

Unit 0: Sneak Peak | 06.05.25 15:00-15:15

**Welcome to the 2025 T/U(X)W Design Challenge!**

## 2015 Cart Lab Design Challenge

### Mapping the transnational hazardous waste trade

Interested in environmental justice? Have a little mapping experience? Use the first to look for patterns and stories in our dataset. Add a new map to your portfolio and compete for prizes in our one-day design event!

Over one million tons of hazardous waste are traded among the United States, Canada, and Mexico each year. What kinds of waste are traded, and where do they go? What happens to it upon arriving at its destination? What does it mean for communities that are major hazardous waste importers?

In this design challenge, UW-Madison students are invited to participate in a mapping competition to begin to answer these questions. Participants will be the first to look at a previously unreleased dataset assembled from two Freedom of Information Act Requests to the U.S. Environmental Protection Agency on U.S. hazardous waste imports.

To participate, you must:

- Be a student
- Register by **5pm February 6th** via the form at [bit.ly/yfG5Ww](http://bit.ly/yfG5Ww). Name details and the dataset will be sent after registration.
- Have taken GIS/370 or possess equivalent experience
- Work individually or in groups of two
- Work in any medium (e.g., hand drawn, print, or interactive), but maps must be visible on powerpoint slides or work in browser

Register by 5pm February 6th at [bit.ly/yfG5Ww](http://bit.ly/yfG5Ww). Questions? Contact Robert Roth at [reroth@wisc.edu](mailto:reroth@wisc.edu).

**\$800**  
in prizes  
(\$500 top prize)

Meals  
provided to  
participants

**Saturday  
Feb. 14,  
9am-7pm**

Cartography  
Lab, Science Hall  
M390, 550 N.  
Park St



## DesignChallenge2020

### SPEND THE DAY IN THE NEWSROOM

On **February 22, 9am-8pm** Geography students will convene in the UW Cartography Lab for the annual **Design Challenge**. If you are interested in an experience of mapping the news, please sign up by February 14 to participate. Also join our special guest, Lauren Tierney (Washington Post) for her Yi-Fu talk on Friday February 21.

**expert guest:**  
**Lauren Tierney**  
Graphics reporter and cartographer  
Washington Post



Any questions should be directed to  
Bob Roth ([reroth@wisc.edu](mailto:reroth@wisc.edu)) or Tanya  
Buckingham ([tbuckingham@wisc.edu](mailto:tbuckingham@wisc.edu)).  
Please sign up so we know how  
much food to order!  
[bit.ly/DesignChallenge2020](http://bit.ly/DesignChallenge2020)

## Design Challenge 2023

### visualizing the evolution of the Great Plains

February 25 110am - 8pm | UW Cart Lab, M390 Science Hall



This year, we'll be collaborating with Geography Prof. Joe Mason on an NSF-funded project to tell visual stories about how landscapes and ecosystems are responding to a changing climate. You will gain experience collaborating on interdisciplinary teams of cartographers and Earth systems geographers to create compelling explanations of landscape evolution! The event will give you the chance to explore new terrain representation and hydrological flow mapping techniques, combine realistic and artistic visual styles to promote public engagement, and add a proof-of-concept design piece to your portfolio! **Meals provided throughout the event to all participants.**

Sponsored by the National Science Foundation and the University of Wisconsin Cartography Lab. For questions, please contact Robert Roth at [reroth@wisc.edu](mailto:reroth@wisc.edu).

Register by Feb. 17 here:

[tinyurl.com/23uaejms](http://tinyurl.com/23uaejms)



SCAN ME

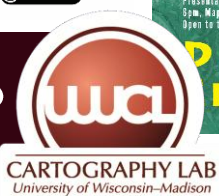
VISUALIZE SPATIO-TEMPORAL FOSSIL DATA

SHRIMP & TUNA FROM THE CRETACEOUS PERIOD  
SIGN UP: [bit.ly/DesignChallenge2019](http://bit.ly/DesignChallenge2019)

Sat. Feb. 20  
Design 8:30am-5pm  
UW Cartography Lab  
Meals provided  
Presentations:  
5pm-Map Library  
Open to the public

## DESIGN CHALLENGE

# What is a Design Challenge?



## Design Challenge 2018

### feminist cartographies and recidivism

February 17 | 9am-8pm | UW Cart Lab, Science Hall



Sponsored by: UW-Madison Cartography Lab, Geography, WIG, Geography and the Holtz Center for Science and Technology Studies

**With Who?** Catherine Dignazio (feminist data visualization expert) AND the United Way of Dane County, specifically the Journey Home Initiative. The Journey Home Initiative addresses recidivism or "return to prison rates" by providing housing, employment, support, and treatment programming for individuals looking for a fresh start.

