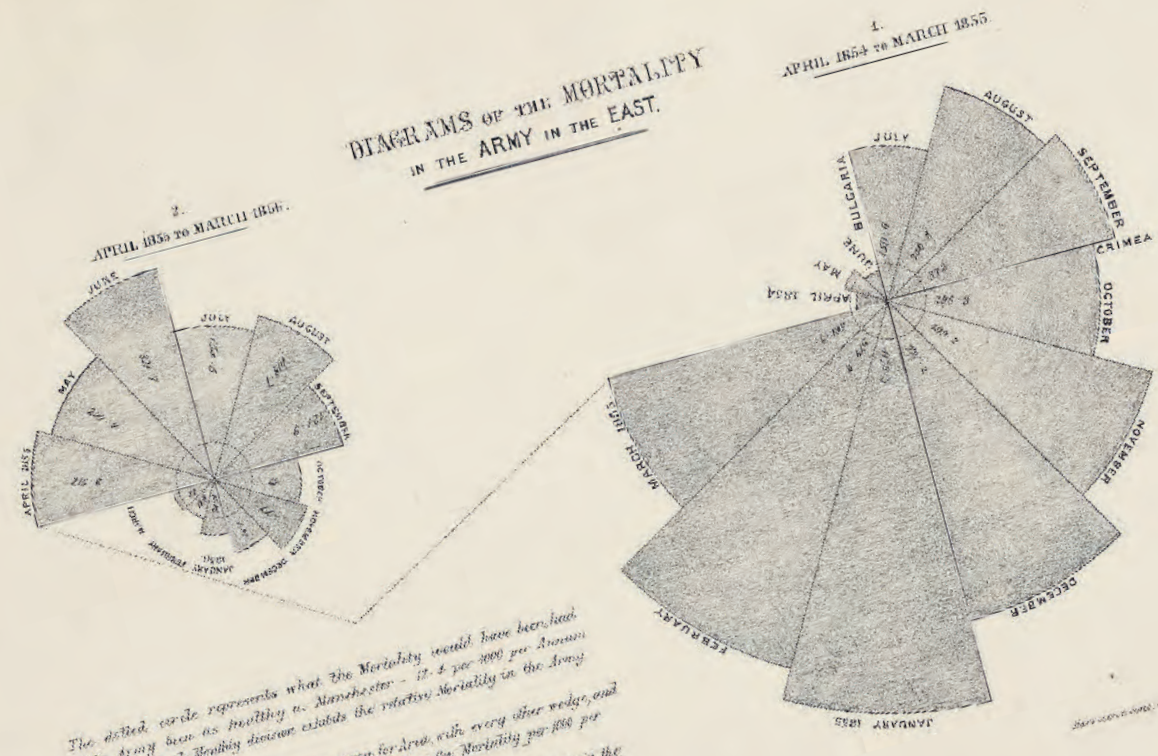
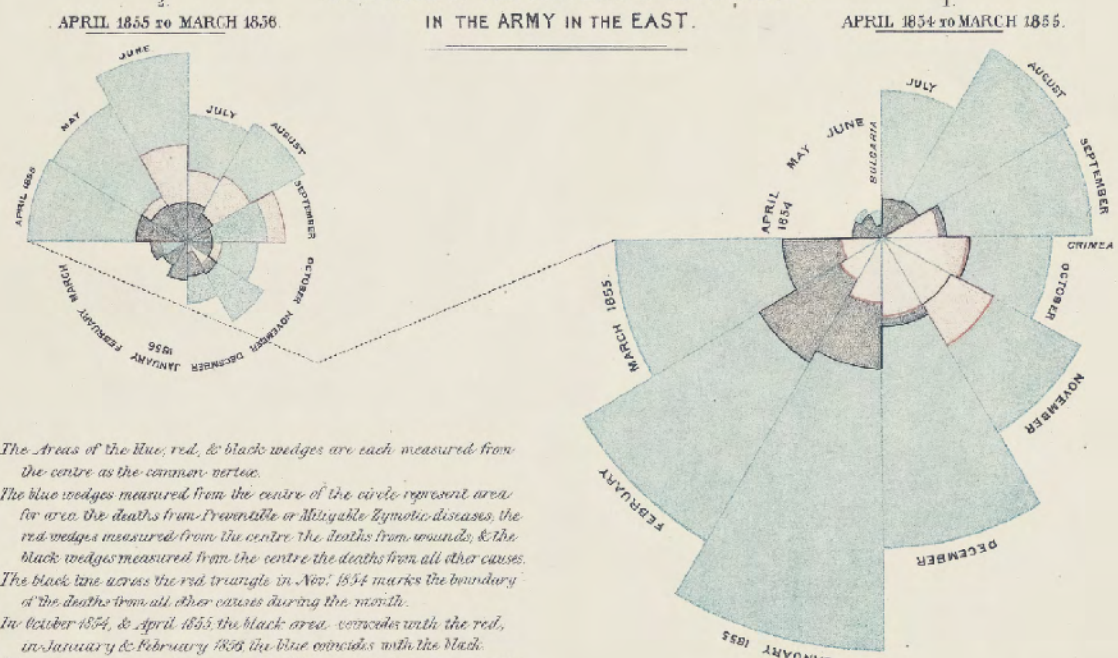


DIAGRAMS OF THE MORTALITY  
IN THE ARMY IN THE EAST.



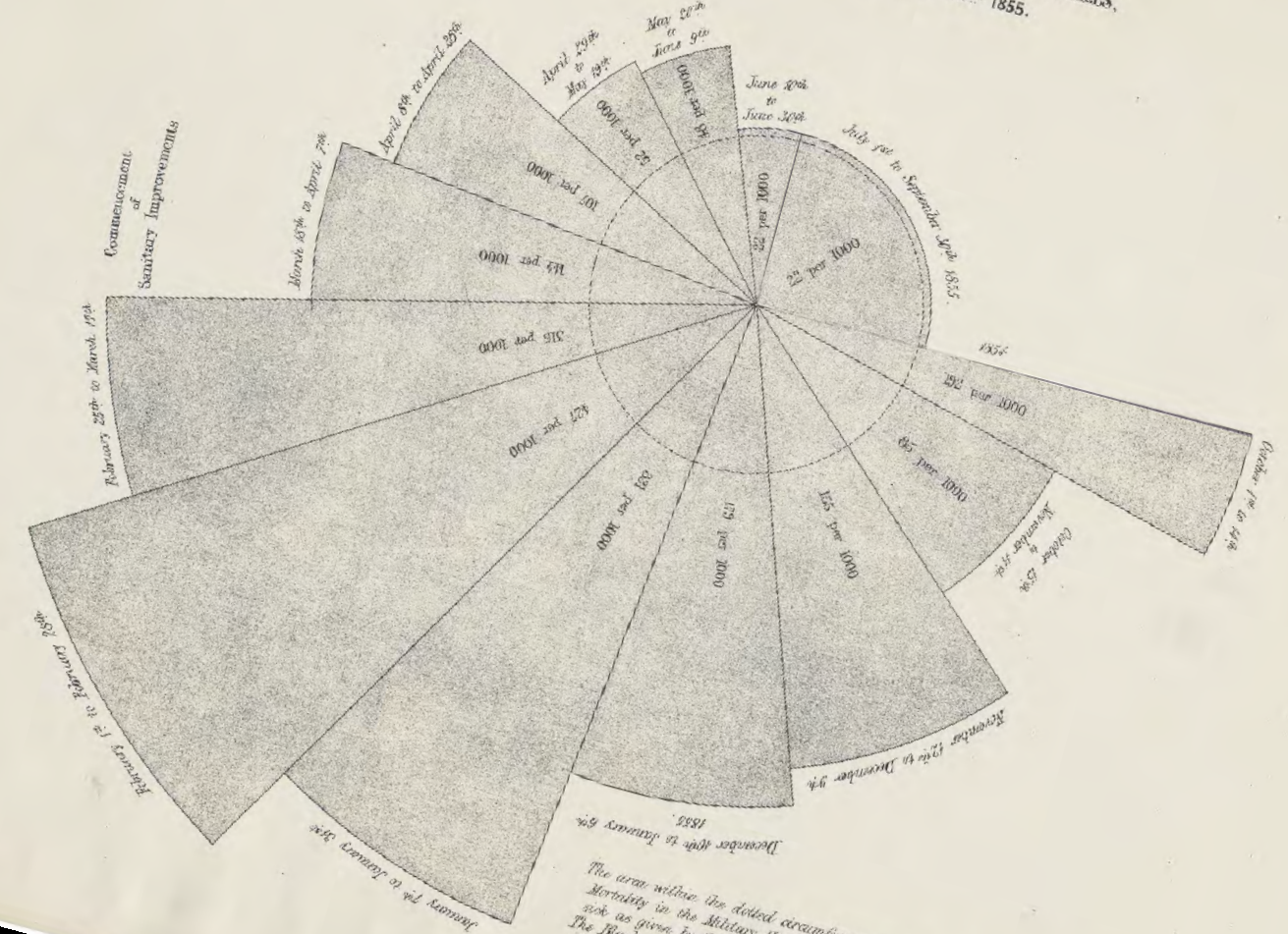
The dotted circle represents what the Mortality would have been had the Army been as healthy as Manchester - 25 to 3 per 1000 per Annum during the Month.  
Each wedge outside of Comparison, area is drawn with every other wedge and with the Manchester circle, and each wedge shows the Mortality in the Army during for the Month.  
The area drawn outside the Manchester circle exhibits the excess of Mortality in the Army for the same year over that of one of the most unhealthy towns in England.  
The figures show the Mortality per 1000 per Annum.

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

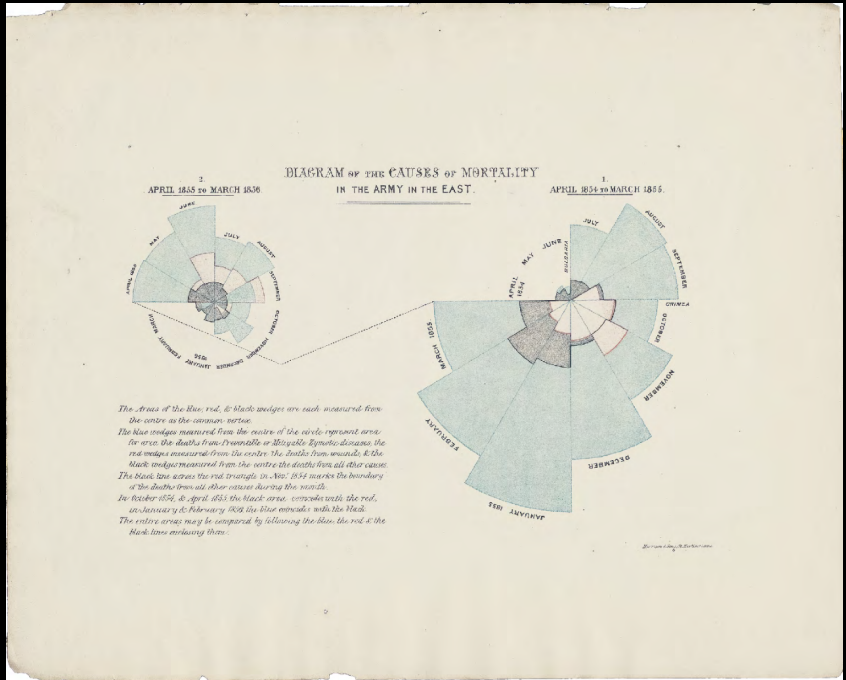
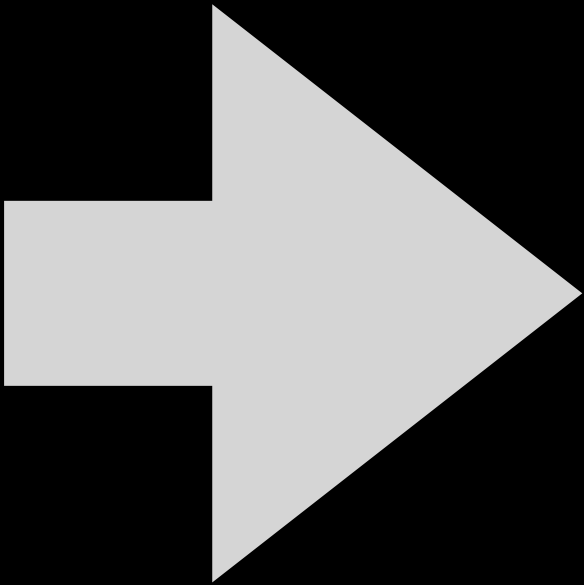
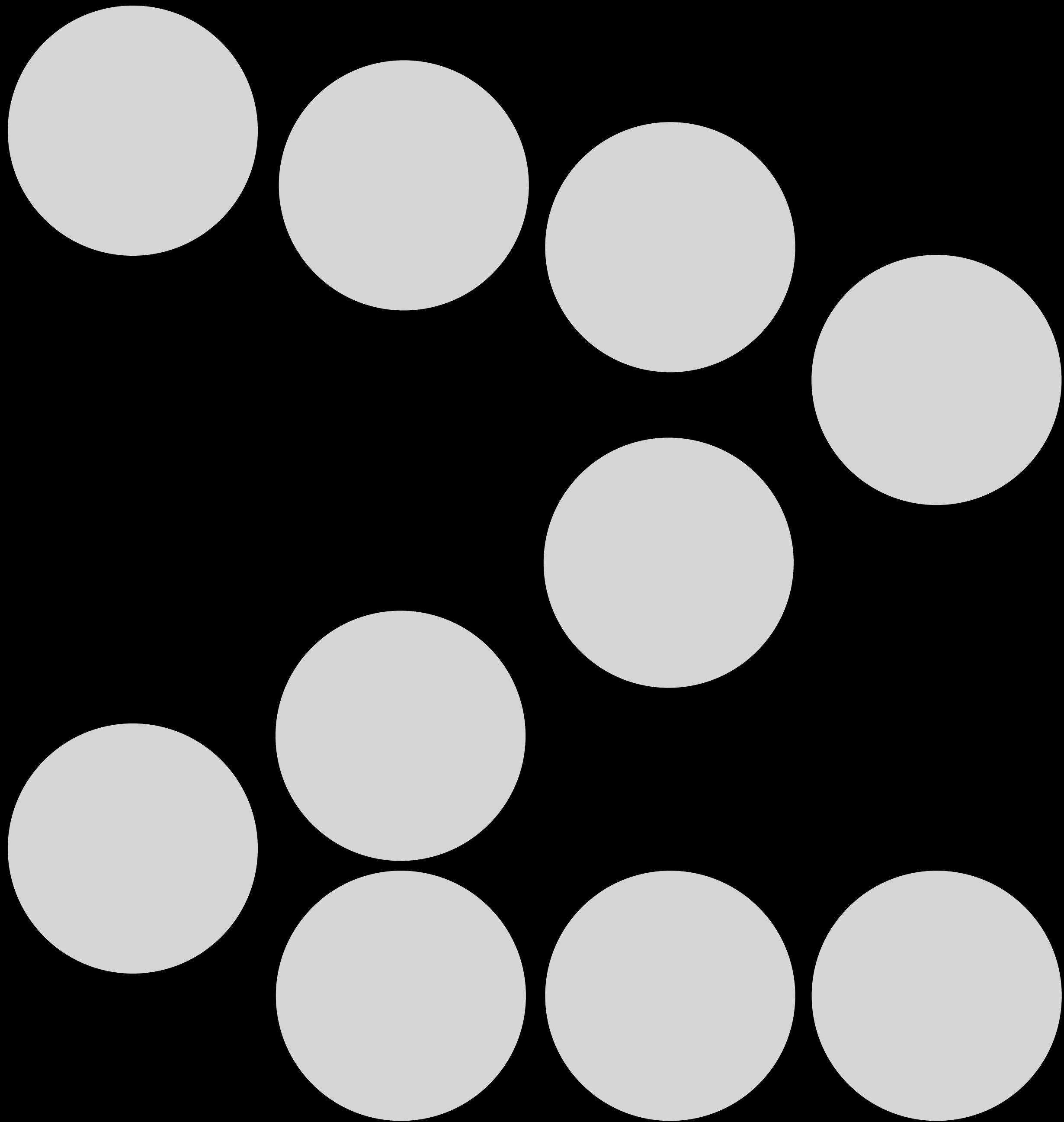


