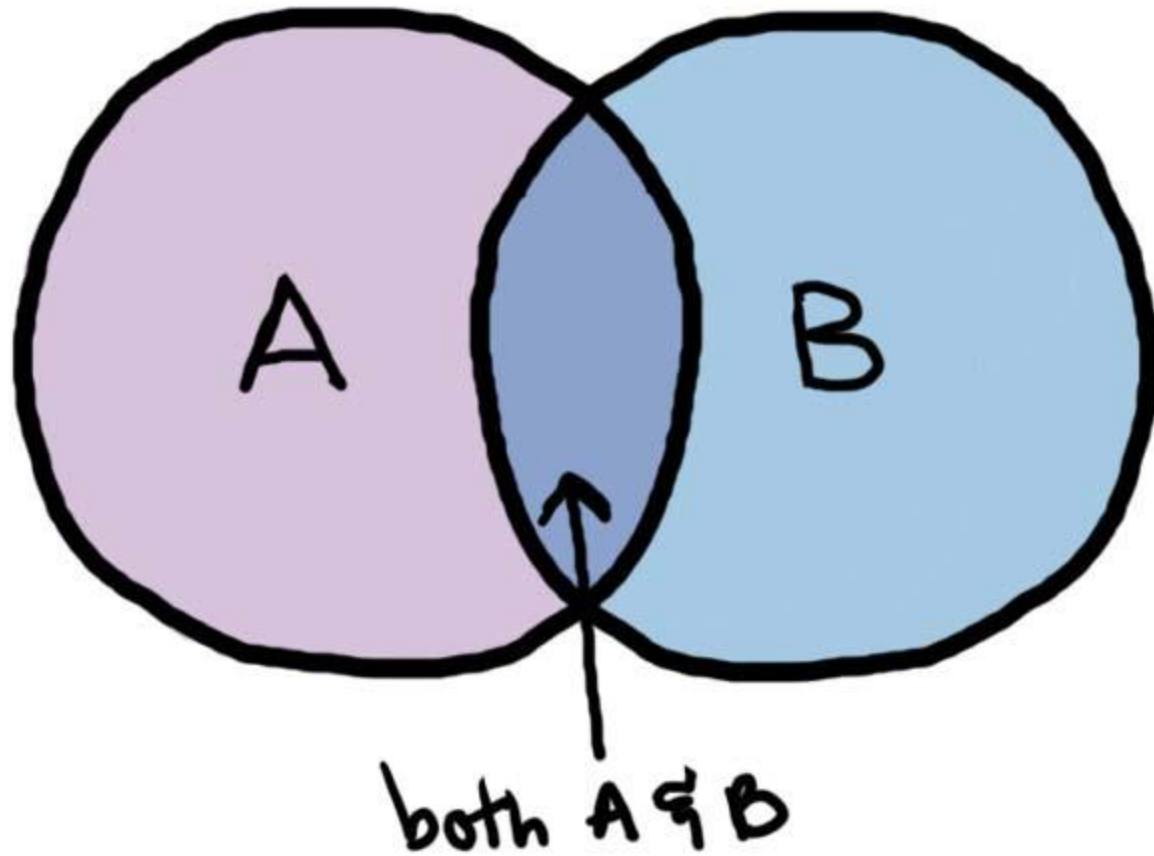


VENN DIAGRAM!



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Innovation  
Performance

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VALUES**



THOMSON REUTERS™

## Obama's Divided Nation

Obama presides over a nation more divided than any time in 50 years that was riven by racial lines gathering in 2008 to elect its president. That president's four years dividing the nation on the basis of economic policy revealed no evidence that Mr. Obama will close the chasm he has created between his voters and those he attacked and vilified.

It may be true that Mitt Romney failed to respond



drawn attention to what hap-

Obama spoketotum replied: ... might and you're wrong. It

problem with pols, verbally facile as Mr. that in crunch time, reverts to No. 1. Ex that 9% of the elect who to vote for just Tuesday; and amo 42% said Mr. Obar Sandy response—t tie photo-op—wa factor. Of those, voted for Mr. O Mr. Christie is o politico who is o

Yes, Republic across two pres that there are how crudely issue like ill Blowing up th if you thoug day's results

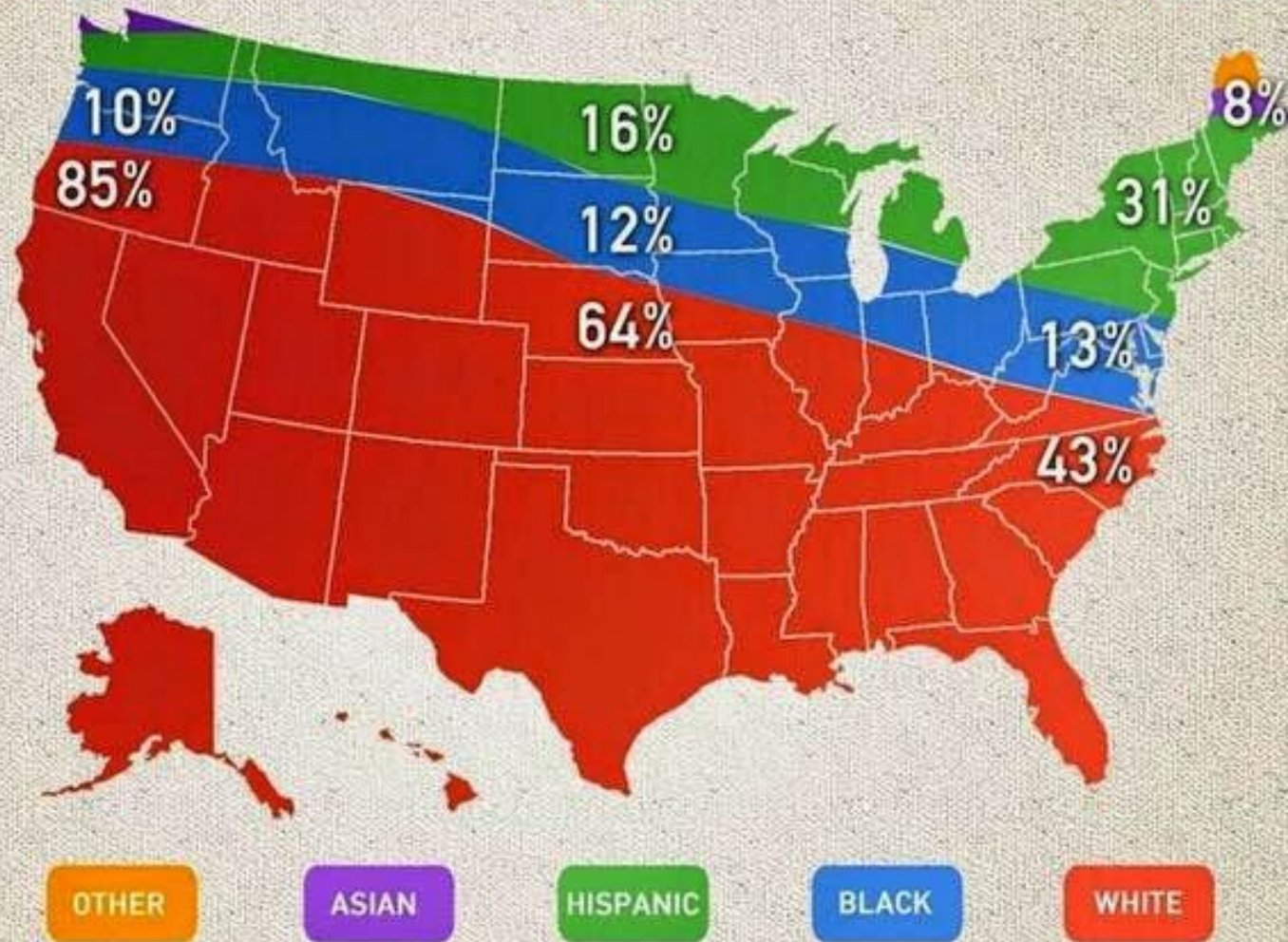
# CHANGING FACE OF AMERICA

Percent of total U.S. population by race and ethnicity, 1960-2060

1960

2010

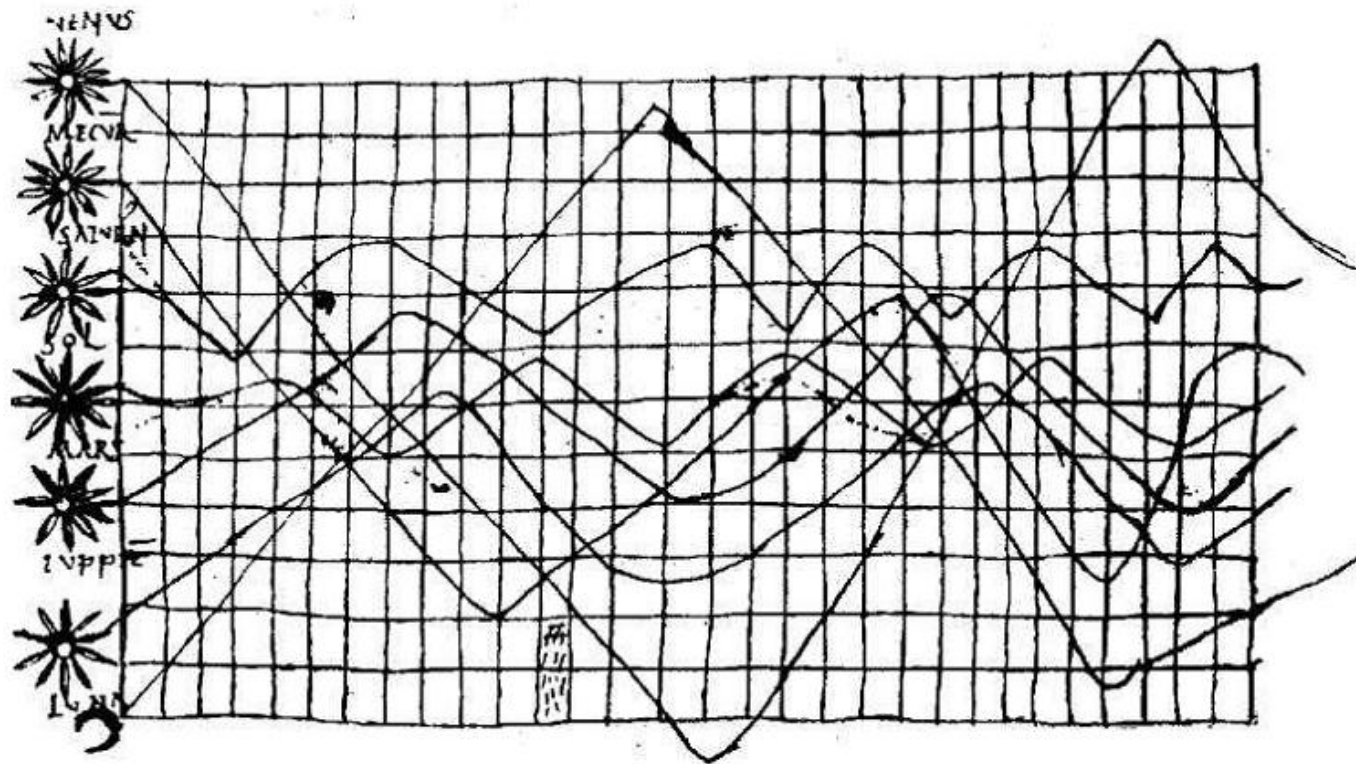
2060



SOURCE: PEW RESEARCH CENTER

 NIGHTLY NEWS  
with BRIAN WILLIAMS

# Historie vizualizace dat



# Proč historie?

Protože to chceme vzít komplexně.

Protože v obdobných zahraničních kurzech má historie vizualizace dat své místo.

Protože vás to může inspirovat k projektům.

Protože zjistíte, že nejde o nic nového.



Protože ikonické příklady dokazují, jak efektivní vizualizace je.

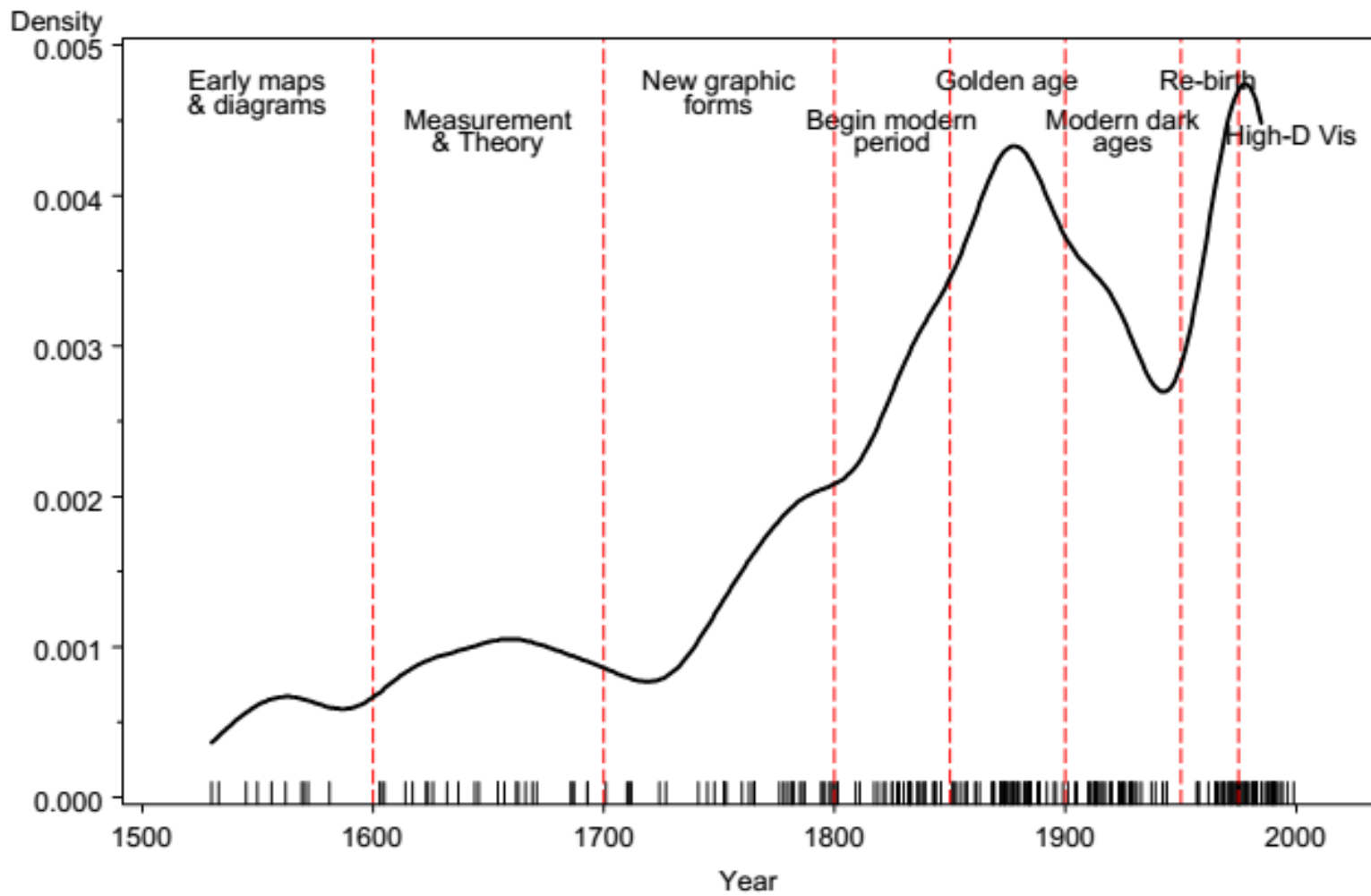
Vizualizace jako prostředek k řešení problému.

