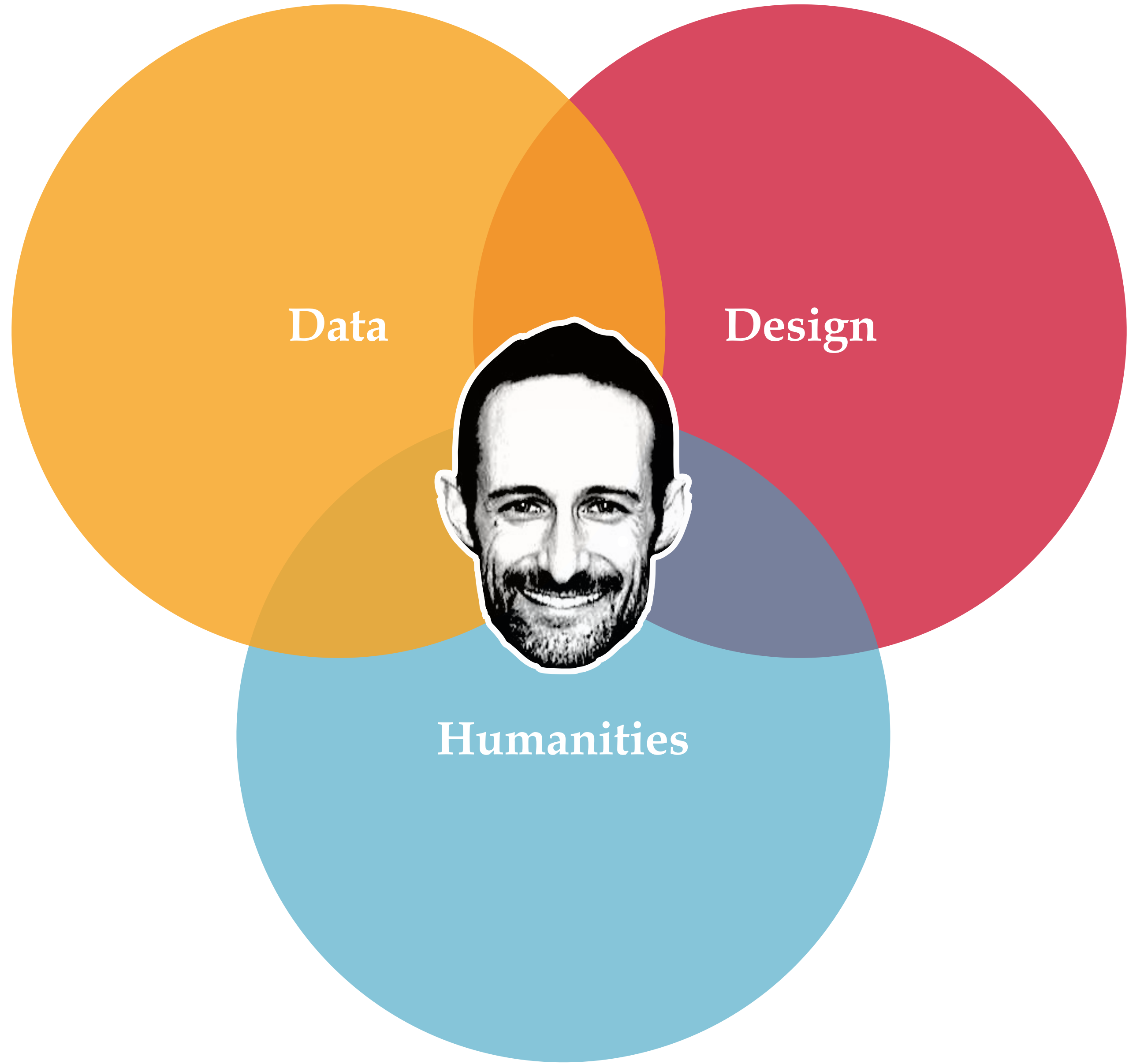


Digital Tools for Digital Humanists: Information Design and Data Visualization

Glauco Mantegari



Data

Design

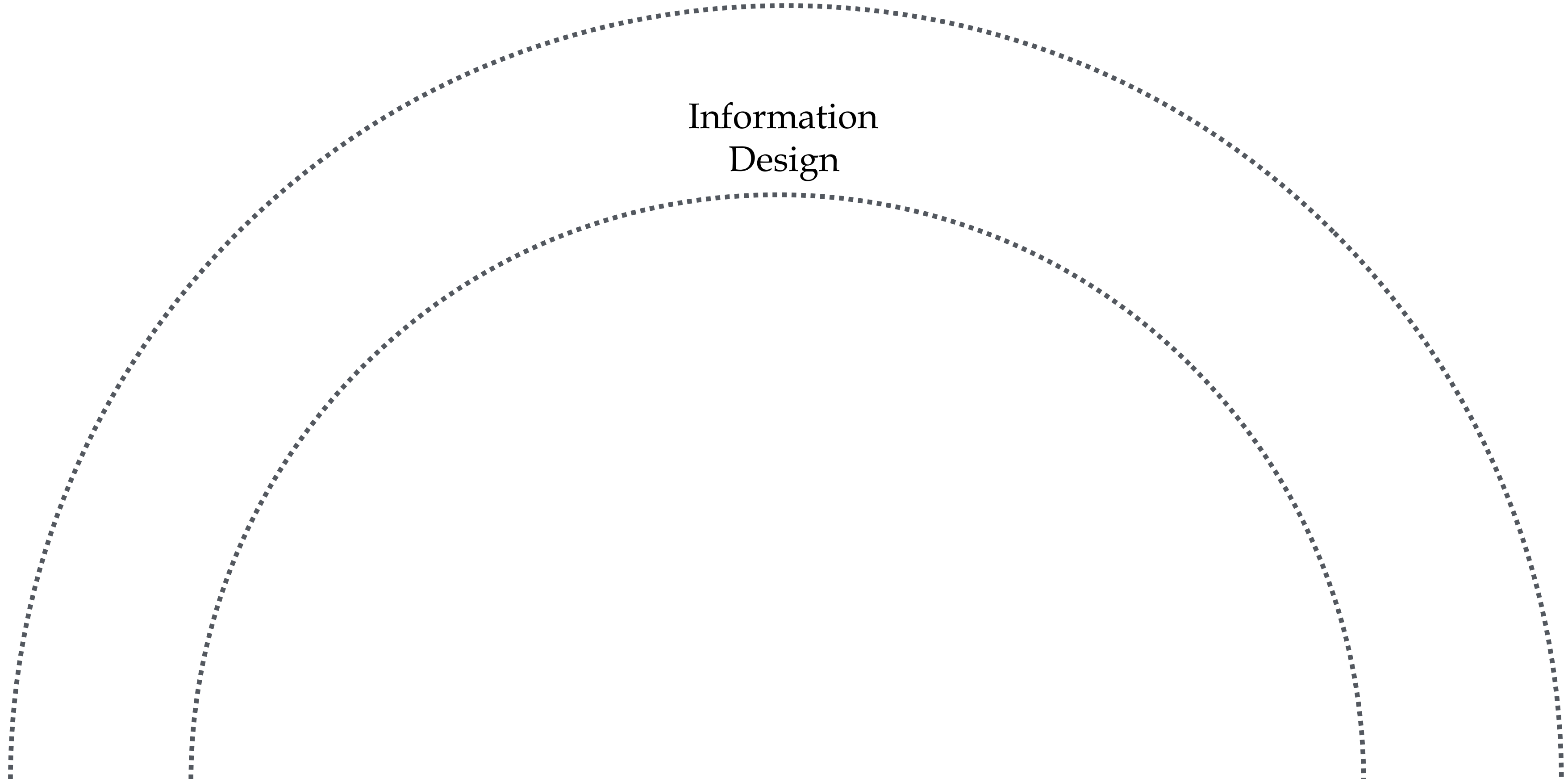
Humanities

“Information design is defined as the art and science of preparing information so that it can be used by human beings with efficiency and effectiveness”.

–Robert E. Horn, 2000

Information
Architecture

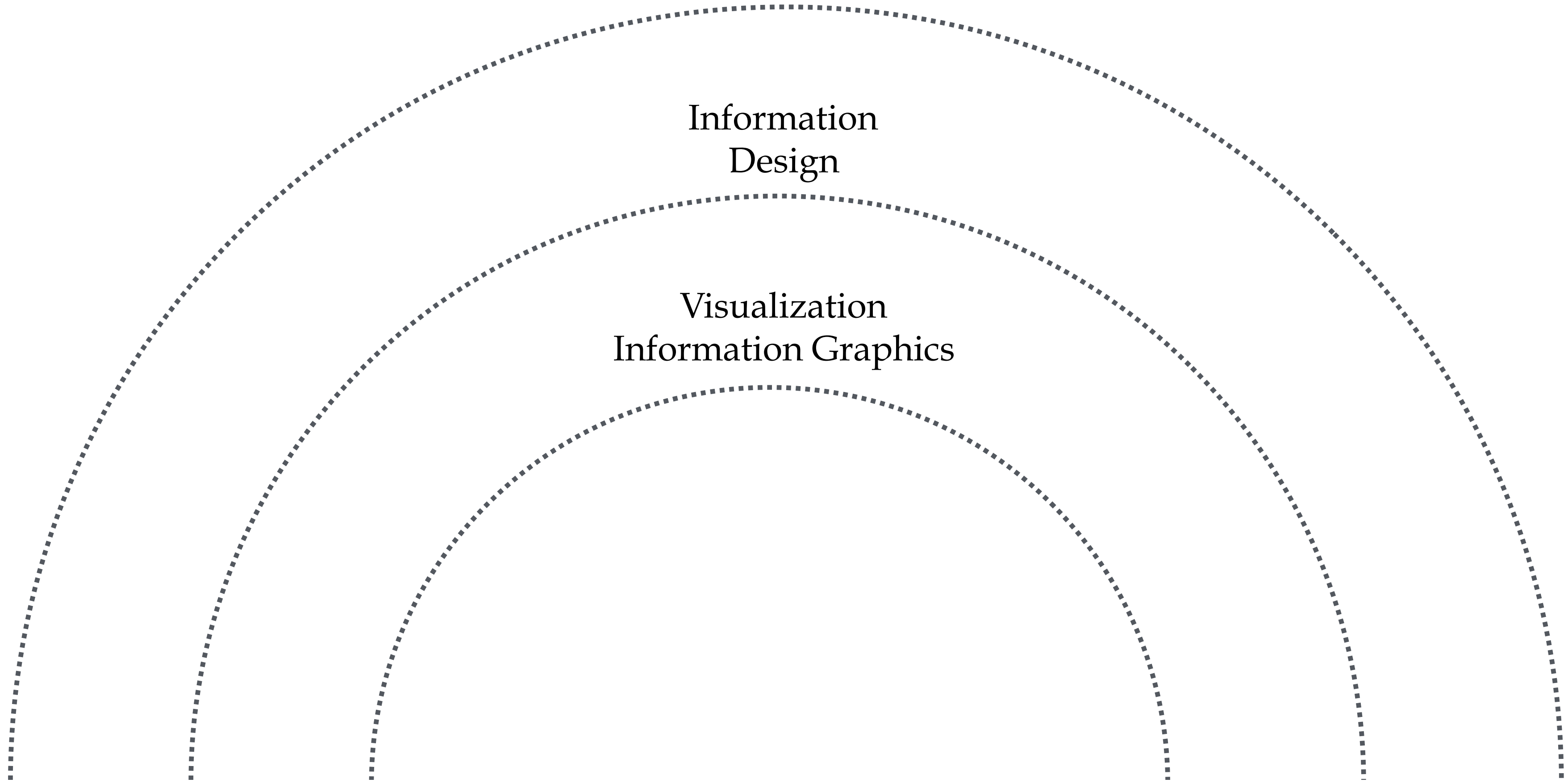
Information
Design



Information
Architecture

Information
Design

Visualization
Information Graphics



Analysis



Narration

Data Visualization

Information Graphics

Raw data

No editing

Science

Interpreted data

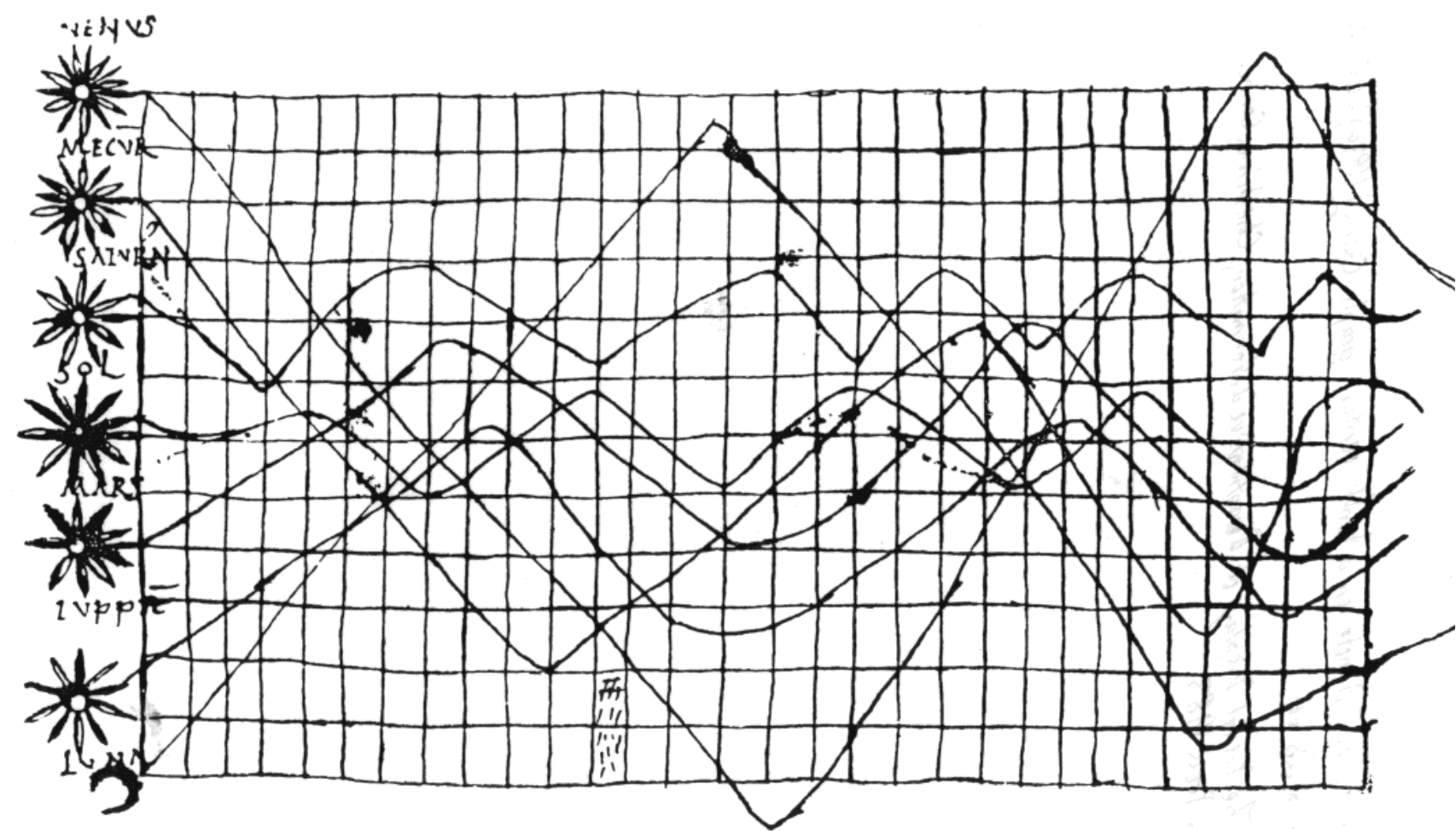
Editorial processes

Media

~~to visualize data and information~~

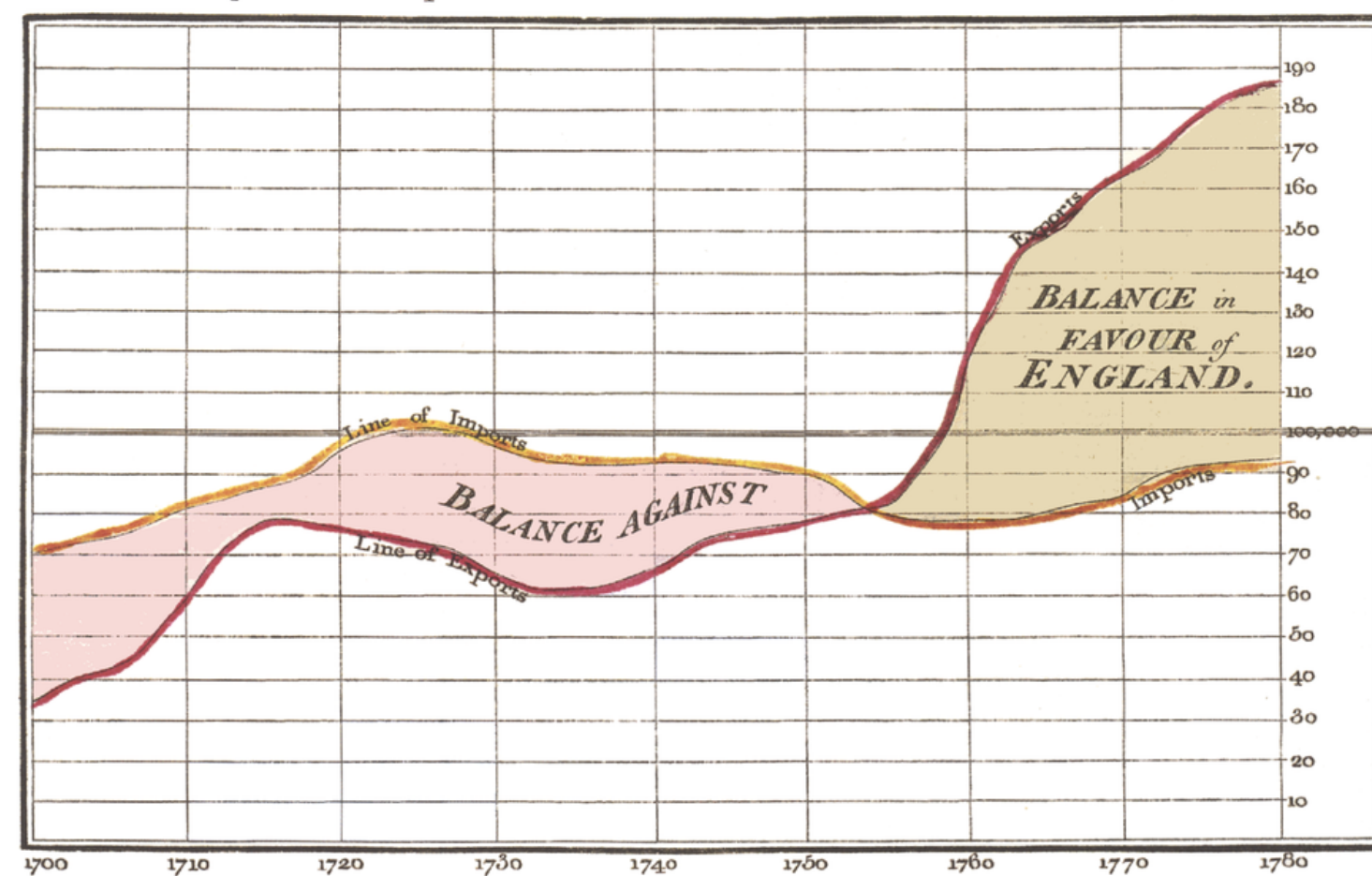
to make complex phenomena (visually) accessible and “usable”