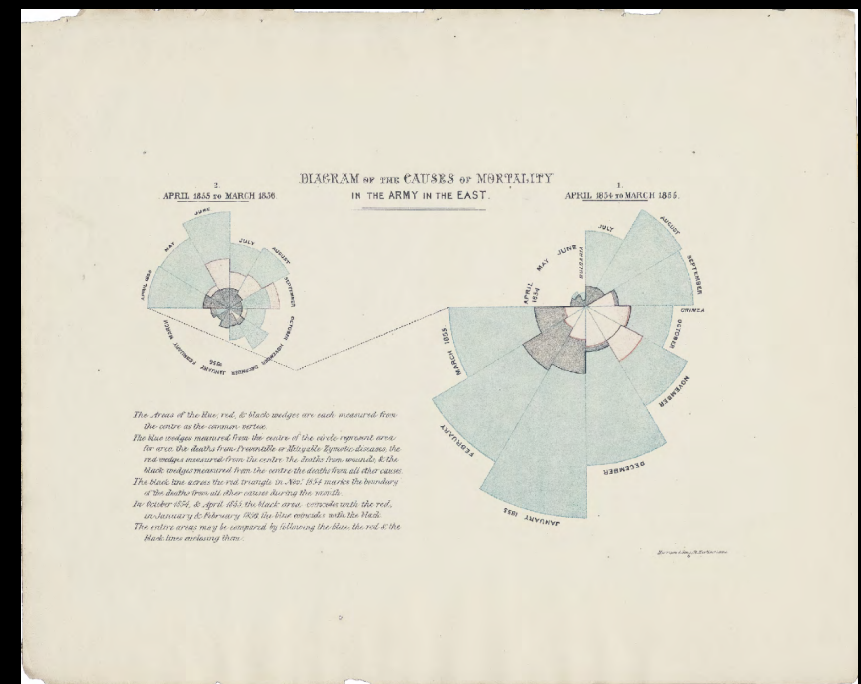
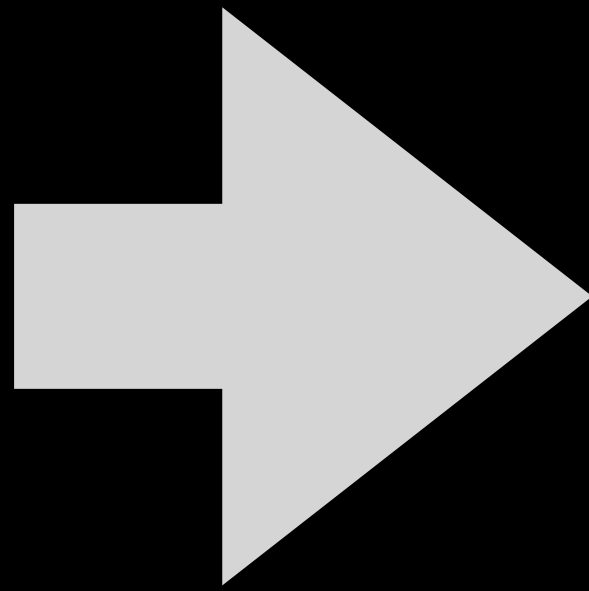
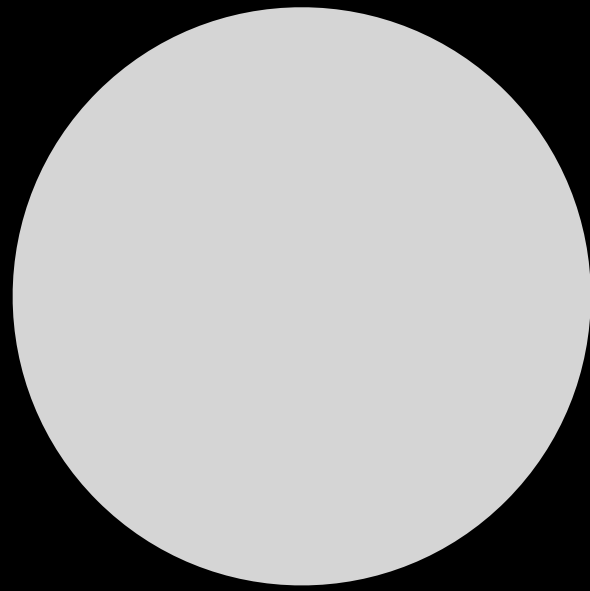
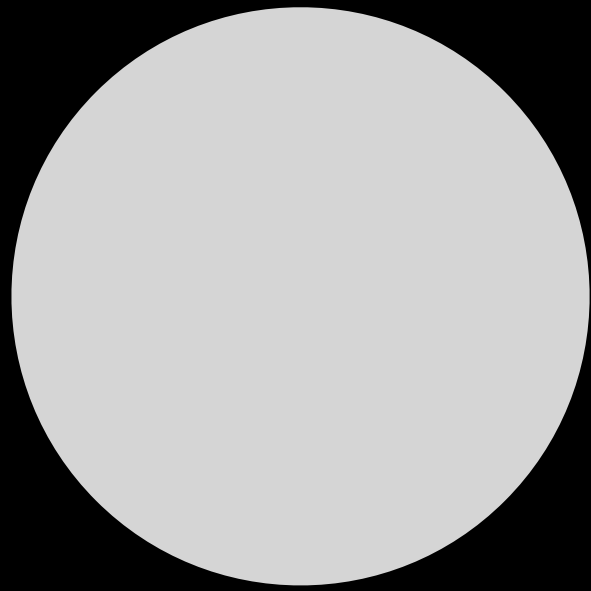
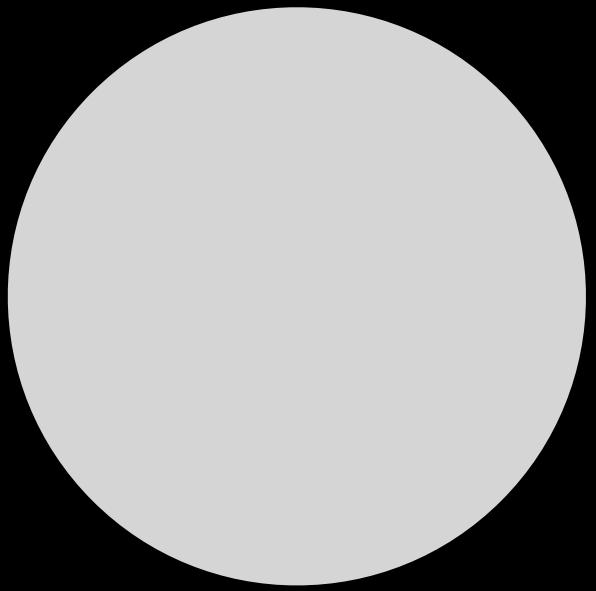
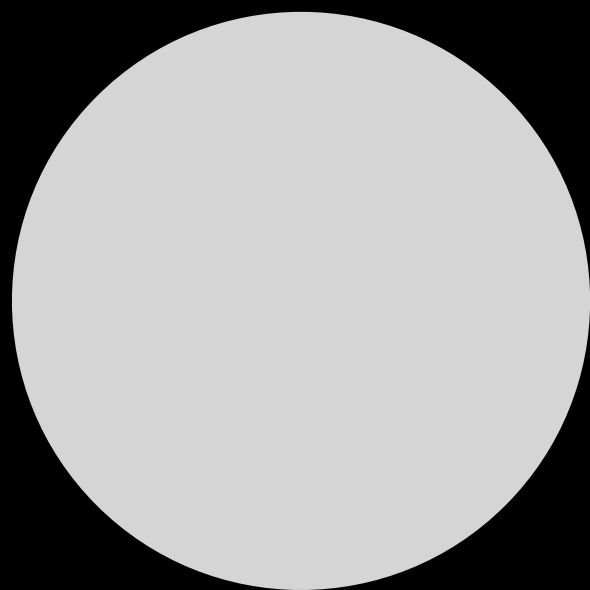
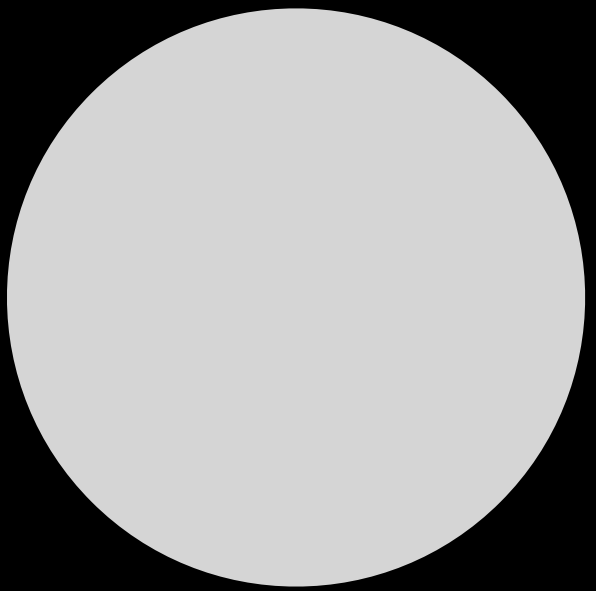
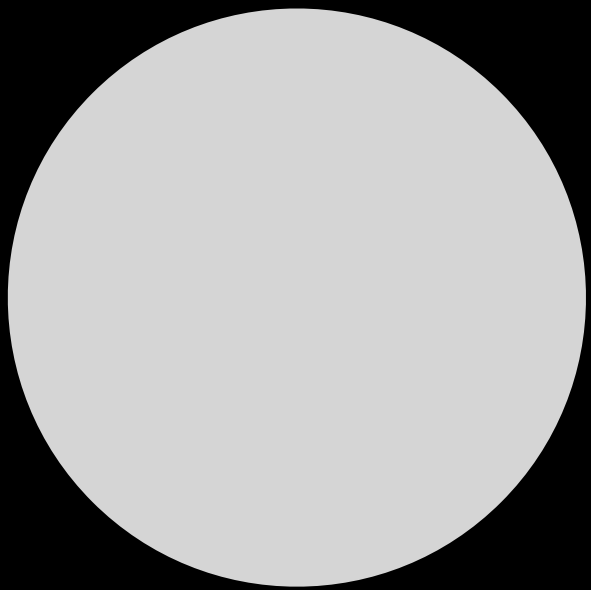
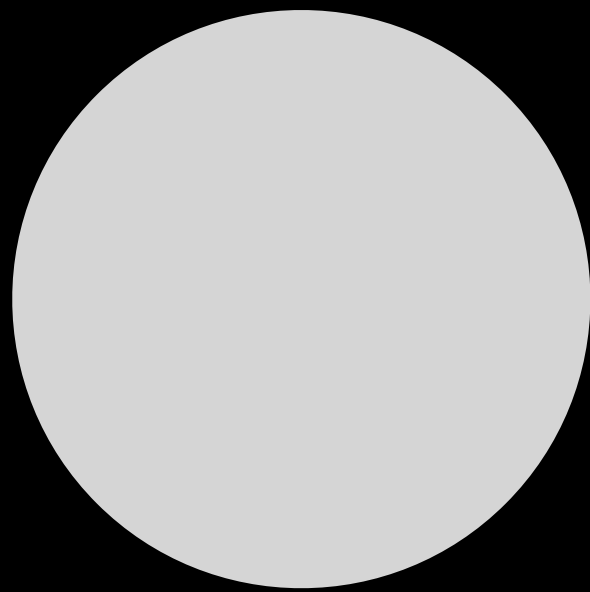
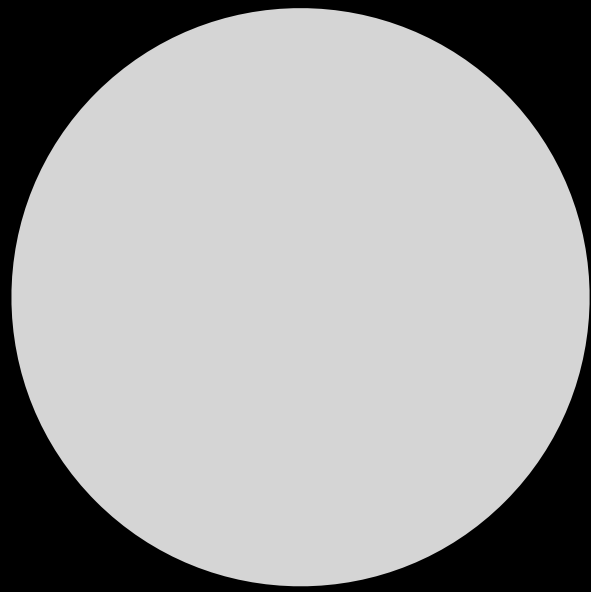
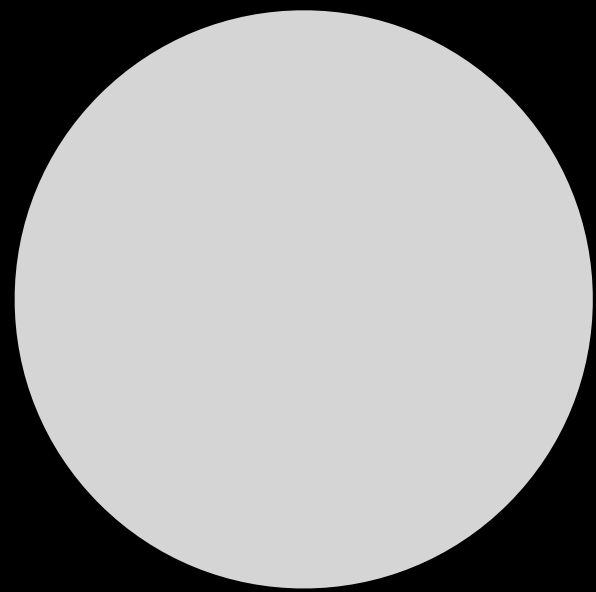
The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.  
The blue wedges measured from the centre of the circle represent area for area the deaths from Typhoid or Malignant Zymotic diseases.  
The red wedges measured from the centre the Deaths from wounds & 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.

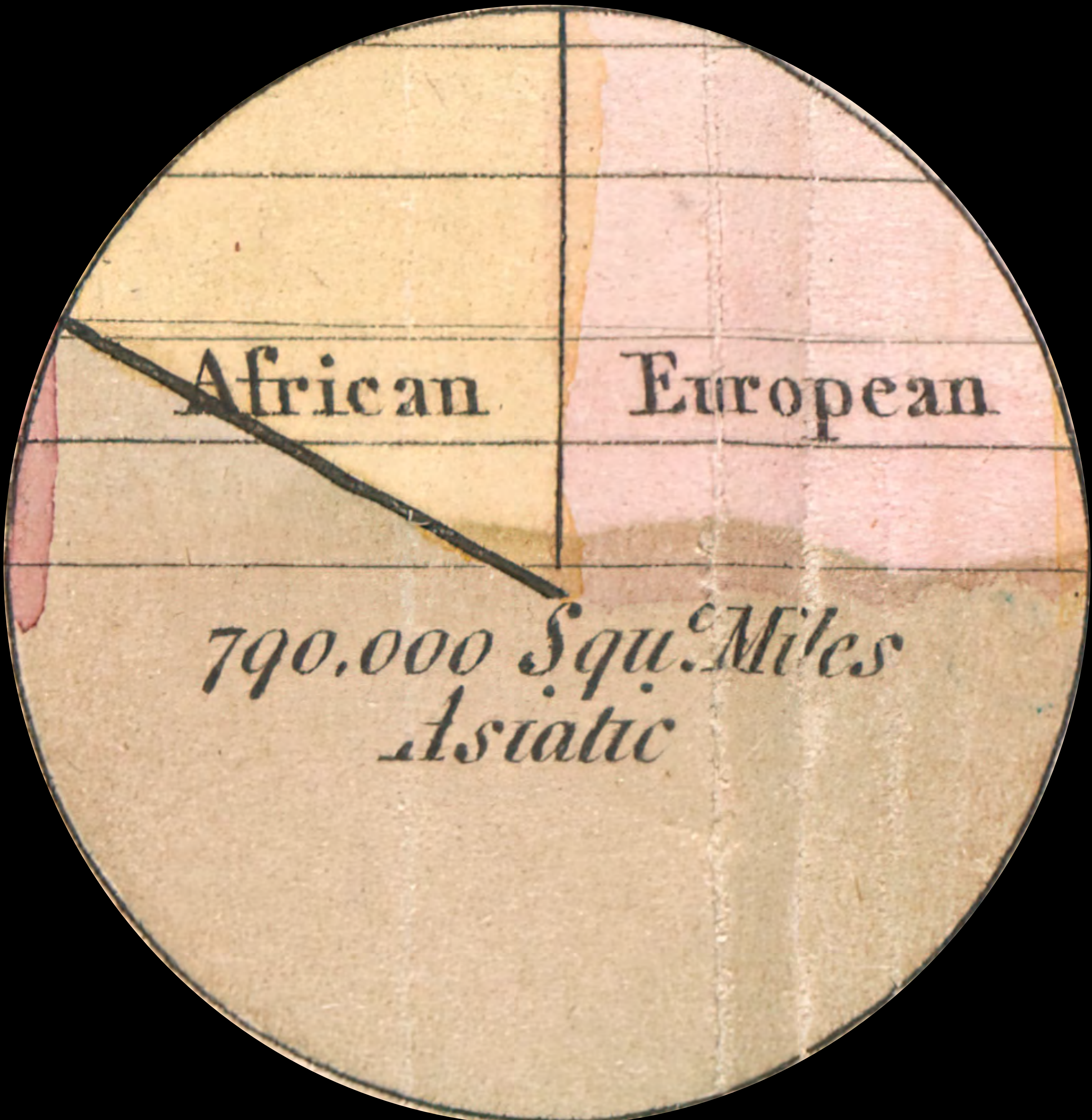
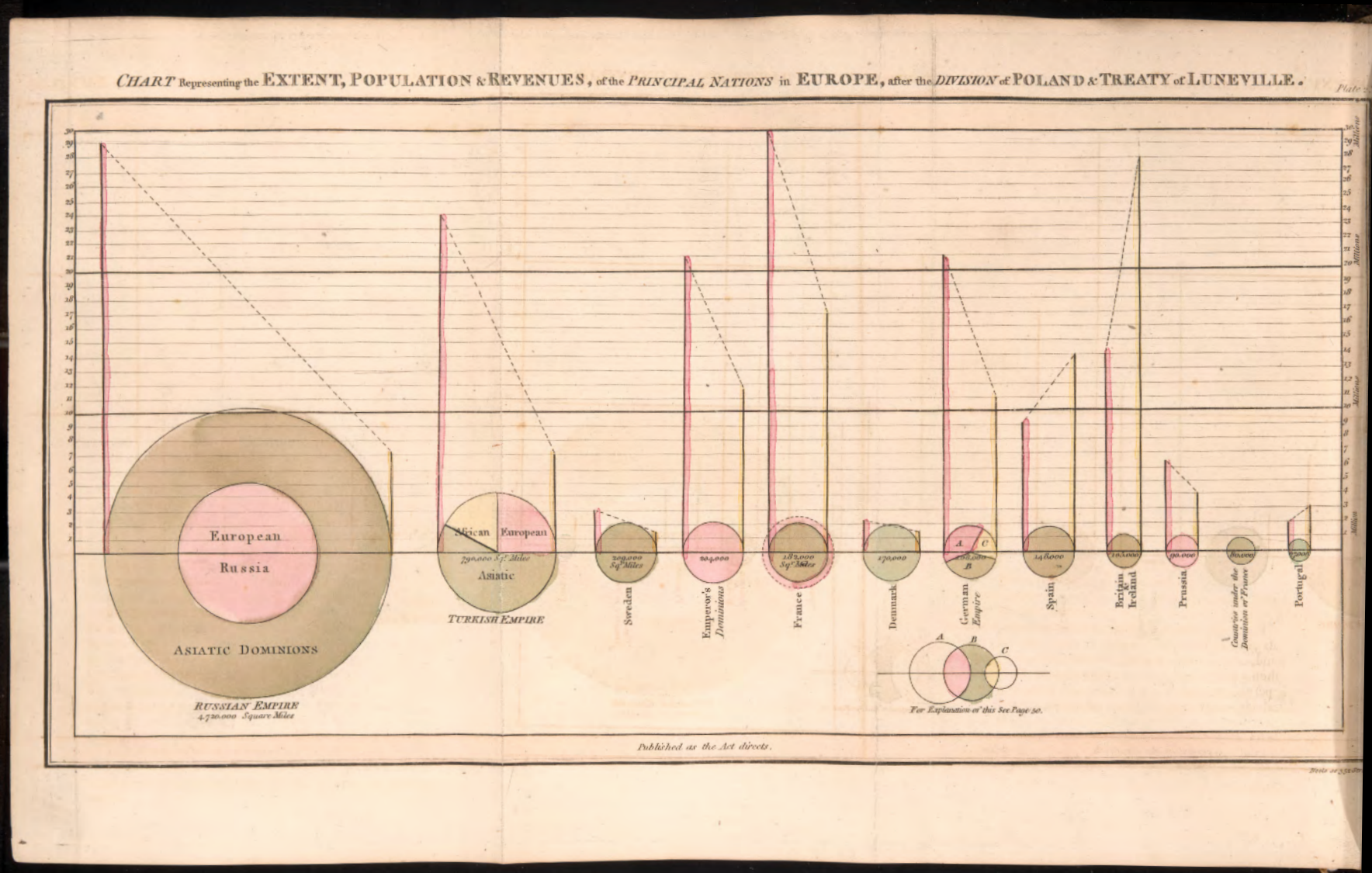
DIAGRAM REPRESENTING THE MORTALITY IN THE HOSPITALS  
AT SCUTARI AND KULALI, FROM OCTOBER 17<sup>th</sup> 1854, TO SEPT<sup>th</sup> 30<sup>th</sup> 1855.