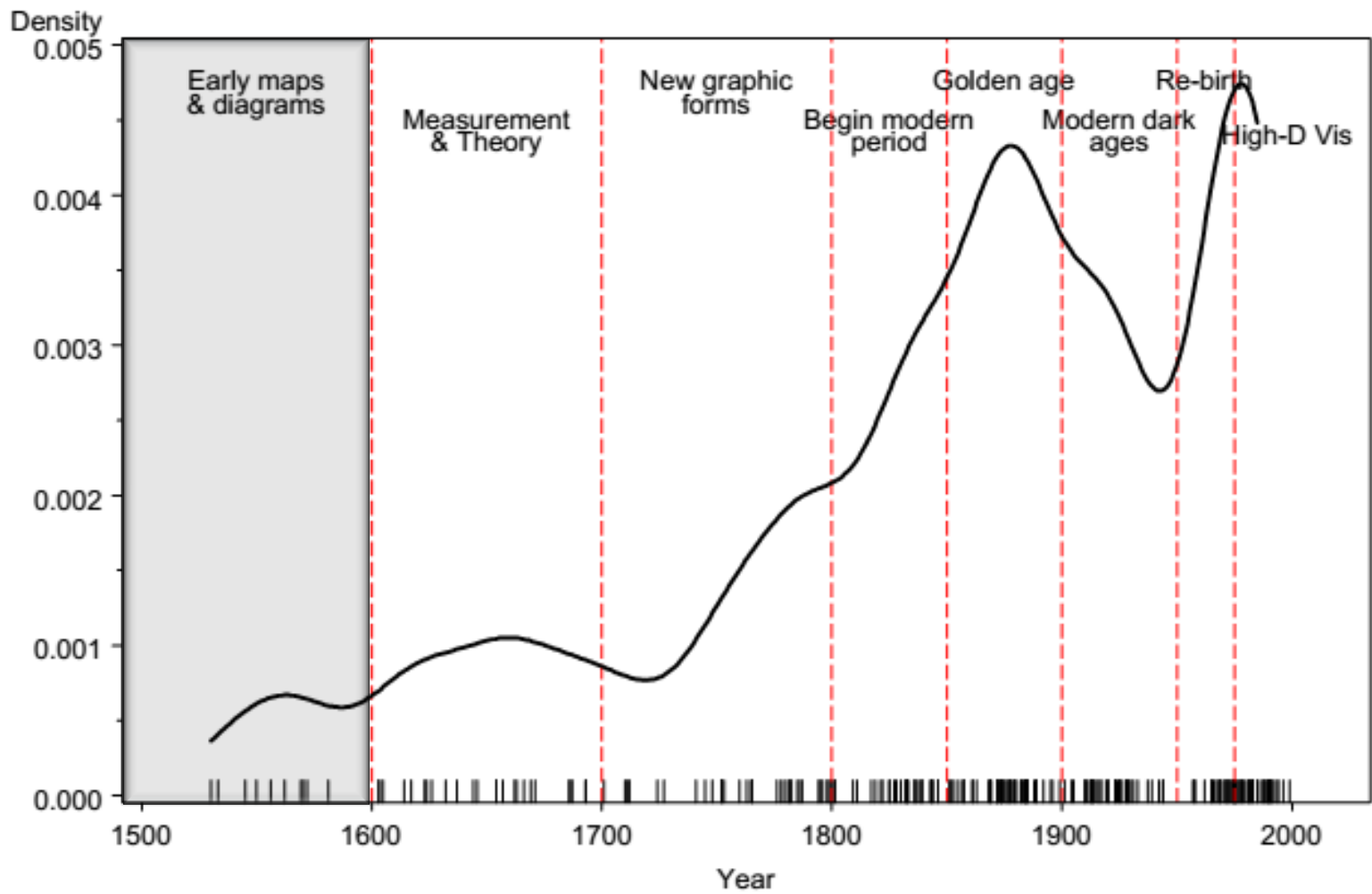
Vizualizace jako prostředek k ověřování hypotéz.

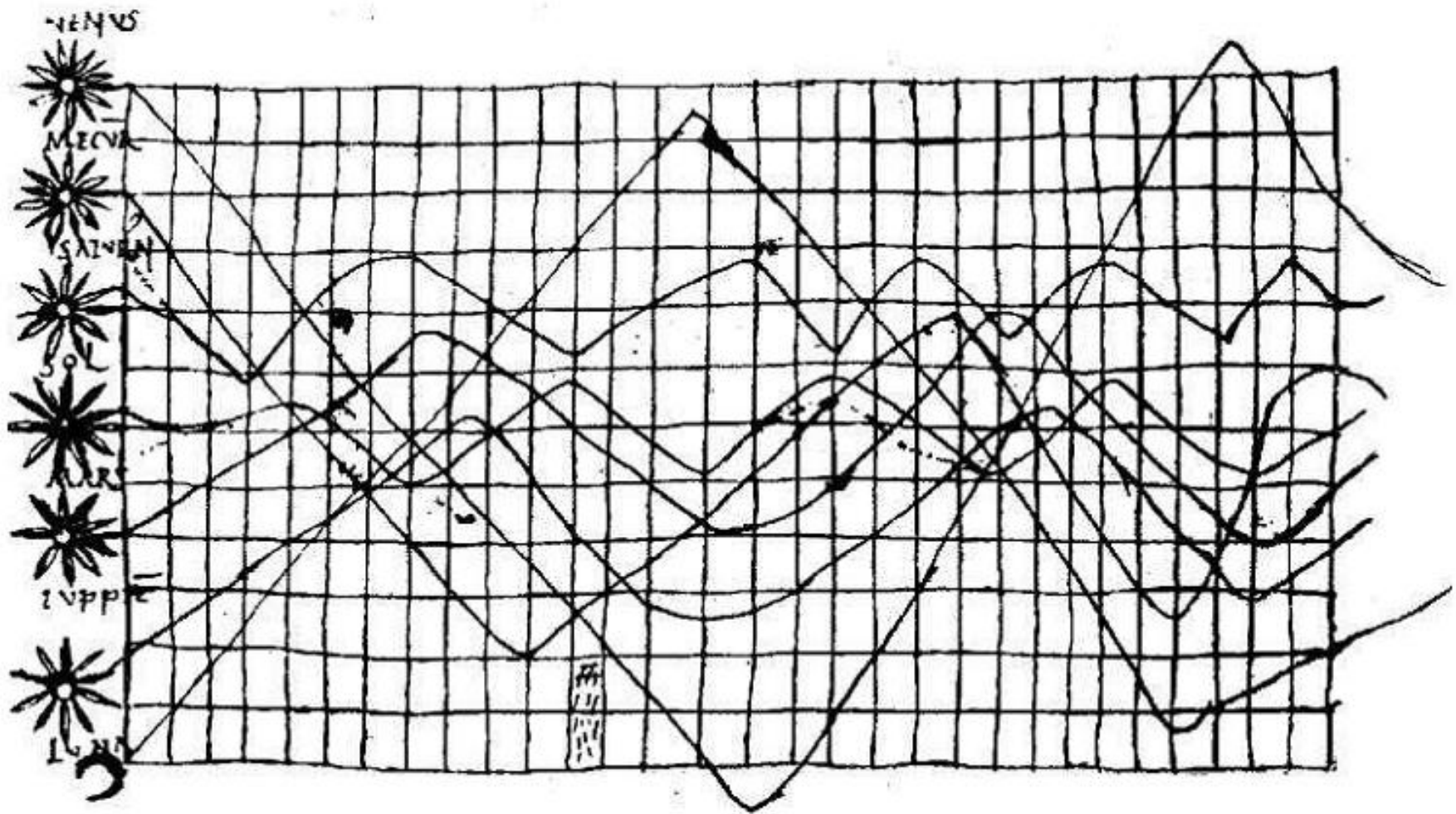
Vizualizace jako prostředek k přesvědčování.

Vizualizace jako zachránce životů.









difformis uniformiter variatio reddit unifor-  
 miter difformiter difforme. ¶ Lat. vni-  
 form e' dicitur e' illa q' inter excessus graduum  
 e'q' distantium fuerit eade' proportio e'ia' in e' p-  
 portioe' e'q'itatis. Na' si inter excessus graduum  
 inter se e'q' distantium fuerint proportio e'q'ita-  
 tis ut e'c'it. g'ra. vniuniforme' dicitur ut p' ex  
 diffinitionibus membrorum secunde' diuisionis  
 Rursum si nulla proportio seruetur tunc nulla  
 posset attendi vniuniformitas in latitudine tali &  
 sic non esset vniuniformiter diffo. m e' difformis  
 ¶ Lat. u' difformiter difformiter difformis  
 e' illa q' inter excessus graduum e'que distantium  
 non seruet eandem proportionem sicut in se-  
 cunda parte patebit. Notandum tamen est  
 q' sicut in supradictis diffinitionibus ubi loquitur  
 de excessu graduum inter se e'que distantium

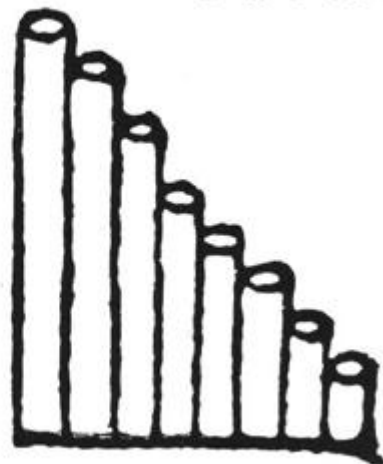
scilicet. & fiat ad inq'



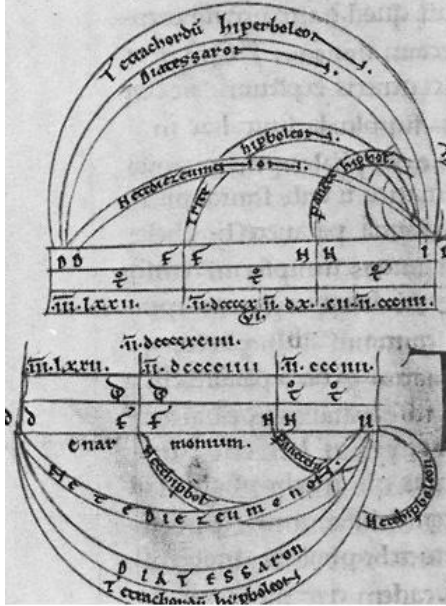
Diffōrū diffois



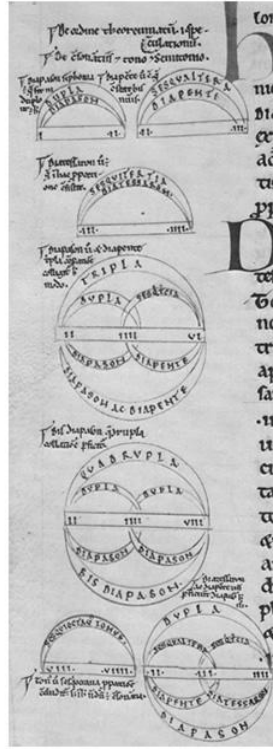
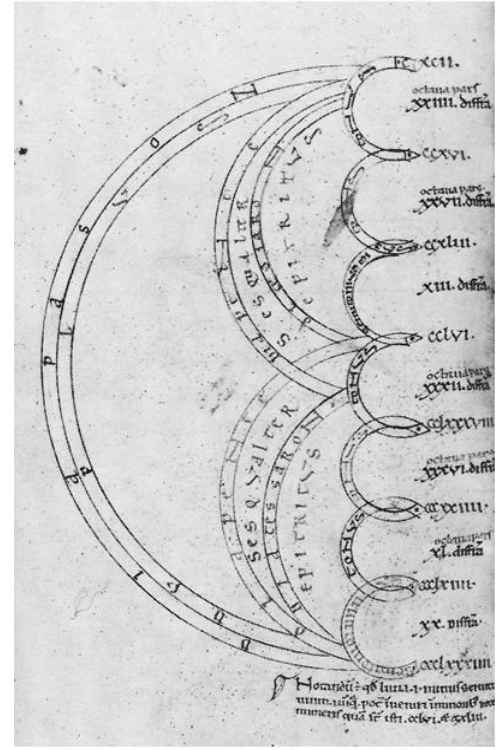
dif, dif, diffois

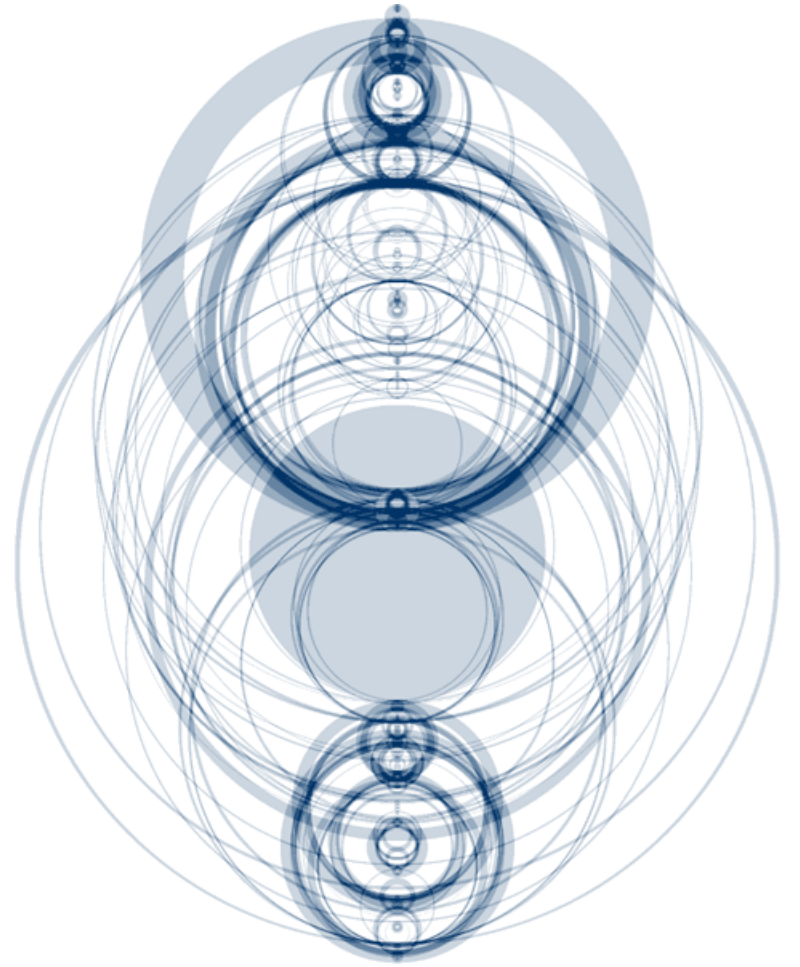
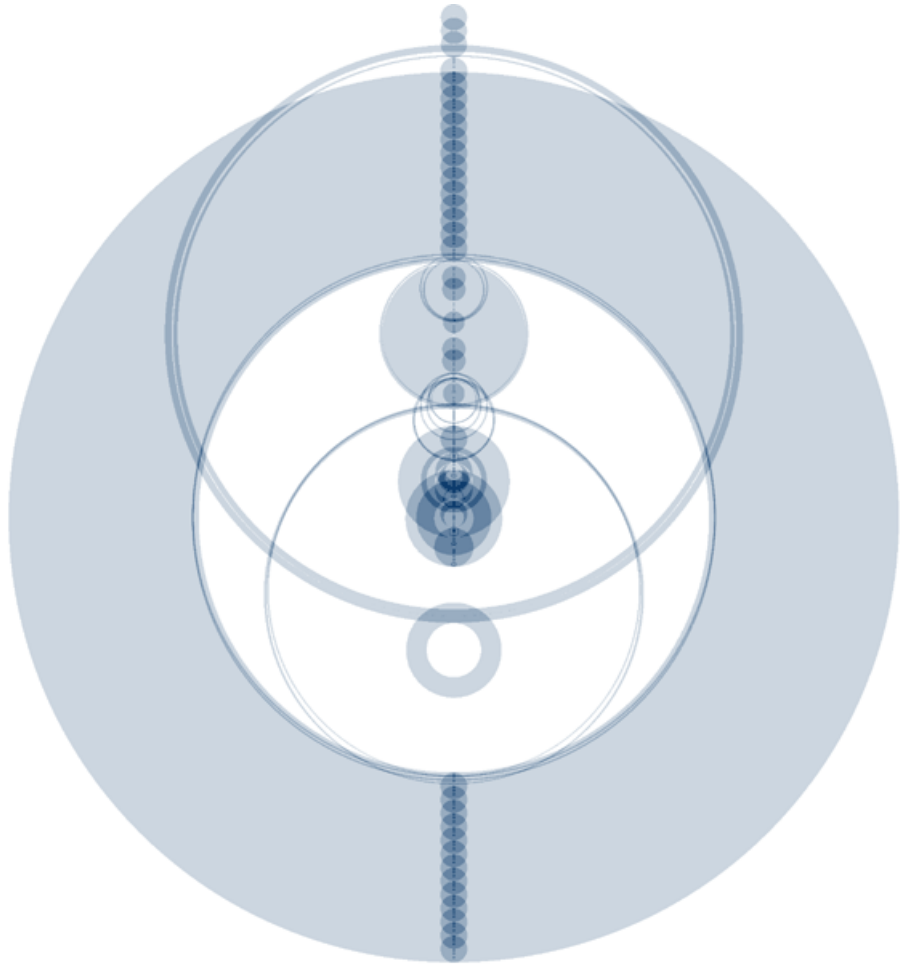


fiant. ii. dcccxxiij. hec erit. ee. tritachypboleon enarmo-  
 mos. Descriptum. e. g. tetrachordum scdm tria genera  
 qd. e. hypboleon. cui forma sube adieci.



