



**SWAAG 2022 Annual Meeting  
27-29 October 2022**



Hosted by the University of Arkansas

Venue: [Fayetteville Public Library](#)

(401 W. Mountain St., Fayetteville, AR 72701)

**SWAAG Officers:**

Chair: Erik Prout, Texas A&M University

Treasurer: Randy Pepler, University of Oklahoma

Secretary: Andrew Hilburn, Texas A&M International University

Regional Councilor (2021-2024): Colleen Myles-Baltzly, Texas State University

Student Representatives: Andrew Adams, Texas State University; Dayna Dominguez,  
New Mexico State University

Past Chair: Matt Fry, University of North Texas

**Local Host Committee, University of Arkansas:**

Fiona Davidson, Associate Professor, Department of Geosciences

Katia Avila de Fernandes, Assistant Professor, Department of Geosciences

Edward Holland, Assistant Professor, Department of Geosciences

Dan Holtmeyer, MS Geography student, Department of Geosciences

## Keynote Speakers

**Dr. Rebecca Lave** is a Professor of Geography at Indiana University and Vice-President of the American Association of Geographers. Her research takes a critical physical geography approach, combining political economy, STS, and fluvial geomorphology to analyze stream restoration, the politics of environmental expertise, and non-structural responses to flooding. She has published in journals ranging from *Science* to *Social Studies of Science* and is the author of two monographs: *Fields and Streams: Stream Restoration, Neoliberalism, and the Future of Environmental Science* (2012, University of Georgia Press) and *Streams of Revenues: The Restoration Economy and the Ecosystems it Creates* (2021 MIT Press; co-written with Martin Doyle).

**Dr. Angie Maxwell** holds the Diane Blair Endowed Chair in Southern Studies and is a professor of political science at the University of Arkansas, where she also serves as the Director of the Diane Blair Center of Southern Politics and Society. Maxwell is a Truman Scholar who received her Ph.D. in American Studies from the University of Texas. Her research and commentary have been featured in Henry Louis Gates' *Reconstruction* on PBS, on MSNBC's "The Reid Report" and "The Cycle," and on NPR's *Here & Now*. Maxwell is the author of *The Long Southern Strategy: How Chasing White Voters in the South Changed American Politics* (Oxford University Press, 2019), named the *Times Higher Education* Book of the Week, and *The Indicted South: Public Criticism, Southern Inferiority, and the Politics of Whiteness* (UNC, 2014) which won the V. O. Key Award for best book in southern politics and the C. Hugh Holman Honorable Mention for best book in southern literary criticism. She is the co-editor of *Unlocking V. O. Key, Jr.* (2011), *The Ongoing Burden of Southern History* (2013), and *The Legacy of Second Wave Feminism in American Politics* (2018), and editor of the new edition of Ralph McGill's *A Church, A School* (2012). Her recent articles have appeared in *FiveThirtyEight*, *The Washington Post*, *Presidential Studies Quarterly*, *Journal of Black Studies*, *American Behavioral Scientist*, *Race and Social Problems*, *Politics, Groups, and Identities*, *Social Science Quarterly*, *Virginia Quarterly Review*, *Vox*, and the *Huffington Post*. More details about her work can be found at [www.masonjarpolitics.com](http://www.masonjarpolitics.com).

# Conference Overview

## Wednesday – 26 October 2022

6:30 PM 8:30 PM Social Event at Foghorn's 2 (1545 W. 15th Street, Suite 1, Fayetteville, AR 72701)

## Thursday – 27 October 2022

8:30 AM 5:00 PM Registration (Prefunction Space)  
9:00 AM 9:10 AM Welcoming remarks  
9:15 AM 10:55 AM Human Geography 1 – Culture/Education  
9:15 AM 10:55 AM Geographic Information Science  
11:15 AM 12:45 PM Luncheon Keynote  
Dr. Rebecca Lave, *Critical physical geography in practice: Our depth perception improves when we combine biophysical and social lenses*  
1:00 PM 2:40 PM Human Geography 2 – Health  
1:00 PM 2:40 PM Student Paper Competition 1  
3:00 PM 4:40 PM Nature and Society  
3:00 PM 4:40 PM Student Paper Competition 2  
5:00 PM 5:45 PM Graduate Student Reception (Prefunction Space/Event Center)  
6:00 PM 9:00 PM Geobowl