The area within the dotted circumference represents the average annual mortality in the Military Hospitals in and near London - 25 to 3 per 1000.  
The black wedges measured from the Centre represent to their area the Mortality per 1000 in the Hospitals at Scutari and Kulali in 1854 & 1855.

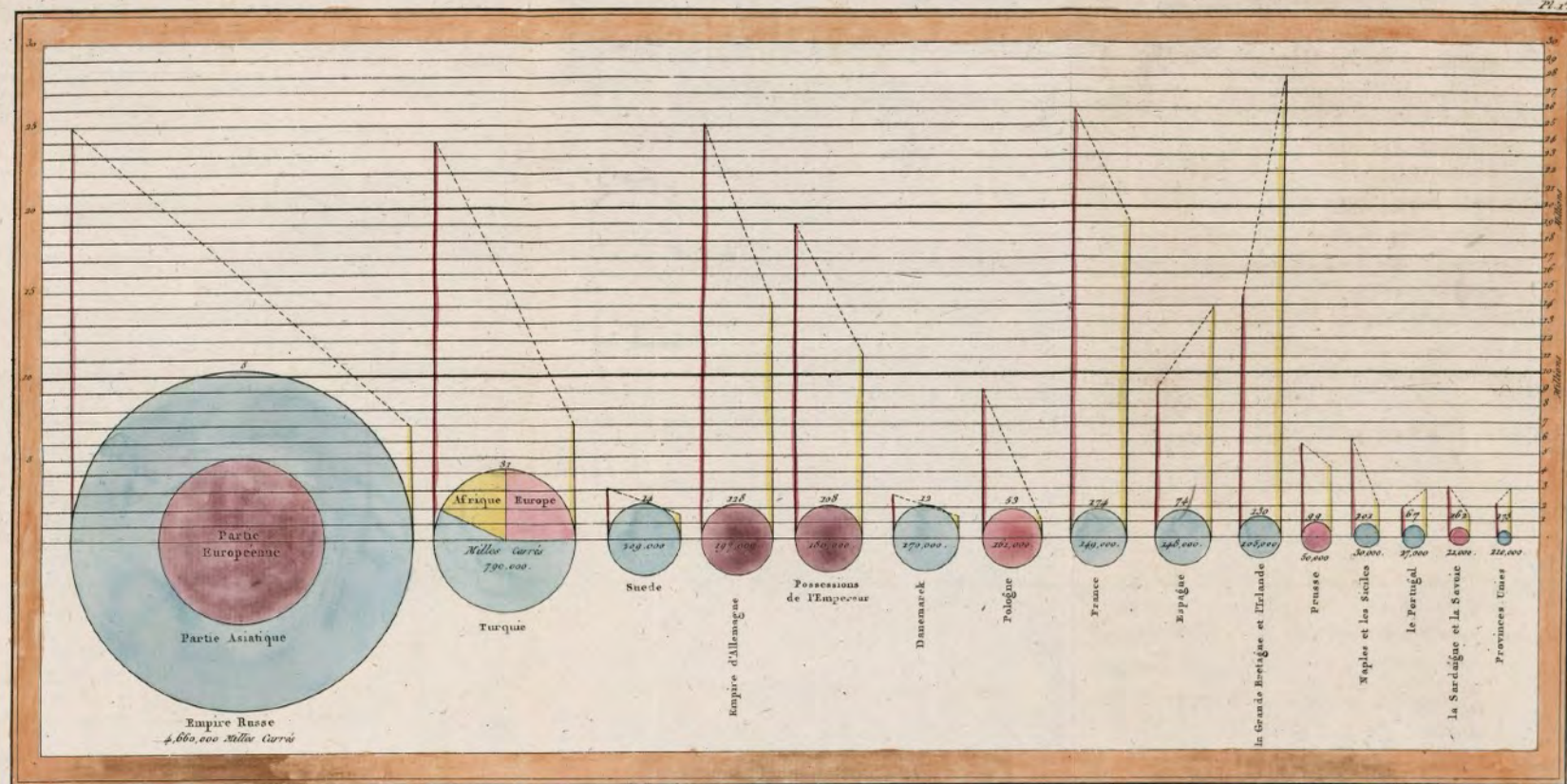




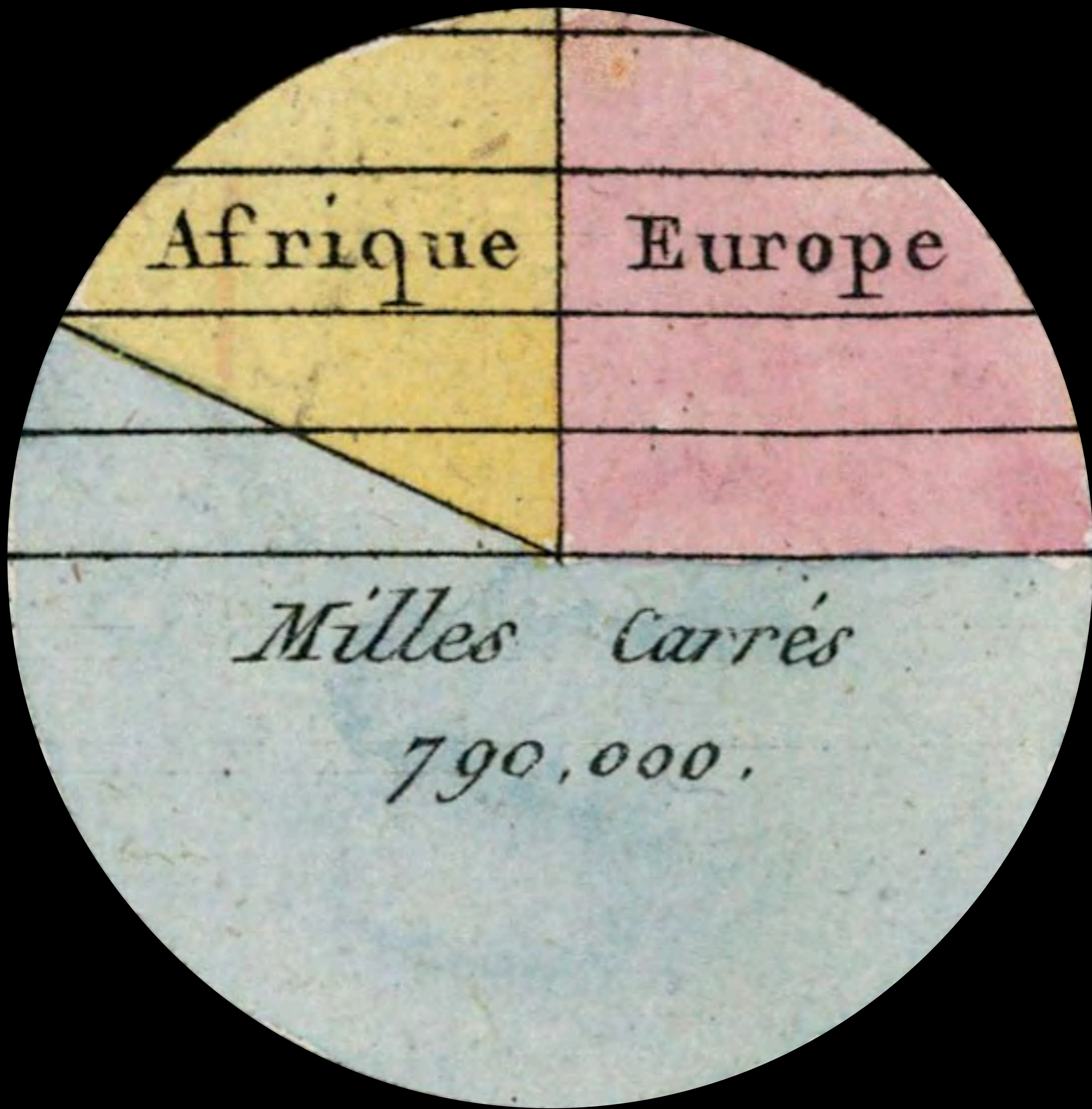


**1801** William Playfair, *The statistical breviary* (London, 1801).  
 UPenn Libraries

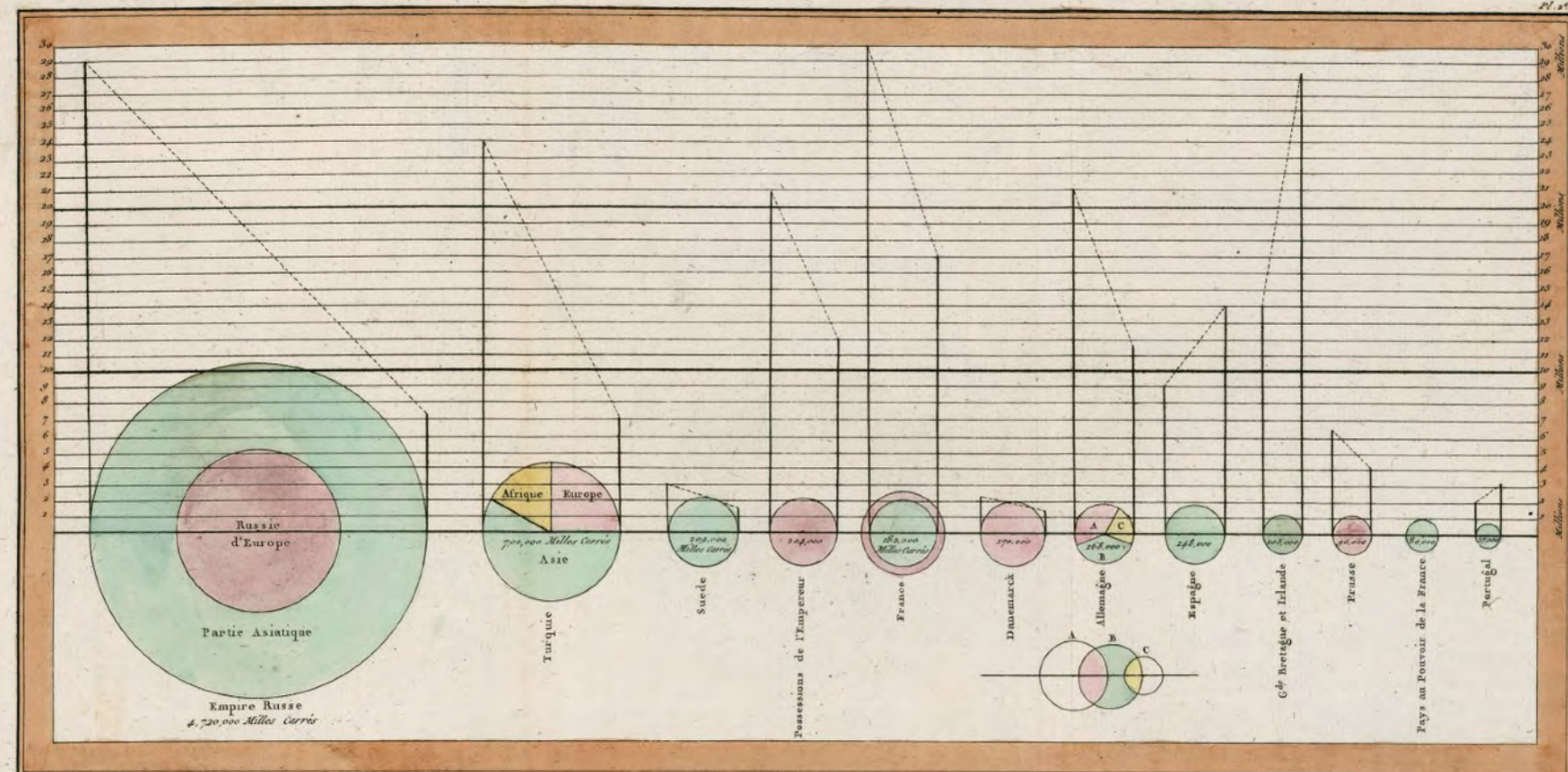
CARTE Statistique Représentant l'étendue, la population et les Revenus des Principales Nations de l'Europe, suivant l'ordre de leur Grandeur.



Gravé par Adam.



CARTE Statistique Représentant l'étendue, la population et les Revenus des Principales Nations de l'Europe, après la Division de la Pologne et le traité de Lunéville.

