Data Sketching & Physicalization

INFO 4602/5602: Information Visualization

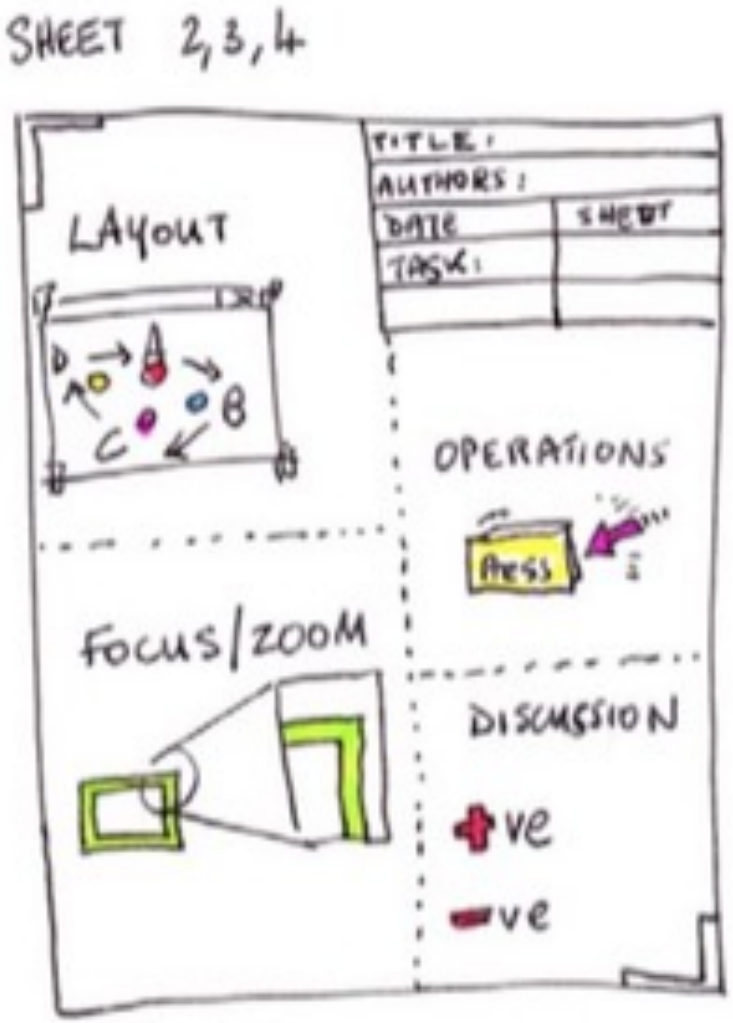
Strengths of Manual Tools

Low-fidelity prototypes

Outside-the-box techniques

Communicate uncertainty

