Hi, my name is:

Benjamin Szeghy

- I make thoughtful, informative, and innovative maps based on rigorous data techniques.
- I am passionate about pushing the boundaries of mapping
- I edit videos and compose motion graphics
- I am a trained filmmaker, with experience doing production management and directing for indie sets

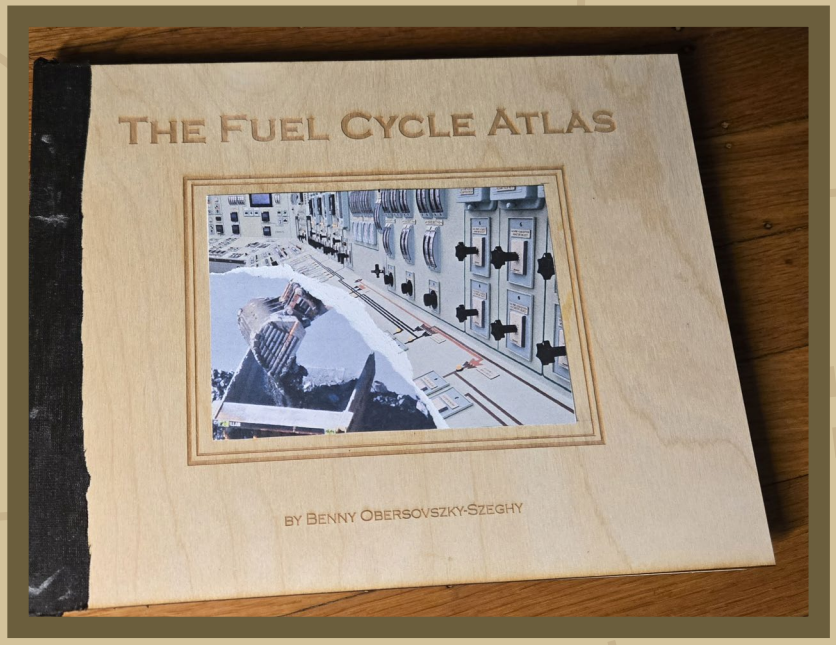
Fuel Cycle Atlas

The Fuel Cycle Atlas challenges the reader to grapple with tangibility in a subject inherently intangible, and focuses on bringing previously under-platformed perspectives into the broader conversation of the future of energy in America. As energy needs have skyrocketed, attention has returned to Nuclear as a clean, safe, and reliable way for America to power its future, but while flashy headlines advertise ventures in new advanced reactors, another sector of the industry is quietly growing to accommodate: the Fuel Cycle, or the mining, milling, fabrication, and storage of Uranium Fuel. This project critically explores this, not to hamper progress, but to participate in a practical and sober discussion about risks and tradeoffs given the lessons we can learn from past mistakes.

The booklet features 3-dimensional, shadow-box style popout maps of two abandoned open pit uranium mines—Midnite Mine (on Spokane Territory in Washington) and pits in the Gas Hills Uranium Exploration District (adjacent to the Wind River Reservation in Wyoming). “Energy” is such an inherently intangible subject, that it can be nearly impossible to discuss in practical terms, so these maps display the scars in the Earth left by the uranium mining industry in a minimalist architectural papercraft style, arranged as 3d-popouts explicitly to require physical interaction. My hope is that someone who interacts with the Fuel Cycle Atlas leaves excited about the future, but aware of the costs.

