The Global Metropolitan Studies (GMS) program at UC Berkeley was established to address major transformations in cities around the world. Urbanization brings a range of new physical and political configurations and challenges—ecological crises, processes of democratization and de-democratization, urban marginality, and emergent strategies of recognition and resistance. The expansion of digital data and tools now provides new opportunities for study of transportation, housing, infrastructure, environment, and other critical aspects of urban form and process. GMS is a community of scholars across disciplines at Berkeley that investigates these challenges and politics of the new urban century. GMS trains young researchers to collaborate with one another to study the urban condition through its administered Designated Emphasis (a PhD minor to support scholarship on urban systems). It also facilitates interdisciplinary exchange on these topics by organizing a lecture series on international urban themes in partnership with multiple departments across campus, and hosting small workshops and sponsoring student groups. Finally, GMS works to catalyze interdisciplinary research initiatives by organizing interdisciplinary faculty workshops focused on specific external funding programs.

**2021–22 GMS Co-Directors:**

G. Mathias Kondolf, Professor of Landscape Architecture & Environmental Planning  
Joan Walker, Professor of Civil and Environmental Engineering
GMS Leadership Transition

After four years Matt Kondolf will be stepping down as the GMS Co-Director. GMS Core Faculty Member Desiree Fields of the Geography Department will be taking over and joining Joan Walker as GMS Co-Directors for the 2022–23 academic year. Thank you Matt, and welcome Desiree!

Programming

GMS organized a series of lectures and workshops this year in collaboration with a wide variety of academic units on campus. Our aim was to encourage research communities that might not normally showcase scholarship on international urban studies to do so, and to encourage our faculty and graduate students to attend events in departments or research centers they might not usually visit.

While in previous years we have brought in external researchers, our emphasis this year was to reconnect our own campus community, including our 5 core faculty members, 62 faculty affiliates, and 46 PhD students across 23 departments. This was accomplished through a series of mostly in-person events as we returned to campus post-pandemic, and we included networking and socializing opportunities at most events.

Workshop

October 8, 2021, we hosted a workshop at the Social Science Matrix on Critical Infrastructure Under Stress. The objective was to build connections across disciplines and to define and enable an impactful research agenda that leverages the rich research community at UC Berkeley and beyond. Over 40 faculty, staff researchers, and students participated in the workshop, which featured lightning talks and breakouts on the following broad themes:

• Infrastructure and Public Purpose
• Pandemic Revelations and Accelerants
• Deterioration, Disaster, and Resilience

Photo (right): The reception following the Critical Infrastructure Under Stress event (Photo courtesy of Joan Walker)
**Seminars**

We organized three follow-on seminars focusing on interdisciplinary discussions on particular aspects of infrastructure:

- **April 1, 2022:** *Do Equity Metrics for Smart Transportation Measure Up? An Interdisciplinary Discussion (Co-sponsored by the Institute of Transportation Studies)*
- **April 27, 2022:** *Digital Transformations in Global Land, Housing, and Property (Co-sponsored by the Social Science Matrix and Network for a New Political Economy)*
- **May 12, 2022:** *Floods and Equity (Co-sponsored by the Social Science Matrix)* [Video and Audio]

**Professional Development**

We also organized two professional development workshops to aid in student professionalization:

- **October 28, 2021:** *Threading the Interdisciplinary Needle: Advancing Your Work Across Fields While Maintaining Your Home Base*
- **March 3, 2022:** *Journal Articles: Getting from Start to Finish!*

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**Collaboration with HBCU Jackson State University**

River banks historically provided important open space and leisure opportunities for people of all walks of life, but along some large rivers, levees and other flood control infrastructure have cut urban residents off from their rivers, with disadvantaged residents being among the hardest hit. In the project *ReConnecting with Big Rivers*, faculty and students from Jackson State University (JSU) and UC Berkeley (UCB) assess sites along both the Mississippi and Sacramento Rivers, with an eye toward improving public access. After observing conditions along Sacramento River levees in Sacramento and the Delta, the student teams presented their initial proposals on May 21 on the Berkeley campus, with a second exchange planned in Mississippi in mid-October. The project is coordinated by Prof. Berneece Herbert (JSU) and Professor Matt Kondolf (UCB).
Designated Emphasis

There are currently **46 students** in the GMS Designated Emphasis, from the following departments: Anthropology; Architecture; City & Regional Planning; Civil & Environmental Engineering; Education; Energy and Resources Group; Geography; History; Landscape Architecture & Environmental Planning; Political Science; Social Welfare; and Sociology.

We are particularly pleased to have welcomed the following **new students** into the DE this year:

- **Adrienne Dodd**
  - Landscape Architecture & Environmental Planning
  - Climate change, natural hazards, displacement, just climate resilience

- **Matt Falcone**
  - Civil & Environmental Engineering
  - Environmental fluid mechanics, climate change adaptation, coastal resiliency, nature-based solutions

- **Joseph Greenbaum**
  - Political Science
  - Political economy, waste, toxicity, food, East & Central Africa

- **Cheng-Kai Hsu**
  - City & Regional Planning
  - Micromobility, public health, environmental exposure, mobile sensing

- **Sarah Lee**
  - History
  - The Central Valley, urban history, history of policing, racial capitalism, uneven development, agroburbs

- **Isabel Peñaranda Currie**
  - City & Regional Planning
  - Urbanization in the Global South, peripheral urbanization, informal markets

- **Taesoo Song**
  - City & Regional Planning
  - Housing policy, gentrification, displacement, eviction, neighborhood changes, migration

- **Michael Virtucio**
  - Civil & Environmental Engineering
  - Transportation networks, agent based modeling, disaster resiliency, public transportation

During the 2021-2022 academic year, GMS offered its two core classes. **GMS 200**, the gateway class, was taught by Professors Alison Post (GMS/Political Science) and Kenichi Soga (Civil Engineering) during the Fall semester to 16 doctoral students from a variety of fields (Anthropology, City & Regional Planning, Civil Engineering, ERG, Landscape Architecture, and Political Science). **GMS 201**, the dissertation writing seminar, was taught by Professor Brandi Summers (GMS/Geography).
Funding Awards

GMS was pleased to award funding for research and conference travel to students enrolled in the DE.

