

A decorative graphic on the left side of the slide consisting of white and light blue lines that resemble a circuit board or a network diagram. These lines are vertical and horizontal, with small circles at various points, creating a sense of connectivity and flow.

WHY IS INFORMATION DESIGN IMPORTANT?

EXPLORE HOW INFORMATION DESIGN HELPS TO SHAPE THE WORLD AROUND
US AS WELL AS OUR UNDERSTANDING OF IT.

THE DEFINITION:

- Information Design is understood to be the visual solution to the organization of information for a user centred design problem.
- The vast majority of designs that you create will have something to communicate at some level to someone.
- It also has a much broader application than you might think.



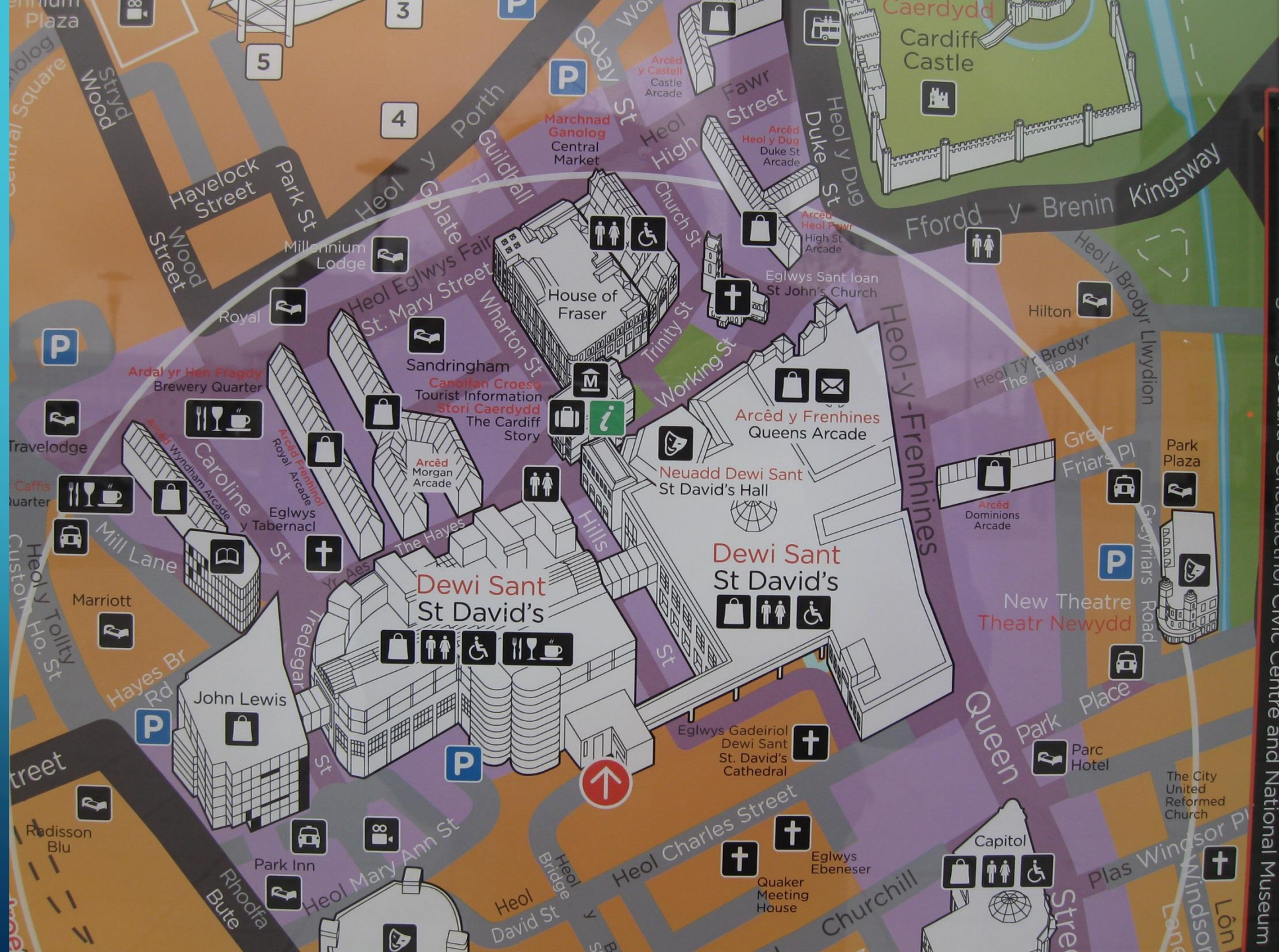


Push button wait for signal
Gwasgwch y botwm
Arhoswch am yr arwydd



Push button wait for signal
Gwasgwch y botwm
Arhoswch am yr arwydd





Cardiff City Centre and National Museum

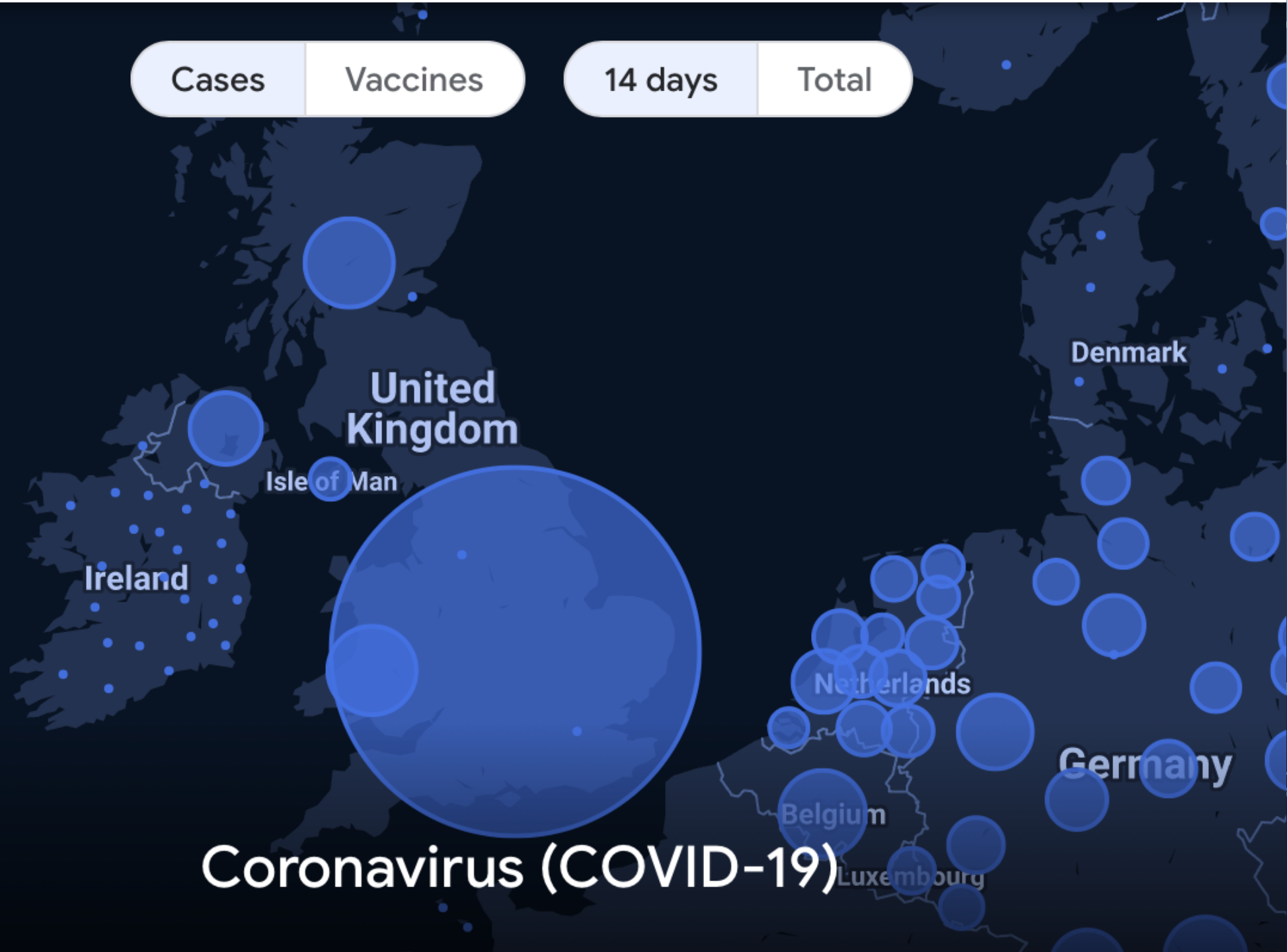


Cases

Vaccines

14 days

Total



Coronavirus (COVID-19)

A composite image featuring Boris Johnson, the former Prime Minister of the United Kingdom, speaking at a podium. He is wearing a dark blue suit, a white shirt, and a blue patterned tie. The podium is covered with a yellow banner that has red diagonal stripes along its edges. The banner contains the text "STAY HOME", "PROTECT THE NHS", and "SAVE LIVES" in black capital letters, separated by red arrowheads pointing to the right. The background is a blurred interior setting with wooden paneling and a flag.

STAY
HOME

PROTECT
THE NHS

SAVE
LIVES



**STAY
ALERT** **CONTROL
THE VIRUS** **SAVE
LIVES**



FELTRON.COM

FELTRON 2006 ANNUAL REPORT

PHOTOS

PHOTOGRAPHS TAKEN

TRAVEL

NUMBER OF FLIGHTS

MEDIA

TEXT MESSAGES SENT

WEATHER

MEAN ANNUAL TEMPERATURE

FOOD

ANIMALS EATEN

READING

BOOKS READ

DRINKS

MOST FREQUENTED BARS

MUSIC

MOST PLAYED MIXES

FOOD

BEST MEAL

ATHLETICS

MILES RUN

MUSIC

BEST LIVE PERFORMANCE

BOTANY

PLANTS KILLED

STATES VISITED



COUNTRIES VISITED



AIRMILES TRAVELED

30,724

GERMAN AIRPORT EXPLORED

FRANKFURT

AIRPORTS VISITED

8

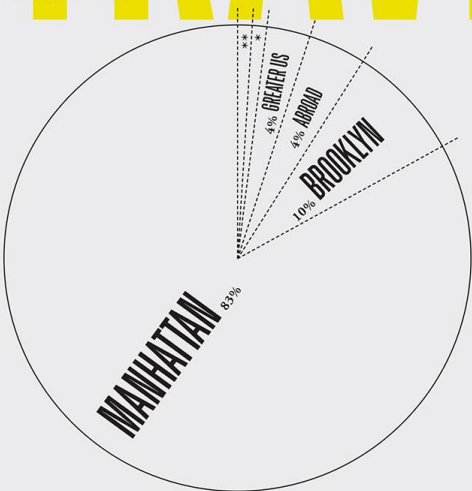
NUMBER OF FLIGHTS

11

AVERAGE FLIGHT DISTANCE (MILES)

2793

LOCATION BY DAY



DAYS EXCLUSIVELY IN MANHATTAN

304

MOST CONSECUTIVE DAYS IN MANHATTAN

40

* GREATER NEW YORK STATE ** QUEENS



Privacy.
That's iPhone.



A BRIEF HISTORY OF INFORMATION DESIGN:

- The ability to visually communicate information has been with us since we have been able scratch into dirt or onto a cave wall.
- This form of visual communication is a far cry from what we consider information design today but it is a key stage in the process.
- The ability to share information from one user to another is one of the key factors in how we have developed to where we are today.

A BRIEF HISTORY OF INFORMATION DESIGN:

- Petroglyphs (Cave Paintings) developed into pictographs (Picture Symbols) and then into early forms of written language.
- This allows for historical records of events to be kept, share more complex ideas, beliefs and experiences. This in turn led to more advanced methods of recording the information.
- Language. Alphabets. Writing.

