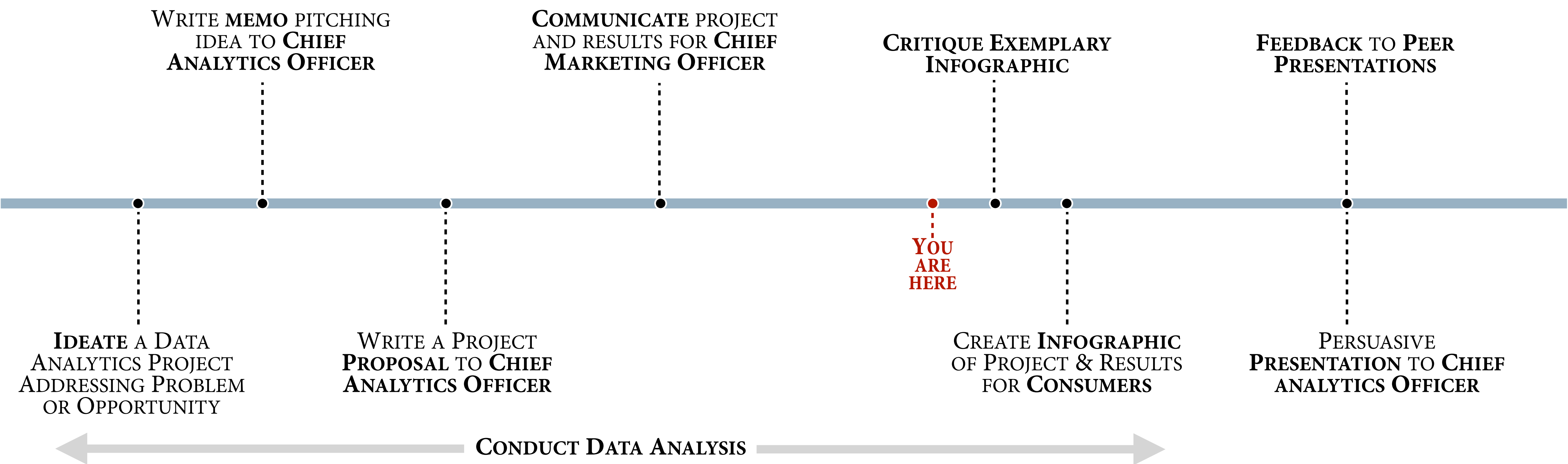


Storytelling With Data

information graphics

Conceptual project timeline



What are information graphics?

What are information graphics? | *dictionary definition is too broad, generic*

INFOGRAPHIC n. a visual image such as a chart or diagram used to represent information or data in an easily understandable form.

What are information graphics? | *viewpoints at Malofiej — the infographics world summit*



Gregor Aisch

Infographics is an abbreviated form of “information graphics”. It **seems to mean a lot of different things to different people**. I rarely use the term.



Federica Fragapane

A **visual translation of data** and information: a language to communicate topics, contents and **stories** to people.



Laris Karklis

Infographics is . . . using **visuals** to tell a **story**.

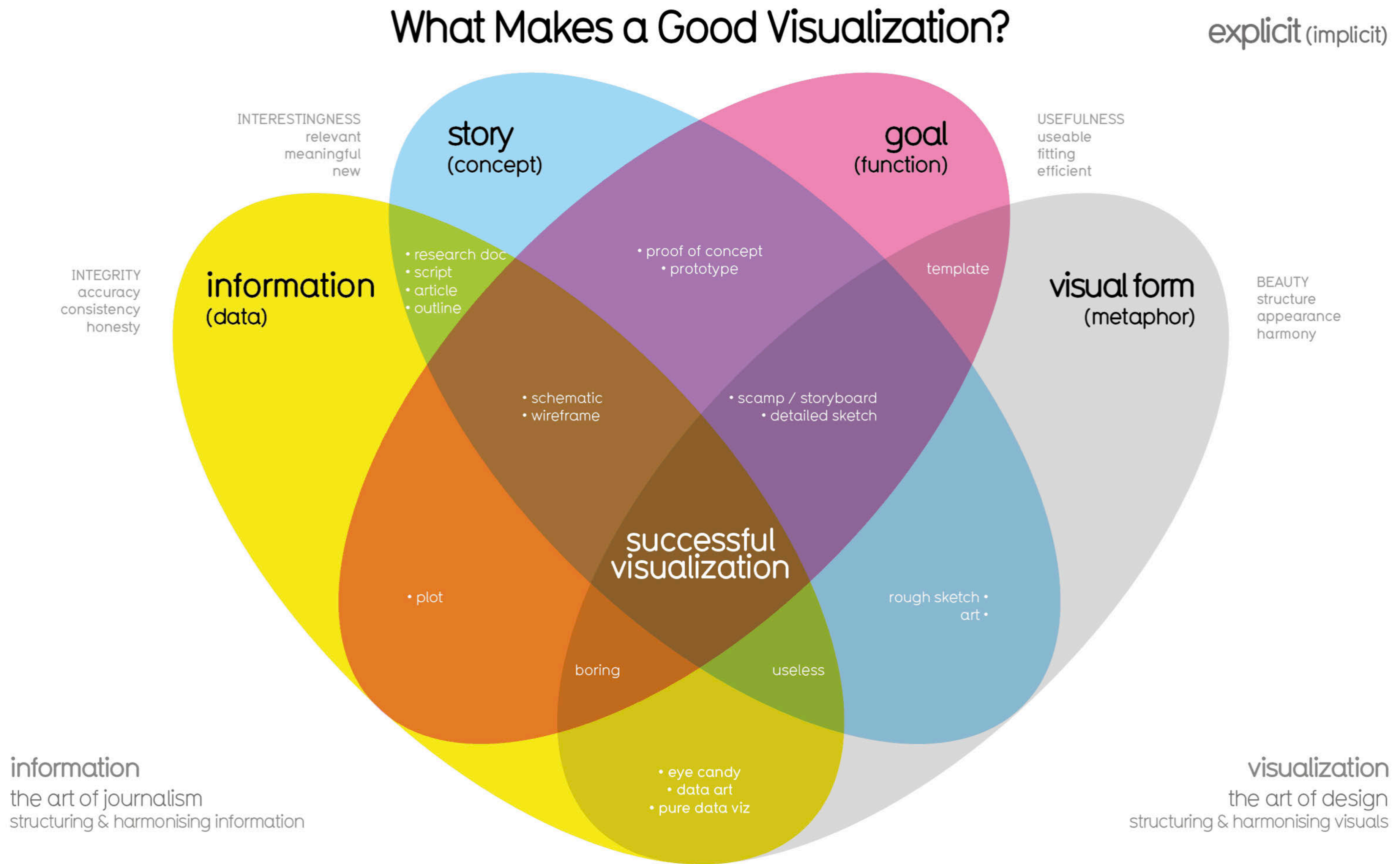


Nadieh Bremer

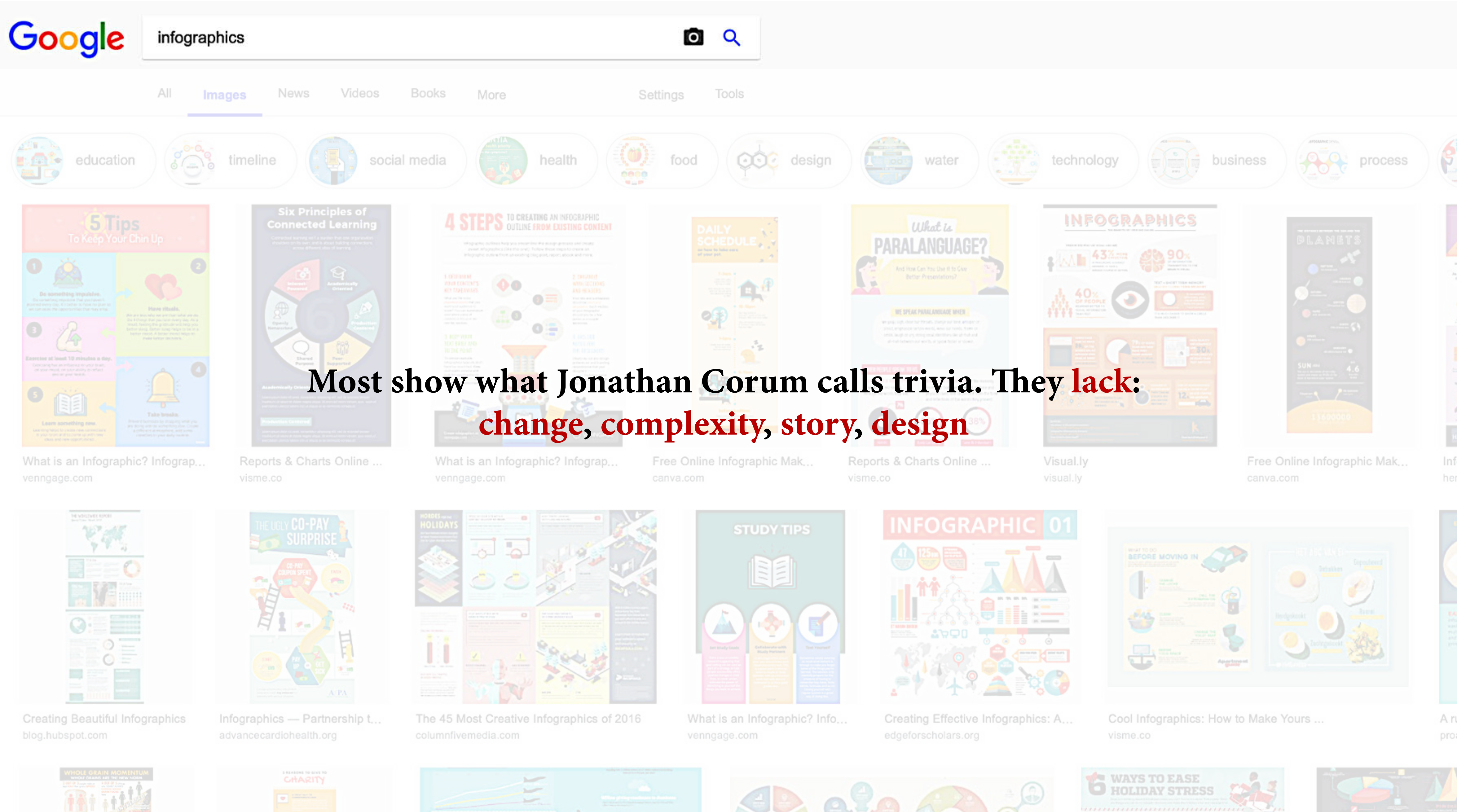
Infographics ... combine graphical elements, such as a drawn portion of an animal, human, map, etc. with small mini **data visualizations** (a small bar chart for example) and annotations to tell a **story**.



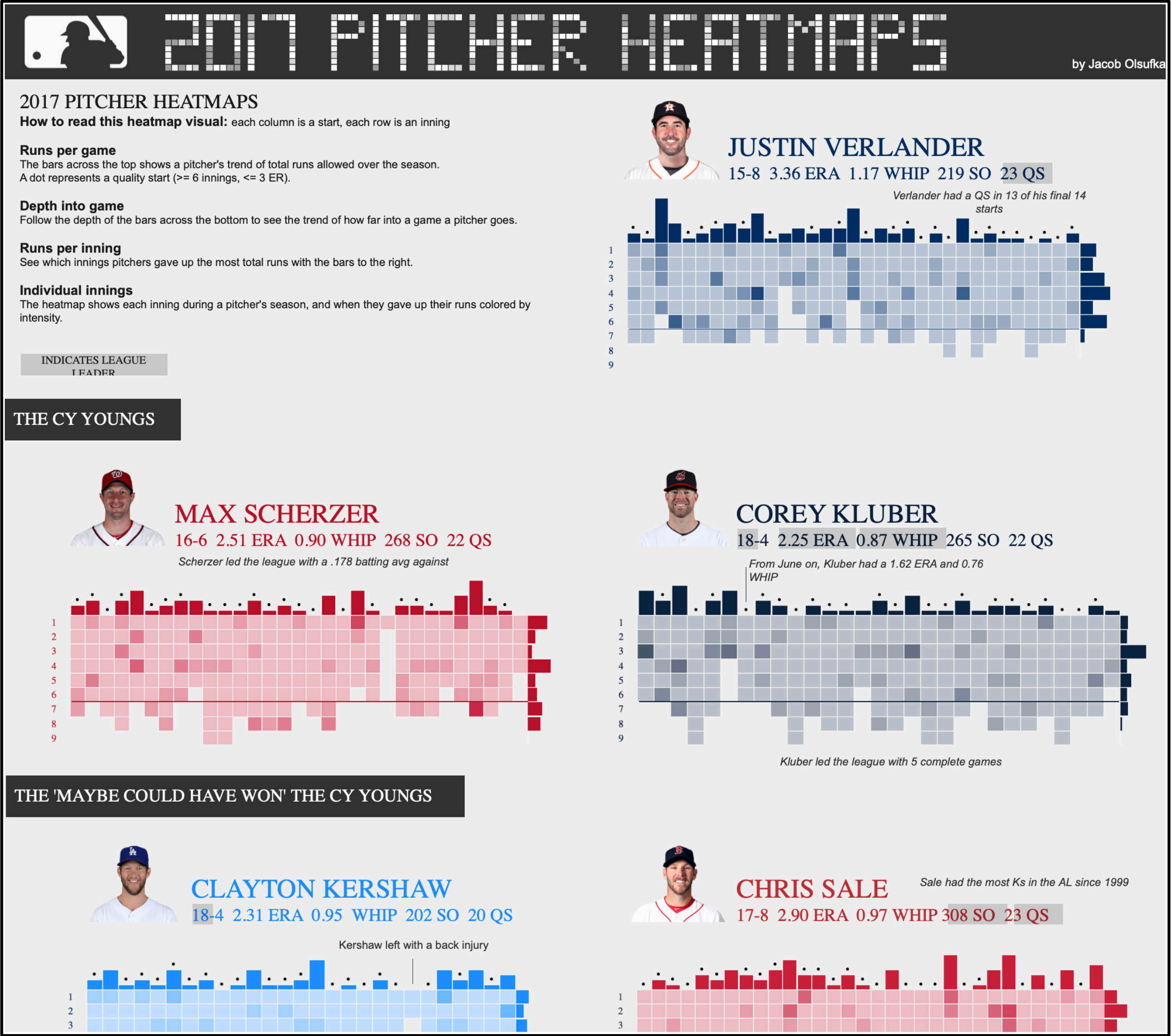
McCandless, David



What are information graphics? | *to play the roulette wheel of **bad** examples, just google “infographics”*



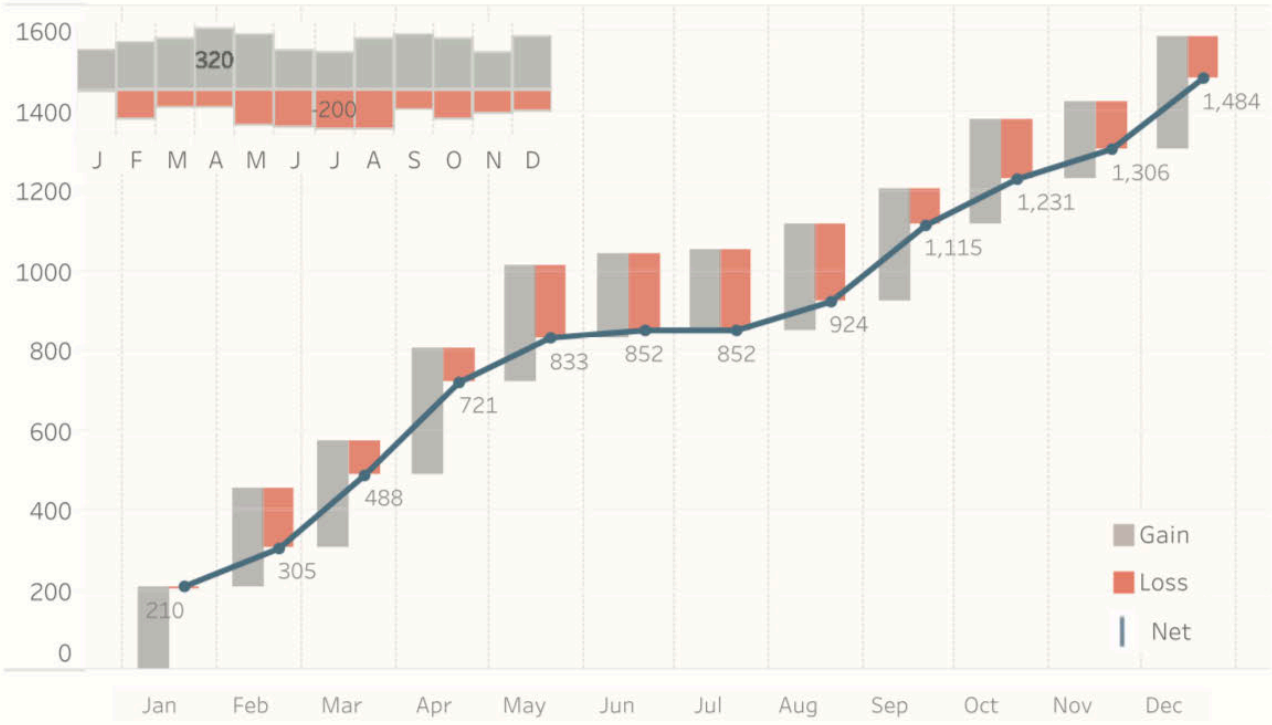
What are information graphics? | *without a narrative, it's just trivia, list of facts*



