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SARC 5400: Data Visualization  
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Final Project: Narrative & Reflection

**URL to Observable notebook:** <https://observablehq.com/d/2724230279d0b96a>

**Project intentions:**

As I described in [Part 1](#) of my final project write up, size is an often overlooked aspect of manuscript studies. Especially as someone who approaches manuscript studies from the disciplines of literature and language where the immaterial Text on the page always takes precedence over the physical page itself, I know that, for me, thinking about manuscripts as objects has really changed the shape of my research. I used to only care about the contents of codices, but now, I have come to appreciate the ways in which thinking about books as physical objects provides valuable evidence that informs the work I do.

With this final project, I wanted to encourage others in my field to think differently about how we usually approach the manuscripts in our research projects. I wanted to demonstrate how even the simplest of visualizations can reveal new insights and shape our relationships with these objects. And to a lesser extent, I also wanted to show people who are outside of my own field — and even those who are totally outside of the humanities disciplines — what “data” looks like in humanities research.

I’m often frustrated by how siloed we can be as we all operate in our own separate departments, and I think that the best projects are those that seek true interdisciplinarity. So, I have been grateful for this course because even though I do not feel that I have mastered the craft of creating data visualizations, I have a changed perspective on how I approach my “data” and I

have an expanded view on what is possible. Even though the visualizations of my final project are really simple, I think there is some value in their simplicity because I will be able to show this work to other medievalists and demonstrate how we can strengthen our work just by *seeing* it a bit differently.

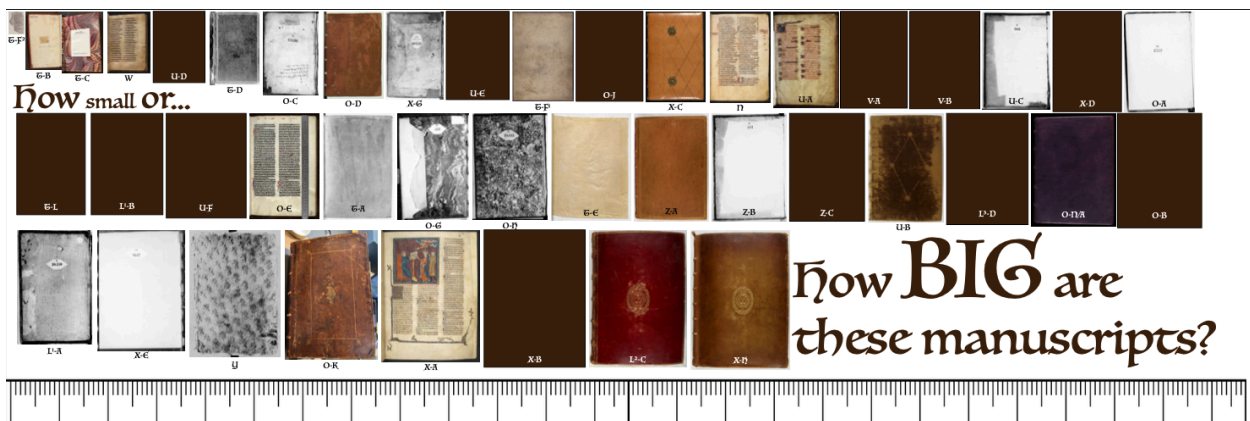
## Visual Strategies / Process

### Static (Adobe Illustrator)

For my static visualization, I built it manually in Adobe Illustrator. I have arranged the late medieval French manuscripts that make up the [dataset of my dissertation](#) research in order by their size (specifically in order by their height). Each manuscript image has been sized to scale such that 1 pixel equals 2 millimeters in the real world. Thus, the smallest manuscript represented here is fragment T-F<sup>2</sup> at 35x25px or 70x50mm, and the largest manuscript is X-H at 214x152.5px or 428x305mm. The manuscripts have been labeled with the two letters that indicate which version (T, X, V, W, N, O, Z, U, Y, & L) and which copy of *The Life of Saint Mary the Egyptian* that they each contain. When possible, I have used images of the actual manuscripts (pulled from either their digitizations online or from my own images taken during archival work), and where no images of the manuscripts are available, I have drawn rectangles as stand-ins. The color I chose for the stand-in rectangles is meant to imitate the color of leather that was often used to bind late medieval manuscripts. I played around with how best to arrange the manuscripts once I'd collected all the image files and scaled them:



In this arrangement above, I thought stacking them closely together would make it easier to compare them (This stacking arrangement was something I was recommended to try by my peers during our big hallway feedback session.), but I could quickly tell how messy this would end up being since my manuscripts are not so dramatically different in size. So then I eventually landed on just lining them up beside one another in ascending order:



One thing that I like about this visualization is that it demonstrates the challenge of conveying actual size. Although this visualization shows how big these manuscripts are compared to one another and despite the images being rendered to scale, it still fails to immediately convey to the viewer how big each object is in the real world. For instance, the height of manuscript X-H (the largest manuscript in my dataset) is roughly the length of a roll of paper towels (438mm), and its width is about 1.5 pencils (305mm), but the casual viewer would not be able to immediately recognize that from the static viz alone, and that is where my interactive tool becomes useful.