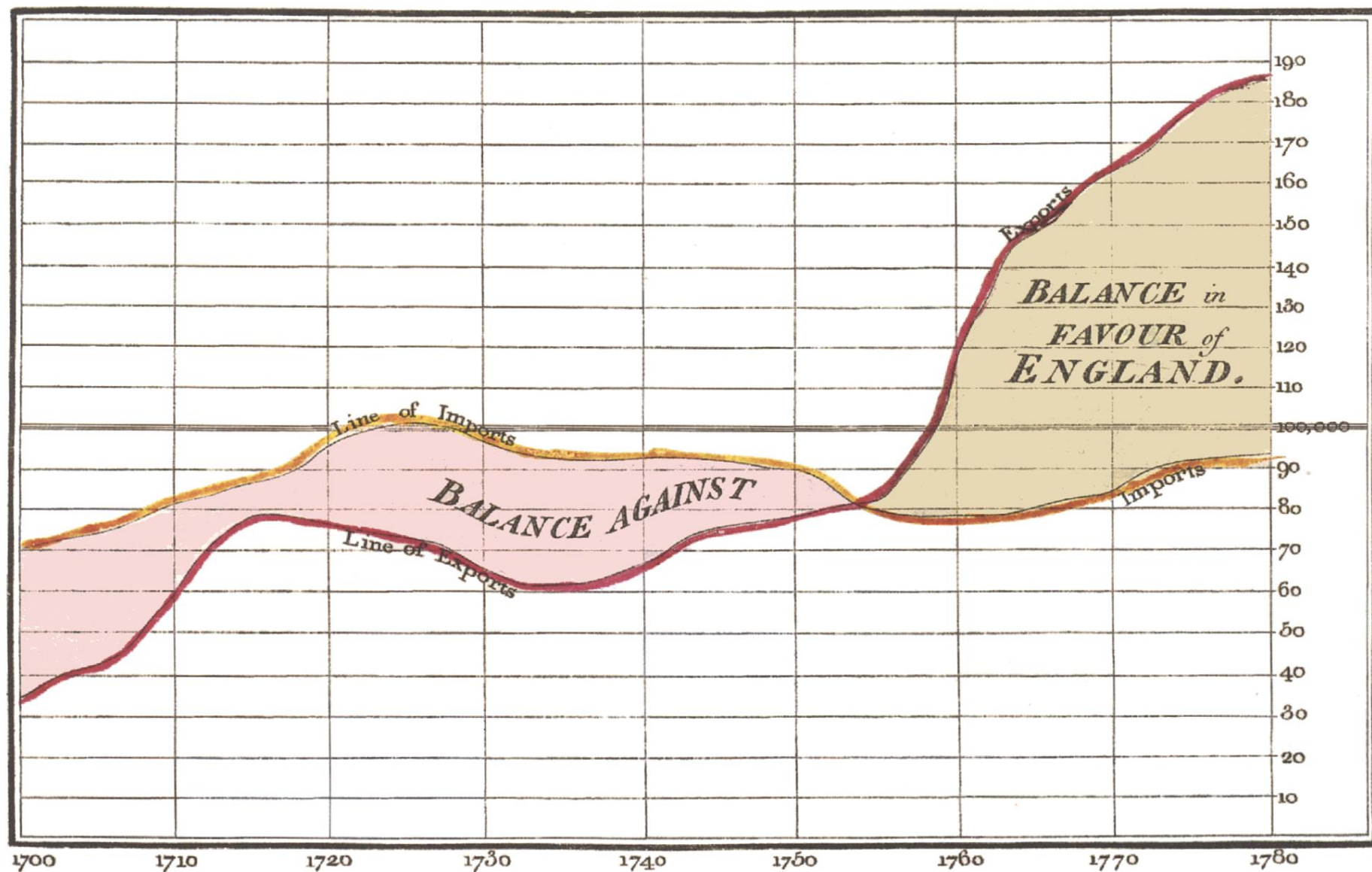
A BRIEF HISTORY OF INFORMATION DESIGN:

- Information could be effectively recorded and then passed forward to future generations where they are able to build upon ideas of the past.
- The development of Maps and Cartography has helped us to make sense of our surroundings. Mapping the stars and the development of sea charts aided a much wider exploration of our surroundings and to accurately identify boundaries.
- Constant leaps in technologies and more sophisticated ways of capturing information has literally put the world in our pockets and we have mapped far beyond our own planet and solar system.

A BRIEF HISTORY OF INFORMATION DESIGN:

- When talking about information graphics it is our modern use of charts and graphs that is more commonly thought of.
- Some of the earliest recorded examples can be credited to William Playfair (1759 -1823), a Scottish engineer who produced publications that contained graphical visualisations of numerical data in the form of graphs and pie charts that were coloured by hand.

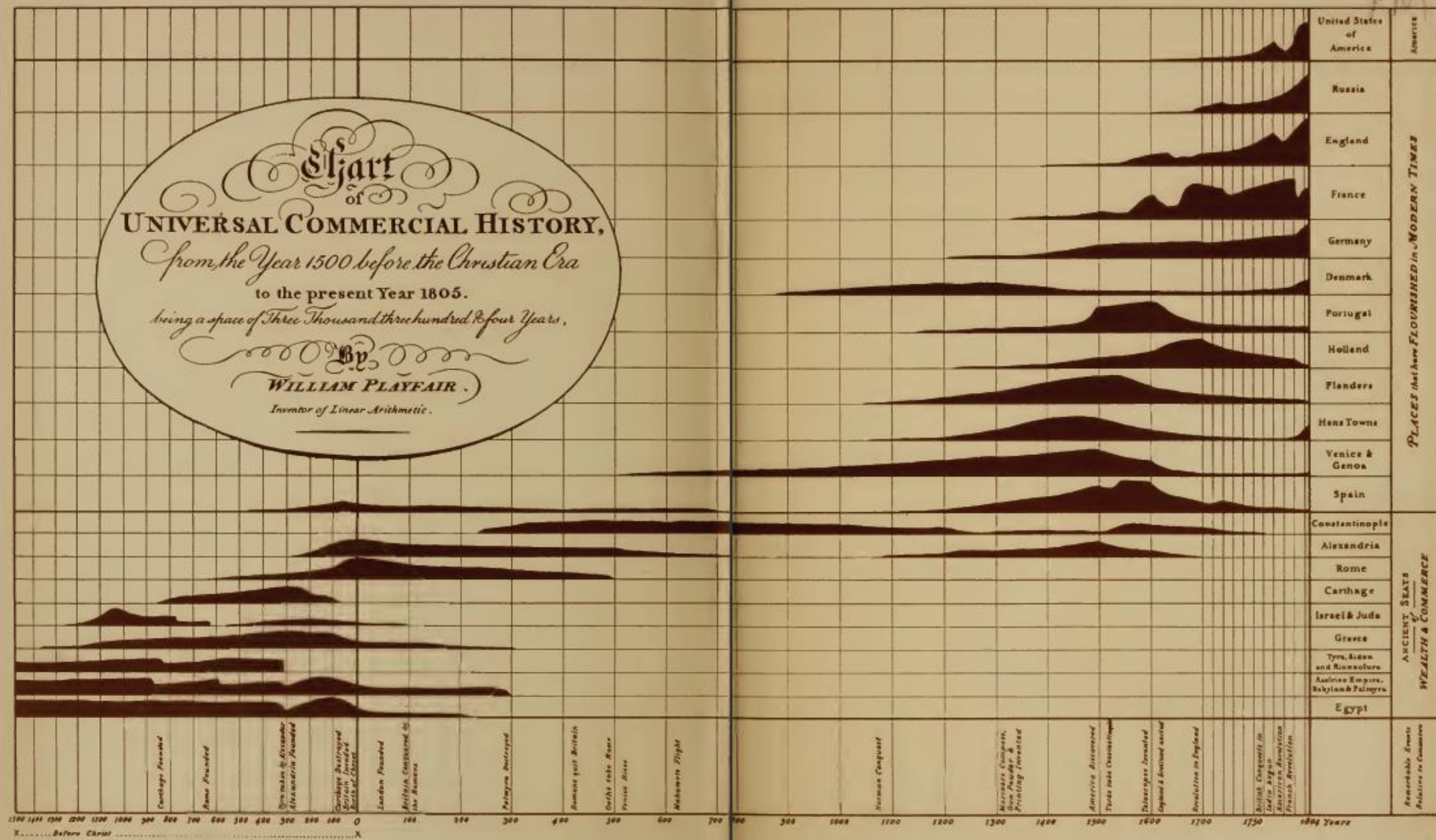
Exports and Imports to and from DENMARK & NORWAY from 1700 to 1780.



The Bottom line is divided into Years, the Right hand line into £10,000 each.

Published as the Act directs, 1st May 1786, by W^m. Playfair

Neele sculpt 352, Strand, London.



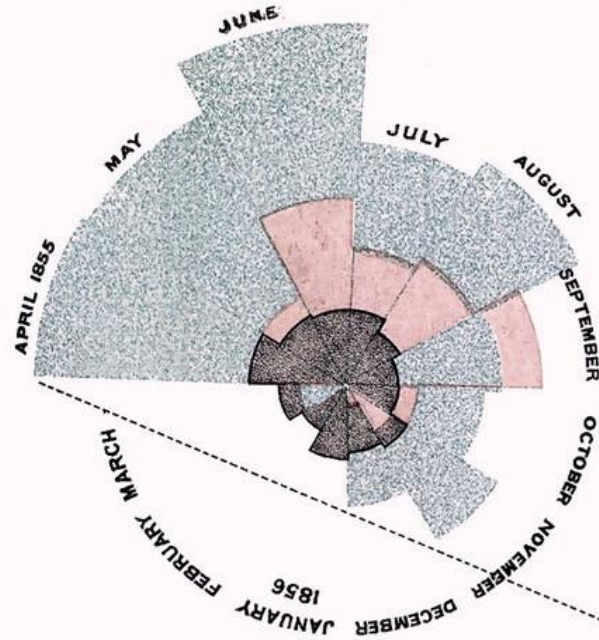
From Frontispiece of Book by WILLIAM PLAYFAIR, An Inquiry Into the Permanent Causes of the Decline and Fall of Powerful and Wealthy Nations, London, 1805.