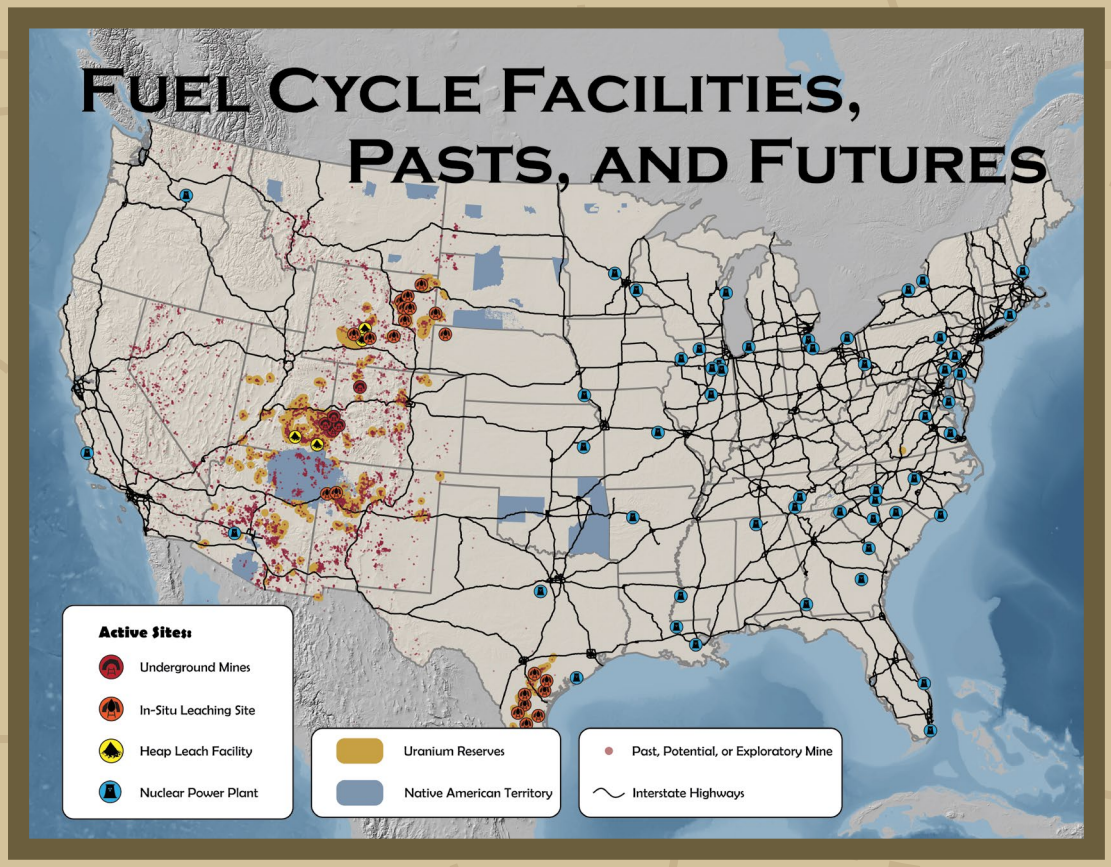
December 2025

Fuel Cycle Atlas Index Map



To center the nuance of how uranium extraction tends to interact with indigenous territories, the first map in my "atlas" begins by intersecting the uranium geological resource areas with tribal territory. It serves as a spatial index by locating every site associated with the Uranium Fuel Cycle in America.