–Paolo Ciuccarelli

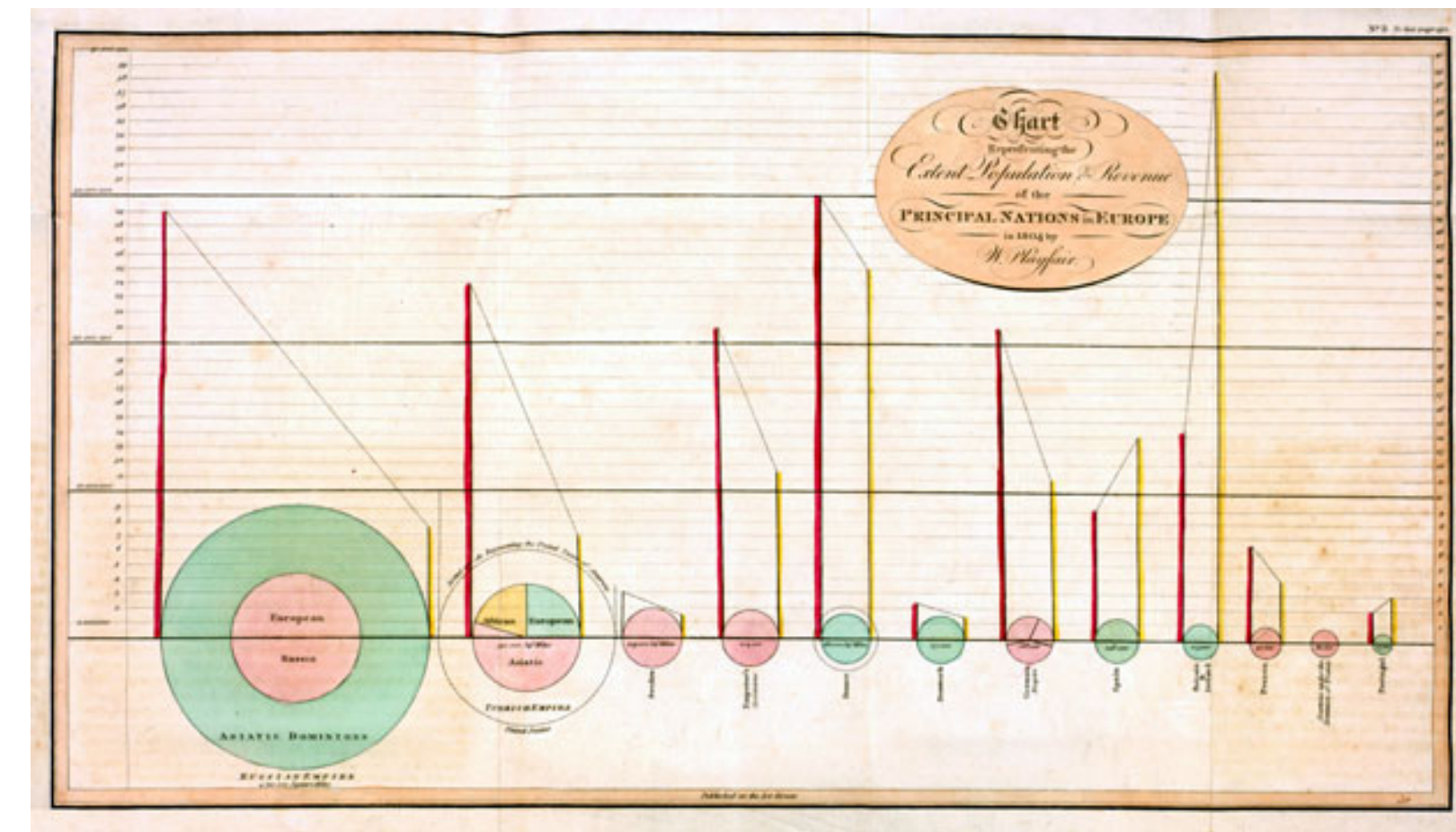


Su Song, 1092

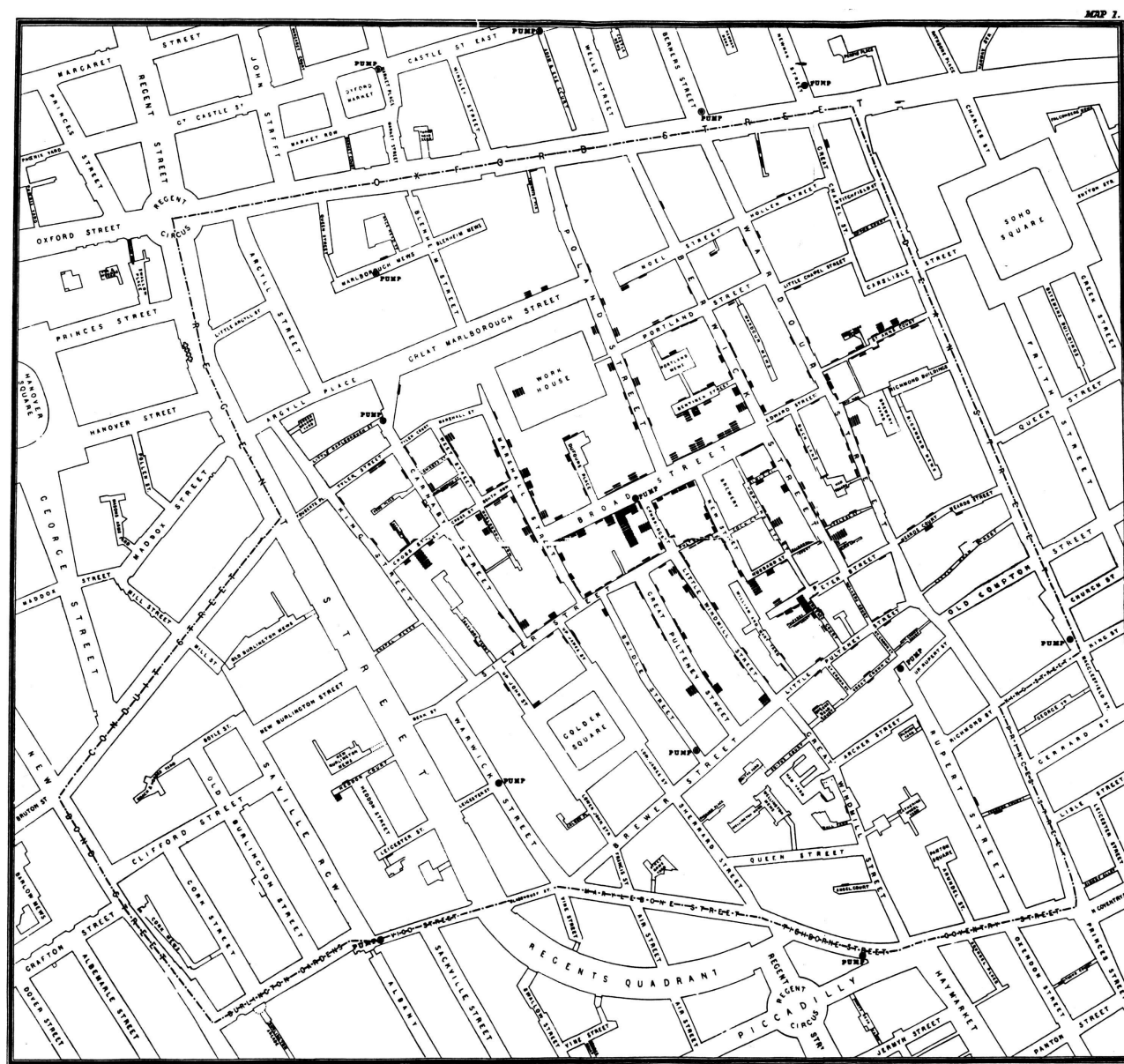
Exports and Imports to and from DENMARK & NORWAY from 1700 to 1780