Data storytelling



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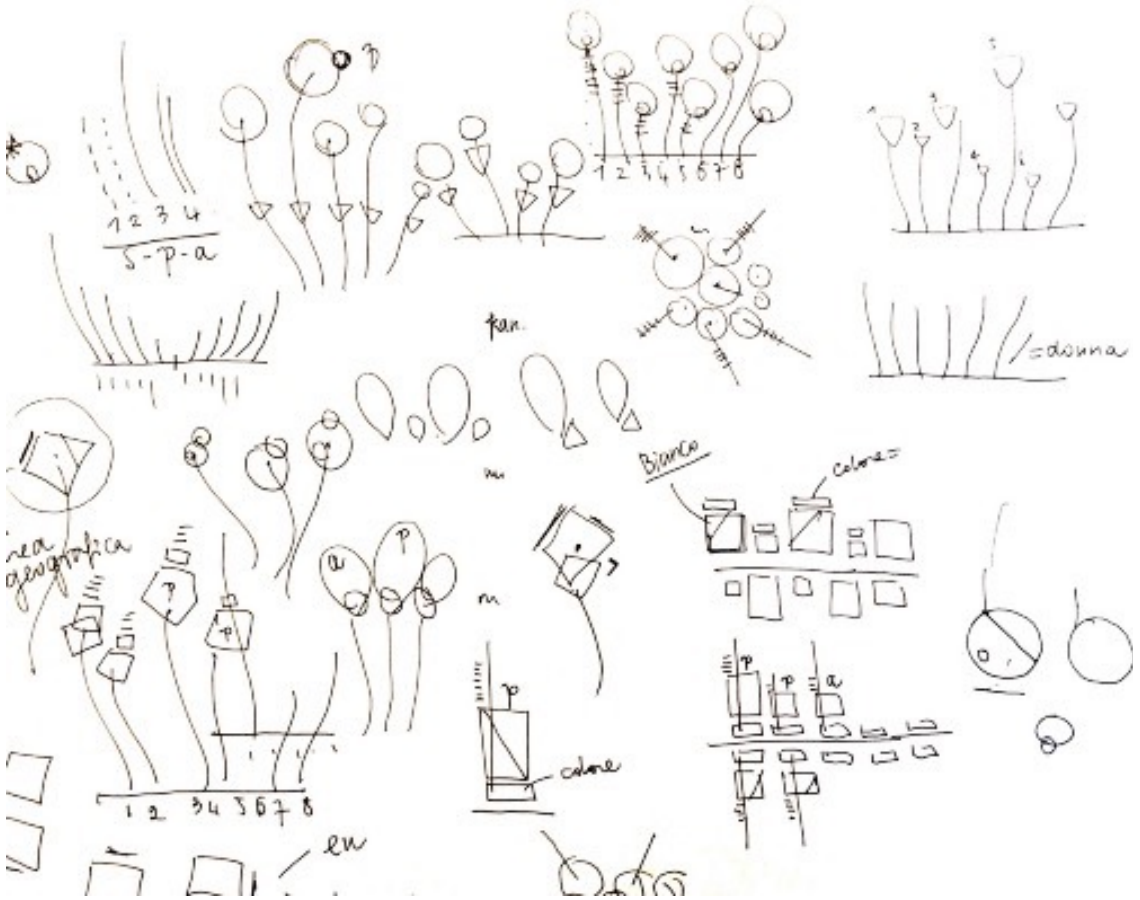

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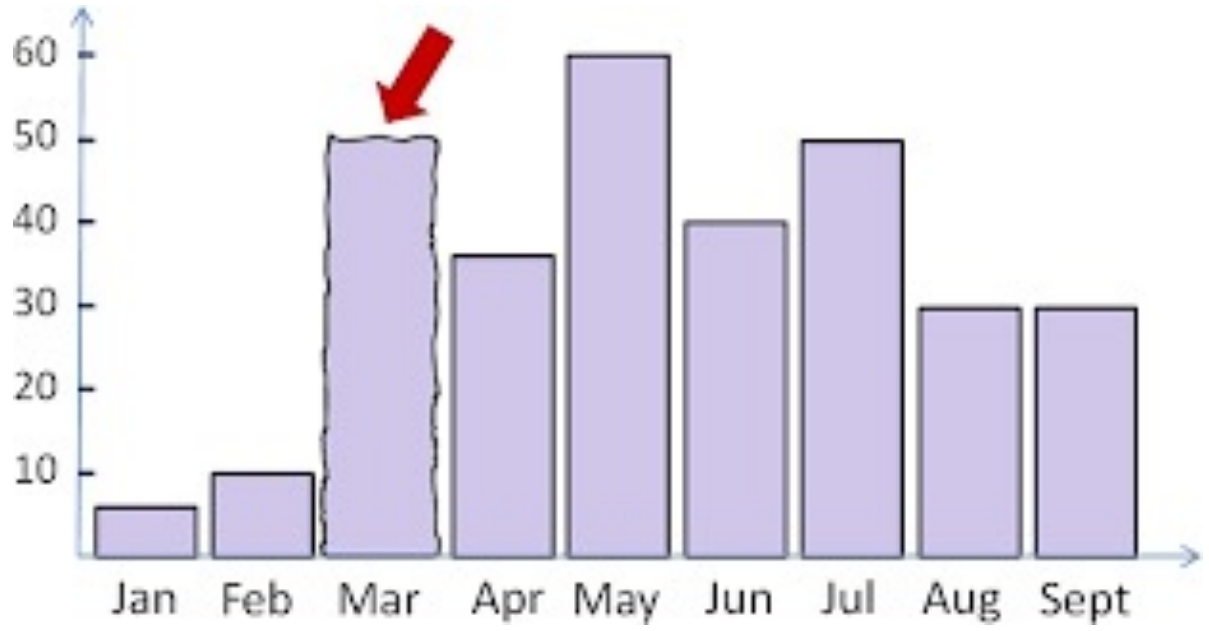

