1:50 PM – 2:50 PM

Dr. Priscilla McCutcheon will deliver the DOPE 2019 Welcome Address.

Break - 3:00 PM – 3:15 PM

Session Block 3 - 3:20 PM – 5:00 PM

Break - 5:00 PM – 5:25 PM

Plenary Panel – Memorial Hall

5:30 PM – 7:00 PM

Panelists: Drs. LaToya Eaves, Hanna Garth, and Rachel Watkins. *Moderator:* Dr. Rosalind Harris.

Welcome Reception – Hilary J. Boone Center

7:15 PM – 11:00 PM

Hot and cold hors d'oeuvres will be served at this catered reception (vegetarian and gluten-free options available). A cash bar featuring local beer and bourbon will also be available.

Block Schedule

FRIDAY, FEBRUARY 22

Room No.	105	119	129	205	209
Block 1 8:30-10:10	Militant Coresearch and Political Ecology	Embodied Knowledge, National Politics, and Global Environmental Imaginaries		General Session: Gentrification, Gender, Climate Justice, and Social Movements	Undergraduate Symposium I
Block 2 10:30-12:10	General Session: Political Ecologies of Food and Agriculture	Critical and Imaginative Restorative Ecologies I	Intersections of Interventions: On Development, Difference, Dispossession and Discourse I		Undergraduate Symposium II
Lunch 12:10-1:45	LUNCH (ON YOUR OWN)				
Welcome 1:50-2:50	WELCOME ADDRESS Dr. Priscilla McCutcheon Gatton Student Center, Worsham Cinema				
Block 3 3:20-5:00	Political Ecologies of Celebrity, Philanthropy, and Nature 2.0	Critical and Imaginative Restorative Ecologies II	Intersections of Interventions: On Development, Difference, Dispossession and Discourse II	Teaching Political Ecology	
Plenary Panel 5:30-7:00	PLENARY PANEL <i>Panelists:</i> Dr. LaToya Eaves, Dr. Hanna Garth, and Dr. Rachel Watkins <i>Moderator:</i> Dr. Rosalind Harris Memorial Hall				
Reception 7:15-11:00	OPENING RECEPTION University of Kentucky Boone Center, 500 Rose Street				

Room No.	218	219	225	229	305
Block 1 8:30-10:10	Sexual Harassment and Discrimination in Academia				
Block 2 10:30-12:10	The Racial Dimensions of Environmental Conflict I				
Lunch 12:10-1:45	LUNCH (ON YOUR OWN)				
Welcome 1:45-2:45	WELCOME ADDRESS Dr. Priscilla McCutcheon Gatton Student Center, Worsham Cinema				
Block 3 3:20-5:00	The Racial Dimensions of Environmental Conflict II		Film Screening: <i>Manufactured Landscapes</i> (2006)		
Plenary Panel 5:30-7:00	PLENARY PANEL Moderator: Dr. Rosalind Harris Panelists: Dr. LaToya Eaves, Dr. Hanna Garth, and Dr. Rachel Watkins Memorial Hall				
Reception 7:15-11:00	OPENING RECEPTION University of Kentucky Boone Center, 500 Rose Street				

Abstracts & Descriptions

Session Block 1

8:30 AM – 10:10 AM

1. Militant Coresearch and Political Ecology

Room 105

Organizer(s): Caitlin Schroering (University of Pittsburgh)
Patrick Korte (Virginia Commonwealth University)

Chair(s): Caitlin Schroering (University of Pittsburgh)
Patrick Korte (Virginia Commonwealth University)

Discussant(s): Caitlin Schroering (University of Pittsburgh)
Patrick Korte (Virginia Commonwealth University)

Patrick Korte and Cole Oberman (Virginia Commonwealth University)

From the Workers' Inquiry to Militant Coresearch: Origins, Applications, Futures

From Marx's original "workers' inquiry" (1880) to the "hot investigations" of Italian *operaismo*, political militants emerging from the Marxian tradition have sought to reconcile empirical scientific research with the construction of partisan movements for liberation. This paper interrogates the origins and applications of militant coresearch as both an activist approach to knowledge production and a necessary element in the construction of what Alan Sears names the "infrastructure of dissent." By laying the groundwork for this infrastructure through practices of countermapping and class composition analysis, militant coresearch has historically established the socio-cultural basis for popular forms of revolutionary counterpower to emerge, from the factories of Fiat to the cantons of Rojava. As political ecology is grounded in a critique of reductionist binaries of humanity/nature or the hierarchies of researcher/researched, we aim to examine the potential futures of militant coresearch in light of the Anthropocene, with specific consideration for feminist and decolonial perspectives. In particular, we shall draw upon our own participation in grassroots community struggles where issues of environment, territory, health, biopolitics, coloniality, gender, and class struggle converge. In line with the hybrid "anarcho-sociology" of the operaisti, we believe a constructive dialog between militant coresearch and political

ecology can assist grassroots movements to make effective inquiries and interventions into the hyper-complexity of today's sociotechnical-natural assemblages.

Keywords: theory, inquiry, coresearch, activism, Marxism

Eric Goldfischer (University of Minnesota)

Parks, plazas and planters: Homeless organizing and the struggle over ecological development

In the past three decades, as homelessness has risen dramatically to become one of the most visible problems that cities attempt to confront, homeless activists have mobilized successfully in major North American cities to demand that those in positions of governance understand homeless people as the experts on homelessness and its potential solutions. Homeless-led groups have altered the politics of knowledge around shelter (forcing governments to confront its temporary and carceral nature), public space (demonstrating that the idea of “public” usually excludes homeless people), and housing (using photography and participatory action research to show that vacant buildings that could house homeless people but instead lie warehoused by speculative developers form the economic root of homelessness). In recent years, homeless organizing has begun to turn toward the ecological dimensions of homelessness, as homeless people are increasingly displaced not only by anti-homeless architecture but by ecological elements of landscape design, such as horticultural installations, waterfront park development, and reimaginings of cities in the wake of natural disasters. Based on my dissertation fieldwork, a longstanding collaboration with a homeless-led activist group in New York City, I explore the particular epistemic tension around the city's plaza program, an effort that directly affects homeless people yet is framed by the city predominantly as an environmental, rather than social, intervention into the built environment. In sharing co-research done on several scales and in spaces situated in between the academy, traditional participatory research, and activist spaces, this paper shows that situated knowledges and scholar-activist work can usefully illustrate the ecological dimensions of homelessness, and therefore the ways that homeless activists can speak back to dominant discourses of urban environmentalism.

Keywords: Urban political ecology, Urban development, Environmental gentrification, public space, homelessness

Gabe Schwartzman (University of Minnesota)

Junior Walk (Activist)

Researching Appalachian Resource Extraction After Coal

Building on a decade long collaboration in the coalfields of West Virginia—in direct action protests, advocacy and research around mountaintop removal coal mining—we are now

beginning exploratory research aimed at better understanding resource extraction. As coal mining's regional economic benefits wanes, leaving a toxic legacy on the landscape, we explore the political possibilities surrounding activist research: how academic research can support feminist, anti-racist and antiextraction activist goals in the coalfields. As a starting point, we examine how critical research of resource extraction might inform new answers to the question: what will West Virginia become after coal mining ceases? We make the case that resource extraction does not end with the coal industry, that resource extraction is a set of relations in place that extend beyond individuals or industries. Using the Gramscian concept of hegemonic power, we explore counter-hegemonic practices that people engage in in daily life and in political mobilization—such as producing incomes from corporate owned forests or clandestine monitoring of environmental hazards using the ways that people live despite of and in resistance to resource extraction to guide our research questions. Engaging with recent Appalachian scholarly critique of an 'internal colony' theorization of resource extraction, black feminist theorists and post-colonial political theories, we ask how rethinking resource extraction after coal can be generative of political power for coalfields residents in West Virginia.

Keywords: Resource Extraction, Appalachia, Coresearch, Feminist epistemology

Daniel Burridge (University of Pittsburgh)

Overflowing the Channels of the Left: Community, Agro-Ecology, and Post-Neoliberal Governance Projects in El Salvador

This paper explores the interactions between community-based, environmental social movements and leftist-controlled state institutions in the ecologically fragile and economically profitable Bajo Lempa territory of El Salvador. This region encompasses fertile flood plains and mangrove forests along the banks of El Salvador's largest river, the Lempa, as it empties into the Pacific. Primarily populated by ex-combatants of the FMLN guerrilla army-turned political party, this poor, but organized territory has become a target for international aid projects since the 1990s. Currently, it is the site of "Fomilenio 2", a US-funded aid project being implemented by the ruling FMLN, which though discursively aimed at bringing "sustainable development" to the region, seeks to insert it into transnational accumulation circuits of tourism and non-traditional agricultural exports. Due to these activities' environmental threats, this mega-project has been opposed by local communities and organizations already well versed in agro-ecology, community organizing, and national-level environmental advocacy. I analyze the work of United Communities of the Bajo Lempa (ACUDESBAL) to highlight how the entanglements of history, ideology, scales of political power, and divergent ways of knowing the environment have come to characterize this movement territory. Specifically, I distill two competing, dialogic, governance projects: one promoted by a Salvadoran state subordinated to global capital that sees natural resources as production inputs, and one practiced by poor communities that rely on the natural world

for subsistence and collective dignity. In broad strokes, the incompatibility of these two projects reveals the inability of the traditional Latin American left to incorporate environmental concerns into its projects of governance. Based on more fine-grained analysis however, I demonstrate how ACUDESBAL's financial dependence on external funders and informal, internal hierarchies jeopardize the pursuit of an authentic agro-ecological agenda promoted by its grassroots bases. Still, by overflowing the established channels of the Salvadoran left, community-based agroecological action in the Bajo Lempa seeks to reinvent the relationships between communities, the natural world, and political power in the creation of its own emergent post-neoliberal governance project.

Keywords: Social movement strategy, Environmental movements, El Salvador, Post-neoliberalism

Session Block 1

8:30 AM – 10:10 AM

2. Embodied Knowledge, National Politics, and Global Environmental Imaginaries

Room 119

Organizer(s): Tess Doezema (Arizona State University)
Carlo Altamirano-Allende (Arizona State University)

Chairs(s): Tess Doezema (Arizona State University)
Carlo Altamirano-Allende (Arizona State University)

Tess Doezema (Arizona State University)
Contesting biological good in the U.S. and Brazil

This project focuses on sites of contestation in which biological and the economic expertise are called upon and challenged in efforts to transform the relationship between human beings and the global environment. In particular, it examines the politics whereby particular groups are authorized to envision and pursue new modes of human-environmental relations through creating and capitalizing biological knowledge and artifacts. Two case-studies form the basis of the analysis, exemplifying how various key actors are constituting and contesting the creation of optimal biological flows across local, national and global spaces. The first examines efforts in the U.S. to produce and internationalize standardized biotechnology regulation regimes. The second case study explores efforts of the Brazilian state to create and implement rules for protecting and monetizing biodiversity. I approach these projects of reform as not merely technical or administrative but as bioconstitutional (Jasanoff, 2011) because they re-describe the fundamental underpinnings of environmental, economic, legal and political relations between global citizens and states. At stake is how human and environmental wellbeing are conceived and enacted, how life itself will be controlled, transformed and governed, and what technological, economic and political regimes will be brought into being in the process. In explicating the nature and significance of advances in biological knowledge and technology production, and corresponding consequences for human life and governance, many scholars point to the key role markets, capital and theories of the economy play in how biotechnologies are called into being,

distributed, received, and regulated (Cooper, 2008; Rajan, 2006; Rose, 2007). This work examines what I see as a key element of the emergence of new global bioconstitutional settlements—not merely the coming into being of markets and economies, but the creation of the conditions for them in the form of norms, law, policy, and economic and political relationships that facilitate the flow and exchange of biological knowledge and products.

Keywords: bioeconomy, markets, biodiversity, genetic engineering, bioconstitutionalism

Jules Reynolds (University of Wisconsin–Madison)

The Stand of the Black Wattle: A multispecies understanding of Acacia mearnsii in South Africa

Acacia mearnsii de Wild, or black wattle by its common name, is classified global scientific databases as one of the worst invasive species in South Africa and throughout the world. Ubiquitous across the landscape, today these trees are stark reminders of the tangled legacies of colonialism, post-apartheid nationalism, and the inequalities that still pervade the nation. Since 1995, the government has spearheaded a national invasive species eradication campaign, fueled by morally laden invasive discourse regarding the social and ecological health of a nation. This national agenda on invasive species not only encourages a nationalist discourse of “othering,” but also ignores the local realities of the utilitarian importance of black wattle in rural communities. In this multispecies ethnography, I articulate the black wattle tree as a site of tension between Western scientific knowledge, national policy and discourse, and local experience. Using qualitative data collected from one community in the Eastern Cape Province, I present the emergent, complex, and at times incongruous relationships between humans and the black wattle to highlight the social, political, and ecological consequences of this national invasion agenda. Through these narratives and observations, I come to understand black wattle as both a recipient of South Africa’s moral agenda and an active participant of landscape change. In this age of climate change, we are at a point-of-no-return to past ecologies and human-environment interactions. Resource management and rural development strategies must reflect the inevitability of these changing ecologies.

Keywords: Multispecies ethnography, Southern Africa, Invasive species, Resource management, Rural development

Carlo Altamirano-Allende (Arizona State University)

Clean Energy Futures: Social Consequences of Major Energy Systems Change in Mexico

Sustainable energy access is one of the key drivers for global equity, justice, and human development. However, it has been demonstrated that the use of renewable technologies to address energy poverty is not necessarily linked to improved living conditions and a reduction of inequalities for communities. This paper explores the geographies of energy and democracy in Mexico. What do contesting visions of the future reveal about values and shared understandings on clean energy transitions? How do these imaginaries shape existing material configurations, power relations, and perceived avenues for action and policy decision-making? Drawing on comparative case studies, ethnographical research, and a comprehensive review of the media and major legislations, this research aims to understand the narratives and imaginaries that are driving one of the most aggressive contemporary energy transformations in the world. In less than 10 years, not only did Mexico legally change its constitution to allow for private partnerships schemes in the exploration and refinement of fossil fuels; but also enacted ground-breaking legislation to combat climate change and accelerate the adoption of renewable forms of electricity production. This research explores the consequences of these rapid changes in Mexican society and their energy market. As countries keep increasing the rate of adoption of emissions-free energy alternatives, there are several lessons to be learned from the Mexican experience. Here I argue that projects of this nature have proved to be a critical referendum on the possibilities for renewable energy but are not singular nor will there be unique as renewable energy projects continue to expand in Latin America and around the world. It is a lesson, however, in how disjointed development and failed attempts at sustainability mirror other projects that have similarly taken market-based models as the only possible solution to the threats of the Anthropocene.

Anesu Makina (University of Oklahoma)

Why do they pick waste? Challenging dominant discourses pertaining to informal waste picking in South Africa

In the global South, informal activities are pervasive and waste picking is no exception. Waste pickers operate within an already established assemblage of garbage collection by providing much needed recycling services in cities, yet they are regularly marginalized in social discourse and political action. Waste is often posited as an environmental concern because of health and pollution concerns. Furthermore, in many cities, there is no space for additional landfills. Solutions with which to manage waste in South Africa exclude the

informal sector in favor of technologically driven solutions, often imported from the global North where the informal sector is small. These solutions, including incineration and sorting at source threaten livelihoods and are also socially and politically incompatible with local level experiences and realities. Waste pickers are often presented as the poorest of the poor, yet, they regularly make claims to waste despite regulations stating that materials deposited into municipal receptacles at curbsides or landfills are the property of the State. These claims I argue, demonstrate that waste pickers are guided by logics beyond meeting their daily needs therefore the justificatory logics underpinning waste picking need to be understood in order to propose locally relevant solutions to waste management. For my research, I use an emerging framework titled agonistically transgressive appropriations (ATA) developed Lawhon, Pierce and Makina (2018). It was developed as a way in which to understand informal activities and urban appropriations in South Africa. In this paper, I not only present empirical findings in relation to justificatory logics but I also showcase theoretical insights drawn from ATA.

Keywords: Waste picking, Informality, South Africa, Justificatory logics

Session Block 1

8:30 AM – 10:10 AM

3. General Session: Gentrification, Gender, Climate Justice, and Social Movements

Room 205

Organizer(s): University of Kentucky Political Ecology Working Group

Chair(s): Dayna Cueva Alegria (University of Kentucky)

Arianna Hall-Reinhard (Ohio State University)

"Squeezed Between the Gunshots and the Gentrifiers": Urban Agriculture in Philadelphia's Kensington Neighborhood

This study uses a food justice and urban political ecology framework to consider how gentrification and project funding structures affect urban agriculture (UA) in Philadelphia's Kensington neighborhood. Despite Kensington's once abundant vacant land and decades-long history of UA projects, the modern neighborhood is experiencing rapidly accelerating gentrification with major implications for UA projects there. The twin influences of historically entrenched poverty and swift gentrification make Kensington a uniquely compelling neighborhood in which to study the impacts of gentrification on its many UA projects. To this end, qualitative interviews were conducted with UA project managers, volunteers, and supportive staff associated with five UA sites in Kensington. By comparing these distinct UA projects, some compelling findings have emerged including how different funding structures (grassroots, nonprofit, or for profit) influence the formation and persistence of UA projects, the complex and often uneven outcomes of gentrification on UA projects, and how UA projects' organizational and funding structures constrain their relationship to gentrification.

Keywords: Urban Political Ecology, Urban Agriculture, Gentrification, Food Justice, Nonprofit, Industrial Complex

Beatriz Rodriguez-Labajos (Universitat Autònoma de Barcelona / University of California–Berkeley)

Gendered artistic activism and the environmental defence

Raw material extraction, transportation and waste disposal trigger environmental conflicts worldwide. Violence hits activists, including women who often lead the resistances. Data collection on environmental conflicts has emphasized activists' role in environmental defence and in the promotion of sustainable and just transformations. The ubiquitous use of artworks (e.g., paintings, music, films) in environmental conflicts plays a role, triggering cognitive processes, and value and behavioural change. Attempts to theorise mediated conflict or critical examinations of popular culture have not reached the environmental conflict literature, which has not systematically mapped and analysed these materials. An overall gap in the literature is whether (and how) gender differentiated environmental claims and/or transformative or restorative initiatives are voiced and promoted through arts and cultural expressions. This paper contributes to fill this gap by cataloguing cultural artefacts activists use around the world and articulating the concept 'gendered artistic activism' in environmental issues. To this end, a comprehensive literature review of 2934 papers published between 1969 and 2018 was done using textual analysis. We collected information from 408 artistic creations linked to environmental activism from 78 countries. Creative activism involve ends such as, i.a., the construction of shared meanings, social cohesion, denounce, awareness, education, memory or remembrance, healing or social innovation. We reached three specific objectives, namely: a) to situate environmental concerns within artistic activism in general; b) to unfold the repertoire and foci of environmental artistic activism, and c) to examine how gender blends with artistic activism and transformative politics, particularly in cases of environmental conflict.

Keywords: artistic activism, environmental activism, transformative politics, gender, textual analysis

Chie Togami (University of Pittsburgh)

Creating Commitment in an Ecovillage Community

Existing literature on the topic of individual commitment to social movements focuses primarily on how the internal dynamics of those movements foster commitment. In so doing, scholars have largely ignored the ways that intra- and extra-movement mechanisms work in tandem to reinforce commitment in social movements and social movement communities. This thesis draws on original data gathered through participant observation

and interviews at a Japanese Ecovillage to speak to the central theoretical question: How is individual commitment to social movement communities—especially those that resemble total institutions—sustained? Building on the work of Kanter (1968, 1972) I argue that four types of mutually-reinforcing mechanisms sustain commitment in high-commitment social movement communities: 1) quotidian rituals and group practices, 2) individual investment and sacrifice, 3) charismatic leadership, and 4) embeddedness within transnational movement networks. I suggest that this fourth kind of commitment mechanism, embeddedness within transnational movement networks, is an understudied type of commitment mechanism that may actively reinforce individuals' affective, instrumental, and moral commitment to high commitment social movement communities. I conclude by discussing the implications of this analysis for the study of activist commitment to contemporary transnational social movements.

