Data Sculpture on Latin American Apprehensions

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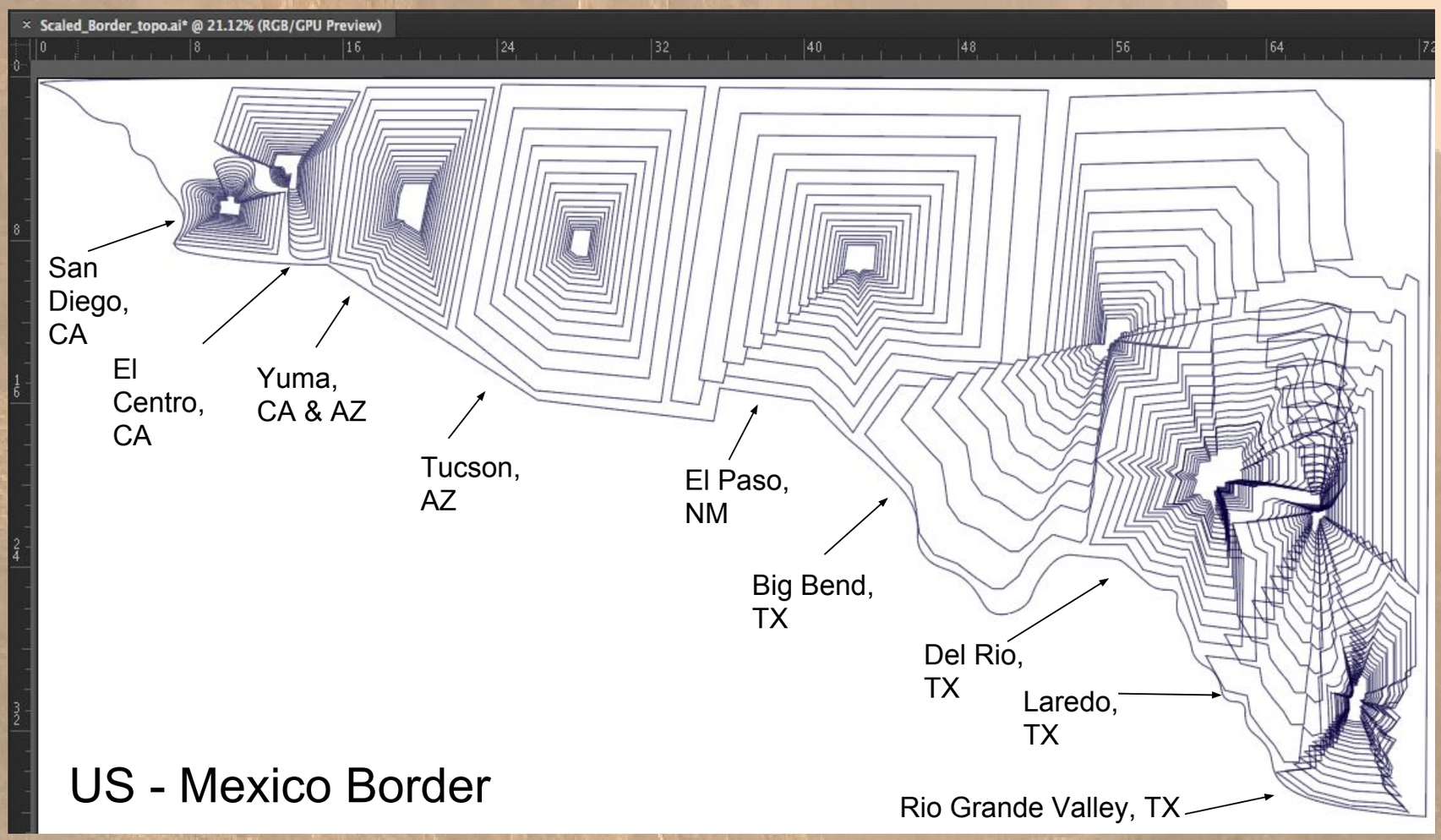
Materials: Laser Cut Extruded Acrylic, Spray paint, Fishing line

This is a data sculpture. This piece was built in order to explore the concept of data sculpture. A data sculpture is a physical representation of data. It can be used as an alternative to the dominant form of representing data, screens. In theory data sculptures create a unique mode of engaging the user through tangibility, use of space and incorporation of aesthetics (sensory experience). In order to test and prove the efficacy of data sculpture I have implemented my own.

This piece represents recorded data on Latin American migrants traveling to the United States. My intention is that it will captivate the audience and give them an emotive and multifaceted experience with the data. My goal for this new medium of communication is to provoke critical and thoughtful discourse. While agitating discussions of solutions addressing social issues such as the US-Mexico border.



US - Mexico Border

Layer	Apprehensions
1	100,000
2	80,000
3	60,000
4	40,000
5	20,000
6	10,000
7	8,000
8	6,000
9	4,000
10	2,000
11	1,000
12	800
13	600
14	400
15	200
16	100

Table 1

What Might One Notice:

What changes do you see between the years (rows) 2011 and 2014? What does this mean in terms of the US - Mexico Border issue as a whole?

Which sectors deport the most Central Americans? And which sectors deport the most Mexicans? Does this depend on the year?

The Process of Mapping Latin American Migrant Data on to the Physical:

Each column represents a border sector. Each row represents the years between 2011 (top row) and 2014. The clear layers represent apprehended Mexicans, and the colored layers represent apprehended Central Americans (El salvador, Honduras, and Guatemala). As seen in the Illustrator file above, each sector initially begins the implementation process with 16 layers. The largest (or first) layer represents 100,000 Latin American Deportations, the second layer represents 80,000, the third 60,000 etc. You can see what each layer represents in Table 1.

I then used a relational database to populate and store Latin American migrant deportation data. Through the database I selected a specific year, sector, and place of origin. I then inputted this number into a python “dictionary” that simply told me what (out of the 16) layers I needed to laser cut in order to accurately represent the selected data. The cool tones (purple, blue, green) represent the sectors that are along either the Rio Grande or Rio Bravo. The warm tones (yellow, orange, pink) represent the sectors that are primarily desert.

For further information on the US- Mexico Border please visit the websites of these organizations:

Migration Policy Institute
Humane Borders
Coalición De Derechos Humanos
Pew Research Center

Please Email **Sadie Coughlin- Prego** (srcough12@earlham.edu) if you have any questions or comments. Sadie would really like public feedback on the piece.