**What?** This year's Design Challenge explores the geographies of recidivism in Madison through feminist mapping! Working with Catherine Dignazio, we'll learn about feminist visualization principles and then put theory into practice in an all-day mapping event. We'll break into teams and work with the Journey Home Initiative of the United Way to make maps that have a positive and productive impact on our community disrupting the cycle of recidivism in Madison.

**Why?** This workshop is for you if you're interested in maps, design, feminist theory, and social justice! You'll walk away with a portfolio piece, work on a real-world project, meet more people in the department and on campus, and develop feminist mapping practices in a supportive environment!

**BREAKFAST, LUNCH, SNACKS, BEVERAGES, AND DINNER ARE PROVIDED!**

RSVP: <https://tinyurl.com/DesignChallenge2018>  
or email Meghan Kelly ([mkelly22@wisc.edu](mailto:mkelly22@wisc.edu))

United Way of Dane County

Map provided by Catherine Dignazio, Robert D'Amico, Andrea DeGroot, and David Hays - Geography 212

## 2017 DESIGN CHALLENGE

### MEANINGFUL WORK FOR YOUR CITY

hosted by the UW-Madison Cartography Lab  
March 4, 2017 • 9am-8pm • UW-Madison Cartography Lab

Maps are powerful and persuasive visuals for tackling local needs. The 2017 Design Challenge will focus on mapping and community needs in Madison! Participants will create a comprehensive plan for Madison focused on community services (where are the services and who is being served), and create a focused map analysis of Bridge Lake Point Waunona Community Center (what does the center provide, and who's being served). The goal is to put our plans into action to make a difference within our community.

Join us in the Cart Lab if you have taken 395, 390, 377, or have expertise in city planning and you want to:

- Improve your design skills
- Work on a meaningful, real-world project
- Meet more people in the department



WATCH HERE FOR AN  
ANNOUNCEMENT  
ABOUT SPECIAL GUEST  
CARTOGRAPHER

INFO & REGISTRATION: [bit.ly/DesignChallenge2017](http://bit.ly/DesignChallenge2017)

BREAKFAST, LUNCH, & DINNER WILL BE SERVED TO PARTICIPANTS

## Design Challenge

### Transforming Justice

**Pre-Workshop Fieldtrip to Milwaukee**  
Saturday, February 9 | 9am-5:30pm

**Kelly Lytle Hernandez, Yi-Fu Tuan Lecture**  
Friday, February 22 | 3:30-4:30pm

**Transforming Justice Mapping Workshop**  
Saturday, March 2 | 9am-8pm

Join us in collaboration with Jenna Loyd, Kelly Lytle Hernandez, and Transforming Justice for the fifth annual Design Challenge in the UW-Cart Lab! We will explore everyday experiences of policing in Milwaukee. Drawing on video documentaries and workshop transcripts, we will explore how these experiences build on histories of segregation and how they continue to shape divisions in the city, access to shared spaces, and well-being.

For more information: <https://tinyurl.com/TransformingJusticeDC2019>

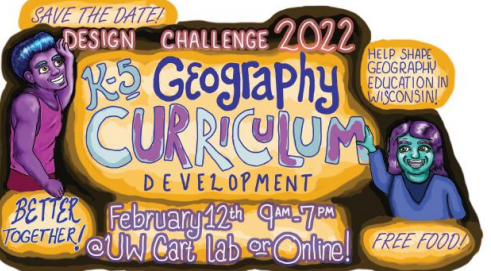
**Sponsored by...** Afro-American Studies, Center for Humanities, Chicana@ and Latina@ Studies, Department of History, Geography Department, Havens Center, Holtz Center, IAGIS, Morgridge Center, and UW Cart Lab.

Illustration by Carmen Quintan



Save the Date!

THE UW CARTOGRAPHY LAB AND  
THE CENTER FOR TEACHING, LEARNING & MENTORING PRESENT



COME FOR THE CURRICULUM DEVELOPMENT, STAY FOR THE FOOD!