A BRIEF HISTORY OF INFORMATION DESIGN:

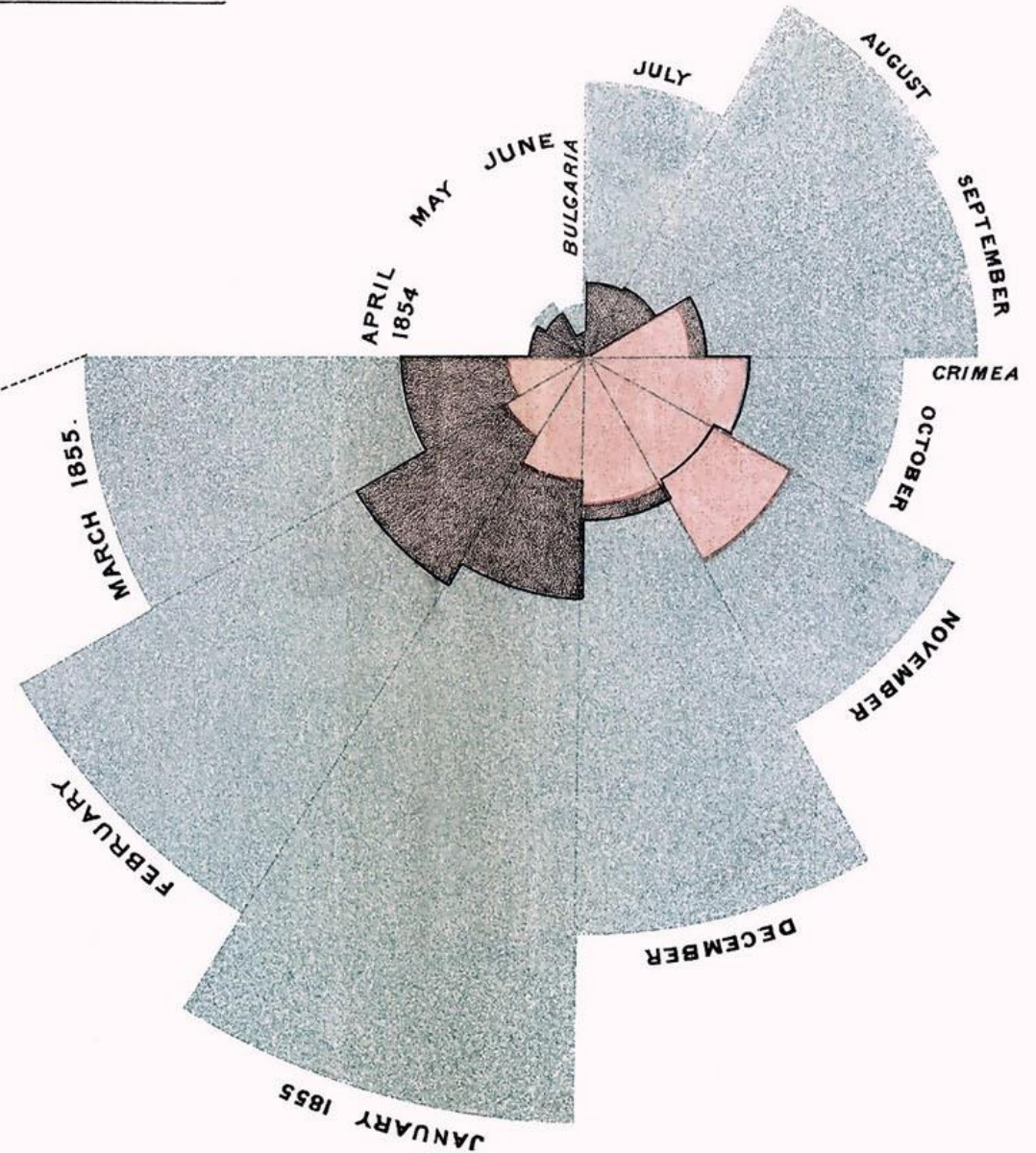
- A more famous example of this time is Nightingale's Rose. Designed in 1858, Florence Nightingale's (1820 - 1910) Diagram of the 'Causes of Mortality in the Army of the East' visualised the mortality statistics of the Crimean War (1853 - 1856).

DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

2.
APRIL 1855 TO MARCH 1856.



1.
APRIL 1854 TO MARCH 1855.



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 Preventible 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.

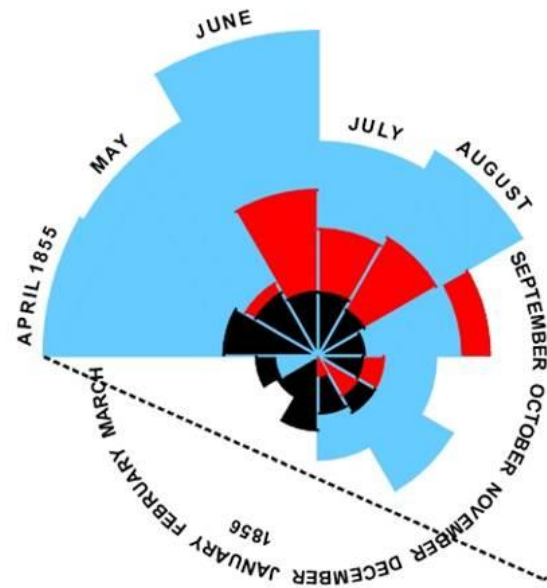
The black line across the red triangle in Nov^r 1854 marks the boundary of the deaths from all other causes during the month.

In October 1854, & April 1855, the black area coincides with the red; in January & February 1856, the blue coincides with the black.

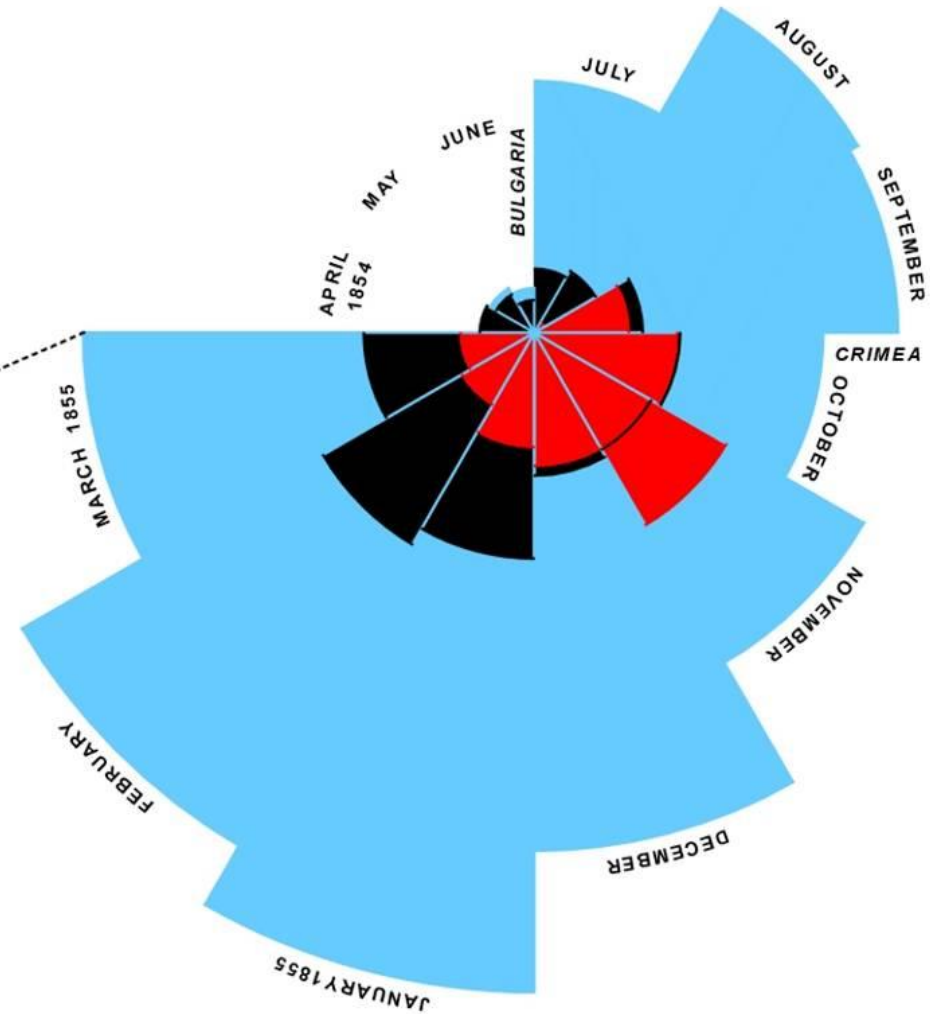
The entire areas may be compared by following the blue, the red & the black lines enclosing them.

DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

2.
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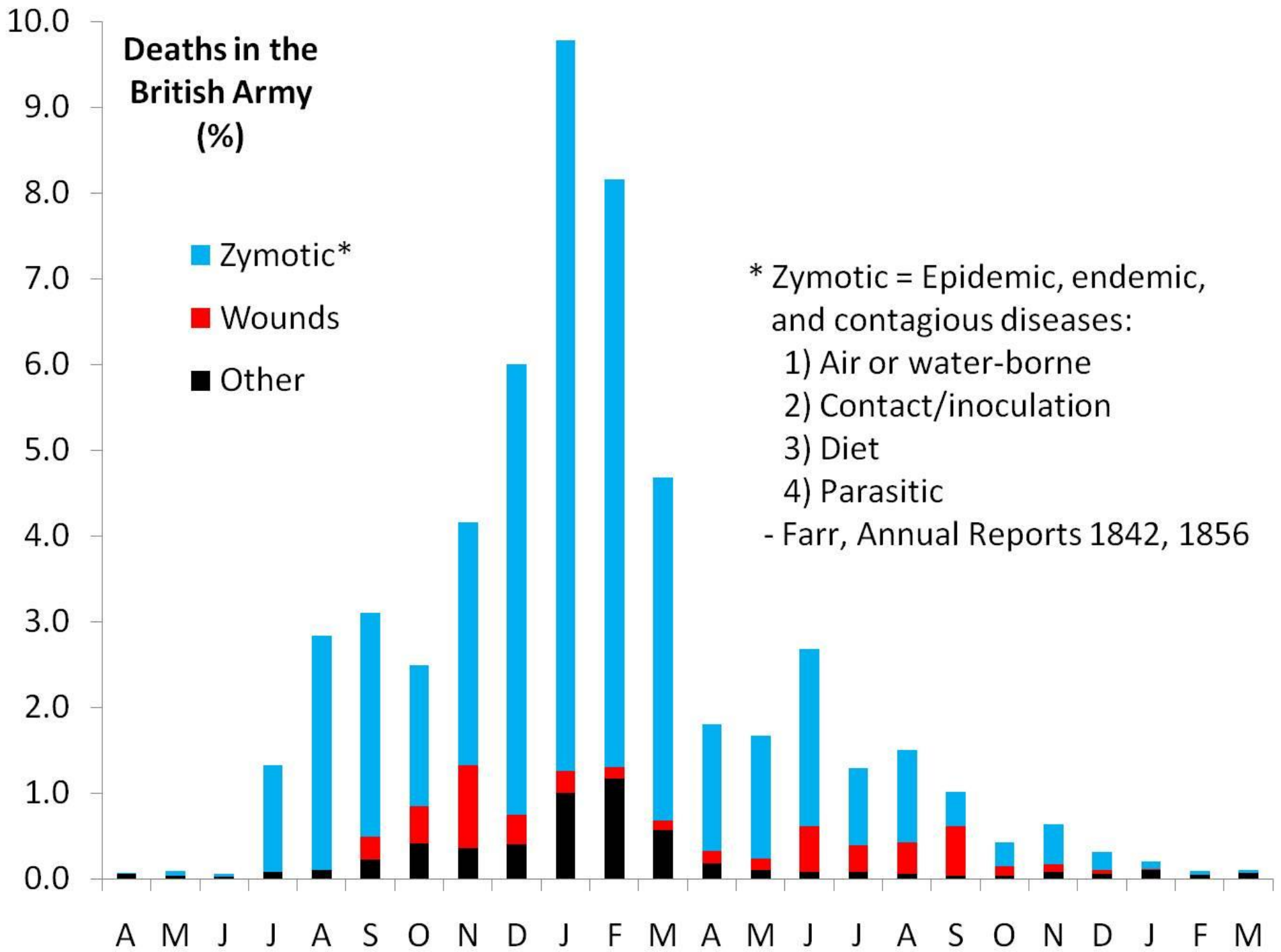
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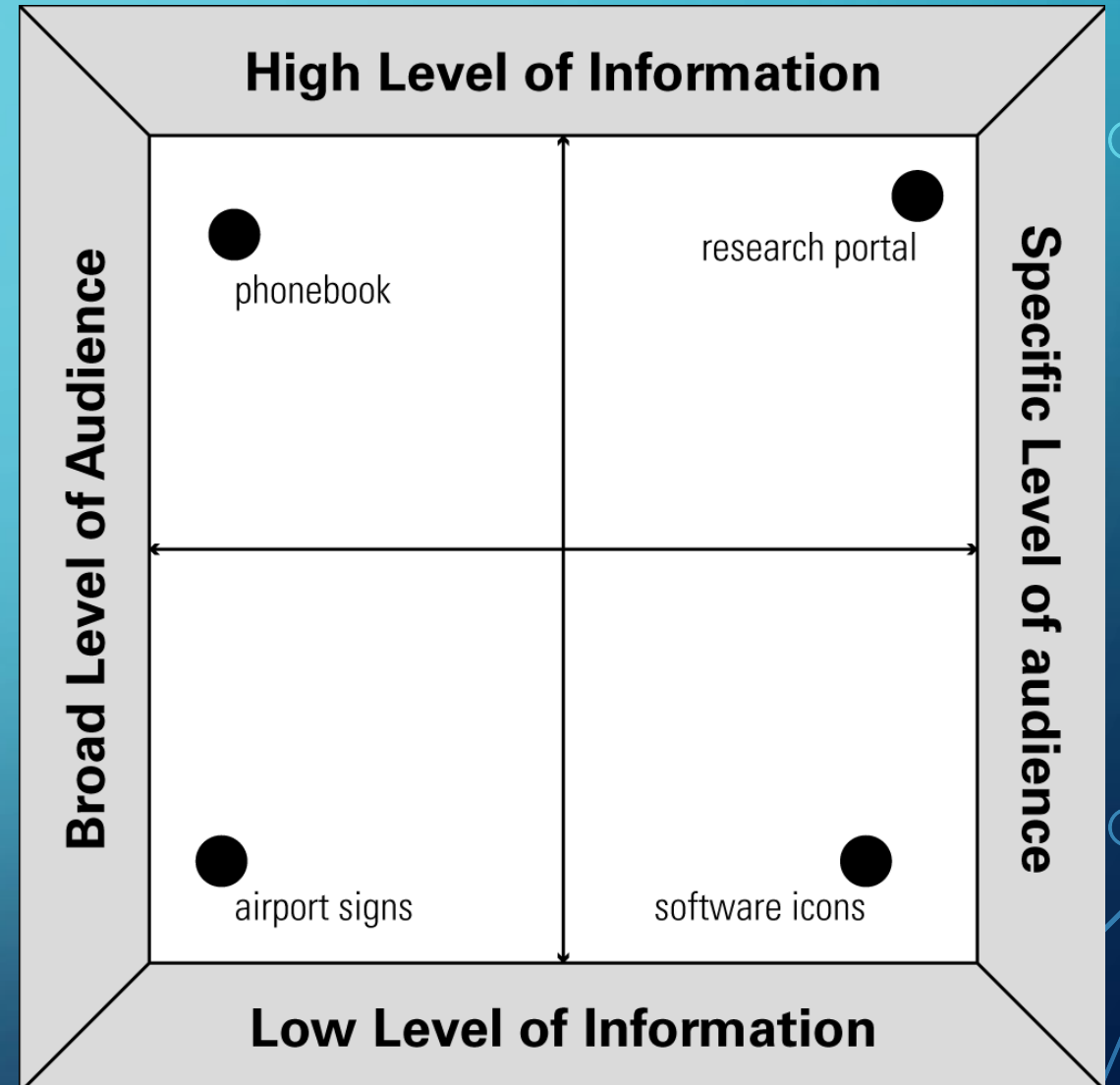
In October 1854, & April 1855, the black area coincides with the red, in January & February 1856, the blue coincides with the black:

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



WHAT'S THE STORY?

- Understanding what the story is in relation to the information being displayed is critically important.
- Also, understanding who will be engaging with the information will help set the tone of the design.
- Where is the design to be seen?



THE FOUR MAIN CHANNELS OF DISTRIBUTION:



- **Yourself.** Word of mouth. People you know in your immediate circles.



- **Print.** Newspapers, books, magazines, reports.

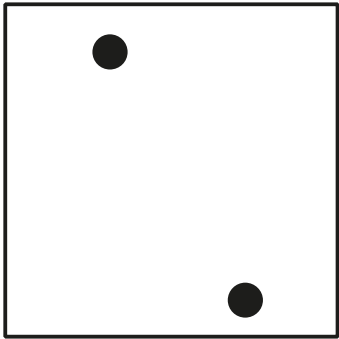


- **Broadcast.** TV, Radio.



- **Internet.** Websites, blogs, social media, Twitch.

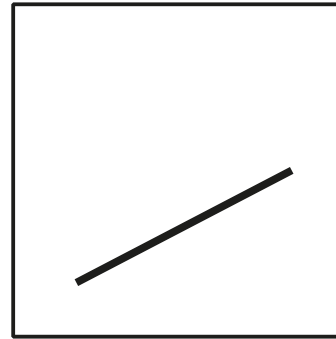
VISUAL TOOLS



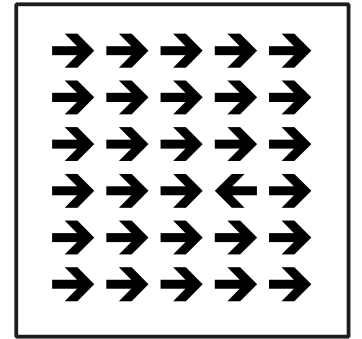
Position



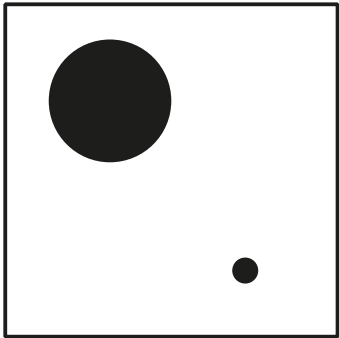
Length



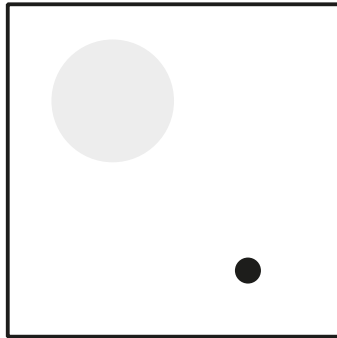
Slope



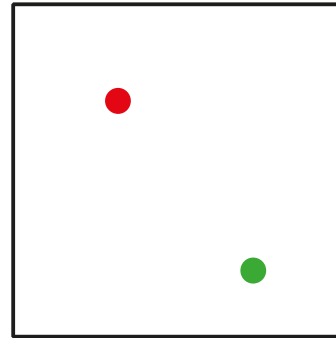
Angle, Orientation



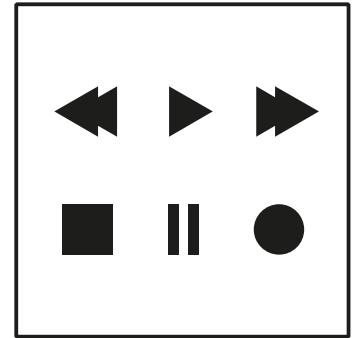
Area, Size, Volume



Intensity, Weight, Opacity



Colour

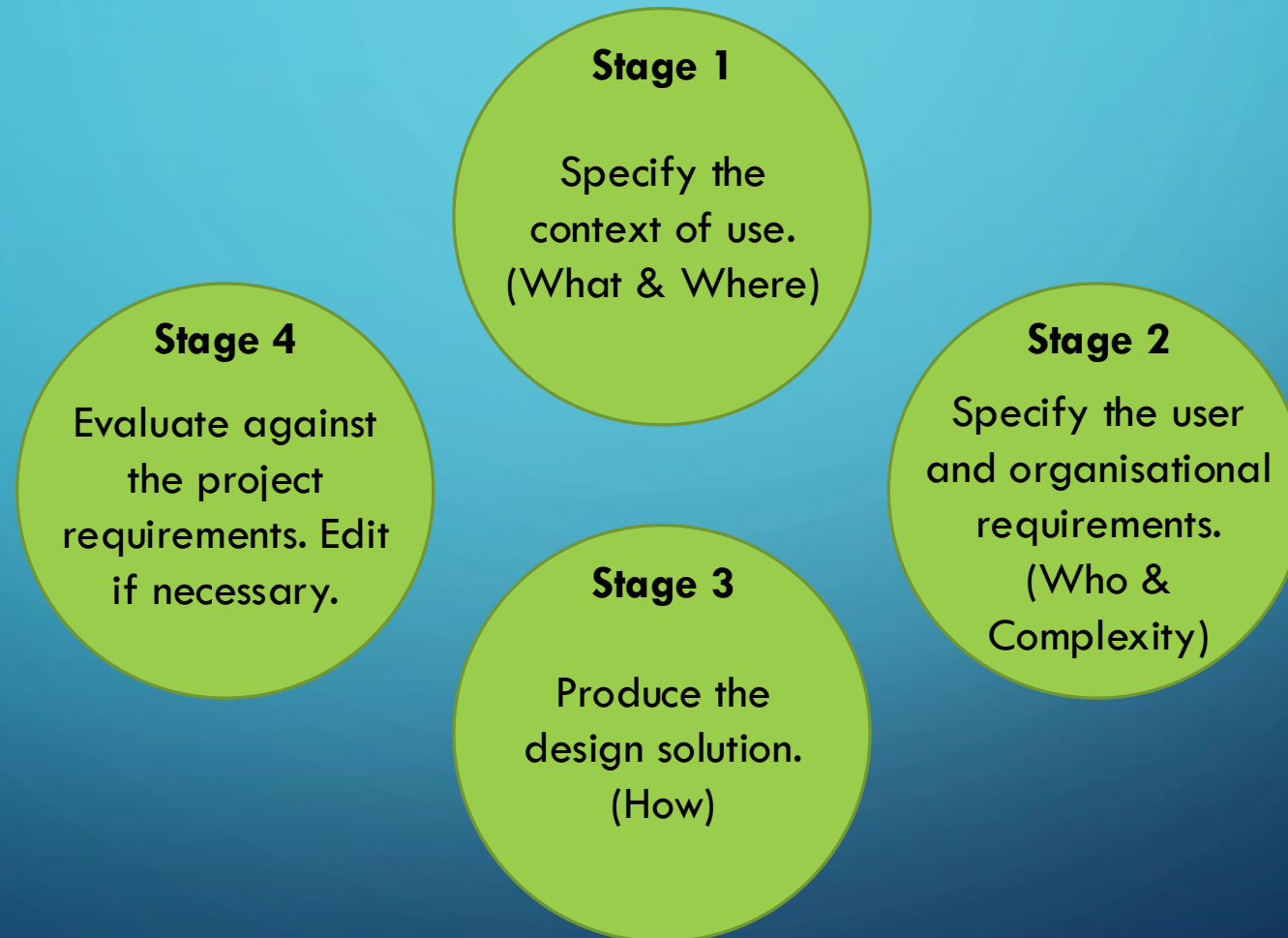


Shape

ISO 9241-210:2019

ERGONOMICS OF HUMAN-SYSTEM INTERACTION

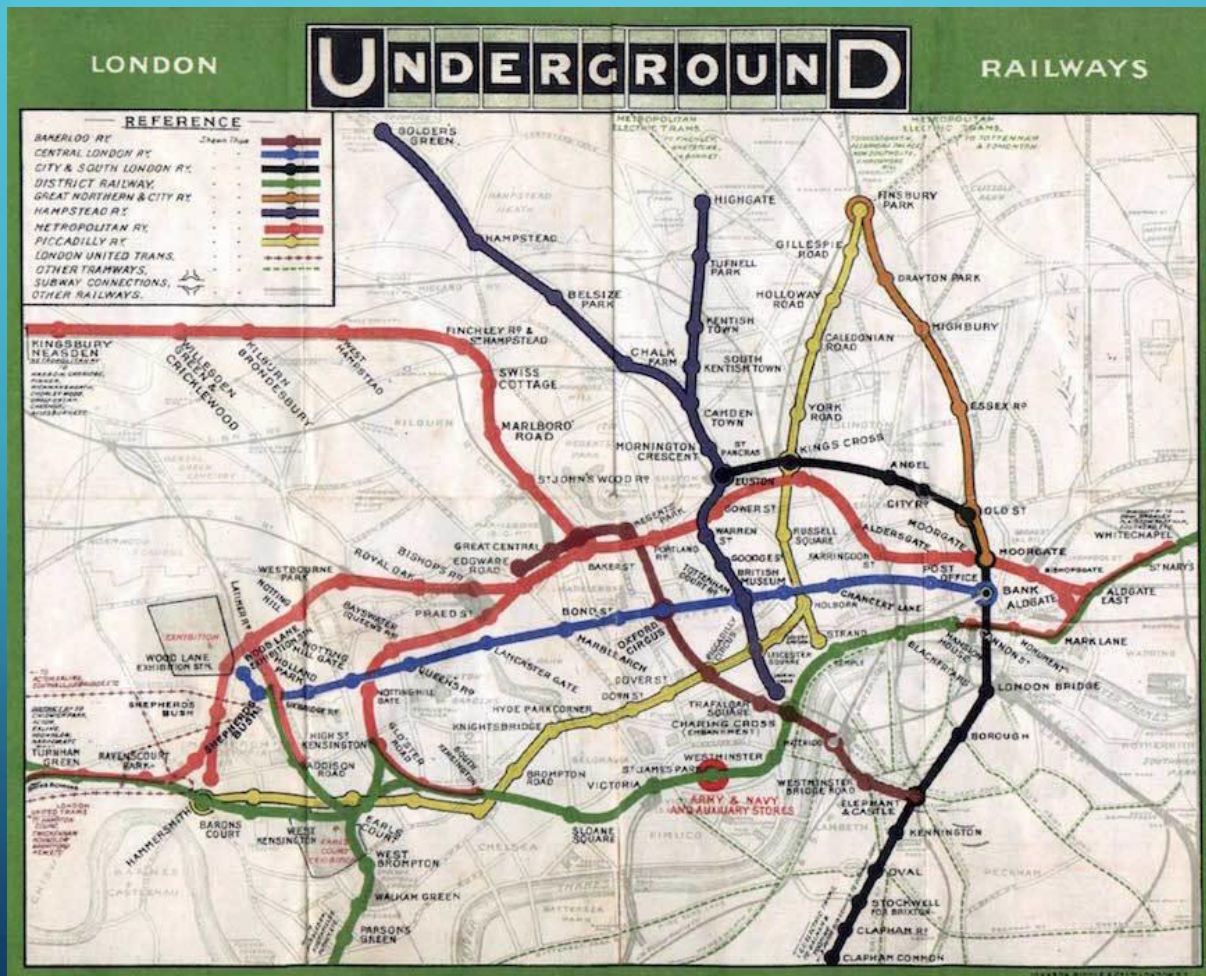
PART 210: HUMAN-CENTRED DESIGN FOR INTERACTIVE SYSTEMS



WHAT & WHERE?

- As a designer of information graphics part of my job is to sift through the information relating to the design problem, workout what the most relevant information is and how to display it.
- The London underground map, the modern version designed by Henry Charles Beck (1902-1974) is a great example of this process. There have been several information streams that have been omitted from the final design. The focus of the map is to show the different routes and the order in which the stations appear.

LONDON UNDERGROUND MAP BEFORE BECK





JOHNSTON TYPEFACE 1916

- Commissioned in 1913 and designed by Edward Johnston (1872 – 1944).
- Based on Humanist font stylings for greater legibility.