**T**RIA g. tetrachorda tali nob  
 ratione descripta sunt. Tetrachordū enim omne diatessaron  
 resonat consonantiā. Igitur necesse  
 hypboleon & necdiatessaron  
 in tribz generibz id. e. ut in dia-  
 tono ut in chromatico. ut in enar-







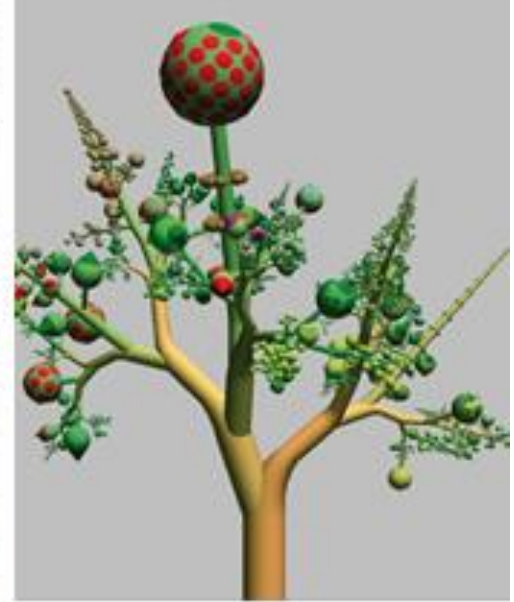
1202



1478

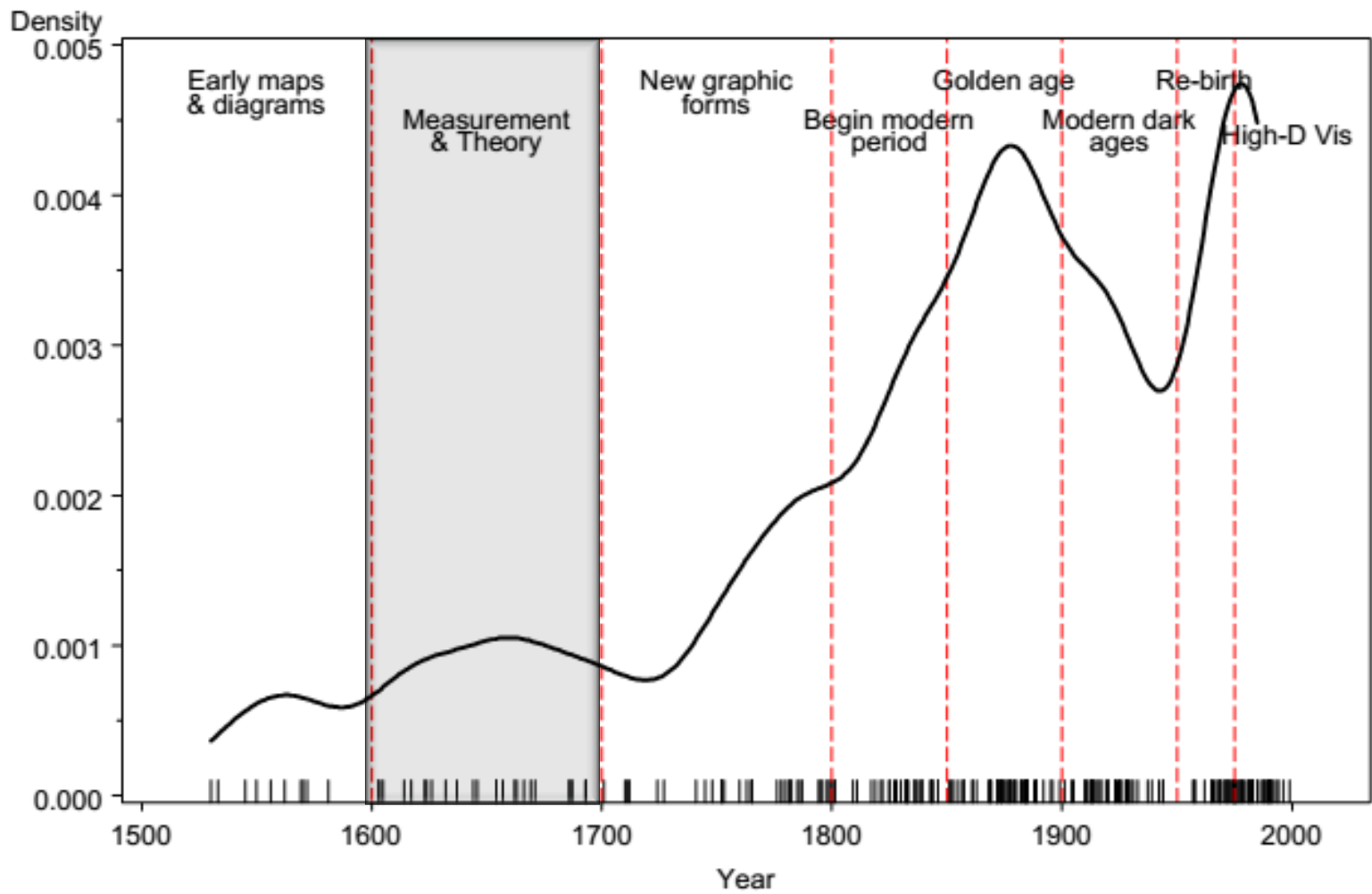


1780



2001

[visualcomplexity.com](http://visualcomplexity.com)

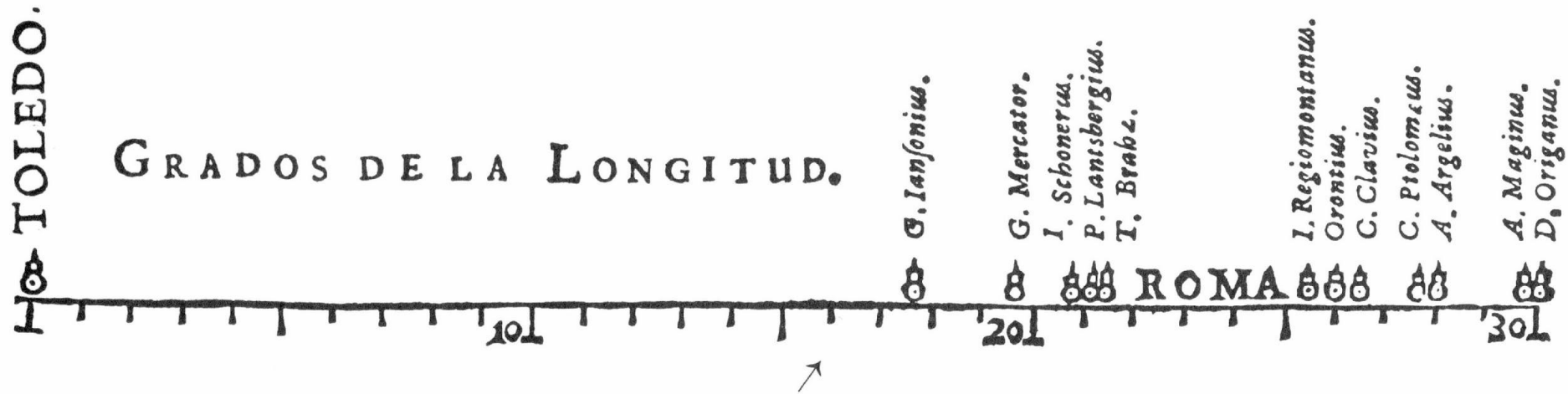




1644

# Michael Florent van Langren

*Rozdíly v odhadech zeměpisné délky*

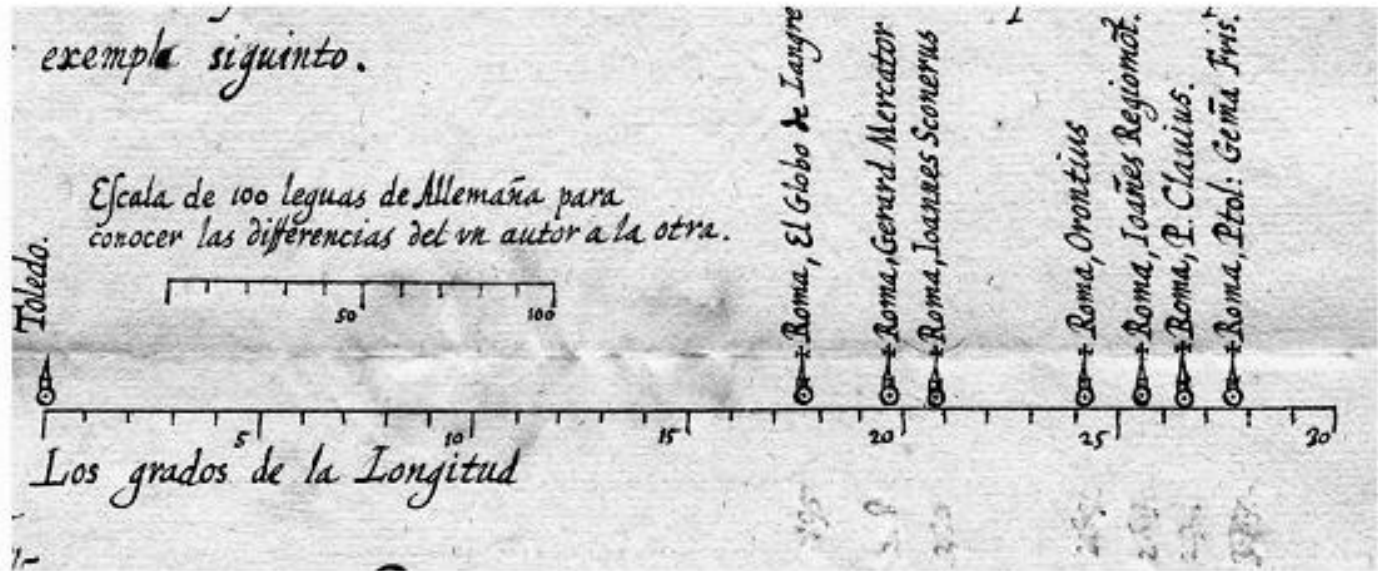


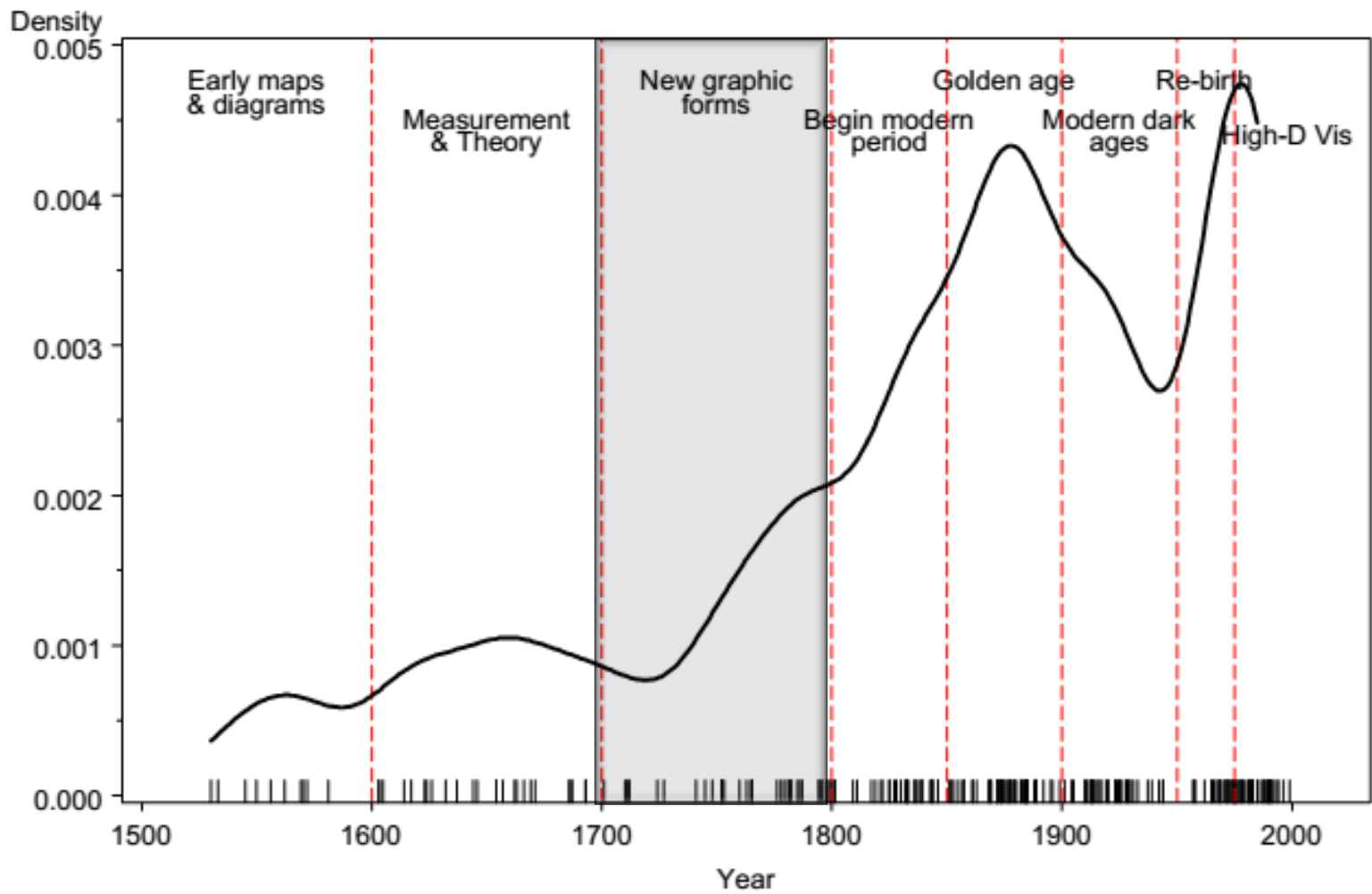
1644

# Michael Florent van Langren

Rozdíly v odhadech zeměpisné délky

Las distancias de  
Roma y Toledo segun  
los autores.  
El Globo Leg. de Allé — 195  
Gerð. Mercat — 210  
Ioan sconer — 230  
Orontius — 269  
Ioan Regiöt — 283  
P. Clavius — 294  
Ptolomeus — 307