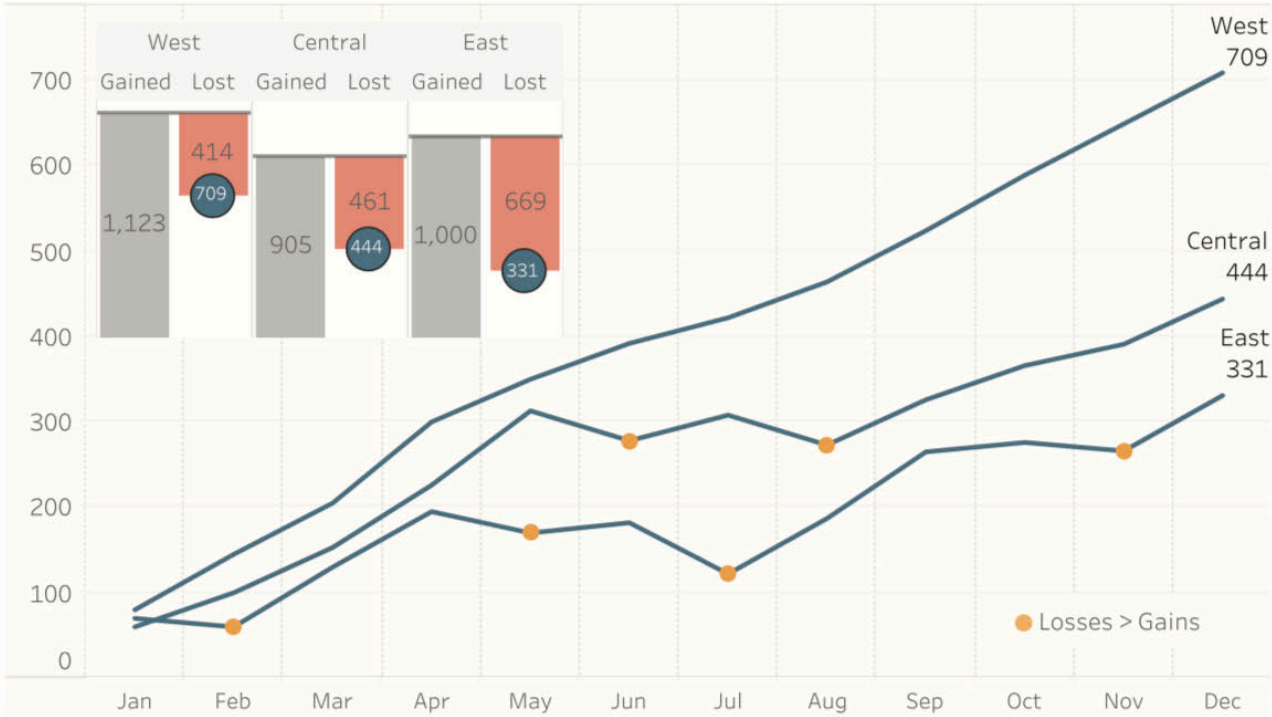
What are information graphics? | *dashboards, unlike infographics of interest, **lack** narrative or story*

Subscriber Churn Analysis

Subscriber activity - All



Net subscriber activity by division



Details

| | | Gained | Lost | Net | Running total |
|-------------|-----------|--------|--------|-------|---------------|
| West | January | 80 | 0 | 80 | 80 |
| | February | 80 | -15 | 65 | 145 |
| | March | 90 | -30 | 60 | 205 |
| | April | 120 | -25 | 95 | 300 |
| | May | 100 | -50 | 50 | 350 |
| | June | 119 | -77 | 42 | 392 |
| | July | 75 | -45 | 30 | 422 |
| | August | 119 | -77 | 42 | 464 |
| | September | 90 | -30 | 60 | 524 |
| | October | 80 | -15 | 65 | 589 |
| | November | 80 | -20 | 60 | 649 |
| | December | 90 | -30 | 60 | 709 |
| | Total | 1,123 | -414 | 709 | |
| Central | January | 60 | 0 | 60 | 60 |
| | February | 85 | -45 | 40 | 100 |
| | March | 80 | -27 | 53 | 153 |
| | April | 90 | -17 | 73 | 226 |
| | May | 120 | -33 | 87 | 313 |
| | June | 45 | -80 | -35 | 278 |
| | July | 75 | -45 | 30 | 308 |
| | August | 45 | -80 | -35 | 273 |
| | September | 80 | -27 | 53 | 326 |
| | October | 85 | -45 | 40 | 366 |
| | November | 60 | -35 | 25 | 391 |
| | December | 80 | -27 | 53 | 444 |
| | Total | 905 | -461 | 444 | |
| East | January | 70 | 0 | 70 | 70 |
| | February | 80 | -90 | -10 | 60 |
| | March | 100 | -30 | 70 | 130 |
| | April | 110 | -45 | 65 | 195 |
| | May | 70 | -95 | -25 | 170 |
| | June | 45 | -33 | 12 | 182 |
| | July | 50 | -110 | -60 | 122 |
| | August | 99 | -34 | 65 | 187 |
| | September | 112 | -34 | 78 | 265 |
| | October | 99 | -88 | 11 | 276 |
| | November | 55 | -65 | -10 | 266 |
| | December | 110 | -45 | 65 | 331 |
| | Total | 1,000 | -669 | 331 | |
| Grand Total | | 3,028 | -1,544 | 1,484 | |

What are information graphics? | *those researching infographics excluded trivia types from their study*

We differentiated ... “list of fact” infographics from the infographics medium as a whole, and chose to *exclude* them because this specific submedium *lacks authorial narrative*.



Riche, co-editors

What are information graphics? | *infographics we want are narratives with data graphics*

TELL A COMPLETE STORY where the purpose is to inform, entertain or persuade the audience (to act). It should have:

clear, focused messages revealed through narrative

new, surprising information

credible data sources

visually coherent and integrated graphics and narrative

comparisons and contrasts for context and meaning

principles of information design, be organized

Are infographics storytelling appropriate?

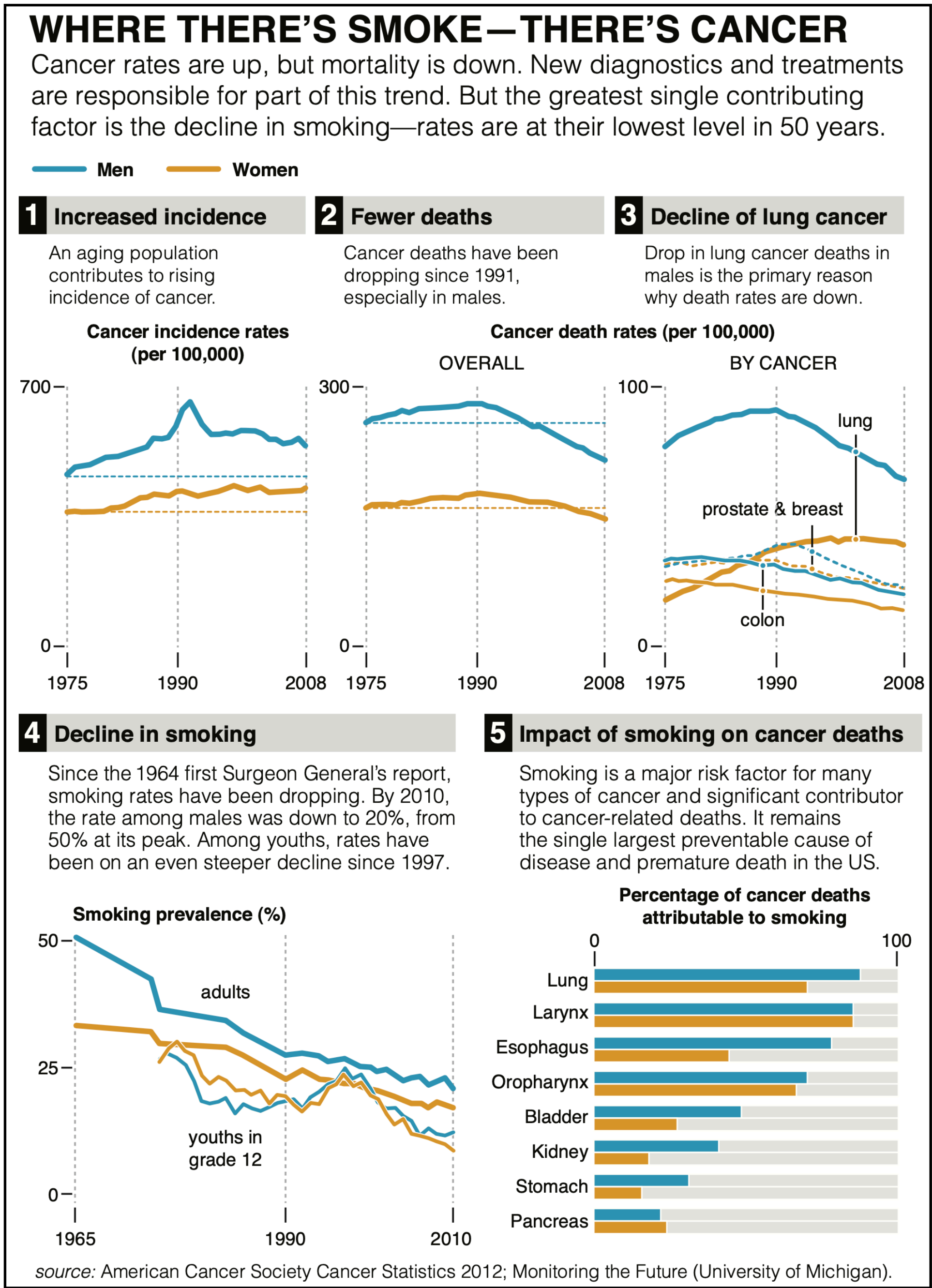
Are infographic stories appropriate? | *yes, here's how and why*

Maintain focus ... by leaving out detail that does not advance the plot. Distinguish necessary detail from minutiae; do not give in to the desire to show all your hard-won data. Provide sufficient support for your story, but stick to the plot.



Cairo & Krzywinski

A story adds meaning and clarity to complex statistics. Use multiple panels to establish flow, and use colloquial language when addressing a general audience. . . . Always be accurate, but balance qualitative and quantitative expositions. An occasional tangent . . . adds texture to the presentation without diluting the message.



Are infographic stories appropriate? | critics say no

“Against storytelling of scientific results”

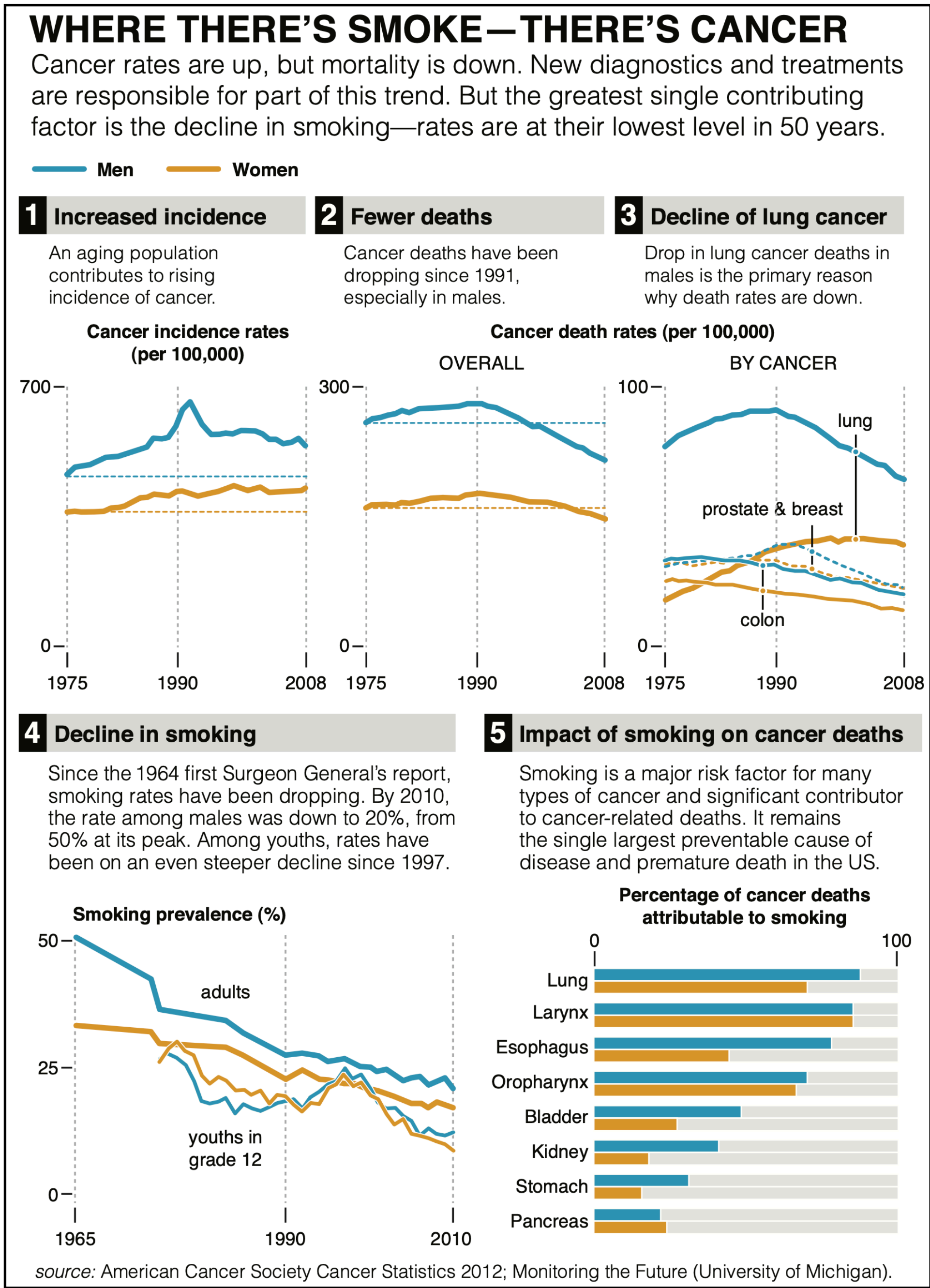
Use of graphics storytelling often result in a *distorted* and *unrepresentative* display of data.

Great storytellers *embellish* and *conceal* information to evoke a response in their audience. Inconvenient truths are swept away, and marginalities are spun to make a point more spectacular. A storyteller would plot the data in the way most persuasive rather than most informative or representative.



Katz, Yarden

How do Cairo and Krzywinski reconcile the conflicting views?



critiquing infographics examples

Get
specific

- Audience?

Does this infographic seem designed to communicate with an identified audience? If so, who?
- Purpose?

Do you see a purpose? If so, what is it trying to inform, entertain, or persuade the audience to act? Or something else?
- Narrative?

Does it use narrative? If so, what structure? Examples? Metaphors? Test with tools from past lectures.
- Encoding, decoding?

What data is encoded? How? Any issues of perception in decoding?
- Comparison or change?

Does the infographic describe comparisons or change? If so, what?
- Color, coherency?