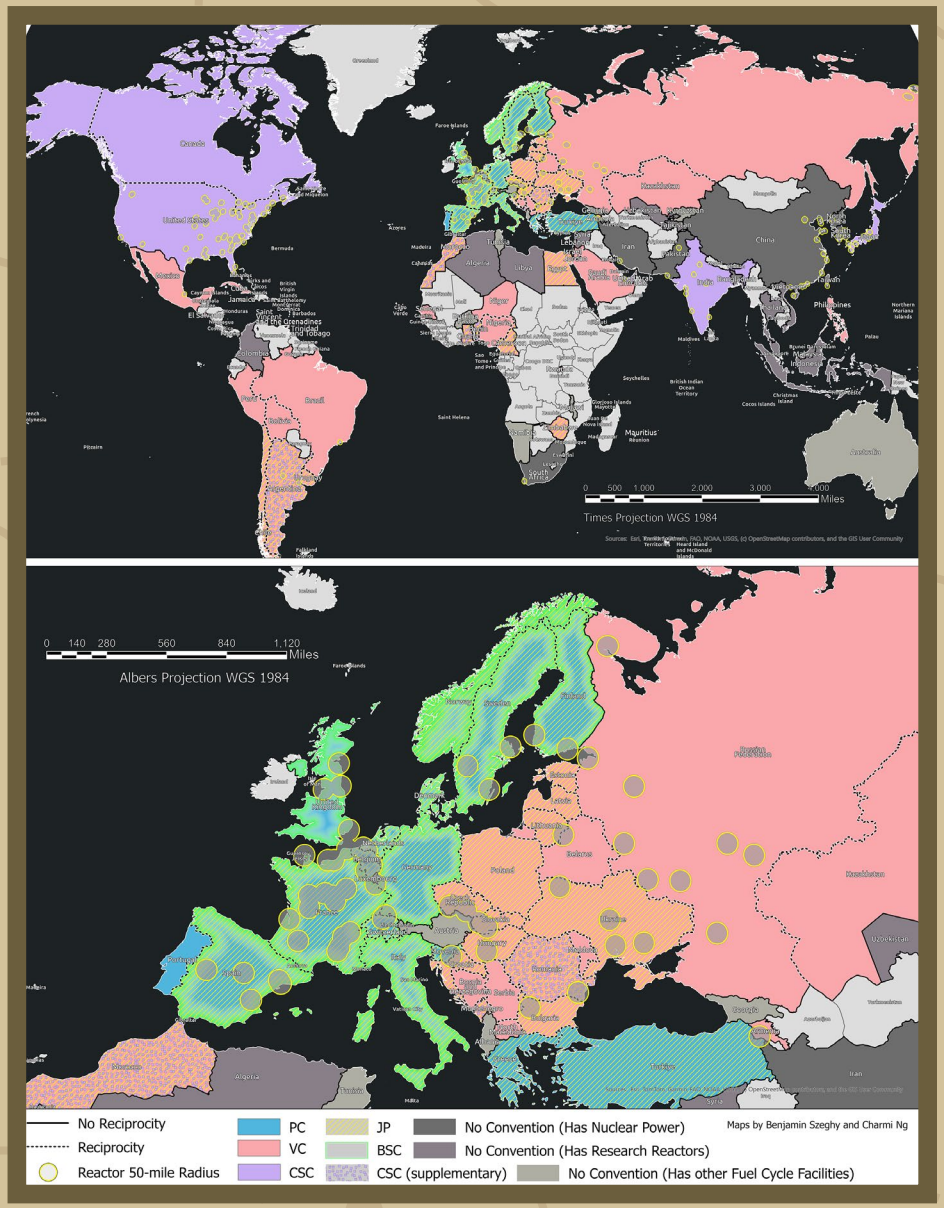
I originally made this map during my research assistanship with UCB Nuclear's SALT lab for a DOE funding proposal related to the Consent Based Siting Consortia. Due to the immenence of the deadline, I was originally unable to spend time working on the design, and focused on getting the data in place. I took an opportunity to revisit and revamp it for a cartography class, and it found its place within the context of my larger Fuel Cycle Atlas map.