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1753

Jacques Barbeu-Dubourg

*Časová osa*



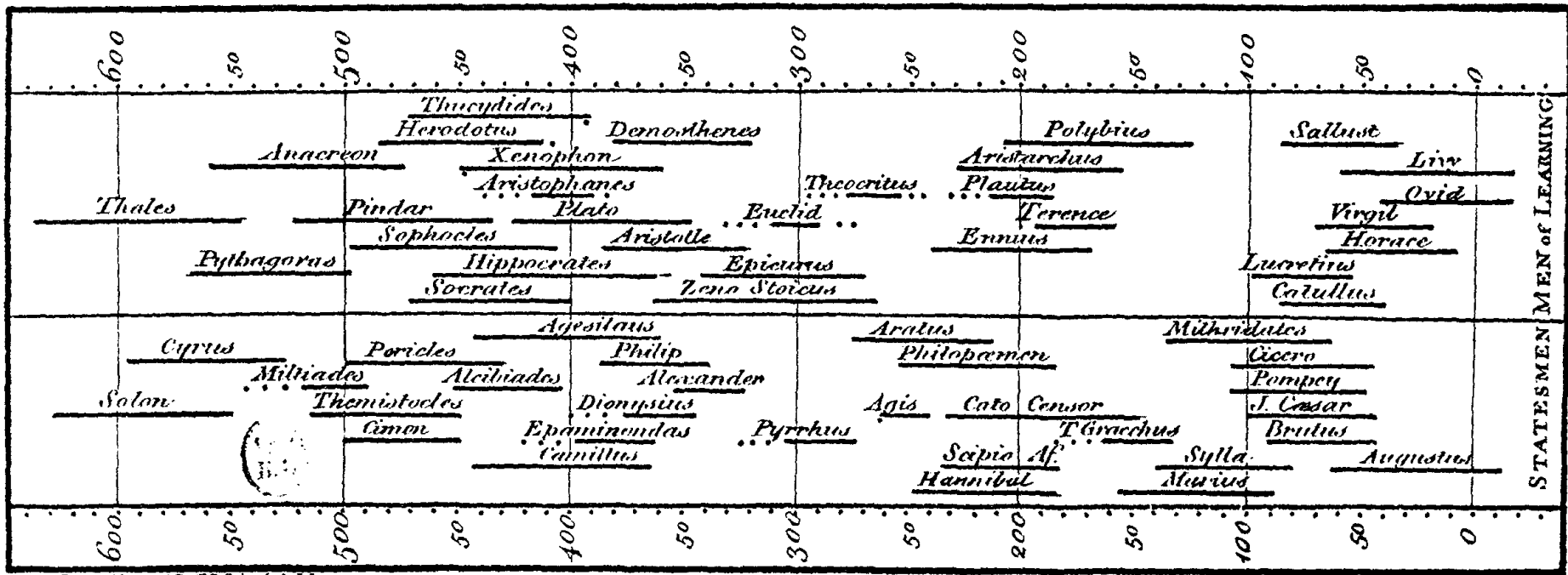




1765

# Joseph Priestly

Časová osa



J. Priestly L.L.D. F.R.S. inv. et del.

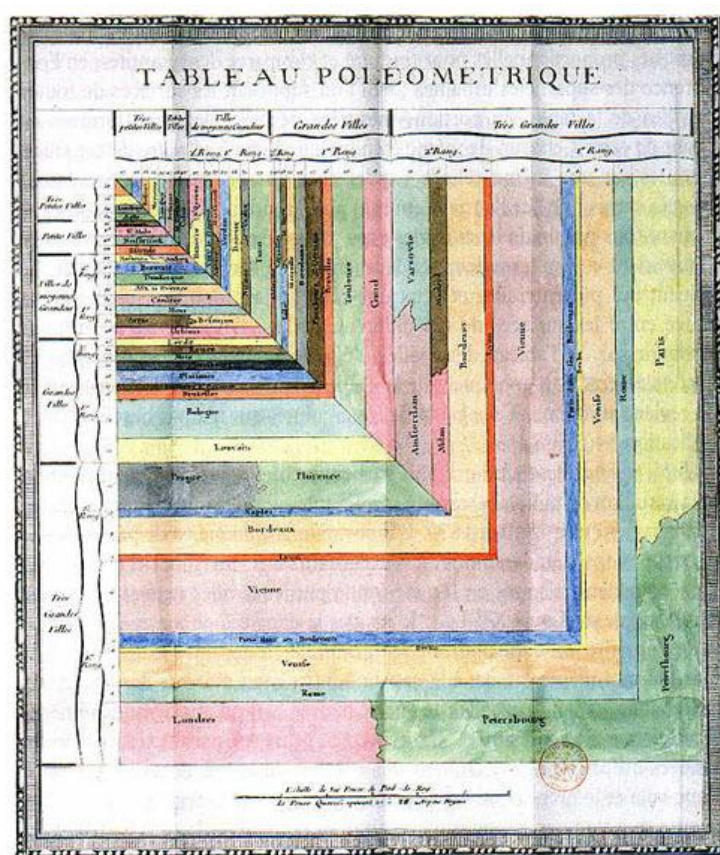




1782

# Charles de Fourcroy

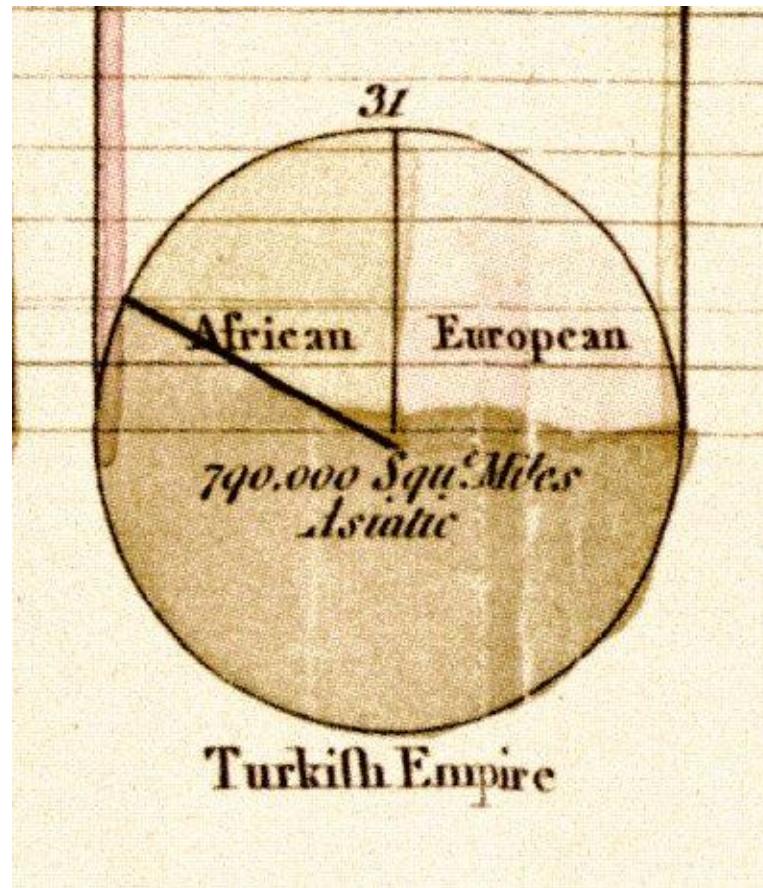
*Předchůdce kartodiagramu*



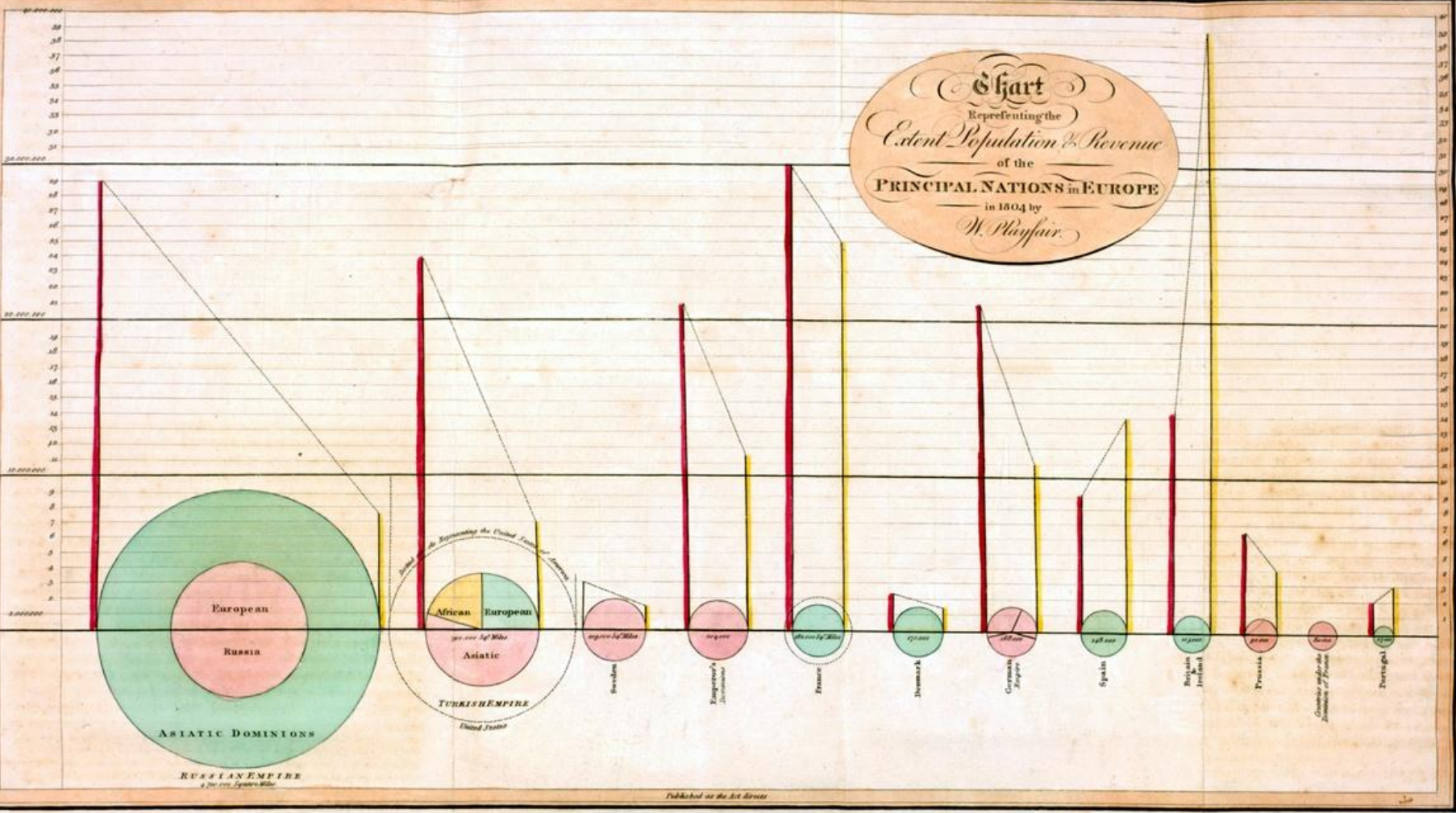
1780+

# William Playfair

*Skoro všechny základní statistické grafy*



**Chart**  
 Representing the  
*Extent, Population & Revenue*  
 of the  
**PRINCIPAL NATIONS in EUROPE**  
 in 1804 by  
*W. Playfair.*



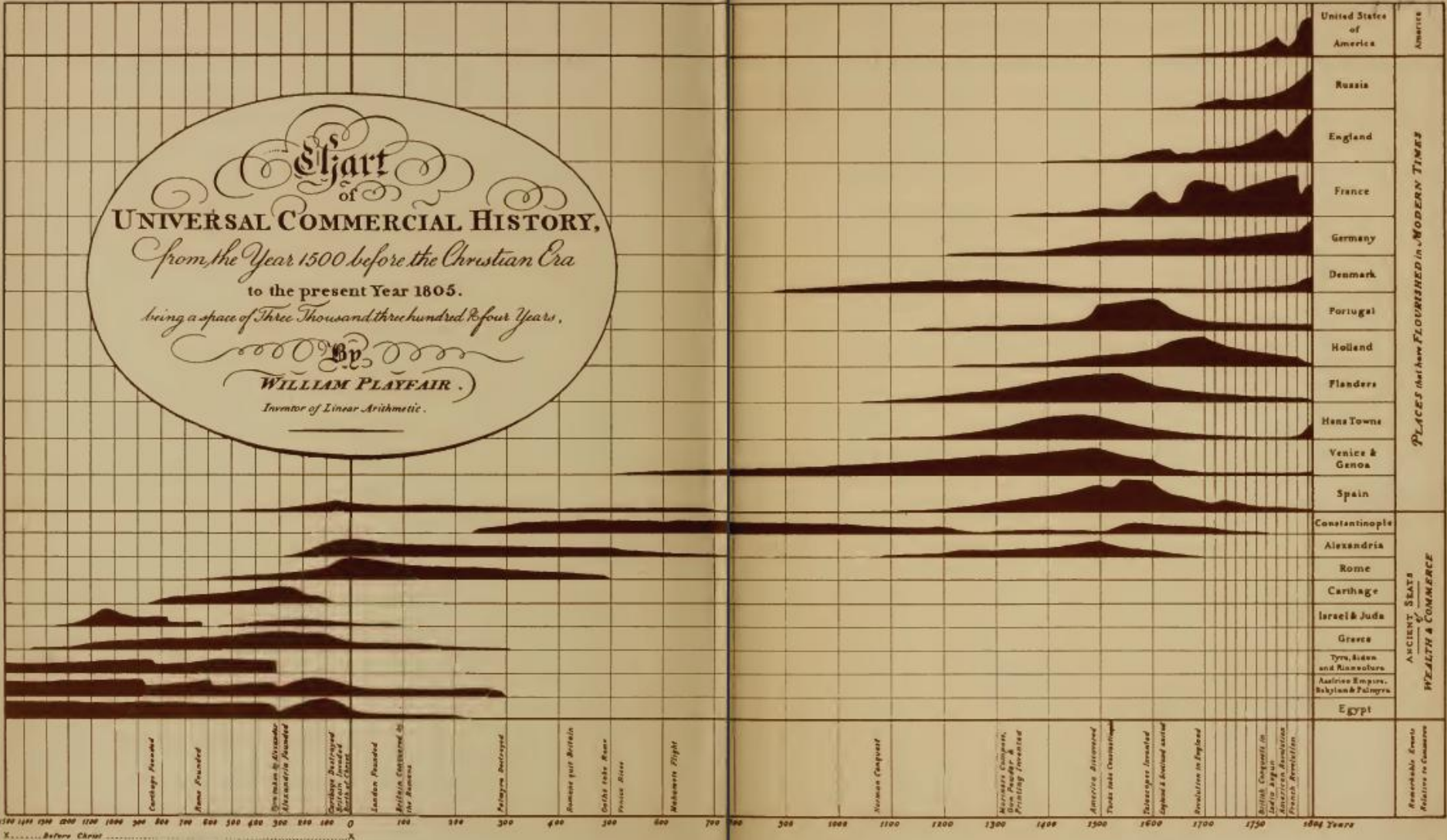


C. J. Harris

Fe 11/94

581 PM

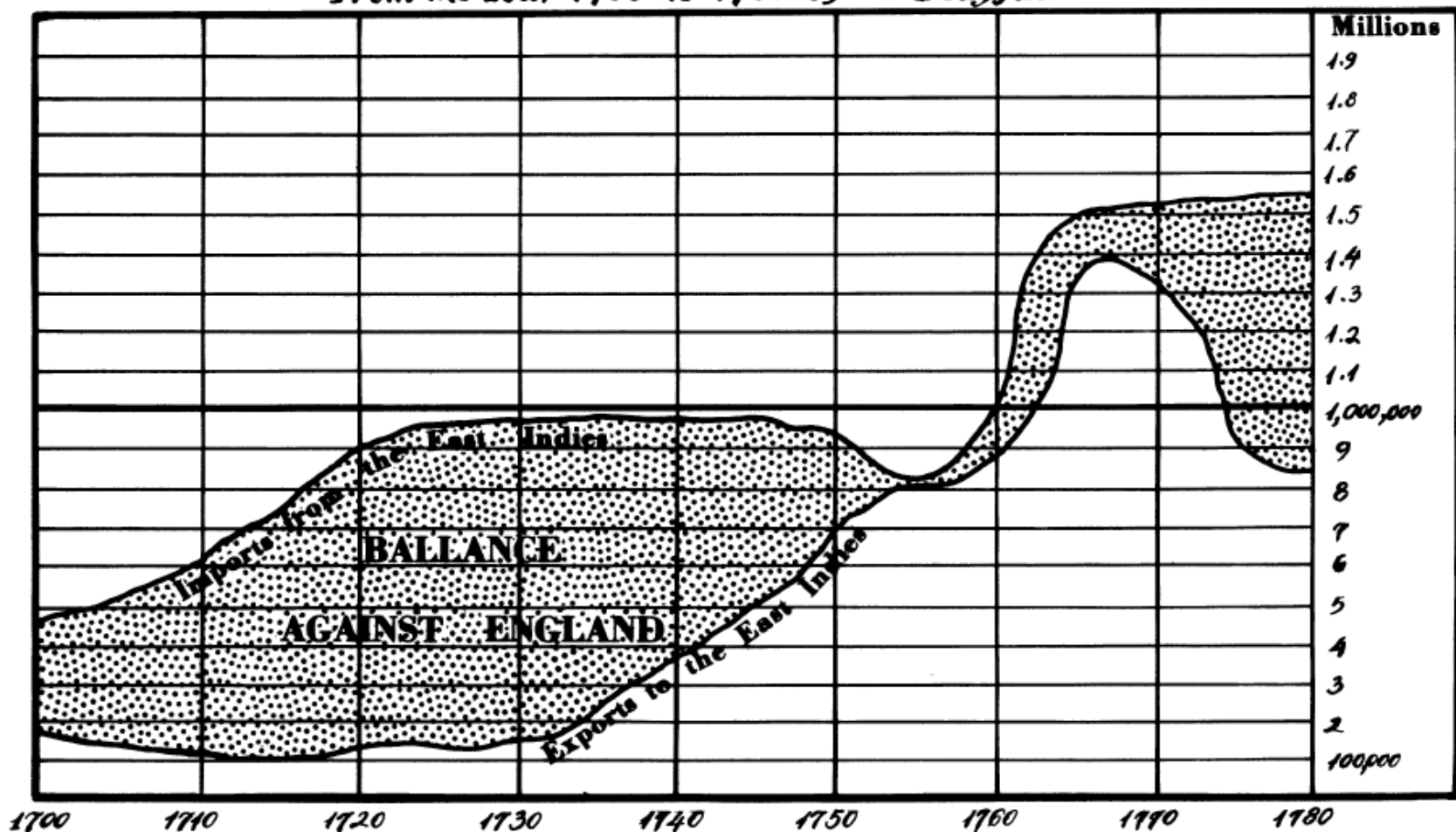

  
**Start**  
 of  
**UNIVERSAL COMMERCIAL HISTORY.**  
*From the Year 1500 before the Christian Era*  
 to the present Year 1805.  
*Being a space of Three Thousand three hundred & four Years,*  
 By  
**WILLIAM PLAYFAIR.**  
*Inventor of Linear Arithmetic.*