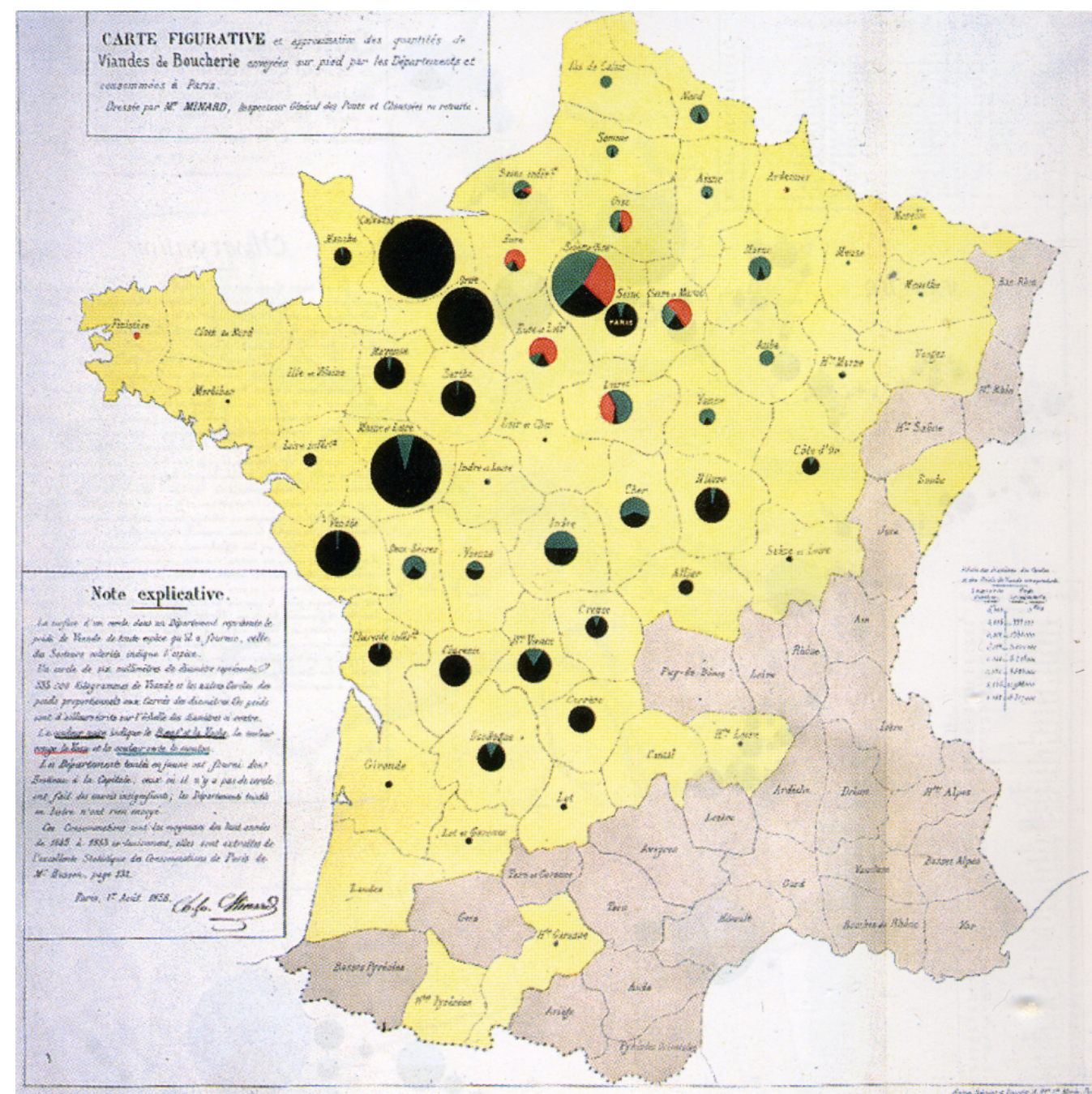
Playfair, 1786



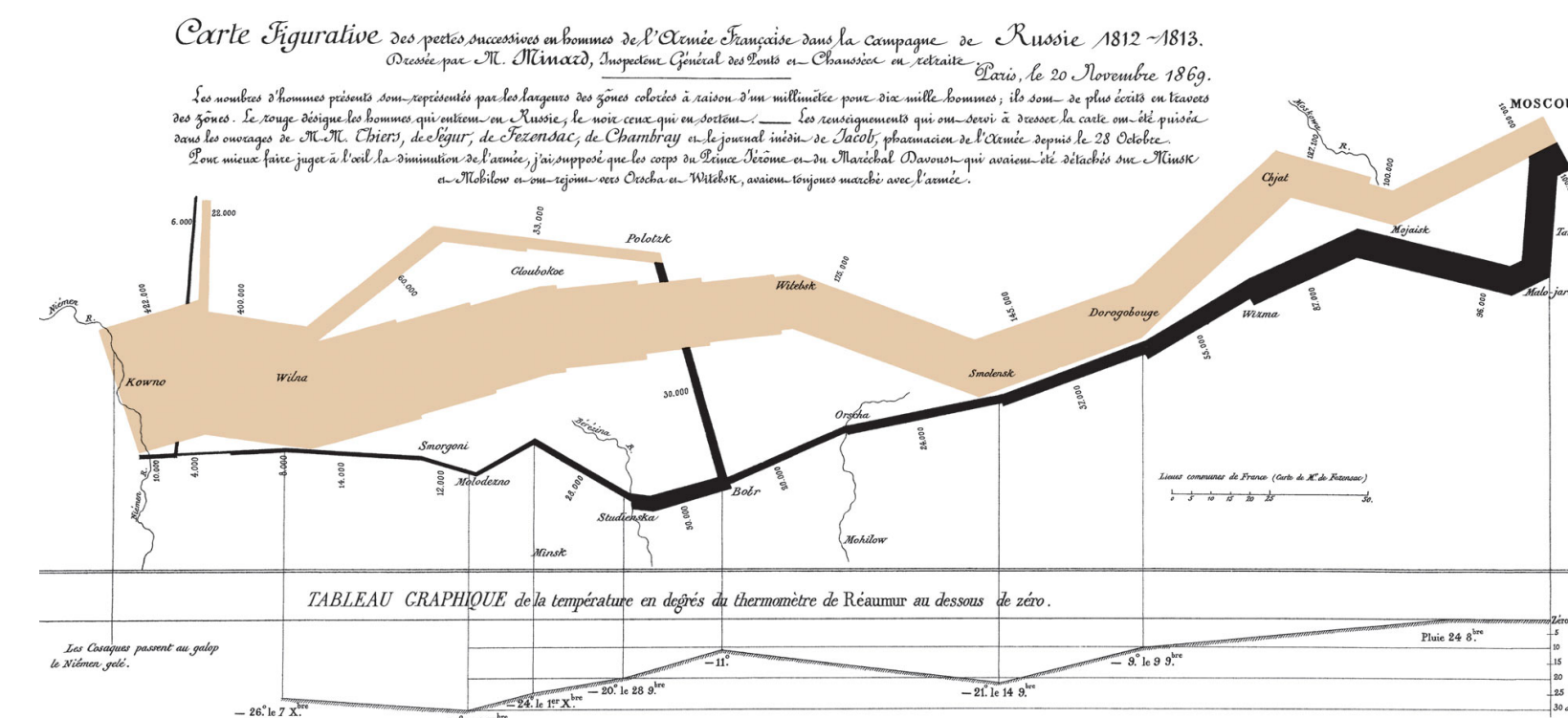
Playfair, 1805



Snow, 1854



Minard, 1858



Minard, 1869

Source: images from the Web



John W. Tukey

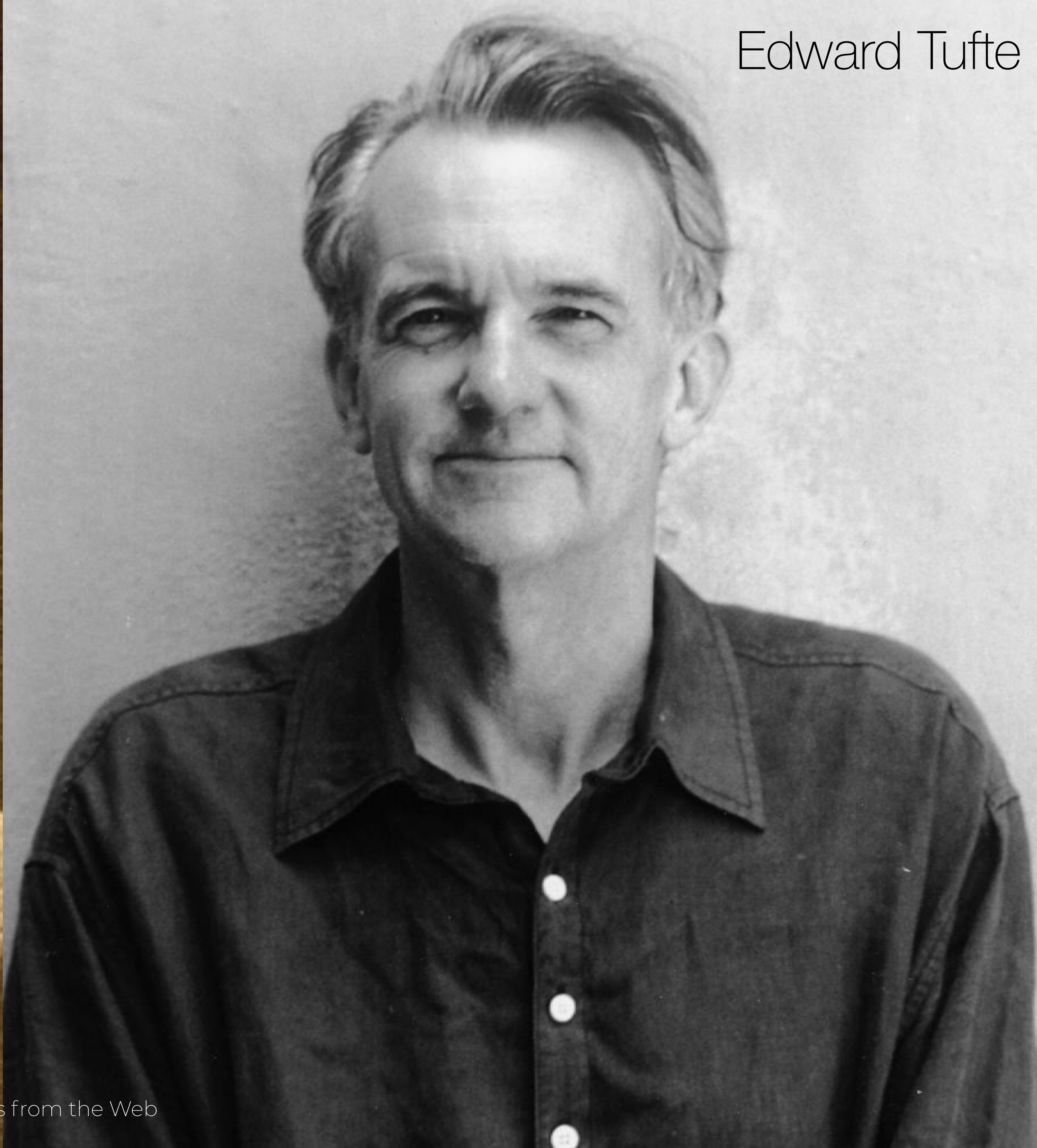
EXPLORATORY DATA ANALYSIS



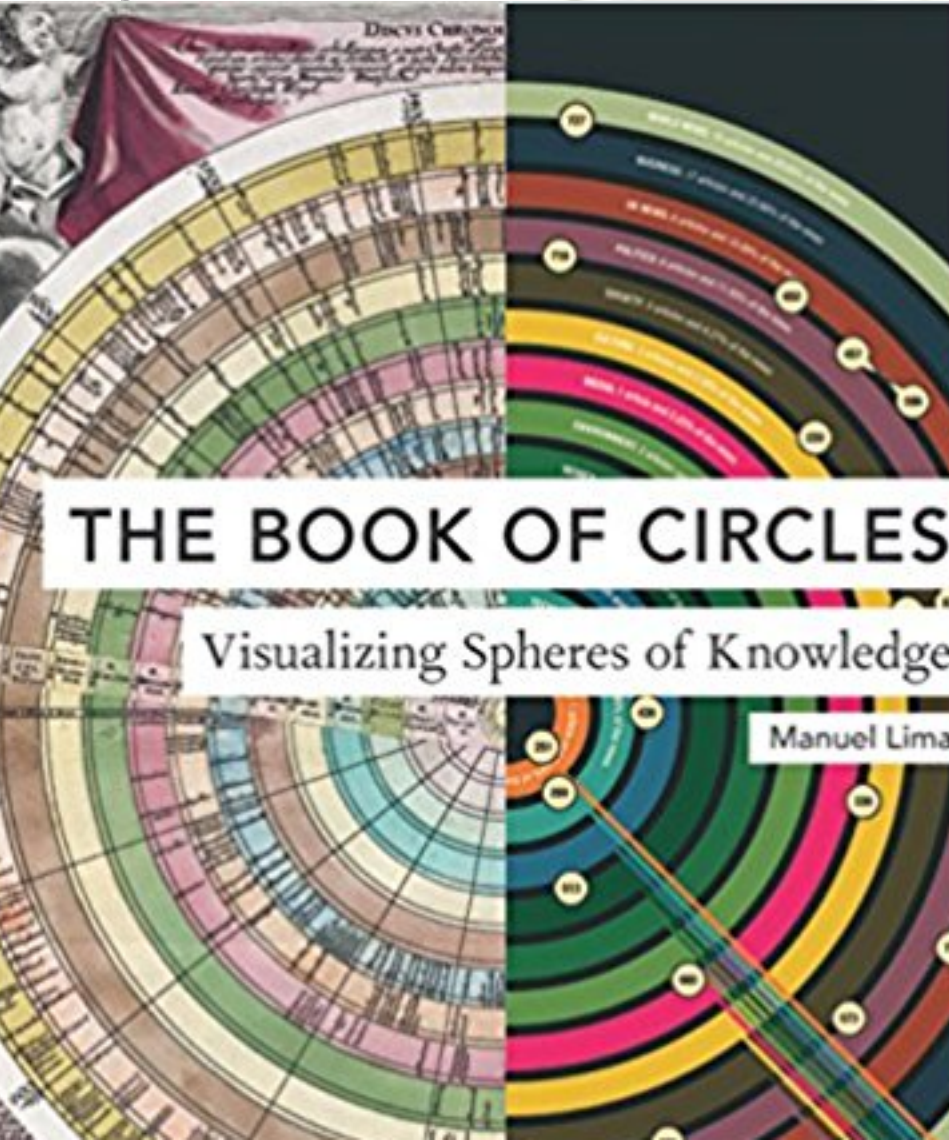
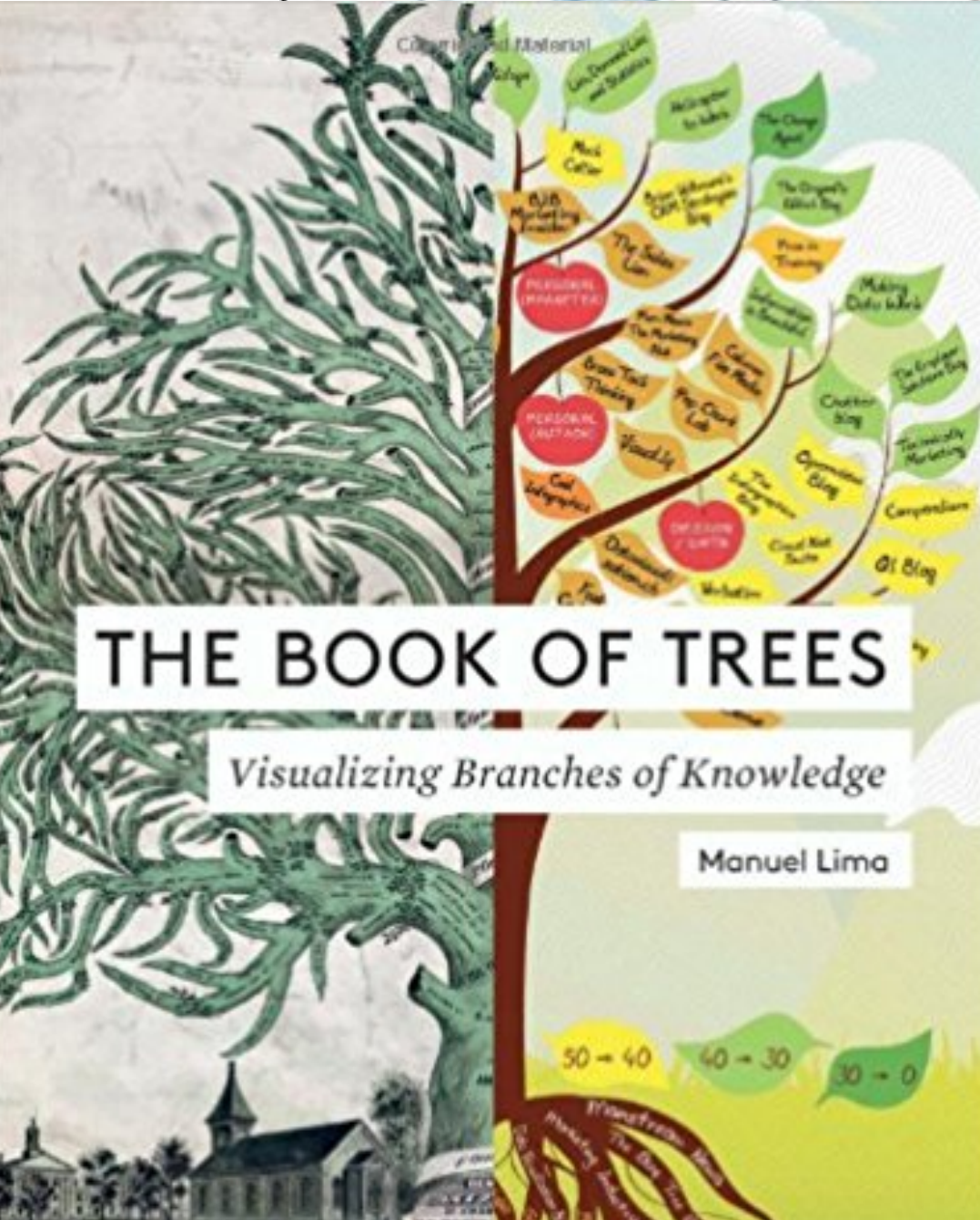
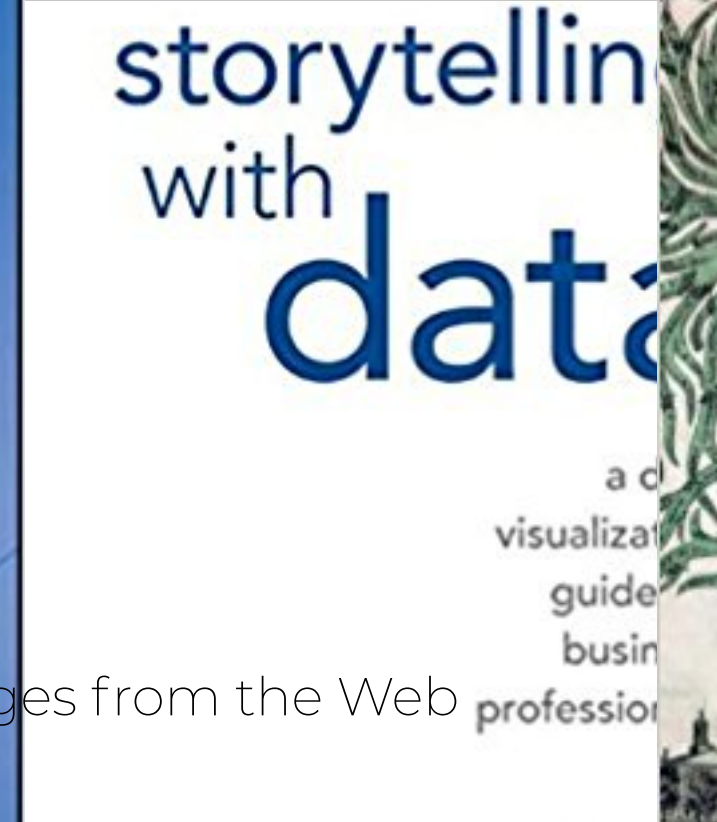
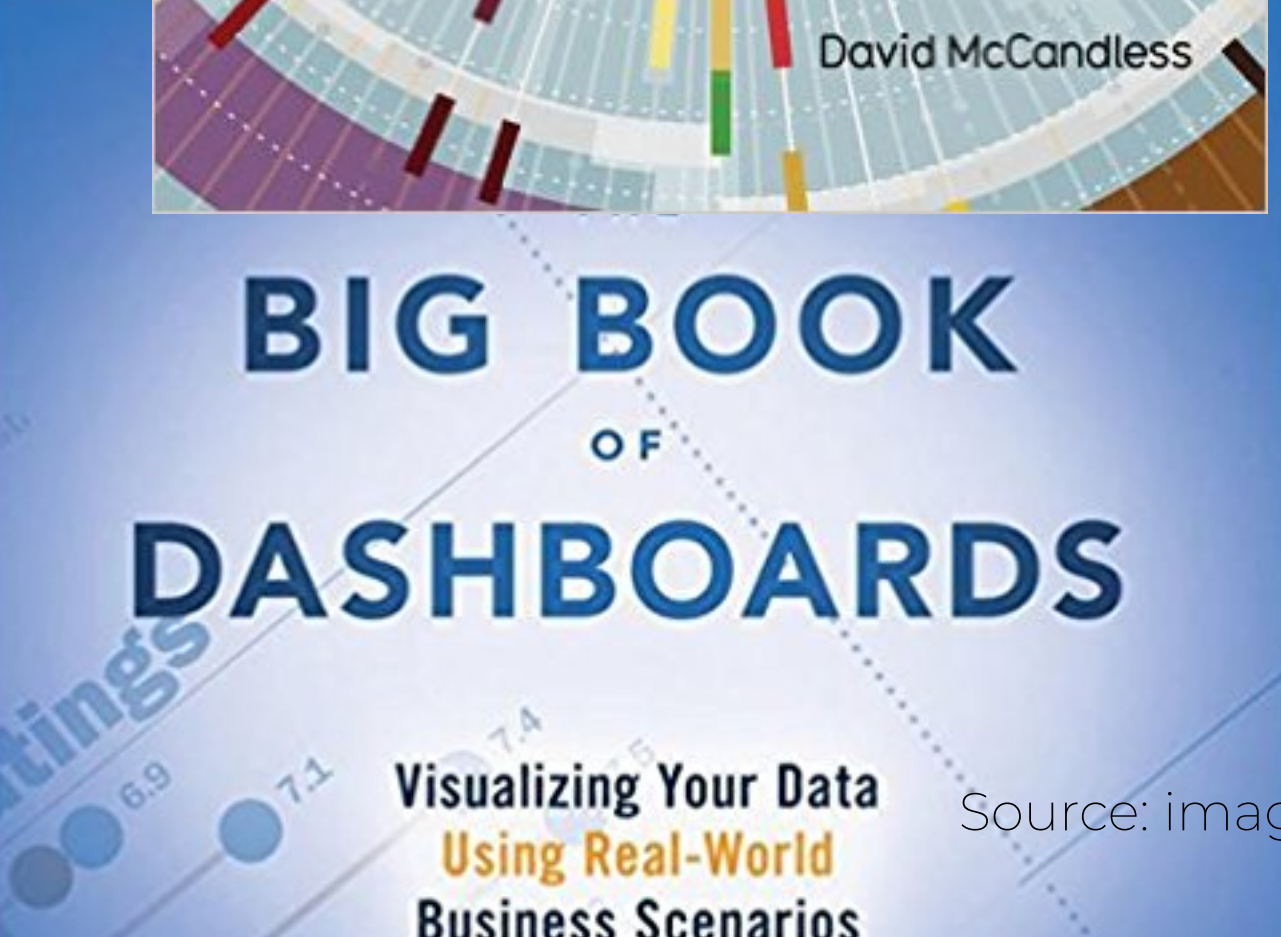
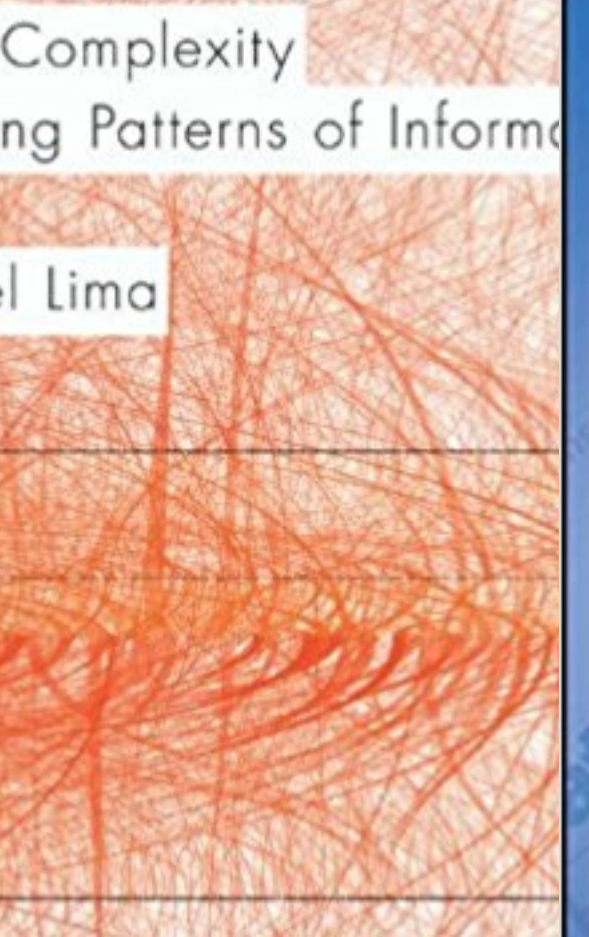
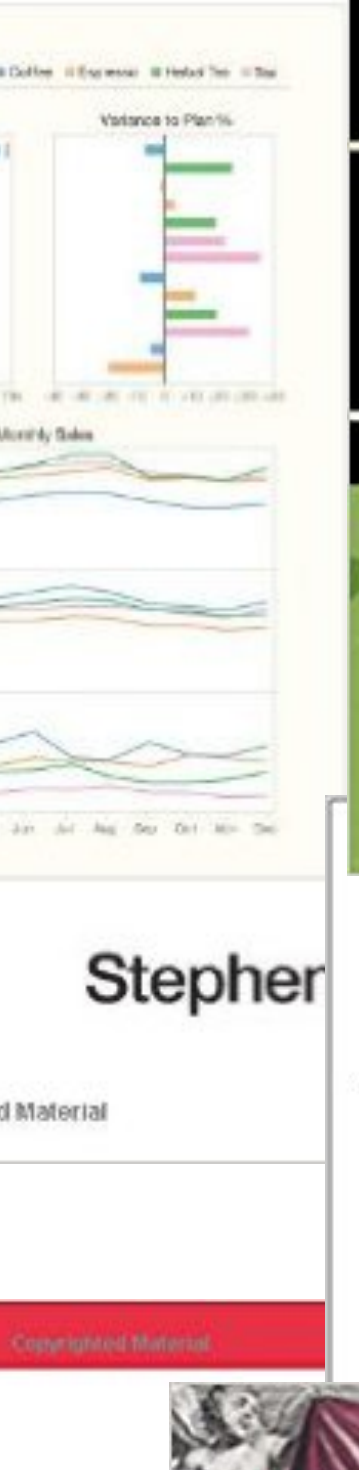
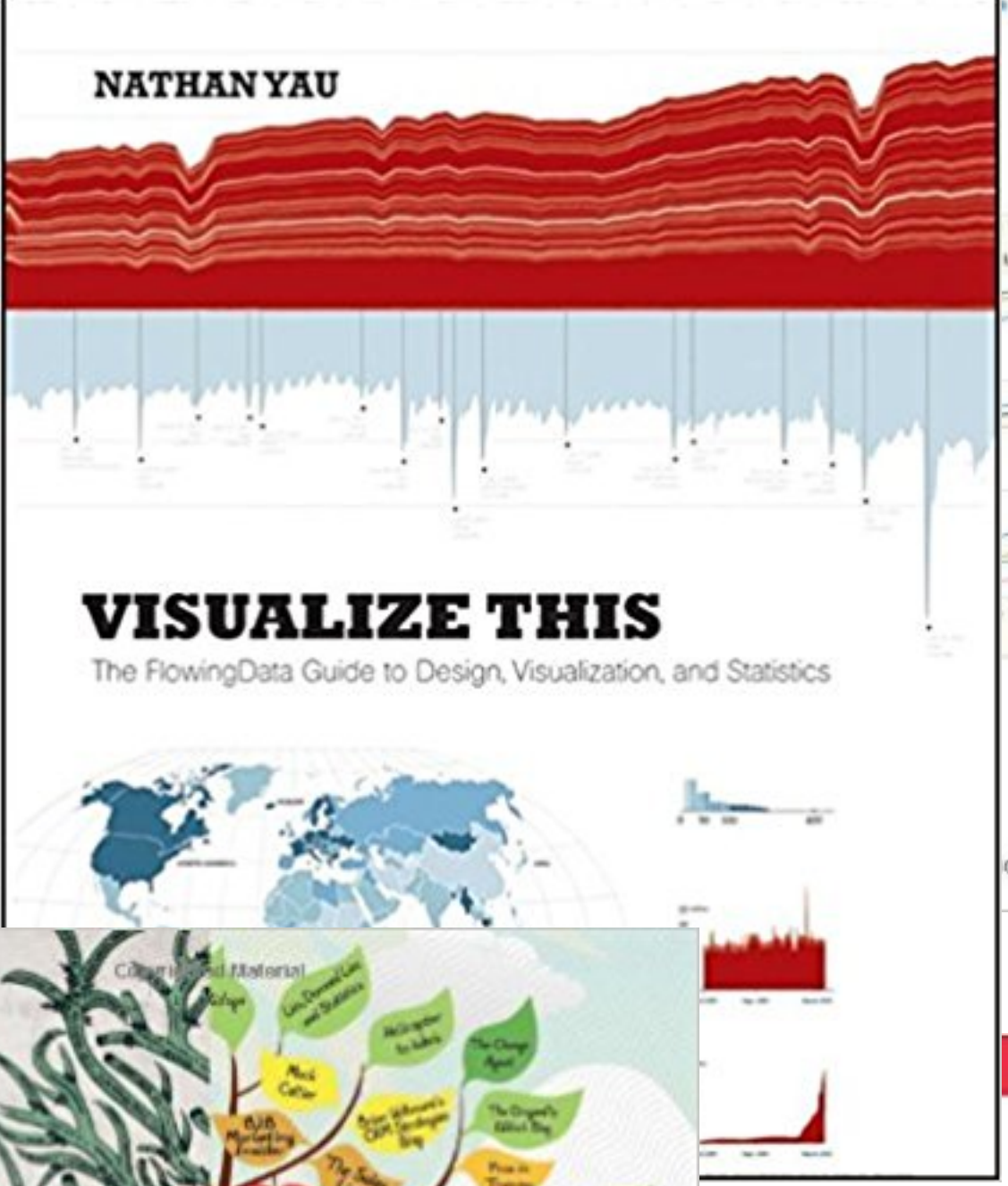