Keywords: Ecovillage, Communities, Transnational Movements, Commitment, Sustainability

Session Block 1

8:30 AM – 10:10 AM

4. Undergraduate Symposium (Session I)

Room 209

Organizer(s): University of Kentucky Political Ecology Working Group

Chair(s): Karen Kinslow (University of Kentucky)
Olivia Meyer (University of Kentucky)

Bailey Smith-Helman (Northwestern University)

Kaleigh Karageorge (Purdue University)

Gender and Global Environmental Governance: An Intersectionality Approach

This paper engages with literature in international relations, political ecology, feminist political ecology, and Indigenous studies to explore how representations of gender at sites of global environmental governance frame Indigenous Peoples, traditional peoples, and local communities' roles in environmental governance. We are part of the Presence to Influence team, which is a multi-sited, multi-year collaborative research project that seeks to understand how marginalized and underrepresented groups in global environmental governance access and influence these governance processes. Our sites currently include three main events, the 2015 Paris Climate Summit (COP21), the 2016 World Conservation Congress, and the 2018 International Society of Ethnobiology Meetings (Belém +30). Specifically, we engage with an intersectionality approach and decolonial work to determine: How is gender discussed and in what context? How do different actors define gender issues and solutions in global environmental governance? How does gender discourse frame environmental action and global environmental policy? This presentation will highlight key findings from a scoping literature review and point to preliminary findings from grounded qualitative data analysis across the three data sets. Our work addresses how engaging with intersectionality approaches can foster interdisciplinary-oriented theoretical synergies in analyzing the processual unfolding of representational politics at sites of global environmental governance, expand how and in what way scholars engage with questions of gender across polycentric scales, identify the power-laden contexts of representational constructions of bodies and identities, and draw sharp attention to hegemonic

configurations of discourses that currently dominate at sites of global environmental governance. Moreover, we are women undergraduates and faculty leading this work as part of the larger Presence to Influence team, and our talk will also reflect on our positionality, and how students as knowledge producers can meaningfully assist with disrupting normative research methodologies.

Keywords: Intersectionality, Indigenous Peoples, Environmental governance, Gender, Political ecology

Rachael Vannatta (James Madison University)

Protected Areas in Tanzania: The co-evolution of conservation, communities, and conflict

The consequences of human habitation, resource extraction, and waste deposition, all characteristics of the Anthropocene, have severely hindered the conservation of biodiversity. In some countries, passing and enforcing environmental legislation to protect the environment has proven to be a major challenge. Terrestrial protected areas, meant to protect the biodiversity of non-human species and anthropocentrically-defined natural resources, cover approximately 14.7% of the earth's surface, according to the IUCN (2016). With 38% of its land dedicated to protected areas, Tanzania has created conservation plans that citizens claim fail to consider local livelihoods, which results in marginalization. Consequently, some communities of Maasai pastoralists in Northern Tanzania have attempted to renegotiate land access in order to support rapidly growing populations. This paper will assess four case studies that are directly involved with the conflict between local communities and conservation development: Ngorongoro Conservation Area, Ngerengere River Eco Camp (NGERIV), Manyara Ranch, and Longido District Maasailand. Through these case studies, this paper examines how conservationists have worked with communities to develop multipronged solutions that promote social, cultural, and economic incentives for conservation, as well as analyzes the spatiotemporal limits of protected areas.

Keywords: Landscapes, Protected Areas, Conservation, Maasai Communities, (Resource) Management

Kallie Wilkes (James Madison University)

A political ecology of the U.S. alpaca industry

Alpacas (*Vicugna pacos*) are part of the Camelidae family with two breeds: Suri alpacas and Huacaya alpacas. The domesticated animal first entered the United States (U.S.) in the 1980s from the high Andes mountains in South America. Since then, the U.S. industry has grown remarkably. There are currently over 190,000 alpacas registered with the largest national organization for alpaca owners, the Alpaca Owners Association (AOA), with estimates of tens of thousands more on small-scale farms. In the U.S., alpacas are primarily raised to produce a high-quality fiber that is used for knitted or woven items, and there is a small but developing market for meat. Others raise alpacas for pets or as show animals. Given their relatively recent introduction to the U.S., alpacas occupy an interesting niche in the U.S. livestock industry. For example, the U.S. does not mandate federal registration of alpacas, and there are no pharmaceutical products federally approved specifically for alpaca use. Evidence from academic and practitioner communities indicates that medications have been over and mis-prescribed, leading to challenges in parasite control and stalls in new treatment options. With few federal regulations for land and herd health management, alpaca farmers are increasingly relying on local knowledge shared through informal networks among other farmers and large animal veterinarians, with many turning to alternative and holistic medicine. While groups dedicated to the exchange of local knowledge on these topics are expanding, current research and practice on alpaca management in the U.S. is still limited. Drawing from secondary data and in-depth participant observation with alpaca farmers, this paper uses a political ecology framework to discuss current trends in the challenges and opportunities of the U.S. alpaca industry.

Keywords: Alpacas, Health, Livestock, Local knowledge

Session Block 1

8:30 AM – 10:10 AM

5. Sexual Harassment and Discrimination in Academia (Panel)

Room 219

Organizer(s): Rebecca Lave (Indiana University)
Becky Mansfield (Ohio State University)

Chair(s): Becky Mansfield (Ohio State University)

It has been over a year since the revelations about Weinstein and others unleashed a wave of accusations in the #MeToo movement. Our goal for this panel is to discuss these issues in academia and how we move forward from here (e.g. de Mello Freitas et al. 2017; Lawhon 2018; National Academy of Sciences 2018; Tolia-Kelly 2017). How do we maintain interest, support people who come forward with accusations, and fight backlash? What forms do these issues take in academia, and how does that influence how we respond? What does real change entail, and what do we need to do to enact real change? As political ecologists, questions of power are central to our field; the goal of this discussion is to both analyze and change the power dynamics of our field, our disciplines, and our institutions to address these ongoing issues of harassment and discrimination.

PANELISTS

Rebecca Lave (Indiana University)

Becky Mansfield (Ohio State University)

Carrie Mott (University of Louisville)

Tad Mutersbaugh (University of Kentucky)

Mary Lawhon (University of Oklahoma)

Session Block 2

10:30 AM – 12:10 PM

6. General Session: Political Ecologies of Food and Agriculture

Room 105

Organizer(s): University of Kentucky Political Ecology Working Group

Chair(s): Aklilu Reda (University of Kentucky)

Jonathan Hall (West Virginia University)

Wild food self-provisioning in West Virginia

Despite the material wealth of the United States nearly 20% of the population is food insecure. Rates of food insecurity are highest in both urban and rural communities across the US, particularly among the economically disadvantaged and people of color. In West Virginia, food insecurity rates are among the highest in the nation. While much research has and is being conducted to understand the existing agriculture-based food systems in the state, little research has been conducted on the rates of wild food harvesting and how such practices impact overall food security in West Virginia. Here we explore the landscape of wild game harvesting in West Virginia, how it compares to other surrounding states, and how such rates compare to domestic meat production within the state. We also compare the economic investment of wild game harvesting versus domestic animal production as well as explore land-use practices that may influence rates wild game harvest. Our results show that wild game harvest rates in West Virginia were equal to domestic red meat raised and processed over a five-year period while the economic investment in domestic red meat production far exceeded investment in wildlife areas where game could be harvested. Per capita game harvest rates in West Virginia were the highest among six neighboring states. Despite these relatively high rates of wild game harvest, public land access and the economic and time costs of hunting game present significant challenges for West Virginians. To our knowledge this is the first study within the state, and one of few across the United States, that attempts to account for wild game in food systems. Wild game serves as an important and largely unaccounted for resource that food insecure communities may rely on and that current food systems research underestimates the importance of.

Keywords: food security, wild game, West Virginia

Angela Babb (Indiana University)

Toward a Fair and Holistic Valuation of Food

In this paper, I start building a calculation to replace the Thrifty Food Plan (TFP). Last modified by the USDA in 2006, the TFP determines maximum entitlements for participants of the Supplemental Nutrition Assistance Program (SNAP). Since its inception in 1975, scholars have shown how the TFP ignores labor time, underestimates average household food waste, and does not account for geographical variations in food access nor the purchasing power of food stamps. I have since argued that the calculation institutionalizes a neoliberal valuation of food and depoliticizes the food system in which SNAP households are situated, ultimately reproducing a budget inadequate for SNAP participants to access healthful, sustainable, and culturally-appropriate diets. I argue the TFP also reinforces the outdated calculation of the U.S. poverty threshold, which is 3 times the cost of a diet in 1963. Changing the TFP calculation is a critical step toward food justice, and this requires developing and quantifying a more holistic valuation of food. I work toward a new set of food plans and budgets for SNAP by building a calculation that incorporates labor time, realistic measures of food waste, geographical variations in access and prices, and the non-individualistic (i.e. social and ecological) aspects of an equitable, sustainable food system.

Keyword: food justice, food stamps, nutrition assistance, Thrifty Food Plan, US Farm Bill

Cody Peterson (University of Colorado–Denver)

Ambivalent Landscapes: Interacting Effects of Energy Royalties, Land Tenure, and Technology on Farmer Livelihoods in N. Colorado

Conventionally, the food-water-energy nexus describes the material supply-chain interactions and co-dependencies between agriculture, energy extraction, and water use. But in much of the US, cultivated landscapes are often simultaneously places of intensive energy development, compelling us to look beyond the nexus of mutual exchange/input and towards the spatial entanglement of food production and energy extraction. The consequent injection of millions of dollars of energy revenue into agricultural communities in the form of tenure royalties, as well the potential for local contamination of soil and irrigation water, pose new and pertinent questions regarding the manifold relationship between food and energy in the US. Taking Weld County, CO as an example, the research represents a preliminary exploration into the socio-economic and agronomic implications of

this ‘hybrid’ landscape for the farmers who make their living there, emphasizing the influence of energy royalty payments on farmer decision-making, technology transitions, and financial stability. This intersection of course has two conflicting popular narratives—one which positions energy extraction as an existential threat to the food system through water contamination, the other situating royalties as the financial lifeline of farming communities—and this project seeks to shed light on their relative merits. Specifically, given that only land and mineral owners receive royalties, we explore how farmers’ access to mineral wealth has become fragmented and deeply stratified, resulting in most mineral wealth being siphoned away from farmers themselves. The paper thus contributes to the nexus literature by 1) better integrating the role of cash, technology, and space into our understanding of food-water-energy interactions and 2) demonstrating the complex, contradictory, and unequal implications of local energy extraction for different farmer’s livelihoods.

Keywords: Rural sociology, agricultural economics, energy infrastructure, land tenure, food water energy nexus

Jeronimo Rodriguez (Temple University)

Farmland acquisition in the plains of eastern Colombia as a form of capital accumulation

Large scale farmland acquisition in developing regions is not a new phenomenon, rather, a key component of the capitalistic accumulation process and the commodification on land. Nevertheless, starting around 2000 and especially after the global food crisis of 2008, the rise of biofuels and carbon sequestration projects, it has entered a new stage, with farmland control seen both as a means to allocate surplus capital and secure financial returns, but also as a strategic move to secure a reliable supply of agricultural commodities and the access to increasingly (and potentially) scarce strategic resources in a context of political and economic uncertainty and environmental degradation. This has resulted in new forms of dominance, with deep implications on landscapes, including biodiversity loss, conflicts between long time occupants and newcomers, exclusion, displacement (under varying levels of coercion), frequently under unclear or absent land titles, collective territories and other forms of ownership. In this context, the savannas of the Eastern Plains of the Colombian Altillanura region become a highlight. Sparsely inhabited, with limited infrastructure, challenging conditions for agricultural production and ravaged by Colombia’s long armed conflict, they remained relatively isolated from the national economic circuit. However, improving security conditions, available technologies and explicit national and regional development policies, including long term public land leases, have attracted

investment flows responding to the narratives of “underutilized land” and “agricultural frontier” championed by the national government and international agencies, setting up an intense transformation processes that is likely to intensify under the current national and continental political scenarios. The present work aims to explore the way acquisition is operationalized in the region, the conflicts that arise between profit driven projects and the local realities in this landscape, applying land change science to contribute effectively to the debate and advance in the development of fairer approaches to investment.

Keywords: Farmland Acquisition, Orinoco River Basin, Land use Change, neoliberalism, Rural dispossession

Carine Meyer-Rodrigues, Nathan Erwin, Mariah Davidson, and Madie Halvey

(American University)

Industrial Hemp and Agrarian Viability

The production of industrial hemp was recently legalized in the United States with the bipartisan passage of the 2018 Farm Bill. Prior to this bill, a provision of the Agriculture Act of 2014 allowed colleges and state agencies to conduct controlled research on hemp production in the U.S. Industrial hemp is used in a number of commercial products including rope, textiles, paper, biodegradable plastics, paint, biofuel, and food. Hemp has a plethora of transformative ecological and medicinal properties ranging from soil remediation and detoxification to the medicinal properties of cannabidiol (CBD), e.g. the treatment for childhood epilepsy or chronic arthritis pain relief. For the purposes of our research, we plan to investigate the role of emerging markets of hemp production in terms of land sovereignty and livelihoods of small farmers and how future policy may guide the empowerment of farmers. In collaboration with the National Latino Farmer and Rancher Trade Association, we plan to conduct qualitative research by gathering oral histories, conducting archival analysis, guiding semi-structured interviews, and extensively analyzing existing literature and current policies. Through the examination of independent farms in Kentucky and Wisconsin, we expect to gain an understanding of the complexities of this developing field of agriculture with the intent of providing policy recommendations that support hemp cooperatives and fair pricing for farmers to ensure livelihood stability.

Keywords: hemp, land sovereignty, economic empowerment, rural communities, cbd, farm cooperative, price floor

Session Block 2

10:30 AM – 12:10 PM

7. Critical and Imaginative Restoration Ecologies (Session I)

Room 119

Organizer(s): Robert Anderson (University of Washington-Seattle)
Cleo Woelfle-Erskine (University of Washington-Seattle)

Chair(s): Cleo Woelfle-Erskine (University of Washington-Seattle)

Discussant(s): Rebecca Lave (Indiana University)

Robert Anderson (University of Washington)

Become Your Monsters: Restoration symbiopolitics and the making of environmental values

Scholars have long observed that the “natural” ecosystems that environmentalists aim to protect, conserve, and restore are not pristine, but co-constituted by and with human activities. Extending this insight, I examine how ecological restoration, in practice, remakes not only the particular nature in question, but also the self-identity of the people who work to conserve it. I examine the formation of restorationist values through an ethnographic case study of a project intended to protect an endangered butterfly, whose reproduction has become dependent on a non-native “weedy” host plant. Drawing on relational, posthumanist, and Foucauldian theory, I frame the butterfly-plant relationship as a process of transspecies co-becoming and extend this entanglement of (sym)biotic relations-of-becoming to include the land managers whose actions make butterfly and host plant populations live. Though initially troubled by fostering an “undesirable” plant species, the managers working on this project found that their values, and indeed their very selves, were changed through their relations with butterflies and weeds. This case study offers insight into how environmentalist values and identities are more-than-human, relational achievements, thereby reframing the practice of ecological restoration as an act of both personal and ecological co-transformation.

Keywords: ecological restoration, biopolitics, multispecies worlding, speculative fiction, endangered species conservation

Tony Marks-Block (University of Stanford)

Burning for Indigenous Renewal: Karuk and Yurok Indian socioecological restoration in Northwest California

Fire restoration and socioecological renewal are critical components of Karuk and Yurok Indian ceremonial and subsistence practice in Northwest California. Cultural burns are prescribed fires set in forest understories and prairies with the aims of enhancing habitats and resources that are critical to Indigenous livelihoods and those of non-human kin. The resurgence of cultural burns in this region is tied to the revitalization and amplification of Indigenous subsistence economies and cultural practices, as well as the desire to protect homes from wildfire risks. However, the appropriation of Karuk and Yurok lands for conversion into timber plantations, accompanied by fire exclusion policies, contribute to restoration challenges. Nonetheless, Karuk and Yurok political organizing in the last two decades has created collaboratives with government agencies and environmental organizations to support the reintroduction of fire to landscapes that have not burned in over 50 years. Although the reasons the US Forest Service, the California Department of Forestry and Fire Protection, and Tribal governments support these restoration efforts are not always the same, they are creating unprecedented levels of landscape restoration. Restoration for Karuk and Yurok Indians facilitates lifestyles and livelihoods that are less reliant on wage labor (i.e., gathering and hunting), while simultaneously creating cash income opportunities for Tribal members through the creation of prescribed fire teams. In this way, Karuk and Yurok Indians are using current political realities to re-center Indigenous cosmologies and economies, which are fundamentally reliant on cultural fire.

Keywords: Indigenous Fire, American Indians, Socioecological restoration, Autonomy, Co-management

July Hazard (University of Washington)

Scavenging Relations: How to Imagine Queer Ties out of Trash

What can queer sci-fi contribute to restoration ecology? Dissident strains of sci-fi insistently imagine unthinkable relations that reconfigure time and self and unravel definitions of human and natural. This excerpt from a musical comedy presents a 24th-century queer terrain, a much-more-than-human commons that emerges in toxic territory. Scavengers living on the Cumberland Plateau Cyber Junkpit (or CPCJ, located in the Cumberland Plateau of Eastern Kentucky and Tennessee) collect high-value scrap for sale, and find parts for their own projects and bodies as well. Cyberjunk robots work alongside dispossessed humans,

ghosts, and shapeshifters. Beavers who have begun to repopulate the region, and who retain acute collective awareness of their previous extirpation at the hands of the fur trade, form a chorus. Beside piles of cyberjunk and space junk from the fallen empires that once claimed the skies, the beavers perform “Astro-Dam,” expressing their own hopes of stellar expansionism, and other tunes. The play animates the contradictions of national sacrifice zones and enacts utopian and dystopian theoretical visions of differently-crafted kinships.

Keywords: cyborg, beaver, utopia, dystopia, Cumberland Plateau

Mary Elizabeth Felker (Yale University)

Achieving Neutrality: Forest Imaginaries, Conceptual Dissensus, and the Logic of Land Restoration Commitments

Today, land degradation and the environmental restoration it inspires are taking a primary position in initiatives, commitments, and funding mechanisms of global environmental governance. The discourse of land degradation has many faces, from the Sustainable Development Goal of Land Degradation Neutrality (LDN) to government pledges to rehabilitate millions of hectares of degraded land through the Bonn Challenge. This paper traces the genealogies of dominant land degradation discourse and the political ecology analysis that has accompanied it through concepts of desertification dating to colonial environmental management, through the formation of the United Nations Convention to Combat Desertification, to today. I explore how land degradation is understood, rendered and informed within LDN and associated commitments leading us to consider how this may draw on or deviate from past international mobilizations in its consideration of humans, nature and climate, use of scientific theory and forest imaginaries, and qualities of abstraction or confusion. I argue conceptual dissensus within the land degradation discourse offers an opportunity to alter the disposition of social political pathways and insert new future forest imaginaries.