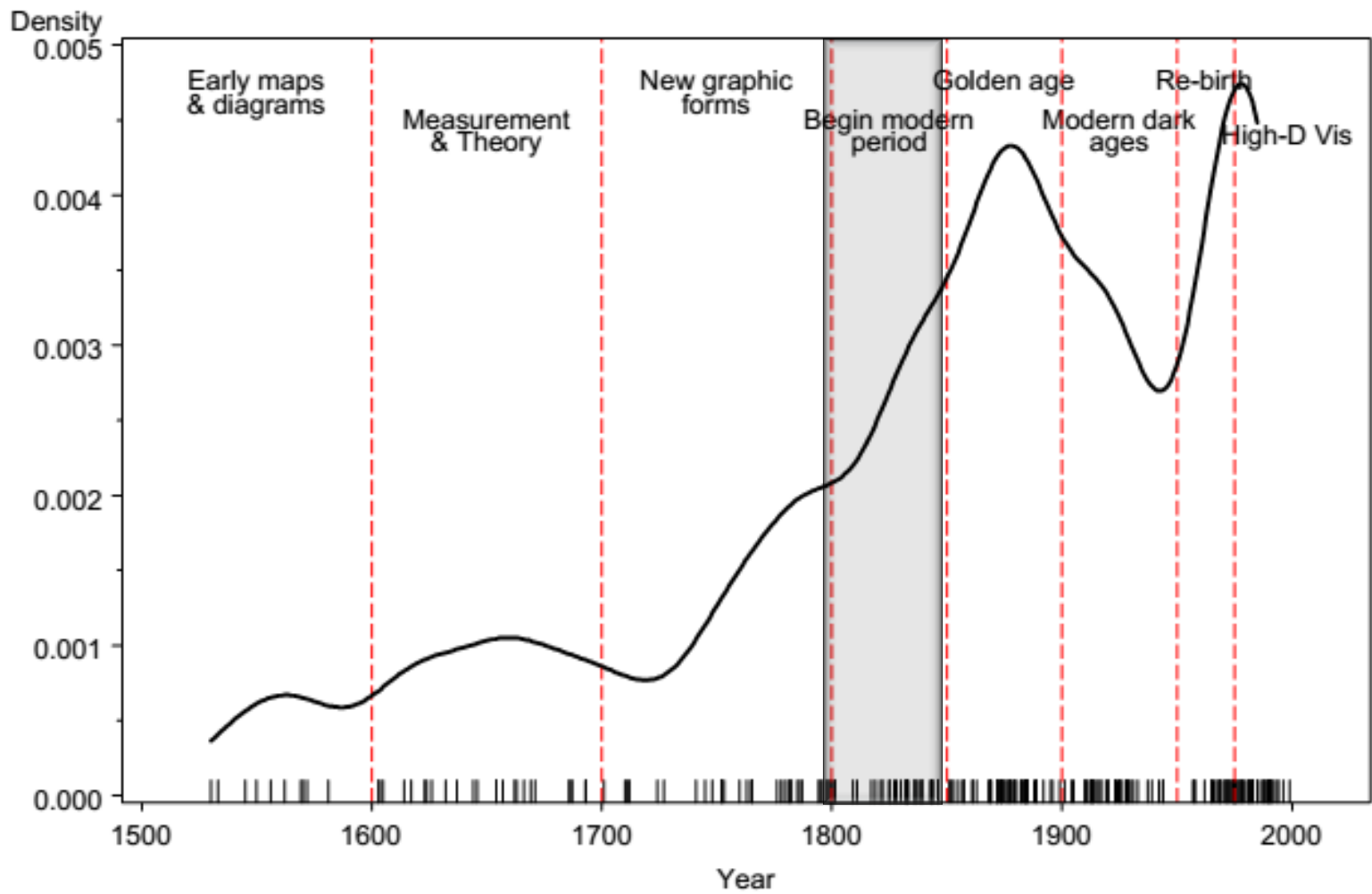
Carthage Destroyed  
 Rome Founded  
 Jerusalem & Alexandria Founded  
 Carthage Destroyed  
 British Conquest of the Romans  
 London Founded  
 Palmyra Destroyed  
 Roman quit Britain  
 Gothic take Rome  
 Prince Rite  
 Mahomet's Flight  
 Human Compass  
 Mariner's Compass  
 Printing Invented  
 America discovered  
 Discoveries Invented  
 Revolution in England  
 British Conquest in India  
 French Revolution

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.

**CHART of EXPORTS and IMPORTS to and from the EAST INDIES**  
*From the Year 1700 to 1780 by W. Playfair*



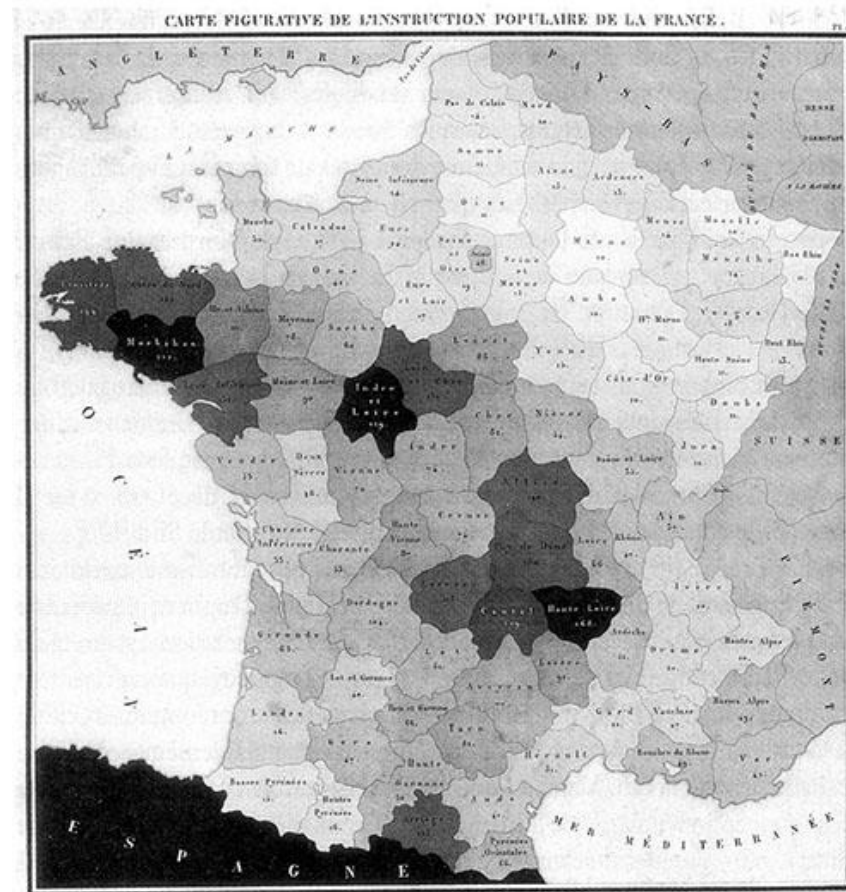
*The Bottom Line is Divided into Years the Right hand Line into HUNDRED THOUSAND POUNDS*  
*King of the Kings is force Page 31<sup>st</sup> Published in the Act Divine 16<sup>th</sup> Aug. 1785*



1826

# Charles Dupin

*První choropleth (kartogram).*





1833

# André-Michel Guerry

*Essai sur la statistique morale de la France.*

„Let us now compare this map with the one for crimes against persons. The maximum crime rate is in Corsica. Is this because there is greater ignorance there? Our map supplies evidence to the contrary. Further, the minimum occurs in the western and central provinces. Can it be said that the highest level of education prevails there?“

**„Clearly, the relationship people talk about does not exist.“**

# STATISTIQUE COMPARÉE

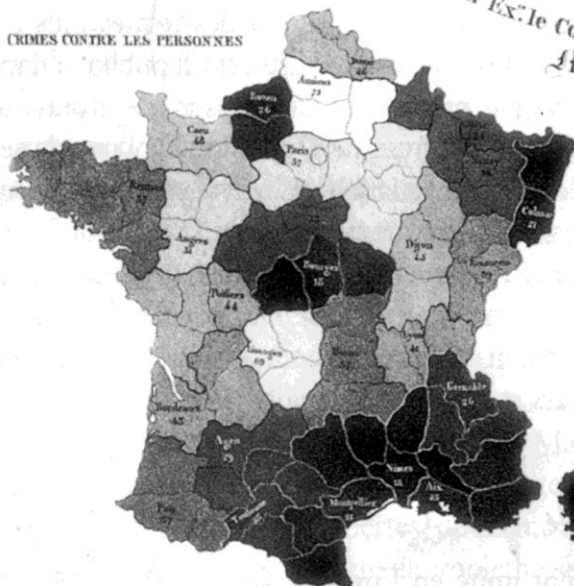
## DE L'ÉTAT DE L'INSTRUCTION ET DU NOMBRE DES CRIMES

dans les divers Arrondissements des Académies et des Cours R. de France

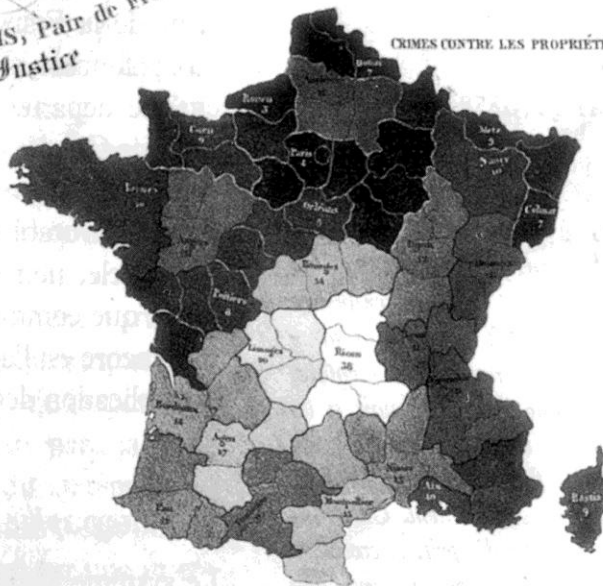
PAR A. BALBI & A. M. GUERRY, Avocat.