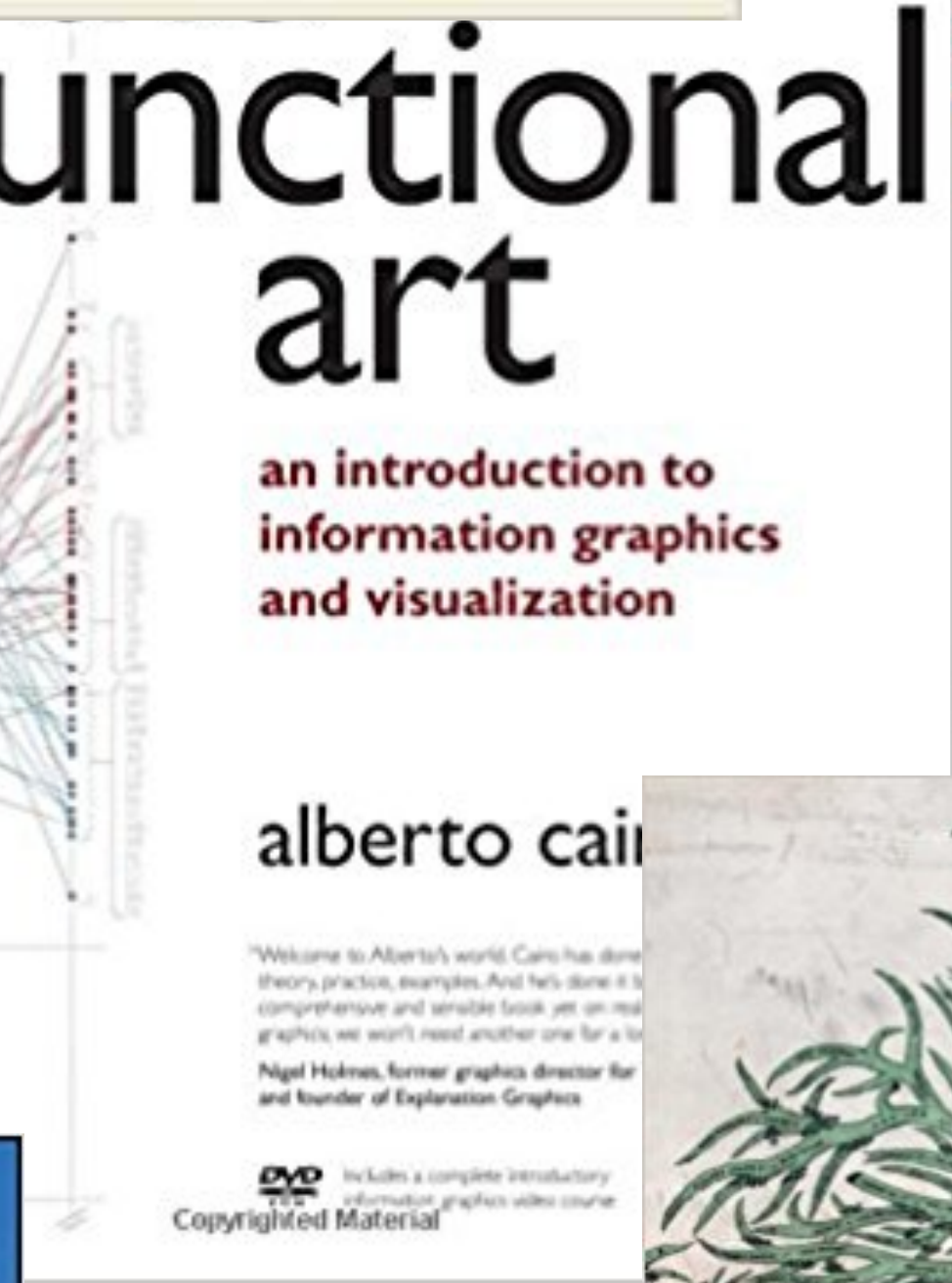
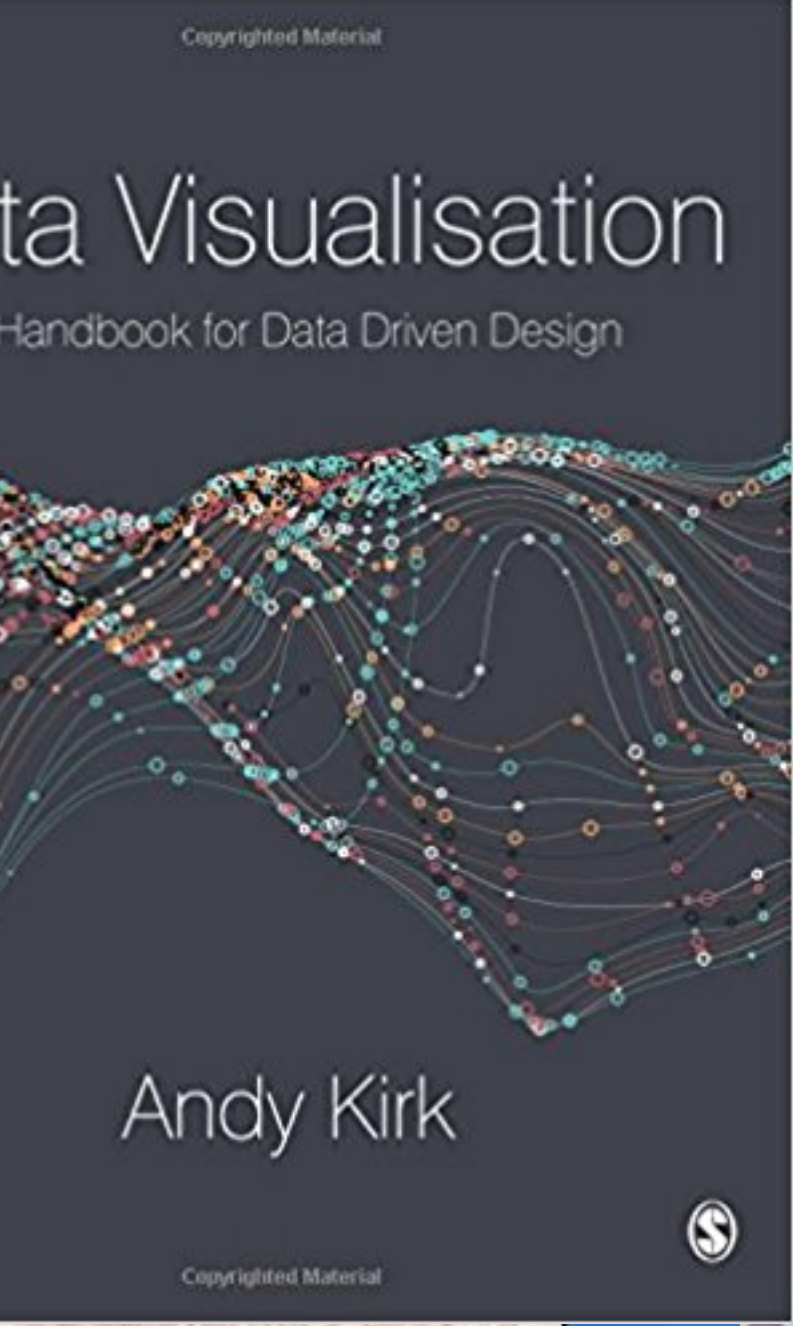
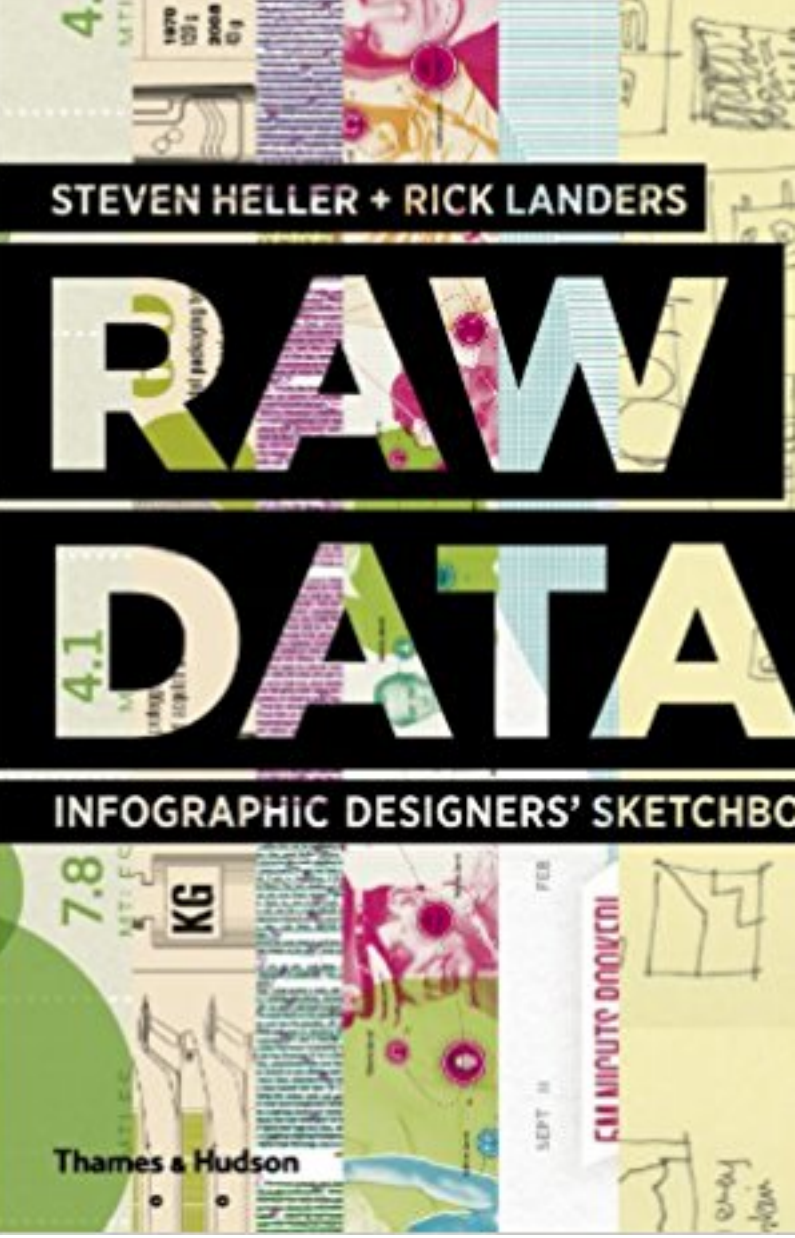
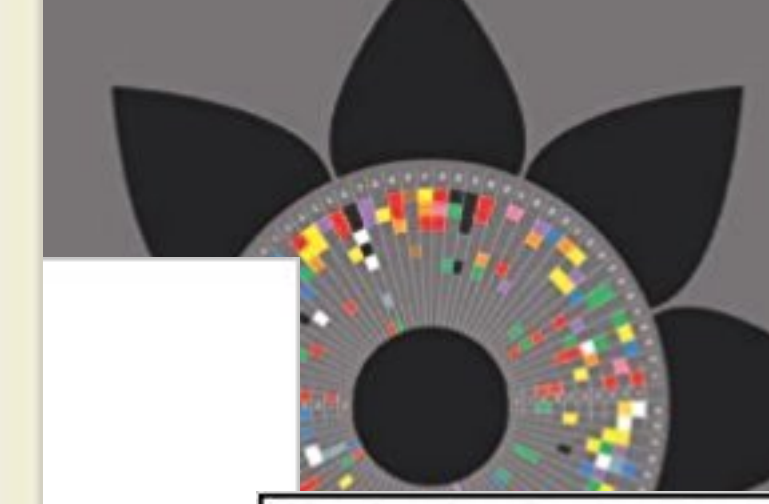
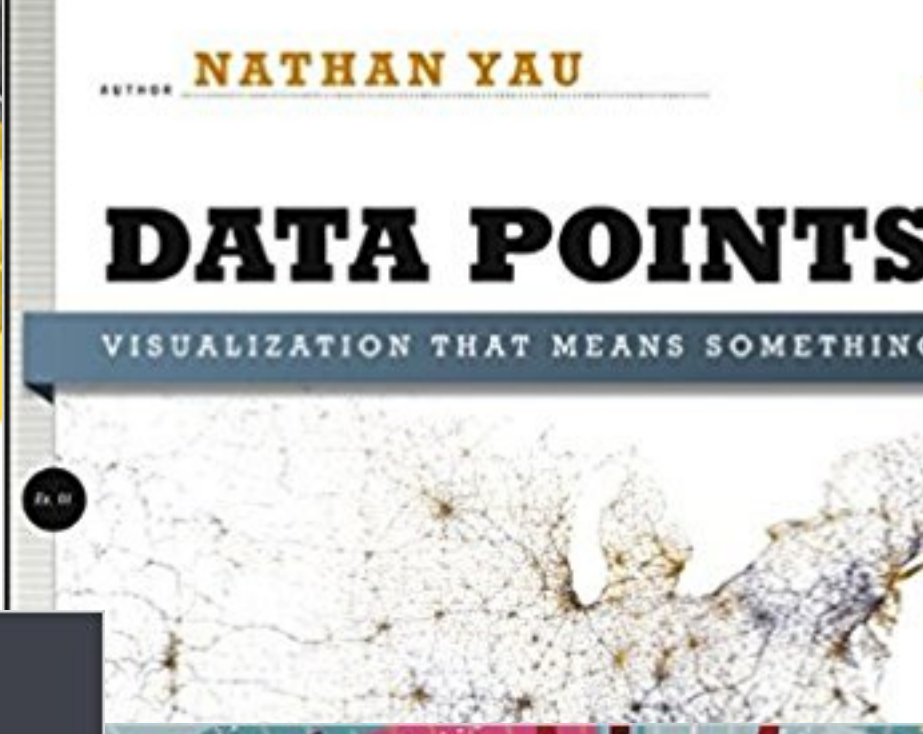
Jacques Bertin



Edward Tufte

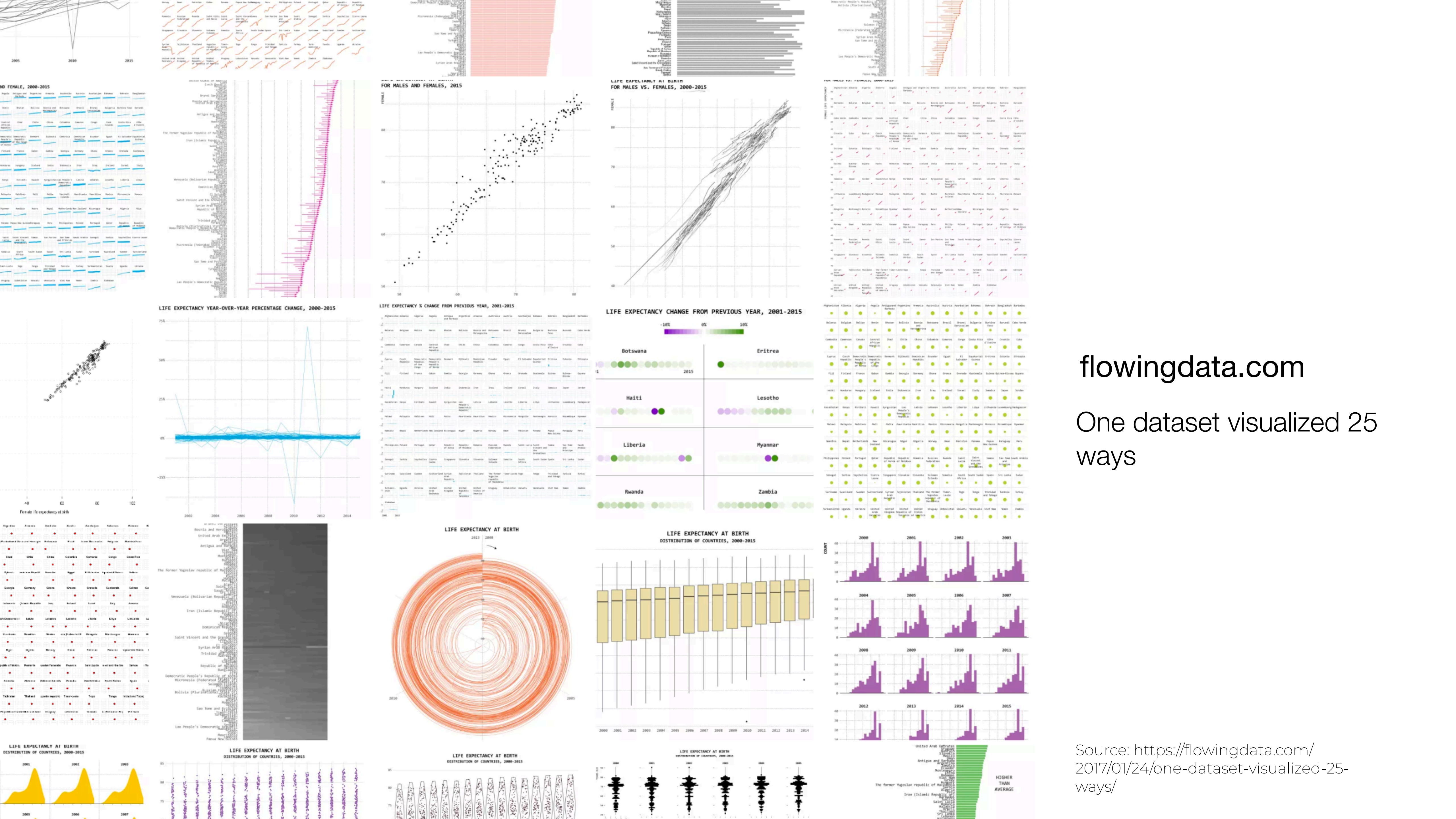


Source: images from the Web



Source: images from the Web

- No strict rules exist to create effective visualizations -



flowingdata.com
 One dataset visualized 25 ways

Source: <https://flowingdata.com/2017/01/24/one-dataset-visualized-25-ways/>

Practically speaking ...