Is color used? If so, for what purpose(s) are its hue, chroma, or luminance used?
- Hierarchy, annotation?

Does it have a hierarchy of information? If so, how is that hierarchy made? Are data encodings explained? If so, how?
- Layering, layout?

Is the information organized? If so, how?
- Credibility, transparency?

Are data sources identified, explained? Limitations or issues discussed?

Let's
critique

Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

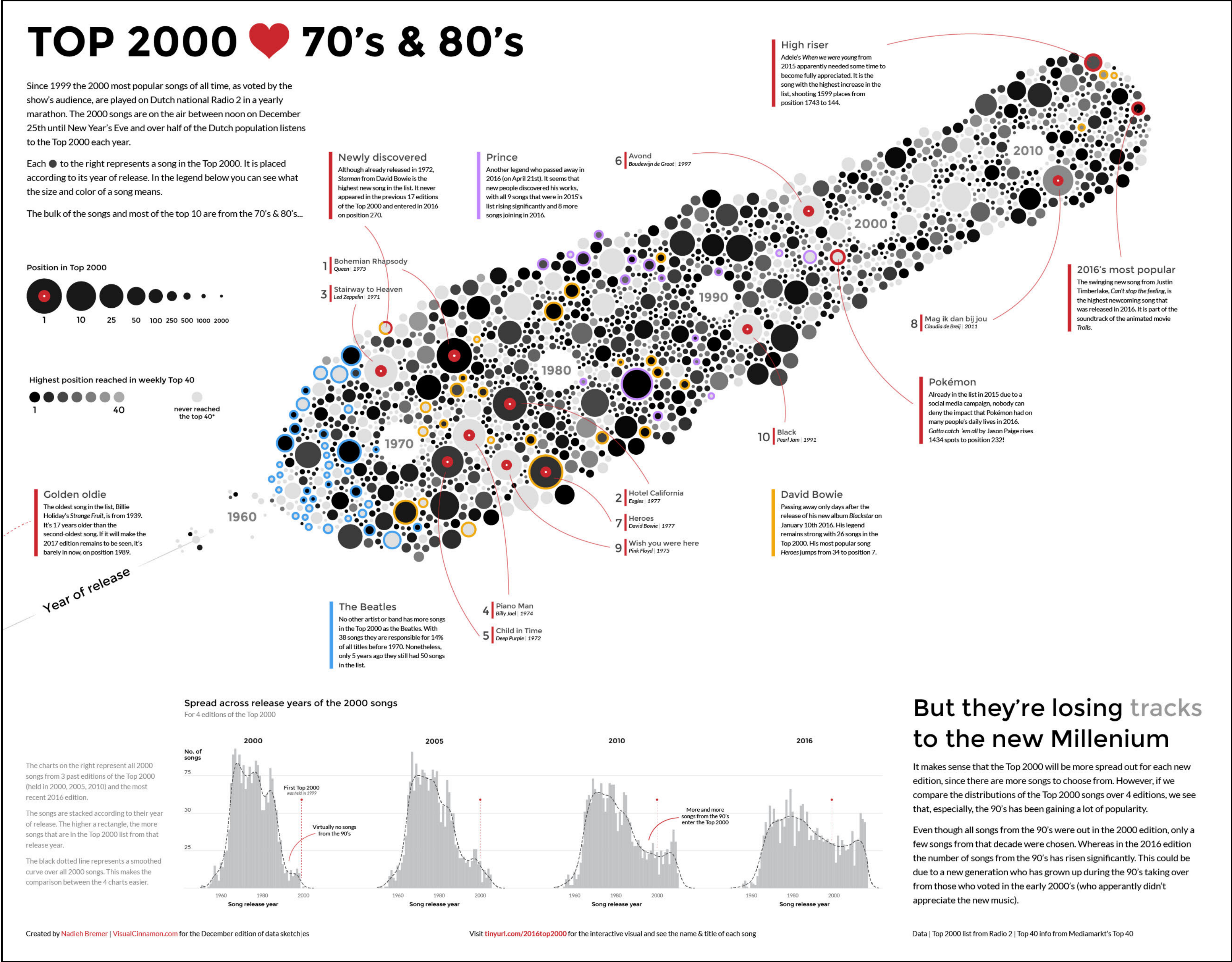
Color, coherency?

Layering, layout?

Credibility, transparency?



Bremer, Nadieh



But they're losing tracks to the new Millenium

It makes sense that the Top 2000 will be more spread out for each new edition, since there are more songs to choose from. However, if we compare the distributions of the Top 2000 songs over 4 editions, we see that, especially, the 90's has been gaining a lot of popularity.

Even though all songs from the 90's were out in the 2000 edition, only a few songs from that decade were chosen. Whereas in the 2016 edition the number of songs from the 90's has risen significantly. This could be due to a new generation who has grown up during the 90's taking over from those who voted in the early 2000's (who apparently didn't appreciate the new music).

(info)graphics examples for discussion

Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

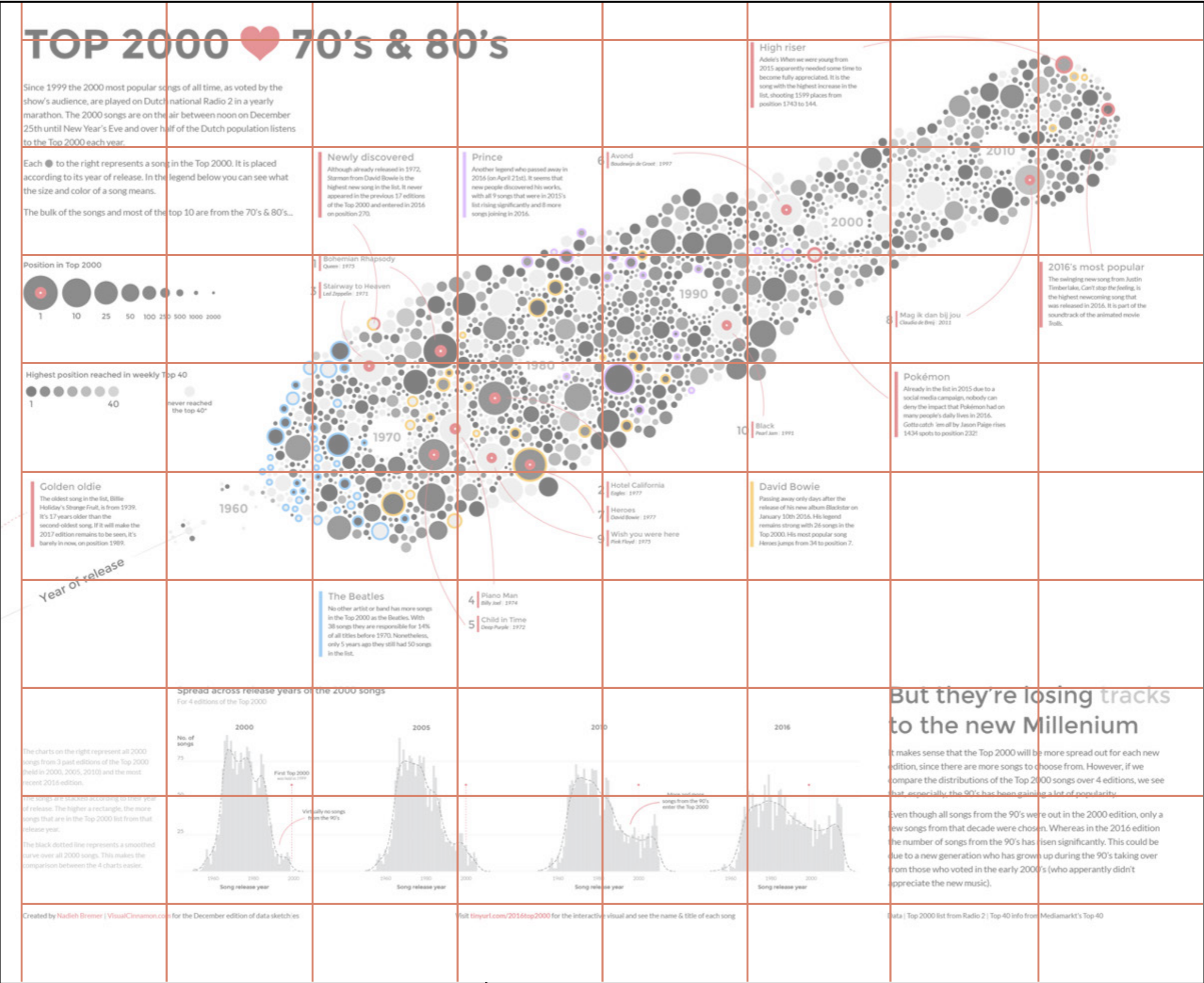
Color, coherency?

Layering, layout?

Credibility, transparency?



Bremer, Nadieh



(info)graphics examples for discussion

Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

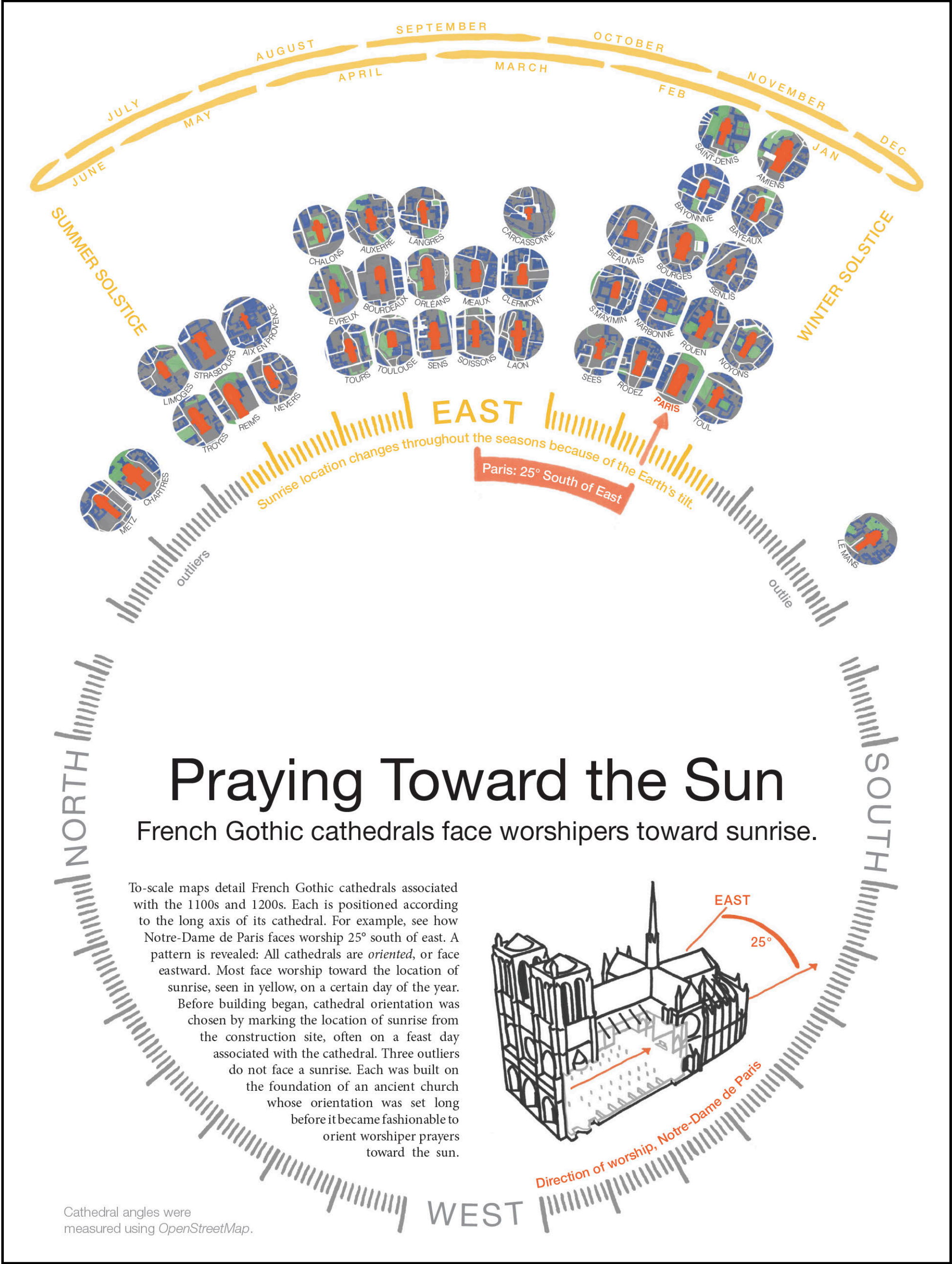
Color, coherency?

Layering, layout?

Credibility, transparency?



Andrews, R.J.



Audience?

Purpose?

Narrative?

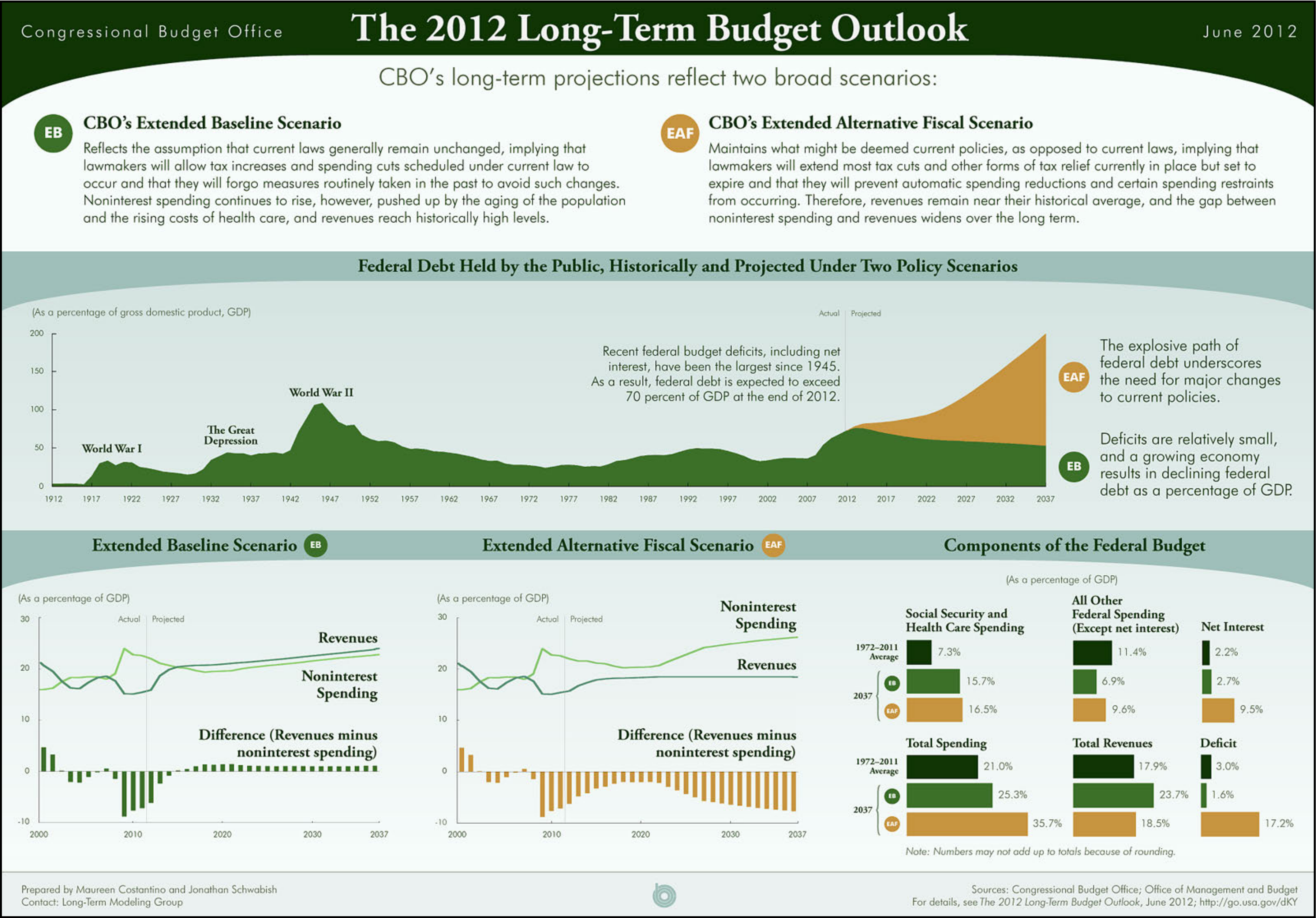
Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