A Son Ex. le Comte DE PORTALIS, Pair de France,  
Ministre de la Justice

CRIMES CONTRE LES PERSONNES



CRIMES CONTRE LES PROPRIÉTÉS



CRIMES

Contre les personnes		Contre les propriétés		INSTRUCTION	
Nombre	Par habitant	Nombre	Par habitant	Nombre	Par habitant
Paris	100	Paris	100	Paris	100
Lyon	80	Lyon	80	Lyon	80
Marseille	60	Marseille	60	Marseille	60
Nantes	40	Nantes	40	Nantes	40
Bordeaux	30	Bordeaux	30	Bordeaux	30
Strasbourg	20	Strasbourg	20	Strasbourg	20
Montpellier	15	Montpellier	15	Montpellier	15
Angers	10	Angers	10	Angers	10
Orléans	8	Orléans	8	Orléans	8
Limoges	6	Limoges	6	Limoges	6
Toulouse	5	Toulouse	5	Toulouse	5
Nîmes	4	Nîmes	4	Nîmes	4
Caen	3	Caen	3	Caen	3
Reims	2	Reims	2	Reims	2
Metz	1	Metz	1	Metz	1
Amiens	0.5	Amiens	0.5	Amiens	0.5
Le Mans	0.3	Le Mans	0.3	Le Mans	0.3
Angoulême	0.2	Angoulême	0.2	Angoulême	0.2
La Rochelle	0.1	La Rochelle	0.1	La Rochelle	0.1
Bayonne	0.05	Bayonne	0.05	Bayonne	0.05
Brest	0.02	Brest	0.02	Brest	0.02
Colmar	0.01	Colmar	0.01	Colmar	0.01
Evreux	0.005	Evreux	0.005	Evreux	0.005
Montauban	0.002	Montauban	0.002	Montauban	0.002
Valenciennes	0.001	Valenciennes	0.001	Valenciennes	0.001
Cherbourg	0.0005	Cherbourg	0.0005	Cherbourg	0.0005
Metz	0.0002	Metz	0.0002	Metz	0.0002
Amiens	0.0001	Amiens	0.0001	Amiens	0.0001
Le Mans	0.00005	Le Mans	0.00005	Le Mans	0.00005
Angoulême	0.00002	Angoulême	0.00002	Angoulême	0.00002
La Rochelle	0.00001	La Rochelle	0.00001	La Rochelle	0.00001
Bayonne	0.000005	Bayonne	0.000005	Bayonne	0.000005
Brest	0.000002	Brest	0.000002	Brest	0.000002
Colmar	0.000001	Colmar	0.000001	Colmar	0.000001
Evreux	0.0000005	Evreux	0.0000005	Evreux	0.0000005
Montauban	0.0000002	Montauban	0.0000002	Montauban	0.0000002
Valenciennes	0.0000001	Valenciennes	0.0000001	Valenciennes	0.0000001
Cherbourg	0.00000005	Cherbourg	0.00000005	Cherbourg	0.00000005
Metz	0.00000002	Metz	0.00000002	Metz	0.00000002
Amiens	0.00000001	Amiens	0.00000001	Amiens	0.00000001
Le Mans	0.000000005	Le Mans	0.000000005	Le Mans	0.000000005
Angoulême	0.000000002	Angoulême	0.000000002	Angoulême	0.000000002
La Rochelle	0.000000001	La Rochelle	0.000000001	La Rochelle	0.000000001
Bayonne	0.0000000005	Bayonne	0.0000000005	Bayonne	0.0000000005
Brest	0.0000000002	Brest	0.0000000002	Brest	0.0000000002
Colmar	0.0000000001	Colmar	0.0000000001	Colmar	0.0000000001
Evreux	0.00000000005	Evreux	0.00000000005	Evreux	0.00000000005
Montauban	0.00000000002	Montauban	0.00000000002	Montauban	0.00000000002
Valenciennes	0.00000000001	Valenciennes	0.00000000001	Valenciennes	0.00000000001
Cherbourg	0.000000000005	Cherbourg	0.000000000005	Cherbourg	0.000000000005
Metz	0.000000000002	Metz	0.000000000002	Metz	0.000000000002
Amiens	0.000000000001	Amiens	0.000000000001	Amiens	0.000000000001
Le Mans	0.0000000000005	Le Mans	0.0000000000005	Le Mans	0.0000000000005
Angoulême	0.0000000000002	Angoulême	0.0000000000002	Angoulême	0.0000000000002
La Rochelle	0.0000000000001	La Rochelle	0.0000000000001	La Rochelle	0.0000000000001
Bayonne	0.00000000000005	Bayonne	0.00000000000005	Bayonne	0.00000000000005
Brest	0.00000000000002	Brest	0.00000000000002	Brest	0.00000000000002
Colmar	0.00000000000001	Colmar	0.00000000000001	Colmar	0.00000000000001
Evreux	0.000000000000005	Evreux	0.000000000000005	Evreux	0.000000000000005
Montauban	0.000000000000002	Montauban	0.000000000000002	Montauban	0.000000000000002
Valenciennes	0.000000000000001	Valenciennes	0.000000000000001	Valenciennes	0.000000000000001
Cherbourg	0.0000000000000005	Cherbourg	0.0000000000000005	Cherbourg	0.0000000000000005
Metz	0.0000000000000002	Metz	0.0000000000000002	Metz	0.0000000000000002
Amiens	0.0000000000000001	Amiens	0.0000000000000001	Amiens	0.0000000000000001
Le Mans	0.00000000000000005	Le Mans	0.00000000000000005	Le Mans	0.00000000000000005
Angoulême	0.00000000000000002	Angoulême	0.00000000000000002	Angoulême	0.00000000000000002
La Rochelle	0.00000000000000001	La Rochelle	0.00000000000000001	La Rochelle	0.00000000000000001
Bayonne	0.000000000000000005	Bayonne	0.000000000000000005	Bayonne	0.000000000000000005
Brest	0.000000000000000002	Brest	0.000000000000000002	Brest	0.000000000000000002
Colmar	0.000000000000000001	Colmar	0.000000000000000001	Colmar	0.000000000000000001
Evreux	0.0000000000000000005	Evreux	0.0000000000000000005	Evreux	0.0000000000000000005
Montauban	0.0000000000000000002	Montauban	0.0000000000000000002	Montauban	0.0000000000000000002
Valenciennes	0.0000000000000000001	Valenciennes	0.0000000000000000001	Valenciennes	0.0000000000000000001
Cherbourg	0.00000000000000000005	Cherbourg	0.00000000000000000005	Cherbourg	0.00000000000000000005
Metz	0.00000000000000000002	Metz	0.00000000000000000002	Metz	0.00000000000000000002
Amiens	0.00000000000000000001	Amiens	0.00000000000000000001	Amiens	0.00000000000000000001
Le Mans	0.000000000000000000005	Le Mans	0.000000000000000000005	Le Mans	0.000000000000000000005
Angoulême	0.000000000000000000002	Angoulême	0.000000000000000000002	Angoulême	0.000000000000000000002
La Rochelle	0.000000000000000000001	La Rochelle	0.000000000000000000001	La Rochelle	0.000000000000000000001
Bayonne	0.0000000000000000000005	Bayonne	0.0000000000000000000005	Bayonne	0.0000000000000000000005
Brest	0.0000000000000000000002	Brest	0.0000000000000000000002	Brest	0.0000000000000000000002
Colmar	0.0000000000000000000001	Colmar	0.0000000000000000000001	Colmar	0.0000000000000000000001
Evreux	0.00000000000000000000005	Evreux	0.00000000000000000000005	Evreux	0.00000000000000000000005
Montauban	0.00000000000000000000002	Montauban	0.00000000000000000000002	Montauban	0.00000000000000000000002
Valenciennes	0.00000000000000000000001	Valenciennes	0.00000000000000000000001	Valenciennes	0.00000000000000000000001
Cherbourg	0.000000000000000000000005	Cherbourg	0.000000000000000000000005	Cherbourg	0.000000000000000000000005
Metz	0.000000000000000000000002	Metz	0.000000000000000000000002	Metz	0.000000000000000000000002
Amiens	0.000000000000000000000001	Amiens	0.000000000000000000000001	Amiens	0.000000000000000000000001
Le Mans	0.0000000000000000000000005	Le Mans	0.0000000000000000000000005	Le Mans	0.0000000000000000000000005
Angoulême	0.0000000000000000000000002	Angoulême	0.0000000000000000000000002	Angoulême	0.0000000000000000000000002
La Rochelle	0.0000000000000000000000001	La Rochelle	0.0000000000000000000000001	La Rochelle	0.0000000000000000000000001
Bayonne	0.00000000000000000000000005	Bayonne	0.00000000000000000000000005	Bayonne	0.00000000000000000000000005
Brest	0.00000000000000000000000002	Brest	0.00000000000000000000000002	Brest	0.00000000000000000000000002
Colmar	0.00000000000000000000000001	Colmar	0.00000000000000000000000001	Colmar	0.00000000000000000000000001
Evreux	0.000000000000000000000000005	Evreux	0.000000000000000000000000005	Evreux	0.000000000000000000000000005
Montauban	0.000000000000000000000000002	Montauban	0.000000000000000000000000002	Montauban	0.000000000000000000000000002
Valenciennes	0.000000000000000000000000001	Valenciennes	0.000000000000000000000000001	Valenciennes	0.000000000000000000000000001
Cherbourg	0.0000000000000000000000000005	Cherbourg	0.0000000000000000000000000005	Cherbourg	0.0000000000000000000000000005
Metz	0.0000000000000000000000000002	Metz	0.0000000000000000000000000002	Metz	0.0000000000000000000000000002
Amiens	0.0000000000000000000000000001	Amiens	0.0000000000000000000000000001	Amiens	0.0000000000000000000000000001
Le Mans	0.00000000000000000000000000005	Le Mans	0.00000000000000000000000000005	Le Mans	0.00000000000000000000000000005
Angoulême	0.00000000000000000000000000002	Angoulême	0.00000000000000000000000000002	Angoulême	0.00000000000000000000000000002
La Rochelle	0.00000000000000000000000000001	La Rochelle	0.00000000000000000000000000001	La Rochelle	0.00000000000000000000000000001
Bayonne	0.000000000000000000000000000005	Bayonne	0.000000000000000000000000000005	Bayonne	0.000000000000000000000000000005
Brest	0.000000000000000000000000000002	Brest	0.000000000000000000000000000002	Brest	0.000000000000000000000000000002
Colmar	0.000000000000000000000000000001	Colmar	0.000000000000000000000000000001	Colmar	0.000000000000000000000000000001
Evreux	0.0000000000000000000000000000005	Evreux	0.0000000000000000000000000000005	Evreux	0.0000000000000000000000000000005
Montauban	0.0000000000000000000000000000002	Montauban	0.0000000000000000000000000000002	Montauban	0.0000000000000000000000000000002
Valenciennes	0.0000000000000000000000000000001	Valenciennes	0.0000000000000000000000000000001	Valenciennes	0.0000000000000000000000000000001
Cherbourg	0.00000000000000000000000000000005	Cherbourg	0.00000000000000000000000000000005	Cherbourg	0.00000000000000000000000000000005
Metz	0.00000000000000000000000000000002	Metz	0.00000000000000000000000000000002	Metz	0.00000000000000000000000000000002
Amiens	0.00000000000000000000000000000001	Amiens	0.00000000000000000000000000000001	Amiens	0.00000000000000000000000000000001
Le Mans	0.000000000000000000000000000000005	Le Mans	0.000000000000000000000000000000005	Le Mans	0.000000000000000000000000000000005
Angoulême	0.000000000000000000000000000000002	Angoulême	0.000000000000000000000000000000002	Angoulême	0.000000000000000000000000000000002
La Rochelle	0.000000000000000000000000000000001	La Rochelle	0.000000000000000000000000000000001	La Rochelle	0.000000000000000000000000000000001
Bayonne	0.0000000000000000000000000000000005	Bayonne	0.0000000000000000000000000000000005	Bayonne	0.0000000000000000000000000000000005
Brest	0.0000000000000000000000000000000002	Brest	0.0000000000000000000000000000000002	Brest	0.0000000000000000000000000000000002
Colmar	0.0000000000000000000000000000000001	Colmar	0.0000000000000000000000000000000001	Colmar	0.0000000000000000000000000000000001
Evreux	0.00000000000000000000000000000000005	Evreux	0.00000000000000000000000000000000005	Evreux	0.00000000000000000000000000000000005
Montauban	0.00000000000000000000000000000000002	Montauban	0.00000000000000000000000000000000002	Montauban	0.00000000000000000000000000000000002
Valenciennes	0.00000000000000000000000000000000001	Valenciennes	0.00000000000000000000000000000000001	Valenciennes	0.00000000000000000000000000000000001
Cherbourg	0.000000000000000000000000000000000005	Cherbourg	0.000000000000000000000000000000000005	Cherbourg	0.000000000000000000000000000000000005
Metz	0.000000000000000000000000000000000002	Metz	0.000000000000000000000000000000000002	Metz	0.00

1833 / 1854

# Robert Baker, John Snow

*Mapy cholery (dot mapa)*



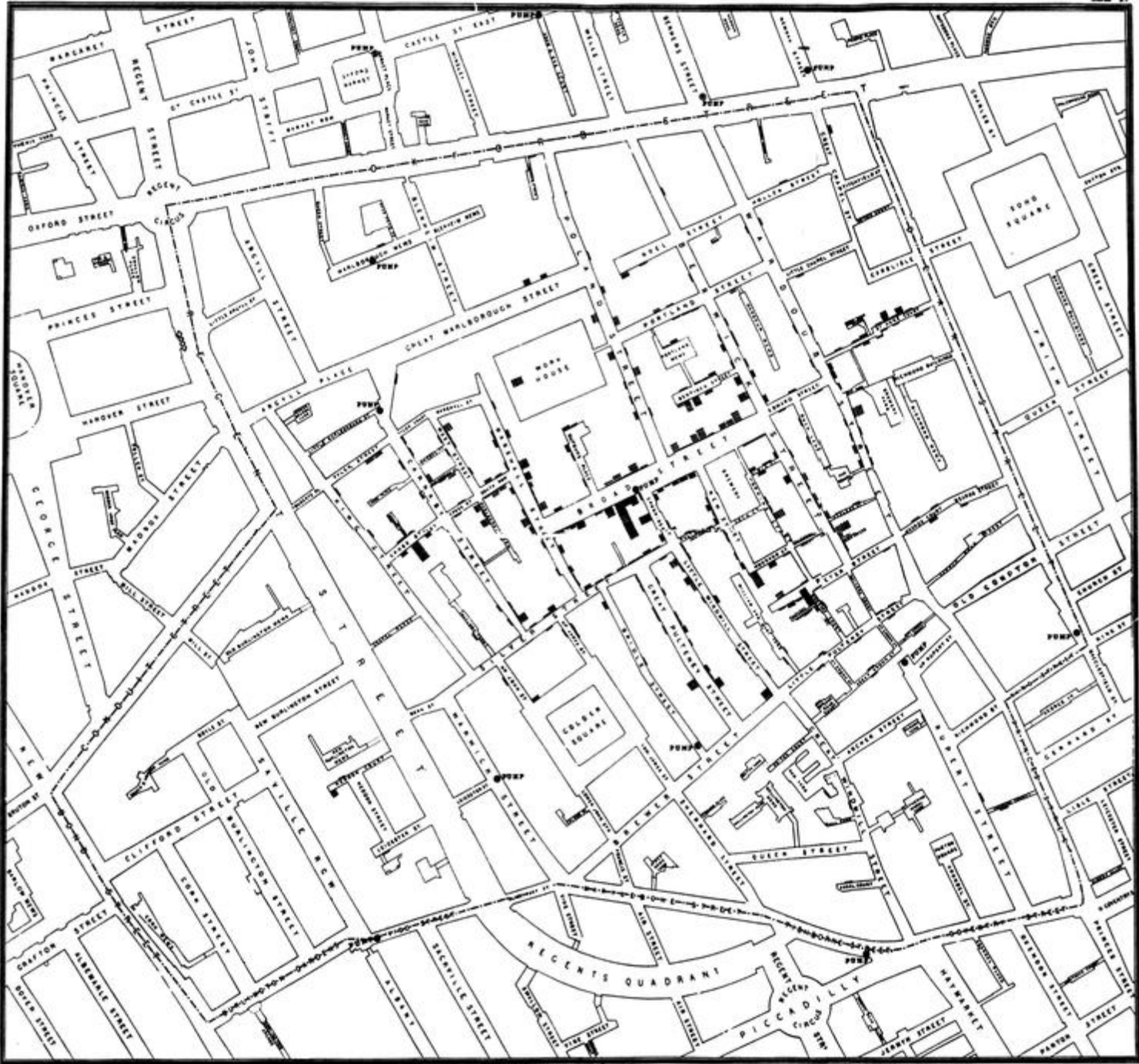
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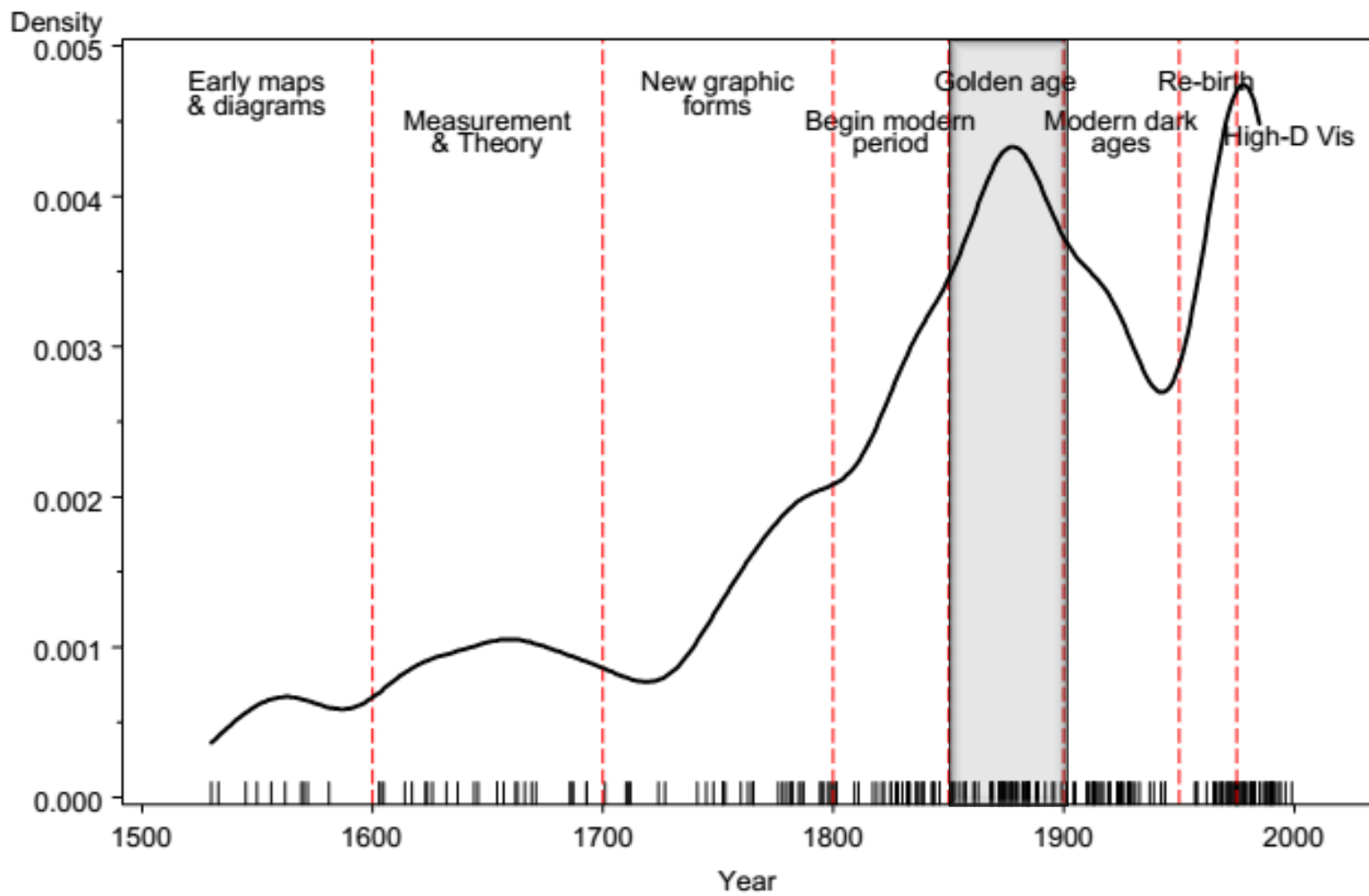
1833 / 1854

# Robert Baker, John Snow

*Mapy cholery (dot mapa)*

„We are of the opinion that the streets in which malignant cholera prevailed most severely, were those in which the drainage was most imperfect; and that the state of the general health of the inhabitants would be greatly improved, and the probability of a future visitation from such malignant epidemics diminished, by a general and efficient system of drainage, sewerage and paving, and the enforcement of better regulations as to the cleanliness of the streets.“





---

1869

# Charles Joseph Minard

*Napoleonův pochod na Rusko a zpět*

\* \* \* \* \*

„Probably the best statistical graphic ever drawn“

- *Edward Tufte*

# 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. Chiers, de Legur, 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 Néroum et du Maréchal Davout qui avaient été détachés sur Minsk et Mohilow et qui rejoignent vers Orscha et Witebsk, avaient toujours marché avec l'armée.