Keywords: Land Degradation, Land Restoration *Justice as Process: Land Governance in the Neoliberal Era*

Session Block 2

10:30 AM – 12:10 PM

8. Intersections of Interventions: On Development, Difference, Dispossession and Discourse (Session I)

Room 129

Organizer(s): Ryan Stock (University of Illinois)
Jessie Luna (Colorado State University)

Chair(s): Ryan Stock (University of Illinois)

Discussant(s): Jessie Luna (Colorado State University)

Aparna Parikh (Dartmouth College)

Social reproduction by indigenous fisherwomen: shared blind spots of urban development and resistance in Mumbai, India

In this paper, I begin from the perspectives of women in Mumbai's indigenous fishing communities to elucidate relationships between power, development, and the environment in the South Asian context. In particular, I examine their experiences in the area of Malad, where the neoliberal service sector has transformed a historically urban periphery into a hub for call centers and a symbol of sustainable modernization. This symbolic change in Malad's edge condition has occurred through a physical reworking of land-water edges and shifting boundaries between the public and private domain. While touted as being sustainable, these transformations have had detrimental effects on health, fishing livelihoods, and social reproduction of fishing communities, disproportionately impacting indigenous fisherwomen. Further, even as this development has been contested by fishing communities, such resistance lacks voices and concerns of indigenous fisherwomen. I analyze the struggles of these groups and illustrate the threads connecting their intimate practices of social reproduction to large scale transformations by drawing on the strand within (urban) political ecology that "attends to diffuse forms of power, uses ethnographic approaches and postcolonial and feminist critiques of knowledge production" (Lawhon et al., 2014: 499). In doing so, I respond to Mollet and Faria's (2013) call to articulate sionatural issues and propose political solutions through an intersectional lens. I show

how a focus on social reproduction is useful in highlighting the shared blind spots of urban development and resistance efforts. I illustrate the significance of considering an intersectional approach, where the experiences of these women are deeply intertwined with their positioning in an indigenous community who is directly reliant on environmental resources for livelihood and subsistence practices.

Keywords: feminist political ecology, social reproduction, fishing livelihoods, Mumbai, South Asia

Ryan Stock (University of Illinois)

Photons vs. firewood: Female (dis)empowerment by “gender-positive” solar power

Renewable energy transitions are accelerating and in the Global South, nowhere more quickly than semi-arid rural India. Enclosure of public “wastelands” to develop the Gujarat Solar Park has dispossessed resource-dependent women of access to firewood and grazing lands, reinforcing asymmetrical social power relations at the village scale and producing inter- and intra-village emotional geographies that cut across caste, class and gender boundaries. Intersectional subject-positions are (re)produced vis-à-vis the exclusion of access to firewood in the land enclosed for the solar park, lack of employment at the solar park, and exclusionary Corporate Social Responsibility activities. The solar park’s discourses of “gender positive” project design and outcomes, combined with female empowerment pledges by institutions associated with the GSP harken back to earlier problematic paradigms of gender and development. These gender discourses, embedded in colonial logics of modernization and racialization, create a “grid of intelligibility” upon which additional empowerment claims are pledged through policy and project implementation and outcomes by policymakers uncritical of past development mistakes, making the unintended consequences of further subjugation of these populations all but guaranteed. This project asks the following research question: Does the Gujarat Solar Park influence already gendered social-economic-political asymmetries? This paper utilizes a feminist political ecology framework to analyze the social dimensions of the Gujarat Solar Park (GSP), drawing on recent work in this vein that utilizes a postcolonial and intersectional approach to examine the production of social difference through the spatial processes and political economy of solar energy generation.

Keyword: feminist political ecology, intersectionality, solar development, India, gender and development

Christos Zografos and Diego Andreucci (Pompeu Fabra University)

Othering and climate change adaptation

In her 2016 Edward Said Lecture, Naomi Klein argued that othering is intimately linked to the production of vulnerability to climate change. According to Klein, othering is needed for the creation of sacrifice zones that are necessary for fossil fuel exploitation, the major generator of climate change, which endangers the lives of those less responsible for climate chaos. Moreover, she argues that othering serves for refusing to protect climate refugees, i.e. those fleeing from areas hit by the impacts of fossil fuel generated climate change. Klein's arguments resonate political ecology work that connects othering with biopolitics, arguing that othering permits the state to assign certain populations and territories as different and exclude them from the responsibility of the ruler (Andreucci and Kallis, 2017). Nevertheless, there is evidence that othering in the context of climate change permits realising not only the "letting die" function of biopolitics pointed out by Klein, but also its "making live" function, i.e. the inclusion of populations, territories and resources within the reach of state authority (Turhan et al., 2015). Climate change adaptation involves policy intervention that aims at ensuring the liveability of ecosystems for current and future generations by reducing the vulnerability of places and populations to the effects of climate change. In fact, when describing vulnerable places, ecologies and populations, major providers of adaptation funds regularly evoke images of "fragile, and yet not inclusive or sustainable enough [places]...unable to reform and recover from conflict...[facing] severe constraints on their sustainable economic development...transnational security challenges...organized crime...trafficking in human beings and terrorism" (EC, 2017), or simply "inadequate climate information to guide adaptation planning, poor behavioural incentives or lack of local capacity" (WB, 2018). We ask the question: how is othering related to biopolitics in the case of climate change adaptation? We present the conceptual framework and some initial findings of a research project that aims at establishing links between othering and climate change adaptation and synthesise those links into a political ecology framework of othering for climate change adaptation.

Keywords: othering, climate change adaptation, biopolitics

Session Block 2

10:30 AM – 12:10 PM

9. Undergraduate Symposium (Session II)

Room 209

Organizers(s): University of Kentucky Political Ecology Working Group

Chair(s): Karen Kinslow (University of Kentucky)
Olivia Meyer (University of Kentucky)

Maya Henderson (University of Oklahoma)
Constructing Green Cities

With rapid urbanization occurring across the world, issues of sustainability arise. Greening our existing and emerging cities will be a key component in our societal and environmental betterment efforts. One important and open area in the development of green cities is the discourse and framework behind their implementation. This paper first reviews the ambiguity of existing green city definitions. I do this in order to give prior knowledge on what constitutes a green city. Reviewing the definitions also gives a basic framework of what to code for when analyzing case cities' discourse. For this research paper, three green or greening cities were chosen for analysis. Content and discourse analysis were performed in order to understand how each constructed or created their green city from a societal standpoint. The technical aspects of the greening process are clear, but the frameworks behind the social acceptance and implementations of the cities are the focus of this paper. Commonalities within the cities' frameworks were found including strong societal and economical code influences. The goal is to learn from cities' frameworks for presenting and discussing green development so that implementation strategies can become more deeply-rooted and supported by residents.

Keywords: urban, social constructions, sustainable, values, development

Cameron Baller (University of Kentucky)
Islands, Ships, and Archipelagos: How Movement-Building Can Save the Planet

The emotional toll that the weight of the future has taken on our generation is incalculable. The ocean of happiness and joy that has been ripped away from so many of us because of the greed of a handful of people is almost too much to bear. How can we possibly build a

movement when our emotional world is crumbling alongside our planetary one? Is it any wonder so many people shut down and scroll past horrifying headlines that they see about climate change? With every fire, our aspirations are turning to ash. With each hurricane, our dreams are being destroyed. Every single inch of sea level is drowning our hope for the future. It is devastating to watch, so most of us do not. This is a crisis on par with the climate crisis: it is a crisis of hope. The goal of this paper is to provide a way forward for people organizing to save the world. I will begin by describing one important piece of the puzzle that is our crisis of hope. I will then chart a course that reveals a concrete solution to this piece of the crisis. I will finish by drawing out a vision for the future of our organizing world if we were to recognize the value of this solution. I will use the metaphor of islands, ships, and archipelagos (groups of islands) to map out the problem, solution and future, respectively. The good news is we are already seeing the solution being implemented all over the world. The haze is clearing, and the future is already forming. The challenge for us, as people fighting for our future, is figuring out how to keep up the momentum and build movements that foster the kind of unbridled hope that we all need to save the world.

Keywords: Organizing, Activism, Affect, Geography, Intersectionality

Rebekah Everett (James Madison University)

Identifying vulnerable urban populations in Bangkok, Thailand in the context of the urban heat island effect

With the consistent growth of cities worldwide, scholarship regarding the ecological, social, and health-related impacts of urban development has grown considerably. Of particular concern are the impacts of the urban heat island (UHI) effect caused by land use change associated with city growth. When buildings and roads are constructed, heat-retaining materials such as asphalt and concrete overtake the landscape, causing an “island” of heat over cities that is considerably warmer than surrounding rural areas. Urban heat compounded by climate change has been identified as an emerging threat to public health, with increased heat contributing to respiratory difficulties, heat exhaustion/heat stroke, and heat-related mortality in cities. These threats are particularly dangerous to vulnerable populations such as the elderly, those with preexisting respiratory conditions, and populations with limited access to cooling resources. Existing research in UHI processes has also shown a correlation between land use, temperature, and localized social conditions such as racial and socioeconomic status on a neighborhood scale. The purpose of this paper is to characterize the UHI effect in Bangkok, Thailand to demonstrate socio-spatial trends in uneven heating. Urban heat is prominent in Bangkok due to high urban density, sprawling growth over the past century, and arterial transportation infrastructure incongruent with Bangkok’s size. In addition to a characterization of Bangkok’s UHI, this paper demonstrates how these temperature trends have changed over the past two decades. To characterize Bangkok’s heat island, MODIS land surface temperature data augmented by local weather

station data were extracted for the months of December and January from 2000-2017 (when the UHI effect is strongest). This study combines heat island data with demographic and land use data to identify particularly vulnerable populations based on access to cooling resources and the avenues by which the UHI effect is manifested in Bangkok.

Keywords: Bangkok, Urban Heat Island Effect, vulnerability

Tal Shuktin (Ohio State University)

Conservation from Culture to Politics: Lessons from the Muskwa-Kechika Management Area

Collaborative conservation posits that by integrating Indigenous cultural values (e.g., traditional knowledge and practices) into land management, conservation can achieve more ecologically and socially sustainable outcomes. However, lacking active Indigenous leadership, attempts at integration can distort Indigenous values and collaborative conservation can perpetuate—rather than challenge—colonial dynamics. This research examines the Muskwa-Kechika Management Area (MKMA), a collaborative conservation initiative in northeast British Columbia (BC). Established by 1998 legislation, the MKMA is a 6.4-million-hectare wilderness with abundant boreal species and significance to multiple Canadian First Nations. The region is managed as a “working wilderness” to be preserved in its ecological and aesthetic integrity while allowing for regulated industrial activity. During the summer of 2018, I conducted interviews with past and present members of the Muskwa-Kechika Advisory Board (a multi-sector management body), BC government officials, and regional land planners. Interviewees reflected on their experiences participating in MKMA governance to discuss the strength of governance and the complexities of partnering with First Nations who have distinct political and cultural priorities on the land base. I found that despite its mission to encourage active First Nations involvement, the MKMA has struggled since its inception to retain Indigenous support. Drawing from the interviews and previous literature, I argue that the conservation arrangement’s antipolitical discourse surrounding Indigenous participation limits meaningful Indigenous-conservationist collaboration. This discourse emphasizes First Nations cultural ties to the landscape but obscures these ties’ political ramifications. Though cultural respect is important, collaborative conservation outcomes could improve by embracing sovereign Indigenous Nations’ rights to govern the landscapes with which their nationhood is entwined. Supporting Indigenous political interests would open new legal avenues for strengthening landscape level conservation governance. It would also serve as a necessary step towards decolonizing conservation practice.

Keywords: collaborative conservation, decolonization, First Nations, British Columbia

Session Block 2

10:30 AM – 12:10 PM

10.The Racial Dimensions of Environmental Conflict (Session I)

Room 219

Organizer(s): Carrie Mott (University of Louisville)

Chair(s): Jonghee Caldararo (University of Kentucky)

Fletcher Chmara-Huff (Temple University)

The 20th Century of Making of Indian Law, and 21st Century Environmental Struggles

When the SCOTUS issued a decision in 1941 settling the Hualapai Land Claims case of 1926, the notion of sovereign territory was essentially redefined. This led to an expansion of global indigenous rights (McMillan 2007). However, by reconfiguring the relationship between sovereignty and territory, secondary effects have also occurred, including an expansion of the concept of eminent domain, up to and including the Kelso decision of 2005. This is troubling in the ways that recognition of indigenous racialized bodies, and mechanisms that should empower, are being used to reconfigure control over spaces for both positive and negative outcomes. I propose to compare how this reconfiguration is leading to struggles over two distinct sites, the eminent domain claims over a golf course on a Indigenous sacred site in Heath, OH, and for construction of a gas plant in the African-American majority Nicetown section of Philadelphia, PA. Both draw on the same logics of displacement and state power, with very different possible, but racialized outcomes.

Keywords: Race, Eminent Domain, Environmental Justice

Joshua Mullenite (Wagner College)

'The Dutch Didn't Build the Canals. Slaves Did:’ Collective Memory, Politics, and Narratives of Flood Intervention in Coastal Guyana

In this paper, I begin to examine one aspect of the political ecology of flood control in the small Caribbean country of Guyana. Drawing on ethnographic and archival research conducted between 2015 and 2017 in London, UK, Georgetown, Guyana, and a number of

villages in Guyana's West Coast Demerara region, I examine some of the ideas and understandings surrounding responsibility for flood control in a country where flooding is part of everyday life but where it has typically been experienced along explicitly racialized lines. Through the preliminary analysis of historical and ethnographic data related to flood control projects, I look both at subaltern strategies of flood management during the colonial period as well as some current narratives surrounding environmental knowledge by local residents. I argue that for some Guyanese today, as throughout the country's colonial history, who gets to make decisions about flooding and to what end serves as a key site of racial-environmental conflict. This conflict becomes entangled in unique ways with the racialized politics and urban-rural divides that otherwise shape life in coastal Guyana to create a varied topography around understandings of foreign/neocolonial intervention and environmental expertise.

Keywords: flooding, knowledge, expertise

Katie Weigle (University of Louisville)

Racial Attributes of Environmental Issues in Louisville, KY

This presentation illustrates and examines the pollution associated with the industrialized West End of Louisville, Kentucky. Known as "Rubbertown," this region has both environmental and racial implications. Historically, the West End has been home to a large population of minorities, namely low-income, African American families. Because of the industry in Rubbertown, this area consistently experiences poor air and water quality, affecting their health, quality of life, and life expectancy. Rubbertown industries' pollution impacts minorities and their surrounding environments, especially air and water quality. According to Robert Bullard (2014), this is not uncommon in the United States - "around the nation, nearly 500 chemical facilities each put 100,000 or more people directly in harm's way." It is often the poor and minority communities that are placed in the danger of toxic emissions from chemical companies. To further this point, Dr. Elizabeth Ananat (2008) claims that "there is a striking negative correlation between residential racial segregation and population characteristics - particularly for black residents." This can be seen in Louisville, as it has long been known as a severely racially segregated city. I will highlight some issues that are surrounded by the segregation in this presentation, especially health and environmental issues. By creating a map similar to Dustin Hill's map in his 2018 publication, Rubbertown companies' effects on the West End can be more easily exemplified.

Keywords: Racial, Environmental, Air Quality

Megan Davenport (West Virginia University)

Buffalo restoration on tribal lands, and an exploration of settler colonialism as a necessary framework for North American wildlife

In 2016, Congress passed into effect H.R.2908, the National Bison Legacy Act, which recognized bison as the United States' National Mammal. The act highlighted the symbolic importance of the North American Bison, or buffalo, and was a combined effort of the federally chartered American Indian organization InterTribal Buffalo Council and the industry-based National Bison Association and considered a great success in bringing issues of bison restoration to the eye of the US public. The passing of this act, and renewed interest in restoration of buffalo on tribal and non-tribal lands, coincides with significant conflict regarding the management of the publicly-managed buffalo herds, including the herds at Yellowstone and Badlands National Parks, and their transfer to various American Indian lands. Conflicts present challenges in the cooperative efforts between the varied interests of private landowners, the agricultural industry, state and federal wildlife managers, animal rights activists, and multiple Native American sovereign nations and communities. Studying buffalo restoration efforts presents a fascinating context for understanding challenges faced by InterTribal Buffalo Council in cooperatively leading restoration efforts for one of the most treasured natural resources and relatives of the people of the North American continent, the buffalo. This paper discusses settler colonialism as a theoretical framework for understanding Native American-led buffalo restoration efforts and the associated challenges experienced by the InterTribal Buffalo Council, arguing that understanding both the history and the ongoing structure of settler colonialism are vital in discussions of this complex human-wildlife landscape. Additionally, this paper argues that all discussions of North American wildlife conservation would benefit from utilizing a settler colonialism framework to understand both historic and modern issues impacting the field.

Keywords: Settler colonialism, Wildlife conservation, Buffalo restoration, Resource management, Indigenous geography

Lunch

On Your Own

12:10 PM – 1:45 PM

Welcome Address

1:50 PM – 2:50 PM

Priscilla McCutcheon, PhD (University of Kentucky)

Gatton Student Center, Worsham Cinema – 160 Avenue of Champs

Dr. Priscilla McCutcheon is an Assistant Professor of Geography at the University of Kentucky. Her research is at the intersections of agriculture/food, racial identity formation, religion/spirituality, and space. Much of her work has been with Black faith-based food programs, ranging from emergency food programs at Black Protestant churches to sustainable agricultural projects of Black nationalist organizations. She recently completed a project on Fannie Lou Hamer's Freedom Farms, where she argues that Hamer advances a Black radical geography at multiple scales, including the scale of the body, and is now researching the National Council of Negro Women, a historic Black middle and upper middle-class organization that had a widespread hunger and health campaign during the Civil Rights and Black Power movement.

Session Block 3

3:20 PM – 5:00 PM

11. Political Ecologies of Celebrity, Philanthropy, and Nature 2.0

Room 105

Organizer(s): Sandra McCubbin (Queen's University)

Chair(s): Sandra McCubbin (Queen's University)

Katie Epstein (Montana State University)

(Re)assembling rangelands for conservation in the gilded age

In 2014, Dan and Ferris Wilks, fracking tycoons and brothers, became the largest landowners in Montana, amassing over 300,000 acres. The acquisition of large agricultural properties by high net worth (HNW) individuals in the American West is not a new phenomenon. However, the pattern and scale of current ownership trends associated with worldwide concentrations of wealth encourage critical geographic inquiry. In this paper, I explore the process of transforming large production-base rangelands into sites of amenity-oriented consumption (recreation, aesthetics, wildlife habitat) and its connections to the emergence of HNW landowners as celebrity conservationists. Drawing on a set of ethnographic explorations in the Greater Yellowstone, I follow Tania Li's (2014) framework for assembling agricultural properties for global investment and trace the various social relations, economic structures, and inscription devices that assemble or 'make up' ranches specifically for HNW acquisition. Often HNW landowners purchase properties with high conservation value and because their income is not tied to the production value of a property, take on experimental management strategies with conservation-oriented goals. In turn, local conservation communities and NGOs support HNW 'green grabbing' (Fairhead et al. 2012) as justification for open-space and wildlife habitat and celebrate HNW participation in conservation philanthropy. However, HNW ownership regimes drive increases in the agricultural rent-gap and rural gentrification, which often incites local conflict. As such HNW landowners have become highly influential actors in the contested sustainability transitions playing out in rural places, especially in parts of the world noted for their global conservation value. In merging considerations from the 'geographies of the super-rich' (Hay 2013; Hay and Beaverstock 2016), with insights from celebrity conservation and philanthrocapitalism (Holmes 2012), my goal is to complicate and extend the ongoing

debates over the American West's so-called amenity transition within the context of conservation in the gilded age.

