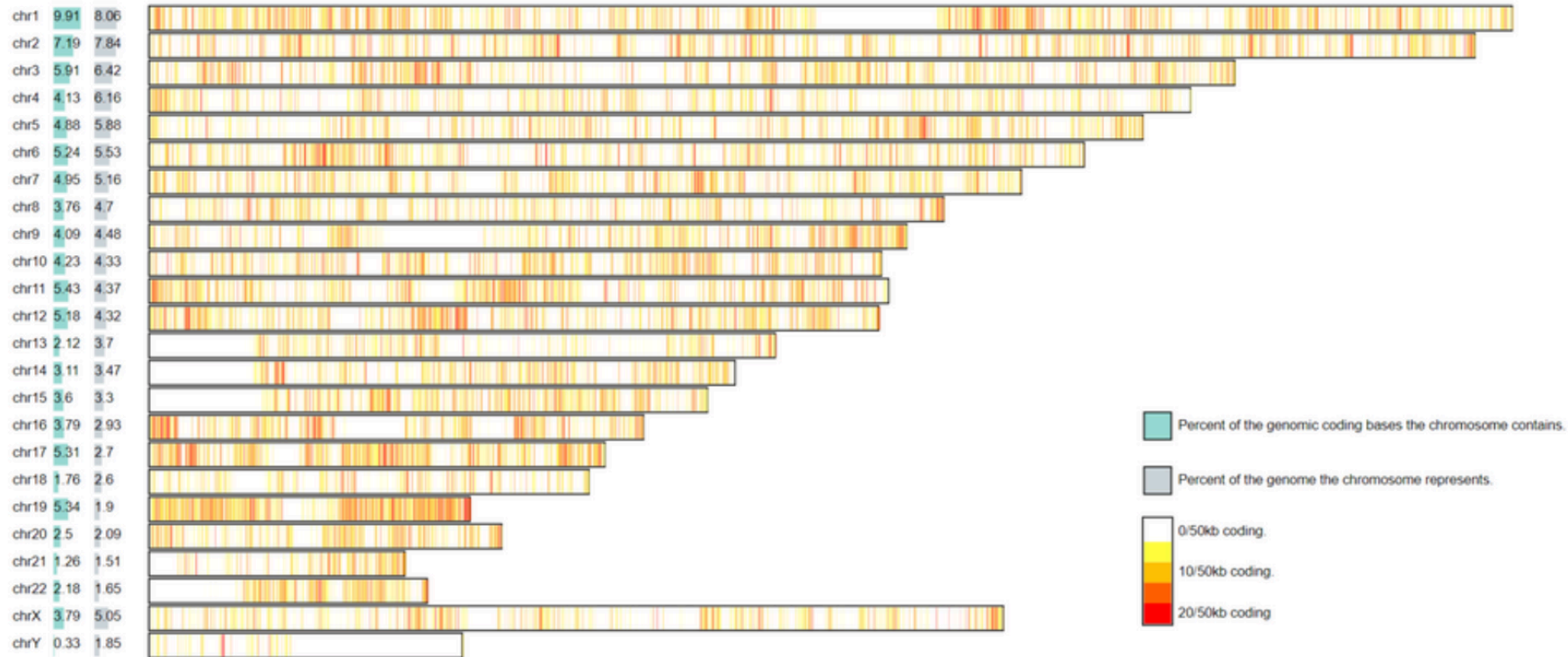


# Displaying Data

## Where on our chromosomes the most coding gene sequences are found. [OC]

OC



[https://www.reddit.com/r/dataisbeautiful/comments/7myjiu/where\\_on\\_our\\_chromosomes\\_the\\_most\\_coding\\_gene/](https://www.reddit.com/r/dataisbeautiful/comments/7myjiu/where_on_our_chromosomes_the_most_coding_gene/)

- Entire wiki cluster on displaying data:  
[https://en.wikipedia.org/wiki/Data\\_visualization](https://en.wikipedia.org/wiki/Data_visualization)
- One of my favourite ways to procrastinate:  
<https://www.reddit.com/r/dataisbeautiful/>
- The other way: Fivethirtyeight:  
<https://fivethirtyeight.com>