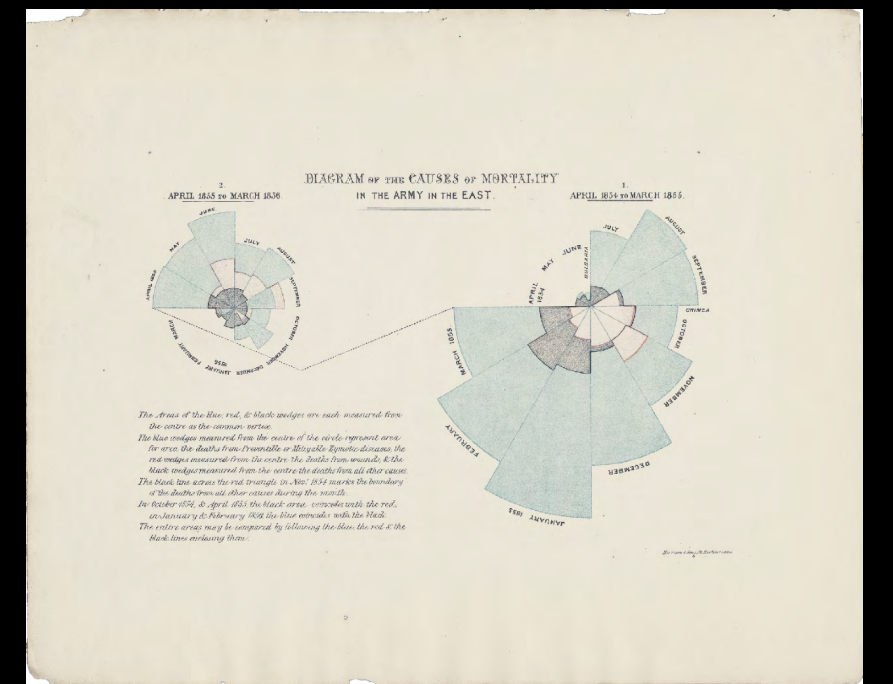
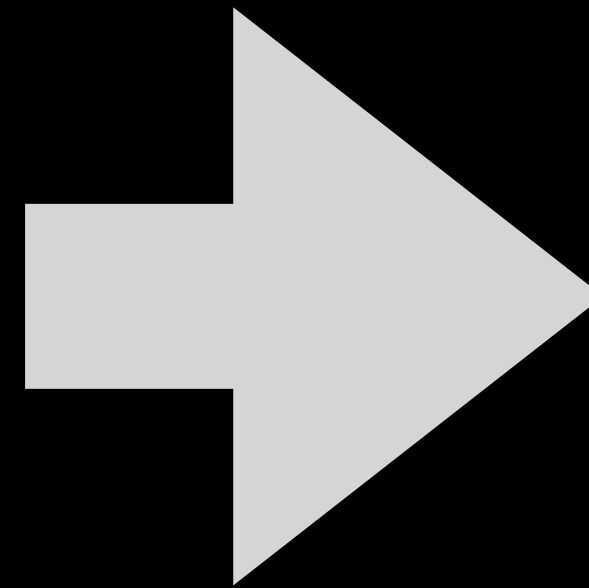
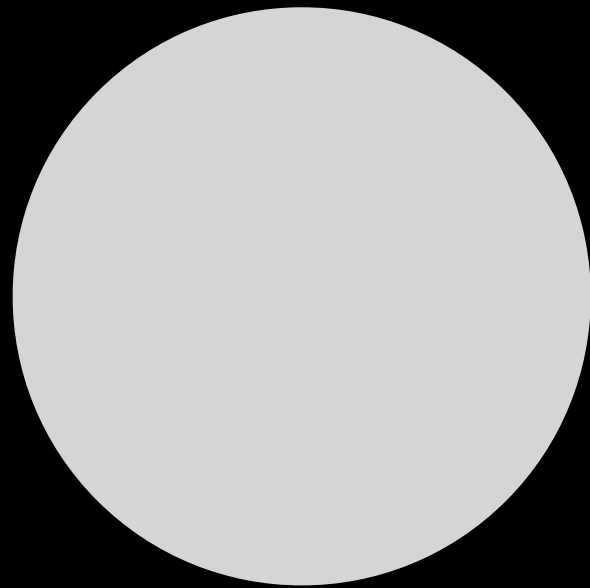
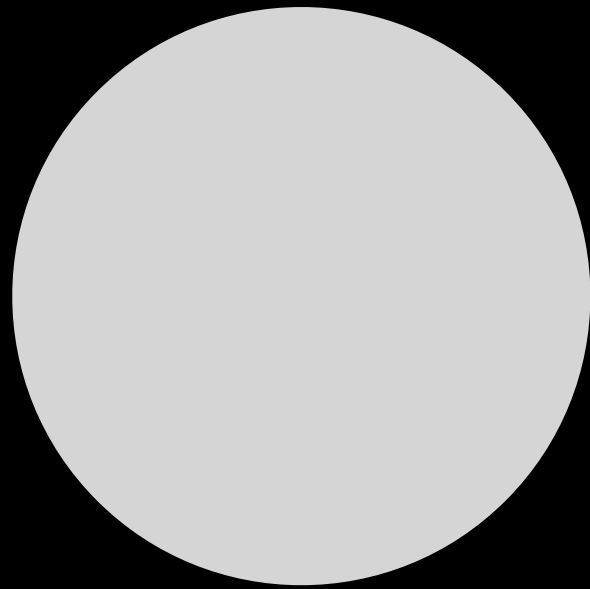
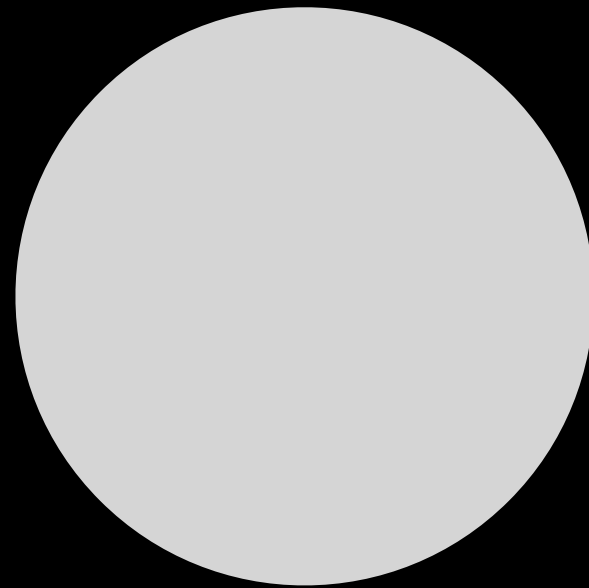
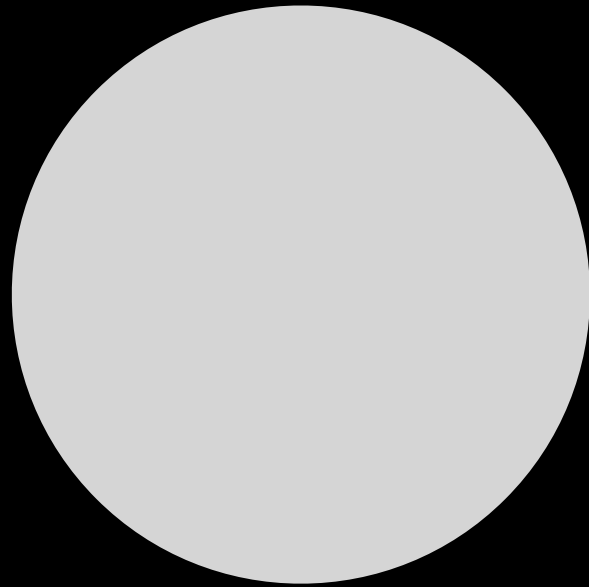
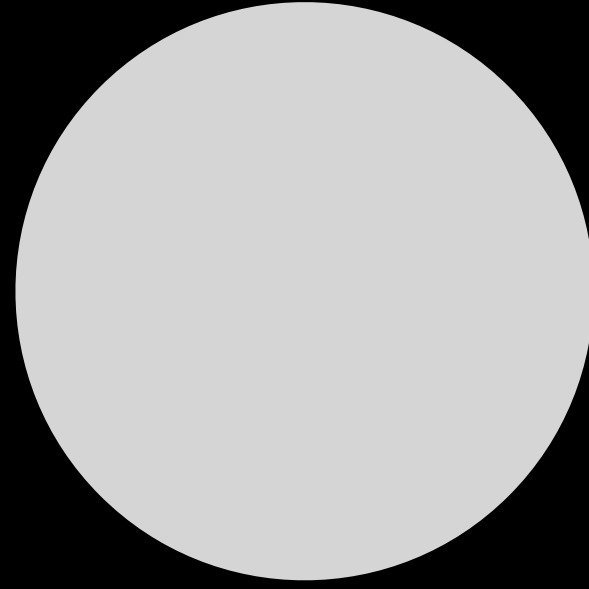
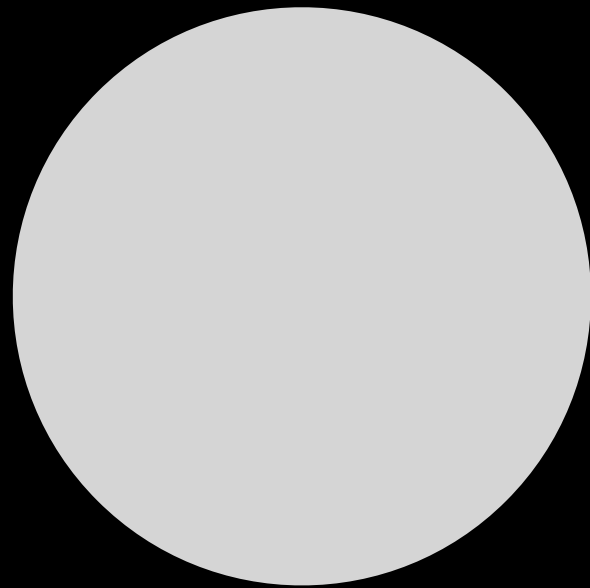
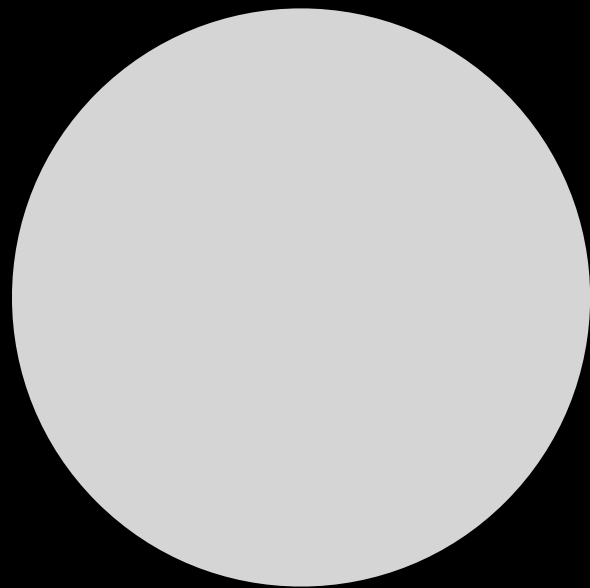
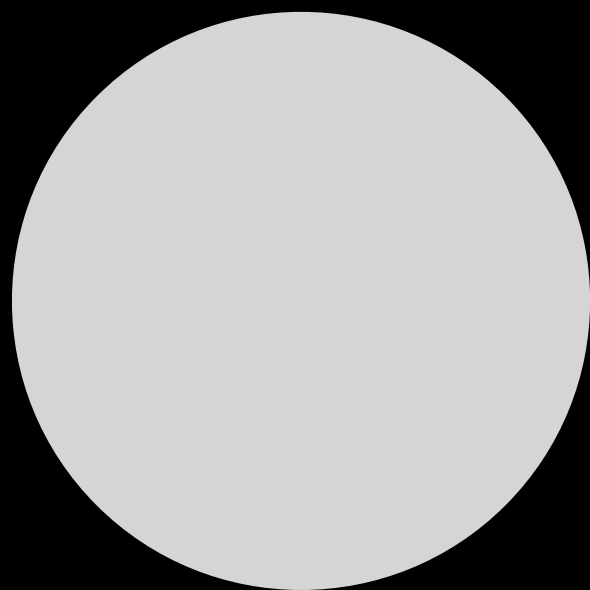
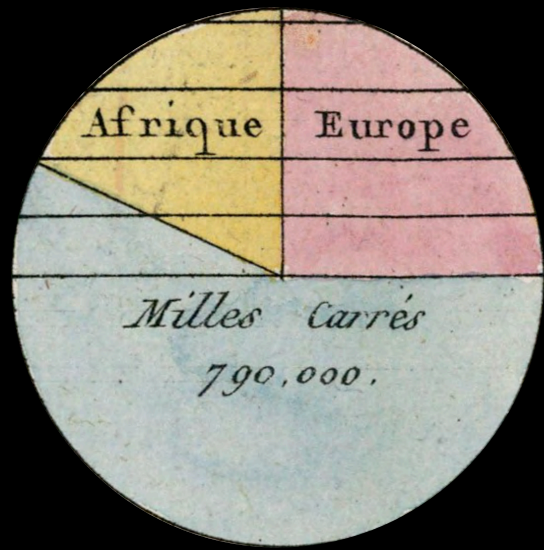
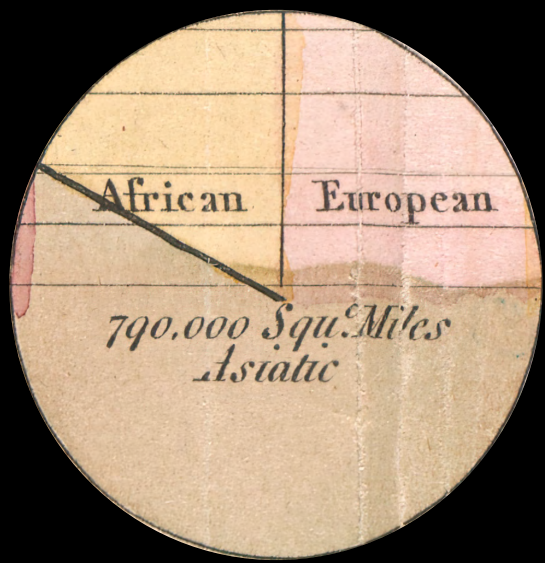


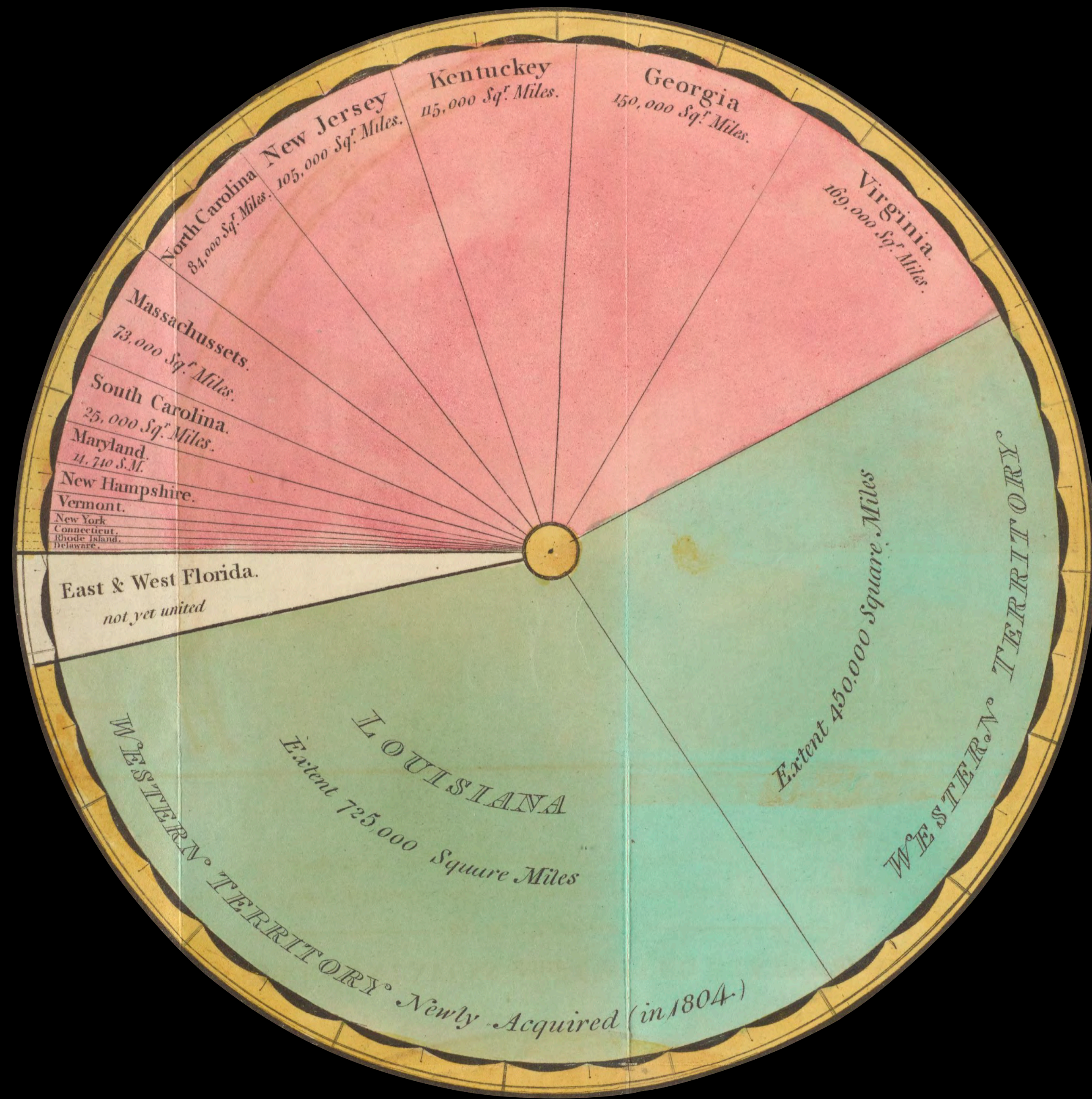
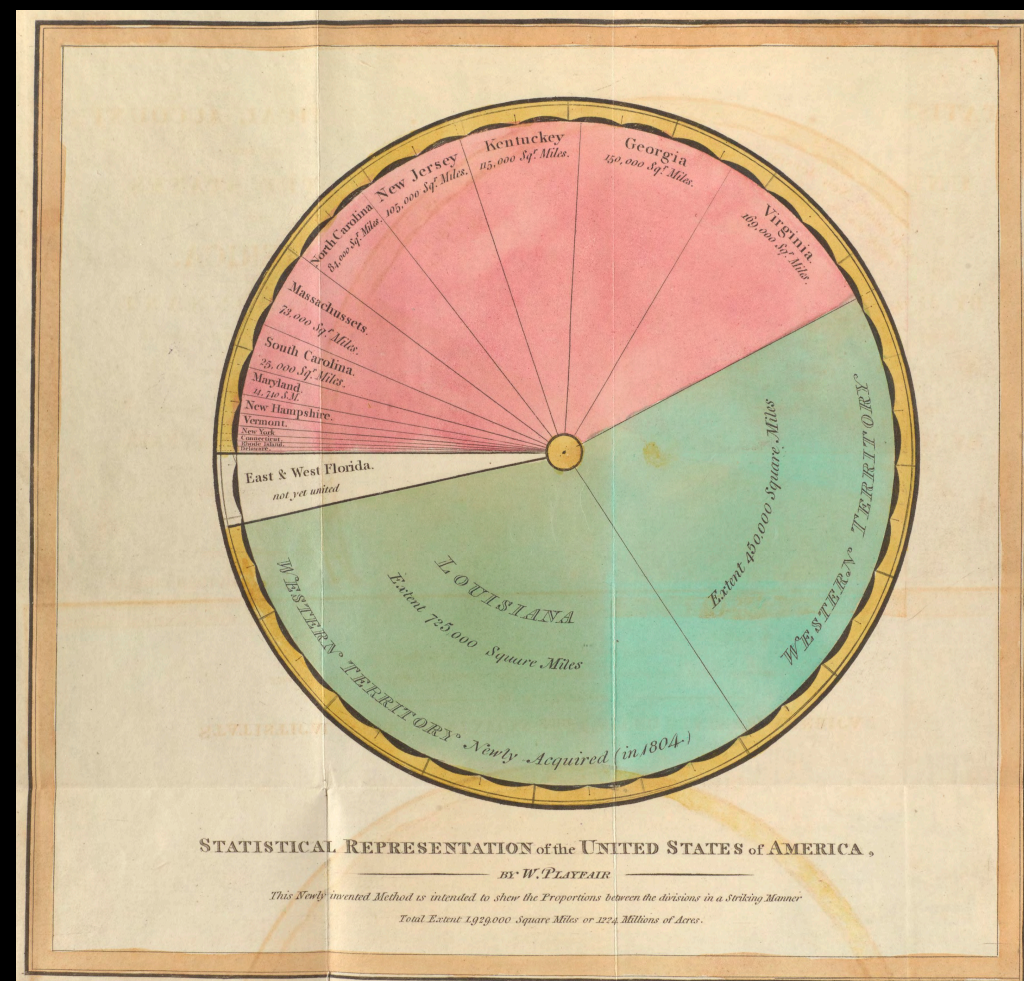
Gravé par Adam.

1802

William Playfair, *Éléments de statistique* (Paris, 1802).

David Rumsey Map Collection.