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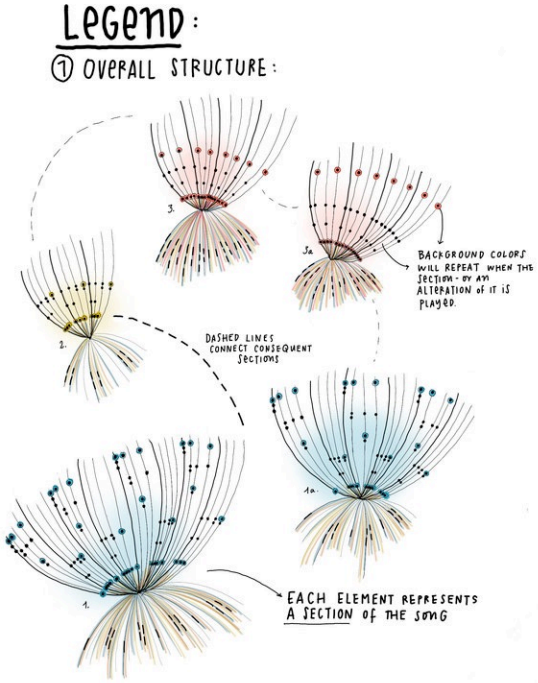
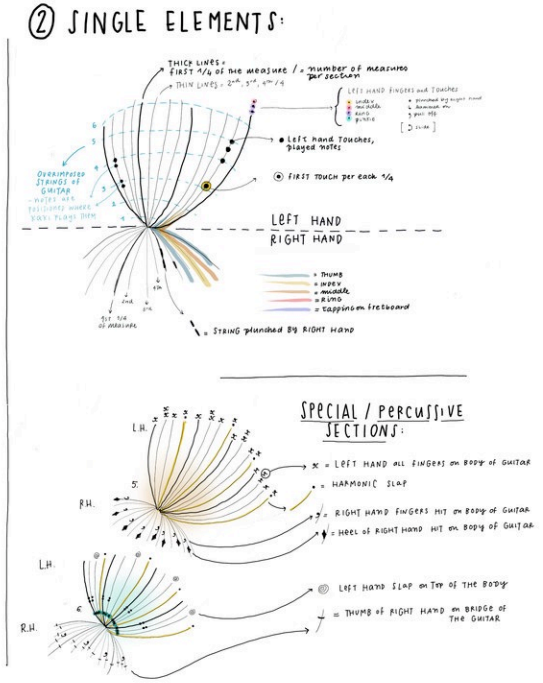
https://youtu.be/ThzatN2W8Zk