- ‘Looks a bit like Gill Sans’ you may be thinking. Eric Gill studied under Johnston and later adapted this design into the Gill Sans typeface.

Johnston 100

Medium

Regular

Light

Thin

Hairline

g

Mind the gap

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9 # @

JOCK KINNEIR & MARGARET CALVERT

UK ROAD SIGN REDESIGN

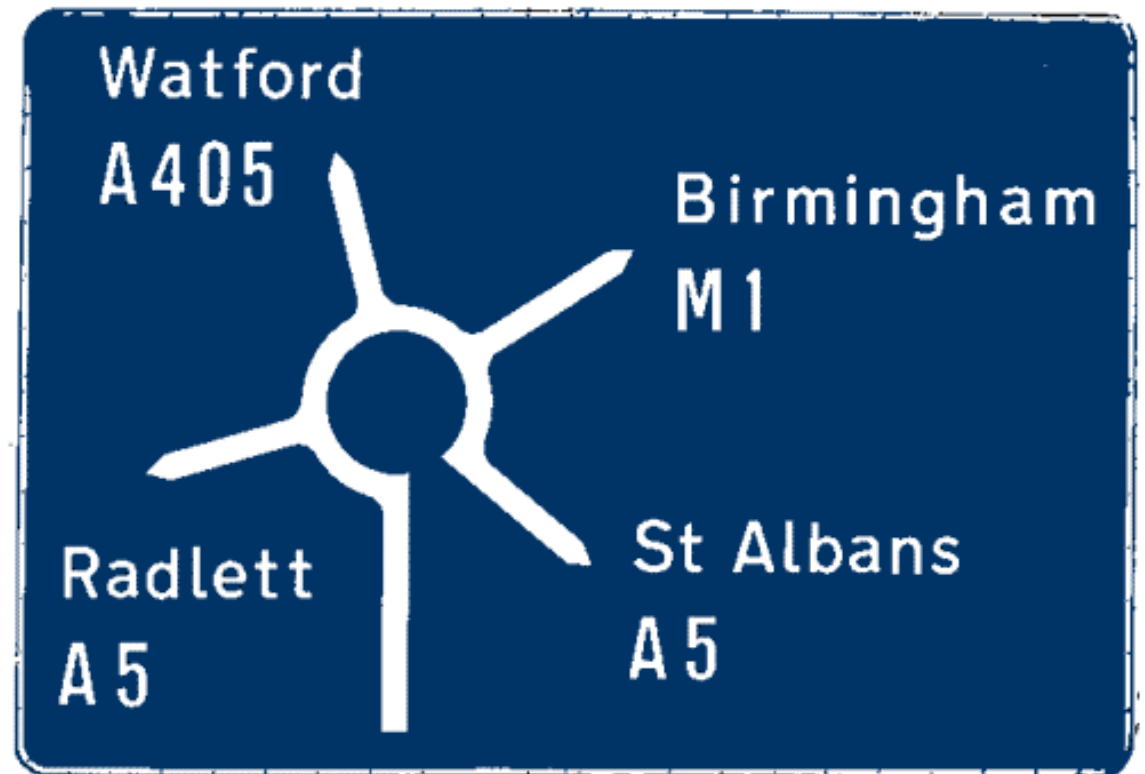


JOCK KINNEIR & MARGARET CALVERT

UK ROAD SIGN REDESIGN



*Examples of signs to illustrate the better legibility
upper-case alphabet (left) to lower-case (right)*



Motorway

M 96 (W)

M 96 (W)

A

A 66(M)

M A B N E S W () , &

M A B N E S W () , &

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

Transport

Aa Ee Rr

Aa Ee Rr

a

Motorway

a b c d e f g h i j k l m

n o p q r s t u v w x y z

0 1 2 3 4 5 6 7 8 9

ERIK SPIEKERMANN & METADESIGN

BERLIN TRANSPORT SYSTEM

- After the fall of the Berlin Wall in 1989. MetaDesign and Erik Spiekermann redesigned the Berlin transport system signage.
- This process visually reconnected East and West Berlin and helped to heal the city.



ERIK SPIEKERMANN & METADESIGN

BERLIN TRANSPORT SYSTEM

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z

Typeface FF Transit based on the typeface Frutiger

HUMANIST TYPEDESIGN

Noticeable contrast in stroke weight.
Open apertures.
Less vertical stress.
Calligraphic influences.

FF Meta 100pt

Noticeable contrast
of stroke weight

Open apertures

Less vertical
stress



Gill Sans

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Frutiger

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Optima

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

FF Meta

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ



वक-इन कतार जी,एच
Row G,H

Security Check

सुरक्षा जाँच

Toilets



phone



**Gates A1-14
B and C gates**

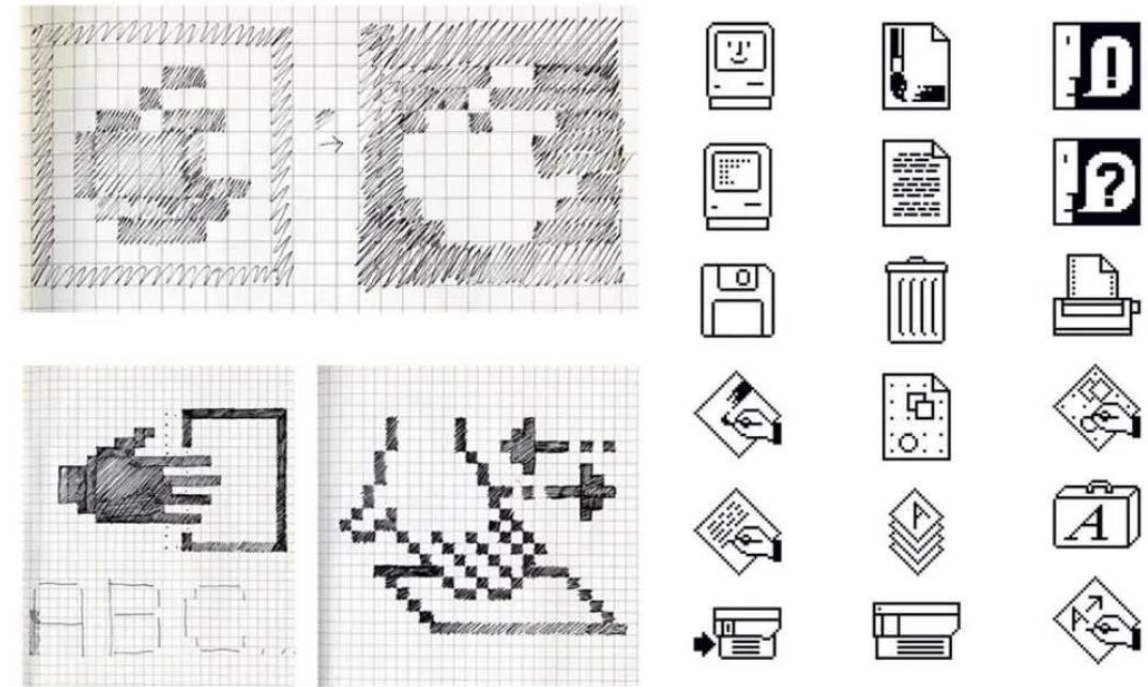
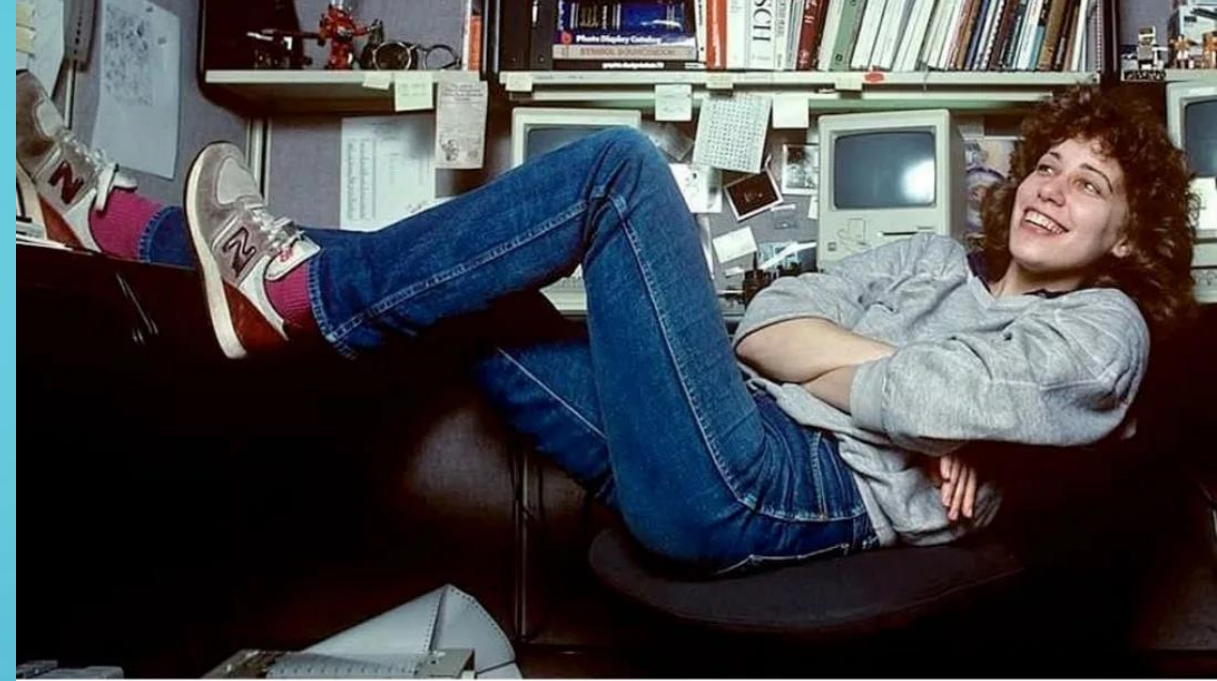
Gates A15-17