## Displaying Data

The importance of displaying your data cannot be over-emphasized

[http://www.ted.com/talks/hans\\_rosling\\_shows\\_the\\_best\\_stats\\_you\\_ve\\_ever\\_seen.html](http://www.ted.com/talks/hans_rosling_shows_the_best_stats_you_ve_ever_seen.html)

[http://www.ted.com/talks/lang/en/david\\_mccandless\\_the\\_beauty\\_of\\_data\\_visualization.html](http://www.ted.com/talks/lang/en/david_mccandless_the_beauty_of_data_visualization.html)

[http://www.ted.com/talks/peter\\_donnelly\\_shows\\_how\\_stats\\_fool\\_juries.html](http://www.ted.com/talks/peter_donnelly_shows_how_stats_fool_juries.html)

[http://www.ted.com/talks/ben\\_goldacre\\_battling\\_bad\\_science.html](http://www.ted.com/talks/ben_goldacre_battling_bad_science.html)

[http://www.ted.com/talks/  
ben\\_goldacre\\_what\\_doctors\\_dont\\_know\\_about\\_the\\_drugs\\_they\\_prescribe.html](http://www.ted.com/talks/ben_goldacre_what_doctors_dont_know_about_the_drugs_they_prescribe.html)

## Statistics has its roots in **Biology**

A modern problem in biology is ***too much data*** and not enough people who can interpret it effectively

A second issue: how to convey  
(complicated) results **EFFECTIVELY?**

# Making sense of complex data: a brief history of effective visualization

# The lady with the lamp



# ...and the informative graph

*The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.*

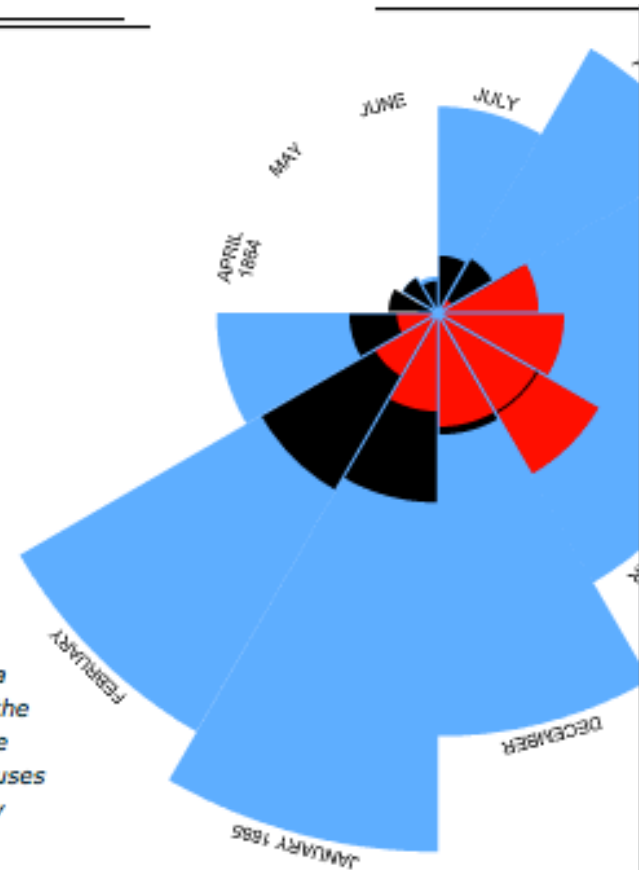
*The blue wedges measured from the centre of the circle represent area for area the deaths from Preventable or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes*

*The black line across the red triangle in Nov' 1854 marks the boundary of the deaths from all other causes during the month*