This Time

Manual Tools

Physicalization

(Time Permitting) WYSIWYG Tools

Physical Tools

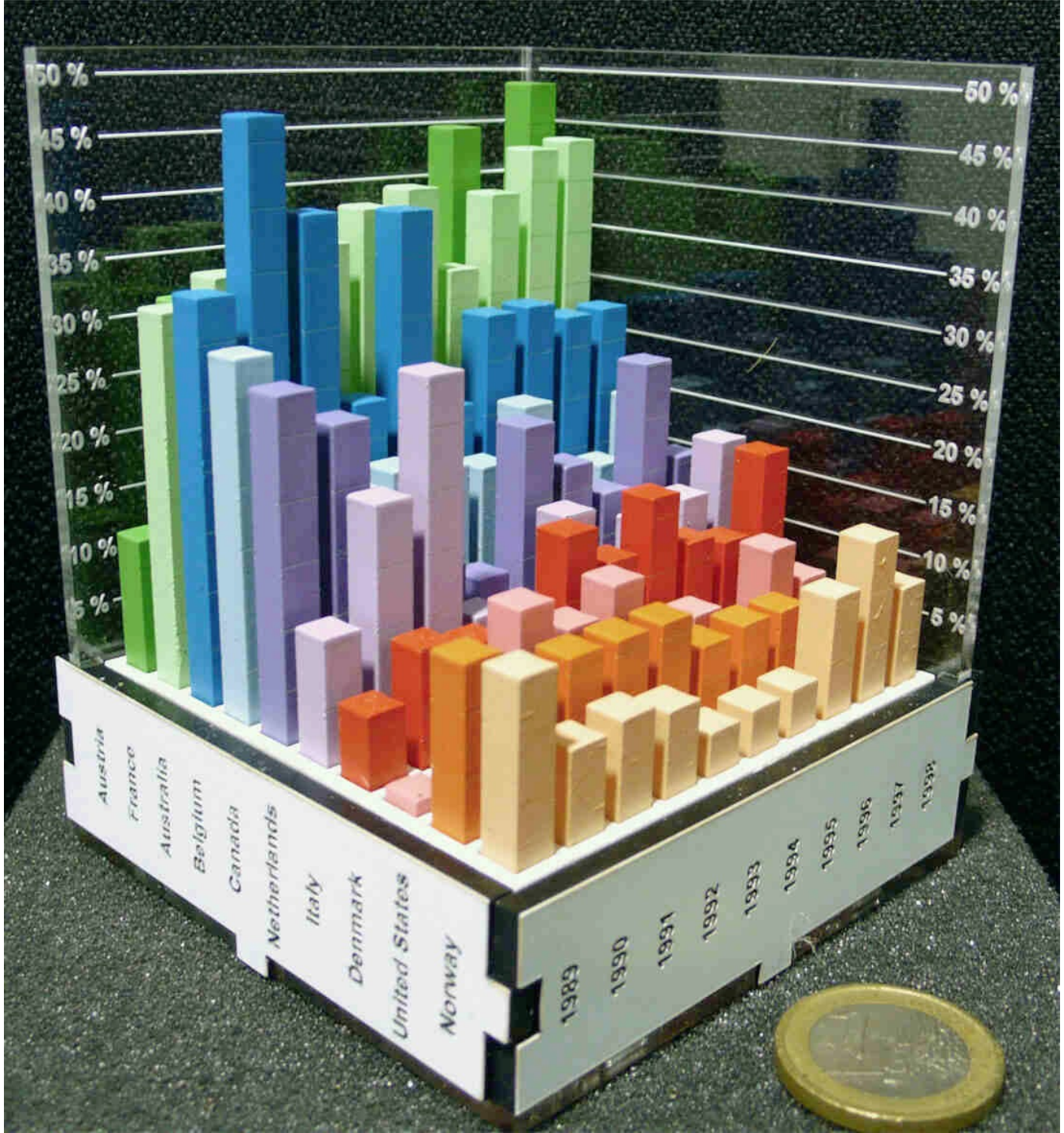
“Physical Visualization”

Physical media used to create a visualization

E.g., 3D printing, food, sculpture

+ Expressive and immersive, natural interactions

- Not super scalable or portable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Netherlands
Italy
Denmark
United States
Norway
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1998