This year, the winners of 2022 research awards were:

• Cristina Crespo Montañés (Energy and Resources Group)
  *Exploring the Equity Implications of Residential Electrification*

• Joseph Greenbaum (Political Science)
  *Topologies of Toxicity from e-Waste Processing in East Africa*

• Cheng-Kai Hsu (City and Regional Planning)
  *Intersectionality of Unshielded Micro-mobility Rider, Uncontracted Gig Worker, and Subtropical City Citizen: Sensing Air Pollution Exposure of Food Delivery Motorcyclists in Kaohsiung, Taiwan*

• Bavisha Kalyan (Civil and Environmental Engineering)
  *Community-centered Machine Learning for Equitable Lead Remediation*

• Sarah Lee (History)
  *Producing the Central Valley: Police, Race, and Carceral Space in California’s Central Valley*

• Taesoo Song (City and Regional Planning)
  *Bellwethers or Victims of Neighborhood Change? Commercial Gentrification and Queer Spaces in Jongno 3-ga, Seoul*

GMS also awards grants to students to defray the cost of conference travel expenses. We were happy to see conference travel returning in the spring, and grants were awarded to: Savanah Cox (City and Regional Planning), Irene Farah Rivadeneyra (City and Regional Planning), Cheng-Kai Hsu (City and Regional Planning), Madeleine Parker (City and Regional Planning), Matthew Stenberg (Political Science), and Liubing Xie (City and Regional Planning).

Sorting and smelting waste streams, resource recovery, and run-off at waste processing site in Central Uganda.

(Photocourtesy of Joseph Greenbaum)

Commercial gentrification has been rapidly changing the economic and cultural landscapes in the Jongno District in Seoul.

(Photocourtesy of Taesoo Song)
Accomplishments by DE Students

Our DE students have shown tremendous resilience in these difficult times. During the 2021–22 academic year, students from the DE in Global Metropolitan Studies received prestigious fellowships from outside institutions and published articles in peer-reviewed journals, showcasing a diversity of exciting research interests. We congratulate them on their accomplishments!

Students and respective fellowships included:

- Gustavo Capela (Anthropology): Wenner-Gren Foundation Field Research Grant
- Giuseppina Forte (Architecture): Environmental Justice Research Fellowship, University of Florence
- Jessica Lazarus (Civil and Environmental Engineering): Dwight D. Eisenhower Transportation Fellowship
- Beki McElvain (City and Regional Planning): FLAS Area Studies Fellowship
- Giselle Mendonça Abreu (City and Regional Planning): IJURR Studentship Grant
- Alexandra Pan (Civil and Environmental Engineering): Dwight D. Eisenhower Transportation Fellowship
- Madeleine Parker (City and Regional Planning): Dwight D. Eisenhower Transportation Fellowship
- Ettore Santi (Architecture): Mellon/ACLS Dissertation Completion Fellowship

Students and respective peer-reviewed articles and book chapters included:

- Faisal Almogren (City and Regional Planning)
  

- Celina Balderas Guzman (Landscape Architecture and Environmental Planning)
  

- Laura Belik (Architecture)
  
  **Belik, Laura.** 2021. “Paxiúba: Traditional Housing in the Western Amazon.” *Architectural Theory Review,* online first.


- Juan Caicedo (Civil and Environmental Engineering)
  
• Savannah Cox (City and Regional Planning):

• Salma Elmallah (Energy and Resources Group)

• Giuseppina Forte (Architecture)

• Bavisha Kalyan (Civil and Environmental Engineering)
  Lobo, Gabriel P., **Bavisha Kalyan,** and Ashok Gadgil. 2022. “Electrochemical deposition of amorphous aluminum oxides on lead pipes to prevent lead leaching into the drinking water.” *Journal of Hazardous Materials* 423(B), 127195.

• Meiqing Li (City and Regional Planning)

• Madeleine Parker and Meiqing Li (City and Regional Planning):

• Isabel Peñaranda Currie (City and Regional Planning)

• Alex Ramiller (City and Regional Planning):
• Laura Schmahmann (City and Regional Planning):


• Matthew Stenberg (Political Science):


• Liubing Xie (City and Regional Planning):


Student Group Activities

GMS student groups supported research initiatives both on campus and remotely this academic year. GMS sponsored four student groups this year:

• Asian Cities
• Climate and Impacts Research Hub
• Latin American Cities
• Urban Dynamics

The Latin American Cities group has launched a new podcast series, “Sur-Urbano”, available now on major podcast platforms like Spotify and Apple Podcasts. In this series, scholars at UC Berkeley interview leading scholars on Latin American Cities about their research, about the cities themselves, and about ways that cities might be improved.