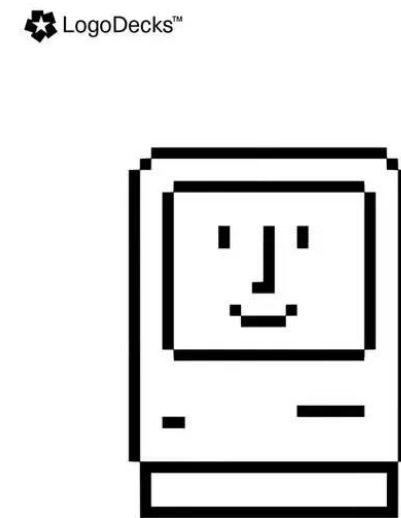
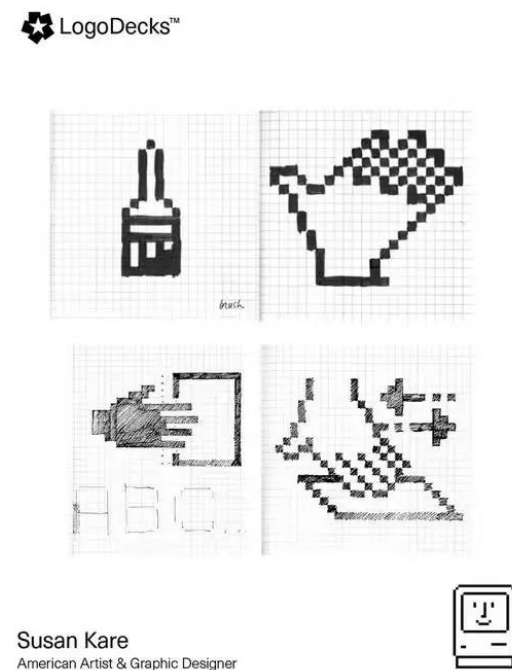
Toilets

- 1972 Munich Olympic Games
- Designed by Otl Aicher (1922-1991).





- The designs are based on a 32 x 32 pixel grid and have an informative but playful style which was inline with the Apple brand and ethos.



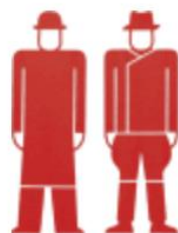
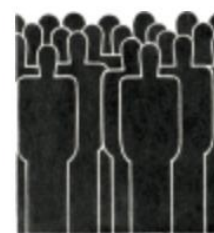
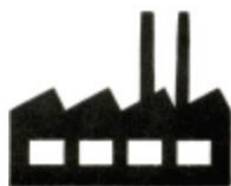
Susan Kare
American Artist & Graphic Designer



Susan Kare
American Artist & Graphic Designer

ISOTYPES

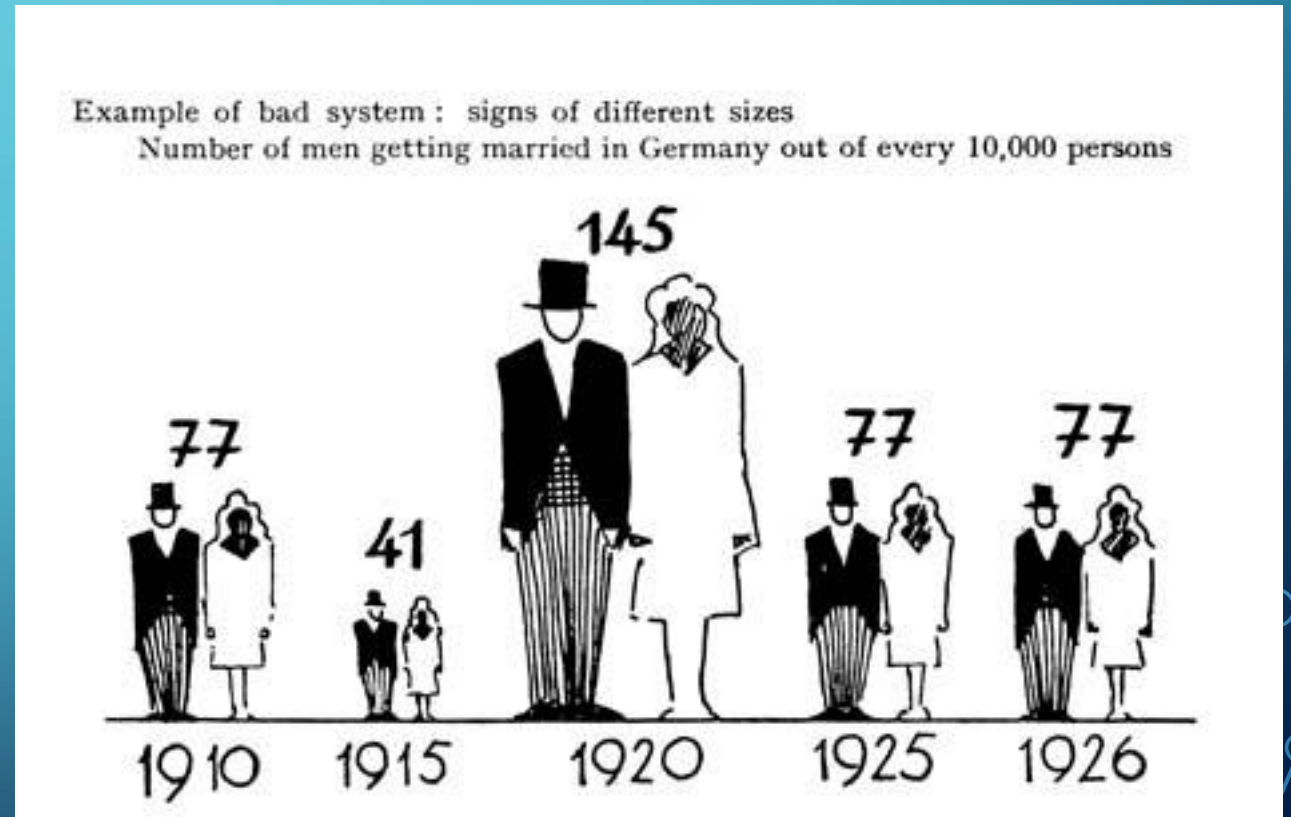
- An effective way to give clear visual information is to use an **International System of Typographic Picture Education**, or IsoType for short.
- Isotypes come in many different forms and can represent a wide variety of things. Originally developed in the 1920s by Otto Neurath (1882-1945).
- Modernist designer Gerd Arntz (1900-1988) produced around 4000 Isotypes, many of which have influenced signs that you see today.



ISOTYPE: PRINCIPAL RULE

- The principal rule of Isotype is that a greater quantity should not be represented by an enlarged pictogram but instead by a greater number of pictograms repeated at the same size.

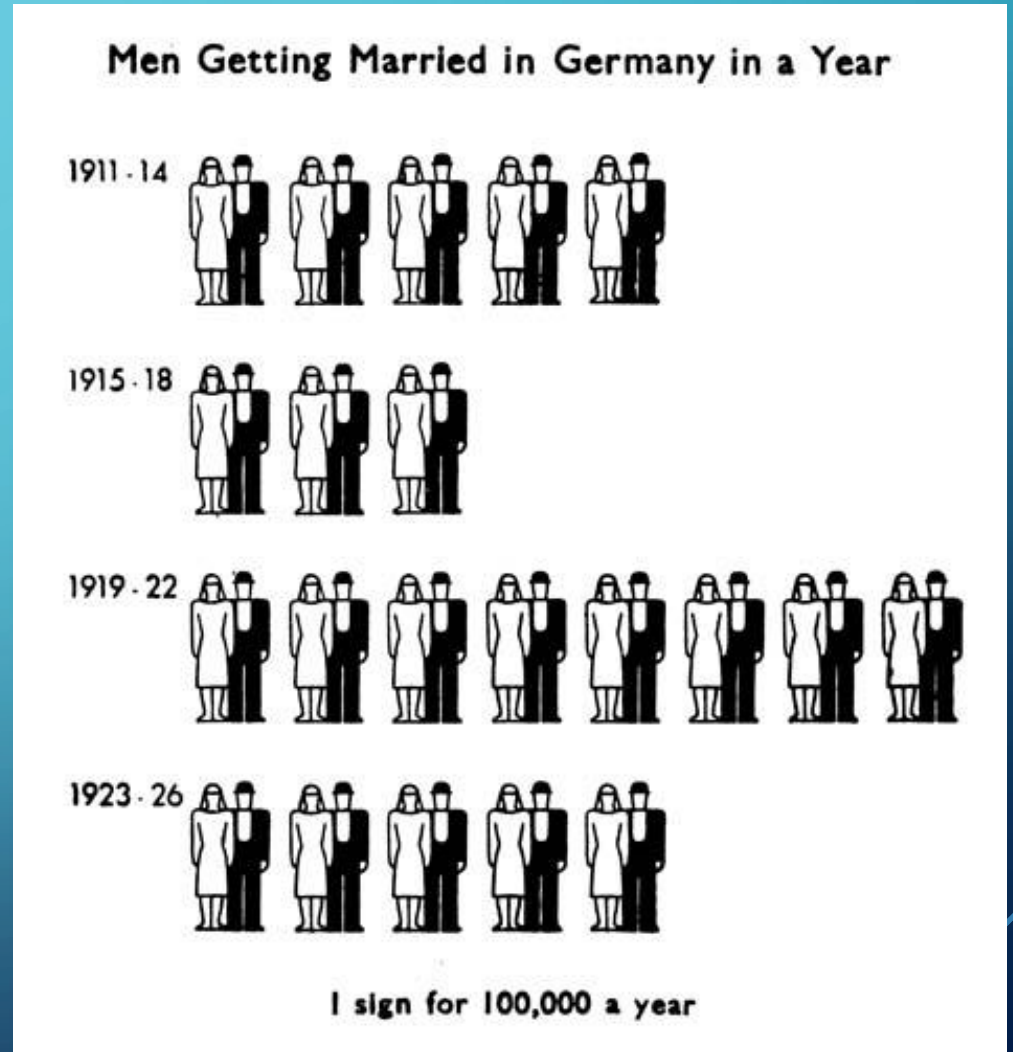
(<http://isotyperevisited.org/2012/08/introduction.html>)