*In October 1854, & April 1855, the black area coincides with the red,*

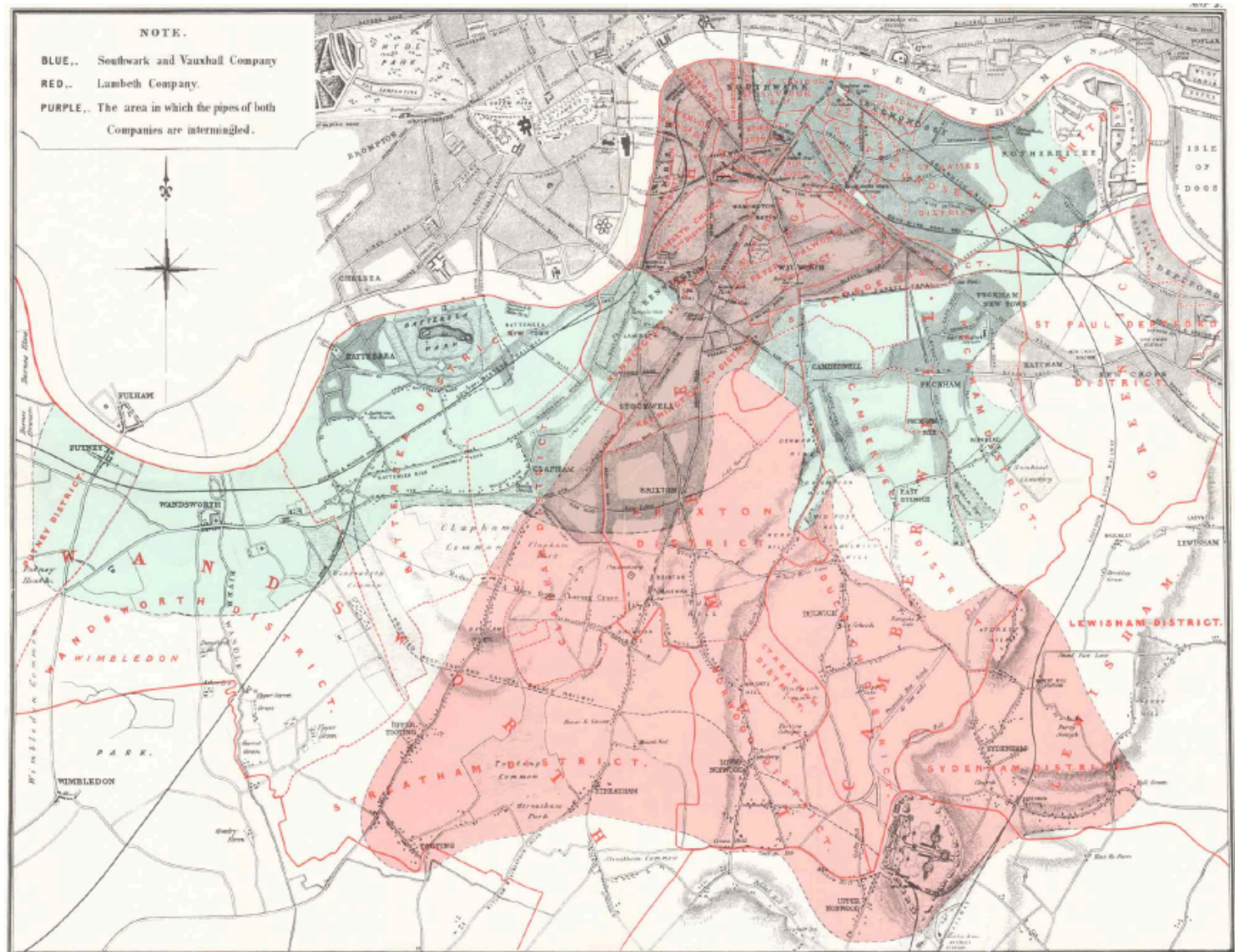
*in January & February 1856 the blue coincides with the black*

*The entire areas may be compared by following the blue, the red & the black enclosing lines.*