Keywords: conservation, high net-worth, ranching, American West, land

Christopher Lang (University of California–Santa Cruz)

Food for Black Liberation (and the Planet)

Heart disease is the number one claimer of Black lives in the US. African Americans die from food-related deaths at rates 2 to 5 times higher than their white counterparts. A growing Black Veganism movement seeks to address such health disparities, which have been traced to food deserts in low income, Black neighborhoods. Documentaries like *What the Health?* connect eco-social issues around food, health, race, class, animal rights, and the environment. At the same time, an increasing number of visible Black artists (Erykah Badu), scholar activists (Dr. Breeze Harper), celebrities (Beyonce/Oprah), and professional athletes (Kyrie Irving) are using their platforms to promote plant-based lifestyles in Black spaces and beyond. The rise of factory-farmed meat consumption is becoming undeniably linked not only to diet related diseases, but also to global environmental atrocities like widespread deforestation, freshwater contamination, and methane emissions. Dr. Harper of *Sistah Vegan* urges that “our antiracist and antipoverty praxis must promote a break from addictive, ecocidal, uncompassionate consumption.” Though rarely recognized as a form of environmentalism, Black Veganism (often portrayed through a trope of health consciousness) serves as a potential lifeline for the planet, encouraging people to connect the dots of oppression and choose diets that reduce multi-scalar injustices and environmental footprints. This vegan movement from the margins pushes back on the “it’s simple, just eat smarter!” framings of mainstream veganism and nutritionism, which often overlook socio economic realities nested within marginalized people’s foodscapes. In an era of environmental limbo, of diet related disease juxtaposed with readily shareable food health content via Netflix and social media, Black Veganism responds hopefully to bring eco-social vitality to all. This paper examines efforts made by, and restrictions faced by, prominent African American vegan celebrities who encourage a swift shift in diet both inside and outside of the Black community.

Keywords: Black veganism, nutrition, diet-related disease, sustainable consumption, Black liberation

Sandra McCubbin (Queen's University)

The Cecil Moment: Celebrity Environmentalism, Nature 2.0, and the Cultural Politics of Lion Trophy Hunting

In 2015 Cecil the lion's death sparked international furor over the practice of lion trophy hunting. Celebrities and everyday citizens, traditional news and social media alike were aflame around the globe, most notably after American celebrity Jimmy Kimmel expressed disgust in Cecil's death during a monologue on his late-night talk show. This paper explores the Cecil Moment as a case study of the cultural politics of the environment at the intersection of celebrity environmentalism and 'Nature 2.0' applications like Facebook and Twitter. The research asks: what can the Cecil Moment tell us about how celebrity and Nature 2.0 environmentalisms work and to what kind of conservation politics do they lead? Drawing on the celebrity environmentalism and Nature 2.0 literatures, I develop an analytic framework for analyzing the Cecil Moment which considers and evaluates the network of actors enrolled, the representations foregrounded and backgrounded, as well as the outcomes. Empirical insights are drawn from document and media review, and key informant interviews. I argue that the Cecil Moment operated through a more-than human network and mutable meanings that ultimately oppressed the anti-trophy hunting politics which sparked and fueled the viral explosion of the Cecil Moment in the first place. Overall, the findings suggest scholars and activists should be cautious about the progressive potential of celebrity and Nature 2.0 environmentalisms, unless these environmentalisms pursue a politics of visibility and concordance.

Keywords: trophy hunting, celebrity, Nature 2.0, cultural politics, conservation

Session Block 3

3:20 PM – 5:00 PM

12. Critical and Imaginative Restoration Ecologies (Session II)

Room 119

Organizer(s): Robert Anderson (University of Washington)
Cleo Woelfle-Erskine (University of Washington)

Chair(s): Cleo Woelfle-Erskine (University of Washington)

Discussant(s): Rebecca Lave (Indiana University)

Eric Godoy (Illinois State University)

A Nature Worth Faking: Class, Race, and the Wild in Brooklyn's Prospect Park

How do park users appreciate simulated (or 'faked') natural spaces? A user report of Prospect Park (Low, Taplin & Scheld 2005) reveals that race, class, ethnicity all affect how visitors value the park as well as their access to it (Gould & Lewis 2012). These values do not always correspond to the intentions of Olmstead and Vox, the park's designers. In fact, the intended use of some of the park's spaces were reappropriated several times throughout history. Social "deviants" found refuge in nooks and crannies once intended for child's play. Even the "autonomy of nature" (Katz 1992) upset these intentions through storms and invasive species. Antirestorationists such as Elliott (1982) and Katz (1992 & 2012) were concerned with a certain type of value to which very few have access. Transposing the discussion of restored nature's value from wilderness to urban parks allows us to ask familiar questions in a different light: one that recognizes the plasticity of nature and the plethora of ways in which people can value it.

Keywords: Axiology, Restoration, Urban Park Space, Philosophical Ethics, Landscape Architecture

Alejo Kraus-Polk and Brett Milligan (UC Davis)

Franks Tract Futures: Ontological Design with a Devilishly Wicked Delta

Nature restoration is a practice of ontological design. All restorations are a double movement - people design restored areas and these areas reciprocate and design people. In this way, all restorations are bio or ecocultural. The double movement can be most starkly

seen in those instances where the restored nature is also (ecological) infrastructure. In these logistics landscapes, ecological needs are reconciled with various infrastructural functions, including mitigation. Our research has been exploring the ontological design of Franks Tract a nearly 3000-acre lake located in the heart of California's Sacramento San-Joaquin Delta (Delta). The Tract is a major source of salinity intrusion in the Delta and a major threat to the water supply of the Southern San-Joaquin Valley, Southern California and the South Bay. We have been involved in a State-led design process which seeks to address the issue of salinity intrusion, while also creating habitat for near-extinct listed species. These central state objectives are being balanced by the desires of local residents and stakeholders, who value its novel features. We present the redesign of the Tract as an opportunity for reparation ecology, where past injustices and harms are repaired through the ontological transformation of territory (de la Cadena). We imagine a landscape that supports reciprocal relations within the broader land/water communities of the broader watershed from Shasta to San Diego. This new infrastructural landscape would initiate the long process towards regenerating the worlds that have been lost in the pursuit of water-based economic growth and creating a Delta in which many Deltas fit.

Keywords: Restoration, Reparation Ecology, Ontological Design, Ecocultural restoration, Sacramento-San Joaquin Delta

Jen Liu (Cornell University)

Reconsidering the Coalpit: Designing for More-than-Human Landscapes

In 2006, Tamaqua, Pennsylvania - a small town in the Southern Coal region of the Appalachia Mountains - passed an unprecedented community bill of rights. For years, out-of-state companies dumped biosolids and other forms of sewer sludge in former coal pits. Little effort was made to line or cover these pits, resulting in biohazards that have been linked to several health concerns among community members. Pushed forward by grassroots efforts, the Tamaqua Borough Sewer Sludge Ordinance was passed to extend personhood status to all natural communities, including ecosystems, as a way to prevent corporations from "interfering with the existing and flourishing" of the human and nonhuman residents in the town. While this ordinance was the first of its kind in the United States, it was soon followed by other towns and cities across the country, who have introduced regulations to combat the environmental injustices faced in rural and post-industrial communities. Drawing from the Tamaqua Ordinance, this paper examines how acknowledging nonhumans as community members can foster new interactions between humans and nonhumans through a design practice. Design as a practice seeks to anticipate what certain persons might need for a particular future. What happens when these persons are not just humans, but include ecosystems and broader natural communities? Drawing from grassroots activism for environmental justice, I investigate how designers can participate in a more-than-human world. What is needed, I argue, are new design

perspectives and methods for remediating our landscapes. Specifically, I focus on both design probes and interventions that could be implemented in these contexts. With these strategies, we can identify and sustain the human and nonhuman communities that reside in these spaces.

Keywords: rights of nature, design methods, environmental justice, remediation, nonhumans

Cleo Woelfle-Erskine (University of Washington)

Thinking with Salmon About Drought: Local knowledge, more-than-human commons, and hyporheic imaginaries

This paper presents two conceptual underflows that challenge discourses of human exceptionalism and technofix as drought mitigation responses. Drawing on participatory research with citizen scientists and local residents facing water scarcity and coho salmon (*Oncorhynchus kitsuch*) extinction, I develop the concepts of more-than-human commons and hyporheic imaginaries as alternate grounds for relational watershed governance. In the exurban Salmon Creek watershed in central California, some residents described groundwater and streamflow as commons that belonged to people and riverine species. In dialog Richard White's concept of a river as organic machine and Karen Barad's concept of apparatus I argue that residents imagined their local springs and wells as connected to frogs and fish that make their lives in local waters and sought to manage the watershed to protect aquatic commons. In contrast, in the agricultural Scott Valley in northern California, residents and ranchers saw their aquifers, irrigation systems, and streams as linked and brought into being by subsurface water flows in a manner that also resonates with Barad's concept of intra-actions but did not view water as a commons. Drawing on Peet and Watt's concept of environmental imaginaries, I call this conceptual model a hyporheic imaginary. I explore the political potentials of the more than human commons and the hyporheic imaginary, whether separately or together, to change processes and outcomes of river and floodplain governance.

Keywords: river restoration, intra-action, critical physical geography, imaginaries

Session Block 3

3:20 PM – 5:00 PM

13. Intersections of Interventions: On Development, Difference, Dispossession and Discourse (Session II)

Room 129

Organizer(s): Ryan Stock (University of Illinois)
Jessie Luna (Colorado State University)

Chair(s): Jessie Luna (Colorado State University)

Discussant(s): Ryan Stock (University of Illinois)

Matthew Abel (Washington University)

Development Policy and Social Differentiation in Brazil's Amazon Estuary

Over the past three decades, Brazil's Amazon estuary region has undergone rapid political and economic change as the region's floodplain farmers have been integrated into both national and international strategies of territorial development. As development policies have been successively implemented in the estuary, rural communities have come to adopt a diverse array of peoplehood categories, such as ribeirinhos ("river folk"), quilombolas (African-descendants), povos tradicionais, (traditional people), or extractivistas (forest extractivists). These categories are codified in state development policy and provide Amazonia's historically marginalized peasantries with a discursive and legal framework for pressuring development authorities for access to rights and resources. In practice, they are invoked strategically and in conjunction, drawing comparisons to North American theories of intersectionality and "strategic essentialism" that posit identity as a result of social marginalization as well as a means of combatting it. In this paper, I argue for an analysis that locates new peoplehood categories within the context of national transformations in rural development policy and local shifts in social organization. Drawing on preliminary dissertation fieldwork in the lower Tocantins, I discuss the genesis of formal development associations that leveraged new legal categories to secure access to resources in the form of land, infrastructure, agricultural credit, and conditional cash transfers. As rural livelihood strategies shifted towards the intensive production of regional food staples, formal development associations began to coalesce around an overlapping array of peoplehood categories coupled to redistributive social policies. With regard to theories of intersectionality, I argue for relativization. Before interpreting the political field as a

cartography of overlapping subjectivities, I argue that one must attempt a structural analysis of the broader public in which claims to identity are articulated. This is a necessary precursor to assessing the way local models of social differentiation are coupled to changing political economic conditions.

Keywords: Rural development, Amazon, Political economy, Brazil

Clate Korsant (Independent Researcher)

Subjectivities in Tension: Land Controls, Interventions, and Subsistence in Central America

In addition to its colonial history, southwestern Costa Rica has witnessed multiple iterations of land controls embedded in various systems of values that mediate the conditions through which subjectivities become possible. The intersectionality between local migrants to the area's Osa Peninsula and politico-economic power structures reveals not only violent conflict and material dispossession of lands, but also tension between differing systems of values. Similarly, the rhetoric of environmentally concerned initiatives structures the possibilities for legitimate or illegitimate land uses. The alterity between gold miners, subsistence farmers, or other early migrants to the Osa region and power structures represented by the state or globalizing businesses should be translated as a political ecology of friction between actors – illuminating the complexity within conflicting uses of land. With this presentation, I propose to highlight the history and political ecology for the region in order to justify the politically charged characterization of the area's environment; interrogate the possibilities for environmentality; and discuss the recent shifts towards ecotourism and the commodification of nature. Addressing the socio-environmental entanglements in the Osa Peninsula through the lens of intersectionality will better explain the complexity encountered during ethnographic fieldwork in addition to deepening the analysis as I prepare a monograph based upon this work.

Keywords: political ecology, Central America, environmentalism, conflict, land

Natalia Pérez Rojas (Simon Fraser University)

Property performances in development policies: The formality model and the case of the Colombian Land Restitution Policy

Genealogies of liberalism have situated liberal property in relation to the invention of race during the early colonization of the Americas (Quijano 2000, Mignolo 2011). Critical race, post-colonial and decolonial scholarships have increasingly highlighted liberal property's reliance on gendered and racialized assumptions about subjects, lands, and territories, that authorize continuous forms of land dispossession of indigenous peoples and other racialized subjects in the settler colonies of the Anglosphere (Bhandar 2014, 2018, Coulthard 2014, Tuck and Yang 2012, Moretton-Robinson 2012) and also in Latin America (De la Cadena

2015, Escobar 2010, Dempsey et al. 2011, Mollet 2016, and Sundberg 2008). This paper focuses on property in land administration policies promoted by development agencies. However, instead of prematurely coalescing the notion of property with liberal property, it frames property as relational: '[property] is entangled in and constitutive of a multitude of relations (ethical, practical, historical, semantic and so on) (Blomley 2014: 169). This paper brings together literatures of North and Latin America that are often kept separated, namely decolonial studies (Coulthard 2014, Mollet 2016, Quijano 2000, Mignolo 2011), performative theory (Butler 1993 1999, Callon 1998, Mitchell 1998 2002 2007) and relational property theory (Singer 2000, Blomley 2003 2013 2014), in order to examine how property is performed in land administration policies promoted by development agencies. I argue that such performances are productive and produced through ongoing racial differences that were introduced at the onset of colonialism. As such, those performances are also necessarily spatially and historically constitutive and constituted. I offer the conceptualization of the 'formality model' and focus on the case of the Colombian Restitution Policy in order to illustrate the performative work being enacted through this country specific land administration policy and the possibilities the theoretical lenses I propose have for subverting liberal property enactments.

Aditi Singh (University of Oklahoma)

Fuelwood dependents of urban forests: Odds favour the morning walkers

Urban commons are at the center of resource conflicts in the city. Delhi is a unique city with several forest fragments, often referred to as ridge forests, most of which are remnants of Aravali thorn scrub vegetation - native to this region. While several users recognize these as recreational spaces, others as sites of biodiversity conservation, and yet some others derive vital consumptive uses from these forests. We examine the unique case of fuelwood harvesting in the middle of the city. This study is a preliminary attempt to assess the quantum of fuelwood dependence and also explore the profiles of the users to understand the socio-economic context of this practice in Sanjay Van (also known as South-central Ridge). The results indicate that economically poorer households represented the highest levels of fuelwood dependence. This is also because of their poor access to alternate sources of energy, especially LPG. Several advocacy groups operating in this area favors conversion of Sanjay Van to a conservancy. As a part of the developmental plans for these green areas, the DDA aims to convert several of these into parks while the forest department aims to impose restriction on resource harvest in these urban forests including Sanjay Van. In either of these models, the poor will likely lose access to these woodlands as these commons get appropriated by state agencies and morning-walkers. These models will affect the way of living of the poor, their energy consumption, and will be more exploitative.

Keywords: urban commons, urban woodlands, conflicts, fuelwood extraction, energy, Field trip

Session Block 3

3:20 PM – 5:00 PM

14. Teaching Political Ecology (Panel)

Room 205

Organizer(s): Mary Lawhon (University of Oklahoma)

Chair(s): Mary Lawhon (University of Oklahoma)

In this panel conversation, we will reflect on strategies and tactics for teaching a broadly defined political ecology in college and university classrooms. Mindful of differences across institutions and places (public and private, red and blue US states, urban and rural, US and beyond) as well as over time, panelists will discuss their own experiences teaching in this time of social, political and ecological uncertainty. Panelists and audience members will be welcome to reflect on:

- Teaching materials: What do people use? Strengths and weaknesses of these? Open educational resource?
- Exercises/assignments/examples/stories
- Critical pedagogies

In the second half of the session, we will engage with questions of how we can better learn from each other beyond the occasional conference session. How might we share resources and reflections as we continuously learn about political ecological teaching?

PANELISTS:

Ingrid Behrsin (University of California–Davis)

Joshua Mullenite (Wagner College)

Kayla Yurco (James Madison University)

Session Block 3

3:20pm – 5:00pm

15. The Racial Dimensions of Environmental Conflict (Session II)

Room 219

Organizer(s): Carrie Mott (University of Louisville)

Chair(s): Robby Hardesty (University of Kentucky)

Rachel Goffe (Temple University)

Wasting Paradisiacal Landscapes: Blackness as Environmental Threat

Among the assumed threats posed to the nation by the squatter—unruly, possibly criminal, flaunting a “freeness mentality,” barring land development, and symbolizing political corruption—is the contamination of the soil and groundwater by effluent—shit, piss and the waste water of cleaning, amongst other things, Black bodies—flowing free of “modern” infrastructures. Possession is typically a civil matter between landowners and land capturers. But in Jamaica, laws requiring the protection of the environment at least theoretically incite state intervention against a Blackness that is seen as wasting the land as pollutant, and a visual disturbance. Through ethnographic research, this paper examines these threats against which the postcolonial state is judged incapable of governing. Lying at the interface of capital investment and organized abandonment, the fieldsite is marked by the juxtaposition of those ‘without’ infrastructure, whose daily ablutions are deemed to create a fulsome place: the bathing of naked Black bodies, too unseemly for paradisiacal landscapes of tourism; and the deposit of feces, sufficiently repulsive as to deter engagement by state and non-state actors who might advocate on their behalf. Extending beyond the temporality through which such judgments are made, this paper uncovers what is elided: “untidy historically present geographies” (McKittrick 2011) of encounter. Beyond that, the paper looks toward how residents produce space in refusal of racial capitalism’s spatiotemporalities of waste and renewal.

Keywords: blackness, postcolonial, informality, dispossession, land

Theodore Hilton (Tulane University)

Commemoration by Dispossession: White Privilege and the 1964 Chalmette Monument Expansion

In December of 1964, the St. Bernard Parish, Louisiana community of Fazendeville was demolished by order of the United States National Park Service (NPS). Established in 1867 by people formerly enslaved nearby, this Mississippi River-adjacent community was thriving until its destruction—a process that involved decision centered on a desire to expand the Chalmette Battlefield Park for a 150th anniversary commemoration of the “Battle of New Orleans,” a skirmish that took place near the War of 1812’s end and became central to mythologizing of Andrew Jackson in dominant New Orleans historical narratives. The expansion and sesquicentennial commemoration were likely conceived and fiercely advocated by Martha Gilmore Robinson, a white, elite New Orleans historic preservationist. Using Robinson’s recently released documents as an archive, this paper examines presumptions, assertions, and discourses concerning Fazendeville as represented in communications among white preservation activists, federal and state government officials, and wealthy businesspeople (by no means mutually exclusive). Analysis additionally illuminates “informal” connections among these actors, yielding insights about white privilege—defined by Pulido (2000) as “a social system that works to the benefit of whites” with direct spatial outcomes—as manifest in this context. The Chalmette Battlefield park expansion constitutes violent dispossession of nonwhite people to produce white-supremacist monumental space. It reflects relationships across scale as racialized New Orleans political logics guided decisions of the federal government via the NPS. I employ a Black Geographies-informed framework to explore processes through which this occurred.