## Friday – 28 October 2022

8:30 AM 1:00 PM Registration (Prefunction Space)  
9:15 AM 10:45 AM Media, Geography, and Popular Geopolitics  
9:15 AM 10:45 AM Physical Geography  
12:30 PM 2:10 PM Student Posters  
12:30 PM 2:10 PM Posters  
2:30 PM 4:10 PM Virtual paper session  
2:30 PM 4:10 PM Human Geography 3 – Economic/Political  
2:30 PM 4:10 PM Human Geography 4 – Equity and Development  
4:30 PM 5:30 PM SWAAG Board Meeting  
6:00 PM 7:30 PM Dinner Keynote  
Dr. Angie Maxwell, *The Long Southern Strategy: The Role of Geography and Identity in Political Realignment*

## Saturday – 29 October 2022

8:30 AM 1:00 PM Field trip – Devil's Den State Park  
9:30 AM 2:00 PM Field trip – Crystal Bridges Museum of American Art

## Conference Schedule

\* Indicates presenting author if paper or poster is co-authored

### Thursday - 27 October 2022

#### 9:00 AM to 9:10 AM

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Welcoming remarks

Room: Event Center, 100 Level

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#### 9:15 AM to 10:55 AM

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Human Geography 1 – Culture/Education

Room: Reception Room, 100 Level

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| 9:15 AM  | Working with Southeast Texas Teachers to Improve Geography Education and Integrate Geoscience Concepts                 | Ross Guida* – <i>Sam Houston State University</i> , Velvet Nelson, David Moss, John Strait, Ava Fujimoto-Strait, Joseph Hill, Brian Cooper |
| 9:35 AM  | Grounding World Regional Geography So Students Can Fly   | Brad Hanson – <i>New Mexico State University &amp; University of New Mexico</i>  |
| 9:55 AM  | Ranking Arkansas: Student Mental Maps and Preference Maps of Arkansas Counties, 2014-2021                              | Patrick Hagge – <i>Arkansas Tech University</i>  |
| 10:15 AM | Restoration and Resilience: A Community-Based Geospatial Analysis of the Former B.F. Goodrich Plant in Miami, Oklahoma | Valerie Doornbos – <i>University of Oklahoma</i>   |
| 10:35 AM | Construction Traits of Log Outbuildings in Rural Eastern Oklahoma  | Brad Bays – <i>Oklahoma State University</i>   |

Session chair: Brad Bays

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Geographic Information Science

Room: Walker Community Room, 300 Level

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- 9:15 AM A geographic mixed methods approach to assess environmental justice issues for unregulated waste disposal sites Theodros Woldeyohannes\* – *University of New Mexico*, Daniel Beene, Blair Mirka, Yan Lin, Joseph Hoover
- 9:35 AM Contemporary agricultural suitability and multi-decadal land cover analyses in San Martin, Peru Zachary Brecheisen\* – *Purdue University*, Darrell Schulze, Jennifer Koch
- 9:55 AM Rapid land-cover and land-use change in the Indo-Malaysian region over the last thirty-four years based on AVHRR NDVI data Yaqian He\* – *University of Central Arkansas*, Jonathan Chipman, Noel Siegert, Justin Mankin
- 10:15 AM Towards Humanitarian GIScience: Migrant Deaths at the Texas-Mexico Border Alberto Giordano\* – *Texas State University*, Molly Miranker
- 10:35 AM Where is the provenance? Ethical reproducibility and replicability in GIScience Jason Tullis – *University of Arkansas*