Welcome to Early Modern Letters Online

Created by the Cultures of Knowledge Project with generous funding from The Andrew W. Mellon Foundation, Early Modern Letters Online — EMLO — is a combined finding aid and editorial interface for basic descriptions of early modern correspondence.

Search

People



Year(s) from

To



Places



Content



Catalogue



Prefer things at a glance? You can also [Browse](#). Want a full set of fields? Try [Search+](#)

Search



21693 People



5334 Locations



1218 Organisations



255 Repositories



49 Catalogues



105944 Letters



97263 Letter Versions



59507 Images



42321 Comments



74374 Related resources

The data

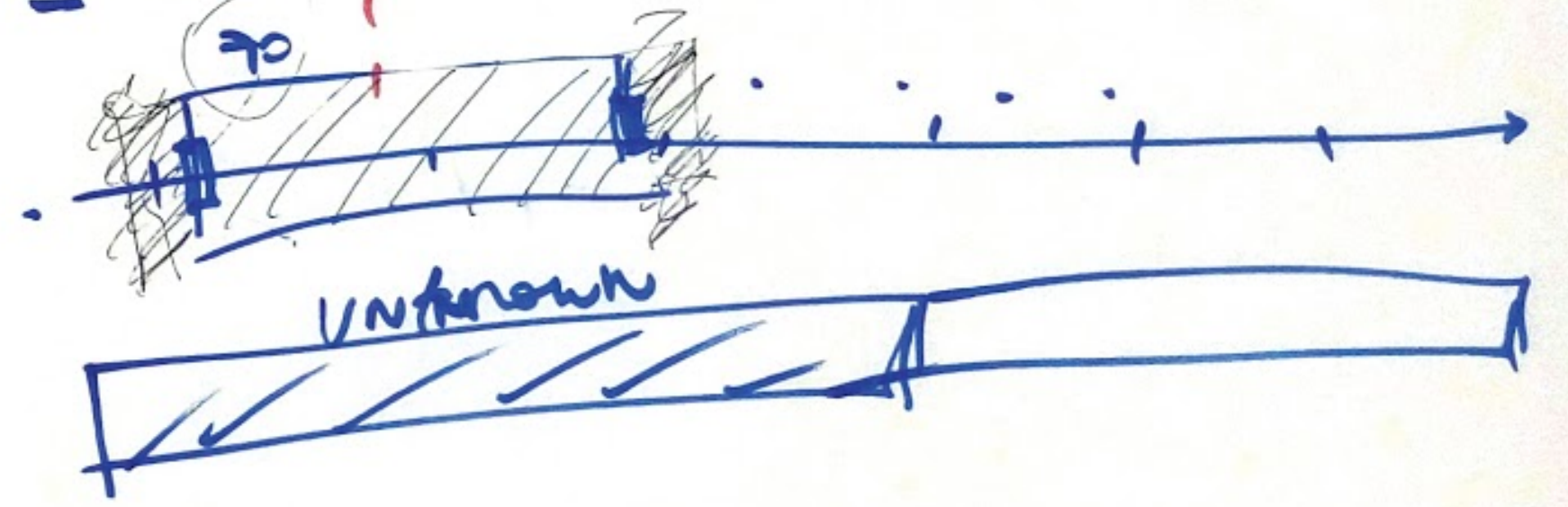
Hartlieb's correspondence:
4833 letters
(sent/received)

Source: <http://emlo.bodleian.ox.ac.uk/>

historical



Time



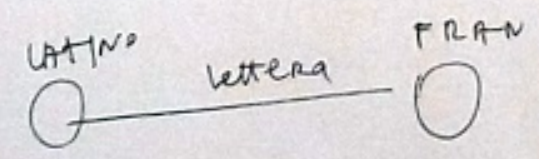
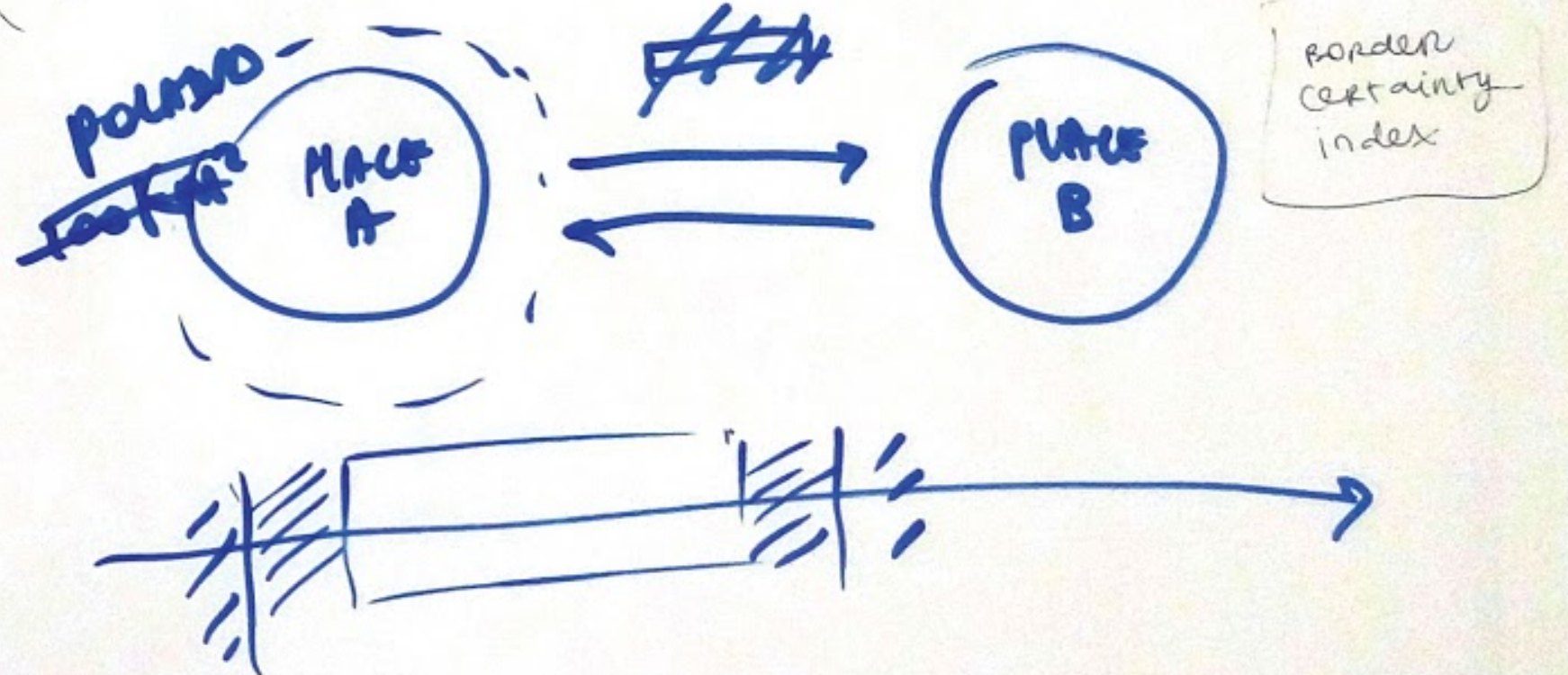
How many CARTOGRAM

FORCE DIRECTED How they are connected

+ LANGUAGES (co-occurrence) of LANG

people

"MATCH" NETWORK



Geographical data

Historical vs modern perspective

Boundaries change over time

Different granularities and hierarchies

geography

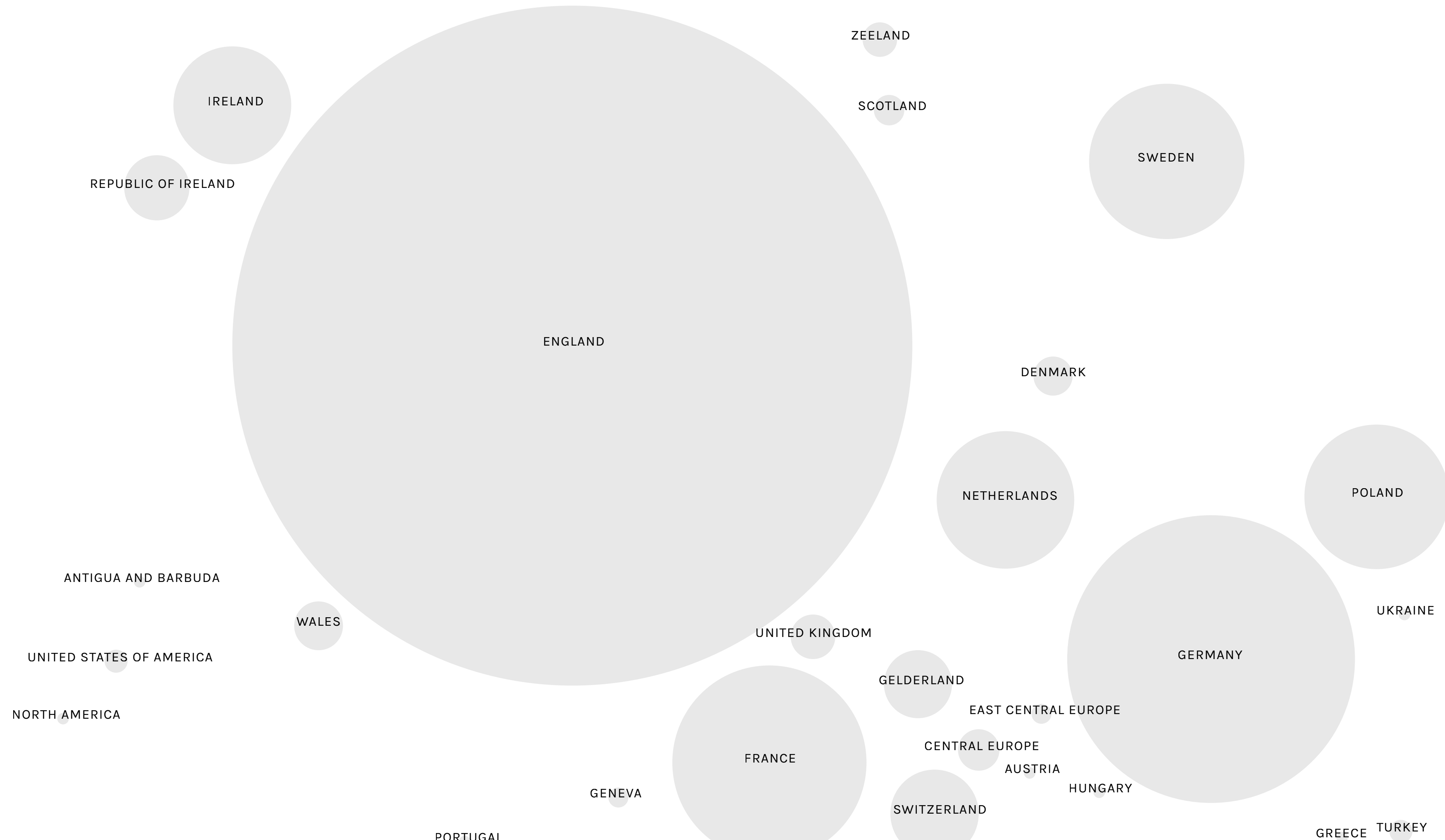
people

languages

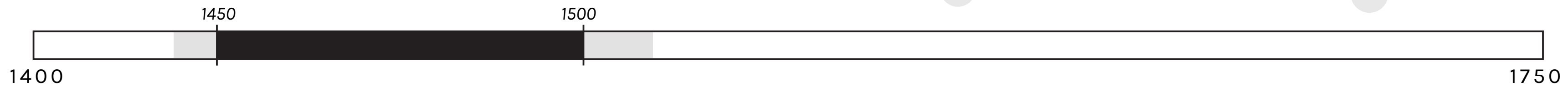
show letters from all to all

CONTEMPORARY

HISTORICAL



TIME



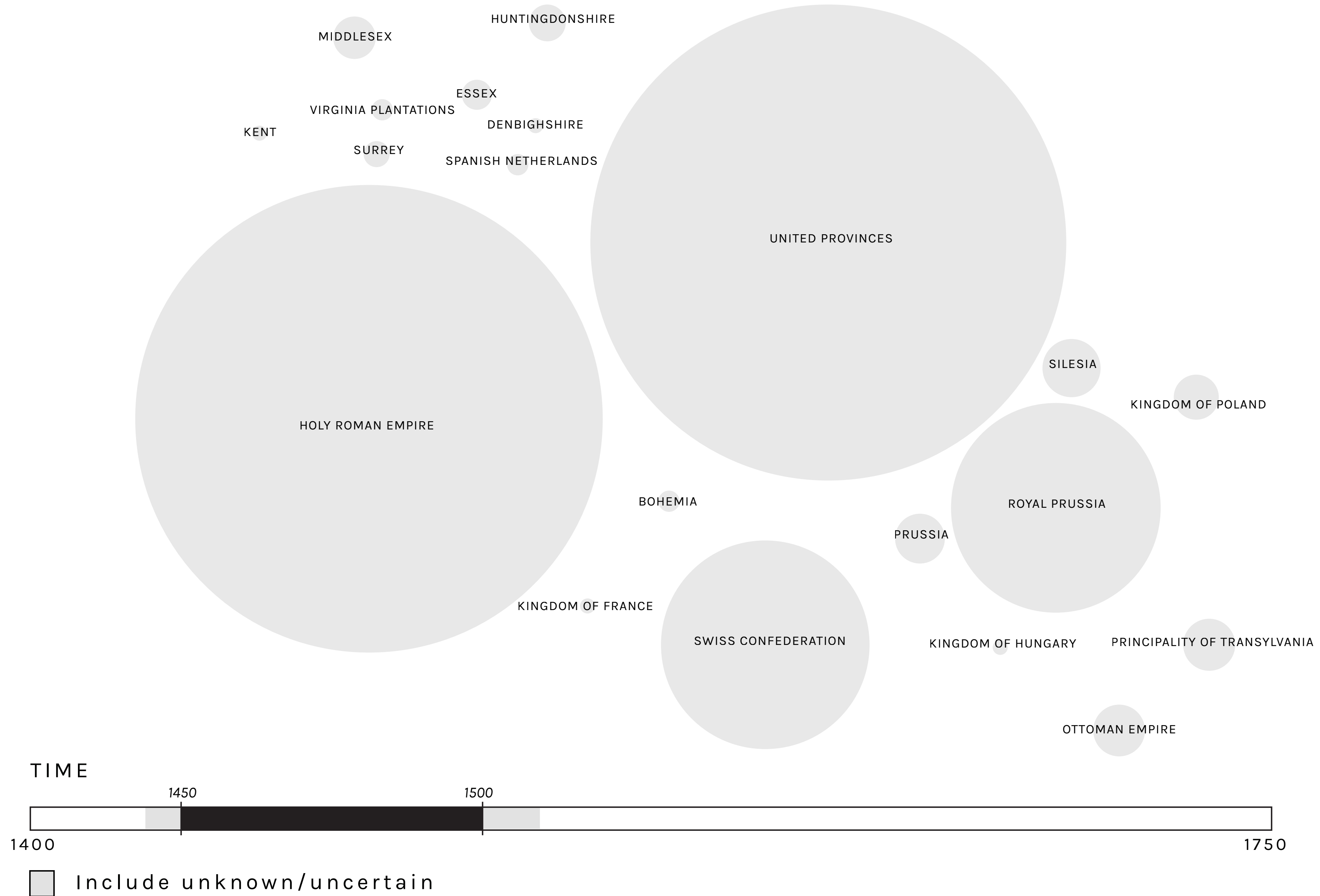
Include unknown/uncertain

Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"

