



Midwest Undergraduate Geography Symposium



Macalester College
May 2, 2026

Welcome to Macalester and MUGS

On behalf of the Geography Department at Macalester College, welcome to MUGS! We're excited to showcase research by undergraduates in geography, environmental studies, and related fields from Minnesota and Wisconsin.

Your hard work on such creative and innovative projects is what makes the annual MUGS meeting such a success. Welcome to Saint Paul, enjoy the meeting, and Geography Forever!

Sincerely,

The MUGS 2026 Planning Committee

Eric D. Carter, Macalester Geography Department Chair
Oliver Matus-Bond and Catherine Kane, Macalester Geography Students
Connie DeLage, Macalester Geography Department Coordinator

8:30 AM - 9:30 AM	Registration and Breakfast T202
9:30 AM - 10:40 AM	Paper Session 1
10:40 AM - 10:50 AM	Break
10:50 AM - 12:00 PM	Paper Session 2
12:00 PM - 1:00 PM	Keynote Address
1:00 PM - 2:15 PM	Lunch and Poster Session
2:15 PM - 2:20 PM	Break
2:20 PM - 3:20 PM	Lightning Talks
3:20 PM	Business Meeting

Keynote Address

Mairs Concert Hall
Music Building, 1st Floor

Opening Remarks

Dr. Eric Carter, Macalester Geography Department Chair
Dr. Tom Halverson, Dean of the Faculty, Macalester College

Nourishing Geography: Six Dimensions of a Thriving Discipline

Dr. William G. Moseley

These are challenging times for American higher education and geography has not been immune to the headwinds. While periods of turmoil are disconcerting, these can also be times of opportunity if the discipline is proactive and strategic. This talk discusses six such challenges that also represent opportunities for the American Association of Geographers and geography.



William G. Moseley is a DeWitt Wallace Professor of Geography and Director of the Food, Agriculture and Society Program at Macalester College in Saint Paul, MN. His research focuses on tropical agriculture, food security, environment and development, particularly in Africa. He is the author or co-author of more than 100 peer reviewed journal articles and book chapters as well as 12 books. His research has been funded by the US National Science Foundation, the US Fulbright-Hays Program, and the American Geographical

Society. In 2022-2023, he was a Phi Beta Kappa scholar, in 2016 he was awarded the Kwadwo Konadu-Agyemang Distinguished Scholar Award by the AAG, and in 2013 he received the AAG media award. He currently serves as president of the Mande Studies Association (MANSA) and President of the American Association of Geographers (AAG). He previously served as a member of the United Nations High Level Panel of Experts for Food Security and Nutrition (HLPE-FSN). His commentaries have appeared in the New York Times, the Washington Post and Al Jazeera English.

Session 1A

9:30-10:40

Room T200, Theater Building

Author	Presentation Title
Jack Karlen, Victoria Carroll, Justin Jones University of St. Thomas	Modeling the impact of pollinator-friendly gardens on bee populations and habitat connectivity in three Saint Paul Neighborhoods
Jordan Glass Macalester College	Investigating Heat Island Effects in Phoenix, Arizona, Compared with Surface type and Median Income
Ezra Korn-Meyer Macalester College	Investigating the Sustainability of Senior Living at the Marvella Community in St. Paul
Gryphon Cruse, Hannah Thiher, Lauren Peterson, Sydney Nelson University of St. Thomas and St. Catherine University	Identifying Optimal De-Paving Locations to Reduce Urban Heat Islands in the Twin Cities
Moderator	Paul Lorah University of St. Thomas

Session 1B

9:30-10:40

Room T205, Theater Building

Author

Presentation Title

Megan Gangl
University of Minnesota
Duluth

Socially Constructed Wildlife
Limits: From Biological
Carrying Capacity to Wolf
Policy in the Upper Midwest

Catherine Kane
Macalester College

The Political Ecology of
Beltway Banditry

Julianna Stewart
Gustavus Adolphus College

Geography and Conflict: The
War of the Boko Haram
Splinters

Jakob Gustafson, Benjamin
Kovalcik, Nicole Martens,
Madeline Vang
University of St. Thomas
and St. Catherine University

Modeling pollinator habitat
connectivity between three St.
Paul college campuses

Moderator

Tiffany Grobelski
Gustavus Adolphus College

Session 2A
10:50 - 12:00
Room T200, Theater Building

Author

Presentation Title

Caroline Fitzpatrick
Macalester College

The First "15 Minute City:"
Sustainable Urban
Development in Pre-Capitalist
Morocco