Session chair: Jason Tullis

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## 11:15 AM to 12:45 PM

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Luncheon Keynote

Room: Event Center, 100 Level

Dr. Rebecca Lave – *Indiana University*

Critical physical geography in practice: Our depth perception improves when we combine biophysical and social lenses

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## 1:00 PM to 2:40 PM

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Human Geography 2 – Health

Room: Reception Room, 100 Level

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|---------|---|--|
| 1:00 PM | Creating more equitable universities: University of New Mexico student experiences during the COVID-19 pandemic                     | Ramona Malczynski – <i>University of New Mexico</i>  |
| 1:20 PM | Geographic access to cancer support and treatment resources by social vulnerability, rurality and those age 45 and up in New Mexico | Eric Brannen* – <i>University of New Mexico</i> , Yan Lin, Li Luo, Charles Wiggins, Angela Meisner |
| 1:40 PM | Spatial Patterns of Dental Care Accessibility in Texas  | Stephanie Mundis – <i>Texas Department of State Health Services</i>                                |
| 2:00 PM | Leveraging Google Earth Engine to model spatio-temporal pattern of Rocky Mountain Spotted Fever                                     | Al Ekram Elahee Hridoy* – <i>University of New Mexico</i> , Yan Lin, Zhuoming Liu                  |
| 2:20 PM | Deconstructing rurality to better “place” data  | Daniel Beene – <i>University of New Mexico</i>   |

Session chair: Daniel Beene

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Student Paper Competition 1

Room: Walker Community Room, 300 Level

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|---------|--|---|
| 1:00 PM | A Broader View of Conservation: Mapping ecosystem services of working landscapes         | Joanna Weathersby* – <i>Texas State University</i> , Jason Julian   |
| 1:20 PM | Examining Red Tide within Florida’s Tampa Bay  | Jacob Hines – <i>Tarleton State University</i>  |
| 1:40 PM | FloodSafeHome: A flood management support system with tailored freeboard recommendations | Jiyoung Lee* – <i>Department of Geography &amp; Anthropology, Department of Biological and Agricultural Engineering, LaHouse Resource</i> |

*Center, LSU Agricultural Center, Louisiana State University, Shifat Mithila, Rubayet Bin Mostafiz, Md. Adilur Rahim*

2:00 PM How receiving communities structure refugee settlement experiences: the case of Burmese immigrants in DFW Kaitlin Stewart – *University of North Texas*

2:20 PM Large-scale extraction of tree canopy and building height models from high resolution airborne LiDAR data John South\* – *University of North Texas*, Qin Ma, Pinliang Dong, Lu Liang

Session chair: Randy Pepler

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### 3:00 PM to 4:40 PM

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Nature and Society

Room: Reception Room, 100 Level

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3:00 PM Are The Lost Pines Lost? Don Jonsson – *Austin Community College*

3:20 PM Pandemic Geography: Impacts on Visitation Patterns in Texas State Parks Bryant Evans – *Houston Community College*

3:40 PM Sorting Out Recycling: Visualization of Waste-Disposal Guidelines for Impact in the DFW Metroplex Grant Amlani – *Southern Methodist University*

4:00 PM Nature-society relational values in a riverine social-ecological system Jason Julian\* – *Texas State University*, Christina Lopez, Madeline Wade

Session chair: Jason Julian

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Student Paper Competition 2

Room: Walker Community Room, 300 Level

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- 3:00 PM    Quantifying Seasonality and Vertical Dispersion of PM2.5 Using a Mobile Monitoring Approach    Noah Ray\* – *University of North Texas*, Lu Liang, Pinliang Dong, Wei Kang
- 3:20 PM    Renewable Energy in DFW: access, distribution, and equity    Marissa Greer – *University of North Texas*
- 3:40 PM    The influence of urban form and sociodemographic factors on street-level greenery play out at multiple scales and vary across space    Weiyang Lin – *Texas A&M University*
- 4:00 PM    Detecting flood on heterogeneous land covers from synthetic aperture radar (SAR) data for 2016 Louisiana flood (Virtual)    Dan Tian\* – *Louisiana State University*, Lei Wang