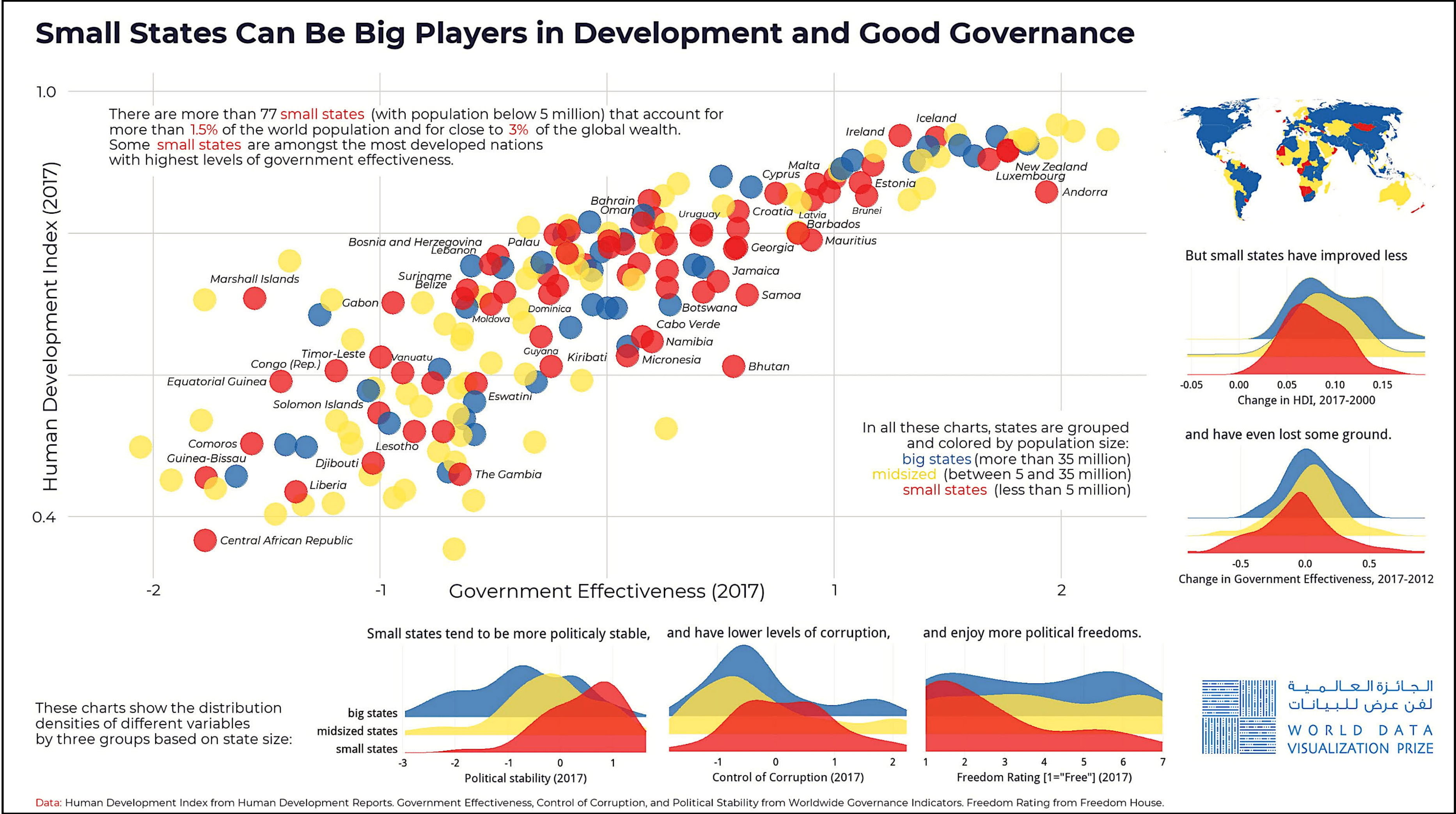
Color, coherency?

Layering, layout?

Credibility, transparency?



Toshkov, Dimiter



Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



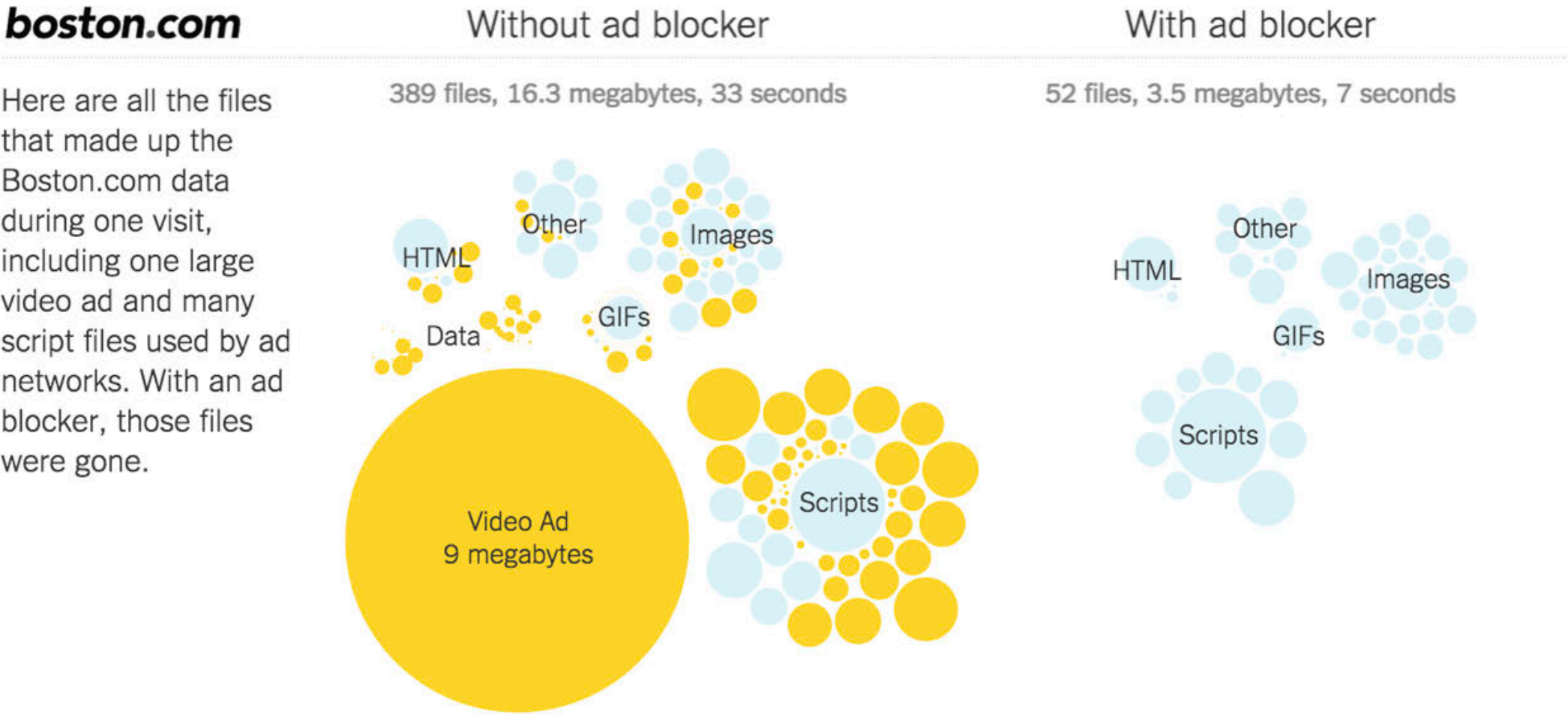
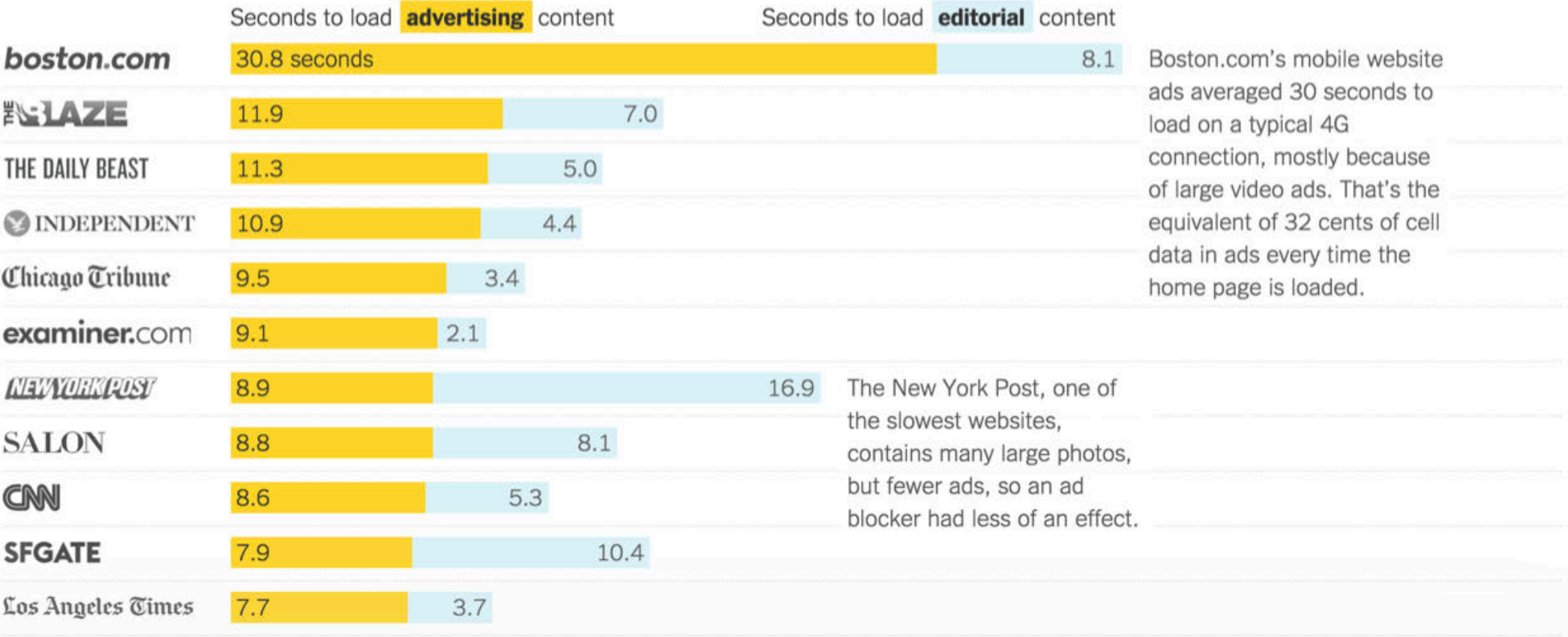
Aisch, Gregor

The Cost of Mobile Ads on 50 News Websites

By GREGOR AISCH, WILSON ANDREWS and JOSH KELLER OCT. 1, 2015

Ad blockers, which Apple first allowed on the iPhone in September, promise to conserve data and make websites load faster. But how much of your mobile data comes from advertising? We measured the mix of **advertising** and **editorial** on the mobile home pages of the top 50 news websites – including ours – and found that **more than half of all data came from ads** and other content filtered by ad blockers. Not all of the news websites were equal. [RELATED ARTICLE](#)

| Estimated load time on a 4G LTE network | Data usage to load mobile home page | Cost per page on a typical data plan |
|--|--|---|
|--|--|---|



(info)graphics examples for discussion

Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

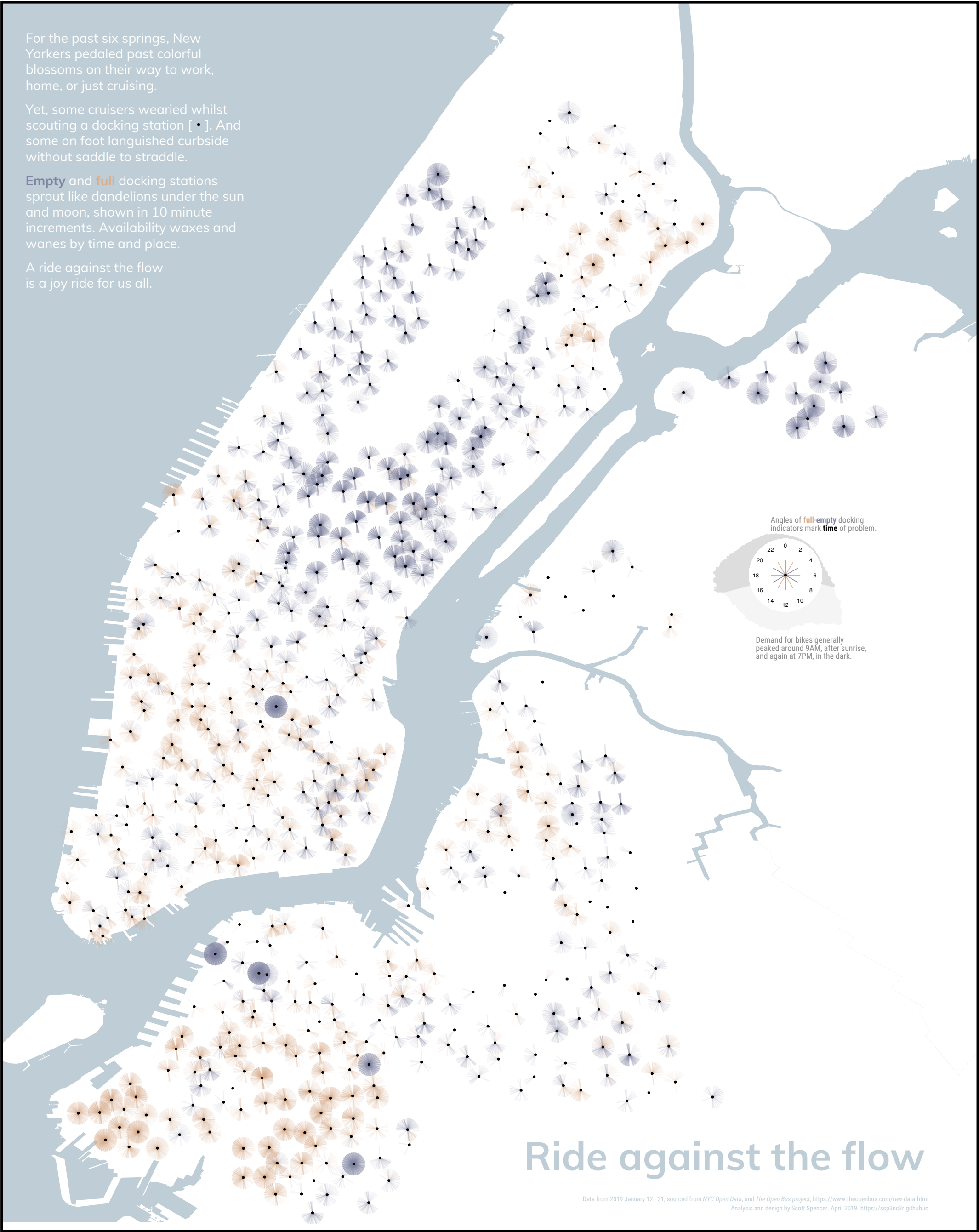
Color, coherency?

Layering, layout?

Credibility, transparency?