geography people languages

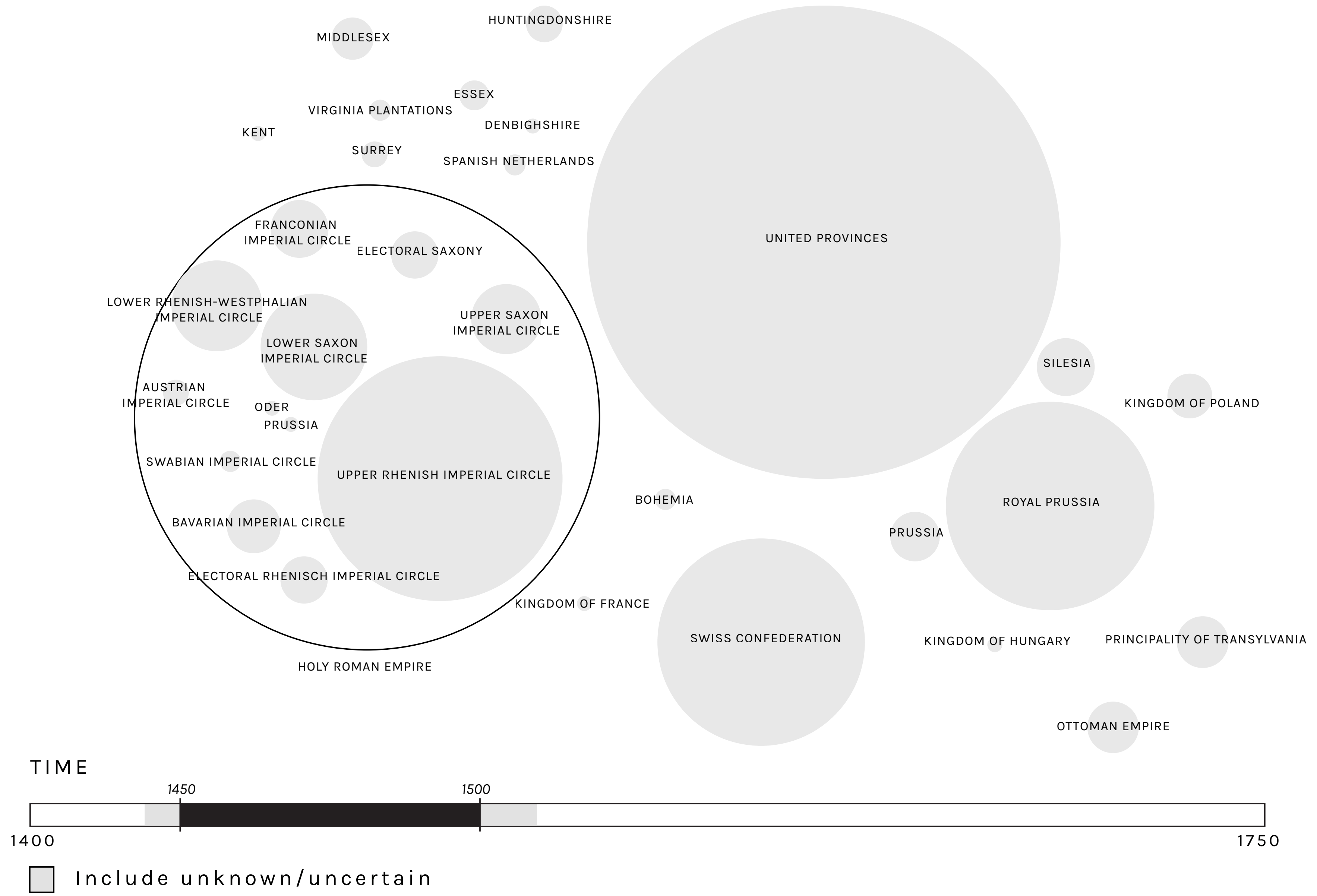
show letters from all to all

CONTEMPORARY HISTORICAL



Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"

show letters from all to all



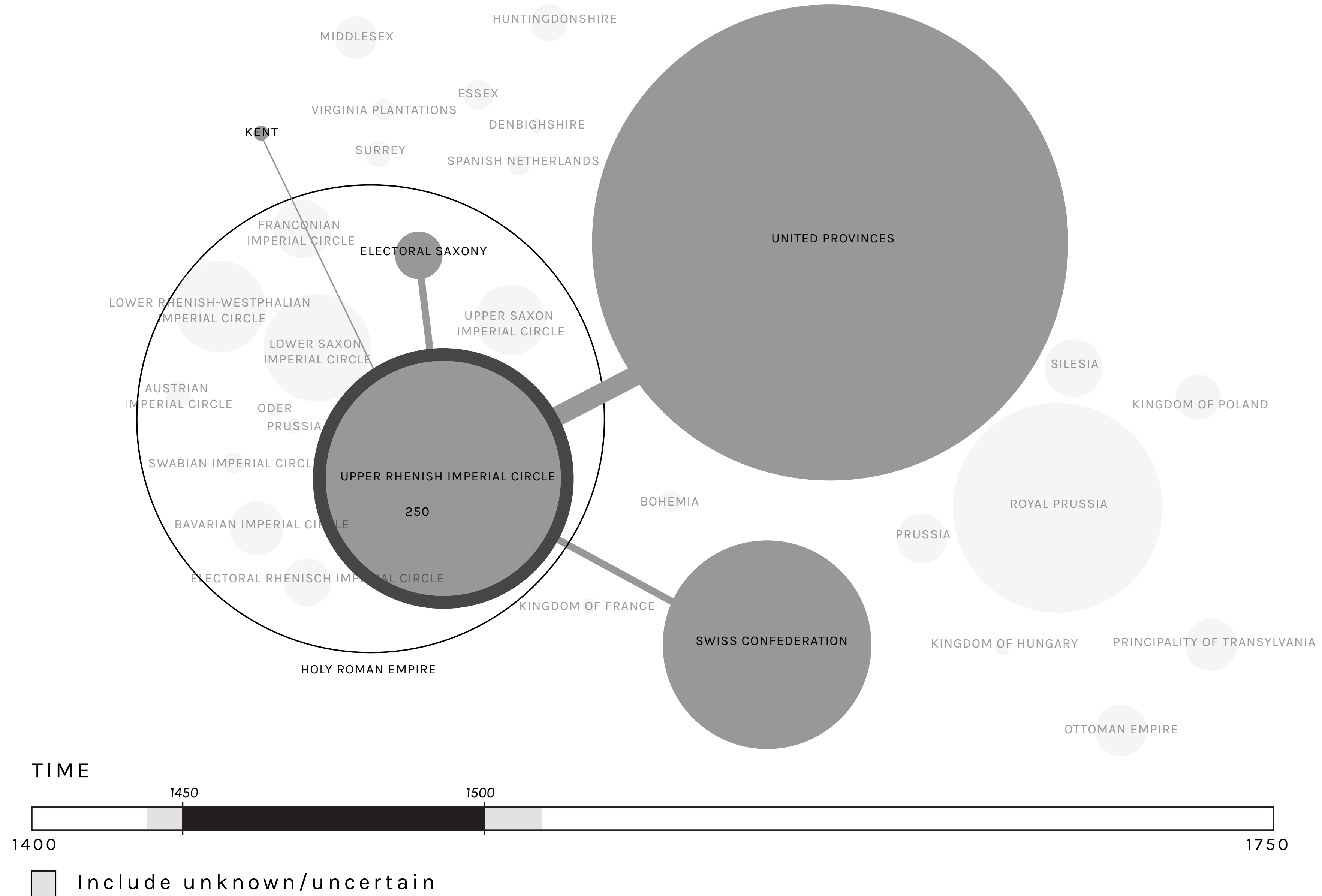
Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"



geography | people | languages

show letters from upper rhenish imperial circle to all

CONTEMPORARY | HISTORICAL



Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"

Temporal data

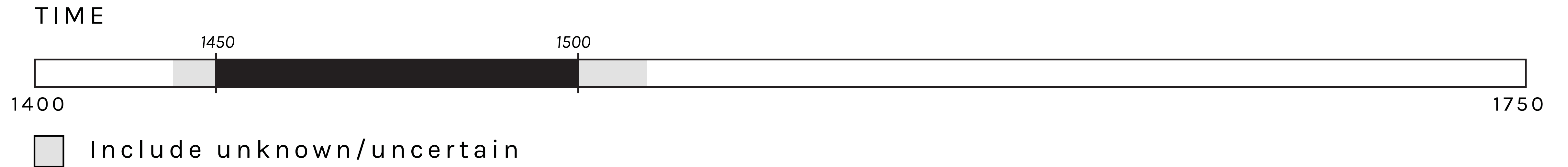
Dates missing

Dates inferred

Co-existence of three calendars

Dates uncertain or vague

Timeline with degrees of fuzziness



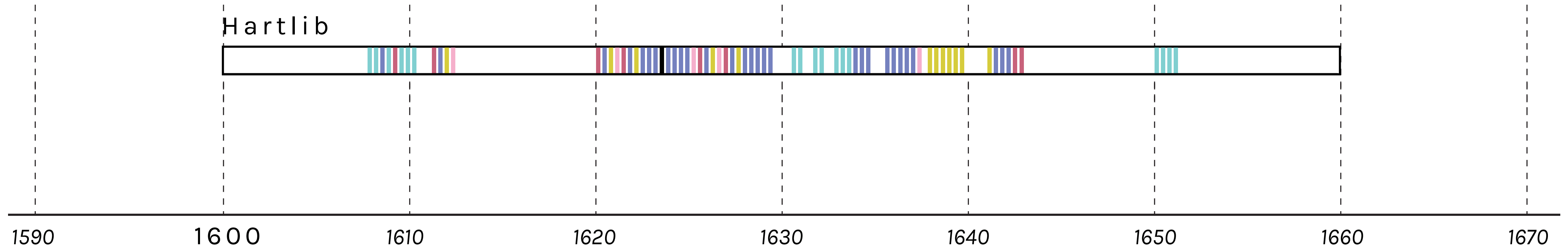
Include date ranges that can be inferred together with their probability
Different levels of likelihood when drilling down to a more detailed view

Source: mockup
from a Design Sprint
in the COST Action
"Reassembling the
Republic of Letters"

Data on people's lives and activities

Multidimensional data
Overviews vs drill-downs

Gantt-like charts and dispersion plots



Color coding: main topic, main language, ...

Source: mockup
from a Design Sprint
in the COST Action
“Reassembling the
Republic of Letters”

geography

people

languages

topic

astronomy

geography

literature

art

personal

science

religion

language

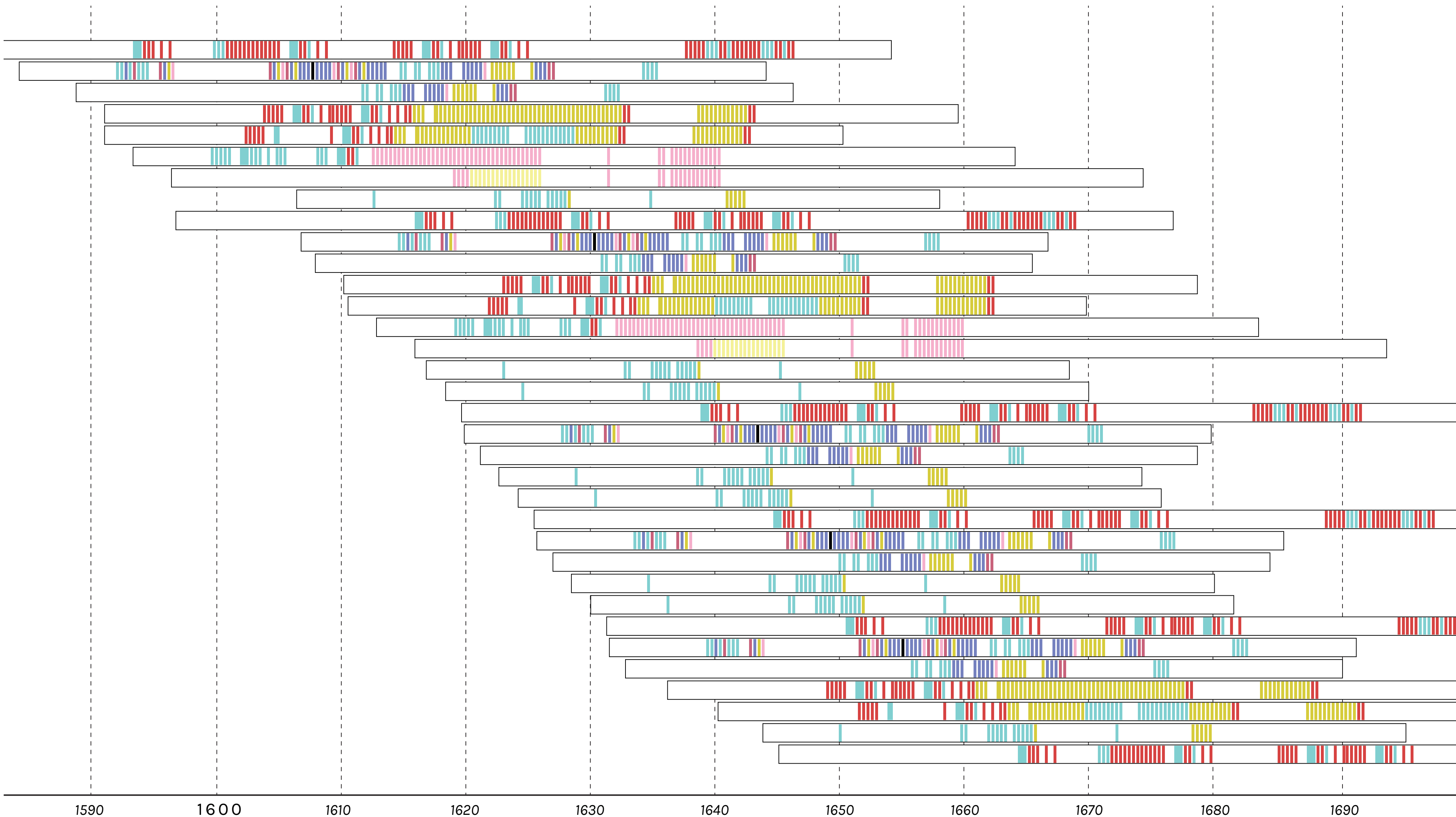
english

latin

french

german

show all correspondence



Source: mockup
 from a Design Sprint
 in the COST Action
 "Reassembling the
 Republic of Letters"

geography people languages

topic
 astronomy geography literature art personal science religion
 language
 english latin french german