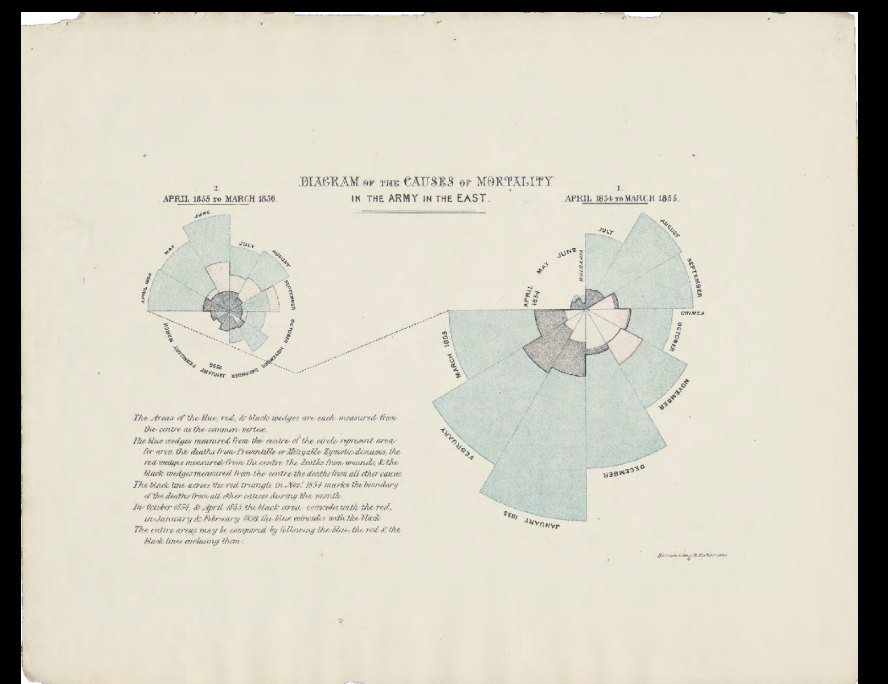
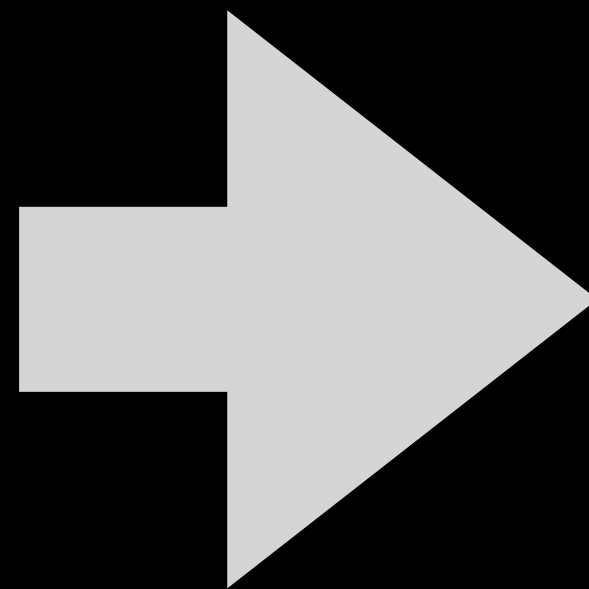
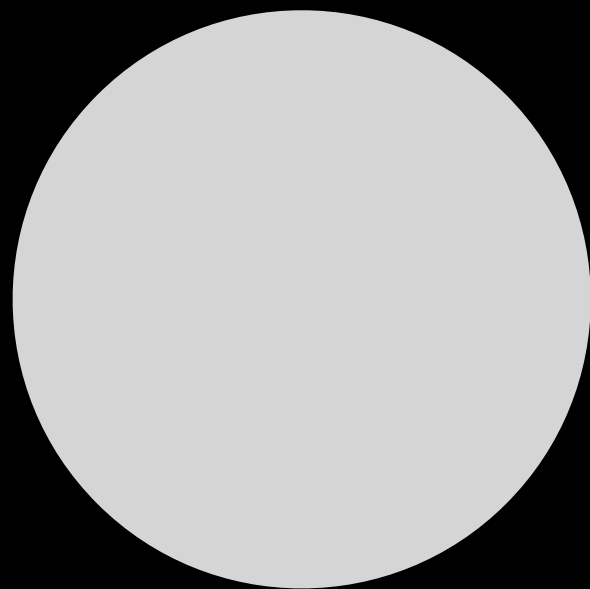
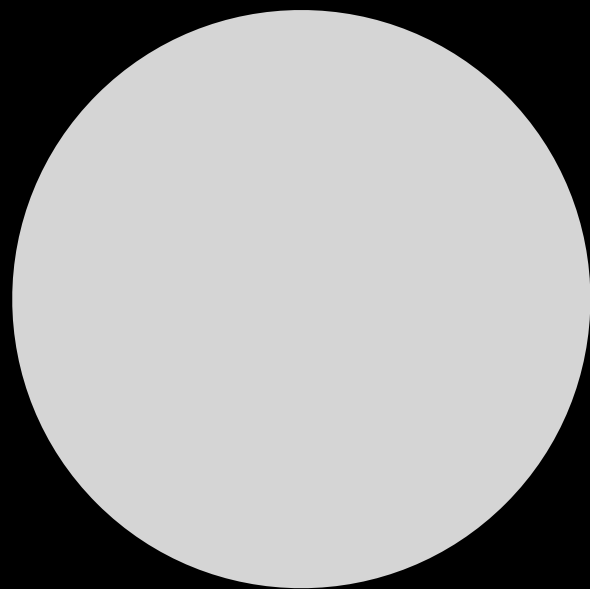
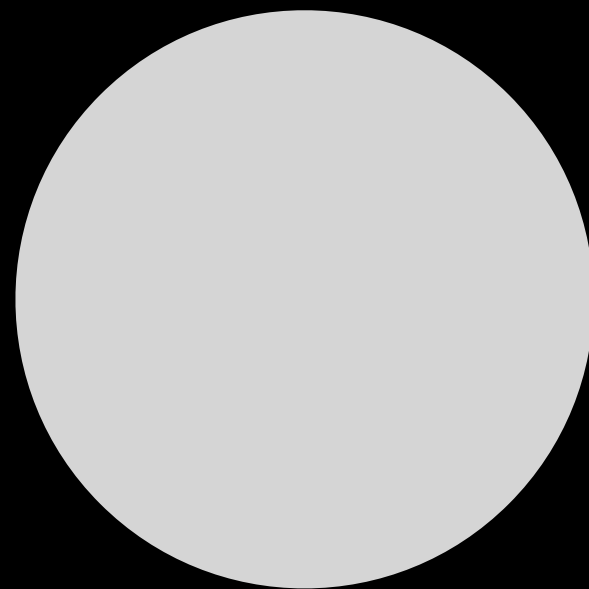
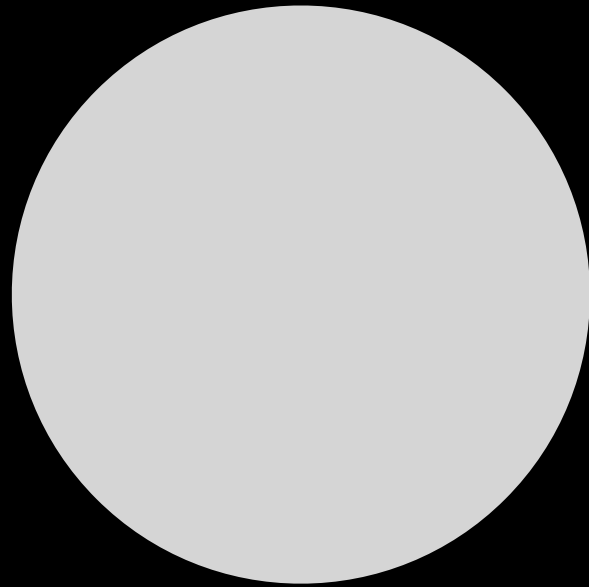
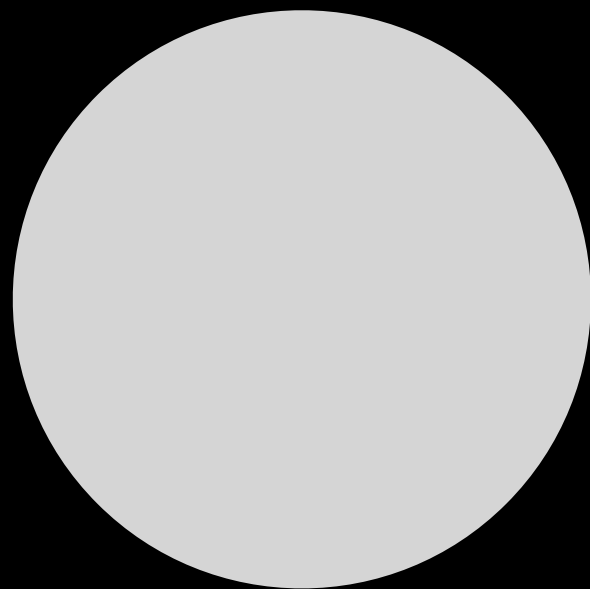
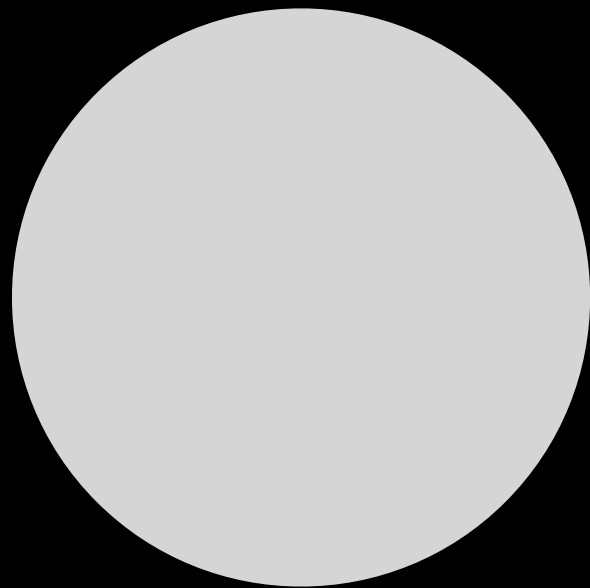
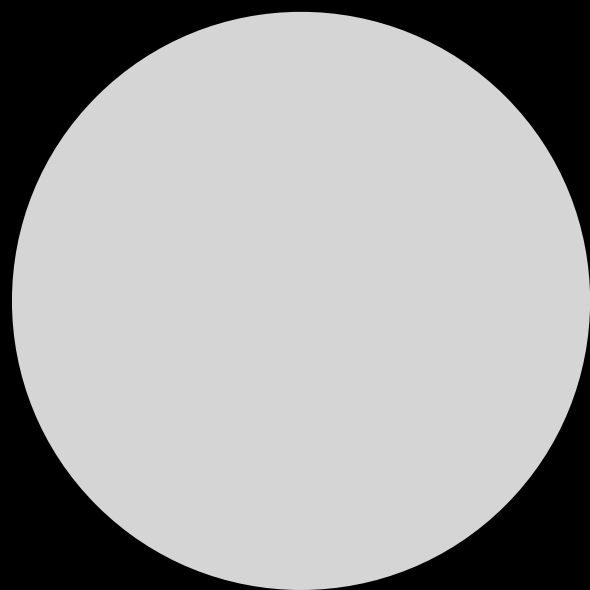
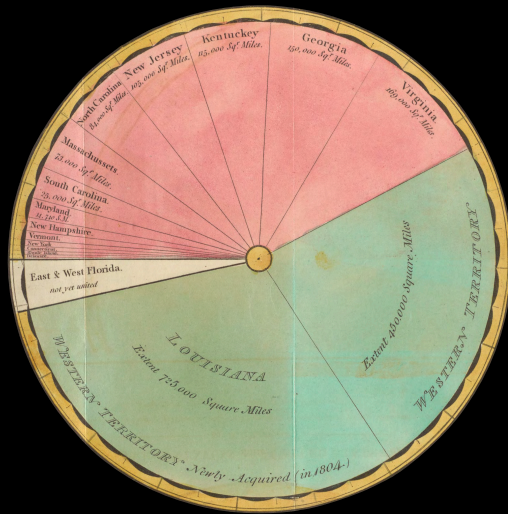




1805

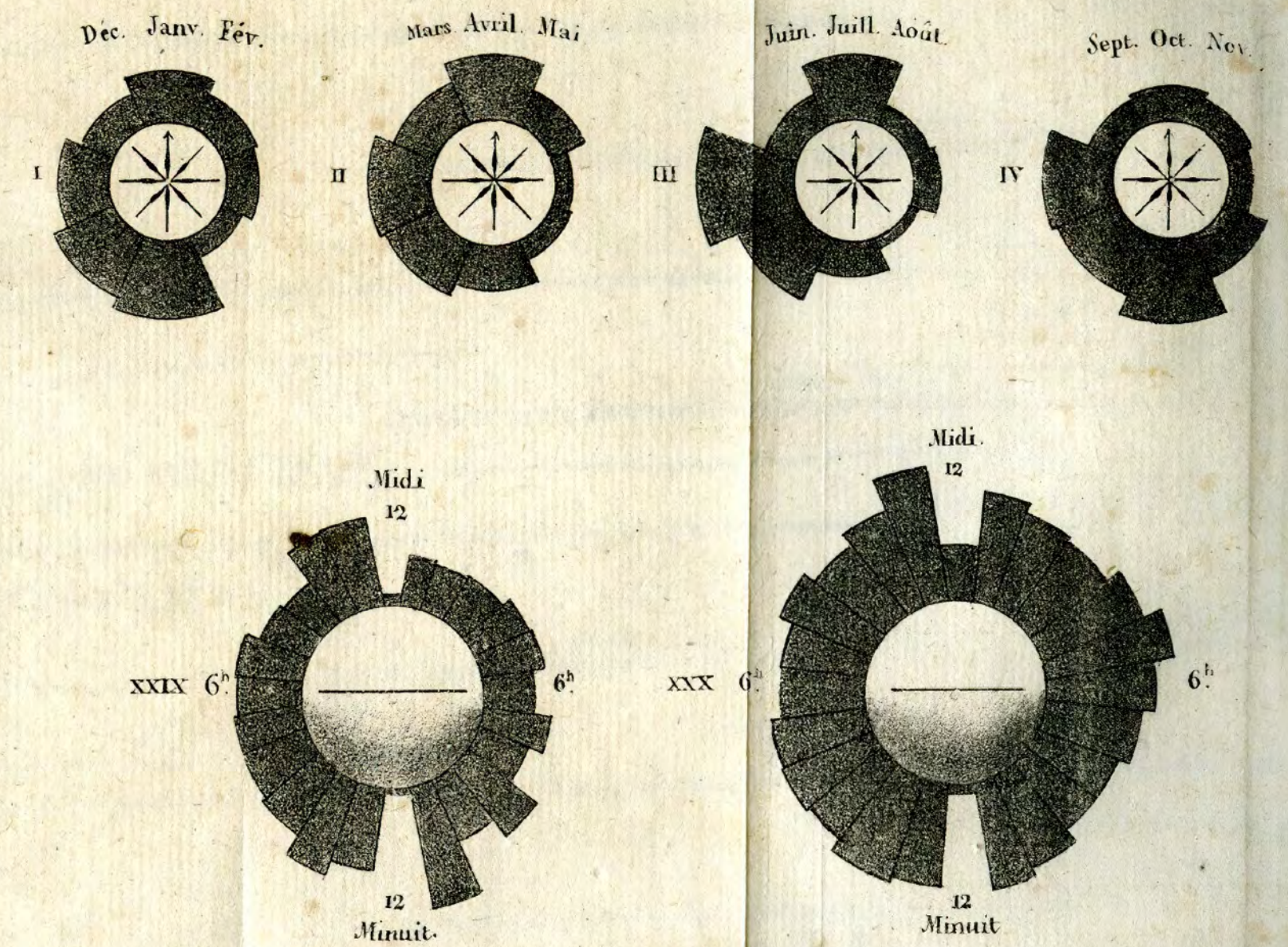
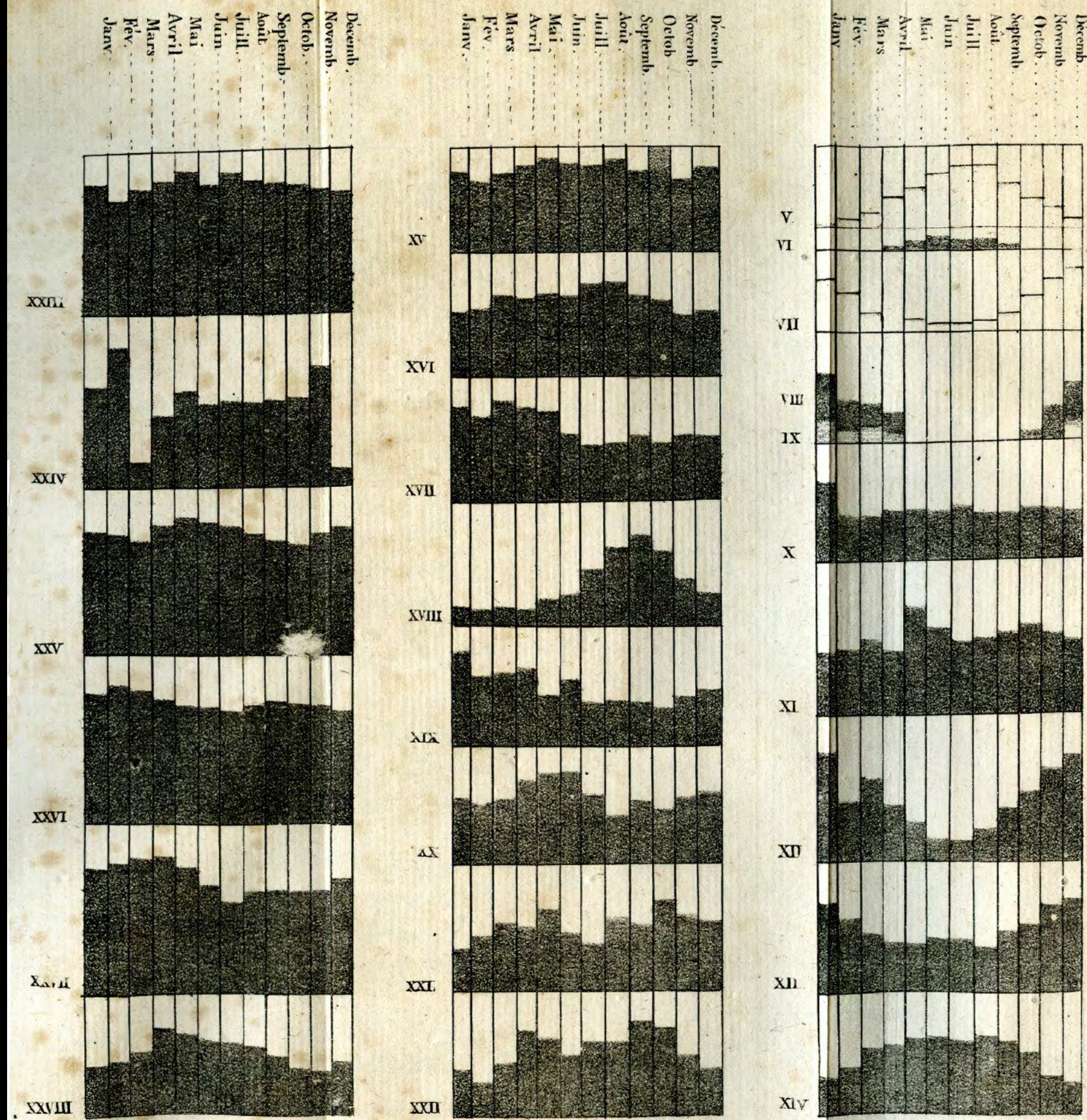
William Playfair, "Statistical Representation of the United States of America" (London, 1805).

Lehigh University Library.






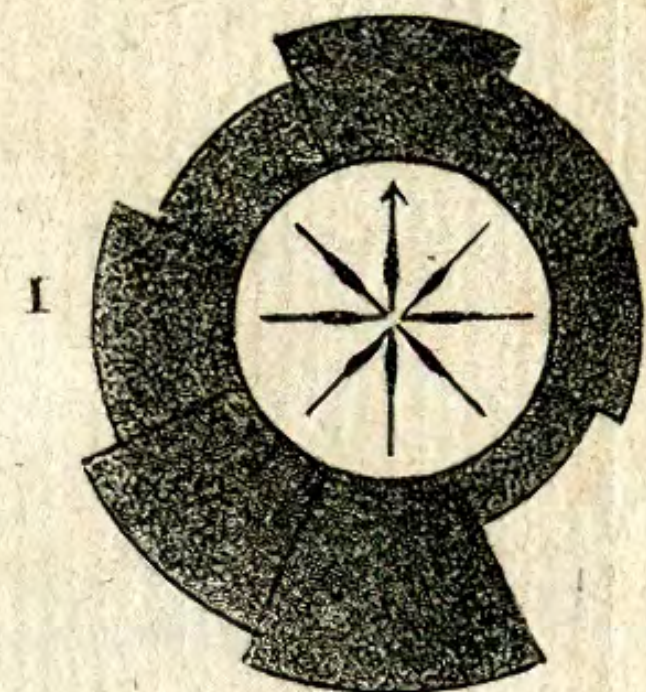
...?