Session chair: Randy Pepler

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**5:00 PM to 5:45 PM**

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Graduate Student Reception

Rooms: Prefunction Space, 100 Level; Event Center, 100 Level

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**6:00 PM to 9:00 PM**

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Geobowl

Rooms: Reception Room, 100 Level; Event Center, 100 Level

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# Friday - 28 October 2022

9:15 AM to 10:55 AM

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Media, Geography and Popular Geopolitics

Room: Reception Room, 100 Level

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| 9:15 AM  | Feminist Ferment - Media, Geography and Geopolitics Around Gender in the American Craft Beer Space    | Delorean Wiley* – <i>Texas State University</i> ,<br>Colleen Myles        |
| 9:35 AM  | Surreal use of geography  | Kaitlin Rayburn – <i>University of Oklahoma</i>                           |
| 9:55 AM  | Game on! Investigating the landscape of disaster-related games  | Coty Huneau* – <i>University of New Mexico</i> ,<br>Yolanda Lin           |
| 10:15 AM | Representing transborder communities: Yolanda Cruz and <i>Reencuentros</i>                            | Laurel Smith* – <i>University of Oklahoma</i> ,<br>Filoteo Gómez Martínez |
| 10:35 AM | A Return to Roddenberry's "Wagon Train to the Stars": 20th Century Ideology in 21st Century Star Trek | Fiona Davidson – <i>University of Arkansas</i>                            |

Session chair: Fiona Davidson

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Physical Geography

Room: Walker Community Room, 300 Level

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|---------|---|---|
| 9:15 AM | Atmosphere-ocean Teleconnections and Air Temperature in the South-central United States | Robert Rohli* – <i>Louisiana State University</i> ,<br>Elinor Martin, Kristine DeLong |
| 9:35 AM | Hydroclimate and Environmental Change   | Saber Brasher – <i>Oklahoma State University</i>                                      |

9:55 AM	Testing XRF Discrimination of Marine and Terrestrial Flood Deposits in Southeastern Texas Coastal Marshes	Harry Williams* – <i>University of North Texas</i> , Kam-Biu Liu
10:15 AM	Spring Water Quality Geodatabase to Understand Carbonates and Mixed Carbonate-Silicates in the Critical Zone	Michael Jones* – <i>University of Arkansas</i> , Laura Toran
10:35 AM	Mesonet web site hits and severe convective weather	Steve Stadler* – <i>Oklahoma State University</i> , Jaryd Hinch, Chris Fiebrich

Session chair: Steve Stadler

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## 12:30 PM to 2:10 PM

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Student Poster Competition

Room: Reception Room, 100 Level

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Assessing Environmental Justice Implications of Climate Adaptation Approaches in Legacy Cities	Erica Kronenberger – <i>University of Oklahoma</i> , Lauren Mullenbach
Curating place: Texas State Parks and place narratives	Ashley Green – <i>University of North Texas</i>
Employing satellite remote sensing techniques on UAV imagery for crop mark interpretation: A case study from Roman Libarna	Michael Boyles – <i>Texas State University</i>
Georeferencing 1936 County School District Boundaries in Arkansas	Faith Vire – <i>University of Central Arkansas</i> , Brooks Pearson, Shelby Johnson, Daniel Klotz
How does sediment grain size decrease as rocks are transported within the flowing water of a river?	Sarah Pettyjohn – <i>University of North Texas</i> , Erin Bray
Reconstructing Pre-EuroAmerican Settlement Forest Composition in the Ouachita Mountain Ecoregion, Arkansas	Willow Harper – <i>University of Central Arkansas</i> , William Flatley, Yaqian He
Spatial Unit for Gentrification Vulnerability Analysis of Austin, Texas	Keenon Lindsey – <i>Texas State University</i>