Caleb Browne
Macalester College

Detecting Roof Repair
Dynamics Using PlanetScope
Imagery in Cape Coral / Fort
Myers After Hurricane Ian

Jack McNeely, Rowdah Jama
and Katelyn Olson
University of St. Thomas and
St. Catherine University

Building Community by
Conserving Nature: Optimal
sites for pollinator gardens in
St. Paul

Fiora Boyer
Macalester College

Asthma, Terrain, and Inequality
in the Salt Lake Valley

Moderator

Xavier Haro-Carrión
Macalester College

Session 2B
10:50 - 12:00
Room T205, Theater Building

Author

Presentation Title

Zach Marshak
Macalester College

Local and Sustainable Solutions
in the Development of Rural
Transportation Infrastructure

Rachel Scher
Macalester College

Legal and Traditional Systems of
Land Division in Rural Cambodia

Megan Precopio
Macalester College

Uprooting Livelihoods:
Agricultural Development as a
means of Colonial Extraction and
Undermining Uyghur Identity in
Xinjiang, China

Philomena Shuffelton-Sobe
Macalester College

Unsustainable Stories:
Agricultural Knowledge on the
Great Plains, 1880-1934

Moderator

Xochizeltzin Castañeda-
Camacho
St. Olaf

Posters

1:00- 2:15

2nd Floor Atrium, Janet Wallace Art Commons

Author

Presentation Title

Katie Martin & Dylan Jeppe
Macalester College

Powered Up: Tracing the
Commodity Chain of Electric
Vehicle Batteries

Millie Mamantov
Macalester College

Connecting Through the
Grapevine

Joe Melloh & Drew Morral
Macalester College

Commodity Chain of the Play
Station 2

Khue Le & Catherine Kane
Macalester College

Heroin Commodity Chain

Eva Ronshaugen, Lila Hughes,
Xochizeltzin Castañeda-
Camacho
St. Olaf College

Potential Negative Impact of
Mining Development in the
Boundary Waters Canoe Area
Wilderness, Minnesota

Solomon Landman-Feldman
Macalester College

Greenspace for Yesterday,
Today and Tomorrow: How
American Cities Maintain Their
Parks Despite Population Loss

Lightning Talks

Session A

2:20 - 3:20

Room T200, Theater Building

Author	Presentation Title
Ella Oestreicher University of Wisconsin-Eau Claire	The characterization of a fluvial channel located within the coastal plain of Gamay Bay, Northeast Samar, Philippines, through ground penetrating radar subsurface imaging
Grace McDonnell University of Wisconsin-Eau Claire	Verifying the Scale of High-Energy Events Throughout the Filipino Gamay Coastal Plain
Danny Raymond University of Wisconsin-Eau Claire	Imaging Erosional and Progradation Events along Gamay Bay Coastal Plain, Phillipines
Benjamin Weng, Macalester College	Typhoon Genesis in the Western Pacific: a Comparative Study of the Philippines Atmosphere-Ocean Condition in Active and Inactive Typhoon Seasons
Rachel Scher, Macalester College	Change Over Time at the Lower Se San 2 Dam
Moderator	Harry Jol UW-Eau Claire

Lightning Talks

Session B

2:20 - 3:20

Room T205, Theater Building

Author

Presentation Title

Owen Schmeichel
Macalester College

Mycorrhizal Diversity and
Seasonality in Western Mexico

Gabriel Donnelly Higgins
Macalester College

Cropland and NDVI: Measuring
Change in Ukraine

Pablo Quinonero Koch
Macalester College

Pollution Externalities:
Evaluating California High-
Speed Rail as a Transportation
Solution

Daniel Walsh
University of Minnesota

Geographies of Disparity:
Spatial differences in mobility
by gender in Twin Cities

Will Rosenberg
Macalester College

The Exploited “Othering” of
Mining Disputes in Minnesota’s
Iron Range and the Twin Cities
Urban Core

Moderator

Eric Carter
Macalester College



All MUGS events are held in the Janet Wallace Fine Arts Building, which has three connected spaces: Music Building, Theater Building, and Art Commons.

Most sessions will be held in classrooms on the second floor of the Theater Building. Registration and Poster Session will be on the second floor atrium of the Art Commons

MUGS

2026 Abstracts