Keywords: state violence, environmental racism, national park service, historic preservation

Amanda Kaminsky (University of Michigan)

Rhino horn, tiger bone, and the legacy of anti-Chinese racism

This paper analyzes a recent series of policy changes in China: first, on October 29, 2018, China announced that it would roll back its 25-year ban on the sale of rhinoceros horn and tiger bones for medicinal purposes. Two weeks later, after facing backlash from international animal rights and environmental organizations, the Chinese government announced that it would reinstate the ban. This prompted a flurry of speculations from the Western media concerning the geopolitical implications of China's mixed messages on endangered species conservation. I use this political moment to ask: Why, in the face of

growing climate disasters, refugee crises and other pressing issues, do rhinos and tigers consistently make the front-page news in America? In this paper, I examine the political history of the rhino horn and tiger bone industries, including their importance within Traditional Chinese Medicine, their resonance among Western media outlets and the American public, and their connections to longstanding anti-Chinese racism. I build on Claire Jean Kim's notion of "mutual avowal" (2015) to examine how endangered species become entangled with the epistemology and rhetoric of global white supremacy. I posit that China, in asserting its global power through foreign investments and development, has found no easy way to denounce Western imperialism without hurting rhinos and tigers in the process. I conclude by suggesting that adopting Kim's radical openness to the multiple dimensions of domination might allow us to discover new ways of conceptualizing human-animal coexistence.

Keywords: Wildlife, Conservation, China, Racism

Carrie Mott (University of Louisville)

Settler Colonialism, Infrastructure, and White Supremacy in the Columbia Basin

This presentation addresses the connections between white supremacist settler colonialism and Columbia River Basin reclamation projects in the United States Pacific Northwest. Through looking at the legislation of historical conflicts over property rights and access to water between Native American groups and white settlers, I show how racialized nation-state processes that began in the 18th and early 19th centuries have shaped access to, and management of, Columbia Basin waterways. There is significant historical evidence that demonstrates clearly the connections between US federal government reclamation projects in the Columbia Basin and the advance of settler colonialism and hegemonic whiteness throughout the region. For example, a number of dams throughout the Columbia Basin were constructed, in part, to control sections of river rapids. However, river rapids have also traditionally been very important salmon fishing sites for Native American groups throughout the region. This presentation will explore the racialized history of agricultural irrigation along the Ahtanum Creek, a tributary of the Yakima River (a tributary of the Columbia River) in Eastern Washington. Ahtanum Creek was designated by an 1859 treaty as one of the boundaries of the Yakama Reservation. However, decades of conflict and legal battles between white settlers on the north side of the creek, and Yakama people on the south side of the creek show that the lack of specificity in the treaty provided multiple avenues for white settlers to divert waters away from Yakama Reservation lands.

Keywords: race, irrigation, whiteness, settler colonialism, historical geography

Session Block 3

3:20 PM – 5:00 PM

16. Film Screening: *Manufactured Landscapes* (2006), 90 minutes

Room 225

Manufactured Landscapes is a feature length documentary on the world and work of renowned artist Edward Burtynsky. Burtynsky makes large-scale photographs of 'manufactured landscapes' – quarries, recycling yards, factories, mines, dams. He photographs civilization's materials and debris, but in a way that people describe as "stunning" or "beautiful," and so raises all kinds of questions about ethics and aesthetics without trying to easily answer them. The film follows Burtynsky to China as he travels the country photographing the evidence and effects of that country's massive industrial revolution. Sites such as the Three Gorges Dam, which is bigger by 50% than any other dam in the world and displaced over a million people, factory floors over a kilometer long, and the breathtaking scale of Shanghai's urban renewal are subjects for his lens and our motion picture camera. Shot in Super-16mm film, *Manufactured Landscapes* extends the narrative streams of Burtynsky's photographs, allowing us to meditate on our profound impact on the planet and witness both the epicenters of industrial endeavor and the dumping grounds of its waste. What makes the photographs so powerful is his refusal in them to be didactic. We are all implicated here, they tell us: there are no easy answers. The film continues this approach of presenting complexity, without trying to reach simplistic judgements or reductive resolutions. In the process, it tries to shift our consciousness about the world and the way we live in it.

Description from <http://bit.ly/ManufacturedLandscapes>

Plenary Panel

5:30 PM – 7:00 PM

The Power of Erasure and Memory: Re-imagining the Subjugation of Black Bodies, Spaces, and Places

Memorial Hall, 160 Avenue of Champs

PANELISTS

LaToya Eaves, PhD. Dr. Eaves is an Assistant Professor in the Department of Global Studies and Human Geography, and affiliated faculty with the Women's and Gender Studies Program and the Africana Studies major, at Middle Tennessee State University and specializes in Black geographies.

Hanna Garth, PhD. Dr. Garth is an Assistant Professor in the Department of Anthropology at the University of California, San Diego and specializes in the anthropology of food.

Rachel Watkins, PhD. Dr. Watkins is an Associate Professor in the Department of Anthropology at American University in Washington, D.C., and specializes in biological anthropology.

MODERATOR

Rosalind Harris, PhD. Dr. Harris is an Associate Professor in Community & Leadership Development at the University of Kentucky and a scholar-community activist currently involved in food justice and youth restorative justice research, teaching, and community-university engagement

Opening Reception

7:15 PM – 10:00 PM

Hilary J. Boone Center

500 Rose Street

Hot and cold hors d'oeuvres will be served at this catered reception (including vegetarian and gluten-free options) and there will also be a cash bar featuring local beer and bourbon.

Saturday, February 23

Registration – Patterson Hall, 118

8:00 AM – 1:00 PM

Check in, grab your nametag/program, and say hello. A friendly volunteer will be available all day to answer questions and welcome you to DOPE 2019.

Breakfast Buffet – Patterson Hall, 118

8:00 – 10:30 AM

A complimentary breakfast buffet is provided for all conference participants, including hot coffee and assorted teas.

Session Block 4 - 9:00 AM – 10:40 AM

Lunch (on your own) - 10:45 AM – 12:25 PM

Session Block 5 - 12:30 PM – 2:10 PM

Break - 2:15 PM – 2:25 PM

Session Block 6 - 2:30 PM – 4:10 PM

Coffee Hour – Patterson Hall, 118

4:10 PM – 5:10 PM

You're all "conferenced out." Take a break before heading to Memorial Hall for the Keynote Address and grab some coffee or tea and mingle with the other participants.

Keynote – Memorial Hall

5:30 PM – 7:00 PM

Dr. Carolyn Finney will deliver the DOPE 2019 Keynote Address.

After Party – Al's Bar & Beer Garden

7:30 PM – 11:00 PM

Join the organizers and other participants for a post-conference celebration at Al's Bar & Beer Garden, a well-known venue offering bar food, craft draft beer and many Kentucky bourbons along with frequent live music and poetry readings. Festivities will begin at 7:30 PM.

SATURDAY, FEBRUARY 23

Block Schedule

Room No.	105	119	129	205	209
Block 4 9:00-10:40	A Political Ecology of Study Abroad: Reducing the Environmental Impacts of High Impact Learning	Scholar-Activist Panel: Performing, Growing & Organizing	Disingenuous Nature: Modalities, Mechanisms and Methods I	Methodologies of Old Growth	
Lunch 10:45-12:25	LUNCH (ON YOUR OWN)				
Block 5 12:30-2:10	Political Ecologies of the Food-Water-Energy Nexus		Disingenuous Nature: Modalities, Mechanisms and Methods II	Political Ecologies of Scale in the Anthropocene-Postgenomic Shift	
Block 6 2:30-4:10	Political Ecologies of Privilege: Critically Exploring Whiteness, Wealth, Masculinity, and Western-Centrism in Socioecological Scholarship and Movements		The Payoffs and Pitfalls of Collaborative Research with Physical Scientists		
Keynote 5:30-7:00	KEYNOTE ADDRESS				
	Dr. Carolyn Finney Memorial Hall				
After Party 7:00-late	CONFERENCE AFTER PARTY				
	Al's Bar & Beer Garden, 601 North Limestone				

Block Schedule

SATURDAY, FEBRUARY 23

Room No.	218	219	225	229
Block 4 9:00-10:40	Poster Session		Exploring Local Responses to the Challenges of Water Sustainability	
Lunch 10:45-12:25	LUNCH (ON YOUR OWN)			
Block 5 12:30-2:10			Abundant Futures for Whom? Embodying the Uneven Geographies of Decarbonization and Energy Transitions I	
Block 6 2:30-4:10	Film Screening: <i>Anthropocene</i> (2016)		Abundant Futures for Whom? Embodying the Uneven Geographies of Decarbonization and Energy Transitions II	
Keynote 5:30-7:00	KEYNOTE ADDRESS Dr. Carolyn Finney Memorial Hall			
After Party 8:00-late	CONFERENCE AFTER PARTY Al's Bar & Beer Garden, 601 North Limestone			

Abstracts & Descriptions

Session Block 4

9:00 AM – 10:40 AM

17.A Political Ecology of Study Abroad: Reducing the Environmental Impacts of High Impact Learning?

Room 105

Organizer(s): Jennifer Coffman, Ph.D. (James Madison University)

Chair(s): Jennifer Coffman, Ph.D. (James Madison University)

In the past few decades, the number of U.S. undergraduates studying abroad has greatly increased, mostly in the form of short-term programs. International education via study abroad is considered a high impact learning practice, as it expands participants' perspectives, often qualitatively changing their sense of personal responsibility at home and globally (Kuh, 2008; Stebleton et al., 2013). But, given concerns about climate change and that there are required international flights to study abroad, at what cost? Must high impact learning through study abroad have a high environmental impact, too?

This presentation pursues a political ecology approach to study abroad and concludes with proposals of how to “do good” better. Using a mixed methods approach, a group of faculty and student researchers sought to evaluate whether there are and/or could be study abroad programs that, even given the heavy footprint of international travel, are less “ecologically expensive” than living in the United States for the same period of time, or at least not dramatically more ecologically expensive. Data were collected in Virginia and for overseas programs in Laos, Malta, Tanzania, and Thailand. This presentation includes the following components:

Jennifer Coffman, Ph.D. (James Madison University)

A Political Ecology of Studying Abroad

- What it means to be a “high impact” practice
- How political ecology serves as a framework for analysis and action
- Approaches to the study using mixed methods research

Maja Jankowska (James Madison University)

Measuring Impacts

- Pros and cons of ecological footprint calculators
- Our methods – data collection templates and rationale

Richard Selamaj (James Madison University)

Calculating Costs of Travel

- Choosing a flight calculator – and understanding what they measure
- Non-flight transportation calculations and considerations

Jackie Pickford (James Madison University)

In-country Consumption: Results and Analyses

- Electricity
- Water
- Food

Julia Wood (James Madison University)

Behavior Change

- Discipline through tracking data
- Long term and short-term behavior changes
- Recommendations for study abroad programs

Overall Conclusions and Next Steps, at Least for JMU (Jennifer Coffman)

Session Block 4

9:00 AM – 10:40 AM

18.Scholar-Activist Panel: Performing, Growing & Organizing

Room 119

Organizer(s): University of Kentucky Political Ecology Working Group

PANELISTS

Christine Smith, PhD. Dr. Smith is the Director of Youth Programming at Seedleaf, a non-profit organization that addresses food security in Lexington by making healthy foods accessible to all.

Mitzi Sinnott. Sinnott is multidisciplinary artist, educator, and activist. She’s presented her unique family saga “SNAPSHOT: a true story of love interrupted by invasion,” featured repeatedly on PBS nationwide, and on stage in South Africa, Scotland, Sweden, Brooklyn, and campuses across America. SNAPSHOT is the true-life quest of a mixed-race daughter from Central Appalachia who eventually finds her Vietnam Veteran father suffering in Hawaii. Sinnott was born to convene conversations about race, class, and violence across industries and interests, building more tolerant communities, learning from the past, re-imagining our future, one story at a time.

DeBraun Thomas. Thomas is the host of the *Crunkadelic Funk Show* on WUKY, a musician, and a community organizer. He is also the co- founder of the “Take Back Cheapside” movement, a coalition of various organizing groups with the goal of removing confederate statues located at Cheapside, the site of a former slave market in Lexington.

MODERATOR

Crystal Wilkinson, PhD. Dr. Wilkinson is an Associate Professor of English and an affiliate faculty of African American and Africana Studies at the University of Kentucky. She is the award-winning author of *The Birds of Opulence* (winner of the 2016 Ernest J. Gaines Prize for Literary Excellence), *Water Street*, and *Blackberries, Blackberries*.

Session Block 4

9:00 AM – 10:40 AM

19. Disingenuous Nature: Modalities, Mechanisms and Methods (Session I)

Room 129

Organizer(s): Rebecca Lave (Indiana University)
Gregory Simon (University of Colorado–Denver)

Chair(s): Gregory Simon (University of Colorado–Denver)

Gregory Simon (University of Colorado–Denver)
An Introduction to Disingenuous Nature

Jennifer Sedell (University of California–Davis)
Against Zero: A Critique of Metrics in "Sustainable" Emergency Pest Management

California agriculture generates \$50 billion a year in receipts. To protect the state's agricultural economy, state and federal agents frequently eradicate invasive insects under emergency orders. Agricultural regulators claim that these eradication programs not only meet trade agreement standards but also pre-empt excessive chemical use by farmers to contain new pests. As a consequence, the state increasingly justifies emergency orders through discourses of "sustainable" pest management. However, drawing on an analysis of the 2007-2010 program to eradicate the light brown apple moth—which was touted by California's then Secretary of Agriculture as "the most environmentally friendly pest eradication campaign" in the state's history—I identify how practices under emergency conditions actually exacerbated instead of mitigating chemical inputs. Specifically, the analysis tracks how the state conducted its initial surveillance, field inspections, and lab processes for identifying pest populations, and then re-tracks those processes through the lived experiences of a sub-set of affected growers and pest advisors, those who practice integrated pest management. The comparison reveals a material and ideological schism between the practice of "sustainable" agriculture and "sustainable" governance. Ultimately, I argue that the dominant regulatory framework's orientation toward eradication—pursuing and then proving that zero insects remain in areas of outbreaks—misreads complex pest-ecosystem-human interactions and co-produces the mono-cropped, export-oriented, conventional agriculture that few would argue can ever be "sustainable."

Keyword: agriculture, biosecurity, invasive species, sustainability, governance

Jared Naimark (Yale University)

"Holes emerging in all the forests": The political ecology of betel nut in a proposed national park in Myanmar

Production of betel nut, a stimulant and cash crop harvested from the *Areca catechu* palm, is booming among internally displaced Karen communities in a proposed national park in Tanintharyi Region, Myanmar. Karen villagers see expanding betel gardens through a *taungya swidden* system as a crucial strategy to claim land tenure and earn income during an uncertain ceasefire period. However, international conservationists blame this Karen betel-*taungya* system for causing deforestation and aim to restrict betel nut expansion and promote alternative livelihoods. This paper asks why conservationists are targeting smallholder betel nut expansion with such urgency, rather than other threats such as industrial oil palm plantations. Despite decades of work by environmental anthropologists showing otherwise, the myth that indigenous *swiddeners* are to blame for deforestation persists, informing conservation interventions that aim to restrict *swidden*. This long-running depiction of *swidden* as primitive, dangerous, and destructive is historically constructed to serve political aims, including internal territorialization of the Karen borderlands. This paper seeks to understand the ways that such a "disingenuous forest" managed without *swidden*, continues to influence conservation discourse and facilitate dispossession of indigenous lands. Drawing on semi-structured interviews and participant observation among Karen betel growers and foreign conservationists in Myanmar, I explore contested constructions of *taungya*. I find that political constraints imposed on international conservationists in Myanmar lead them to target interventions towards Karen *swiddeners*, reifying the existing narrative of blame, and becoming entangled with broader struggles over territory and sovereignty.

Keywords: Myanmar, Protected Areas, Disingenuous Natures, *Swidden*, Deforestation

Katie Clifford (University of Colorado–Boulder)

Natural Exceptions or Exceptional Natures?: Making rare, unusual, and disingenuous natures

While the national air quality monitoring system established by the Clean Air Act is widely lauded, less known is its Exceptional Events Rule (EER) that undermines these monitors by authorizing the exclusion of "natural events" from the regulatory dataset. Excluded data compromises air pollution maps, leaves communities uncertain as to their exposures and impedes regulatory action to mitigate pollution. The framing and regulatory language of the EER raises many questions about scientific assumptions around the 'natural,' persistent contradictions, and contingent discourse. All of these internal politics shape the production of regulatory science and produce uncertainties, conceal emerging hazards, and most importantly, distort our understanding of environmental systems. Interestingly, the act of

producing “natural exceptions” has an important unintended consequence: it inadvertently creates “exceptional natures.” That is, natures that despite their frequency and existence are considered rare. By repeatedly removing data and undermining the quality of the dataset, our understanding of normal or expected events—like dust storms— changes. If we define exceptional as unusual, atypical, or uncommon, events that are both common but not recorded appear very exceptional when looking at a distribution based on partial data. These exceptional natures are created both through our explicit framing of them, and by our manipulation of the data so they appear as an outlier. When taken up in regulations, they reify and become further reinforced as exceptional. Ironically, while regulations produce exceptional natures, they are simultaneously undermined by them. Exceptional natures lead to regular and repeated surprises, unnoticed hazards and signs of environmental change, undetected exposures, and decreased air quality. These distorted understandings of the environment have implications for environmental science, regulation, and management, as well as public health.

Keywords: STS, environmental regulations, air quality, invisibility, data

Session Block 4

9:00 AM – 10:40 AM

20.Methodologies of Old-Growth

Room 205

Organizer(s): Emma Kiser (University of Kentucky)

Chair(s): Emma Kiser (University of Kentucky)

Discussants: Kathryn Newfont (University of Kentucky)

Chad F. Niman (University of Kentucky)

Stakeholder Perceptions of White Oak Supply in Kentucky: A SWOT-AHP Analysis

Growing demand for white oak (*Quercus alba*) timber and difficulties in regenerating white oak point toward future supply issues. Implementing forest policy and management interventions to support its long-term supply will be necessary. To increase the probability that these actions will be successful, it is advisable to consider perceptions of stakeholders who are most likely to be involved with and impacted by those decisions. The combined Strength, Weakness, Opportunity, and Threat (SWOT) and Analytic Hierarchy Process (AHP) technique used in this study facilitated independent capturing and ranking of perceptions from three key stakeholder groups (woodland owners, forest industry, and distilling industry) regarding long-term supply of white oak. The results of this study suggest implementing forest policy and management decisions that: (1) encourage and incentivize forest management, and (2) address poor harvesting practices have the most support among stakeholders to ensure long-term supply of white oak. The growing interest and concern for white oak represents a unique opportunity to implement forest policy and management decisions to support the long-term supply of this species throughout its range. This study revealed considerable similarities among woodland owner and forest industry stakeholder groups on perceptions of SWOT factors impacting the long-term supply of white oak. Both woodland owners and forest industry ranked “incentivizing forest management” as the most important overall SWOT factor. The distilling industry, generally, identified and ranked SWOT factors that were more internal to their industry than to white

oak supply; however, their growing recognition of the critical role that white oak plays in the sustainability of their industry is important.