Spencer, Scott



(info)graphics examples for discussion

Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

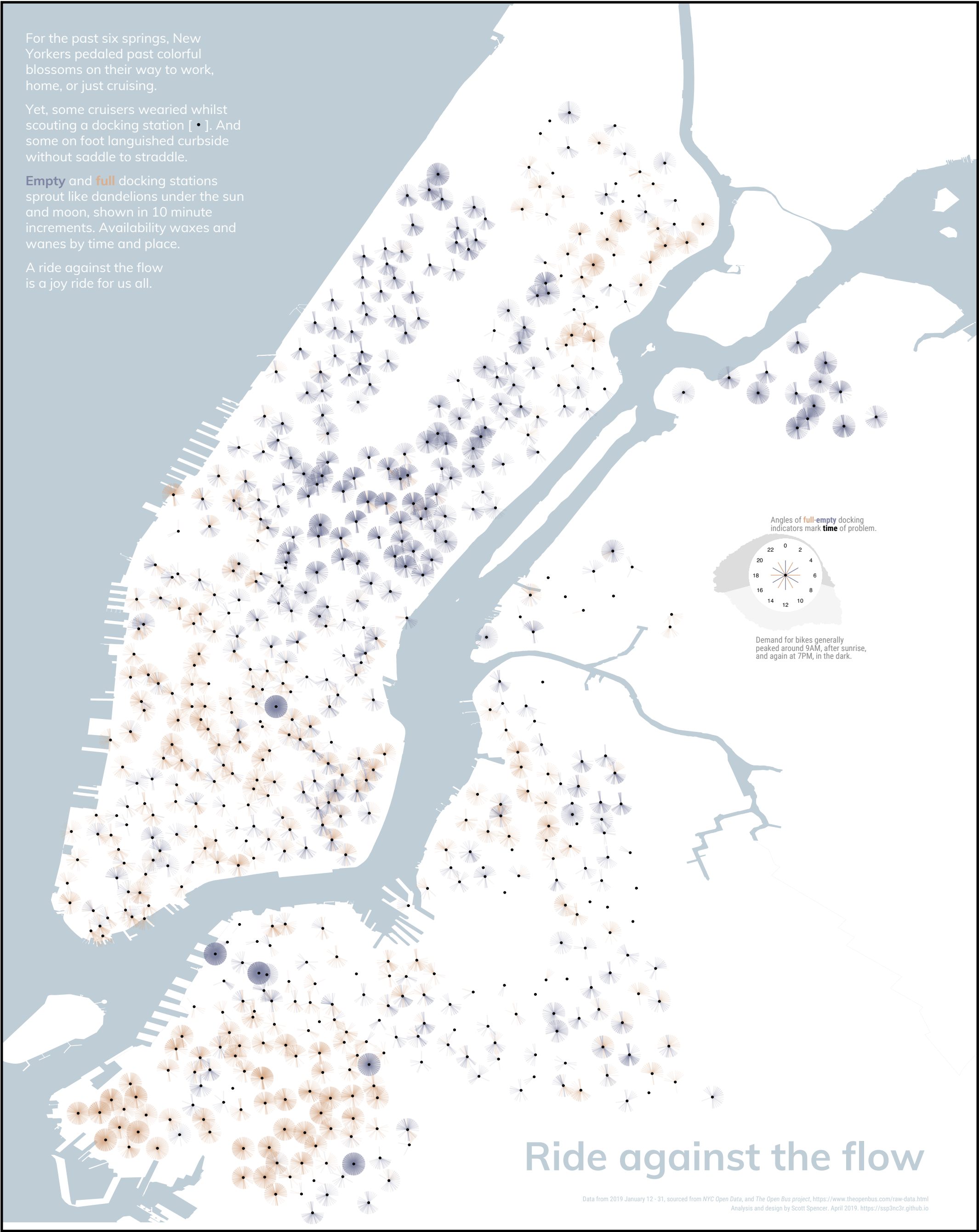
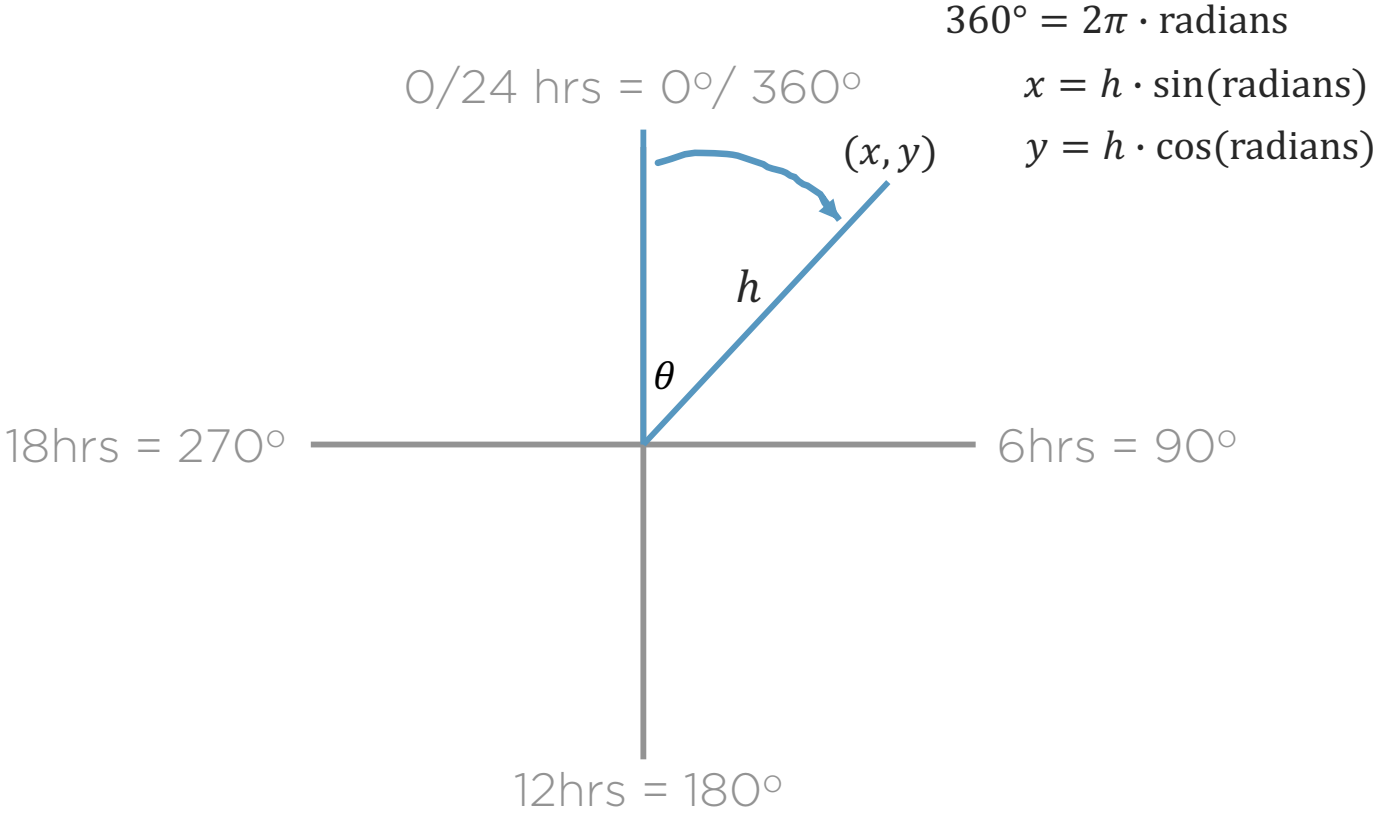
Color, coherency?

Layering, layout?

Credibility, transparency?



Spencer, Scott



(info)graphics examples for discussion

Audience?

Purpose?

Narrative?

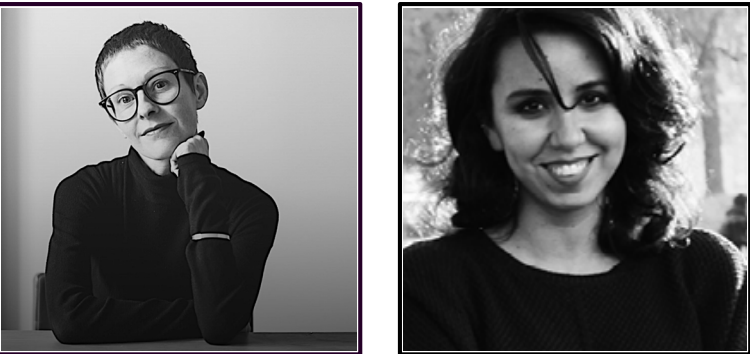
Data encodings, decodings?

Comparison or change?

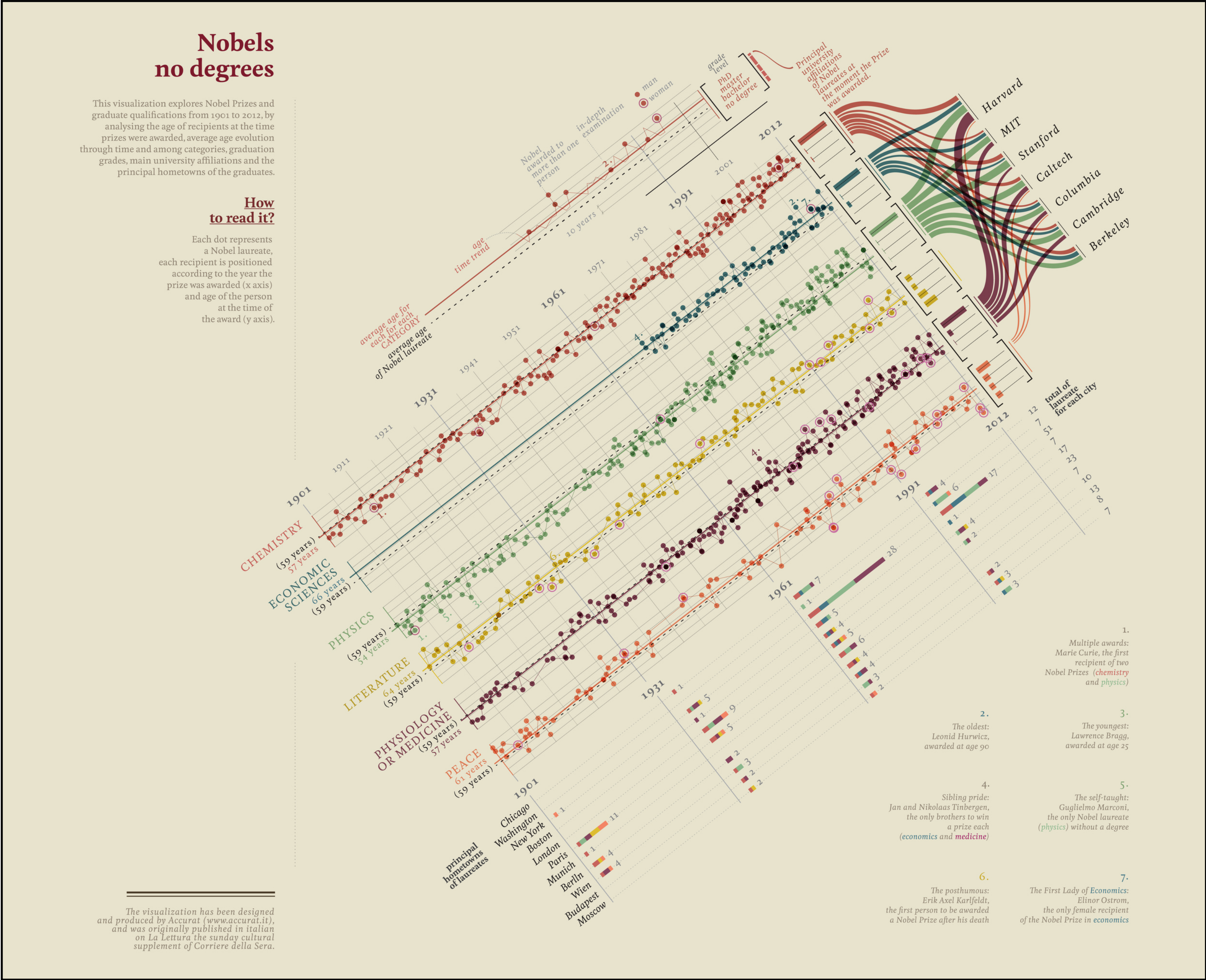
Color, coherency?

Layering, layout?

Credibility, transparency?

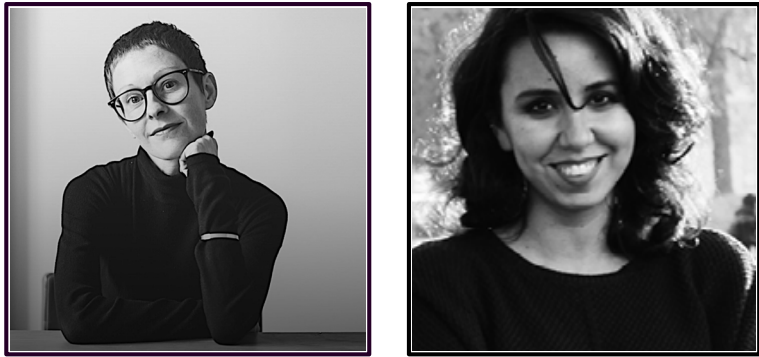


Lupi, Giorgio. Fragapane, Federica.