### **Dynamic (Observable)**

For my dynamic visualization, I wanted to provide a simple tool that anyone could use and that would allow people to envision the size of these objects at a glance. To build this interactive tool, I used Observable, and I poured over the tutorials made available to us in this course to scrape together the basics necessary to make the tool I imagined building at least usable. (Thank goodness for the tutorial notebooks and the Panopto videos, or I would have been so much more lost trying to pull this off!)

The tool as it is now meets my basic desired concept of rendering size, but I would like to build on it much more to make this something I would feel more comfortable with sharing out in the world. One obvious thing I would like to improve would be to insert more realistic images as stand-ins for the everyday objects I'm using as reference points. At the moment, I've just used circles as stand-ins for all my selected objects, but this shape only really makes sense for the standard soccer ball (220mm) and not for my other objects like the tennis racket (700mm). One of the most surprising challenges I had in putting this project together was in just trying to figure out what everyday objects might be the most universally recognizable and of mostly standard

size. To tackle this stumbling block, I actually turned to ChatGPT and asked it to give me a list of objects ranging in size from 10mm to 1000mm:



Give me a list of everyday rectangular objects ranging in size from 10mm to 1000mm. Each object should be universally recognizable and of a standard size



Here is a list of everyday rectangular objects ranging in size from 10mm to 1000mm:



1. Postage Stamp (25mm x 20mm)
2. Credit Card (85.60mm x 53.98mm)
3. Smartphone (varies, but typically around 150mm x 75mm)
4. DVD Case (135mm x 190mm)
5. Letter-sized Paper (8.5 inches x 11 inches or 216mm x 279mm)
6. Photo Frame (varies, but typically around 200mm x 150mm)
7. Laptop (varies, but typically around 300mm x 220mm)
8. Cutting Board (varies, but typically around 400mm x 300mm)
9. Microwave Oven (varies, but typically around 500mm x 300mm)
10. Television (varies, but typically around 600mm x 400mm)
11. Desk (varies, but typically around 700mm x 500mm)
12. Refrigerator (varies, but typically around 800mm x 600mm)
13. Dining Table (varies, but typically around 900mm x 750mm)
14. Door (varies, but typically around 2000mm x 800mm)
15. Bed (varies, but typically around 1900mm x 900mm)

Please note that the dimensions provided are approximate and can vary depending on the specific model or brand.

After several iterations of this question, I was able to come up with the eight objects I have used here, but I'm sure there are more and better examples out there that I just haven't been able to come up with. Another point of reference that I'd considered including was the option of comparing one's manuscript to the average sizes of manuscripts of different medieval genres (books of hours, legendaries, bibles, charters, etc.), but this proved to be impossible (at least for now) because there is not good data out there that can tell us if there is an "average" size of any

of these sorts of manuscripts. I didn't want to provide a misleading visualization based on tenuous comparisons to other manuscripts, and this way, using only everyday objects allows my tool to be more accessible to non-experts.

I was a bit nervous going into our final showcase today because I know I have so many classmates who have been able to produce elegant and elaborate visualizations and who are working with such impressively large datasets, but I was relieved by the positive feedback I received from my peers. And even more importantly, I could see that my project met my core goal of conveying size as immediately as possible, which then prompted more interesting questions and engaging conversations. Thinking about size (especially when the size surprises us) forces us to think about the amount of time and money and craftsmanship that had to be invested in producing these objects that were painstakingly assembled sometimes over a period of years by whole teams of people collaborating across great distances. And understanding the amount of investment necessary to produce these objects then forces us to realize how medieval people themselves may be far more complex than we often give them credit for. Over and over, folks playing with my interactive tool were evidently surprised by what my visualization helped them see: manuscripts can be really really big ([up to 3 feet](#)) and really really small (down to only a couple inches if we include fragments)! Their surprise alone was really validating, and I look forward to growing this project and sharing it with others.