Keywords: White oak, stakeholder perceptions, SWOT-AHP, improving harvesting practices, incentivizing forest management

Jasper Waugh-Quasebarth (University of Kentucky)

“Old-growth” Wood and Work in the Craft of Musical Instruments

The stories of the world’s forests speak through the sounds of the world’s wooden musical instruments. Grain rippling across the back of guitars and violins reveals histories of extraction and affective ties to place threaded through meshworks of production and exchange. Tonewood, wood processed for use for musical instruments, is possessed with the “ghosts of empire” (Dudley 2014) driven by uneven flows of commodities and intertwined (Martinez-Reyes 2015) with entrenched desires of the global north for elusive materials and sonic qualities. Though just a branch of the tree of the world market for timber products and the processes by which deforestation persists, the production of musical instruments and tonewood has fed, in part, the destruction of extant old-growth forests and threatened species of hardwood trees. While alternatives to old-growth trees and threatened species have emerged in the market for high-grade instruments, material desires and looming risks of scarcity push producers to persist in the pursuit of the “old-growth.” This paper takes the lens of “old-growth” to analyze the discourse of desire and consumption of musical tonewood and the patterns of work arising in the craft of making musical instruments. By presenting ethnographic data collected through apprenticeship in the United States and Romania, I look at how tonewood producers varying in scale and place make sense of “old-growth” (and other similar labels) in their pursuit of meaningful livelihoods. I show how place, temporality, aesthetics, generational dynamics, and racializing discourses all come to bear on the desire for “old-growth” wood and the demands to preserve while destroying.

Keywords: Forests, Timber, Craft Labor, Music

Emma Kiser (University of Kentucky)

Protecting Old-Growth Kentucky: Environmental History of Blanton Forest

The “discovery” of more than two thousand acres of old-growth forest in Harlan County, Kentucky, came as a surprise to the scientific community in 1992. When biologist Marc

Evans conducted a natural areas inventory for the state, he observed the “large spreading crowns of old-growth oak, hemlock, poplar and beech, interwoven and uninterrupted like a seamless verdant patchwork,” along the southern slope of Pine Mountain. The Kentucky Commissioner of Natural Resources commented that it was “like an old and rare painting found in the attic.” Less than one percent of Kentucky’s land has escaped significant human disruption or damage. Unchecked and extreme extractive industry practices like strip mining and mountaintop removal continue to erase the landscapes of Kentucky and the Appalachians, with significant ecological and socio-economic repercussions. In this resource-driven environment sits the largest old growth forest in Kentucky and the thirteenth largest in the eastern United States. Blanton Forest State Nature Preserve has 2,350 acres of old-growth, with many trees over three hundred years old. Storeowner Grover Blanton purchased the land in 1928 for future generations. His descendants unintentionally spared this forest from invasive logging practices so widespread in the region. Evans’ identification of old-growth spurred a land protection movement in Kentucky by local and state-wide members who recognized old-growth as worthy of protection. Their efforts resulted in the permanent protection of Blanton Forest, the creation of the Kentucky Natural Lands Trust, and the vision to protect contiguous forests along Pine Mountain. With about 0.5% of eastern U.S. forests considered old-growth, Blanton Forest is a “hope spot” for safeguarding and growing biodiverse mature forests in Kentucky and beyond.

Keyword: old-growth, forest, Kentucky, environment, oral history

Kenton Sena (University of Kentucky)

Wizards and woods: The environmental continuum of Tolkien’s Istari

Tolkien’s wizards are some of the most interesting and impactful characters in the Lord of the Rings, sent to Middle-earth to inspire the free peoples to resist Sauron. Principal among the Istari are Gandalf and Saruman, both of whom feature prominently in the events of The Lord of the Rings. A much more minor role, however, is played by Radagast the Brown, who appears only in passing mentions in The Hobbit and serves almost as a messenger in the Lord of the Rings. Tolkien situates these three Istari on a continuum with respect to environmental relationships, with Radagast and Saruman on opposite extremes and Gandalf in the middle. Tolkien establishes this environmental continuum by developing the interpersonal interactions among the Istari and other human (or human-like) beings (especially those less powerful), as well as by showcasing the interactions of each wizard with his environment (e.g., animals, trees, and “natural” landscapes in general). Radagast is said to have forsaken Men and Elves for the birds and beasts and, thus, fails in his mission.

Saruman also fails, but because of his lust for power and consequent subjugation of people and landscapes, especially Isengard, the Shire, and Fangorn. Gandalf alone succeeds, balancing care for the landscapes of Middle-earth with care for its citizens.

Keywords: Middle-earth, Lord of the Rings, ecocriticism, environmental relationships, environmental literature

Session Block 4

9:00 AM – 10:40 AM

21. Poster Session

Room 218

Organizer(s): University of Kentucky Political Ecology Working Group

Nicolette Sheffield (Illinois State University)

Chicago's Millennium Park: Finding Nature in the City

Urban parks are often developed from degraded areas which a city then transforms into central space for recreational activities and enjoyment. Transformation of land into public space has instigated debate over the idea of ridding an area of its naturalness, accommodating anthropocentric functionality and interests. Environmentalists and philosophers debate the meaning of the concept of nature and attempt to define anthropogenic activities as natural. Drawing from environmental philosophy and urban studies, I argue for restored nature, in the context of urban parks, to be viewed as a form of nature. I conceptually analyze the present debate concluding nature is everywhere and in everything. Human influences on an area, such as restored or developed urban environments, should not be considered unnatural because we too are part of nature. Millennium Park in Chicago, Illinois, was considered an eyesore along the lakefront until redevelopment in 1997. Today, Millennium Park is internationally recognized and draws many into 'city nature.' Features like Cloud Gate and Lurie Garden add to the park's aesthetics, revealing how humans may sculpt an area's image to enhance its naturalness. Human action in redevelopment and urban design has not excluded Millennium Park from being a form of nature in the city.

Keywords: nature; restoration; environmental philosophy; urban parks; Chicago

Erin Kurtz (University of Louisville)

Navigating Familiarity Within Nature: Analyzing Student's Use of Participant Observation

Participant observation acts in a similar capacity to experiential education programs; both encourage individuals to engage with nature as a way to emphasize its importance and to create a connection between individuals and the environment. As a method, participant observation can ask us to take a closer look at what we consider nature to be, and why. Is nature found in the lawns across a campus, animals in a zoo, trees in a park, or maybe on an

unfamiliar trail in a forest? Is one inherently more natural than the other, or are people's perceptions shaped by certain aspects of social experience? In this poster I examine how experiences, such as frequency of use, shared characteristics, and pop culture references, influence perceptions of nature. Data utilized for this poster was created as part of a class assignment at the University of Louisville. Fifteen students wrote multiple participant observation field notes in a number of settings within Louisville. Options included the University of Louisville campus, the Louisville Zoo, local parks, and cemeteries. For this research I focus on the observations collected on campus and at the zoo. Navigating familiarity, and how it affects our perceptions of nature, is my focus of analysis with this data. I ask: What role does participant observation play in aiding participants in navigating different kinds of familiarity of nature, its implications, and the actions of others?

Keywords: Nature, Participant Observation, Experiential Education, Urban Ethnography

James Hedrick (Appalachian State University)

Export Crop Production as a Development Model: Impacts on Landholding in Guatemala's Quetzaltenango Department

For over four decades the production of vegetable crops for export has been promoted in the Global South, largely by development agencies, as a means for small farmers to participate in international agricultural trade. Such involvement comes with possible economic benefits for small farmers as they can access new markets for high value crops. These markets, with their global scale, are volatile and unpredictable, thus participation increases risks for farmers who are already economically vulnerable. This project hopes to primarily focus on the effects of such export production on landholding distributions within farming communities of the Global South. Changes in landholding patterns can provide insights to the accumulation of economic benefits among farmers and resultant socio-political implications of export production models. The selected study areas were chosen for a number of reasons. In regards to Guatemala: over half the population of Quetzaltenango is involved in vegetable production, land is highly constrained in the department due to its mountainous terrain, and any change in land ownership would be both noticeable and significant. The highland region of Guatemala as a whole has received great attention from international agricultural researchers. Many of these researchers are associated with The International Food Policy Research Institute, The World Bank, and The United States Agency for International Development. Similarly, Northern Ghana has seen an uptake in agricultural export during the past few decades, especially in regard to shea nuts and mangoes. Individual claims to economic trees can result in the enclosure of land and resources that were previously held in common by communities. This project hopes to utilize a mixed-methods livelihood approach, following those outlined by Ian Scoones in his 2015 book *Sustainable Livelihoods and Rural Development*. Specifically, the project plans to

use activity mapping, individual interviews, household surveys, income and expenditure surveys, and ethnographic observations to determine the role of export crop production within localized political economies. Such a mixed methods approach aims to shed light on how small farmers choose to utilize top-down development models for economic survival and the impacts such programs have on social organization, land tenure, and local political economies.

Keywords: Agriculture, Livelihoods, Export, Land, smallholders

Laura Valentine and Victoria Clemons (University of Louisville)

Can Resilience Be Equitable?

Beginning in 2016, Louisville, Kentucky conducted expansive public engagement processes—a requirement of the city’s participation in 100 Resilient Cities, a global non-profit focused on urban resilience-building. Over two years, the city organized workshops, a community survey, and a series of public meetings, working towards the final goal of a plan to build and shape Louisville’s “resilience” at levels of concrete infrastructure and social relationships. A city with stark social divides including steep racial geographic divides, Louisville’s resilience discourse was hinged on “equity.” Equity and resilience are not singular concepts but are mobilized and understood differently by different stakeholders. Public meetings display the social relationships between these stakeholders, as well as between community stakeholders and the local government. This poster utilizes Louisville as a case in examining how global resilience discourse is shaped in the hands of hyperlocal stakeholders. Based on research conducted at public meetings in 2018, this poster examines the public engagement process itself, and the experience of participants called on to reconcile the concepts of resilience and equity in the social, economic, and political layout of an urban landscape. We use this case to describe a major question in resilience literature: who is resilience “by and for”?

Keywords: resilience, urban infrastructure, public engagement, local government, resilience infrastructure

Emily Goldstein (University of Louisville)

Connecting our Community: Collaboration and Resource Sharing Among Community Gardens in Louisville, Kentucky

Louisville, Kentucky has over two dozen active community gardens which are used and maintained by various communities and organizations. This poster reports on preliminary findings from a thesis project conducted to determine how collaboration and resource sharing manifest in Louisville’s various community gardens. Participant observation was used to select three case study sites and semi-structured interviews were conducted with

garden users, managers, and supporters/funders for each site. Broadly, I found that Louisville community gardens face similar monetary issues, which results in garden managers having to ask for resource donations, and garden users exchanging physical resources, labor, and knowledge. This poster examines how these forms of resource sharing manifest at the case study sites. Resource sharing can differ even within a single garden. For example, at 7th Street community garden, American-born gardeners may exchange resources, but they generally maintain their own plots. Foreign-born gardeners, specifically Somali-American gardeners, often rent multiple plots and share resources. This poster utilizes broad scholarship in Urban Political Ecology to explore these experiences of exchange and sharing. Community gardens are socially constructed natural spaces, making them ideal sites for using urban political ecology as a framework through which to analyze the practices of garden users and managers.

Keywords: resource use, community gardens, urban agriculture, community organizing, urban political ecology

Session Block 4

9:00 AM – 10:40 AM

22. Exploring Local Responses to the Challenges of Water Sustainability

Room 229

Organizer(s): Dayna Cueva Alegría (University of Kentucky)
Karen Kinslow (University of Kentucky)

Chair(s): Dayna Cueva Alegría (University of Kentucky)
Karen Kinslow (University of Kentucky)

Yanin Kramsky (University of California–Berkeley)

Framing water vulnerability in CA's Central Valley: Contested knowledge regimes, slipping alliances, and ambiguous collaboration

California's San Joaquin Valley is rife with water management practices that neglect the needs of primarily Latinx residents of Disadvantaged Unincorporated Communities (DUCs). Hundreds of DUCs are scattered across the Valley and confront disproportionate environmental burdens such as contaminated groundwater, dry wells, and insufficient water infrastructure. Municipal and state disinvestment, industrial agriculture, dairy farming, and geological circumstances lead to continuous water quality and quantity challenges for these communities. The Sustainable Groundwater Management Act of 2014 aims to address the Valley's water vulnerabilities and requires proactive engagement with DUCs. Basin-wide Groundwater Sustainability Agencies (GSAs) are tasked with soliciting and incorporating community members' perspectives into a Sustainable Groundwater Management Plan (SGMP) by 2020. Through participant observation and semi-structured interviewing, this qualitative research analyzes the ways in which governmentalizing mechanisms and divergent forms of embodied, technical, and scientific knowledge surrounding water are framed, absorbed and/or contested, and mobilized for the production of the SGMP, at public gatherings and behind the scenes. Due to the historical and material specificities of DUCs, residents are seldom able to break entrenched, systemic race and gender barriers that inhibit meaningful and ongoing participation in GSAs. The technical expertise, political savvy, time commitment, and documentation status required to effectively demonstrate embodied experiences of water vulnerability to GSA board members are unattainable for resource-strapped DUC residents. Consequently, marginalized residents risk falling through the cracks of one-size-fits all water management strategies that fail to capture diverse and nuanced experiences accompanying chronic water stress.

Keywords: environmental justice, water resource management

Cassidy Furnari (California Polytechnic University-Pomona)

A survey of environmental effects of land use on the Santa Ana River in southern California

With its headwaters in the San Bernardino Forest, and its delta at Huntington Beach, the Santa Ana River is the largest river in southern California. For over 9,000 years people have lived along the Santa Ana and used it as a water source. The people of San Bernardino, Riverside and Orange counties still use the river, and have affected its environmental health, as well as that of the surrounding watershed – damage includes degradation of aquifers, loss of natural flow and riparian habitat, and loss of native flora and fauna. Many studies have shown the effect land use can have on freshwater systems, but few have studied the effects that humans have on the river by directly utilizing the space. This study does consider land use in the surrounding watershed, and it includes surveys of user groups (e.g. equestrian riders, hikers, swimmers and homeless inhabitants) to better understand how direct use could be affecting the immediate microecosystem at each chosen site. We have found the six sample sites, within seven miles or less of each other, have varied user groups with different effects on the environment. Sites with higher accessibility have larger and more frequent user groups and are subject to more extreme environmental damage, whereas sites with lower accessibility have smaller and less frequent user groups and less obvious signs of damage. In terms of water quality, the sites do not regularly show major differences in pollution but, the physical observations and characteristics of sites vary from visit to visit and are regularly linked to human use. From a social perspective, there is a perceived hierarchy between user groups. This hierarchy and interaction between user groups and the environment will be researched further through user interviews.

Keywords: Urban hydrology, Urban river, Littering in public spaces, Human use of urban rivers, Freshwater river pollution

Curtis Pomilia (University of Kentucky)

The “end” of the Flint Water Crisis: Ontological conflicts and epistemic violence

Since January of 2017, Flint’s municipal water has been deemed safe for human consumption by state and federal agencies, the state governor and other political leaders, and certain water quality experts. These assessments contributed to the termination of state-financed emergency bottled water pick-up sites and delivery services in April of 2018, but they have not addressed the demand for an alternative, safe drinking water source or the refusal to use the municipal water system by many Flint residents. In this paper, I examine this ontological conflict over the ‘is’ of Flint water through ethnographic fieldwork and interviews conducted between summer of 2017 and fall of 2018 with residents, water scientists, medical and public health professionals, and emergency response workers.

Findings from this research challenge state-propagated narratives that characterize Flint's current conjuncture, amid ongoing controversies surrounding the city's municipal water system, as being wholly cultural constructions, which are psychological in nature. Instead, I draw on locally-embedded perspectives to bring into focus public health and infrastructure issues that have been strategically marginalized by key institutions and actors. To conclude, I trace out the significance of this conflict for our understanding of contemporary biopolitical governance in spaces of urban decay.

Keywords: infrastructure, water governance, public health, political ontology, urban ecology

Julie Shepherd-Powell (Appalachian State University)

Using Citizen Science to Challenge Audit Culture in the Virginia Coalfields

In the coalfields of far southwest Virginia, local members of the grassroots organization the Southern Appalachian Mountain Stewards (SAMS) conduct their own testing of waterways that have been polluted by mountaintop removal coal mining. In 2012, water samples collected revealed contaminants above the legal limit in the Callahan Creek watershed in Wise County. With this data, SAMS successfully brought a lawsuit against A&G coal company. The court ruling required A&G to pay thousands of dollars for the cleanup of the impaired watershed, as well as fund other community enhancement projects in southwest Virginia. This paper explores the ways in which citizen science can compensate for state regulatory agency workforce limitations and combat the audit culture (Kirsch 2014; Li 2015) that allows corporate polluters to feign compliance with existing laws and regulations. Even with the downturn of coal mining activities over the last several years, clean-up remains an important part of the environmental and economic future of the region, as mine sites remain idled and in need of reclamation. This paper further examines the future possibilities and challenges of using citizen science to bring environmental, economic, and social justice to communities that have been negatively impacted by mountaintop removal coal mining.

Keywords: audit culture, mountaintop removal, coal mining, citizen science, water pollution

Wayne Teel (James Madison University)

Catching Rain: Sand Dams and other strategies to develop locally resilient water supplies in semi-arid areas of Kenya

Water is one of the key limiting factors in arid, semi-arid and sub-humid lands throughout Africa. Reducing the labor demand involved in the daily efforts to find and haul water releases available time to women to pursue productive agricultural activities and care for their families. This in turns improves resilience at the household and community level. Sand dams have proven an excellent way to do this in the sub-humid and semi-arid areas of Kitui,

Machakos, and Makueni Counties in Kenya and is spreading further inside and outside the country. The key to building a sand dam is community involvement from the earliest stage in the process. Locally controlled and organized NGOs are the primary promoters of this activity. The community development groups, called self-help groups, site the dam, prepare the supporting infrastructure, build the dam, and coordinate local control of the new resource. This then drops the water collection time from more than 3 hours per day to as little as 15 minutes. The work then continues with promotion of drought resistant crops, better fodder supply, and income security.

Keywords: sand dams, self-help groups, semi-arid land, resilience, Kenya

Lunch

On Your Own

10:45 AM – 12:25 PM

Session Block 5

12:30 PM – 2:10 PM

23. Political Ecologies of the Food-Water-Energy Nexus

Room 105

Organizer(s): Gretchen Sneegas (University of Georgia)
Michael Finewood (Pace University)

Chair(s): Gretchen Sneegas (University of Georgia)

Discussant(s): Michael Finewood (Pace University)

Gretchen Sneegas (University of Georgia)

Shale gas development, governance, and food-water-energy entanglements

Shale gas development via hydraulic fracturing remains controversial among landowners in the Marcellus Shale region of the United States. The perturbances of shale gas development are rendered particularly visible within and upon agricultural landscapes, as farmers comprise a disproportionately impacted stakeholder group in the region. Yet, it remains unclear what the long-term impacts will result from the Marcellus Shale gas “boom” – particularly concerning its impacts on groundwater resources. This paper uses the Marcellus boom as a lens to examine the entanglements, tensions, and contradictions at the overlapping political economies of shale gas and agricultural extraction. This paper demonstrates how a hegemonic extractivist ideology intersects with regional shale gas development to produce farmers as neoliberal shale gas subjects: landowners who respond to external economic incentives and structural vulnerabilities by leasing their subsurface mineral rights. I argue that this form of environmental subjectivity facilitates the enclosure of the shale gas frontier and its subsequent spatial reorganization by the fossil fuel industry. In so doing, this paper suggests how political ecologists can interrogate such moments of disruption and disturbance, using them to theorize critical intersections of food, energy, and water.

Keyword: shale gas development, governance, food-water-energy nexus, agriculture, Q methodology

Brad Jones (Washington University-St. Louis)

The Appalachian Transition: Food and Energy Futures in an Anthropocene-yet-Unseen

The mountains are in the midst of a transition. In the heart of central Appalachian coal country, a region long defined by extractive industry, regional stakeholders are working to imagine alternatives beyond exploitative economies and ecologies. Alongside sustainable energy development and tourism, sustainable agriculture has recently emerged as a key priority for policy makers, non-profit advocacy groups, development agencies and concerned citizens alike. But that future, who defines it, and who it stands to benefit, remains uncertain and contested. While highly capitalized development projects seek to reclaim abandoned, degraded ridgetops through state-of-the-art techno-scientific greenhouses, more modest activist initiatives are rethinking food production in post-capitalist modes. Reporting on ongoing research with beginning farmers and farming organizations in the region, this presentation queries these imaginative landscapes, offering ethnographic insights and glimpses into the future of an agrarian “Anthropocene-yet-Unseen” (Howe and Pandian 2016). I ask, how are human/environmental relations reified or reconfigured across these emerging landscapes? How are particular ecological and economic futures made to flourish as others are foreclosed? Offering fragments of futures in conflict and staying with the troubles of transition in Appalachia, I examine what emerges from blasted landscapes, where twined crises at the energy, food, and water nexus are both promising and precarious.