show all correspondence

Comenius

Hartlib

Louis de Geer

John Dury

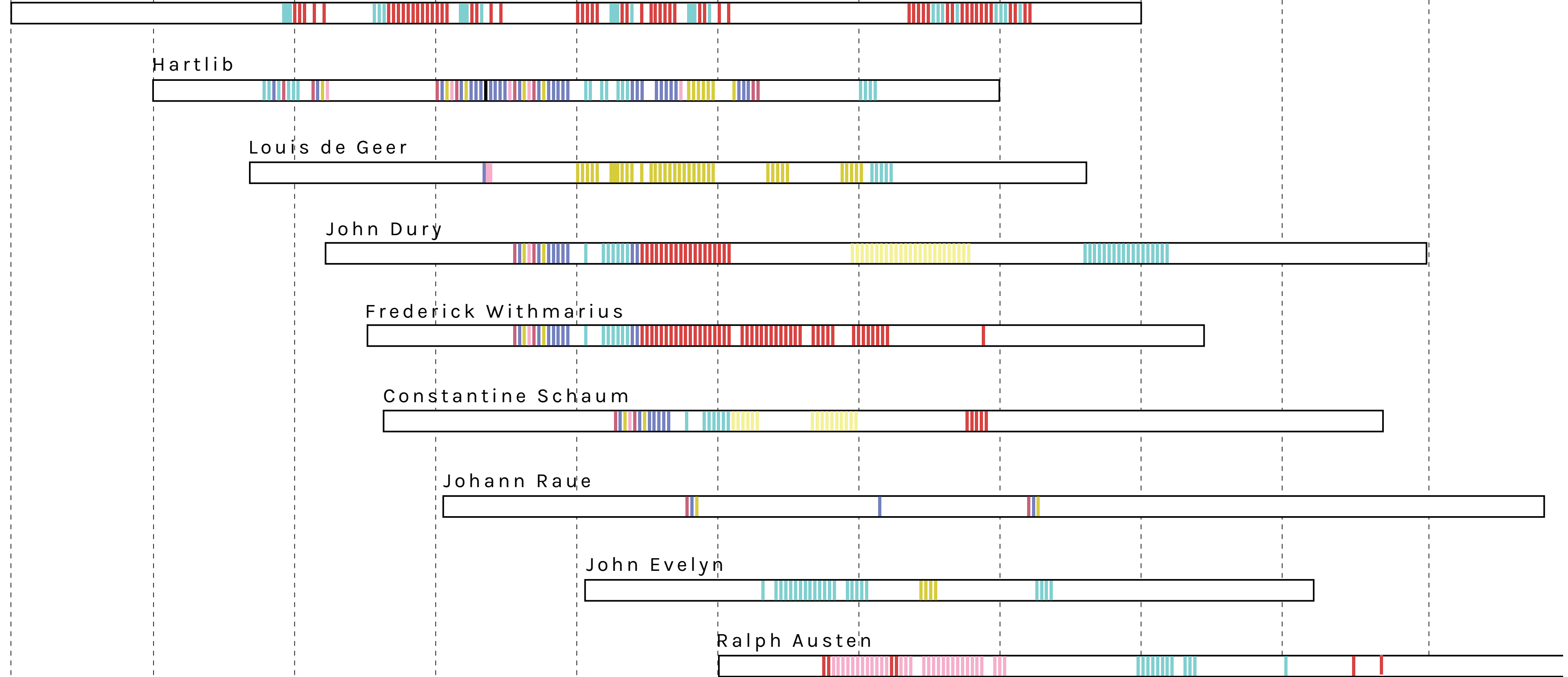
Frederick Withmarius

Constantine Schaum

Johann Raue

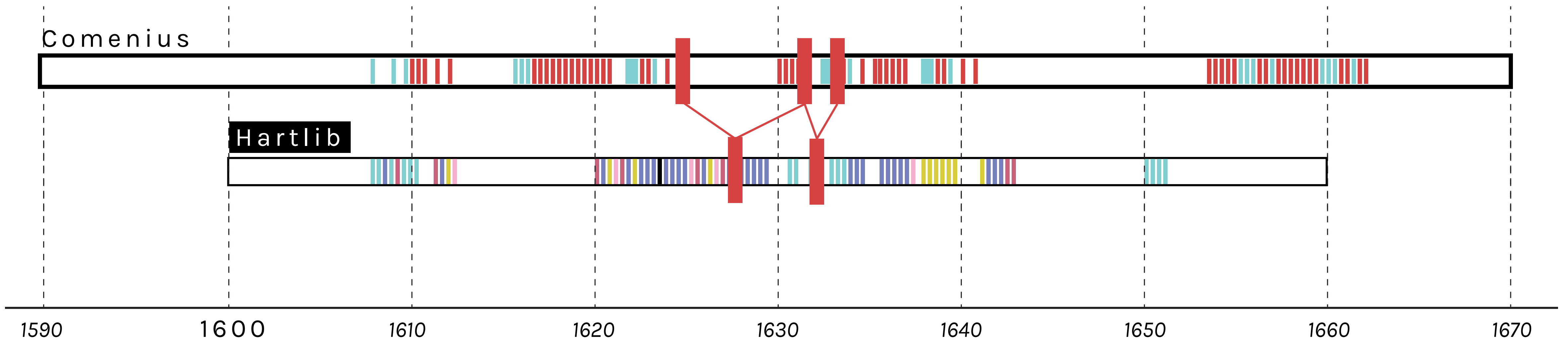
John Evelyn

Ralph Austen



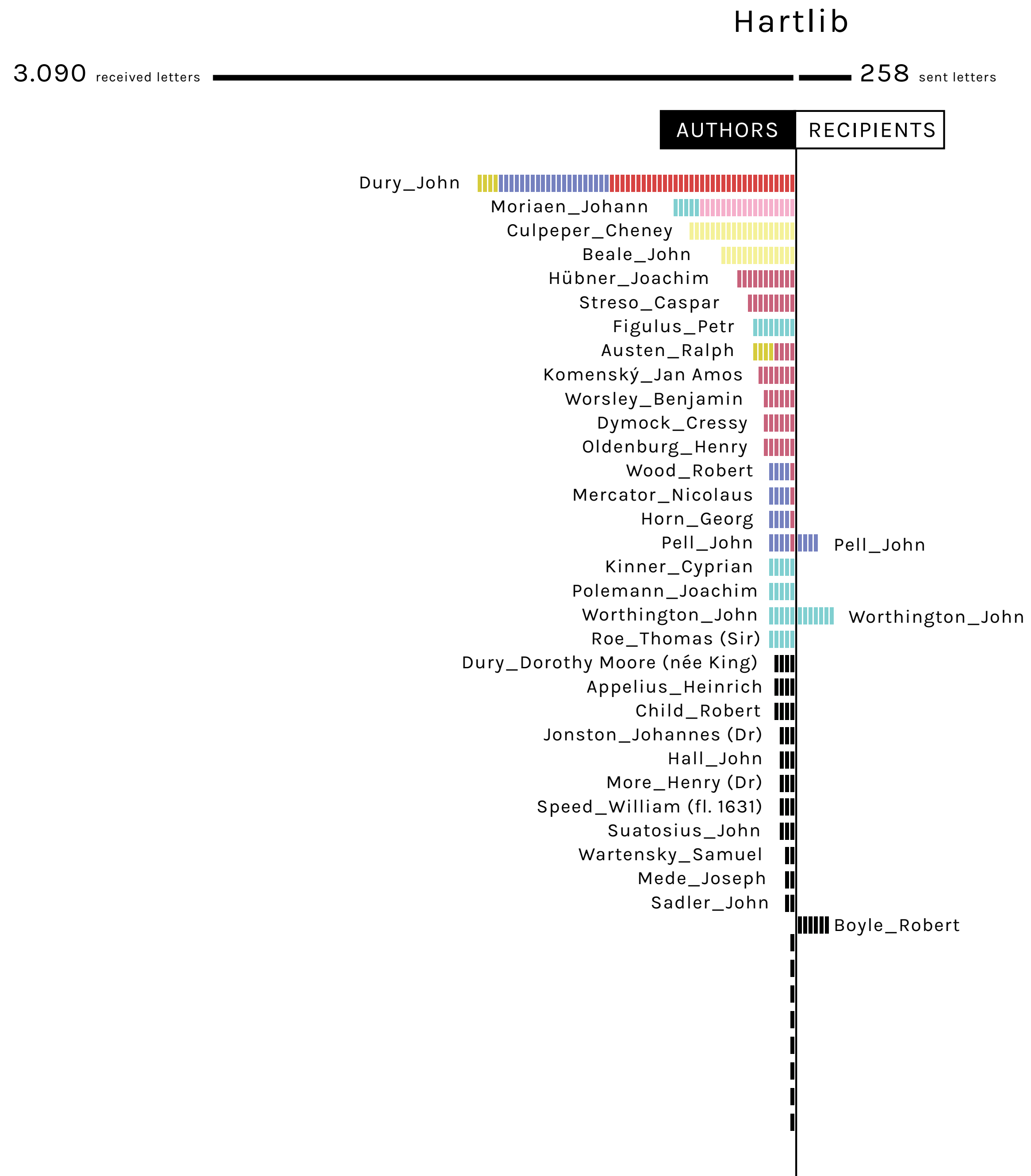
Source: mockup
 from a Design Sprint
 in the COST Action
 "Reassembling the
 Republic of Letters"

Conversation threads



Source: mockup
from a Design Sprint
in the COST Action
"Reassembling the
Republic of Letters"

Individual activity and reciprocity of exchange



Source: mockup
from a Design Sprint
in the COST Action
“Reassembling the
Republic of Letters”



100 Best Novels

[Top 100](#) | [100 Best Novels](#) | [100 Best Nonfiction](#) | [Radcliffe's Rival 100 Best Novels List](#)

THE BOARD'S LIST

- ULYSSES**
by James Joyce
- THE GREAT GATSBY**
by F. Scott Fitzgerald
- A PORTRAIT OF THE ARTIST AS A YOUNG MAN**
by James Joyce
- LOLITA**
by Vladimir Nabokov
- BRAVE NEW WORLD**
by Aldous Huxley
- THE SOUND AND THE FURY**
by William Faulkner
- CATCH-22**
by Joseph Heller
- DARKNESS AT NOON**

THE READER'S LIST

- ATLAS SHRUGGED**
by Ayn Rand
- THE FOUNTAINHEAD**
by Ayn Rand
- BATTLEFIELD EARTH**
by L. Ron Hubbard
- THE LORD OF THE RINGS**
by J.R.R. Tolkien
- TO KILL A MOCKINGBIRD**
by Harper Lee
- 1984**
by George Orwell
- ANTHEM**
by Ayn Rand
- WE THE LIVING**
by Ayn Rand

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SUBMIT

SEARCH THE SITE

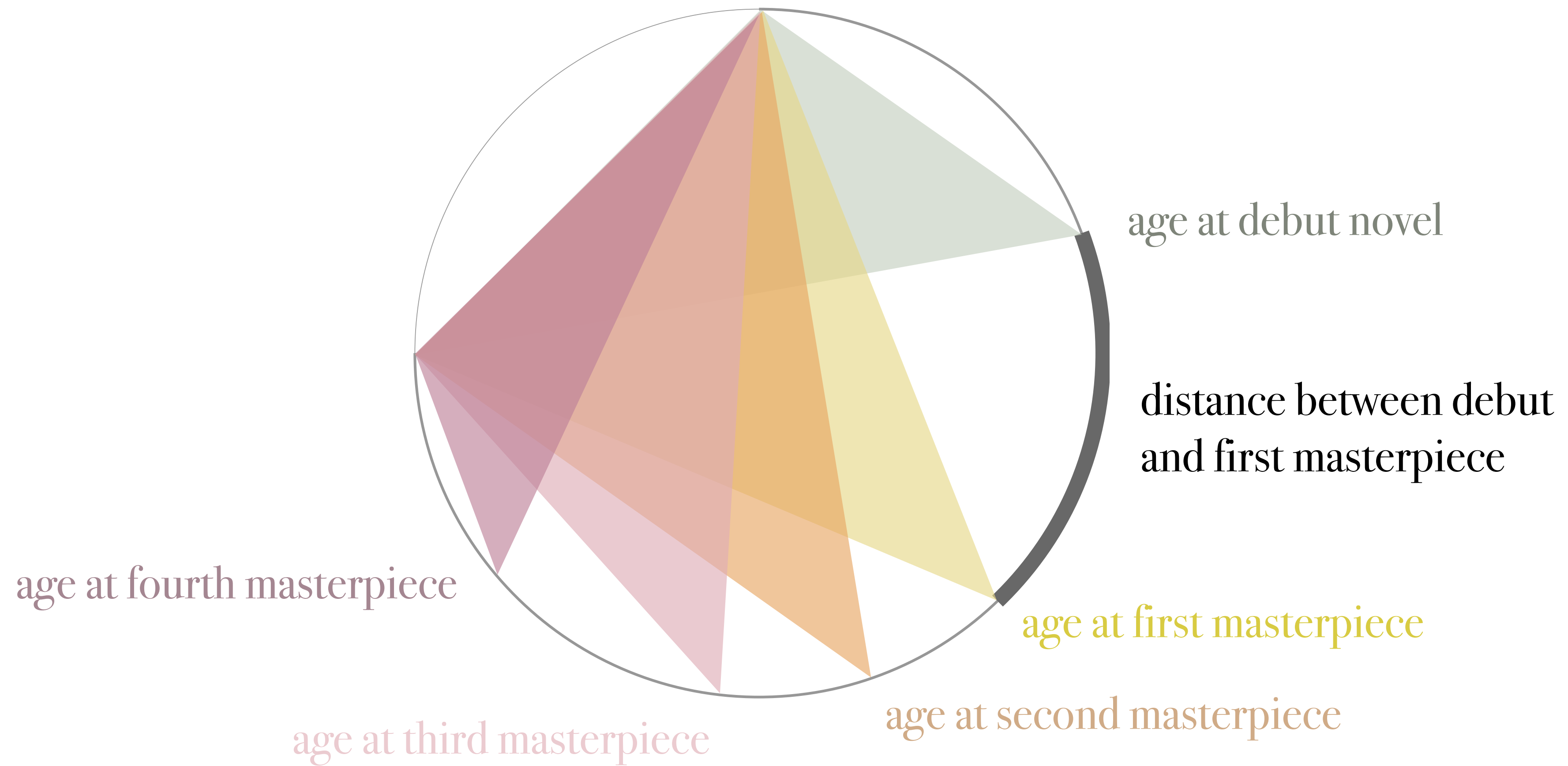
SEARCH

SEARCH FOR A TITLE OR AUTHOR

SEARCH

OUR BESTSELLERS





Jerome D. Salinger

64 - *New York*



Immediate and early success,
small production

Anthony Powell

43 - *London*



Late success,
small production

Joseph Conrad

85, 67, 47, 46 - *Berdychiv*



Early success,
high production

From first published to masterpieces

Visualized are the authors of the 100 best english novels of 1900 according to the Modern Library ranking.

Authors are represented through circles showing their life span where their debut novel, their masterpiece(s) according to the ranking are positioned.

Authors' order points out the time-gap between the debut novel and the first published novel selected from the Modern Library ranking (masterpiece).

Debut novel and first masterpiece correspond for the first 22 authors.

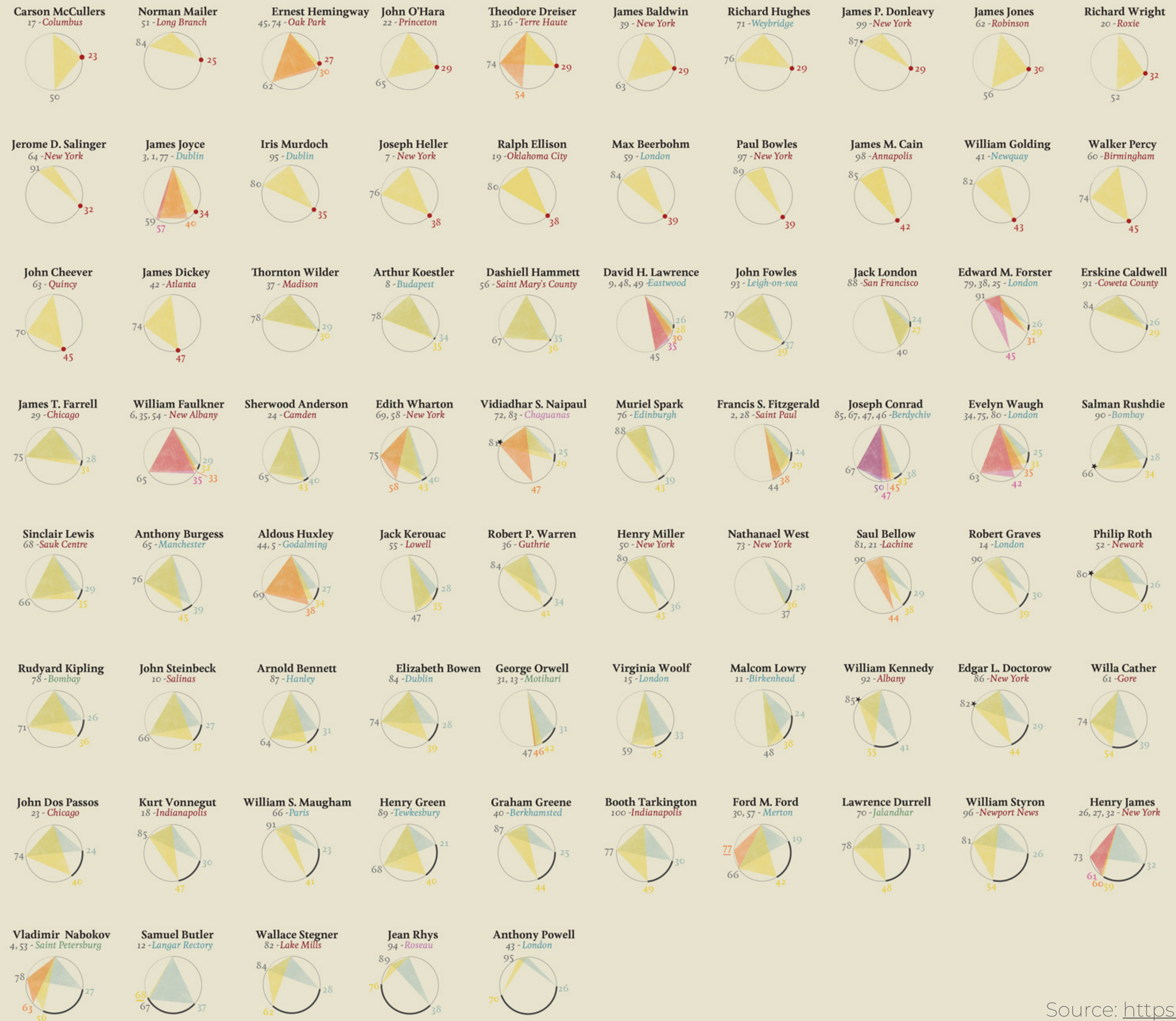
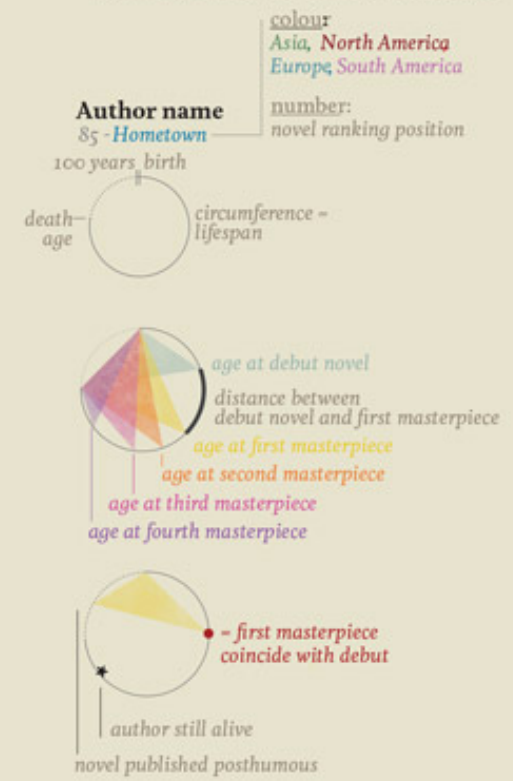
Information about authors' hometown and novels' ranking are reported as well.

Sources:

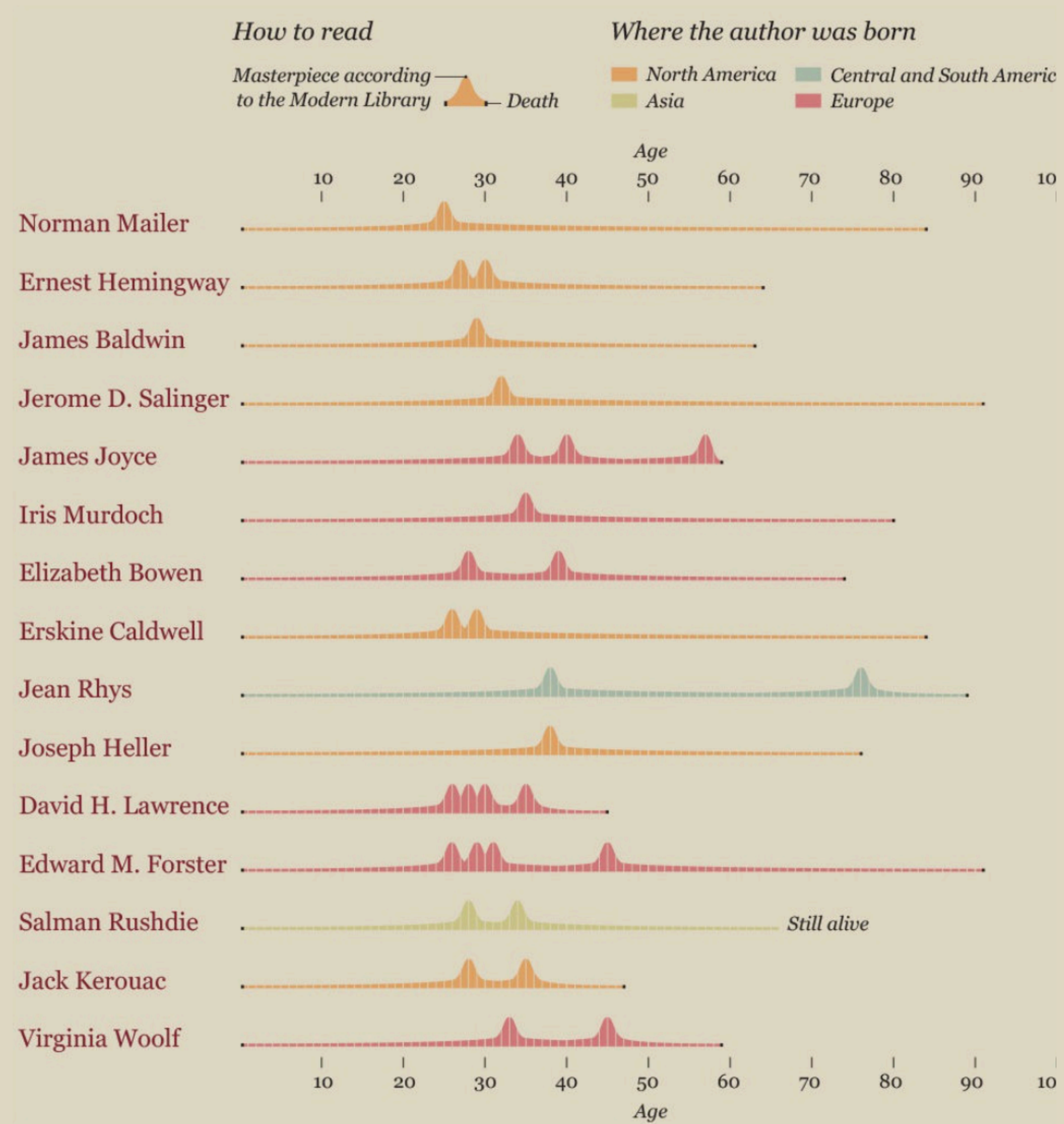
biography.com, britannica.com, modernlibrary.com

How to read it?

