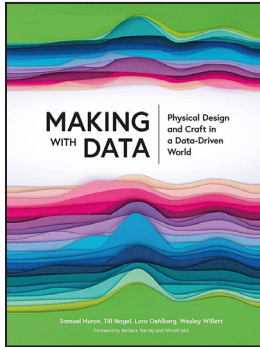




Making with Data: Physical Design and Craft in a Data-Driven World, Samuel Huron, Till Nagel, Lora Oehlberg, and Wesley Willett, eds. (2022). Boca Raton: AK Peters/CRC Press, 2022, 392 p. \$54.95 ISBN: 978-1-0321-8222-3.



Making with Data explores physical data visualizations, or data physicalizations, and the role they can play in telling different types of data-driven stories. Data physicalization takes many forms. Examples include pottery decorated with artistic data visualizations, sculptures made from beach debris visualizing the lifecycle of plastics, and experiential theater that visualizes city demographics. In blending art and data work, these interventions do not solely take place in academic contexts but can be art installations, community-based experiences, and more. This book is an excellent resource for librarians who want to explore hands-on ways of teaching data literacy, as well as a reference guide for researchers who

want to find new ways of presenting their data.

Rather than a handbook that describes a prescribed way of making data physicalizations, *Making with Data* instead “[showcases] the myriad ways in which people today are *making with data*,” giving voice to the various processes the practitioners employ through the twenty-four collected case studies presented here (26). Each case study follows the same image-filled format: project motivation and inspiration; practices and processes; design principles; design and fabrication steps; materials and tools; and reflections. This organization demystifies data projects, explaining how the reader can recreate or adapt various methods, and helps determine which projects fall within the reader’s abilities and available resources. The book itself comprises five sections that group similar methods together: handcraft; participation; digital production; actuation; and environment. Readers can review the book cover to cover or focus on the individual sections relevant for particular work and interests.

The first section, “Handcraft,” emphasizes the very personal relationship creators foster with their data objects in the process of making them by hand. They highlight the manual labor of data work and connect the seemingly “modern” act of working with data to centuries-old crafting traditions. Projects include woodworking, pottery, fiber arts, origami, and sculpture, and serve to challenge perceptions of what skills are necessary – and rewarded – in data science.

“Participation” focuses on how participatory data science can result in data physicalizations. These projects emphasize how “participatory data-driven design connects to notions of shared ownership” and invites communities into data projects as experts on their own experiences (101). These projects take many forms, including theatrical/performance reenactments of demographic data and in place of traditional surveys, asking users to stack elements in cairns or add stickers to visualization boards to answer questions.

“Handcraft” and “Participation” describe projects that might be easily adapted by the average user. “Digital Production” highlights projects that were created with fabrication methods that might not be accessible to non-experts, such as 3D printing, laser cutting, and other advanced production methods. The forms these methods create push the boundaries of what data objects can look like. One of the affordances of computerized or machine production is

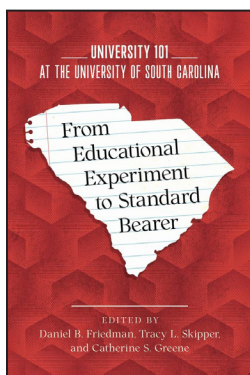
heightened levels of specificity and accuracy that are not easily achieved in handmade objects.

“Actuation” collects projects that update themselves, change their appearance, or move. While data visualizations are traditionally snapshots of a specific dataset from a specific moment, these projects react to the element of time. This makes them particularly effective for projects where numbers are not fixed, like demographics, physical activity data, and the location of airplanes in the sky.

The final section focuses on projects that represent and interact with the environment. It argues that data physicalizations can do what 2D data visualizations cannot. These visualizations take data that is about tangible things and present them in as flat abstractions. Data physicalization brings data back into the physical world and fosters a closer relationship to the viewer, mimicking the relationships people already have with their physical environments.

Making with Data collects a huge variety of projects that visualize disparate topics. These projects were designed by an overwhelmingly white audience of practitioners; only a few are led by practitioners who are Black, Indigenous, or people of color. Those included here stand out for the care put into visualizing data that would affect their communities. *Wage Data*, by Ekene Ijeoma, presents an eerily beautiful sculpture visualizing wage inequality and the costs of housing in New York City. But if the point of this book is to help us change our relationship to data, data work, and data stories, what would that look like if it centered Black data practitioners? Or projects led collectively by communities that are often excluded from the data that is collected about them? How might these types of visualizations question the cis-heteronormativity often baked into datasets? What would a queer/trans data physicalization look like? Bringing a data feminist lens to this work is not enough if that lens is not also intersectional and centering the very experiences and knowledges located in communities that are otherwise not listened to. Perhaps this is too much to ask for from one volume. The fact that these questions surface is a testament to this book’s compelling argument: data physicalizations can change how we approach and understand data, and we must push further. — *Claudia Berger, Sarah Lawrence College*

From Educational Experiment to Standard Bearer: University 101 at the University of South Carolina. Daniel B. Friedman, Tracy L. Skipper & Catherine S. Greene, eds. Columbia: University of South Carolina Press, 2022. 272 pp. Paperback, \$32.99, (978-1-64336-366-0)



In 2022, the University of South Carolina observed the fiftieth anniversary of its innovative “University 101” experiment and the course’s legacy as the leading model of the “first-year experience” movement in higher education. Simply stated, University 101 is an extended orientation seminar designed to facilitate new students’ transition to college and campus life at the flagship. In this commemorative edited volume, eleven contributors affiliated with South Carolina collectively document the history, evolution, and impact of the institution’s renowned University 101 Programs (now a multifaceted enterprise that oversees and fosters every aspect of the campus’s first-year experience) on generations of the Gamecocks and

first-year students around the world.

The book begins and ends by documenting University 101’s history. The first chapter recounts how the seminar emerged as an institutional response to student protests against the Vietnam War and Kent State shootings, which were partly fueled by feelings of alienation at