December 2025

Conventions and Evacuation zones

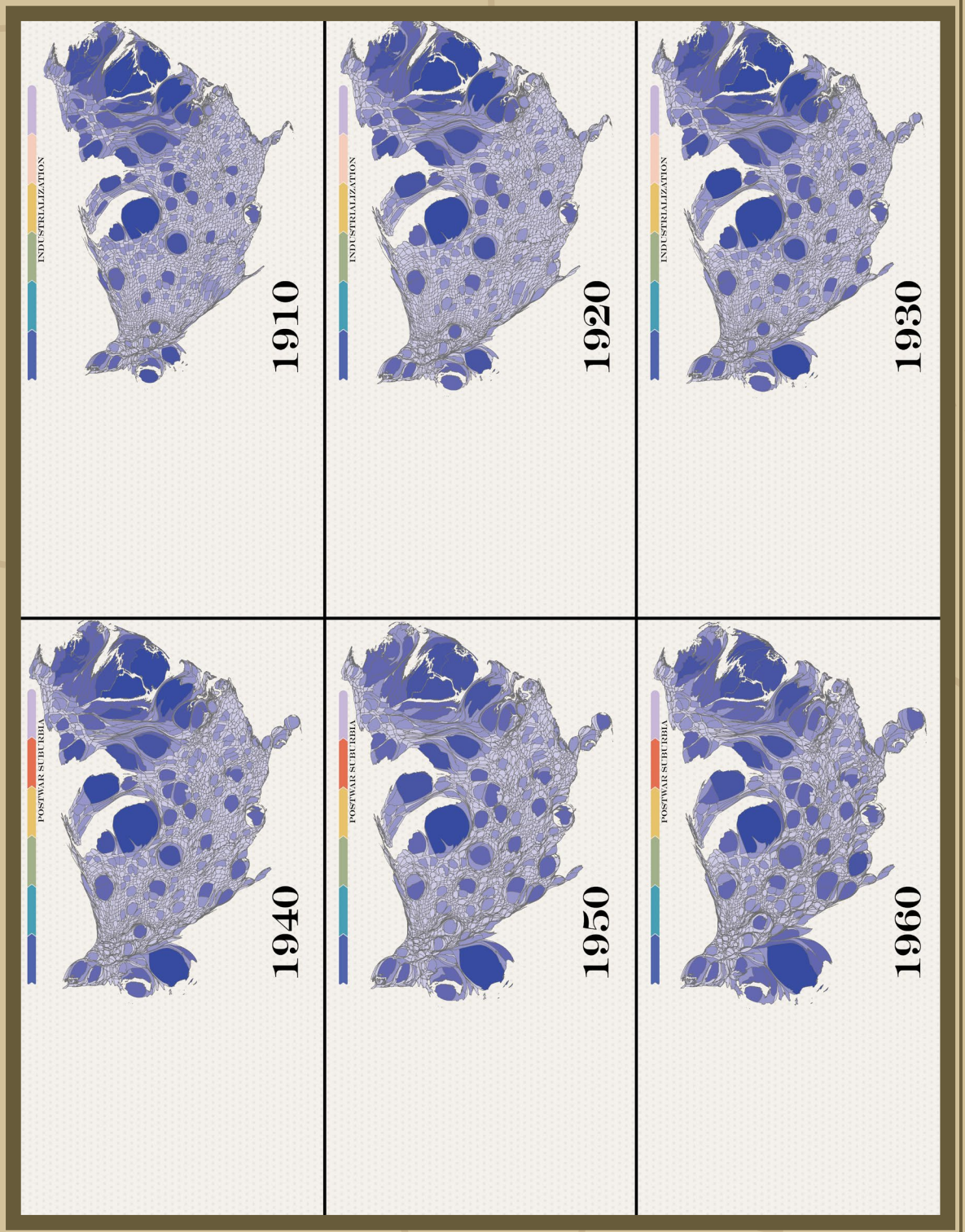
Nuclear energy development has been a longtime passion of mine, and I was overjoyed to get the opportunity to work on a project with the Department of Nuclear Engineering SALT lab.
I served as a co-author and primary geospatial scientist on the manuscript *The 71,000-Kilometer Gap: How Nuclear Liability Shapes Global Nuclear Energy and Its Supply Chain Development*, currently under consideration by Nature Communications.
This map aims to untangle the complexities of the overlapping international nuclear liability conventions using a mix of solid and hashed symbologies. It also depicts evacuation zones and symbolizes countries that are involved in nuclear activities without participating in a liability convention.
This is most significant cartographic challenge I have tackled: the convoluted and under-compatible nature of these conventions perplex even experts in nuclear law. I think my struggles with putting this symbology together are by themselves a perfect metaphor for the thesis this paper attempts to prove.



January 2024

American Population Flow: a Cartogram Flipbook

I made this for a class project, and envisioned it as both an exploration of novel methods of cartography, as well as an opportunity to try out the new Generate Contiguous Cartogram tool in ArcGIS Pro.
I generated population cartograms for every census year in US history programatically using model builder, then exported them to Illustrator for annotation and layout.
It is 27 frames total, including a front and back cover, and prints with assembly instructions for cutting it out and stapling to turn it into a working flipbook.
It challenges the classic US census population mean point map by representing spatial population changes over time using an animation rather than a traditional time series symbology. It allows the viewer to perceive the interactions between micro- and macro- scale population motion.