## A Design Challenge for Enhancing Cartographic Research, Education, & Outreach

Robert E. Roth <sup>a,\*</sup>

<sup>a</sup> *Cartography Lab, Department of Geography, University of Wisconsin–Madison – [reroth@wisc.edu](mailto:reroth@wisc.edu)*

\* Corresponding author

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**Keywords:** design challenge, mapping workshop, pedagogy, community-engaged scholarship, cartography labs

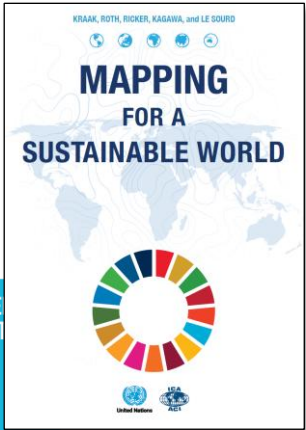
### Abstract:

The University of Wisconsin Cartography Lab (Cart Lab) *Design Challenge* is a day-long mapping workshop that brings together Cartography and Geography students, often in collaboration with campus or community partners, around a curated mapping theme (Moore et al. 2017, Bley et al. 2022). The Design Challenge is now an institution in the University of Wisconsin–Madison Geography Department, first running in 2015 and wrapping its 10<sup>th</sup> annual event this past February 2024. We seek to identify topics that are inclusive of the diverse breadth of expertise and interests in the Geography Department, oscillating between human/critical and environmental/geophysical case studies and between research versus community partners (Table 1). In total, the ten Design Challenges have involved 68 organizers and partners and participation from 198 students from UW-Madison undergraduate and graduate Cartography and Geography programs. Accordingly, there have been numerous contributors and individual experiences across the ten Design Challenges, and in this presentation, I reflect on the strategic role of the Design Challenge for expanding cartographic research, education, and outreach at UW–Madison from my perspective as the Cart Lab Director.

2025 Prompt:



# SUSTAINABLE DEVELOPMENT GOALS



**Kraak, Roth, Ricker Kagawa, Le Sourd (2020)**  
*Mapping for a Sustainable World*

# Why Participate in a Design Challenge?

- ✓ Experience a real-world day in the life of a cartographer, and test your skills along the way to self-assess knowledge gaps