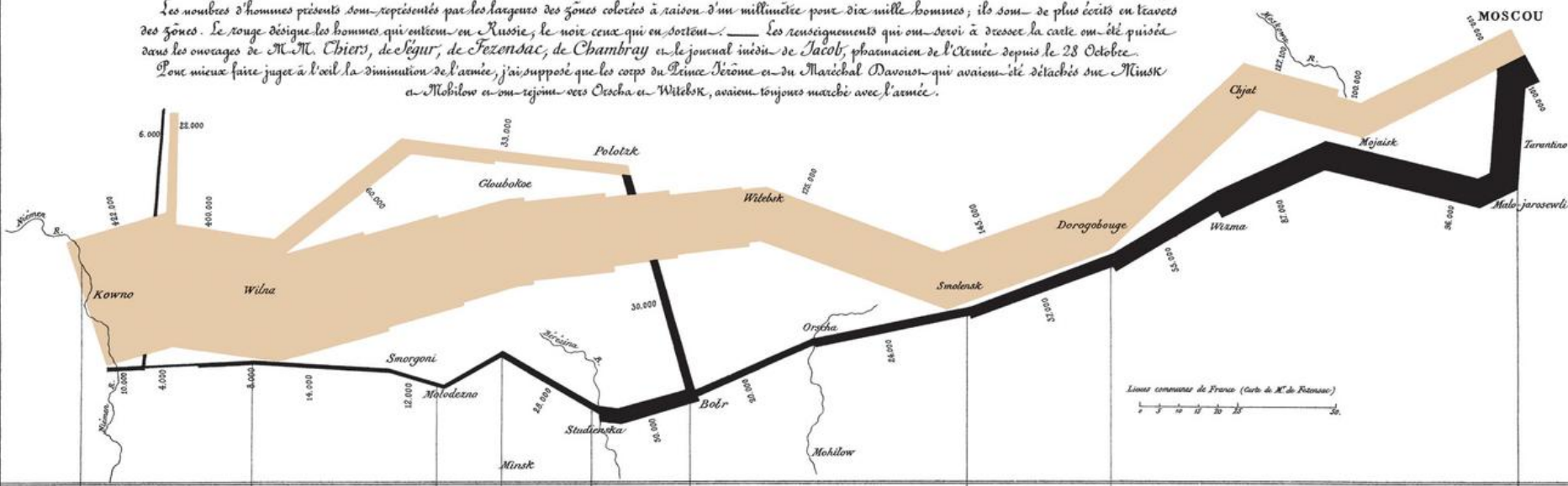
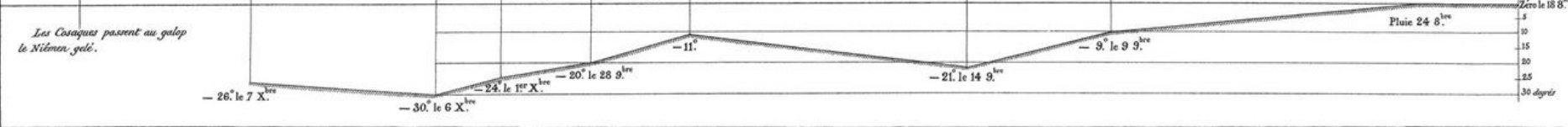


TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumur au dessous de zéro.



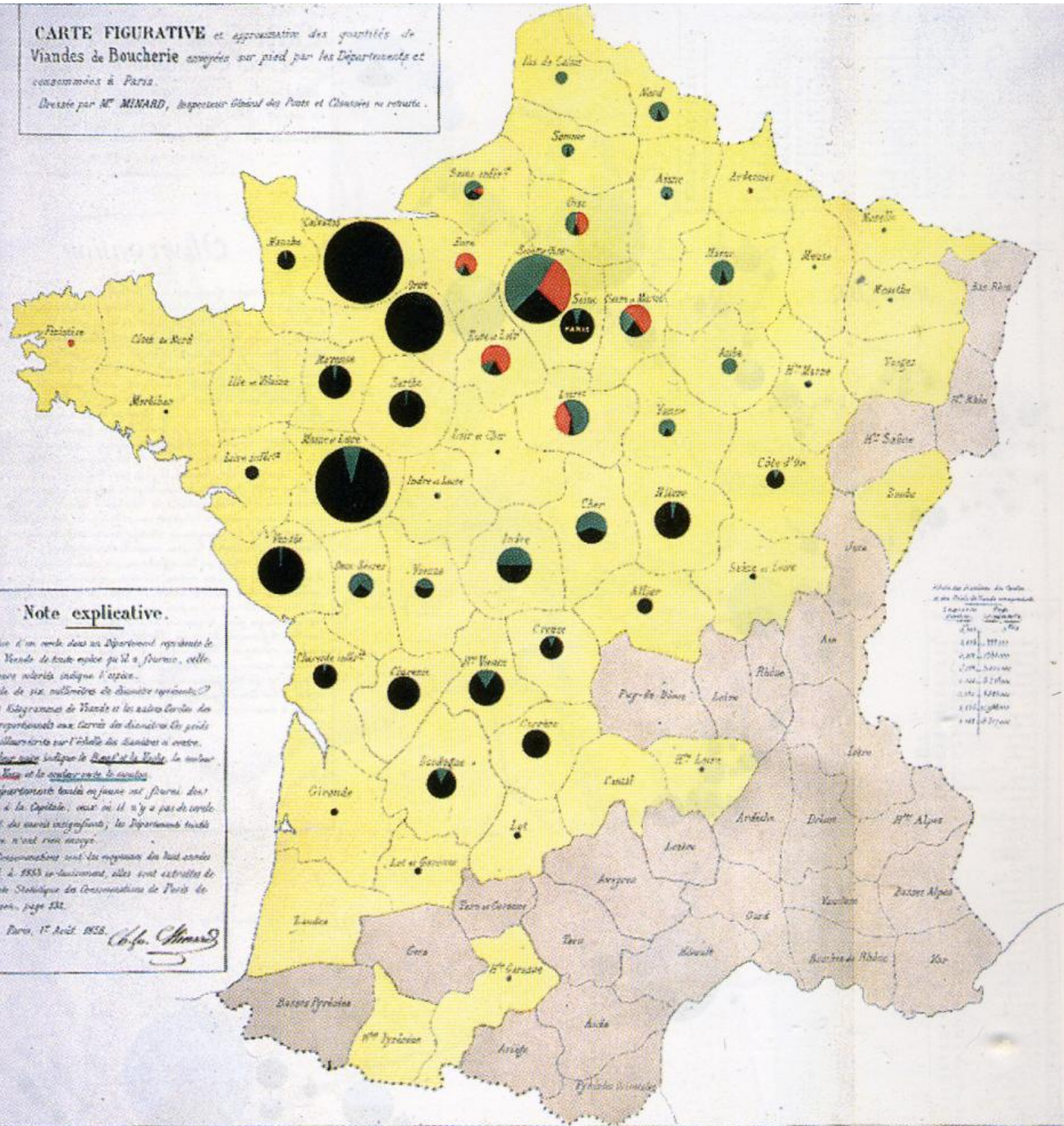
Atiq. par Regnier, 7. Par. 5<sup>e</sup> Marie St 6<sup>e</sup> à Paris.

Imp. Lit. Regnier et Doucet.



**CARTE FIGURATIVE** et approximation des quantités de  
Viandes de Boucherie consommées sur pied par les Départements et  
communes à Paris.

Dressée par M<sup>r</sup> MINARD, Inspecteur Général des Ponts et Chaussées ne retruite.



**Note explicative.**

La surface d'un cercle dans un Département représente le poids de Viande de toute espèce par lit & semaine, celle de Secteurs coloriés indique l'espèce.

Un cercle de six millimètres de diamètre représente 555 000 kilogrammes de Viande et les autres cercles des poids proportionnels aux Cercles des diamètres ci contre, sont à l'échelle de six sur l'échelle des diamètres ci contre.

Un cercle noir indique le Bœuf et la Veau, le rouge le Mouton et le cerise, le porc.

Les Départements touchés en jaune ont fourni des Bœufs à la Capitale, ceux en il n'y a pas de cercle ont fait des envois insignifiants, les Départements touchés en laque n'ont rien envoyé.

Ces Consommations sont les moyennes des huit années de 1845 à 1853 inclusivement, elles sont extraites de l'Annuaire Statistique des Consommations de Paris de M<sup>r</sup> Bignon, page 132.

Paris, 17 Août 1856.

*Ch. Minard*

Tableau des Quantités de Viande et des Poids de Viande consommés

Quantité	Poids
1000	1000000
2000	2000000
3000	3000000
4000	4000000
5000	5000000
6000	6000000
7000	7000000
8000	8000000
9000	9000000
10000	10000000



1858

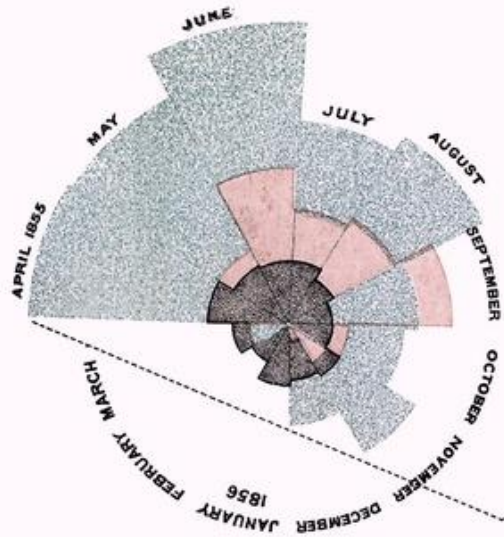
# Florence Nightingale

*Coxcomb*

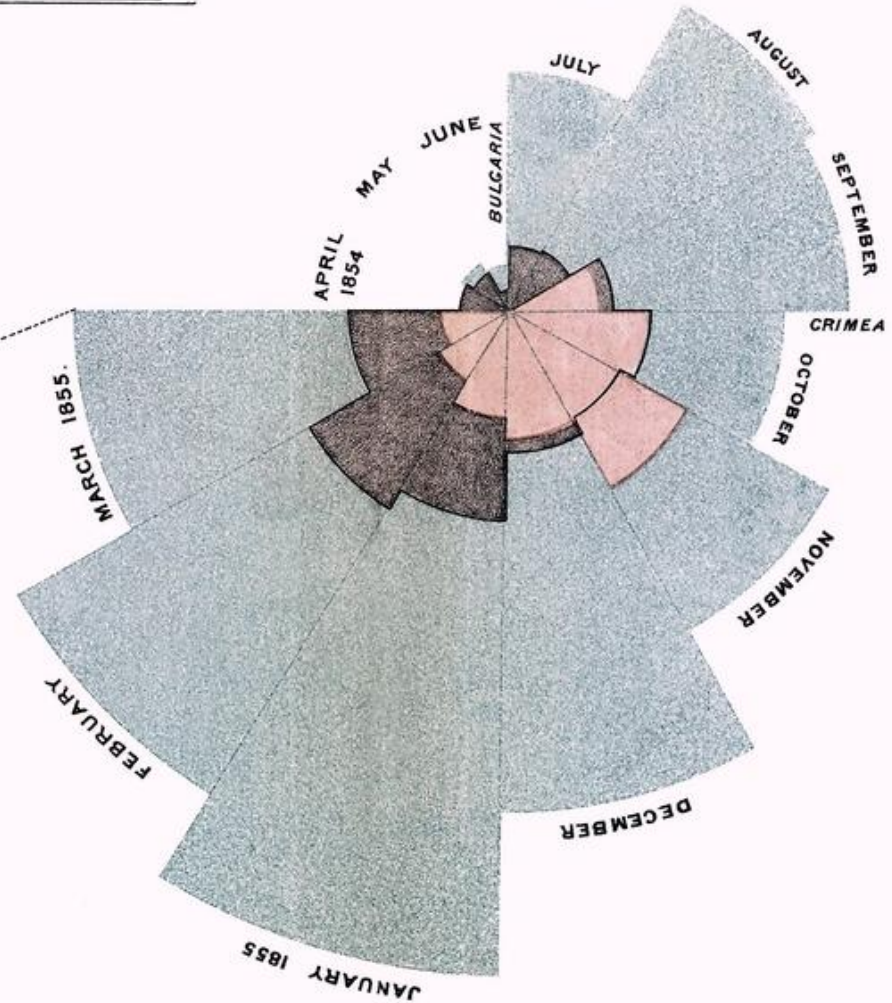


## DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

2.  
APRIL 1855 TO MARCH 1856.



1.  
APRIL 1854 TO MARCH 1855.



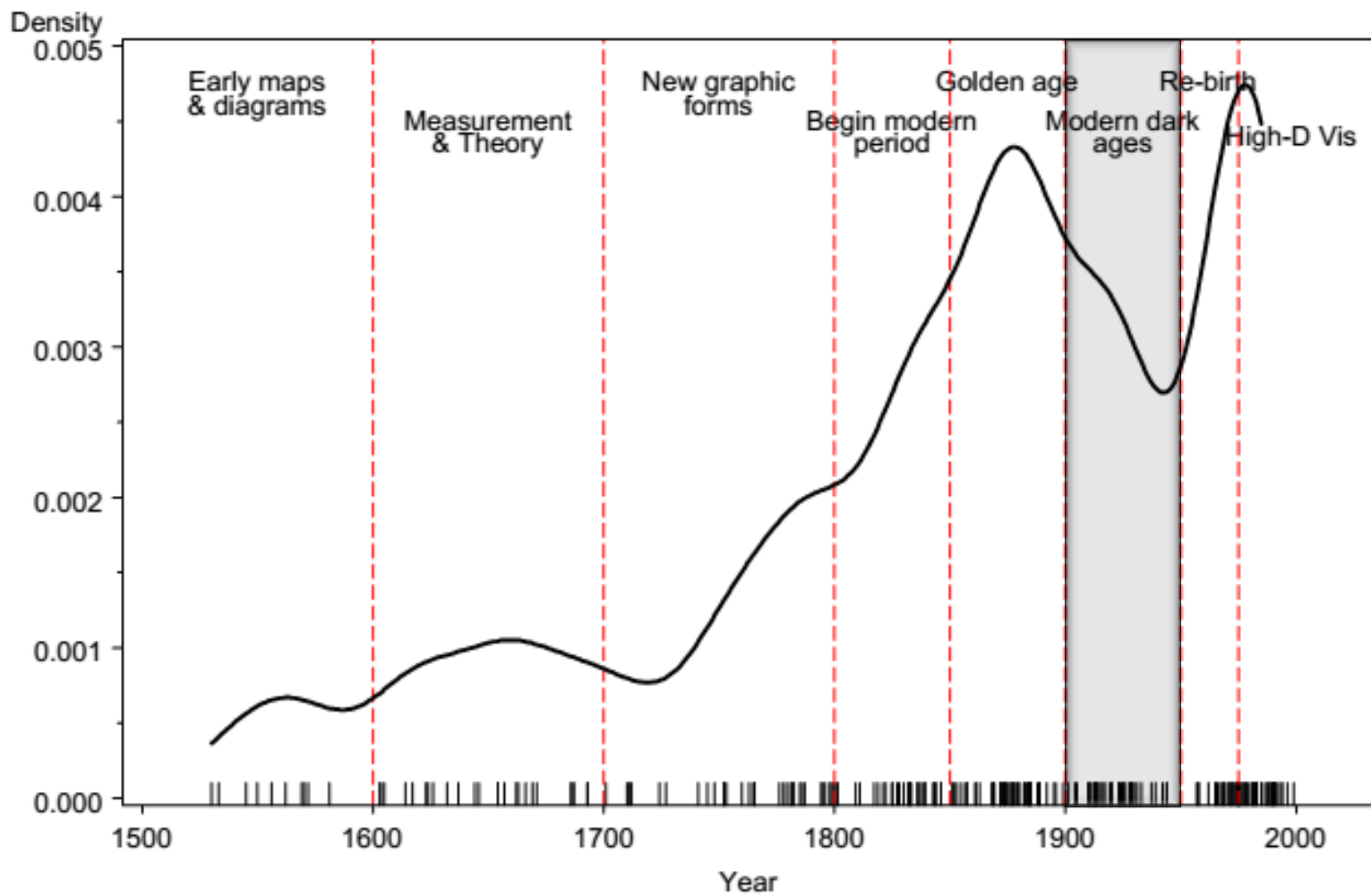
*The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.*