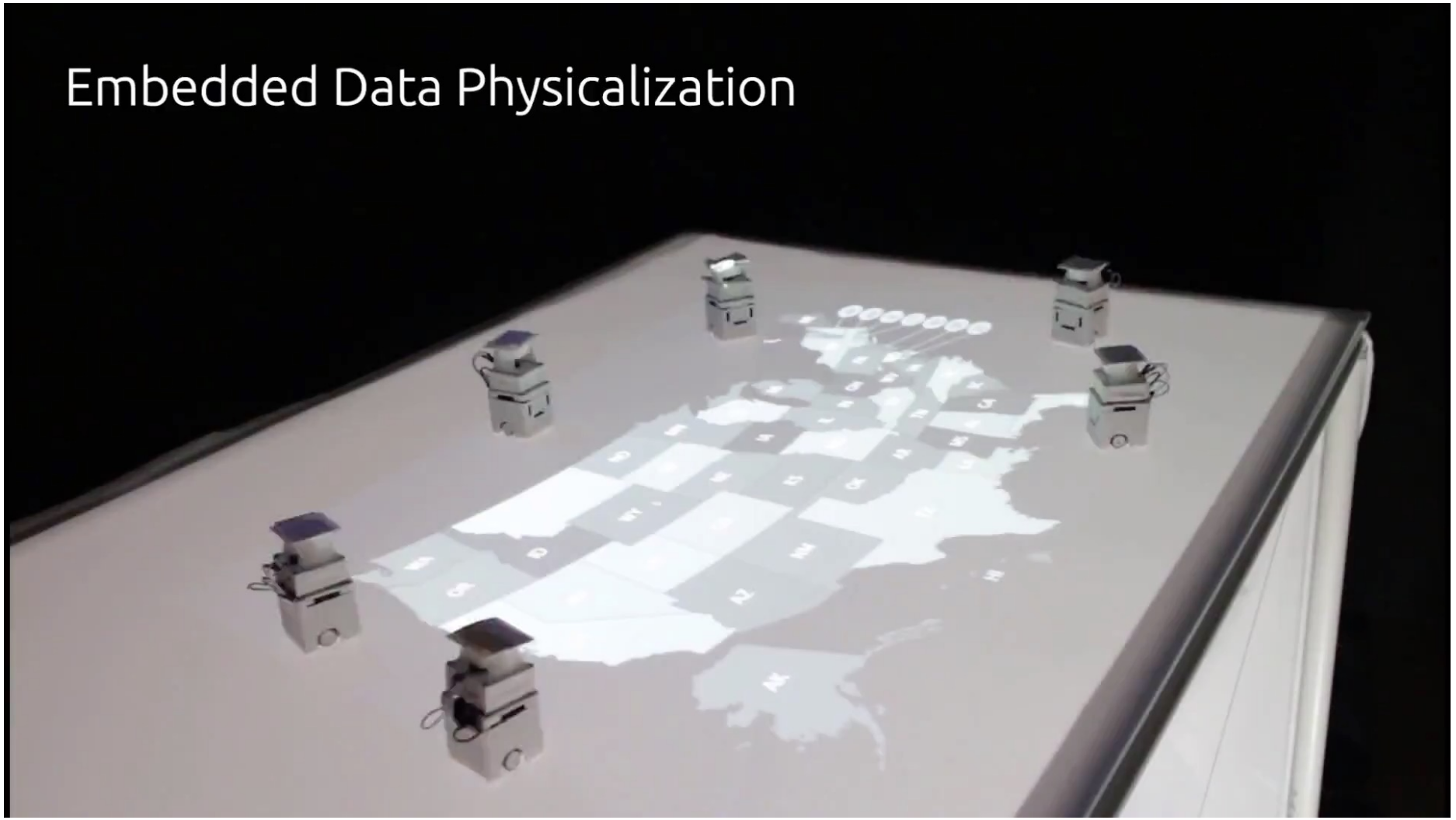
Physicalizations come in a variety of forms