Keywords: Anthropocene, Futures, Resource Conflict, Agriculture, Landscapes

Justyn Huckleberry (University of Wisconsin–Madison)

Constraints to implementing the Food-Energy-Water Nexus Concept: Governance in the Lower Colorado River Basin

The food-energy-water (FEW) nexus concept has emerged as a powerful approach to address the social and environmental challenges created by land and climate change. We present an analysis of the impact of the governance structure of the Lower Colorado River Basin (LCRB) on the implementation of the FEW nexus concept. Specifically, we quantified the linkages between food, energy, and water systems and then used two different future scenarios: (1) drought and (2) increased demand for alfalfa to look for the emergence of resource scarcity and/or vulnerabilities. Our results indicate that fluctuations in food production are not controlled by water availability but by the governance structure. Additionally, there is proportionally more water used for food than energy, and more energy used to move water to cities than water for agricultural production. Analysis of the

production scenarios indicate tipping points of food, energy, and water resources based on climatic and consumptive trends that are not yet addressed by the rigid water laws in the LCRB. These results highlight the need for resource governance to play a strong formative role in the analysis and implementation of FEW nexus management strategies.

Keyword: production, climate change, resource vulnerability, cross-sectoral, water policy

Lynnette Widder (Columbia University)

Understanding Resource Flow Systems in Rural Mexico: A Case Study

Often characterized by a boot-strapping attitude that allows them to find efficiencies which could be seen as models of symbiosis and circularity, agricultural communities can evolve highly complex resource distribution systems that resist comprehension and quantification. This tendency can have a negative impact on the capacity for planning, and for identifying risks to long-term community health. It also speaks to the inextricability of water, energy and food in communities where the boundary between subsistence and employment, between traditional and contemporary lifestyles, remains unstable. In this study, we were asked to develop a resiliency assessment framework following two major earthquakes in fall 2017 for Valle de Vazquez, a town of 1,200 in Morelos State, Mexico. Our findings were to be conceived so that could be deployed elsewhere by a consortium of social entrepreneurs under the guidance of the Ashoka Foundation. In order to understand potential responses in policy, physical infrastructure and community organization to chronic and acute stressors, we completed desktop and on-site research that led us to insights into the water-energy-food nexus that might otherwise have escaped oversight. Repeated interviews with community residents provided excellent information, verified by inspections of the town's physical conditions, about the extent of acute, earthquake-sensitive exposure and chronic inadequacies, primarily in employment and health services, that predictably exacerbated the slow rate of resilience. But only when we began a set of collaboratively drawn maps to understand fully the community's water system did the complexity of their agricultural practices emerge. Because of Mexico's complex land ownership system, communal cash crop production, entrepreneurial dairy farming and cheese making, ancillary employment in small scale orchards, and farming of chickens and vegetables for personal use converged in an otherwise unmapped cycle of surface, ground and engineered water, electrical energy production and food for both livelihood and local consumption.

Keywords: Community resilience, Agriculture, Morelos State, Mexico, Circularity

Session Block 5

12:30 PM – 2:10 PM

24. Disingenuous Nature: Modalities, Mechanisms and Methods (Session II)

Room 129

Organizer(s): Rebecca Lave (Indiana University)
Gregory Simon (University of Colorado–Denver)

Chair(s): Rebecca Lave (Indiana University)

Daniel Ahlquist (Michigan State University)

Cultivating Insecurity: How Thai conservation and development policies promote unsustainable practices and foster insecurity

In upland northern Thailand, the shifting mosaic landscape of fields, fallows, and forests produced by the swidden cultivation practices of upland farmers has given way in recent decades to mountainsides covered in maize and other chemical-intensive cash crops. Thai policymakers and development practitioners employ powerful degradation narratives to condemn upland farmers as environmental destroyers and to justify conservation and development interventions in upland communities. When viewed through the lens of the degradation narrative, the evidence in the hills (e.g. monocultures, chemical use, erosion) appears to support the narrative and its moral imperative for intervention. Yet, one critical question lingers: why are so many upland farmers, whose land use systems have for generations been premised on minimizing risk and maintaining soil health, now engaging in land use practices that they know to be undermining the viability of the soil on which their livelihoods depend? Drawing on ethnographic research in two upland communities, I argue that many of the changes and challenges in upland communities today derive in part from state policies that ignore the dynamic relationship between upland farmers and the soil. The result, I argue, is a vicious cycle of diminishing soil health and accumulating insecurity for upland farmers. By foregrounding the changing relationship between farmers and the soil, I seek to insert the physical environment as an active presence in the story of agrarian transformation and to highlight the ways in which state degradation narratives and interventions that ignore the relationship between local people and their environment promote unsustainability and foster insecurity.

Keywords: Thailand, Agrarian Change, Conservation, Development, Narratives

Halie Kampman (University of California–Santa Cruz)

Constructions of malnutrition

Momentum has gathered over the past two decades around crop breeding technologies that aim to improve malnutrition. “Biofortification”, the breeding of staple crops for higher micronutrient content, has received international acclaim as well as generous funding from prominent philanthropists. My research digs into this hype, exploring how international agricultural research institutions shape the construction of the problem of malnutrition, and how and why biofortification presents a solution. I study how these constructions differ from the understandings and realities of farmers supposed to benefit. I seek to understand how these differences manifest physically in farming practices. I synthesize findings from two consecutive summers of research: including three months working alongside stakeholders and farmers on a biofortification project in The Gambia, and interviews conducted with DC-based crop breeders and nutritionists. My research suggests that these institutions construct malnutrition as a problem which is generalizable and solvable through improved education and market driven solutions. Yet, this bears questionable resemblance to how farmers experience malnutrition as social, complex, and contextually dependent. The way that research institutions envision the uptake of biofortification thus differs from farmers’ contextual and creative engagements with biofortified crops on the farm.

Keywords: agriculture, nutrition, critical development studies, knowledge production

Justin Mullikin (Rutgers University)

Farming in Rwanda: Shifting Landscapes and Identities

In the last 20 years the Government of Rwanda has implemented a sweeping array of policies aimed at transforming the agricultural landscape from one dominated by mixed use, subsistence cultivation into a highly managed system of state-led, market-oriented monocropping. Driving this transition is a “high-modernist” (Scott 1998) campaign to convince, and often compel (Ansoms 2009; Newbury 2011; Huggins 2014), farming households to adopt agricultural practices based on Green Revolution technologies and methods. My dissertation research investigates how this transformation is inextricably linked to a shift in national discourse that primarily values land and agricultural labor as drivers of economic growth and “modernization,” and that delegitimizes competing perspectives or values held by farmers. I am incorporating ethnography, historical Rwandan poetry, and landscape interpretation to better understand the “processes of state formation, contested citizenship, and shifting subjectivities,” (McElwee 2016, 209) that are reshaping the every-day interactions between farming communities and the land. This presentation focuses on the Rwandan state’s strategy of “forgetting from above” (Pitcher 2006; Schroeder 2012) that promotes a selective history of the country, working across the

past, present, and future to reconfigure the identities of smallholders along with the landscape itself.

Karly Miller (University of California–Santa Cruz)

Kelsey Brain (Pennsylvania State University)

National park co-management and racialized environmental imaginaries in Costa Rica and Colombia

Parque Nacional Cahuita and Parque Natural Nacional Uramba Bahía Málaga are the only state/community co-managed national parks in Costa Rica and Colombia, respectively. Both are located in territories historically inhabited by Afro-descendant communities and were established to preserve biodiverse coastal and marine ecosystems while simultaneously promoting ecotourism as a form of development into isolated coastal communities. In this collaborative and comparative paper, we examine how the creation of these two co-managed parks was informed by national imaginaries around how Afro-descendant communities relate to the land. We further explore how practices of co-management resulting from these socio-ecological imaginaries impact each regions' Afro-descendant communities and biophysical landscapes. We investigate the ways that state practices of knowledge production, law enforcement, and land management in relation to park co-management engage racialized notions of environmental management, extend state presence into isolated communities under the guise of 'development,' and impact local communities and landscapes. Further, we compare how Costa Rica's and Colombia's distinct approaches to land management (privatization versus collective titling) articulate with these co-management practices.

Keywords: national parks, co-management, ecotourism development, socio-ecological, imaginaries, Afro-descendants

Session Block 5

12:30 PM – 2:10 PM

25. Political Ecologies of Scale in the Anthropocene-Postgenomic Shift

Room 205

Organizer(s): Ariel Rawson (Ohio State University)

Chair(s): Robby Hardesty (University of Kentucky)

Ariel Rawson (Ohio State University)

Microbial Rescaling of Mind-Body-Environment Relations

Garnering excitement at the intersection of the Anthropocene and the postgenomic body, the growing field of microbiomics has become a key site for investigating the traffic between the ways bodies and environments are both becoming refigured as interconnected systems from the “infrabodily” to the “extraterrestrial” (Paxson & Helmreich 2014). This traffic has been taken up in many ways as the environmental turn in the life sciences and similarly as the posthuman turn in the social sciences and humanities. I take up this cross-disciplinary interest in microbiomics to explore new epistemologies of scale - in particular of scalar plasticity. As not only the most increasingly pervasive mental health disorder but also as frequently co-morbid with other pathologies of the body, for my example, I examine the way researchers are rethinking depression in terms of microbiome and the gut-brain axis, often expressed as a state of dysbiosis. Through engagement with the microbiome, depression figures the scale of mind in terms of neural systems, while also producing the scale of mind as fungible with other bio(geo)chemical systems from the genomic to the planetary. I tease out how the microbe organizes difference in terms of scales of systems at the same time as coordinating relations between them in terms of fungibility. Depression shows how the increasing proliferation of new micro- categories is deeply intertwined with the increasing interest in macrocategories (as both planet and epoch).

Keywords: scale, Anthropocene, mind-body relations, plasticity, microbiome

William Westgard-Cruice (Utrecht University)

“Brexit is bad for our health”: linking the bio-chemical with the supranational in the context of an organic crisis of the British

“We send the EU £350 million a week. Let’s fund our NHS instead. Vote Leave.” Such was the text painted on the side of a campaign bus which rolled through some of Britain’s most economically depressed communities in the weeks preceding the June 23rd, 2016 Brexit referendum. While the dubiousness of the fiscal figures remains a fixation of the mainstream media in the U.K., the core message represents a recurrent theme in the Brexit saga. Both “Leavers” and “Remainers” consistently justify their positions on European Union membership with appeals to the strength of U.K. science and medicine, with the cross-party People’s Vote campaign for a second referendum being particularly vocal in this respect. In recent months, People’s Vote constituent groups “Scientists for the EU” and “NHS against Brexit,” as well as the chancellors of several prominent research universities, have issued numerous public statements warning that Brexit will result in shortages of essential medications and foodstuffs, the cessation of British institutions’ participation in all manner of EU-funded research projects, and the exodus to the continent of tens of thousands of EU citizens currently in the employ of the NHS. In this sense, the health of Britain, at the molecular, sectoral, and national-institutional scales, is depicted by “Remainers” as contingent upon continued membership of the EU. This paper examines how the propagation of such discourses reflects the scalar displacement of the internal contradictions of capitalist development in the U.K. and a failure to recognize the Brexit vote "as a symptom of the organic crisis of British society marked by manifold economic, political and social crises, and the continuing failure to address uneven development" (Jessop, 2018).

Keywords: Brexit, NHS, health, science, medicine

Colleen Myles (Texas State University)

Fermented landscapes: Considering the macro consequences of micro(be) processes of socio-environmental transformation

Fermentation is a state of agitation or turbulent change or development, which is often associated with the process wherein an agent causes an organic substance to break down into simpler substances. While microorganisms like yeast or bacteria are the usual actors in the biochemical process of fermentation, the (micro)organisms and (f)actors involved in the processes of symbolic (social, cultural, political) fermentation are less clear. This chapter

outlines a comprehensive conceptualization of fermented landscapes, an overarching research agenda that examines the excitement, unrest, and agitation evident across shifting physical-environmental and socio-cultural landscapes, especially as related to the production, distribution, and consumption of fermented products. Studies of fermented landscapes seek to better understand transformations within material and symbolic landscapes at a variety of scales. Examples of research falling under this umbrella include wine, beer, and cider geographies (as well as the geography of other fermented products, alcoholic or otherwise) and examinations of the power of the fermentation metaphor in science and society. This analytical framework is used to home in on the complex study of rural-urban exchanges or metabolisms over time and space – an increasingly relevant endeavor in socially and environmentally challenged contexts, whether global or local. *Keywords:* fermentation, craft beer, wine, rural-urban interface, landscape

John Rosenwinkel (Vanderbilt University)

The Scale(s) of Degrowth

Degrowth, as one of several “transition discourses” (Escobar 2018) that challenge capitalist and extractivist development and propose alternative futures, is founded on the argument that a commitment to compound economic growth necessarily leads to social and ecological violence (Kallis, 2017). While critics of capitalism have long included considerations of space and scale in their critiques (such as Lefebvre’s (1974) characterization of “abstracted space,” Foster’s (2000) theorizing of metabolic rift, and Harvey’s (2001) analysis of the “spatial fix”), these considerations appear less conceptualized within the speculative and prefigurative politics of transition movements. The often apolitical calls for localism, regularly invoked in transition discourses, have clear limitations accompanying their practical calls for place-based action. This presentation aims for deeper understanding of the scalar implications of degrowth. How does this movement call for reconsiderations of space, and at what scales should personal, political, and economic actions and strategies be developed? This includes both phenomenological and structural examinations of space and draws on theoretical work and the experiences of contemporary movements to propose a few tentative and practical guides for scale. On the phenomenological side, what spatial imaginations and practices does degrowth call forth, and with what scalar implications? If the concept of infinity inherent to capitalism “exists not only externally, but within one’s self” (Welzer 2011), what kinds of habitus – as “internalization[s] of social practices” (Casey 2001) – can resist infinity and be compatible with finite futures amenable to life? Along more structural lines, how might degrowth theorists and practitioners integrate placebased practices (such as calls for

decommodification and commoning at local and regional scales) and the recognition that places are projects that “reaffirm the necessity of reconstructing life from below” (Dirlik 1999) with the global demands produced by climate change and the Anthropocene?

Keywords: transition, space, place, degrowth

Garrett Graddy-Lovelace (American University School of International Service)

Scales of Reference & Reckoning in Agrarian Justice Ontologies

Within human geography, a horizontal ontology has been proposed—in lieu of hierarchical scale-talk, so as to allow for egalitarian spatial imaginaries. Yet, such networked flatness does not adequately describe the dynamics of agrarian politics. Acknowledging the pivotal, unignorable role of spiritual worldview in agrarian justice movements is a key step in preventing further sidelining of it as unintellectual, apolitical, ideological, a-ecological, or peripheral. Furthermore, acknowledging the ways racism intersects with secularism discloses how axes of bias compound and confound. Invocations of spiritual dimensions articulate and actualize alternative scales of reference. These exceed the nation-state, and even the local-global nested hierarchy: worlds beyond the worldwide. Communities are positing scales of reference that deliberately transgress dominant geopolitical units of nation-states or global institutions. They are invoking and recentering, for instance, ancestral dimensions as reference points—as scales, of reckoning. Scales are not ontologically fixed. But they refer to ontologies. They are the means of referring to ontologies. Flatness gives way to a rugged terrain of higher and lesser scales of normative reckoning and leveraging some even oriented toward axes of cosmological or religious principles. How does political ecology pick up where human geography left off in making room for analysis that engages spiritual influence not just as object of study, but as source of theory and analysis in its own right? In particular, what are ways geographic theory can learn from ontologies that view the physical as carrying metaphysical significance? Back to scale.

Keywords: agrarian justice, reckoning, scales of reference, ontology, accounting

Session Block 5

12:30 PM – 2:10 PM

26. Abundant Futures for Whom? Embodying the Uneven Geographies of Decarbonization and Energy Transitions (Session I)

Room 229

Organizer(s): Nikki Luke (University of Georgia)
Nik Heynen (University of Georgia)
Patrick Korte (Virginia Commonwealth University)
Jesse Goldstein (Virginia Commonwealth University)

Chair(s): Nikki Luke (University of Georgia)

Tyler Harlan (Cornell University)

Conservation or Decarbonization? Small Hydropower and Logics of Green Development in China

Through an analysis of small hydropower (SHP) in China, I argue that logics of green development offers a framework for analyzing the spatial contradictions of state-led sustainability agendas. The Chinese state for decades framed SHP as a model of green development, but in 2016 instituted SHP restrictions due to its negative ecological impacts, a situation blamed on local officials haphazardly approving too many plants. But this interpretation ignores a major shift in the state's logic for promoting SHP: first to drive conservation-based development in frontier areas, and then to fuel low-carbon development in urban areas. These two logics – which I call conservation and decarbonization – are based on different political-economic problems that green development is meant to solve for the state, the locus and scale of intervention, and the distribution of benefits and costs. Using this framework, I argue that a shift to decarbonization in the mid-2000s incentivized cash-strapped local governments on the frontier to build as many SHP plants as possible in order to export electricity and build local industries. I illustrate this trajectory using case studies of three prefectures in Yunnan province in western China. These findings suggest that efforts to achieve green development through decarbonization do not always align with – and often contradict – rural livelihood and conservation needs.

Keyword: Green development, Environmental state, Conservation, Decarbonization, China

Ingrid Behrsin (University of California–Davis)

Negotiating Frontiers of ‘Green’ Accumulation: Waste technologies and burdened bodies in US Renewable Portfolio Standards

Renewable Portfolio Standards (RPSs), now in place in thirty states including the District of Columbia, are powerful climate policy tools that require a state’s energy providers to produce a minimum amount of their retail electricity load through renewable sources. Communities of color and low-income neighborhoods suffer the greatest health and economic consequences of climate change (Morello-Frosch et al. 2010), and thus could potentially stand to benefit from renewable energy development. However, some RPSs include particularly controversial and potentially noxious technologies with long histories of adverse impacts for communities of color and low-income people as eligible renewable energy sources. Coal mine methane, animal waste, and municipal solid waste, for example, are supported through RPS programs in Colorado, North Carolina, and California respectively. Efforts to resist state support for these technologies represent a new wave of environmental justice struggles that have long been waged against the concentration of waste and other noxious substances in communities of color and low-income neighborhoods. This exploratory research seeks to identify the range of toxic technologies sanctioned by RPSs, and the communities in which these particular technologies touch down. In doing so, it contributes to dialogues around the political ecology of renewable energy transitions, lending support to those who critically demand that not all renewable energy technologies be treated as “homogenously ‘green’” (Newell and Mulvaney 2013).