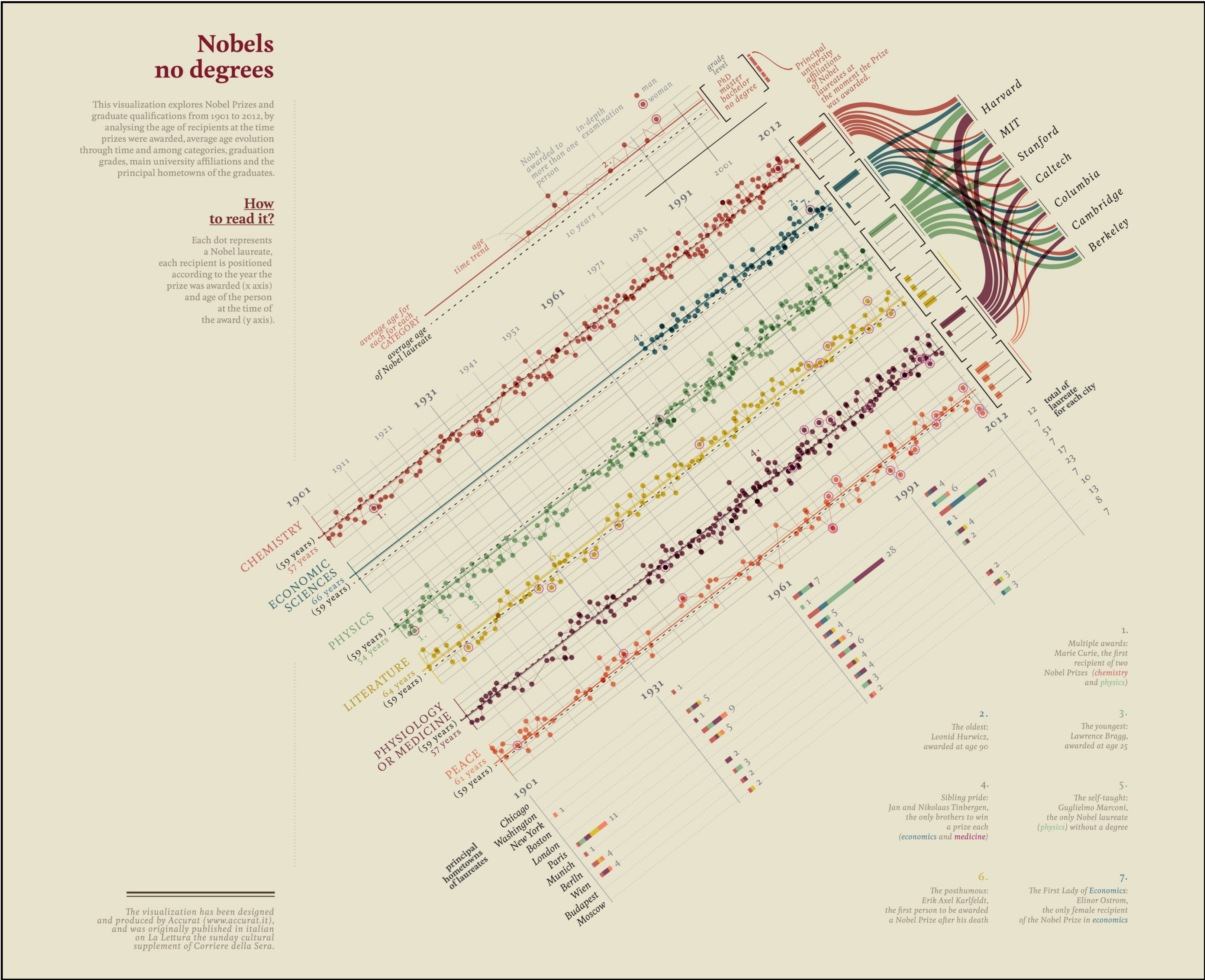


practice in the studio

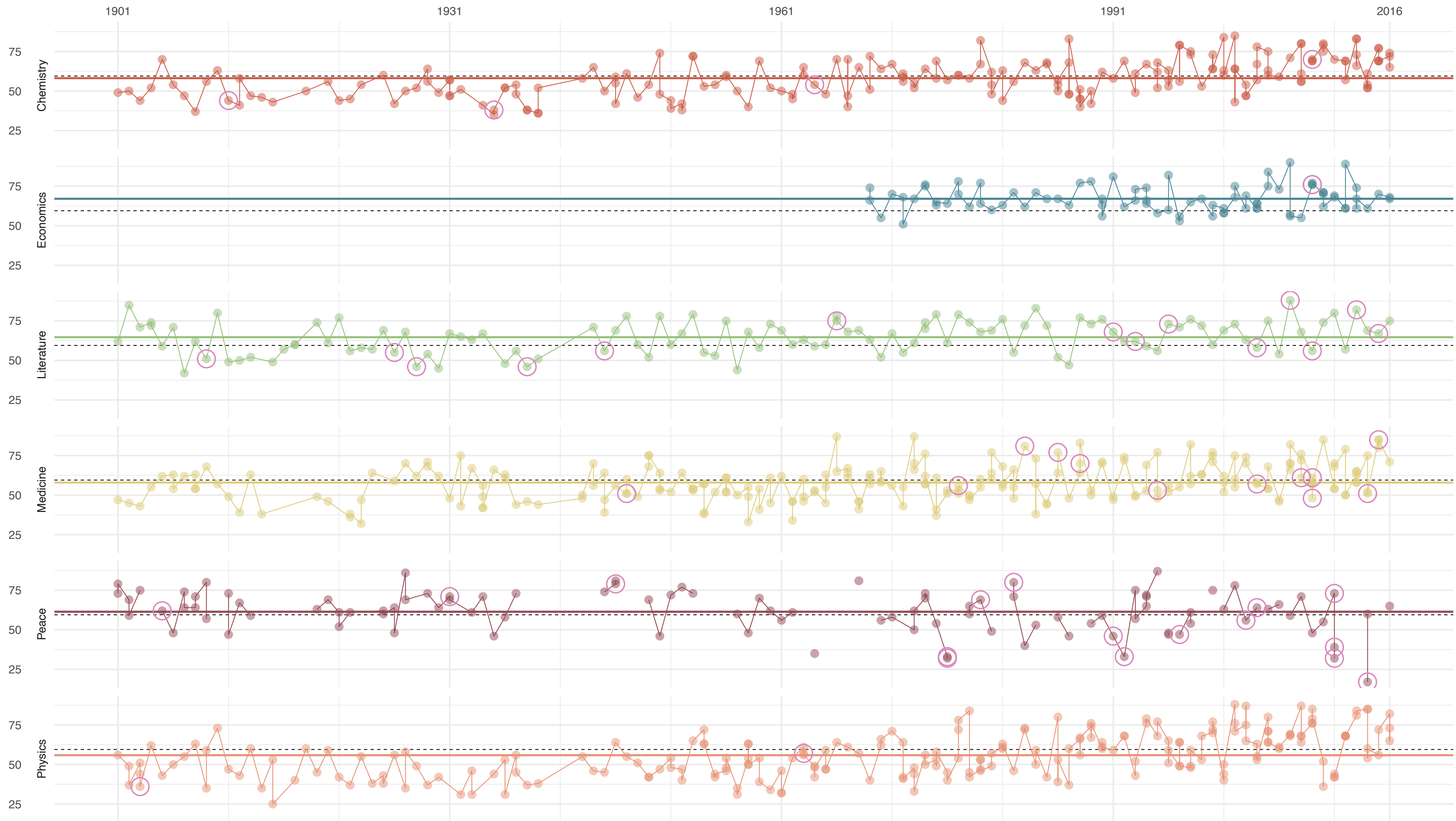
reconstructing an infographic



Lupi, Giorgio & Fragapane



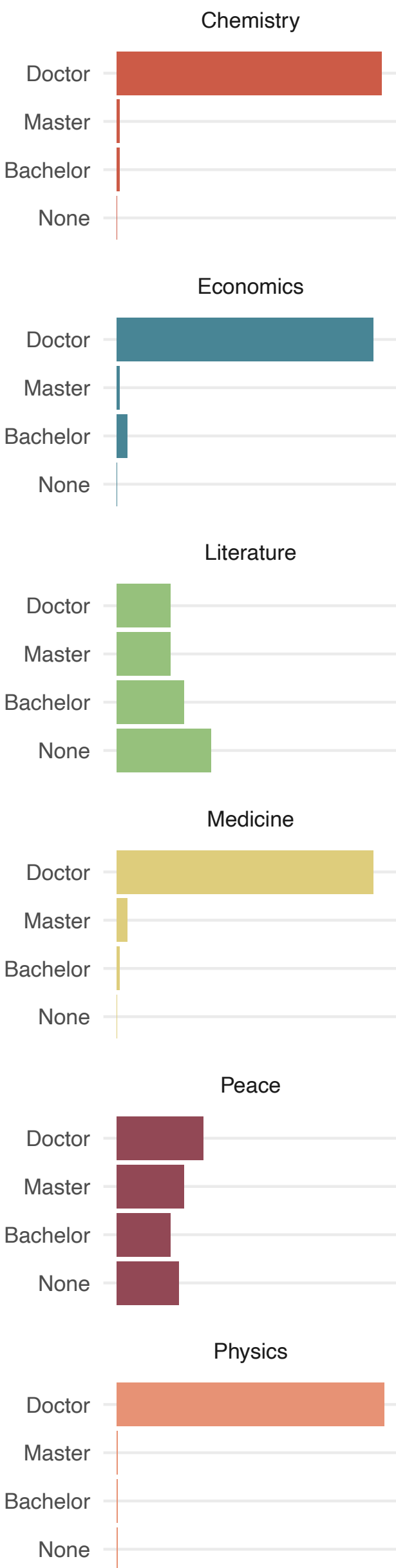
approximating the components | *encoding prizes by color, type, and points and lines by time and age*



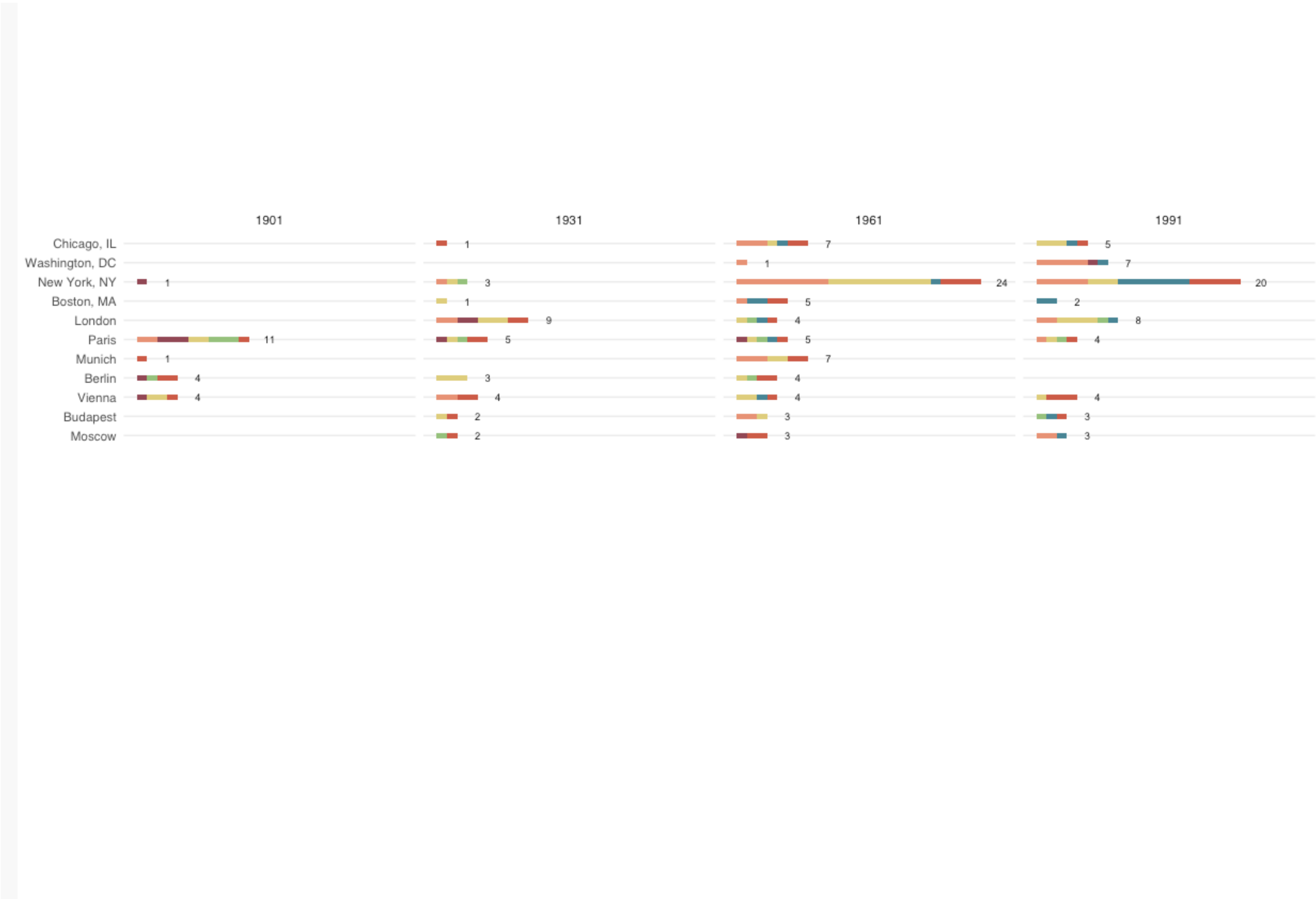
approximating the components

|

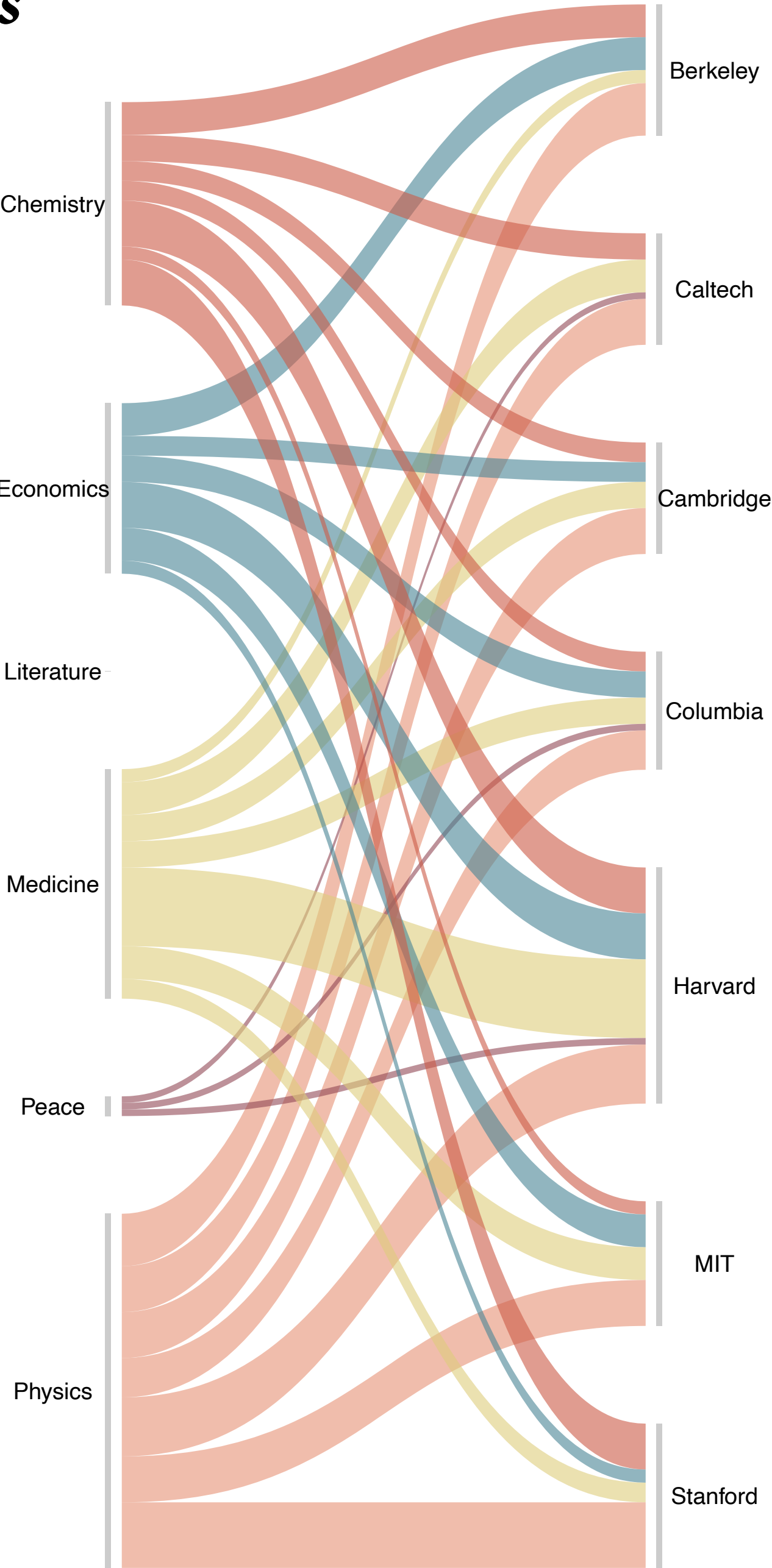
encoding prizes by color, type, and histogram length by education type