Tiny water droplets hint at tree species' capacity to filter air pollution at a Dallas Elementary School	Savannah Thomas – <i>University of North Texas</i>
Mapping Support for Visualizing Neighborhood STRONG's Growing Impact in East Texas	Noah Tandy – <i>Stephen F. Austin State University</i>
Water use conflicts in the Lower Pecos, Permian Basin: A spatio-temporal analysis of unconventional oil and gas development and agriculture under drought conditions	Angela Rosellini-Labombarde* – <i>University of Oklahoma</i> , Sophie Plassin, Kashaf Mujeeb, Madison Wilson, Katherine Ho, Jennifer Koch, Randy Pepler

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Poster Session Room: Walker Community Room, 300 Level

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How temperature and precipitation have changed across time and space in Wind River Range, Wyoming since 1950 (Virtual)	Yanan Li – <i>Texas State University</i>
All Roads Lead to Polluted Air? Particulate Matter Accumulation by Live Oak Leaves on UNT Campus	Cody Kimpton* – <i>University of North Texas</i> , Shriitha Gayathri, Jennifer Ellis, Alexandra Ponette-González
Contrasting the impact of race and environmental hazard on maternal health disparities: Lessons from the Flint, Michigan water crisis	Kionna L Henderson* – <i>Michigan State University</i> , Ashton Shortridge
Development of Indicators for the Recreation Potential in Orleans Parish and Across the Gulf Coast	Audrey Grismore* – <i>The Water Institute</i> , Scott Hemmerling
Late-Night Humor about Russia Aggression in Ukraine	Darren Purcell* – <i>University of Oklahoma</i> , Katrinka Somdahl
Participation, Protection, and Policy: An Exploration of Urban Forestry in Four Tree Cities USA	Rylee Babino* – <i>University of North Texas</i> , Alexandra Ponette-Gonzalez, Matthew Fry
Plants and Particulate Matter Pollution Indoors: A Pilot Study	Evangeline Dwelle* – <i>University of North Texas</i> , Alexandra Ponette-Gonzalez, Matthew Fry

Predicting the Distribution of Acequias using Geospatial Artificial Intelligence (GeoAI)

Torit Chakraborty\* – *New Mexico State University*, Michaela Buenemann

Relationships between the COVID-19 Pandemic and Land Cover Change in the Darién and Embera Provinces, Panama

Otis Akraši\* – *New Mexico State University*, Michaela Buenemann

Spectroscopy of honey mesquite (*Prosopis glandulosa*) in the Chihuahuan Desert of Southern New Mexico, USA

Amber Ransom\* – *New Mexico State University*, Michaela Buenemann

Understanding Green Stormwater Infrastructure Impacts on the Water Quality of the Barton Creek Watershed in Austin, Texas

Callie High – *Texas State University*

Use of remote sensing for monitoring rangeland vegetation changes following herbicide treatment

Atikul Hoque\* – *New Mexico State University*, Amber Ransom, Michaela Buenemann, Molly Reichenborn

Who Gets Coverage? An Examination of Broadcast Meteorologists Severe Weather Reporting

Victoria Johnson\* – *University of Oklahoma*, Darren Purcell

A Web GIS Platform for Exploring Livestock Population in the U.S. (Virtual)

Hongbo Yu\* – *Oklahoma State University*, Akhilesh Ramachandran, Amy Hagerman, Derrell Peel

BBQ at the Crossroads: The Arkansas Times Barbecue Passport

William Flatley\* – *University of Central Arkansas*, Brock Hyland

Join Zoom Meeting:

<https://uark.zoom.us/j/81310438813?pwd=aHBkVkZldVZuVG9zd2R6RUhHZVZaZz09>

Meeting ID: 813 1043 8813

Passcode: 0xr#9p2Q

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## 2:30 PM to 4:10 PM

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Virtual paper session

Room: Event Center, 100 Level

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| 2:30 PM | 50 years of Glacier Surface Elevation Changes in the Wind River Range, Wyoming Using USGS Lidar Dems, SRTM Dems, and Historic Topographic Maps | Raihan Jamil* – <i>Texas State University</i> , Nancy Li                              |
| 2:50 PM | Children’s Cartography: What is a Map According to Children?   | Heather Swienton* – <i>Texas State University</i> , Alberto Giordano, Ronald Hagelman |
| 3:10 PM | Contrasting Spatial and Temporal Patterns of Decline in Prohibition by Counties of Alcohol Sales in Arkansas Versus Texas.                     | Mark Leipnik – <i>Sam Houston State University</i>                                    |
| 3:30 PM | Land use rationality and future expectations: How land price formation explains the land use change?   | Daniel Silva, <i>University of Texas</i>  |
| 3:50 PM | Temporal/thematic bias of commemorative text and its spatial representation: A case study of Texas Official Historical Markers                 | Yusik Choi, <i>Texas State University</i>   |

Session chair: Edward Holland

Join Zoom Meeting:

<https://uark.zoom.us/j/86050498575?pwd=QjVpeENWZlhRZG10VUJyN1BjNR09NUT09>

Meeting ID: 860 5049 8575

Passcode: 60?DVxWA

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Human Geography 3 – Economic/Political

Room: Reception Room, 100 Level

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- 2:30 PM European grocery retailers' divestment from China Ling Zhang – *University of Central Arkansas*
- 2:50 PM Denmark's a prism: Geographic perceptions of the Danish Realm Erik Breidinger – *University of Arkansas*
- 3:10 PM Environmental Perceptions: Measurement and Validation for Bicycle Level of Service Dane Atkins – *Texas State University*
- 3:30 PM Mapping Rural Broadband: Experiences from Nebraska Jesse Andrews – *University of Nebraska Kearney*, Angela Hollman, Tim Obermier
- 3:50 PM King County Metro's Mobility Equity Cabinet: A Case of Co-Creation in Transportation? Rosalie Ray – *Texas State University*

Session chair: Rosalie Ray

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Human Geography 4 – Equity and Development

Room: Walker Community Room, 300 Level

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- 2:30 PM Más que una porción: framing the persistence of land inequality and latifundio on the urbanizing Texas-Tamaulipas border Andrew Hilburn – *Texas A&M International University*, Alison Hadley
- 2:50 PM Confronting Climate Change with Marxist Theory of Development Waquar Ahmed – *University of North Texas*
- 3:10 PM Meteorological Data Comparison – a Case Study in the relationship between a spatial model of potential exposure to abandoned Uranium Mine Sites (AUM's) and marginalized communities in New Mexico Christopher Giralmo\* – *University of New Mexico*, Yan Lin, Joseph Hoover, Daniel Beene, Theodros Woldeyohannes, Zhuoming Liu

- 3:30 PM Economic Growth and Reflections of Nanda Das\* – *University of North Texas*,  
Cost Recovery Considerations in Waquar Ahmed  
Municipal Solid Waste Management
- 3:50 PM Refugee “Resettlement Ecosystems” Emily Frazier – *Missouri State University*  
& the Uneven Geographies of  
Immigrant Incorporation in the U.S.

Session chair: Emily Frazier

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### 4:30 PM to 5:30 PM

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SWAAG Business Meeting

Room: Reception Room, 100 Level

Join Zoom Meeting:

<https://uark.zoom.us/j/87271734174?pwd=WmYwbG55blhxMmh6NDRPUzFaMXRYQT09>

Meeting ID: 872 7173 4174

Passcode: ud9#7KeS

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### 6:00 PM to 7:30 PM

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Dinner Keynote

Room: Event Center, 100 Level

Dr. Angie Maxwell – *University of Arkansas*

The Long Southern Strategy: The Role of Geography and Identity in Political Realignment

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