Keyword: Renewable portfolio standards, Racialized capitalism, Waste management, technologies, Critical energy geography

Sean Kennedy (University of California–Los Angeles)

“Alternative energy capital of the world”? Geographies of energy transition and uneven development in periurban Los Angeles

California has long been a national leader in renewable energy generation, particularly solar photovoltaic (PV). Despite relatively even distribution of solar resource potential across the state – including in built-up urban areas – solar PV development has been dominated by large-scale land-extensive generation facilities often located on periurban and rural land deemed otherwise ‘unproductive.’ The City of Lancaster, a city of 160,000 residents in northern Los Angeles County seeking to position itself as the ‘alternative energy capital of the world’, represents an extreme case of this transformation. Since 2012, over 800 MW of utility-scale solar PV has been installed on former croplands and pastures within the city boundaries, equating to around 10% of the city’s total land. In an effort to critically examine the transformative potential of energy transitions in general, and the case of Lancaster in particular, this paper addresses two questions. First, how have historical political economic

and ecological processes – including drivers of uneven development at the intra-regional scale worked to render large areas of the city suitable for solar energy generation? Second, to what extent can the city’s role in the state’s energy transition – as both a source of energy generation and as a crucial node in emerging strategies of accumulation in the context of the ‘green economy’ – open or close doors to more abundant socio-ecological futures for the region’s human and non-human inhabitants? This article is intended to highlight historical political economic and ecological processes that create the conditions for energy transitions, and the types and patterns of development such transitions may ultimately produce.

Keyword: Energy transitions, Green economy, California

Conor Harrison (University of South Carolina)

Finance, hybrids, and hedges: Examining the new political economy of electricity in the United States

The result of the partial restructuring of the US electricity system during the late 1990s is a new geographical political economy of electricity encapsulated by two key trends. First, through mergers and acquisitions, an increasing number of electric utilities are now operating in both traditionally regulated and restructured markets, giving rise to a new form of ‘hybrid’ electric utility that is both a competitive entity and a monopoly. Second, the establishment of wholesale electricity markets has introduced a new set of actors into the political economy of electricity, including small independent power producers that compete in the wholesale markets, Wall Street electric utility analysts that are financially assessing the activities of hybrid utilities, and electricity traders that both buy and sell physical electricity in order to realize financial gain by exploiting price differentials that occur along the grid using a variety of hedges, derivatives, and securitization practices. These trends—the restructuring of the electricity system and the entry of new political economic actors—are heightening the importance of finance in the electricity industry, both in how Wall Street traders value the new activities of electric utilities and in how electricity traders are seeking to profit from the changing financial and political relationships between state and corporate actors. This paper aims to investigate these developments – both theoretically and empirically – and points to the ways in which utilities are working to redefine energy systems in ways that ignore pressing concerns over climate change and energy justice.

Keyword: energy, electricity, finance

Session Block 6

2:30 PM – 4:10 PM

27. Political Ecologies of Privilege: Critically Exploring Whiteness, Wealth, Masculinity, and Western-Centrism in Socioecological Scholarship and Movements

Room 105

Organizer(s): Rebekah Breitzer (CUNY Graduate Center)

Chair(s): Rebekah Breitzer (CUNY Graduate Center)

Discussant(s): Rebekah Breitzer (CUNY Graduate Center)

Jessie Luna (Colorado State University)

The body and the bollworm: a comparative political ecology of privilege and marginality

If privilege and marginality are two sides of the same coin (Park and Pellow 2011), this paper seeks not simply to flip the coin over, but asks what we can learn by studying the coin itself: what are the connections between privileged spaces and bodies, and marginalized spaces and bodies? This paper thus explores connections between two highly disparate case studies: wealthy white runners in Boulder, Colorado (Luna forthcoming) and poor black cotton farmers in Burkina Faso (Luna 2018). The two cases represent apparently opposite ends of various constructed binaries of privilege and marginality: first world/third world, white/black, wealthy/poor, urban/rural, environmental privilege/environmental injustice. Yet, I argue that interrogating these oppositions and seeking to understand their coproduction – as political ecologists have begun to do – offers a fruitful opportunity for theorizing how inequality is materially produced and discursively justified. Specifically, I explore the two cases through a lens of neoliberal biopolitics. Both cases feature “apolitical” technological interventions aimed at improving people’s health by controlling unruly natures – whether increasing exercise via fitness tracking technologies in Boulder (controlling unruly bodies), or increasing crop yields via genetically modified cotton in Burkina Faso (controlling unruly bollworms). While these health technologies and desires operate as a spatial fix for capitalist profits, they also play a role in exacerbating global and local inequalities. In both cases, the resulting inequalities are framed apolitically as

“natural” and the result of one’s hard work or laziness – disguising the profoundly political, social, and economic causes of these inequalities. Finally, I explore how the privileged space of choosing a healthy body (Boulder) materially connects with marginalized others (such as those who labor in pesticide-soaked cotton fields to make expensive running clothes). This paper thus begins to tease out some of the material and discursive threads that connect the two sides of privilege and marginality.

Keywords: biopolitics, neoliberalism, environmental inequality, discourses of deservingness, embodiment

Kaytee Canfield (University of Rhode Island)

Privilege in visitation and residence on a Southern California paradise: access, identity, and racism on Catalina Island

Santa Catalina Island has been an escape for residents, first of Southern California and then the United States of America, since the late 1800s. This escape has been from the social mores of the day, the pressures of working life, the concrete jungle of city residence, and the racial difference of a diversifying country. Since its inception as a destination, Santa Catalina’s visitor of interest for tourism branders has been the middle- and upper-class white U.S. citizen. Branding efforts have relied on the construction of this intersectional identity as superior to that of the residents of color and lower socioeconomic status that serve island visitors. Advertising and centering privileged ideas of nature and vacation has created an unwelcoming and unaffordable environment for potential visitors of different identities. Using archival analysis and ethnographic observation, this case study explores the consequences of implicitly and explicitly marketing opportunities to those at this intersection of class and racial identity. Connecting this to environmental justice literature, it evaluates the implications of monopolized tourism management that prioritizes development over residents’ needs. While economically beneficial, this prevents community members access to resources and exploration of their environment that is diverted and distributed in the interest of the visitor. The use of a political ecology lens reveals how centering of privilege over time in the branding of Santa Catalina has disenfranchised nondominant identities and the environment.

Keywords: environmental privilege, tourism, racism

Amanda Green (Eastern Kentucky University)

Does the College Farm ReProduce Privilege?

In this paper, I examine college farms and my own teaching and research on a college farm through the question posed in this session: Can the framework of political ecology be used to examine spaces of privilege? College farms have been proposed to teach and promote sustainability on college campuses (Sayre and Clark 2011; LaCharite 2016). Many of these efforts have been critiqued for their failure to address issues of labor, inequality and access in the food system (Barlett 2011; Meek and Tarlau 2016). Indeed, food activism itself has endured immense criticism for its narrow focus on elite concerns (Gray 2013), critiques which in turn have yielded food justice and food sovereignty movements and scholarship (Alkon and Agyeman 2011; Gottlieb and Joshi 2011). I argue that the college farm concept can reproduce White, Masculine, Able-Bodied, and Class privileges, particularly when these projects do not critically engage with the legacies of U.S. agriculture and policy (historic and contemporary) and its intersections with race, class, gender and ability. Even when engaged with these critiques, college farms may be the outcome of the political and economic privilege of their host institutions. This paper examines how the privileged political, economic, sociocultural and ecological standing of elite higher education institutions enables them to reproduce their own and their students' privileges in college rankings, relationships to and conceptions of natural worlds, and physical and symbolic distance from industrial agriculture and food systems through the college farm. This paper is based on meta-observation of my own research and teaching at such an institution from 2016-2018 as well as ethnographic field visits at similar institutions.

Keywords: Agriculture, Food Systems, Higher Education, Privilege, College Farms

Session Block 6

2:30 PM – 4:10 PM

28. The Payoffs and Pitfalls of Collaborative Research with Physical Scientists (Panel)

Room 129

Organizer(s): Eleanor Andrews (Cornell University)

Chair(s): Eleanor Andrews (Cornell University)

Most political ecological scholarship today is more political than ecological, but the environmental sciences were central to the origins of the field and much research is productively engaged with natural and physical sciences. Collaboration across social and physical/natural sciences is important and useful, but there are challenges and professional penalties. Without intending to reify the divide between the physical and social sciences, nor overlooking those political ecologists who are themselves trained in physical science, panelists in this session will share their experiences conducting research alongside physical scientists and the conceptual and practical lessons learned. Possible topics of discussion include:

- collaborations at their best (opportunities, insights, impacts)
- collaborations at their worst (barriers, limitations, drawbacks, dead ends) integrating different epistemologies and ontologies (e.g., differences in the kinds of questions asked, the form that data and evidence take, how that data and evidence is analyzed)
- investments and returns in different phases of research (e.g., design, grant-writing, data collection, and publishing)
- the role of critique in collaboration
- experiences in large research teams
- how interpersonal factors (e.g., trust and friendship) shape collaborations
- how intersectional differences further shape social-physical collaborations (e.g., race, gender, professional status, language, nationality/citizenship, etc.)

Brief prepared remarks will be followed by a wider conversation among panelists and audience members.

PANELISTS

Eleanor Andrews (Cornell University)

Daniel Ahlquist (Michigan State University)

Kathy de Master (University of California Berkeley)

Chris Knudson (University of Arizona)

Gigi Owen (University of Arizona)

Jamie Shinn (West Virginia University)

Gregory Simon (University of Colorado Denver)

Session Block 6

2:30 PM – 4:10 PM

29. Film Screening: *Anthropocene* (2016), 97 minutes

Room 219

A Working Group of international scientists is deciding whether to declare a new geological epoch - the Anthropocene - a planet shaped more by mankind than nature. Its members tell the story of the Anthropocene and argue whether it's a tragedy, a comedy, or something more surreal. With archival footage, award-winning stills and interviews, *Anthropocene* proposes a common secular narrative for mankind but leaves viewers to decide how we should write the ending. The film has the blessing of Nobel laureate Paul Crutzen, who coined the term, and is the first feature film about the Anthropocene. It is now our turn to decide--in this decade--how the Anthropocene will end. Interviewees include Will Steffen, Erle Ellis, Jan Zalasiewicz, Andrew Revkin, John McNeil, Monica Berger Gonzalez, Eric Odada, Davor Vidas.

This description is from <http://bit.ly/AnthropoceneFilm>.

Session Block 6

2:30 PM – 4:10 PM

30. Abundant Futures for Whom? Embodying the Uneven Geographies of Decarbonization and Energy Transitions (Session II)

Room 229

Organizer(s): Nikki Luke (University of Georgia)
Nik Heynen (University of Georgia)
Patrick Korte (Virginia Commonwealth University)
Jesse Goldstein (Virginia Commonwealth University)

Chair(s): Nikki Luke (University of Georgia)

Nikki Luke and Nik Heynen (University of Georgia)

An Abolition Ecology Perspective on Community Solar as Energy Reparations

At the intersection of urban energy transitions and the unrealized promise of black emancipation, we explore non-profit community solar in New Orleans as a way to think through ongoing demands for energy justice through an abolition ecology perspective. Taking into account the persistent clutch of petro-racial capitalist interests so long embedded within Louisiana, we investigate New Orleans' coupled histories of emancipatory and energy politics as a case through which to force new imaginations of energy reparations. With an estimated 91% solar viability, Louisiana offered a 50% property tax credit to homeowners to incent distributed solar development between 2008 and 2015. Set against the racialized and classed patterns of homeownership in the U.S., we argue that residential solar development works within and reinforces uneven systems of generational wealth accumulation. With the end of the tax credit, proposed community solar programs suggest new forms of distributed energy production to "bridge the solar income gap," address energy poverty, and encourage participation of low-income residents in New Orleans. Community solar programs that allow renters and low-income homeowners to participate seek to decouple the link between home equity and solar wealth building. Drawing from black geographies and abolitionist scholarship, we examine the community solar program proposed in New Orleans as a reparative system of community-controlled energy.

Anthony Levenda and Darshan Karwat (Arizona State University)

Temporality, Contradiction, and Justice in Energy Transitions

This paper explores the idea of contradiction as developed in Marxian political economy and critical theory to conceptualize the fundamental limitations of energy transitions frameworks for social and racial justice. I specifically look at the temporalities of energy transitions and environmental justice struggles articulated in over 80 interviews with environmental, climate, and energy justice (E/C/EJ) groups across the US. I utilize empirical material from the Ohio River Valley, Chicago, IL, and Portland, OR, to illustrate the tensions between reconciling past environmental injustices and the imaginations of a just transition. Broadly, energy transitions intersect with many forms of contradiction. The first (general) contradiction – the contradiction between forces of production and relations of production, embodied in two antagonistic classes – and O’Connor’s formulation of the second contradiction – the contradiction between the conditions of production, ecosystems and human health, and the forces of production and relations of production together, stand out as clear examples. But building on a broader range of theory, including Robinson’s racial capitalism, I position contradiction in tension with struggles against the slow violence of environmental racism and privilege, and the accelerated pace necessary for just energy transitions. If our goal is to advocate and mobilize just transitions, we need to address the (in)commensurability of these temporalities to chart socially just energy futures. Contradictions beyond the neo-Marxist reading offer a starting point for igniting just transitions that can reconcile past violence through accelerated responses that enable valorization of justice, community, and peace.

Keywords: Energy Justice, Energy Transitions, Contradiction, Temporality, Environmental Justice

Jesse Goldstein (Virginia Commonwealth University)

Energy Abolition: Against and beyond the Transparent Energy of Whiteness

This presentation explores ways in which the science and technology concerning energy generation and use fall back upon a settler colonial common sense that extols the virtues of unfettered access to abundant flows of what Larry Lohmann calls “big-E energy” – a very historically specific constellation of electricity and fossil fuels that are necessary to power the technological affordances of modern life. This energetic common sense captures the imagination of a great deal of first world environmentalism, to the extent that it focuses its political energy (not a pun) on solving an unfolding climate/energy crisis with the rapid deployment of renewable energy systems. Putting Lohmann’s analysis into conversation with decolonial and critical race scholarship, I argue that this approach to environmentalism, commonly understood as various calls for a Green New Deal, operates in what Michelle Murphy would call the “economic surround” and what I suggest we see as an

energy surround – a space in which all problems presuppose a very historically specific form of energy generation and use, and then proceed to diagnose all possible solutions accordingly. Further, building off of the work of Denise Ferreria da Silva, I interpret the work undergone within this surround as a commitment to the transparent energy of whiteness: universal, place-less, abstract, ever-flowing and unquestionably desirable. Within this context, I ask what it might look like to explore a conceptual terrain that could reframe environmental struggles for climate justice, just transitions, energy democracy, etc., as a politics of energy abolition. This is not to propose an antitechnological politics or one that is simply against energy, but a politics that seriously interrogates the transparent whiteness of energy, that decenters the fetish of technological fixes (as opposed to sociotechnical environmental transformations) and opens up the possibility of expanding our conceptions of energy, abundance and with them, the range of possible and viable strategies for building vibrant futures.

Keywords: Racial Capitalism, Energy, Green New Deal, Renewable Energy, Whiteness

Keynote Address

5:30 PM – 7:00 PM

Title TBA

Carolyn Finney, PhD (Independent Scholar)

Memorial Hall – 610 South Limestone

Dr. Carolyn Finney is independent scholar, writer, performer, and cultural geographer. She is interested in issues relating to identity, difference, creativity, and resilience. By challenging the theoretical and methodological practices of knowledge production, her research attempts to demonstrate how issues of difference can impact participation and recognition in addressing environmental issues. Her book *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors* (2014) analyzes the ways in which the environment and nature have been racialized in America while also looking at the work of African Americans who are leading the way to greater involvement in environmental issues. She is currently working on a number of projects including a new book (creative non-fiction) that explores identity, race, lived experience and the construction of a black environmental imaginary, and a performance piece about John Muir called *The N Word: Nature Revisited*.

After Party

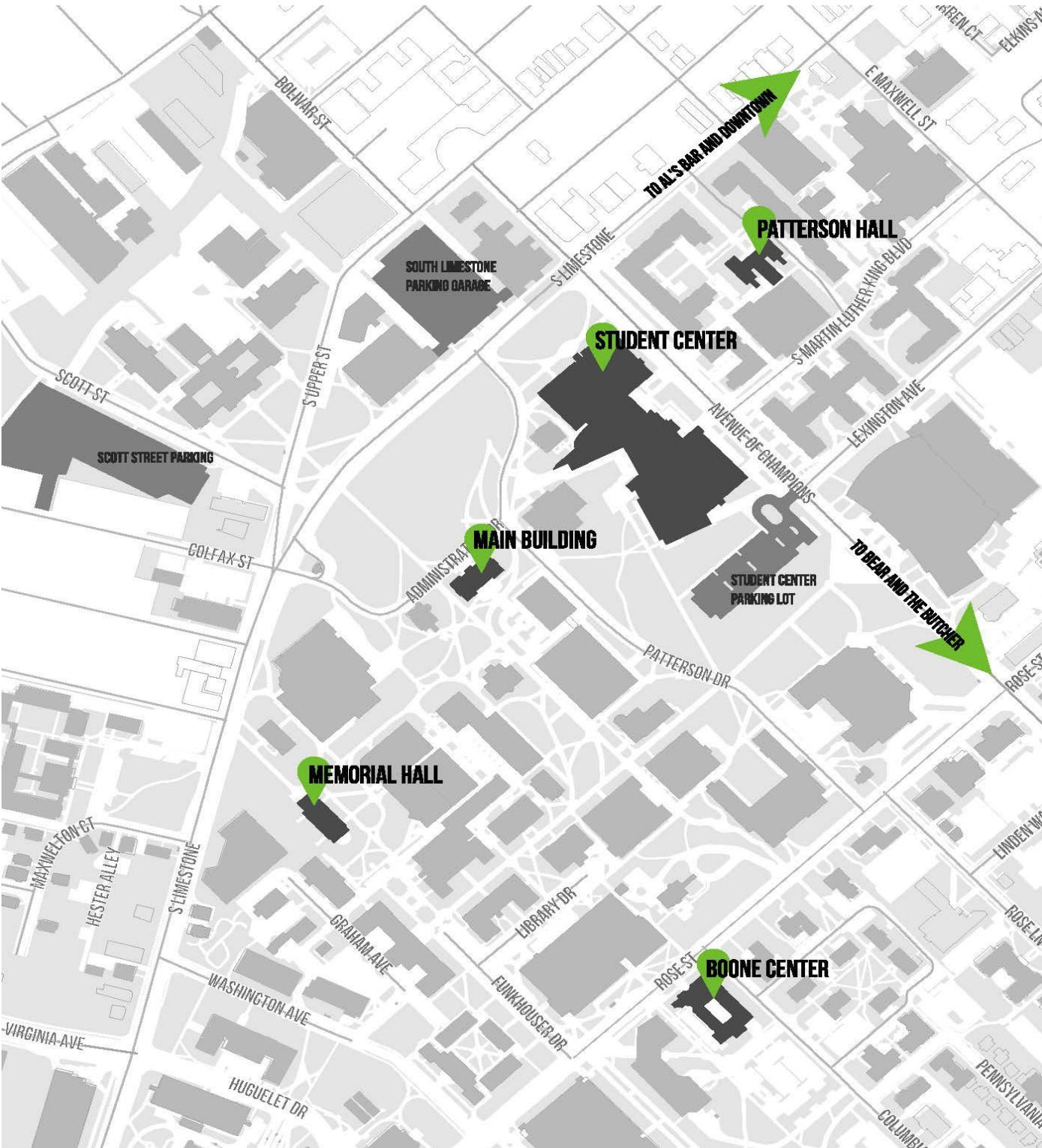
7:00 PM – Late

Join the organizers and other participants for a post-conference celebration! Al's Bar & Beer Garden is well-known venue offering bar food, craft draft beer and many Kentucky bourbons along with frequent live music and poetry readings. Their kitchen is run by Fida's Caribbean Café, which offers authentic Caribbean cuisine.

Al's Bar & Beer Garden

601 North Limestone

University of Kentucky Campus Map



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