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ONE MILLION BONES

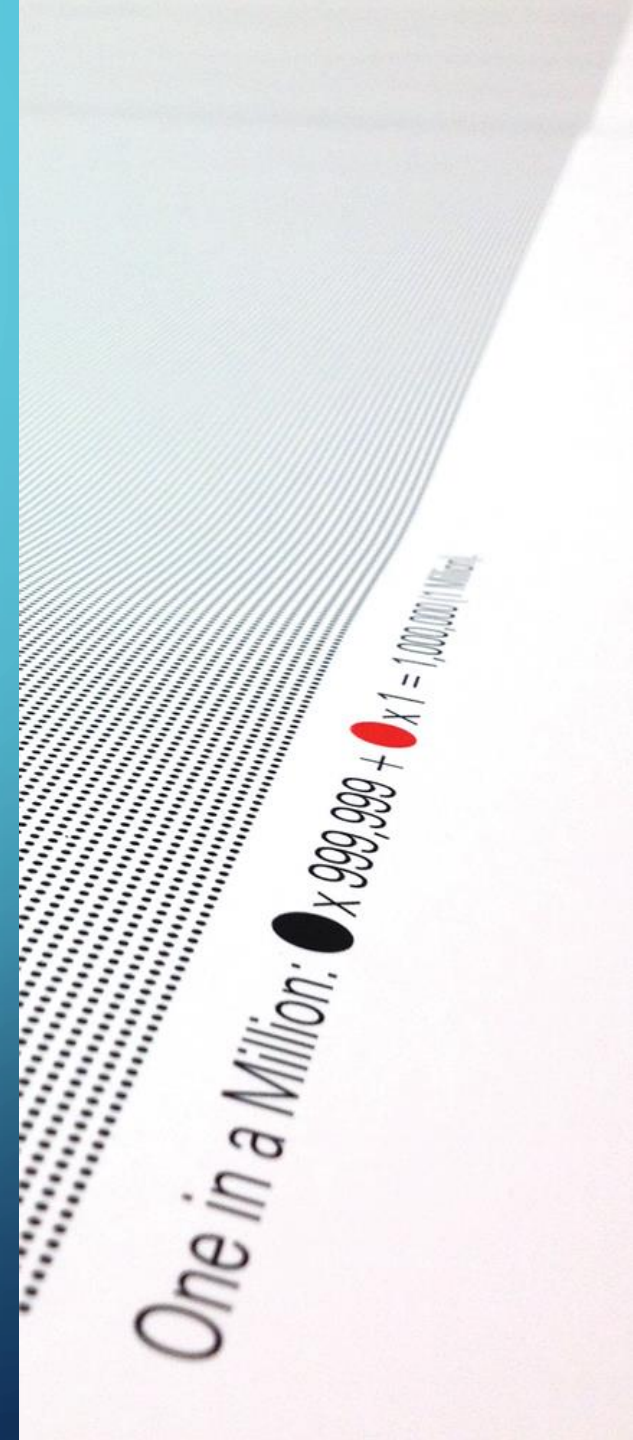
- One Million Bones installation at the National Mall, Washington DC in June 2013.
- It was a visual demonstration against ongoing genocide and mass atrocities around the world. The one million hand moulded bones took 3 years to make by artists and students from around the USA. The three day installation took thousands of volunteers to lay out the bones on the Washington lawn.

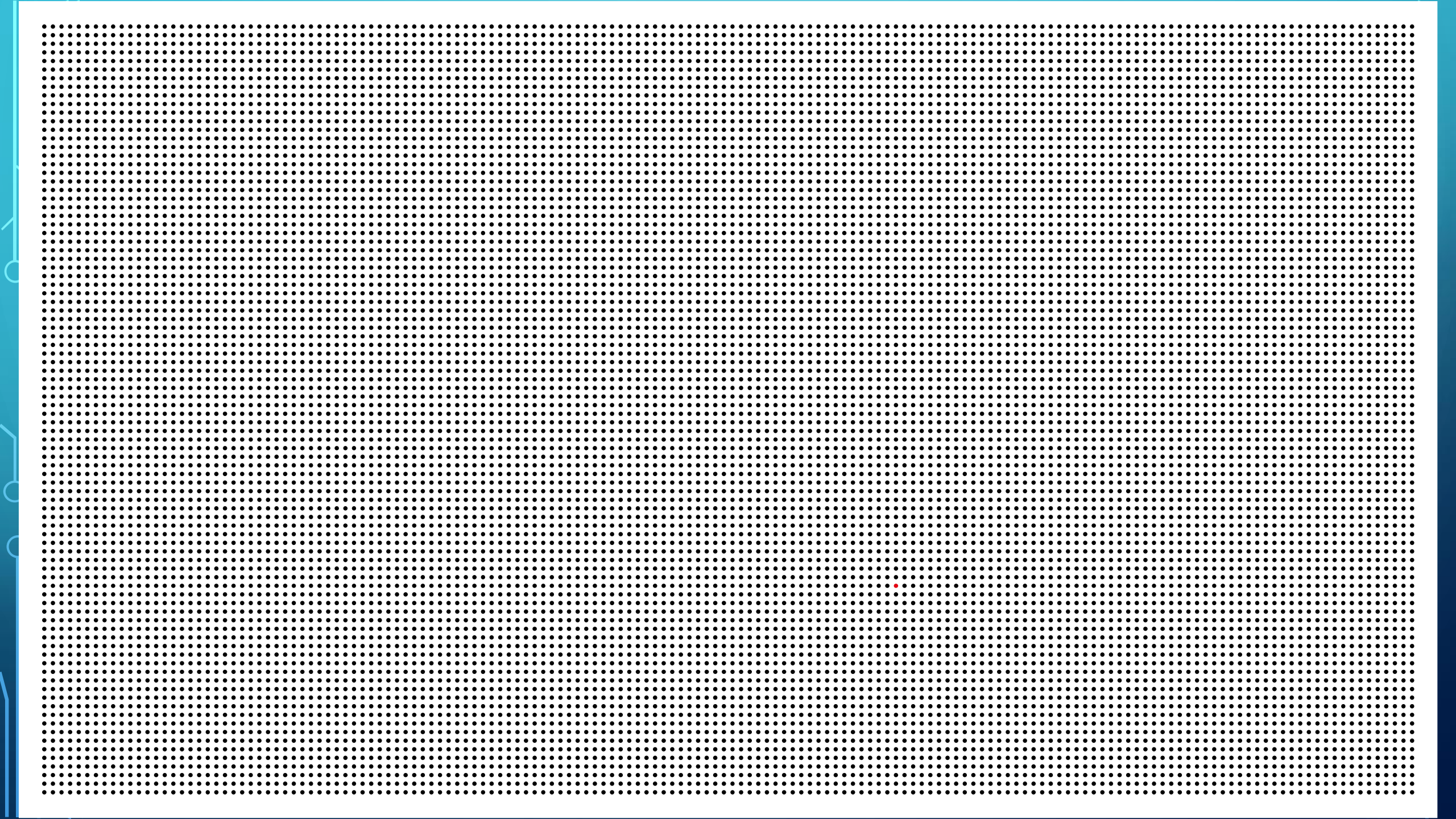


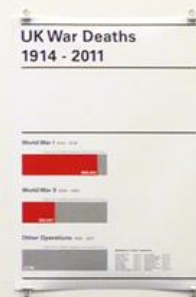


ONE IN A MILLION

- My visualisation of One in a Million is a more generic approach to the design problem. The use of the consistent sized dots and a regimented positioning has allowed for different subjects to be offered for comparison against this vast number and visual baseline. To the viewer, each black dot can represent a part of numeric value, a unit of time or a unit of distance in a variety of data driven topics.







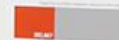


UK War Deaths 1914 - 2011

World War I 1914 - 1918



World War II 1939 - 1945



Other Operations 1945 - 2011



Lottery Jackpot Odds

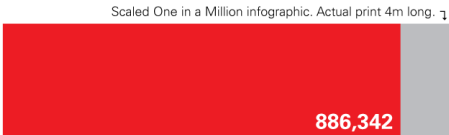
Euro Millions 1 in 116,531,800
Average Jackpot £43,109,305

National Lottery 1 in 13,983,816
Average Jackpot £2,253,304

Health Lottery 1 in 2,118,760
Jackpot Limited to £100,000

UK Military Deaths 1914 - 2011

World War I 1914 - 1918



World War II 1939 - 1945



Other Operations 1945 - 2011



Breakdown of other operations.

Palestine 1922 - 1948:	Fatalities 233	Borneo 1962-66:	Fatalities 126
Malaya 1948-49:	Fatalities 240	Aden emergency 1963-67:	Fatalities 68
Yangtze River 1949:	Fatalities 46	Northern Ireland 1969-98:	Fatalities 763
Korean war 1950-53:	Fatalities 265	Falkland Islands 1982:	Fatalities 255
Egypt 1953-53:	Fatalities 54	Gulf War 1 1990-91:	Fatalities 47
Kenya 1952-60:	Fatalities 12	The Balkans 1992 - 2001:	Fatalities 48
Cyprus 1955-58:	Fatalities 271	Sierra Leone 2000:	Fatalities 1
Suez crisis 1956:	Fatalities 22	Afghanistan 2001-present:	Fatalities 285
Oman and Dhofar 1962-75:	Fatalities 24	Iraq 2003-09:	Fatalities 179

Lottery Jackpot Odds

Euro Millions 1 in 116,531,800
Average Jackpot £43,159,355

↱ Scaled One in a Million infographic. Actual print 4m long.

↱ Scaled print for Euro Millions jackpot odds. Actual print 466m long.

National Lottery 1 in 13,983,816
Average Jackpot £2,053,984

↱ Scaled One in a Million infographic. Actual print 4m long.

↱ Scaled print for National Lottery jackpot odds. Actual print 56m long.

Health Lottery 1 in 2,118,760
Jackpot limited to £100,000

↱ Scaled One in a Million infographic. Actual print 4m long.

↱ Scaled print for Health Lottery jackpot odds. Actual print 8.4m long.