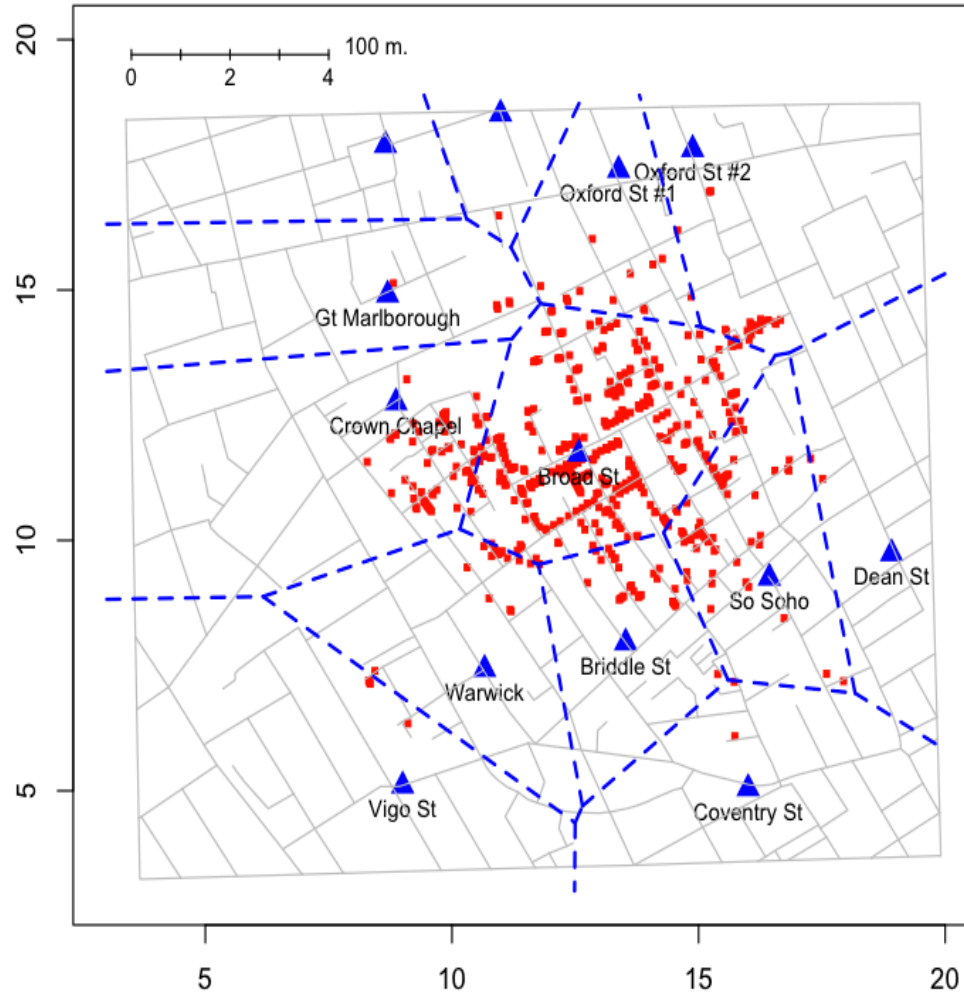
# Cholera



<http://www.datavis.ca/R/index.php#heplots>

# Cholera

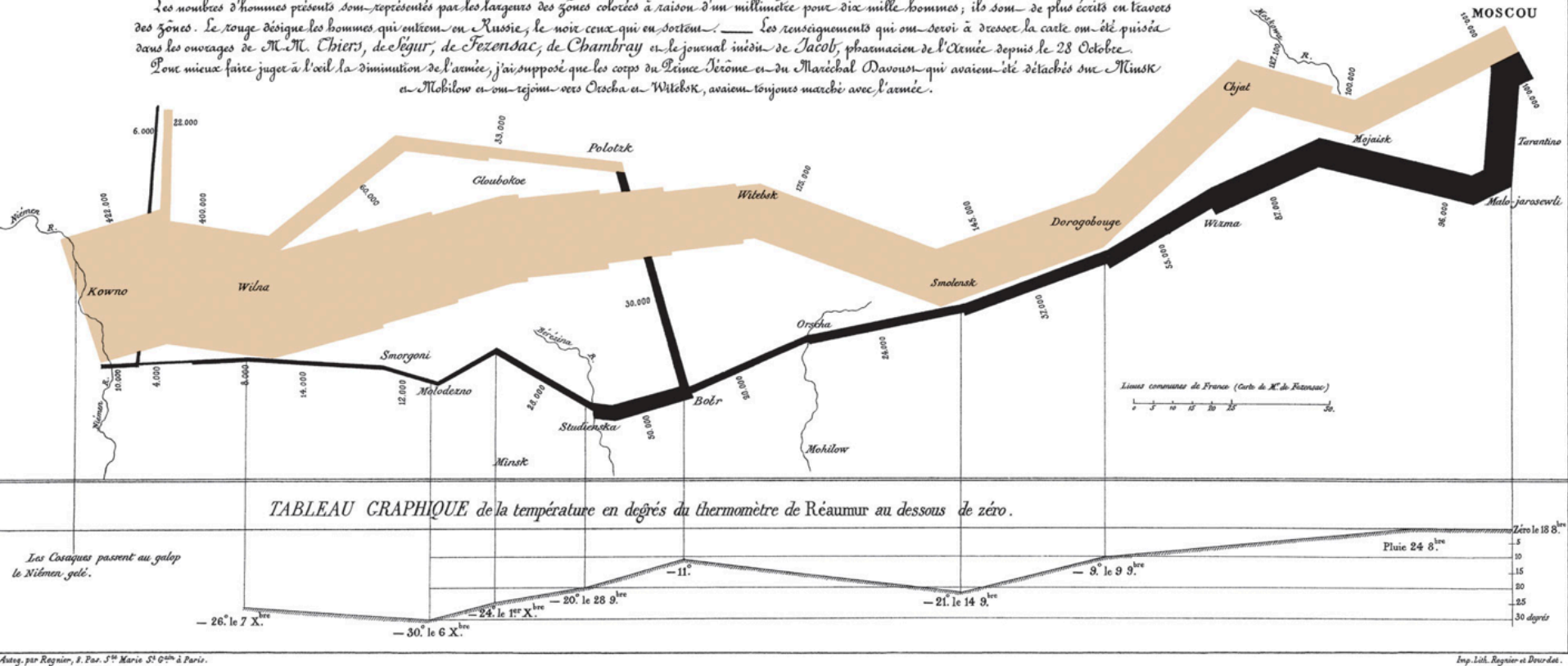
## Snow's Cholera Map of London



# Complex information is interpreted most efficiently and effectively when it is represented **visually**

*Carte Figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813.*  
Dressée par M. MINARD, Inspecteur Général des Ponts et Chaussées en retraite. Paris, le 20 Novembre 1869.