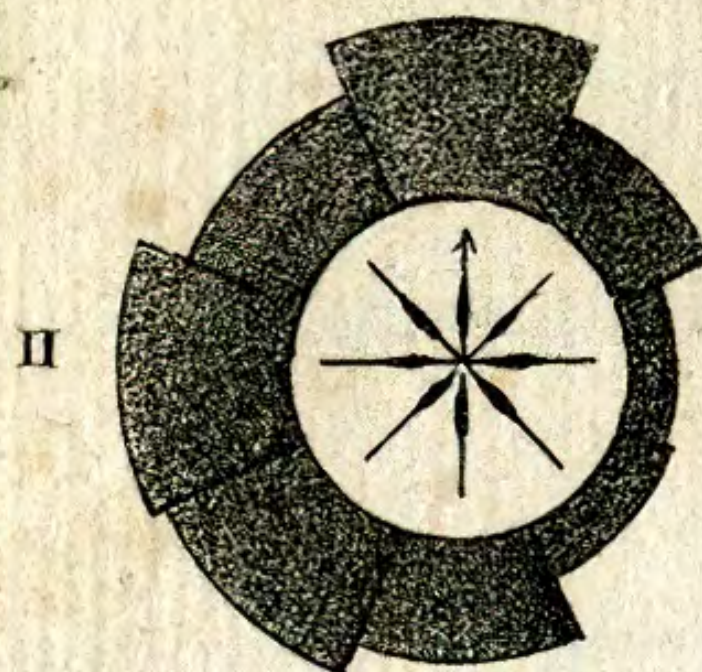
1829

André-Michel Guerry, "Mémoire sur les variations météorologiques comparées aux phénomènes physiologiques" (Paris, 1829).  Michael Friendly

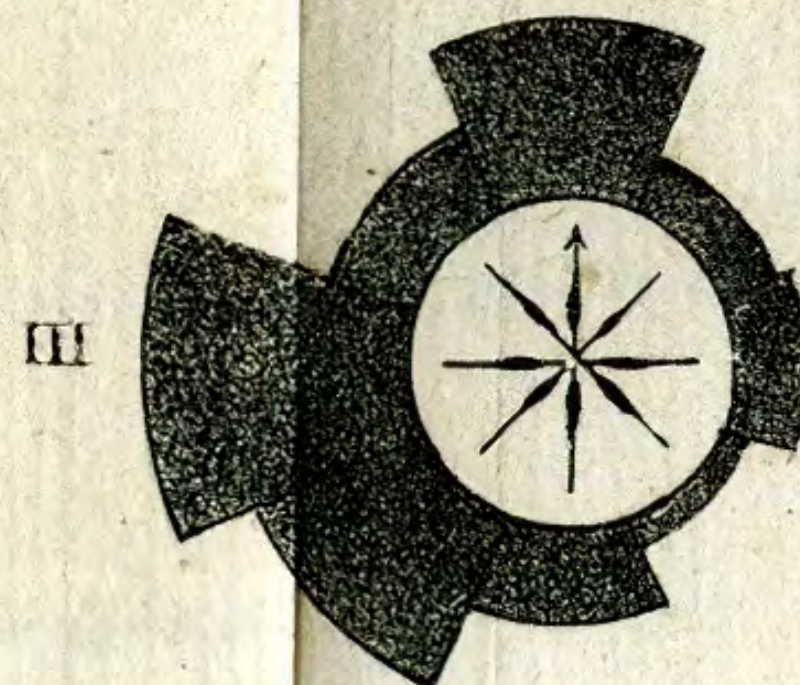
Déc. Janv. Fév.



Mars. Avril. Mai



Juin. Juill. Août.

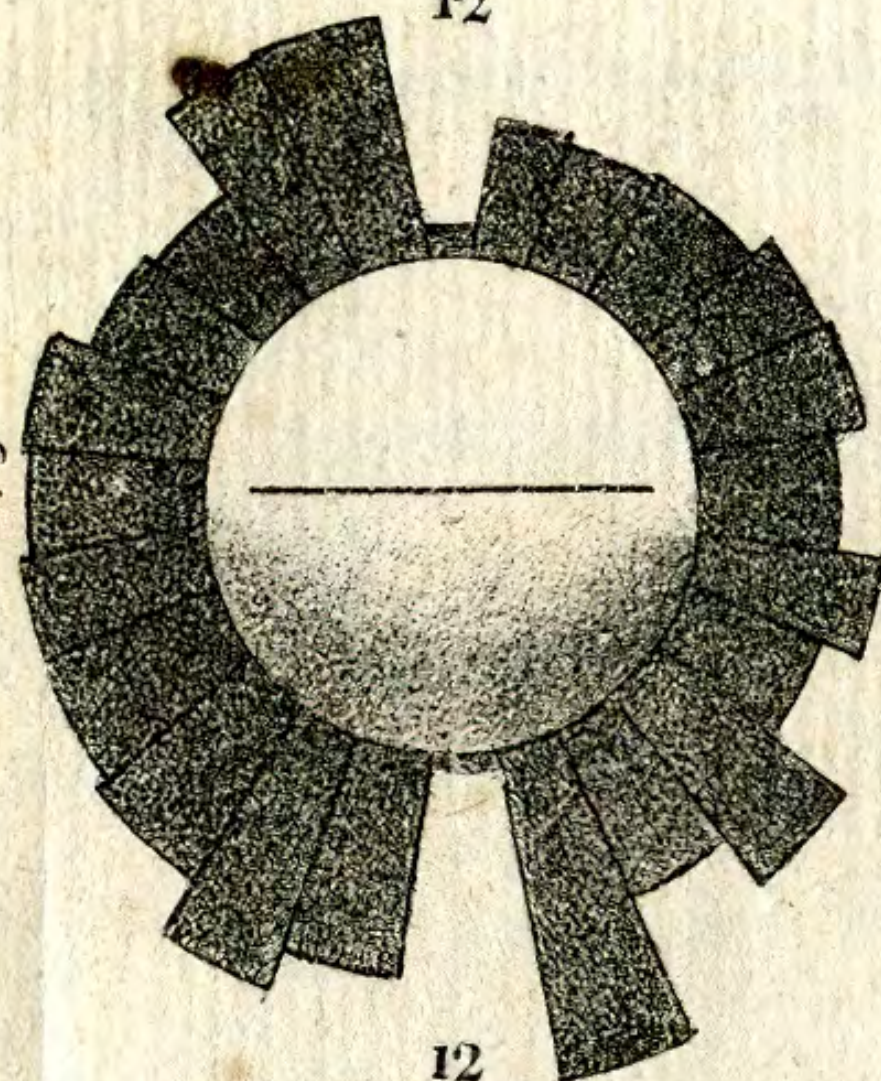


Sept. Oct. Nov.



Midi  
12

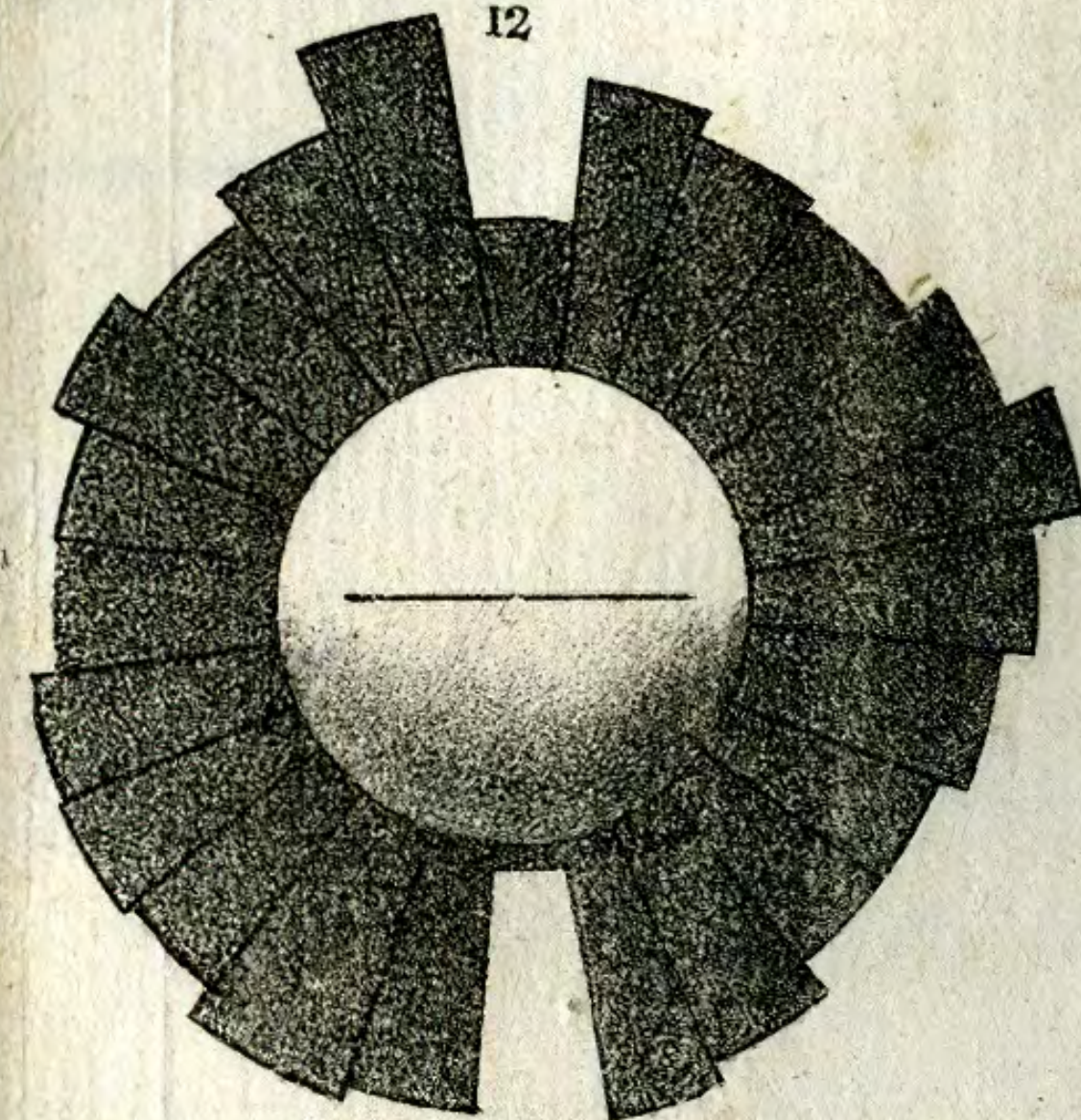
XXIX 6<sup>h</sup>



12  
Minuit.

Midi.  
12

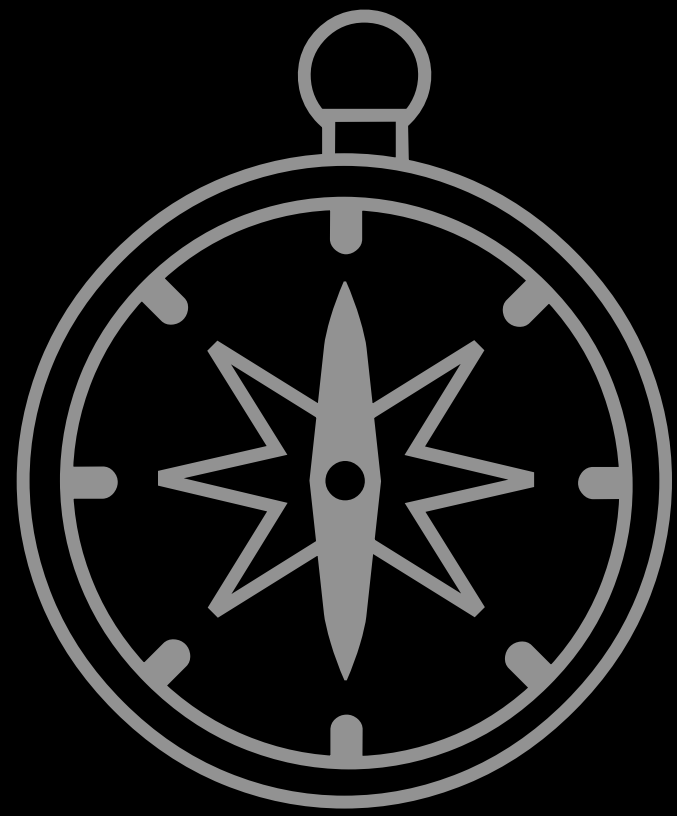
XXX 6<sup>h</sup>



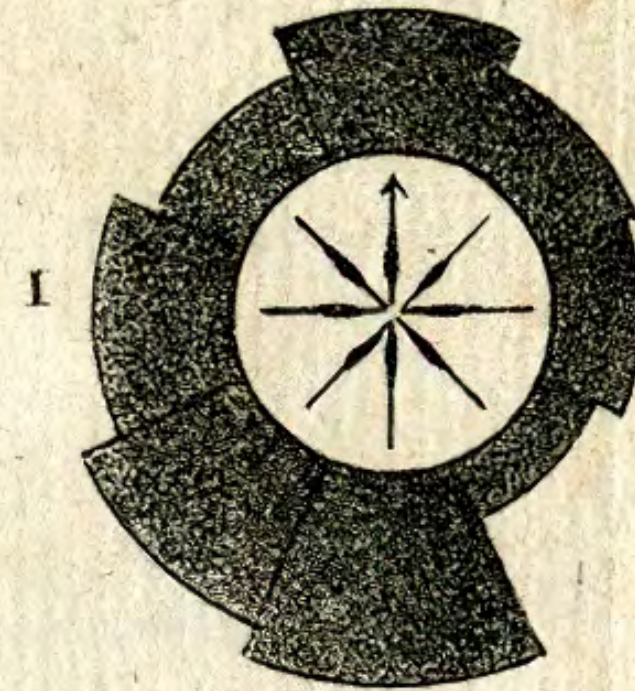
12  
Minuit

1829

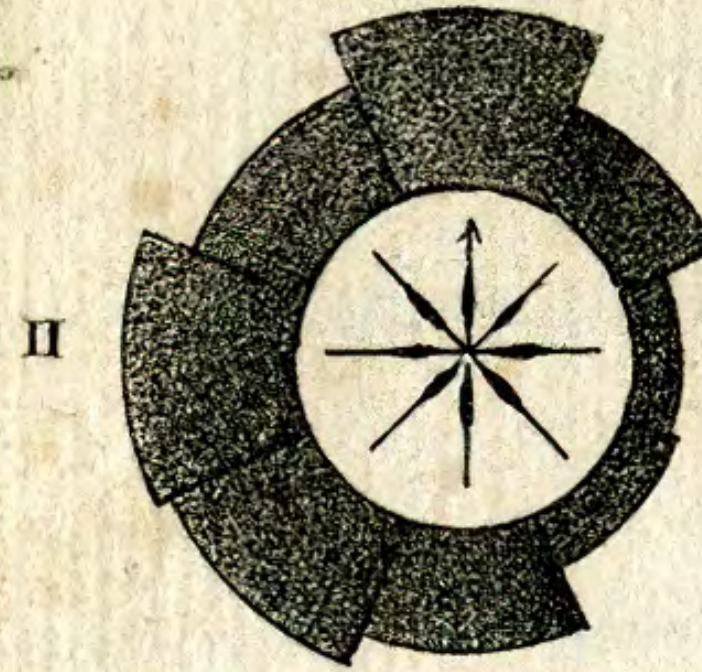
André-Michel Guerry,  
"Mémoire sur les variations  
météorologiques comparées  
aux phénomènes  
physiologiques" (Paris,  
1829). Michael Friendly



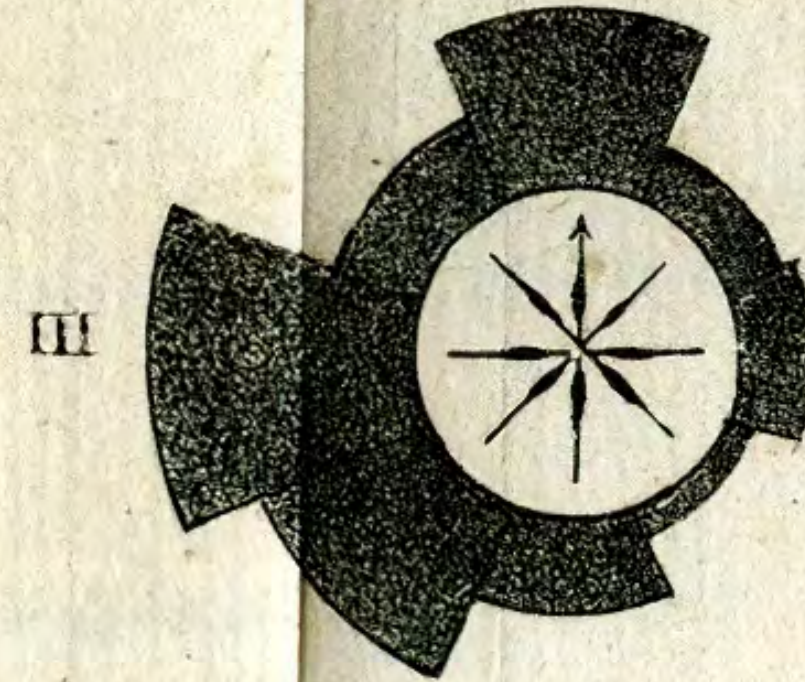
Déc. Janv. Fév.



Mars. Avril. Mai



Juin. Juill. Août.