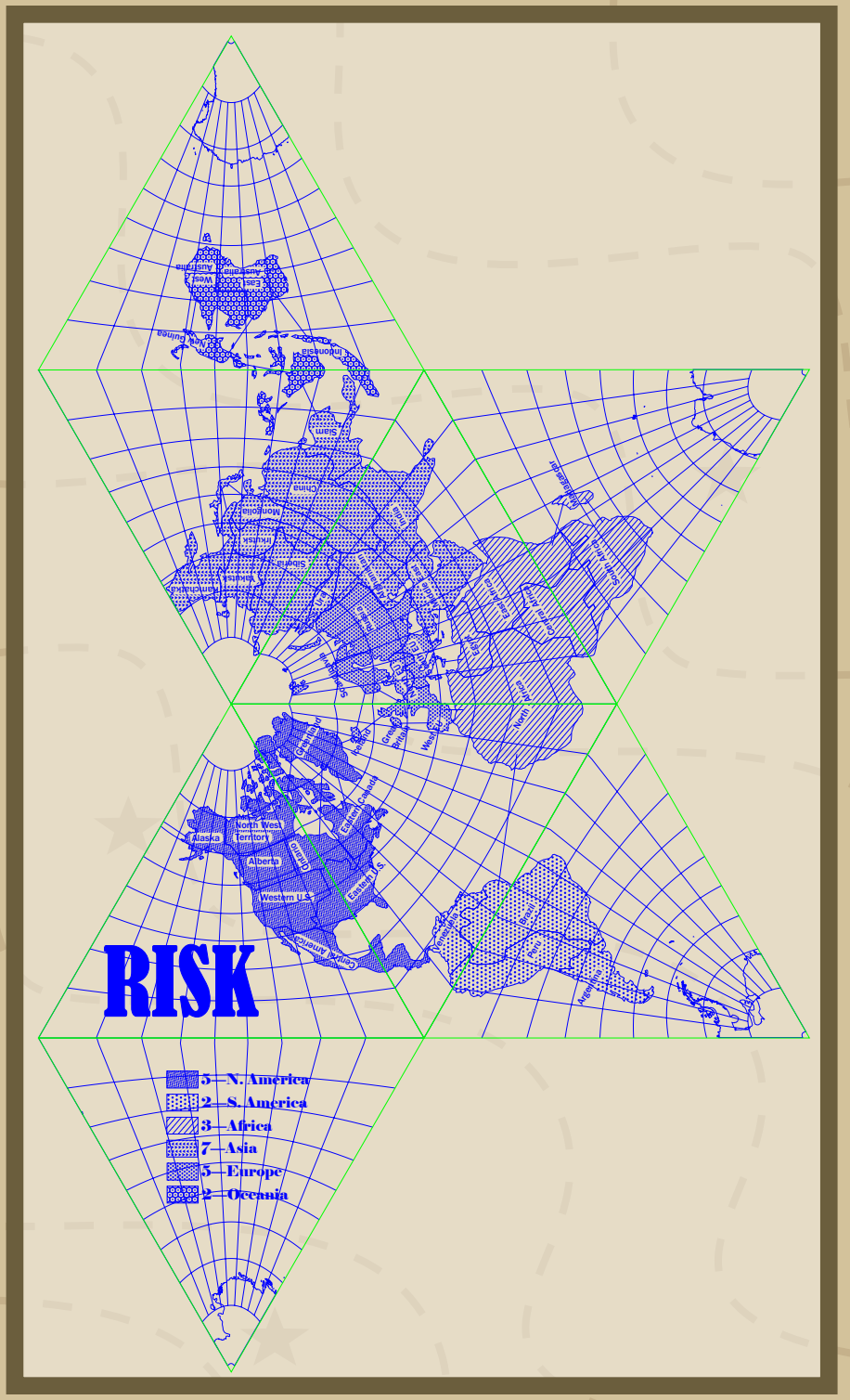
October 2025

RISK Butterfly

This started as a hobby project: to make a version of the RISK board game using the Waterman Butterfly projection to lasercut into sheet steel. It has since turned into an ongoing personal experiment related to more tangible mediums for maps.
I created the original map basemap in ArcGIS Pro, reprojected it to the polyhedral butterfly using d3-geo, and created the hatch symbology by hand in Illustrator.
The main challenge of this project was to make a hatch fill symbology that was distinguishable in monochrome, as fiber laser cutters cannot vary rastering intensity for metal.

This is an ongoing project, and the final form will use magnetic game pieces to allow play both flat or folded.

April 2025



Wells Fargo Home Mortgage

As an assistant editor on a small post-production team for a campaign of television and social media commercials promoting Wells Fargo's Home Mortgage products, I was primarily responsible for technical tasks related media organization. However, I was a given a larger creative role on the 30 second TV spot linked below by getting tasked with cutting the assembly edit.
The goal of the campaign was to highlight the wide diversity of the company's target demographic: a home mortgage for everyone.
I injected my signature style, using an upbeat pace to create dynamism and continuous engagement.

Full Video Linked Here

May 2022

Ends and Means

As the co-producer and unit production manager for award winning Santa Monica College Film Program capstone project Ends and Means, I oversaw logistics to keep the project flowing on schedule and under budget. My most important role here was leading the location scouting process, and liaising with property owners and permitting agencies.
The film has not yet been publicly released, but you can track it progress on IMDB!

Released July 2025