UNCERTAINTY / PATTERNS / INSIGHTS

CLARITY / FOCUS



RESEARCH

CONCEPT PROTOTYPE

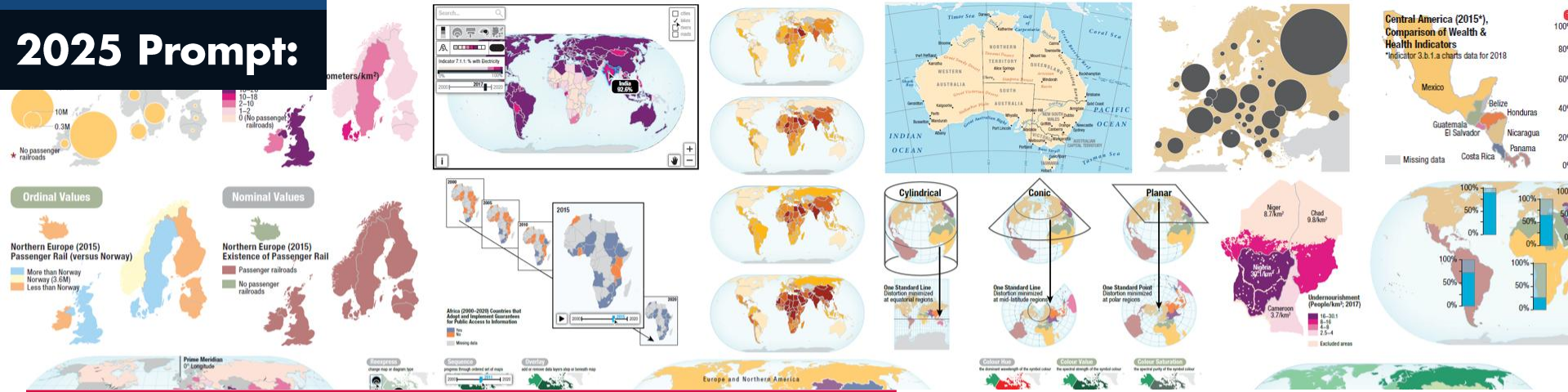
DESIGN

# Why Participate in a Design Challenge?

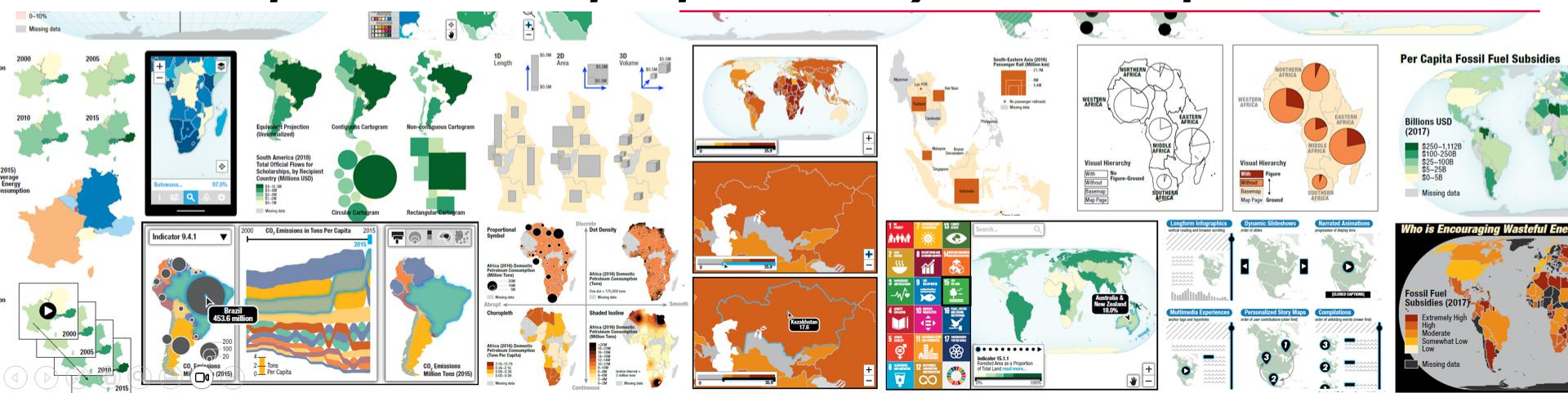
- ✓ Experience a real-world day in the life of a cartographer, and test your skills along the way to self-assess knowledge gaps
- ✓ Learn about many of the most pressing challenges facing our world and how maps can help understand and solve them







**Create a collective atlas of the SDGs telling stories of local & regional inequities from the perspectives of your lived experiences**