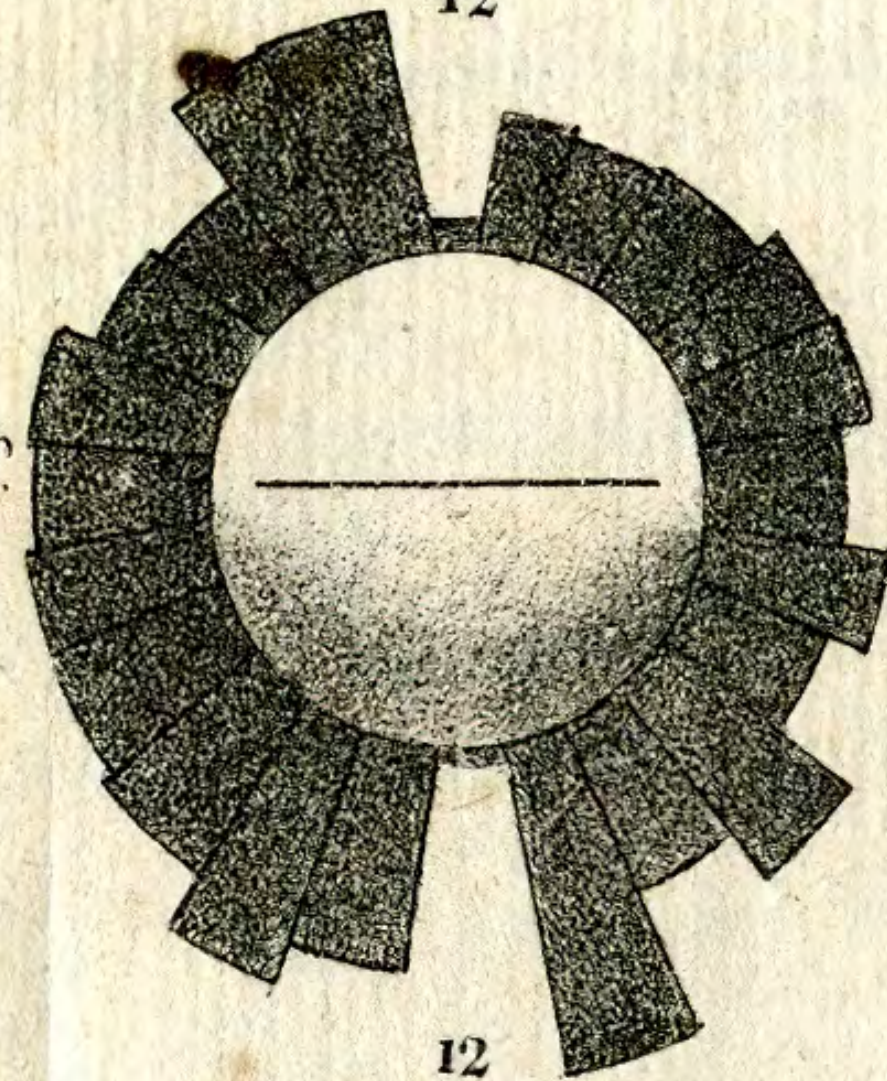


Sept. Oct. Nov.



Midi  
12

XXIX 6<sup>h</sup>

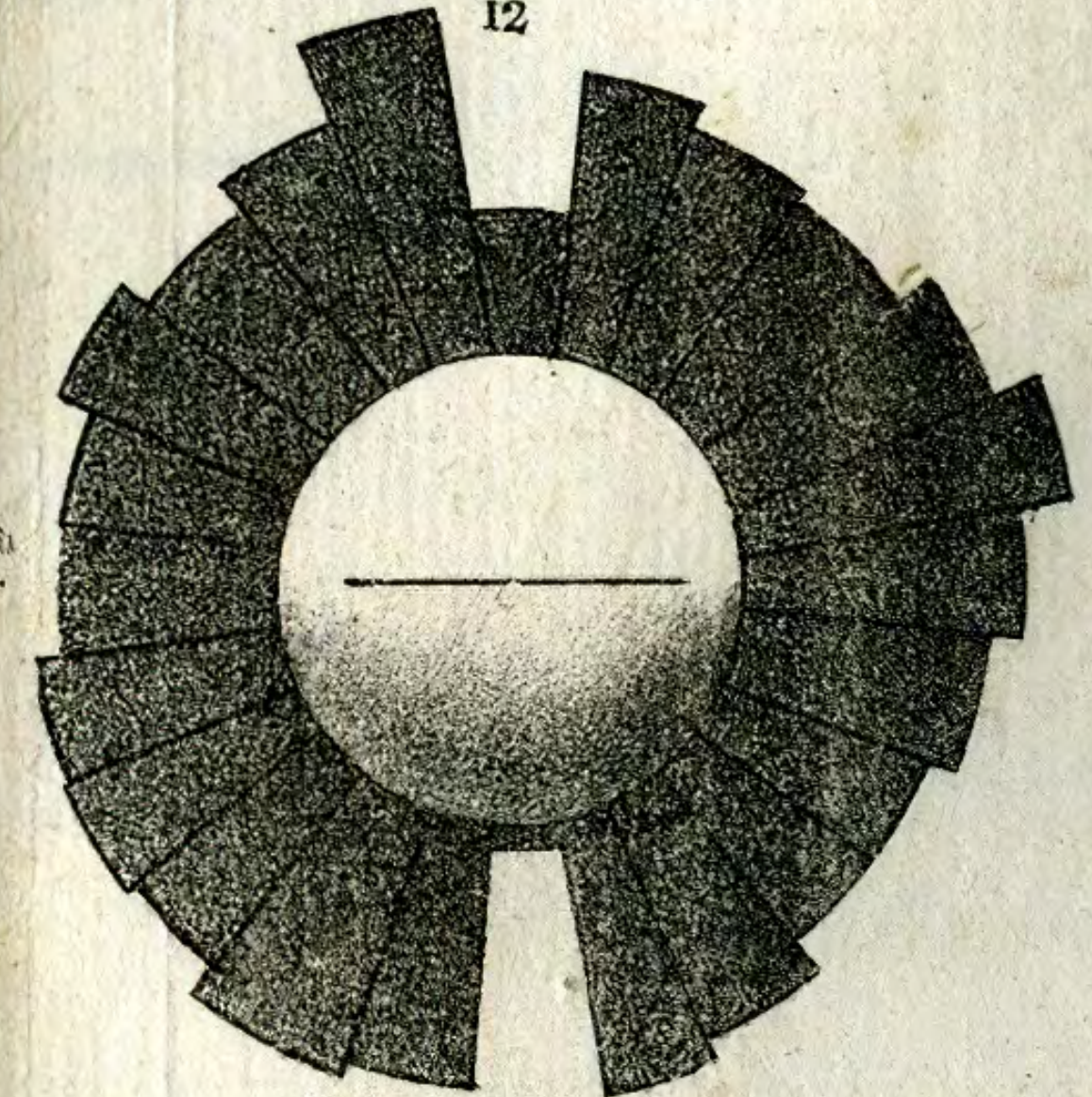


6<sup>h</sup>

12  
Minuit.

Midi  
12


XXX 6<sup>h</sup>

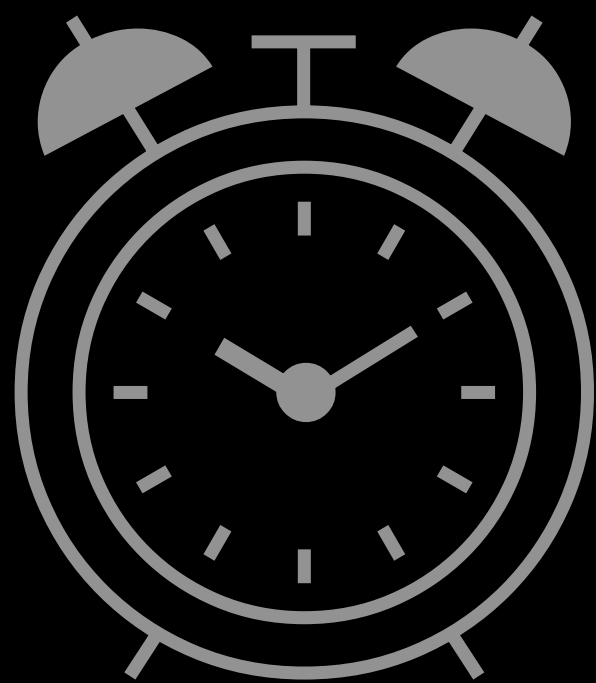
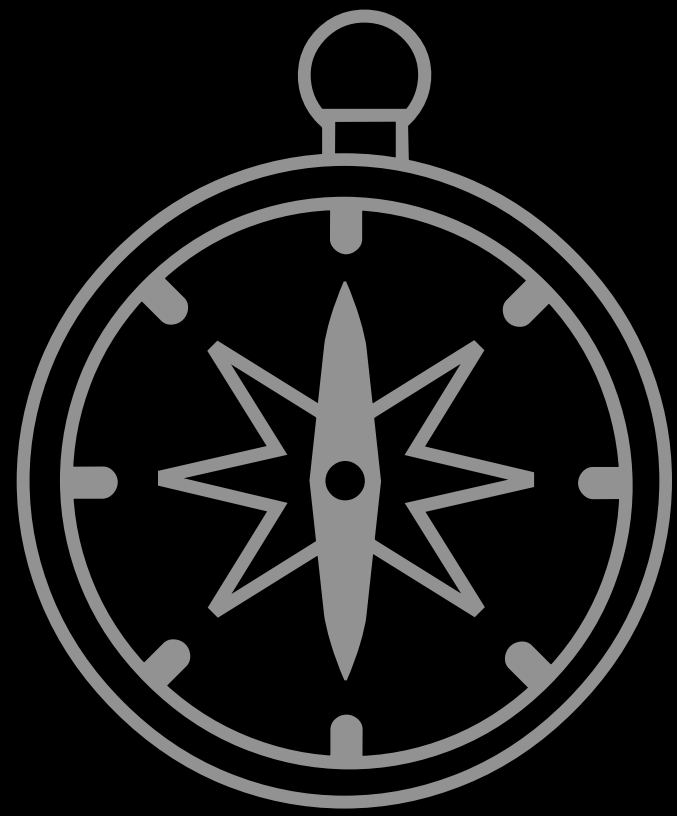


6<sup>h</sup>

12  
Minuit.

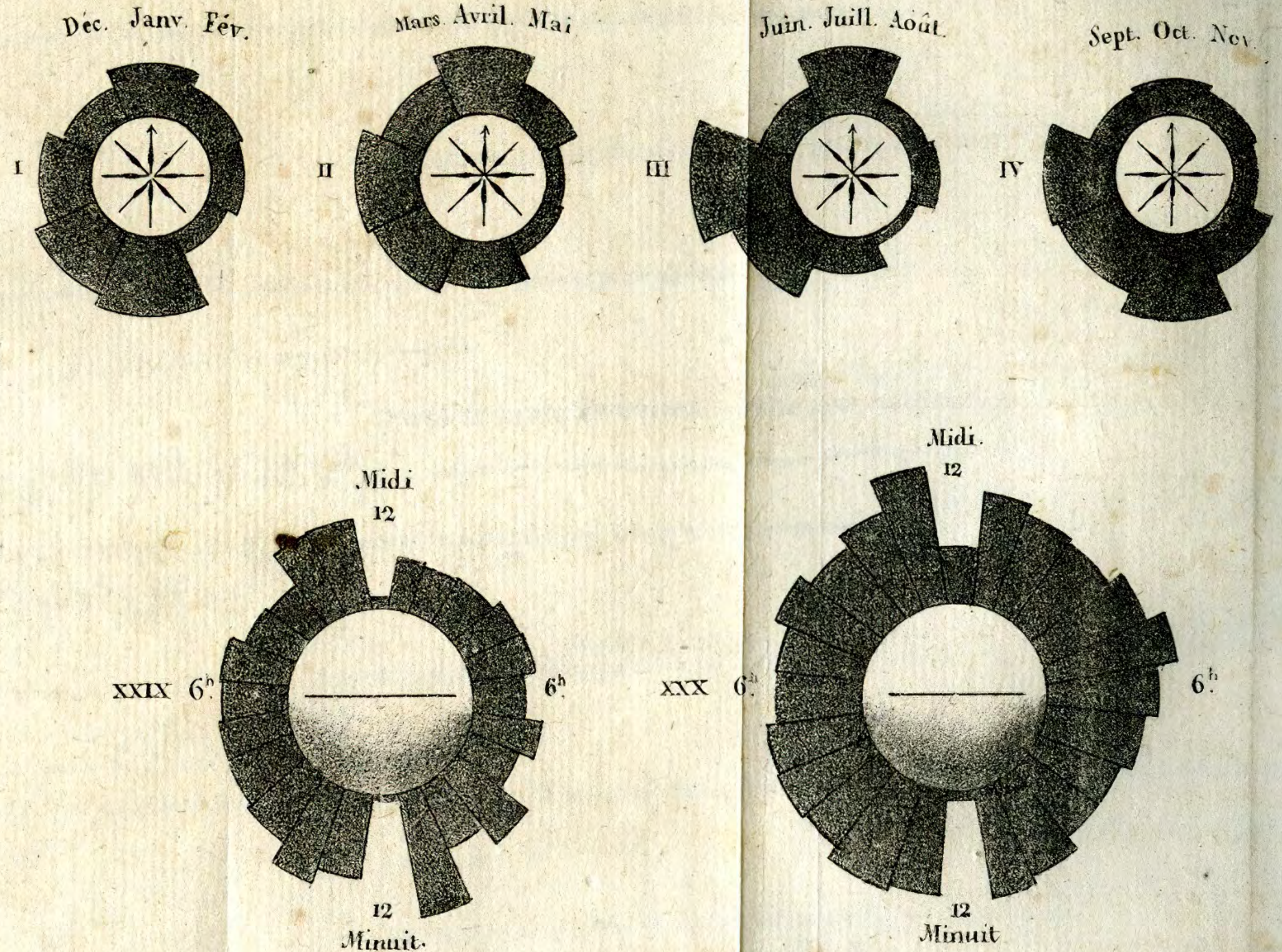
1829

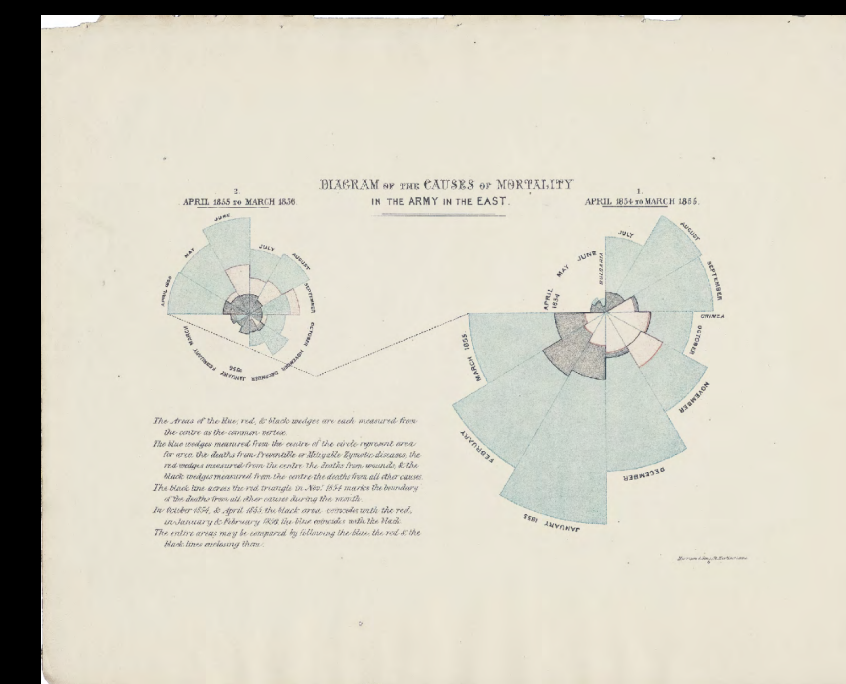
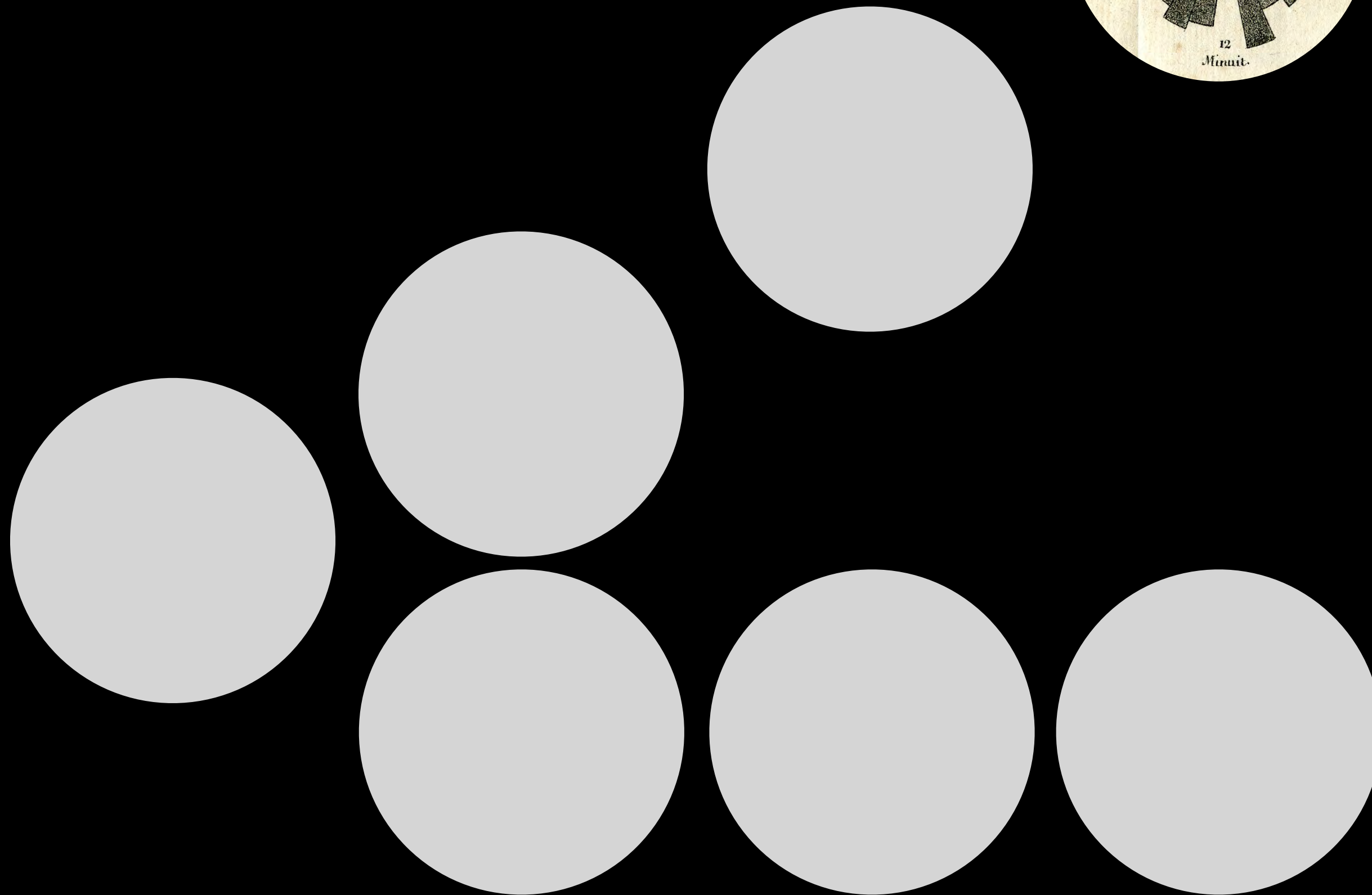
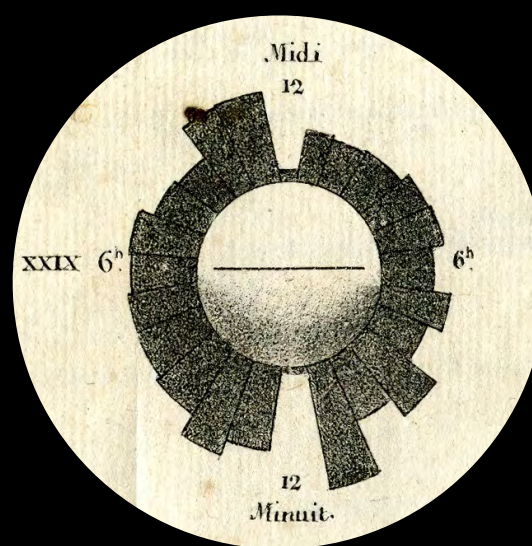
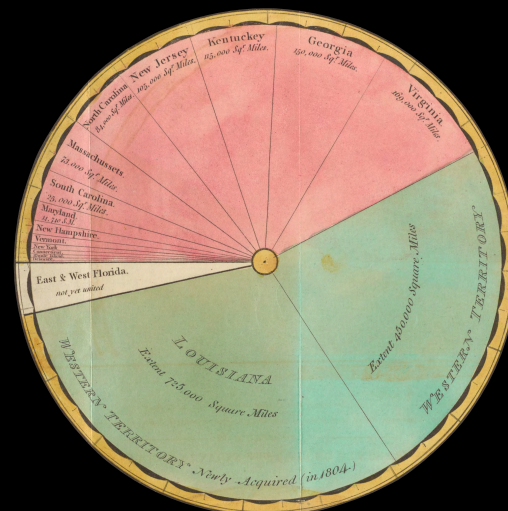
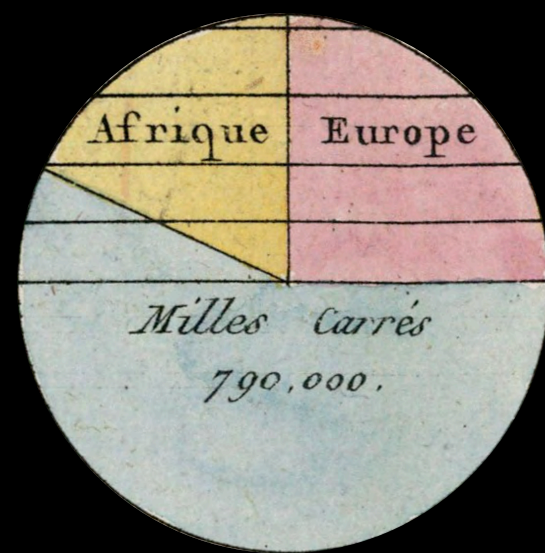
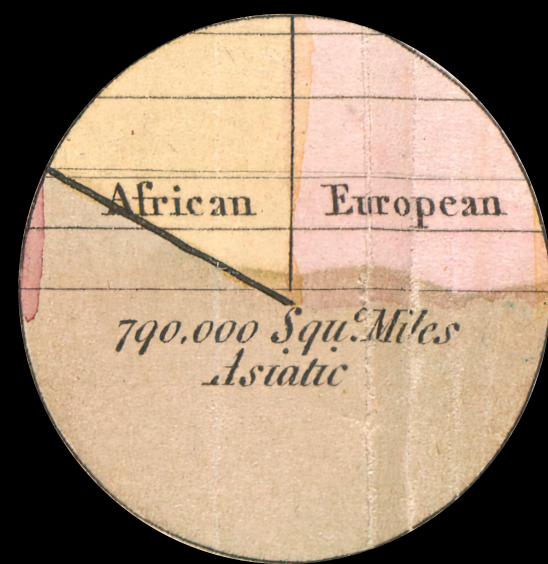
André-Michel Guerry,  
"Mémoire sur les variations  
météorologiques comparées  
aux phénomènes  
physiologiques" (Paris,  
1829).  Michael Friendly