Static or dynamic

Interactive or passive

Explanatory or exploratory

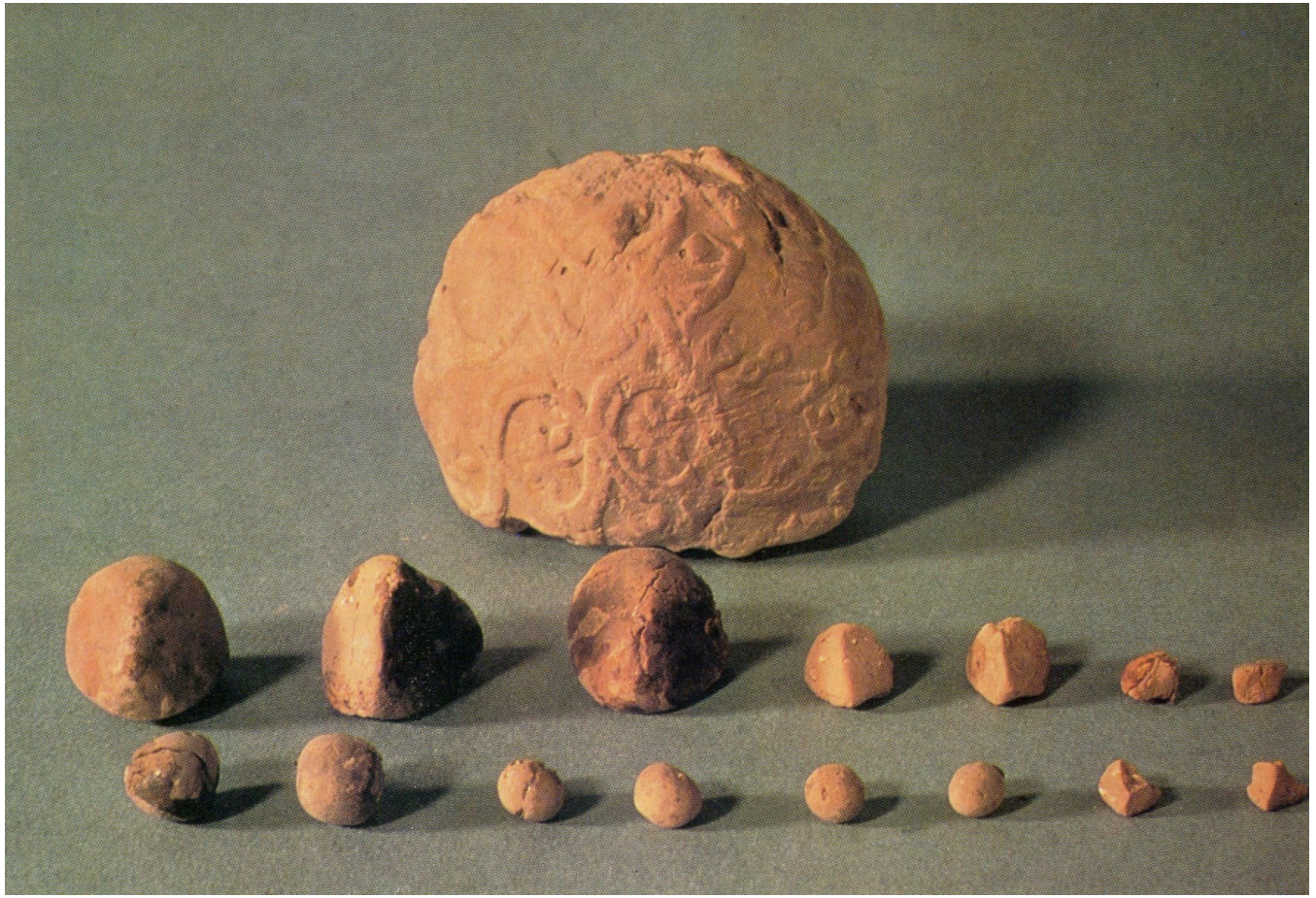
ShapeBots



Mesopotamian Clay Tokens

~5500 BC

Clay tokens that could be ordered and manipulated to assist in visual thinking