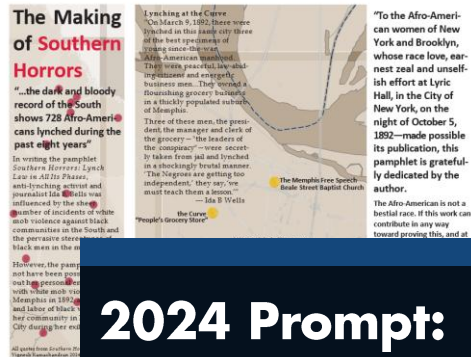
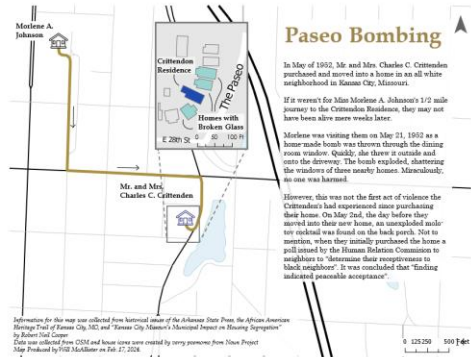
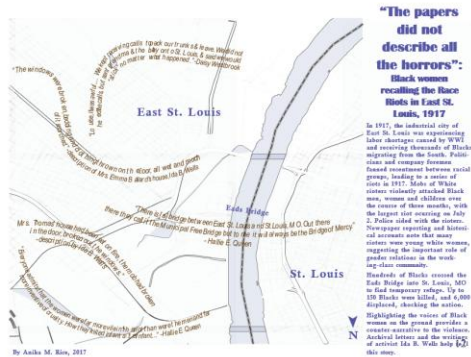
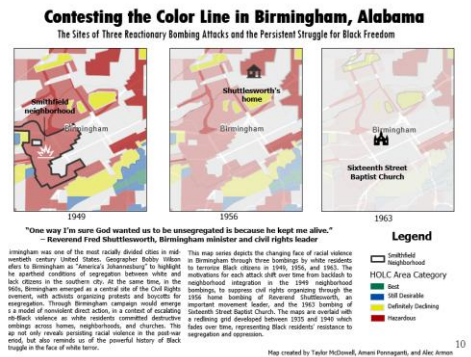
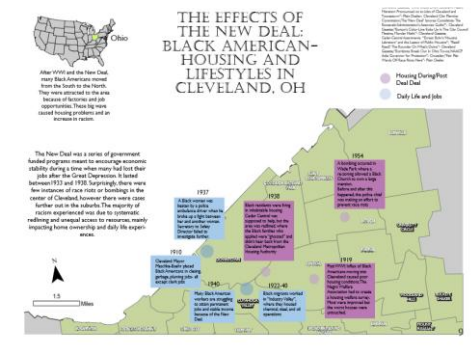
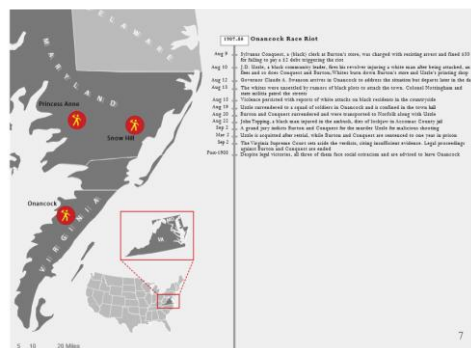
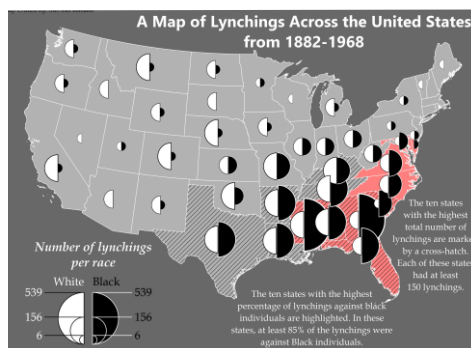
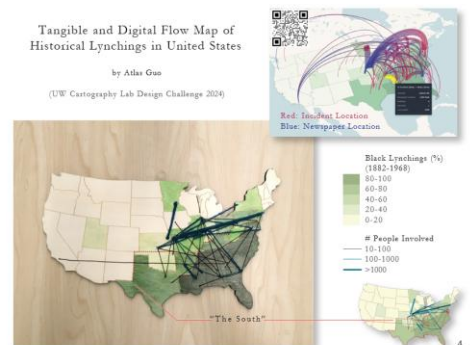
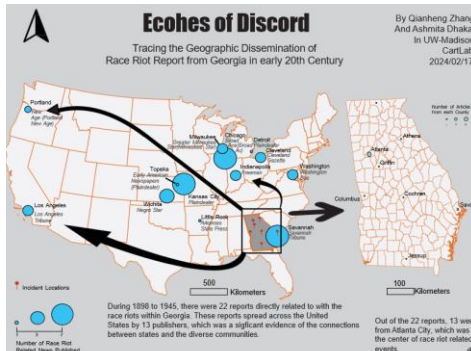
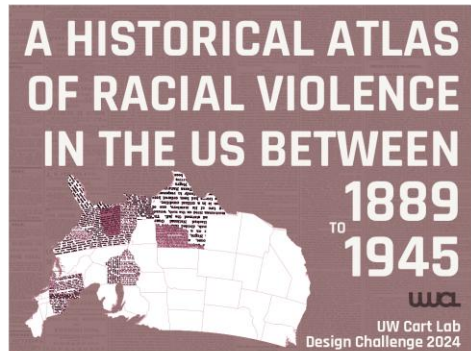




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- ✓ Experience a real-world day in the life of a cartographer, and test your skills along the way to self-assess knowledge gaps
- ✓ Learn about many of the most pressing challenges facing our world and how maps can help understand and solve them
- ✓ Create an original, professional-quality map as part of a collective atlas to boost your design portfolios





# 2024 Prompt:

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- ✓ Provide constructive feedback and learn from your peers' mistakes and breakthroughs