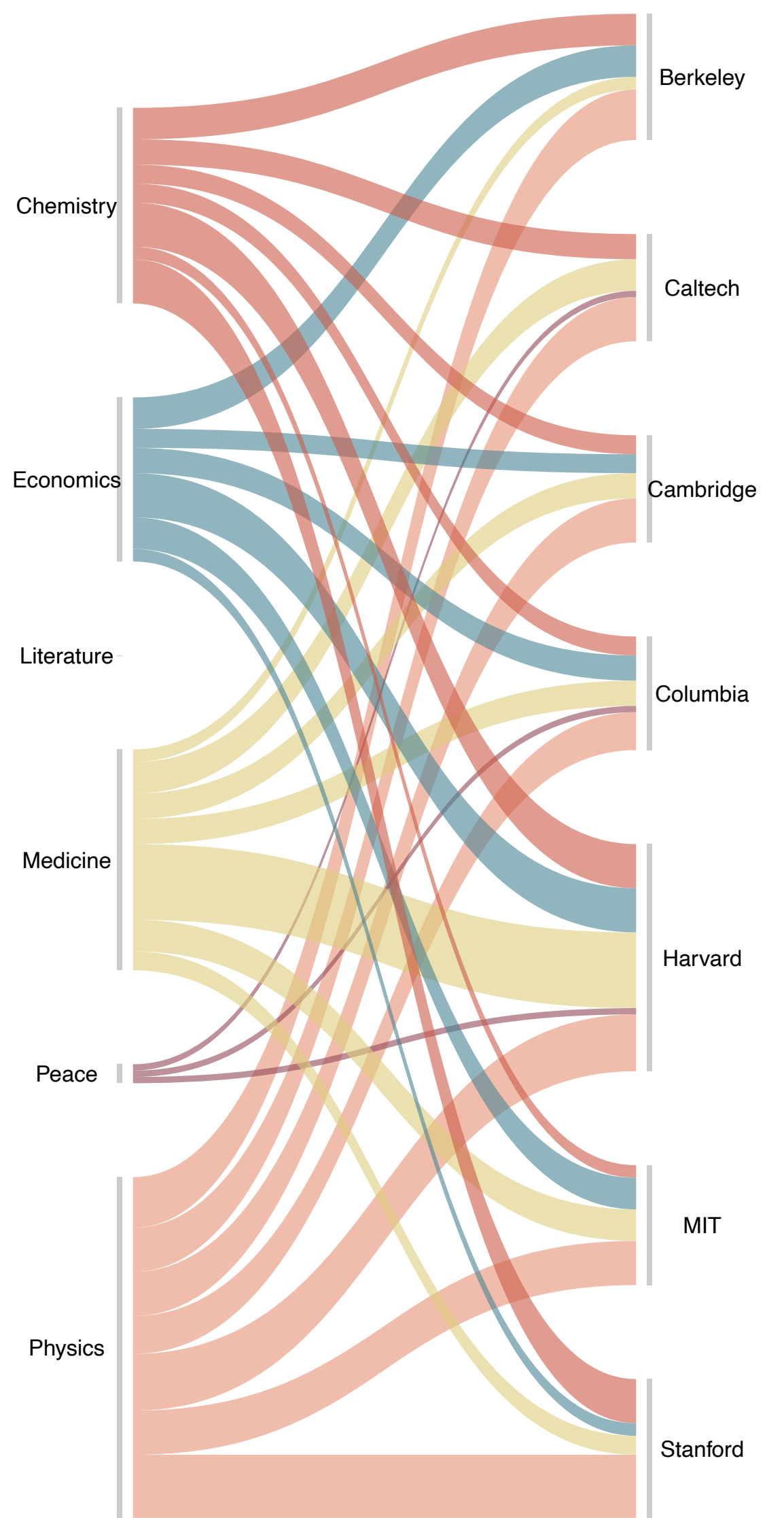
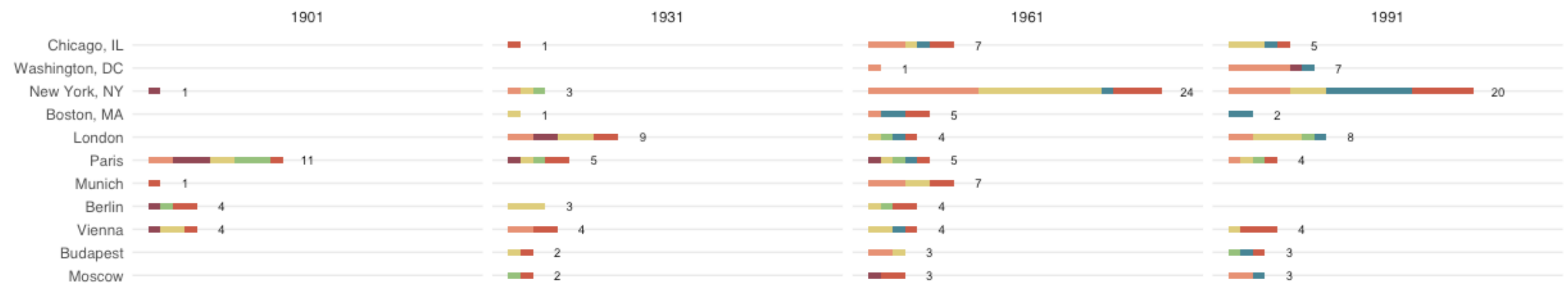
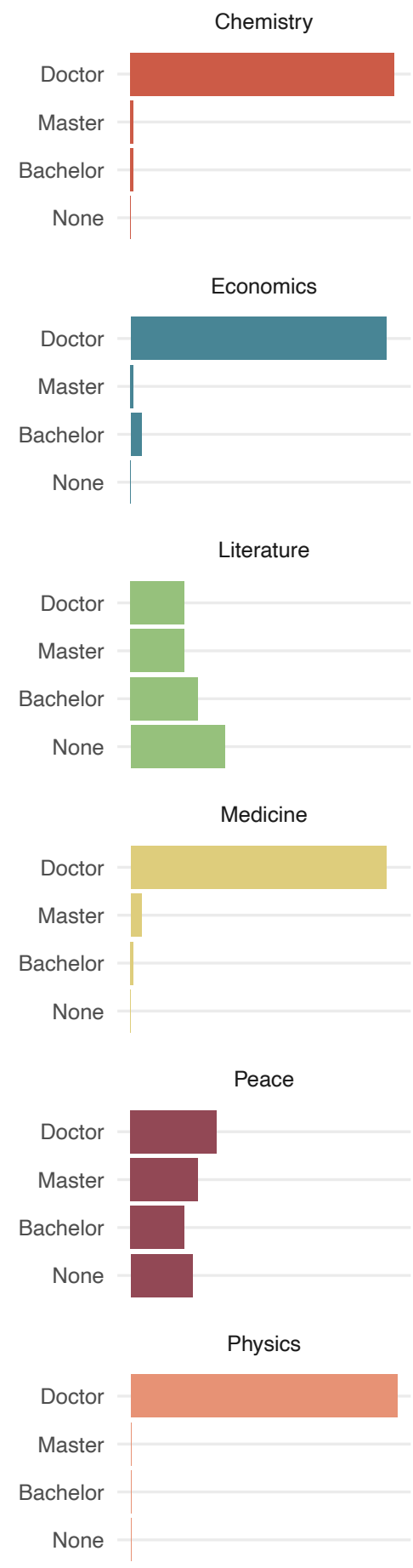
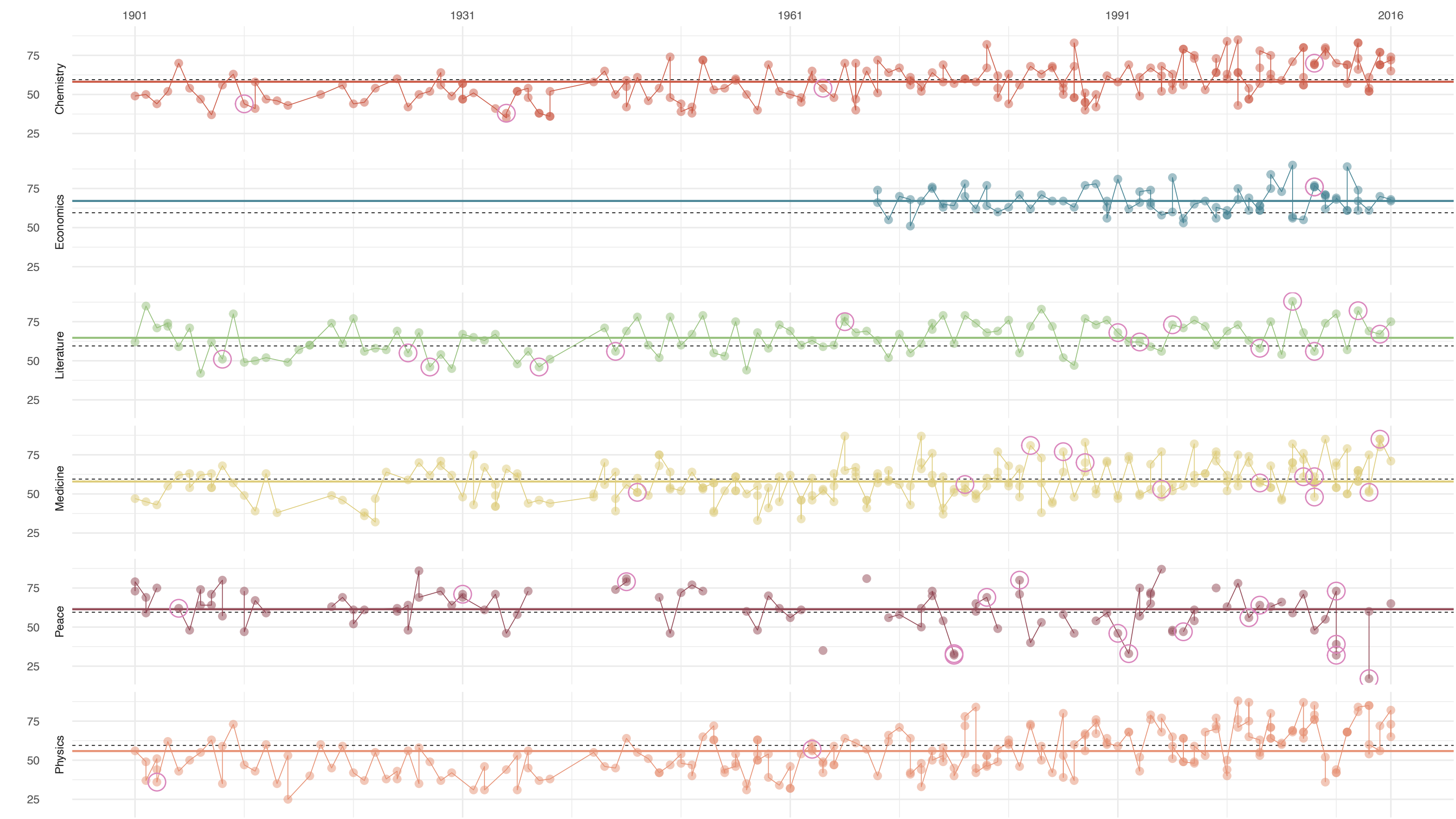
approximating the components | *encoding prizes by color, decade, and stacked bar length by city*



approximating the components | *encoding the flow between categories*



approximating the components | *arranging components and aligning axes*



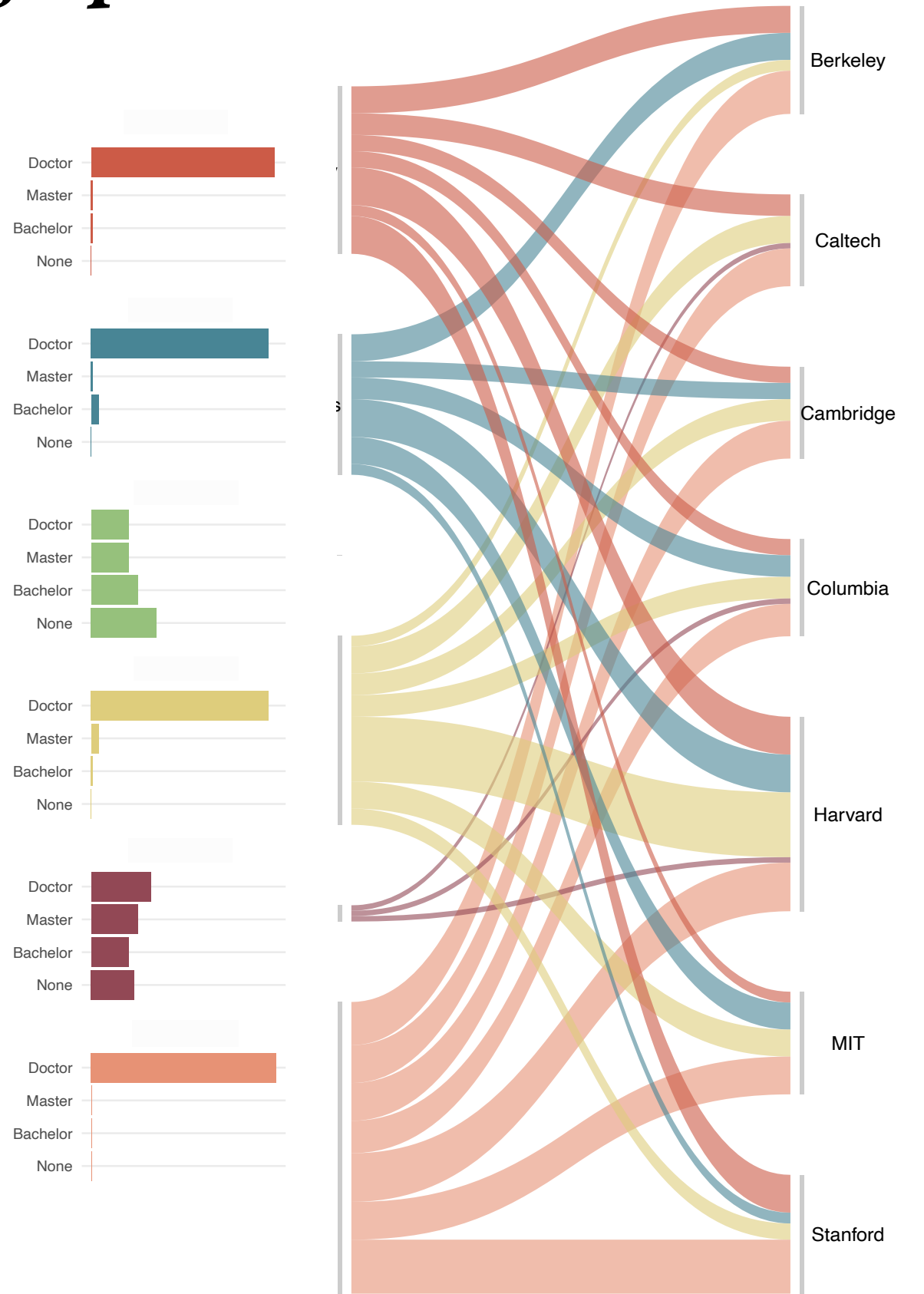
approximating the components | layering in the remaining annotations, linking to graphics

Nobels, no degrees

This visualization explores Nobel Prizes and graduate qualifications from 1901 to 2012, by analyzing the age of recipients at the time prizes were awarded, average age evolution through time and among categories, graduation grades, main university affiliations and the principal hometowns of the graduates.

How to read it?

Each dot represents a Nobel laureate, each recipient is positioned according to the year the prize was awarded (x axis) and age of the person at the time of the award (y axis).



1. Multiple awards: Marie Curie, the first recipient of two Nobel Prizes (**chemistry** and **physics**)
2. The oldest: Leonid Hurwicz, awarded at age 90
3. The youngest: Lawrence Bragg, awarded at age 25
4. Sibling pride: Jan and Nikolaas Timbergen, the only brothers to win a prize each (**economics** and **medicine**)
5. The self-taught: Guglielmo Marconi, the only Nobel laureate (**physics**) without a degree
6. The posthumous: Erik Axel Karlfeldt, the first person to be awarded a Nobel Prize after his death
7. The First Lady of **Economics**: Elinor Ostrom, the only female recipient of the Nobel Prize in **economics**

practice in the studio

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additional material for discussion

Audience?

Purpose?

Narrative?

Data encodings, decodings?

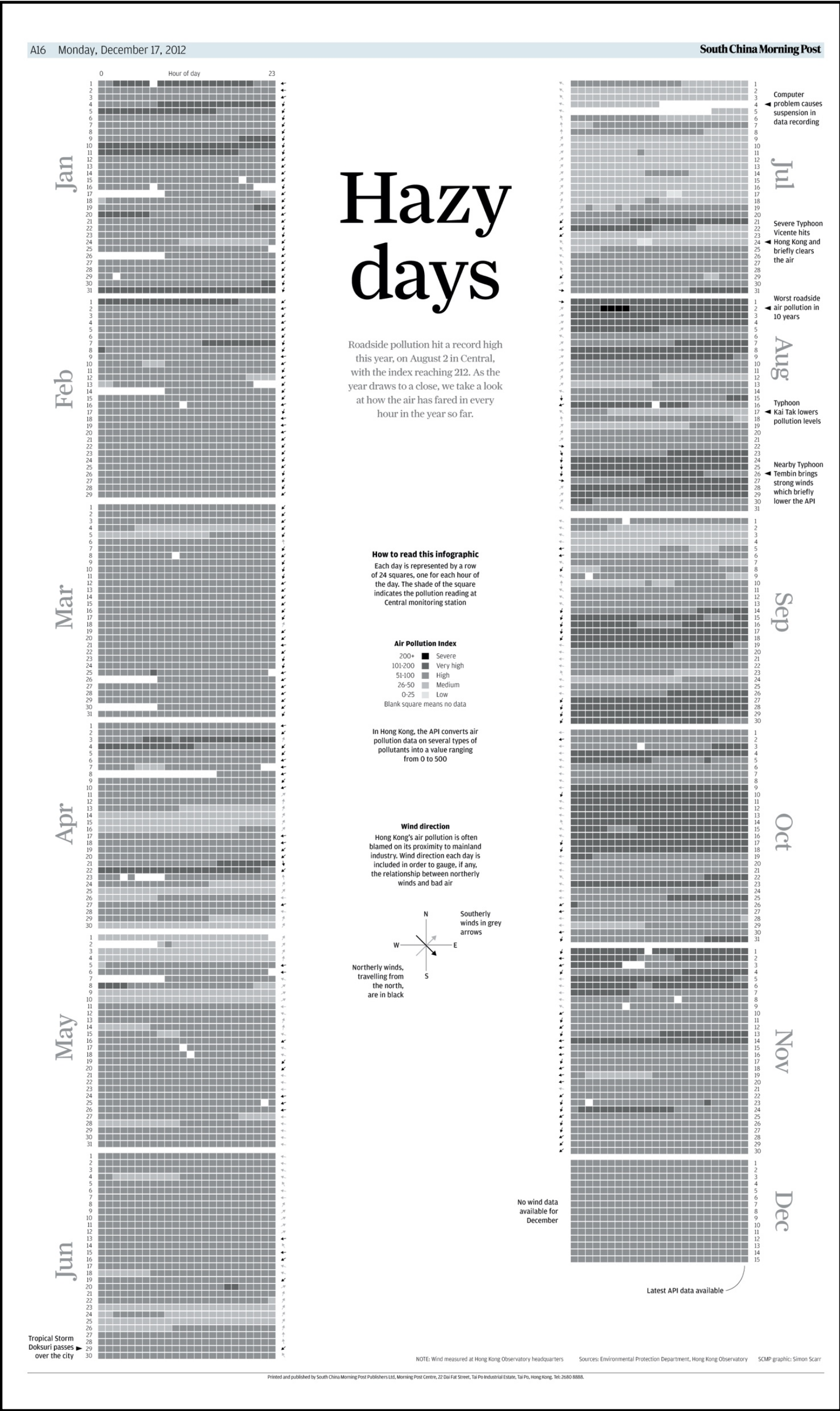
Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?