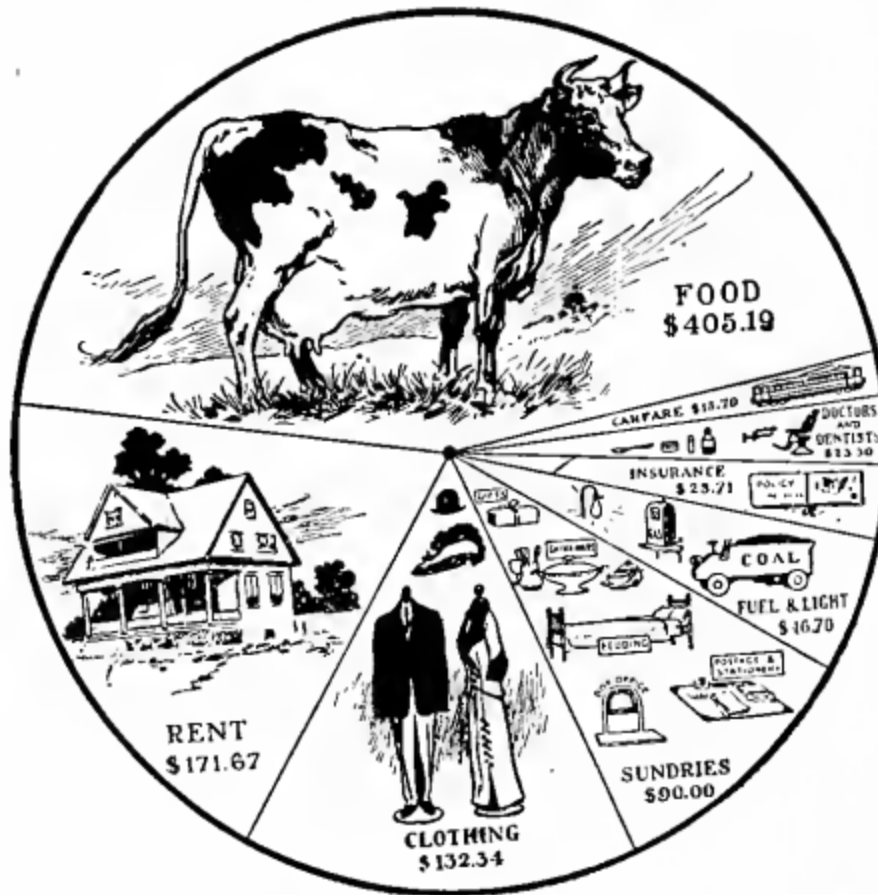
*The blue wedges measured from the centre of the circle represent area for area the deaths from Preventable or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.*

*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 1855, the blue coincides with the black.*

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

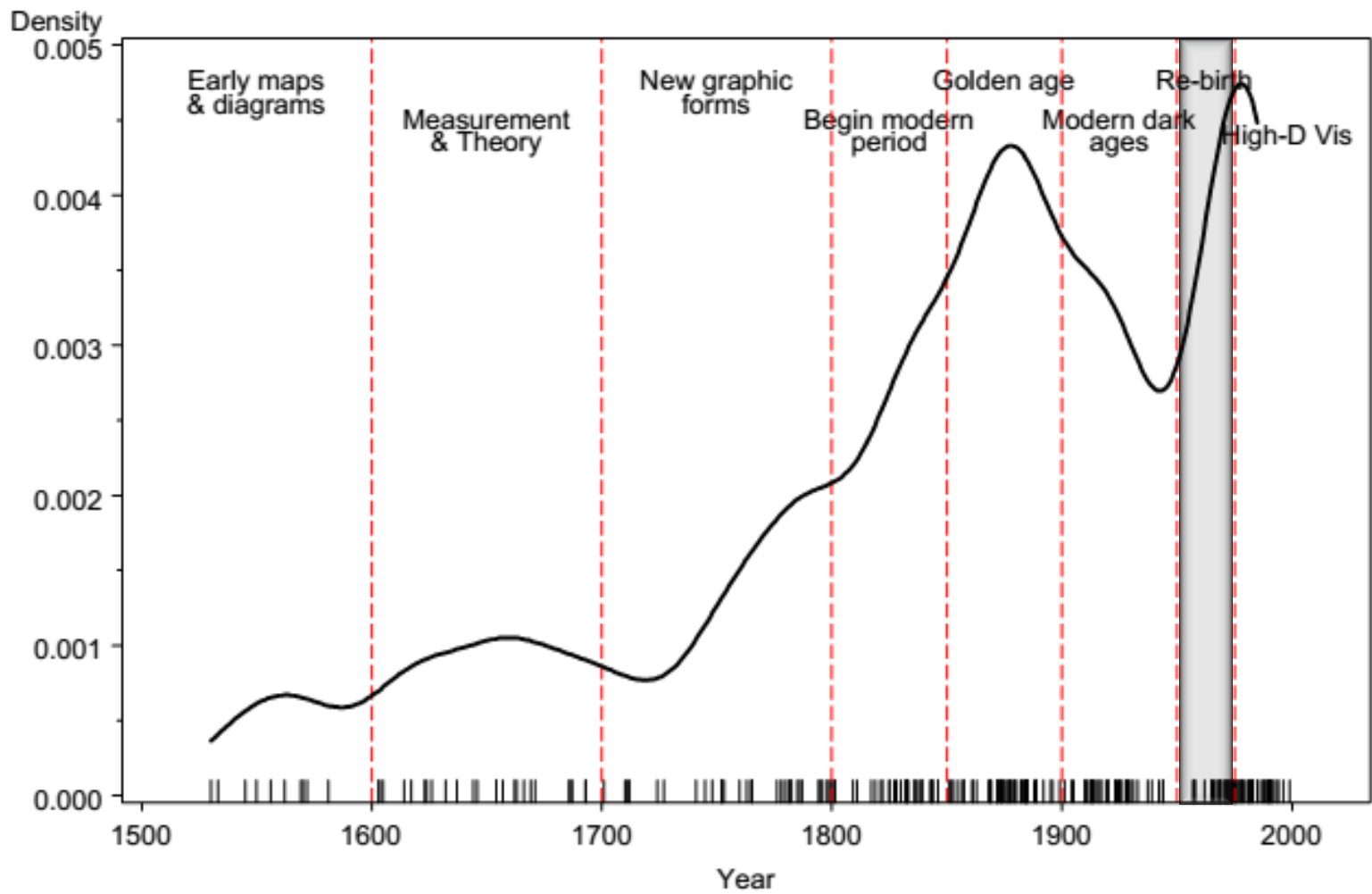




*The Survey*

**Fig. 3. Disposition of a Family Income of from \$900 to \$1000**

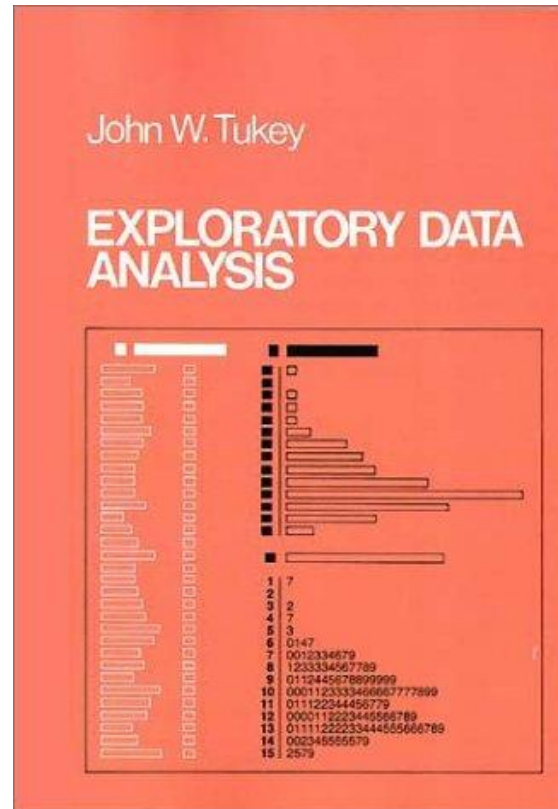
This cut shows an attempt to put figures in popular form. The eye is likely to judge by the size of the pictures rather than by the angles of the sectors



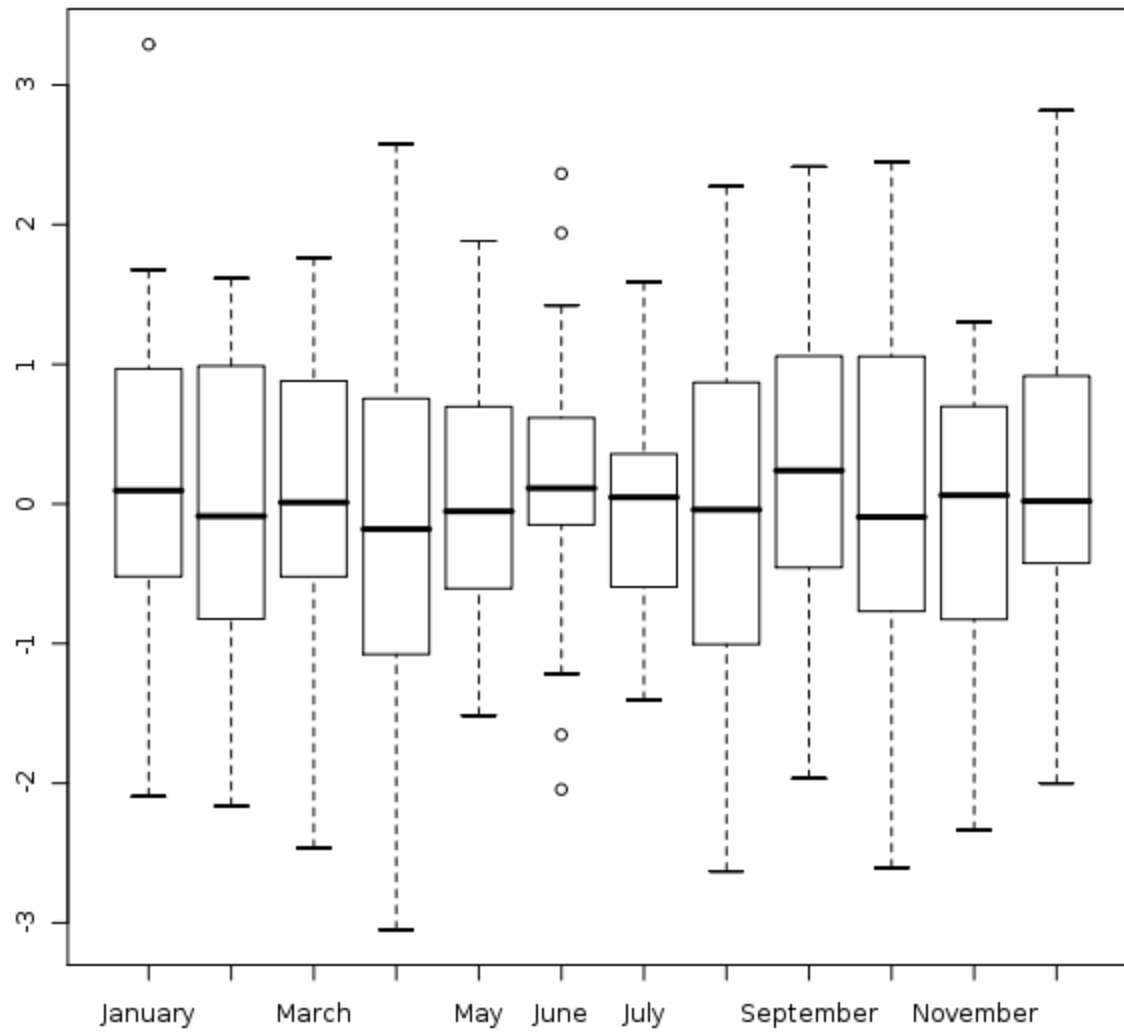
1962

# John Turkey

*Exploratory Data Analysis*



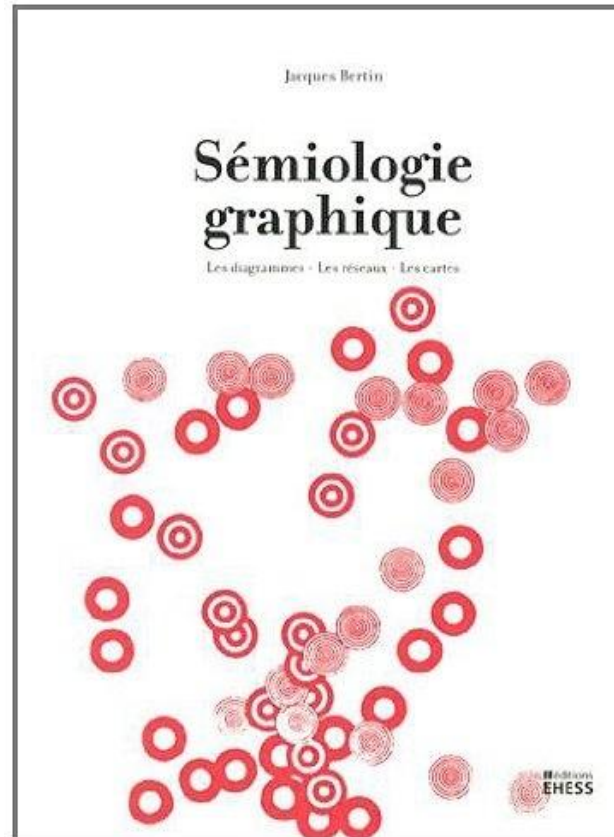




1967

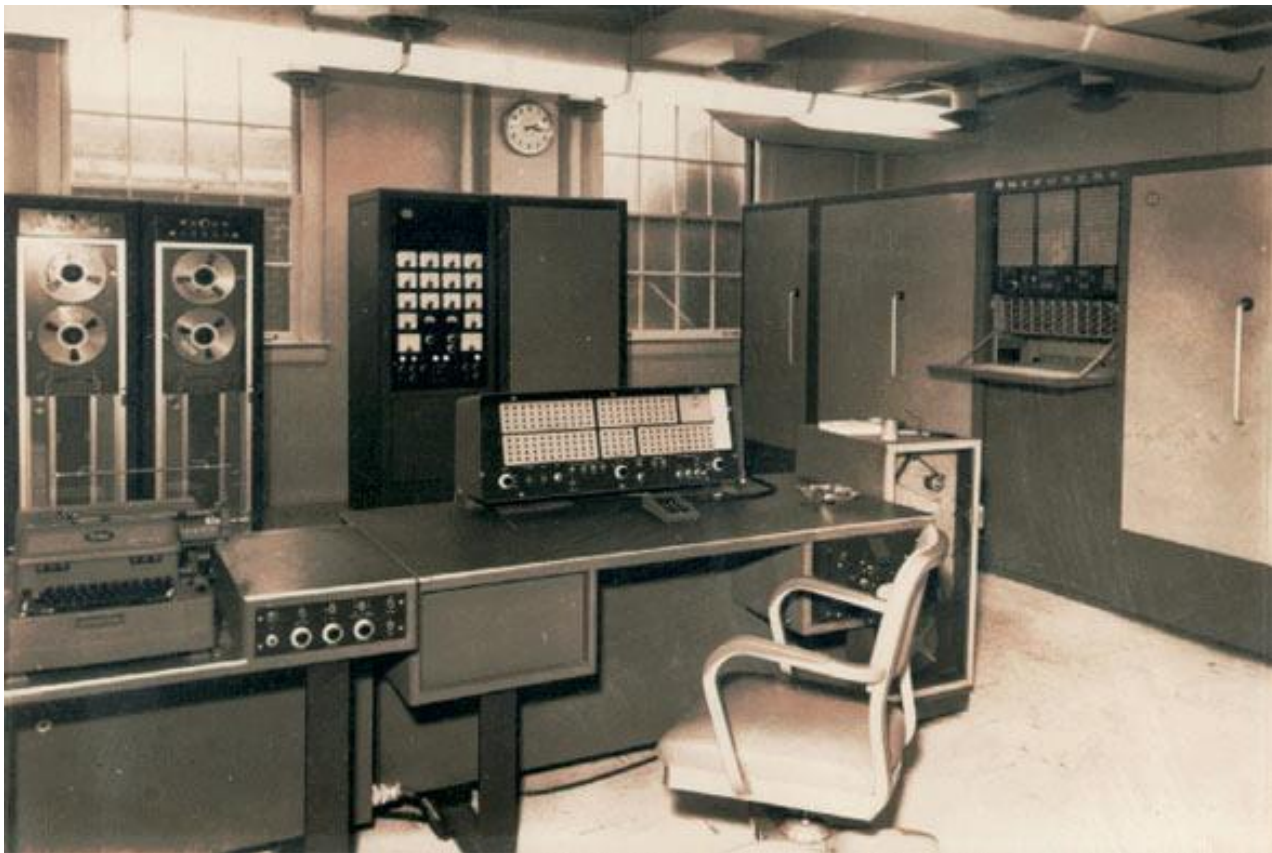
Jacques Bertin

*Sémiologie Graphique*



●  
1950+

# Počítače



# Shrnutí?

Vizualizace, o kterých se mluví ještě několik staletí, jsou:

bud' a) první svého druhu,

nebo b) měli jasný cíl, vyprávějí příběh nebo řeší problém,

či za c) obojí najednou (*ale to po vás chtít nebudeme*).

# Úkol

Ponořte se do Friendlyho archivu  
**<http://www.datavis.ca/milestones/>**

Najděte vizualizaci, která vás zaujme.  
Zkuste o ní (a/nebo jejím autorovi) zjistit víc.  
Nikde nic? Napište, jak je vystavená, jak ji číst.

Vizualizaci s krátkým odstavcem (600+ znaků)  
sypejte do odevzdávárny.