# Monday

UNCERTAINTY / PATTERNS / INSIGHTS

CLARITY / FOCUS



RESEARCH

CONCEPT PROTOTYPE

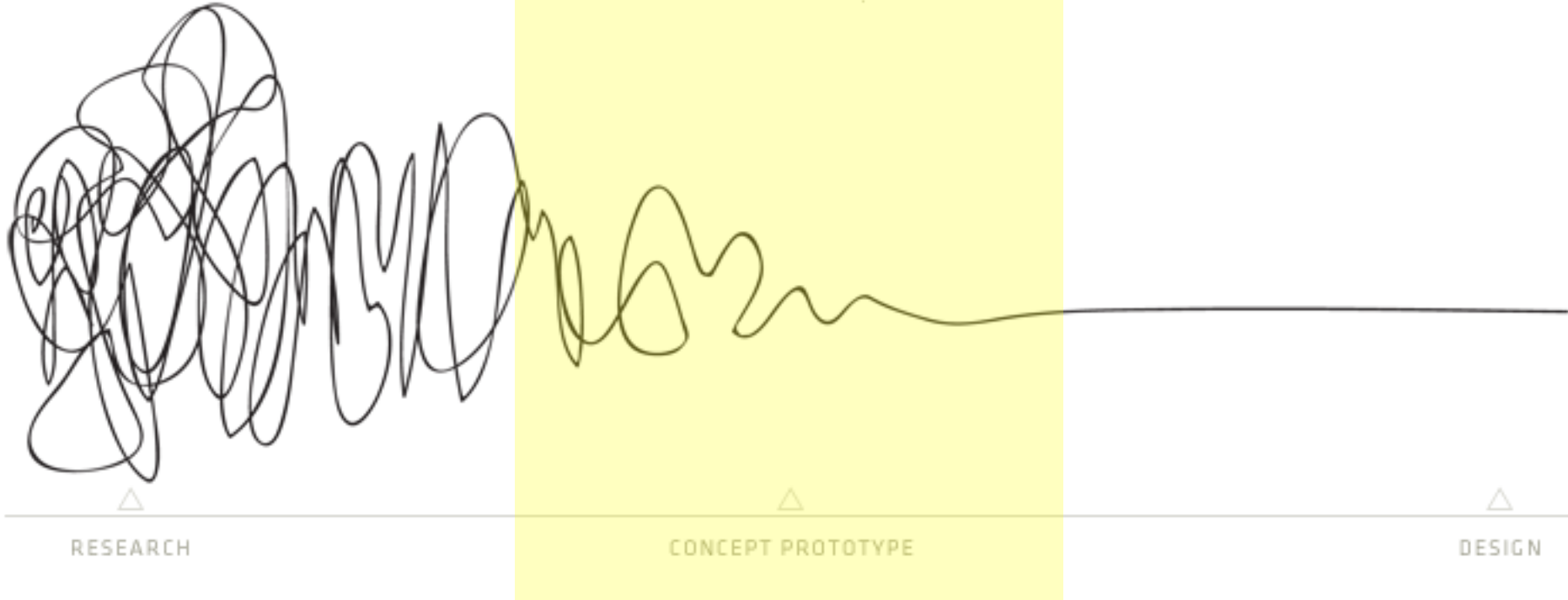
DESIGN



# Tuesday-Wednesday

UNCERTAINTY / PATTERNS / INSIGHTS

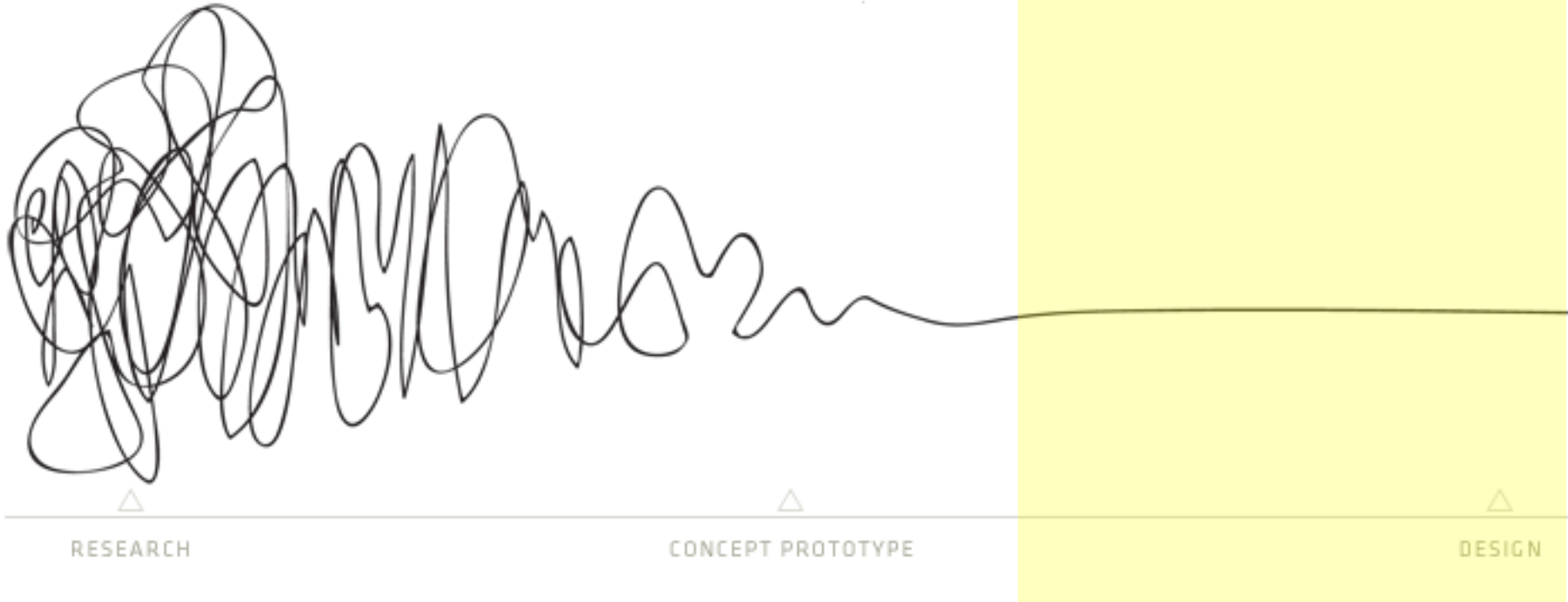
CLARITY / FOCUS



**Thursday-Friday**

UNCERTAINTY / PATTERNS / INSIGHTS

CLARITY / FOCUS



RESEARCH

CONCEPT PROTOTYPE

DESIGN

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- ✓ Provide constructive feedback and learn from your peers' mistakes and breakthroughs
- ✓ Contribute to a model ICA workshop on mapping for a sustainable world



GitHub - uwcartlab/Vienna-DC-2025

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← → ↺

github.com/uwcartlab/Vienna-DC-2025/tree/main?tab=readme-ov-file

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📖 README

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# 2025 SDG Design Challenge / T/U(X)W

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## Welcome to the 2025 Design Challenge!

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The University of Wisconsin Cartography Lab ([Cart Lab](#)) Design Challenge is a day-long mapping workshop that brings together Cartography and Geography students, often in collaboration with campus or community partners, around a curated mapping theme. The Design Challenge is now an institution in the University of Wisconsin–Madison Geography Department, first running in 2015 and wrapping its 10th annual event this past February 2024. This year (officially #DC11) we are taking the Design Challenge international, combining efforts with the Technical University of Wien, the Erasmus Mundus MSc Cartography Programme, and the International Cartographic Association Commission on the User Experience (UX).