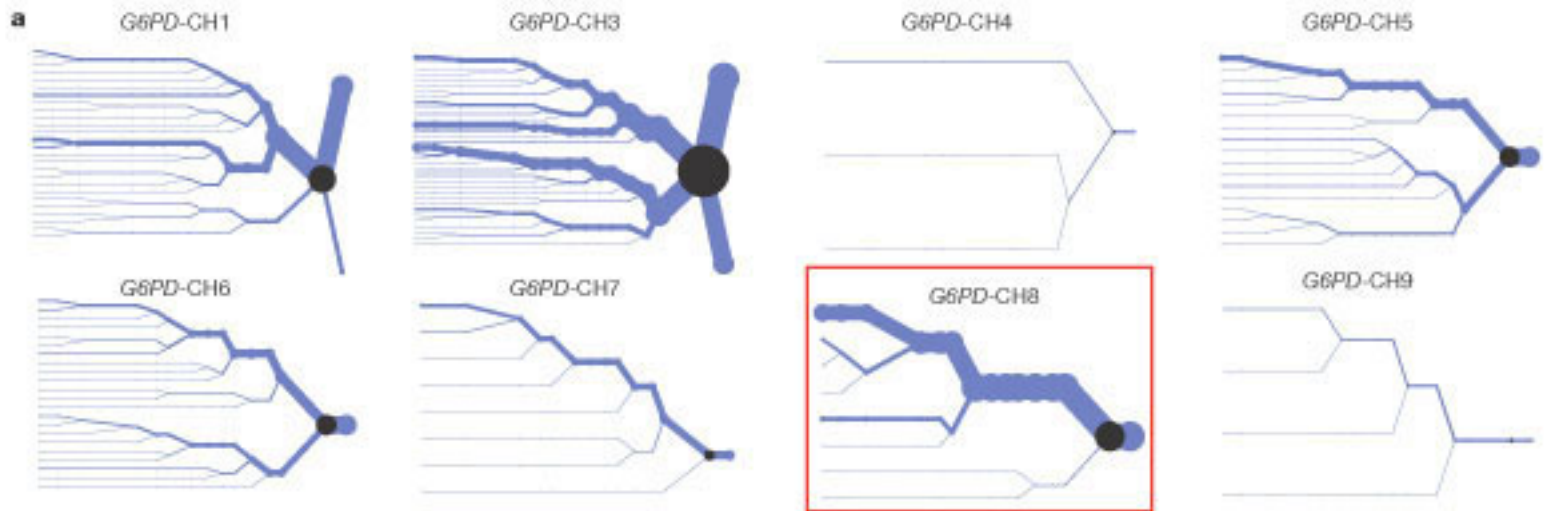
Les nombres d'hommes présents sont représentés par les largeurs des zones colorées à raison d'un millimètre pour dix mille hommes; ils sont de plus écrits en travers des zones. Le rouge désigne les hommes qui entrent en Russie, le noir ceux qui en sortent. Les renseignements qui ont servi à dresser la carte ont été puisés dans les ouvrages de M. M. Thiers, de Ségur, de Fezensac, de Chambray et le journal inédit de Jacob, pharmacien de l'Armée depuis le 28 Octobre. Pour mieux faire juger à l'œil la diminution de l'armée, j'ai supposé que les corps du Prince Jérôme et du Maréchal Davout qui avaient été détachés sur Minsk et Mohilow et qui rejoignent Orscha et Witebsk, avaient toujours marché avec l'armée.



More in depth explanation of Napoleon's defeat (and of Charles Minard's famous map) is found here: <https://1812.tass.ru/en>