Scarr, Simon



Audience?

Purpose?

Narrative?

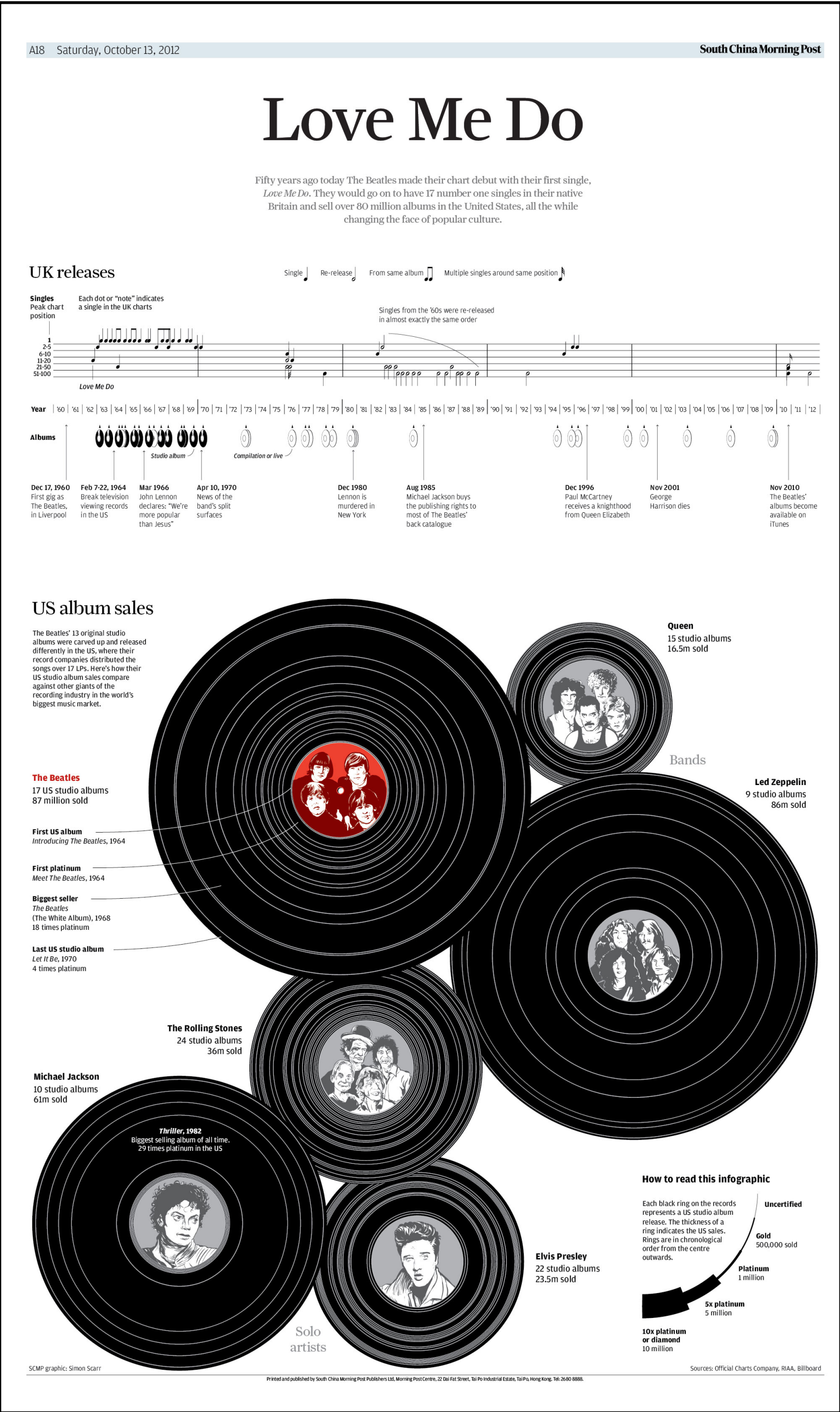
Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



Audience?

Purpose?

Narrative?

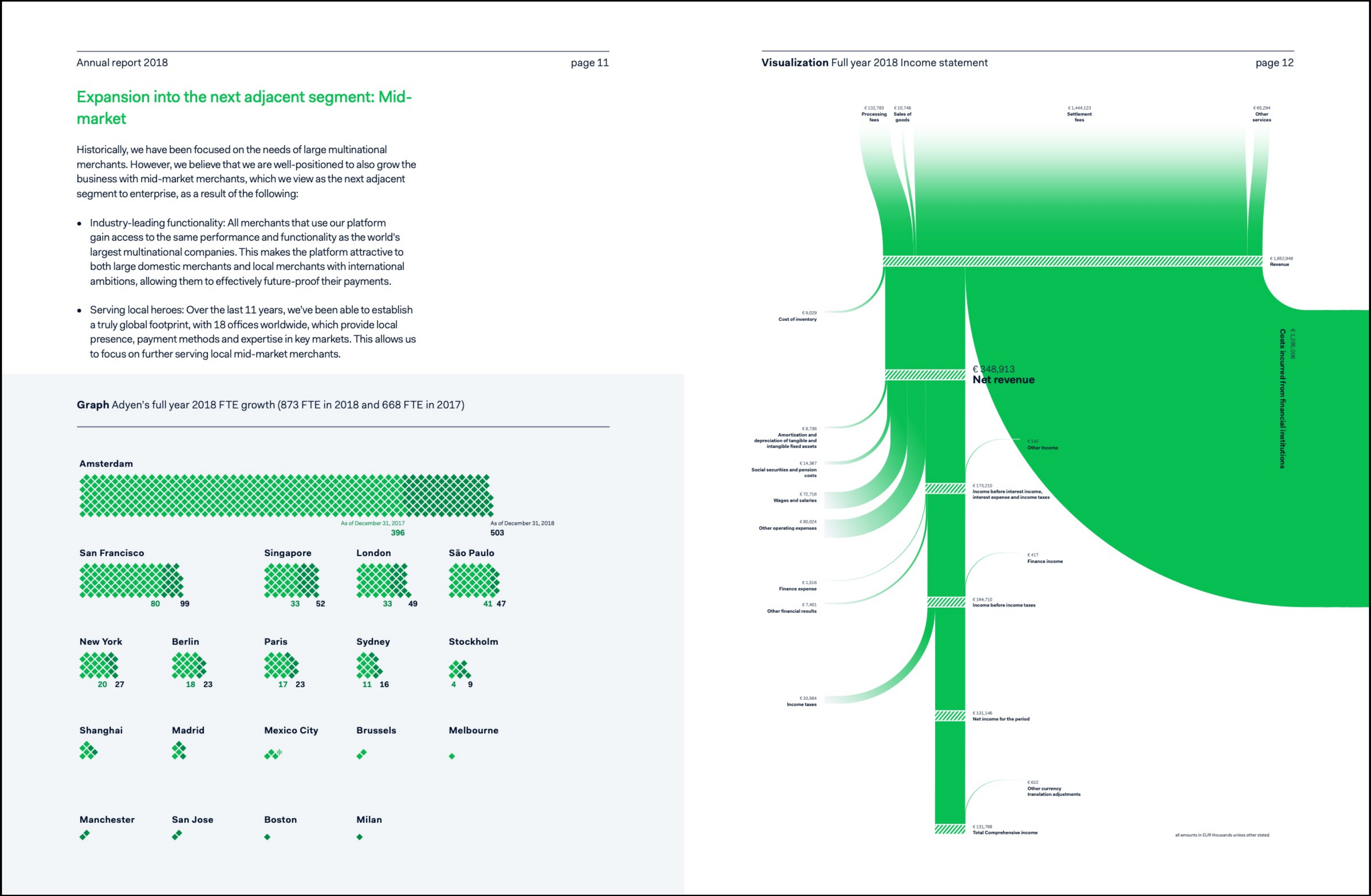
Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



Audience?

Purpose?

Narrative?

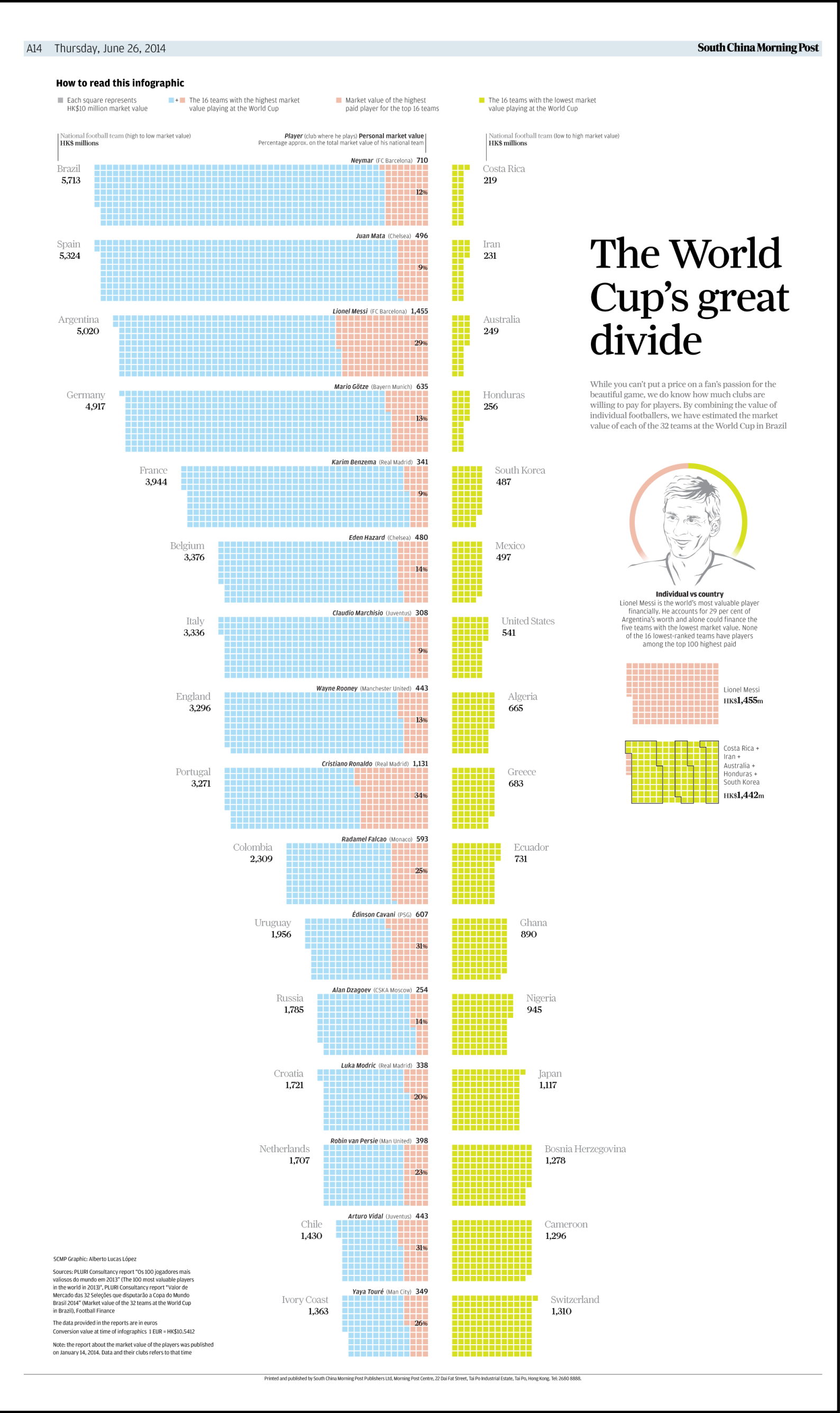
Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



Audience?

Purpose?

Narrative?

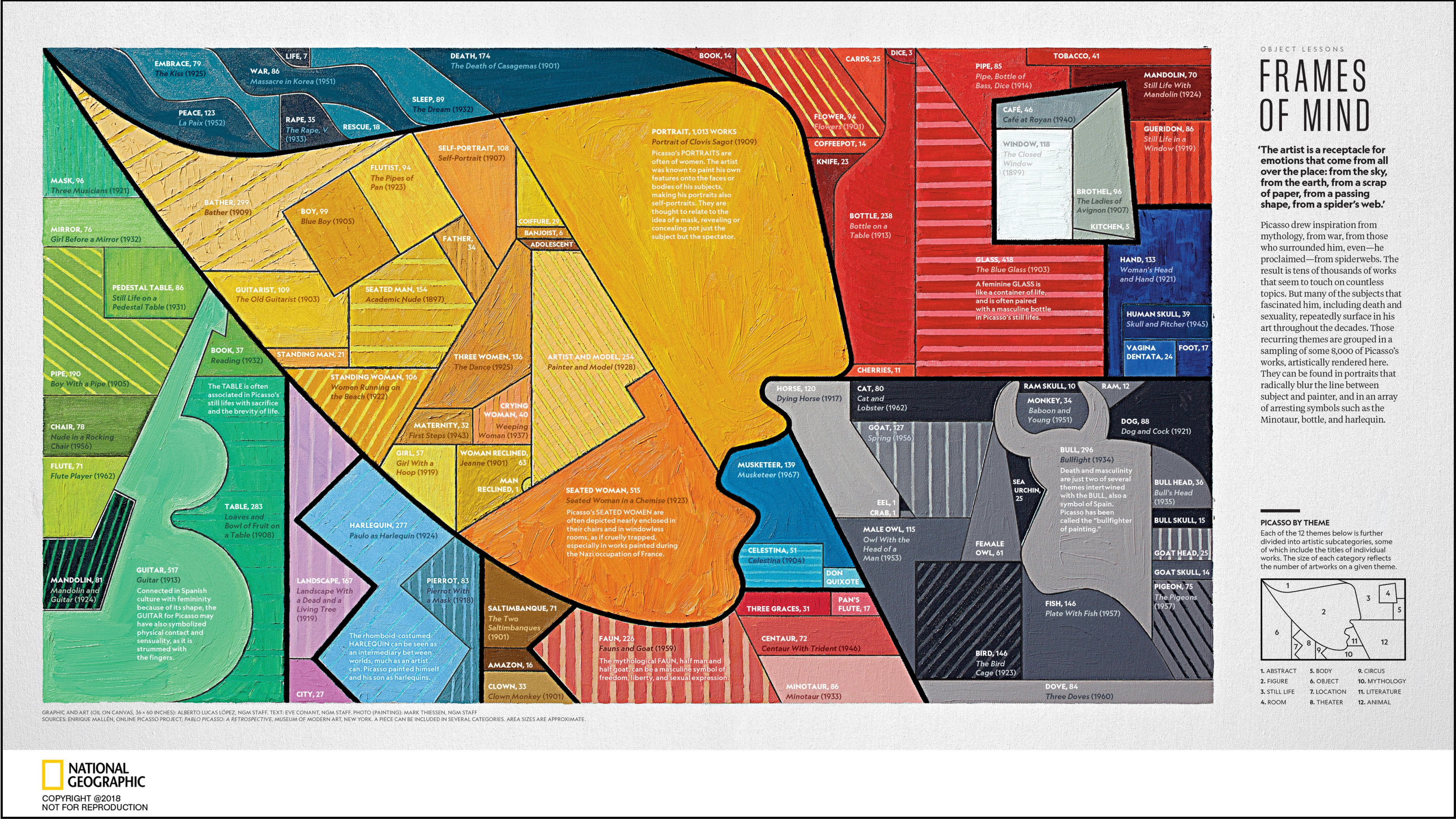
Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?



Audience?

Purpose?

Narrative?

Data encodings, decodings?

Comparison or change?

Color, coherency?

Layering, layout?

Credibility, transparency?