Specifically, we will be making a collective atlas of the [United Nations Sustainable Development Goals](#) ... *in less than one week!* The UN adopted the 2030 Agenda for Sustainable Development in 2015, an expansion from the prior 2000–2015 Millennium Development Goals, and defined a global indicator framework for collective transformation and action toward a more equitable and just world. At the time of this writing (October 2024), the SDG global indicator framework comprised 17 goals to address the most pressing problems facing our worlds, 169 targets that prescribe real and actionable outcomes for sustainability, and 231 unique indicators used to measure and monitor progress towards these targets, inform policy at global and local levels, and promote accountability across all stakeholders (<https://unstats.un.org/sdgs/>).

## Prompt: SDG Atlas in a Week


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Our SDG Atlas in a Week will include at least 17 two page spreads, one covering each of the SDGs plus some from front and back matter. Each spread will include one page for maps, charts, and clarifying annotation about the SDG and a second page providing a title and statement about what the maps are saying and what this means for our planet's future and our individual actions. You will work in a small team to develop one of the atlas spreads, but in addition to mapping SDG indicator data, we also want you to bring your own personal experiences and home locations into the map, telling a *compelling story* about your team's common ground around the SDG and the alternatives that are possible from your different, worldwide perspectives.

Packages

No packages published

Contributors 2

 **reeroth** Robert E. Roth

 **cartobaldrica** Gareth B

https://github.com/uwcartlab/Vienna-DC-2025