Authors are ordered from the earliest success to the last one.



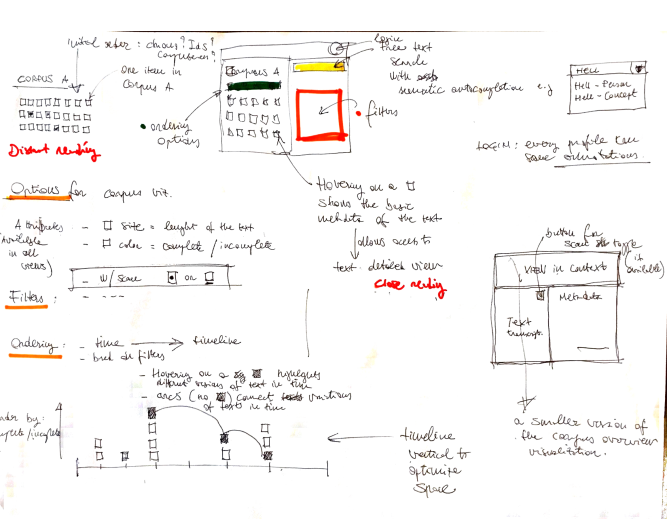
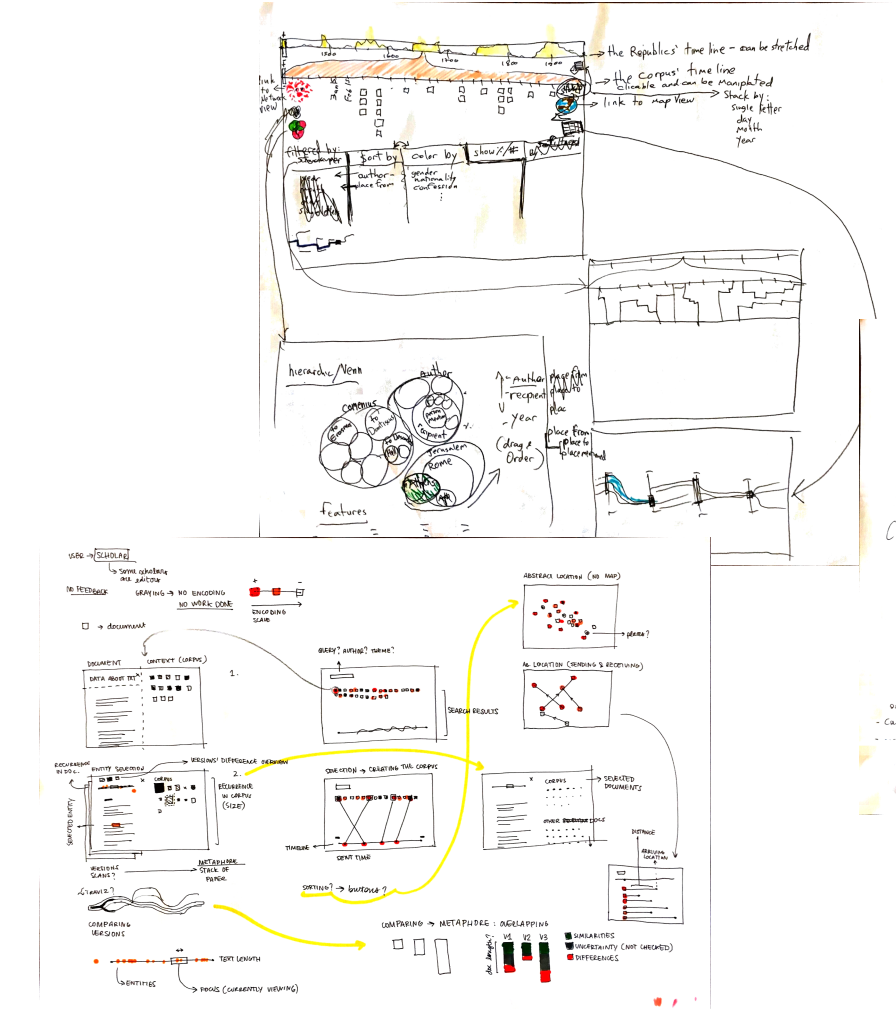
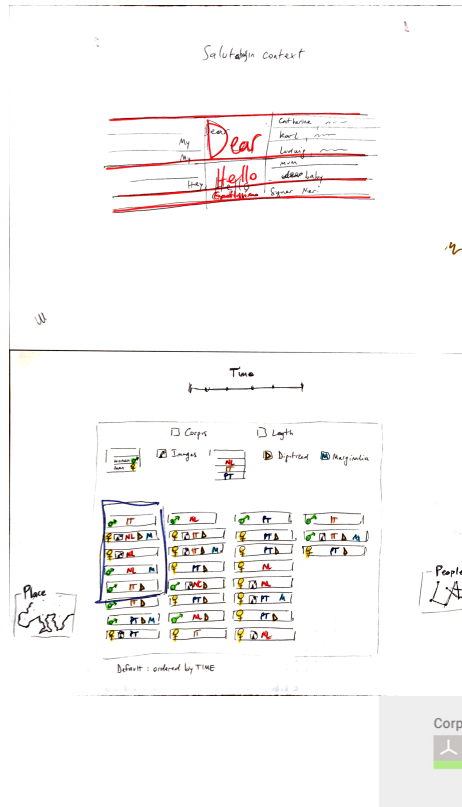
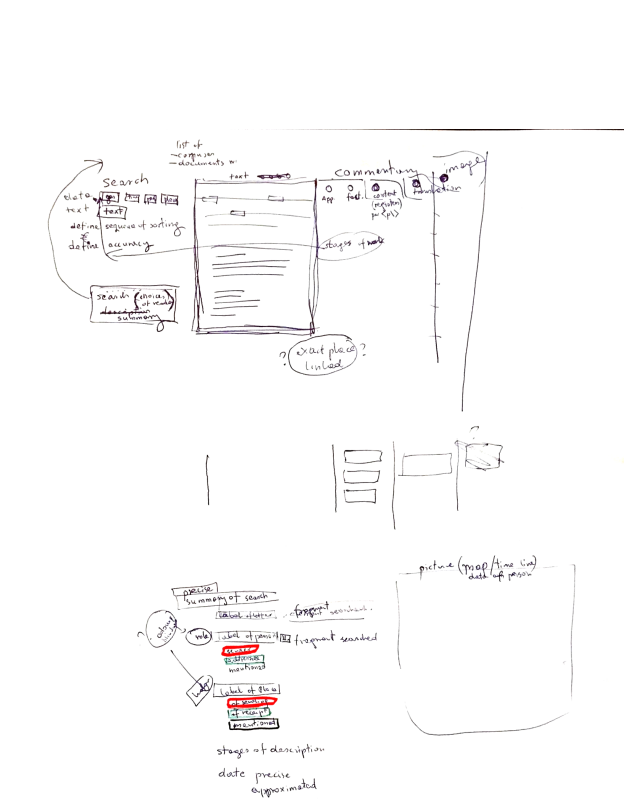
The visualization has been designed and produced by Accurat (www.accurat.it), and was originally published in italian on La Lettura the sunday cultural supplement of Corriere della Sera.



Source: Cairo (2016), *The Truthful Art*, fig. 2.14

REASSEMBLING THE REPUBLIC OF LETTERS

A digital framework for multi-lateral collaboration on Europe's intellectual history (1500-1800)



Republic of Letters

Home > Corpus selection

GRID **TIMELINE** MAP

Search collection metadata

Collection status: Scans, Meta, Text, Encoded, Finished, Available

Availability: Available, Partly available, Unavailable

Languages: IT, DE, EN, LA, HE, GR, NL, FR, BG, RU

567 corpora selected on 567
11.723 documents on 11.723

Filtering: LA TEI NER

Title	Corpus Title	Corpus Title	Corpus Title	Corpus Title	Corpus Title	Corpus Title	Corpus Title
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345
12345	12345	12345	12345	12345	12345	12345	12345

Republic of Letters

Home > Corpus selection

GRID **TIMELINE** MAP

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567 corpora selected on 567
11.723 documents on 11.723

Filtering: LA TEI NER

Republic of Letters

Home > Corpus selection

GRID **TIMELINE** MAP

Search collection metadata

Collection status: Scans, Meta, Text, Encoded, Finished, Available

Availability: Available, Partly available, Unavailable

Languages: IT, DE, EN, LA, HE, GR, NL, FR, BG, RU

4 corpora selected on 567
87 documents on 11.723

Filtering: LA TEI NER

Stack by: author

Subjects

Republic of Letters

Home > Corpus selection > Document

Search

Collection status: Scans, Meta, Text, Encoded, Finished, Available

Availability: Available, Partly available, Unavailable

Languages: IT, DE, EN, LA, HE, GR, NL, FR

4 corpora selected on 567
87 documents on 11.723

Filtering: LA TEI NER

Stack by: author

Subjects

ioannes DANTISCUS to Mercurino Arborio di GATTINARA

Place: Paredes de Nava Date: 1527/10/07

Sender: Ioannes Dantiscus Address: Mercurino Arborio di Gattinara

Illustris et Magnifice Domine. Commendationem plurimam.

Nudus tertius, cum Excellentia Tua iuncta aliis, qui eam honoris causa comitabantur, Palencia intraret, et ego sequebar a longe, cumque iam essem ad istiusmodi ingressum proximis, ne mecum tota societas contaminaretur, quo mandatis caesareae maiestatis satisfaceret, ab introitu meo continui, siquae circa muros obequitans non sine animi maerore multa inter eundem mecum reputans, huc in exilium proscriptus, divertii. Quod certe huic personae, quam fero, regiae non potest esse non ignominiosum, praesertim cum aequae iusta causa subit, ob quam ab aula arceos scurris alias et inferioribus hominibus non interdicitur, ut ne amicos quidem in ea invisere liberum fuerit neque me quisque etiam ut usu receptum est ubique ob crimen exilio dignum condemnavit vocabiturque haec causa aliquando in dubium ut illa Ovidii, de qua adhuc est questio, cur extorris apud Scythas egerit. Neque scio, si propter regem meum huc relegatus sum, quod semper maiestatem caesarem summa benevolentia et observantia sit prosecutus et quod cum fratre eius nuper foedus novum et arcum percusserit, vel si ego promeruerim, qui semper fui caesarem, quod iam ter in Hispanias missus et novissime non semel indignis modis affectus triennium hic transegerim. Utcumque fit, non fit sine meo magno dolore et dedecore personae, quam in hac traegodia represento. Dabit igitur Excellentia

TIME GEO

Corpus A

Corpus B

Corpus C

Commentary: Palencia, city in central Spain, Castile and León, 22 km N of Valladolid, from the 11th century the seat of a bishopric, it flourished economically in the 14th-16th centuries.

Republic of Letters

Home > Corpus selection

GRID **TIMELINE** MAP

Collection status: Scans, Meta, Text, Encoded, Finished, Available

Availability: Available, Partly available, Unavailable

Languages: IT, DE, EN, LA, HE, GR, NL, FR, BG, RU

4 corpora selected on 567
21 documents on 11.723

Filtering: LA TEI NER

Stack by: author

Subjects

Republic of Letters

Home > Corpus selection > Document

Search

Collection status: Scans, Meta, Text, Encoded, Finished, Available

Availability: Available, Partly available, Unavailable

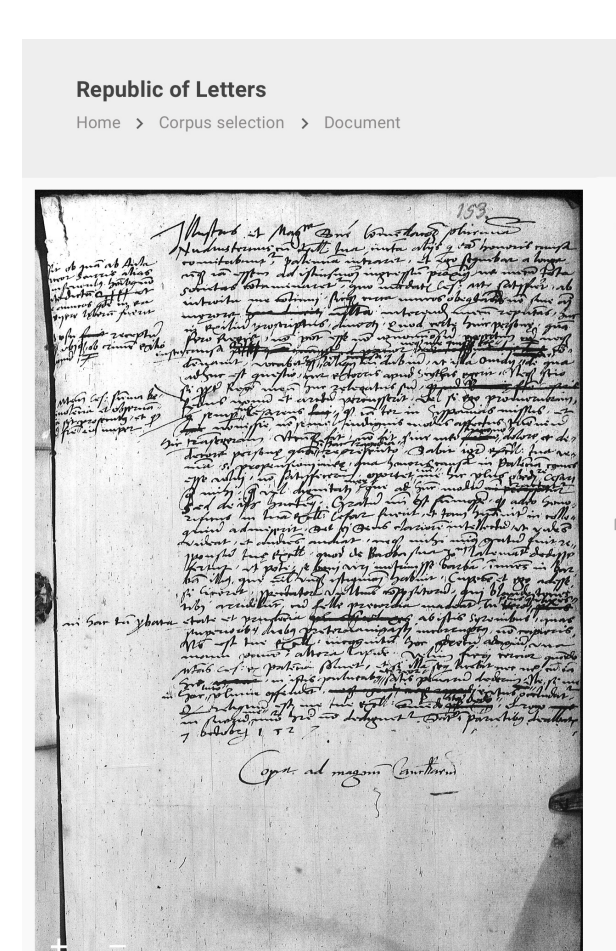
Languages: IT, DE, EN, LA, HE, GR, NL, FR, BG, RU

4 corpora selected on 567
21 documents on 11.723

Filtering: LA TEI NER

Stack by: author

Subjects



ioannes DANTISCUS to Mercurino Arborio di GATTINARA

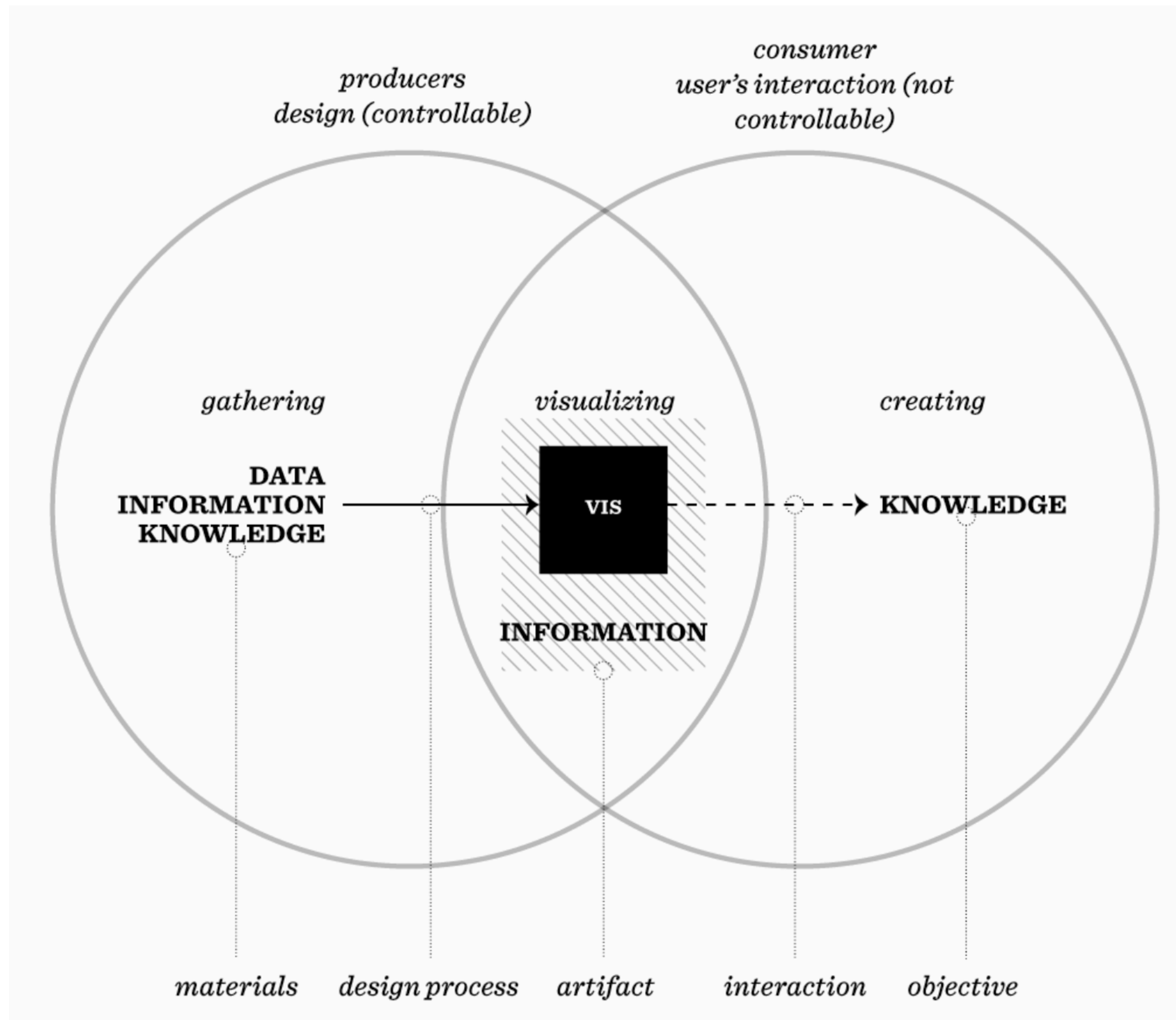
Place: Paredes de Nava Date: 1527/10/07

Sender: Ioannes Dantiscus Address: Mercurino Arborio di Gattinara

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Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"



Source: Masud et al. (2010), From Data to Knowledge, fig. 1, p. 446

opportunities and challenges

domain questions

Glauco Mantegari

www.glaucomantegari.com