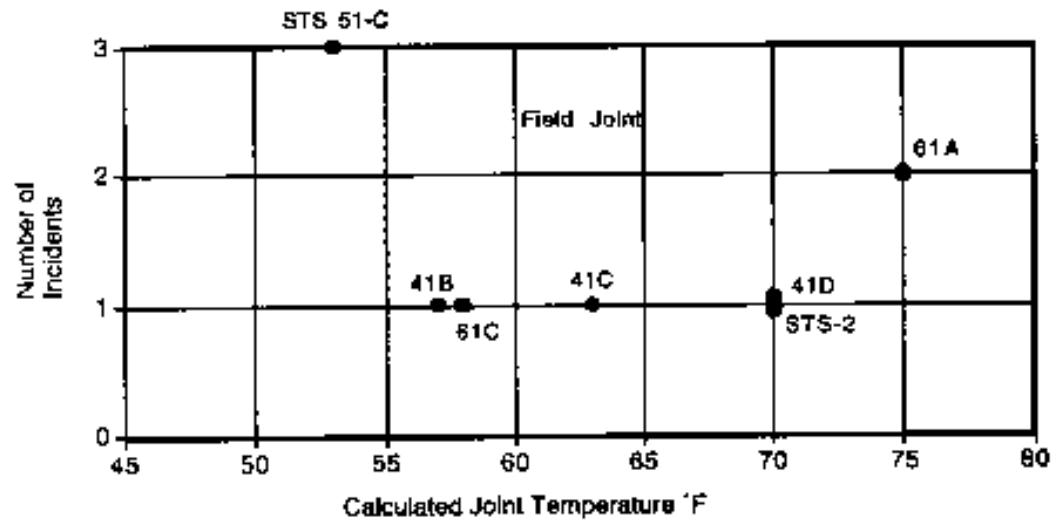
# Novel Biological Graphic tools

- Haplotype Bifurcation Diagrams



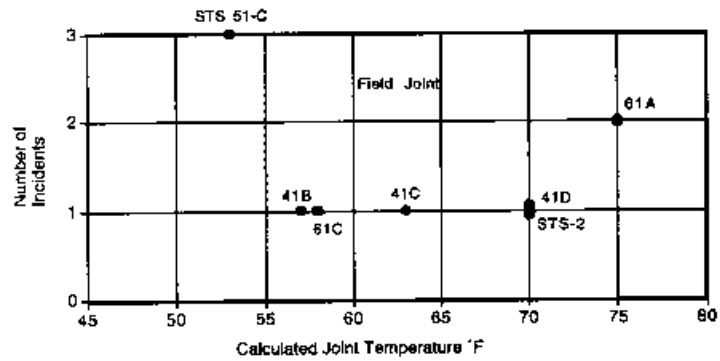
# Missed Opportunities:

## Displaying Data

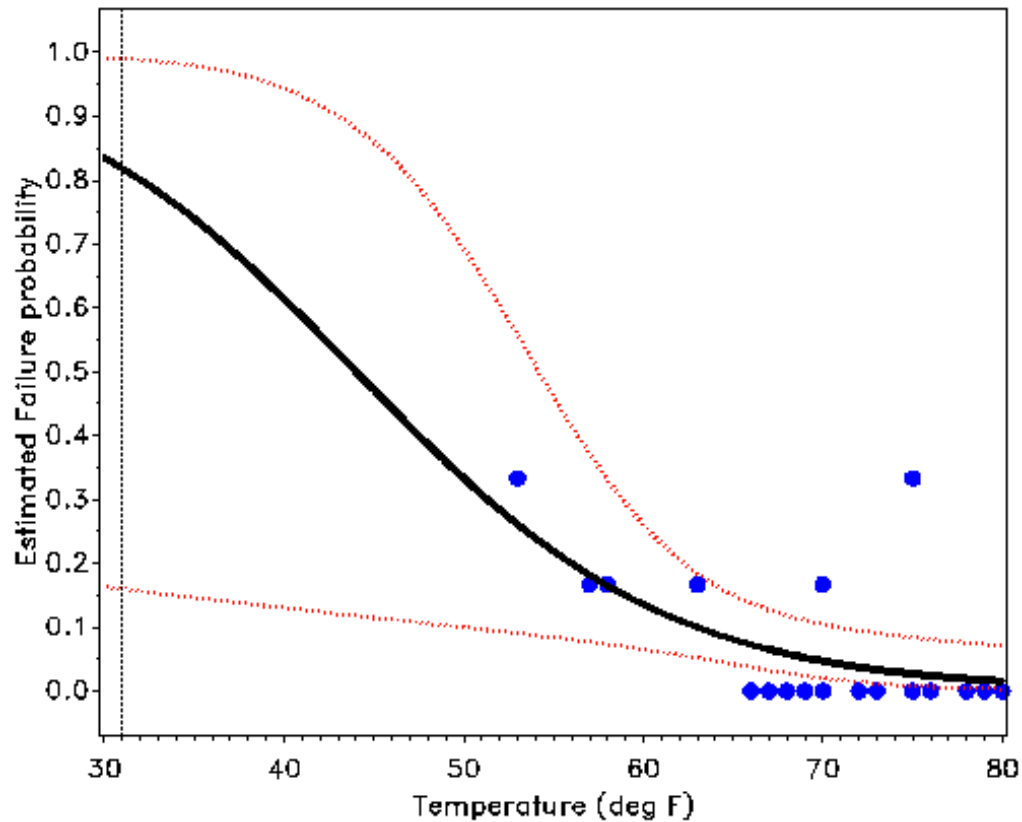




## Displaying Data



NASA Space Shuttle O-Ring Failures



<https://www.youtube.com/watch?v=ZOzoLdfWyKw>

# Missed Opportunities:

## Displaying Data