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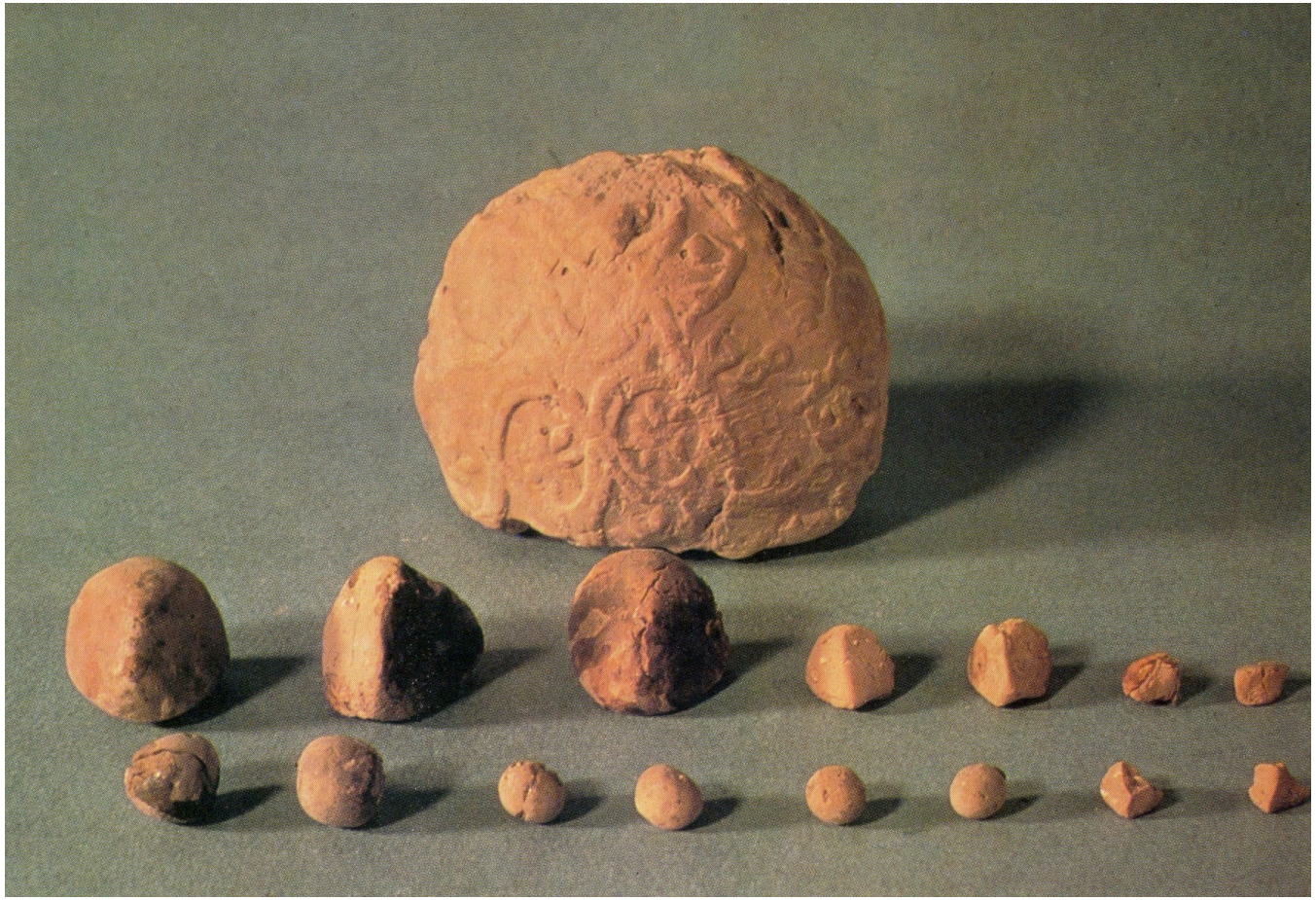
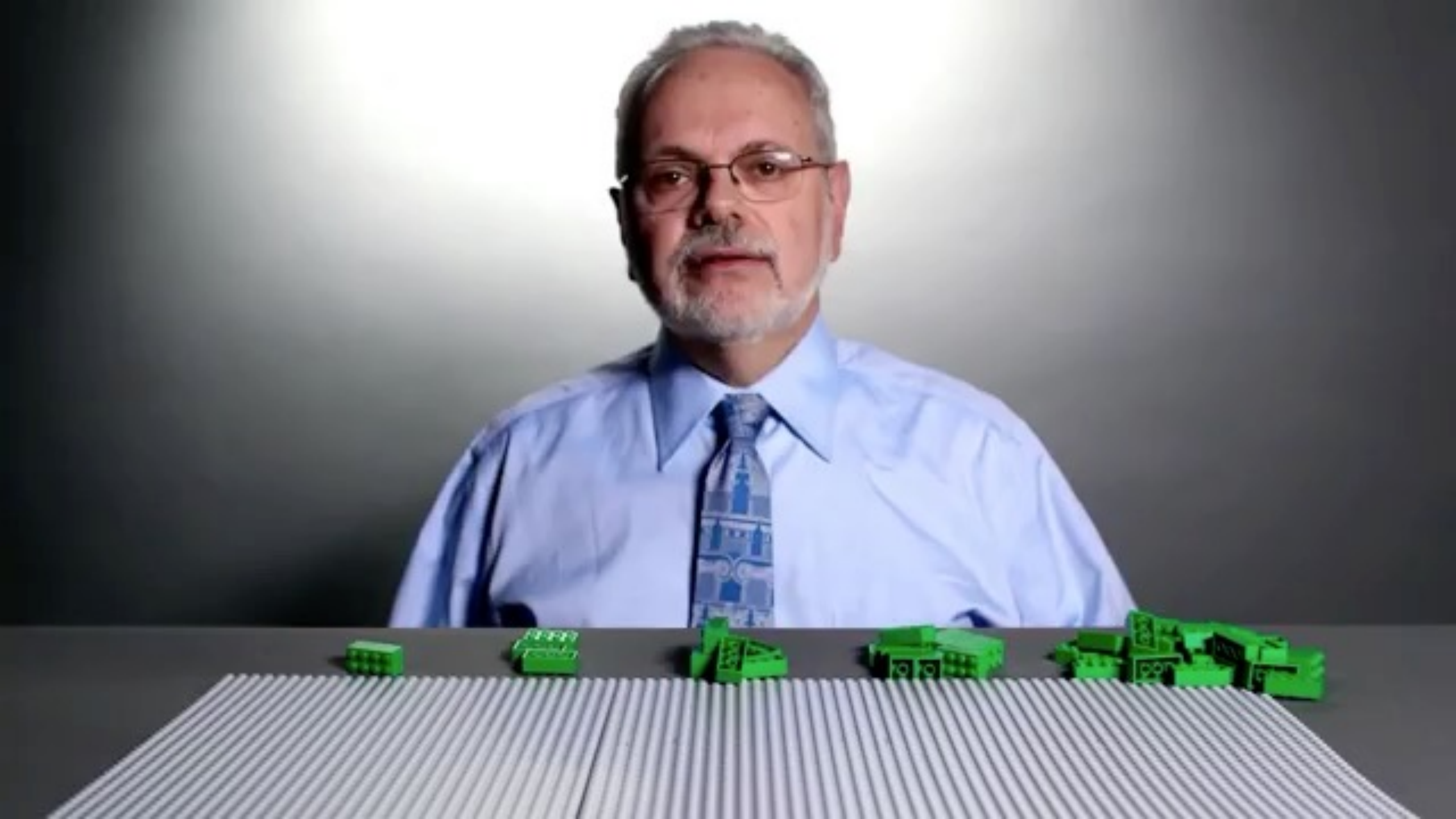
For reference, first writing systems were around 3400BC



Tangible Tokens

Huron et al, 2014



Legos

- https://www.bloomberg.com/news/articles/2015-04-14/a-new-video-from-the-brookings-institution-uses-legos-to-explain-taxes-and-economic-inequality

Charticulator demo

- https://charticulator.com/