VISUALISING VAST NUMBERS

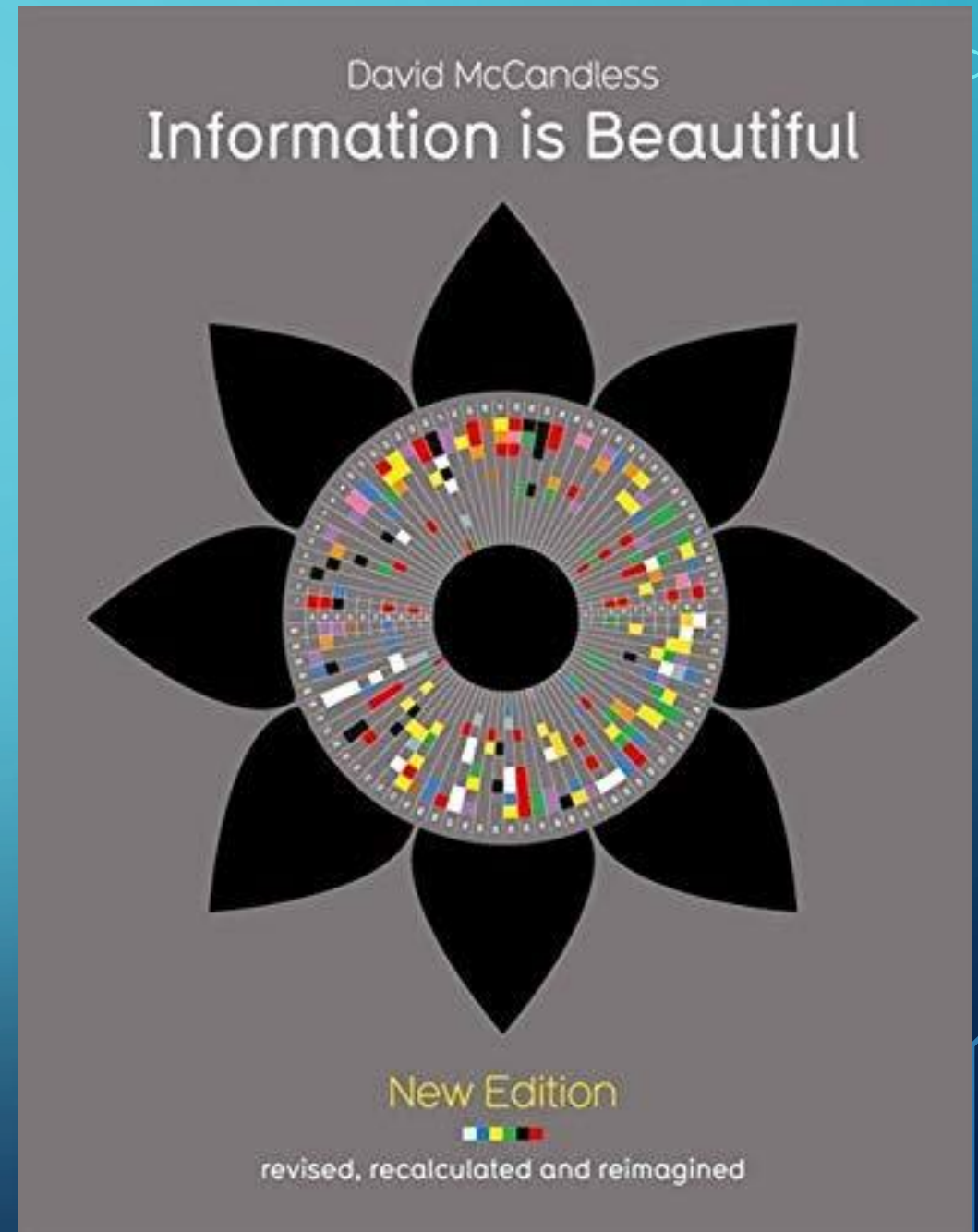
- The sound you are about to hear is that of a Metronome set to 1 beat per second.
The time it would take to count £1 Billion would be 31 years, 8 months, 7 days, 14 hours, 10 minutes, 50 seconds, 45 centiseconds, and 4 thousandths.
- Imagine that this is the sound of £1 per second appearing in your bank account, you would be a multi-millionaire in the middle of the 20th century.
The time it would take to count £1 Billion would be 31 years, 8 months, 7 days, 14 hours, 10 minutes, 50 seconds, 45 centiseconds, and 4 thousandths.

WHAT NEXT?

- Hopefully I have been able to open your eyes just a bit to the various levels of information that you are being exposed to on a daily basis.
- We have literally only scratched the surface on this subject.
- Many of the design ideas and principals in this presentation will influence you and how you design, and how you work with information.
- Always look for the story to be told and try to remain unbiased and objective.

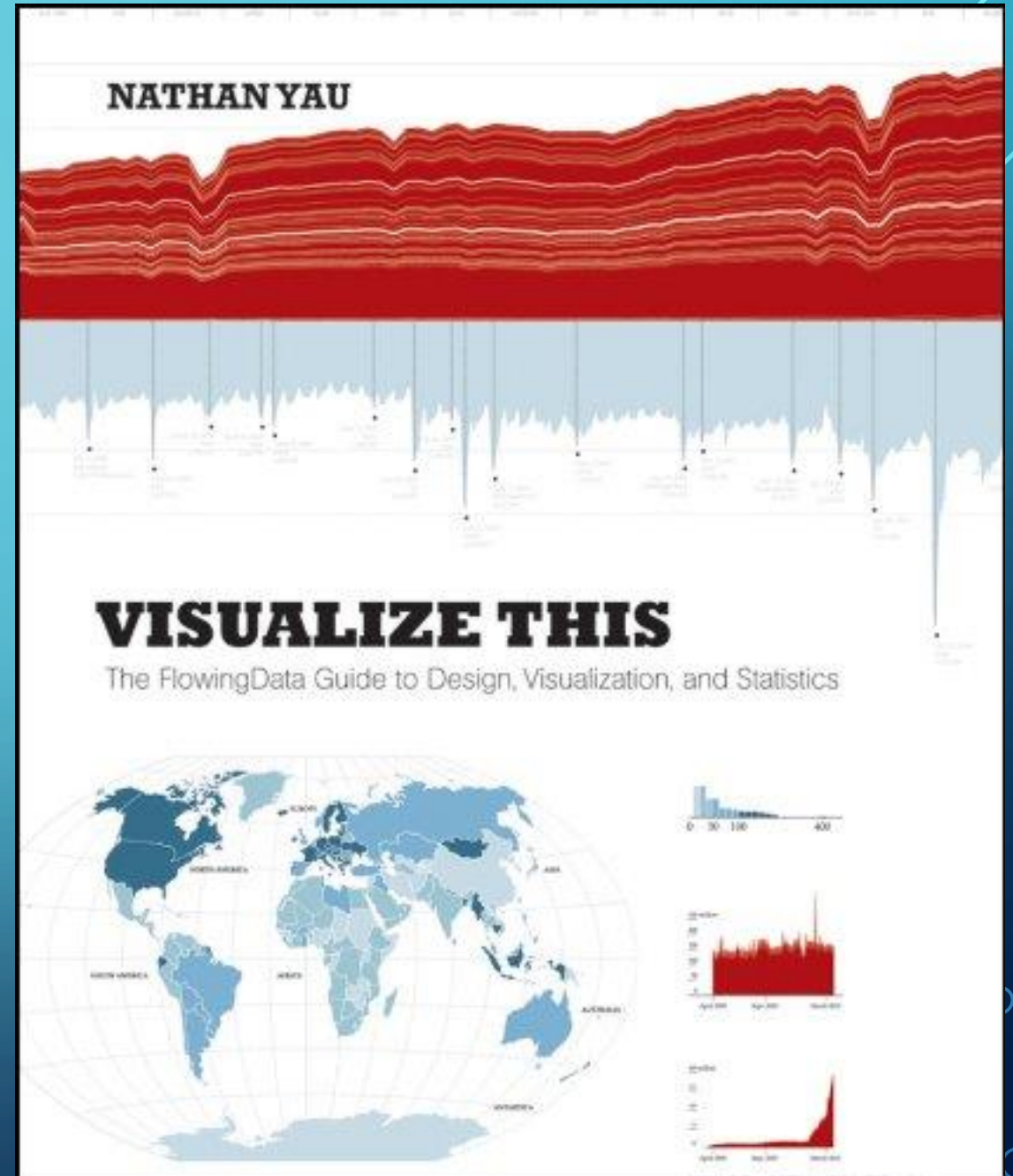
BOOKS

- **Information is Beautiful**
by David McCandless
- <https://informationisbeautiful.net>
- Available in the Library.



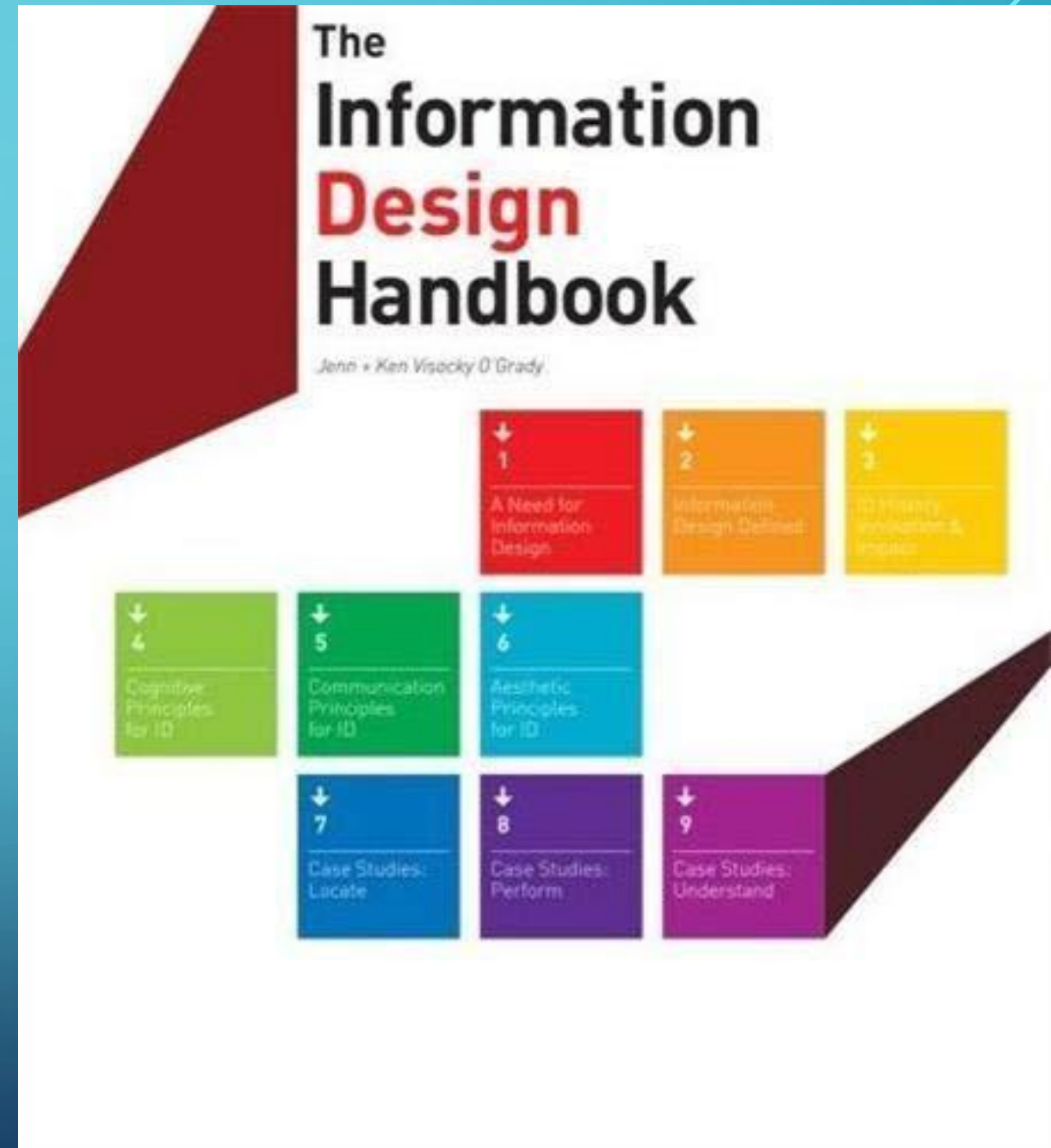
BOOKS

- **Visualize This**
by Nathan Yau
- Available in the Library.



BOOKS

- **The Information Design Handbook**
by Jenn and Ken Visocky





SO, WHY IS INFORMATION DESIGN IMPORTANT?

Explore how Information Design helps to shape the world around us as well as our understanding of it.

(Look to your own experiences and observations to get yourself started).