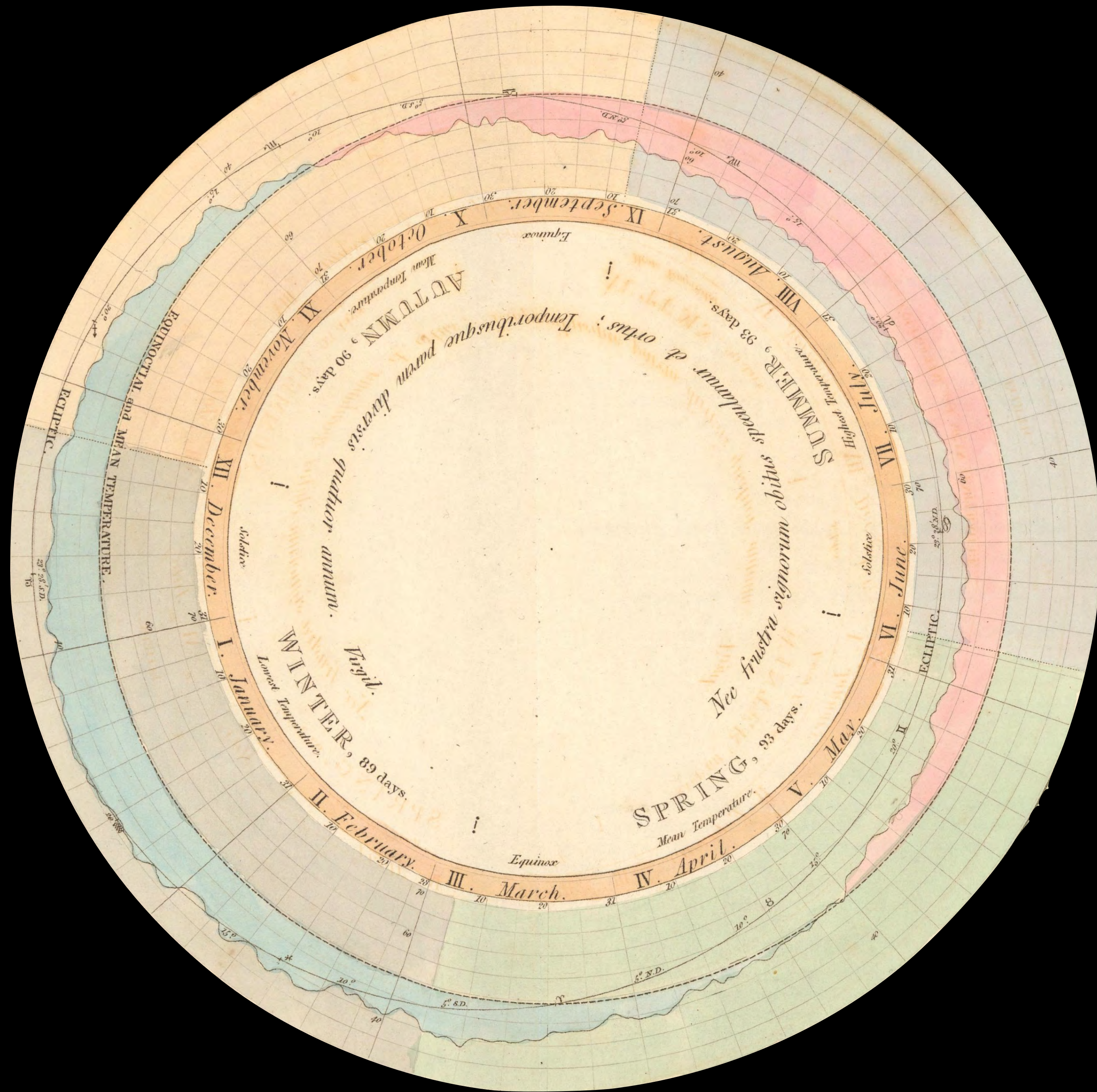
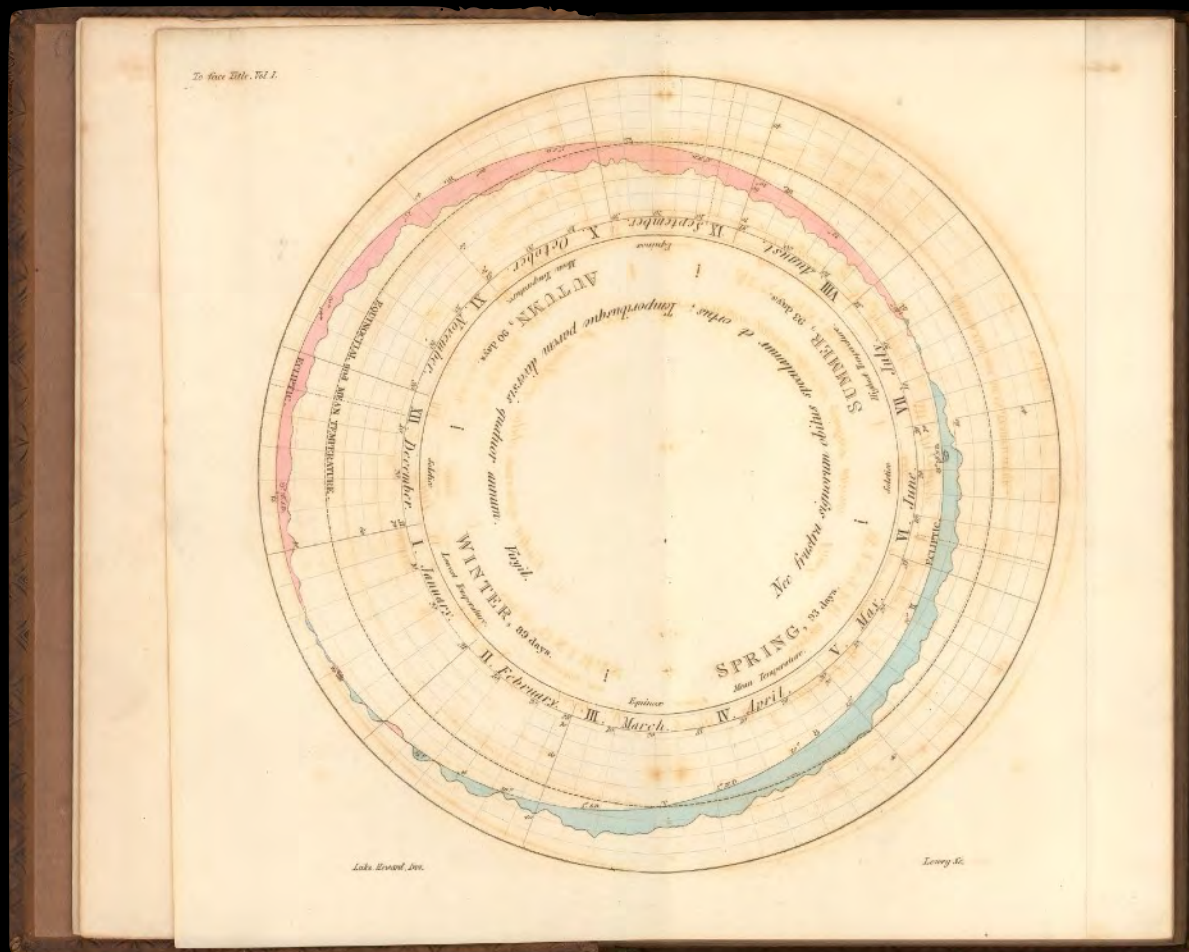
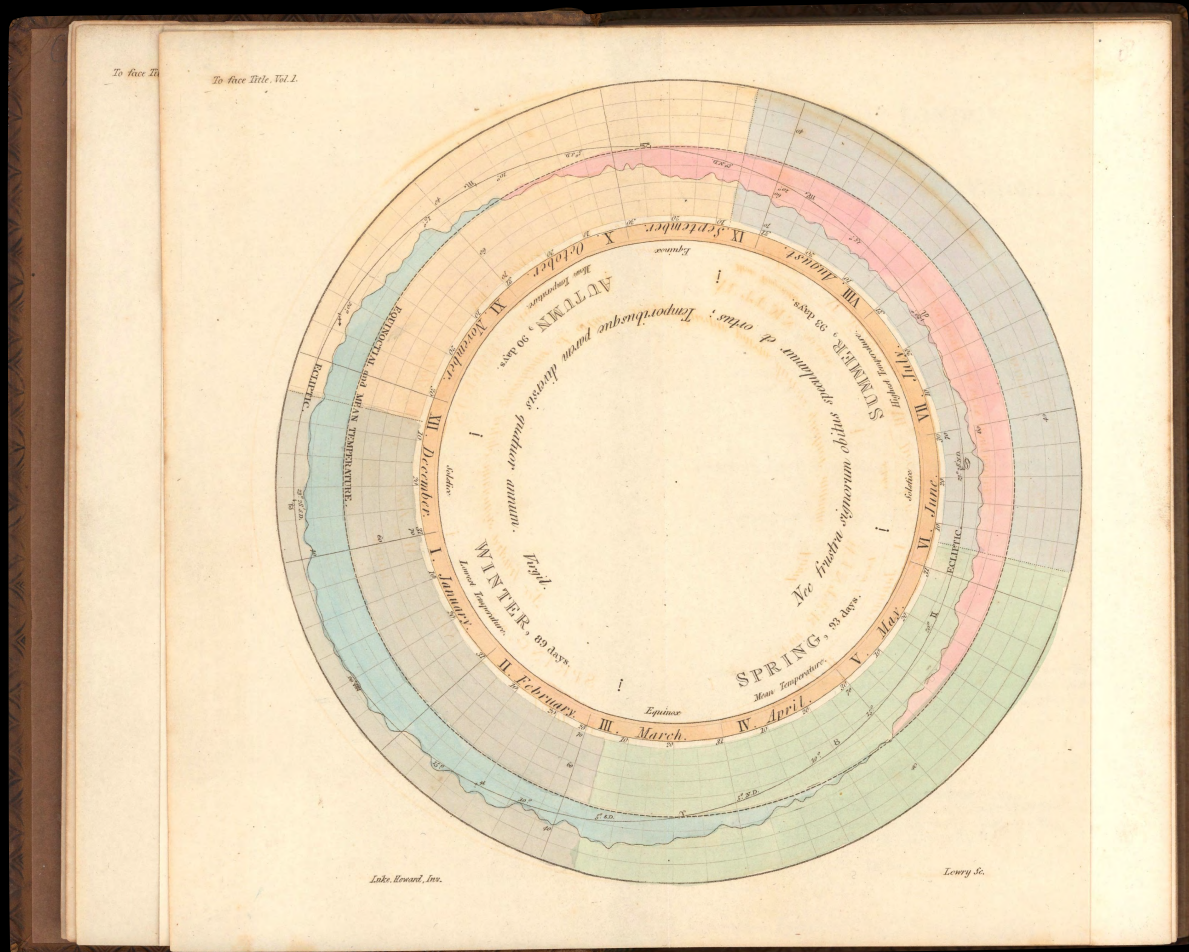


1829

André-Michel Guerry,  
"Mémoire sur les variations  
météorologiques comparées  
aux phénomènes  
physiologiques" (Paris,  
1829). Michael Friendly

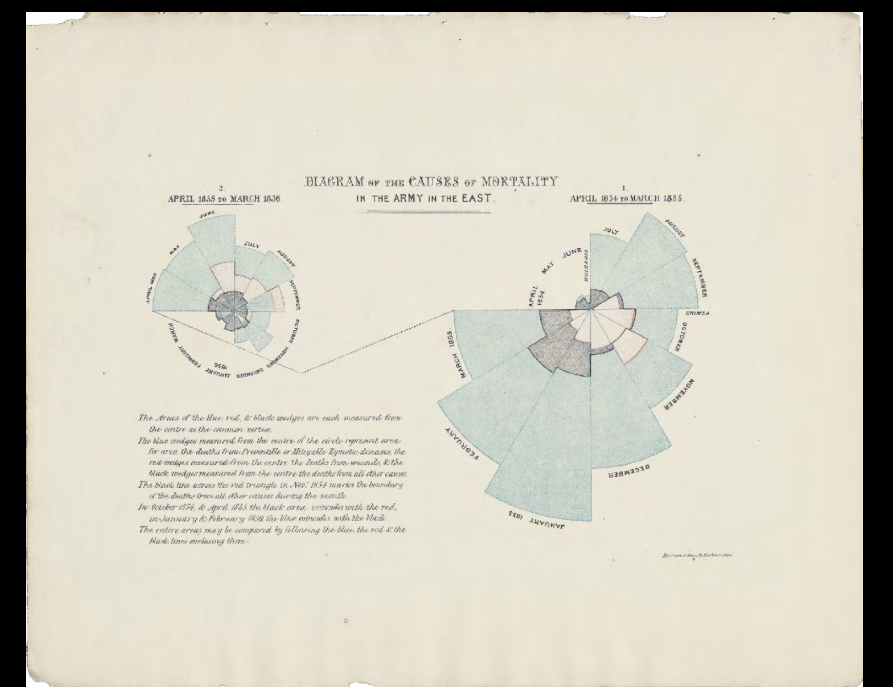
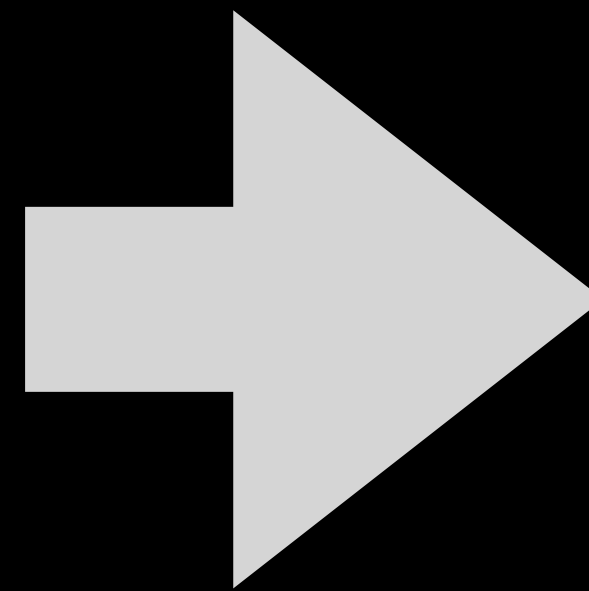
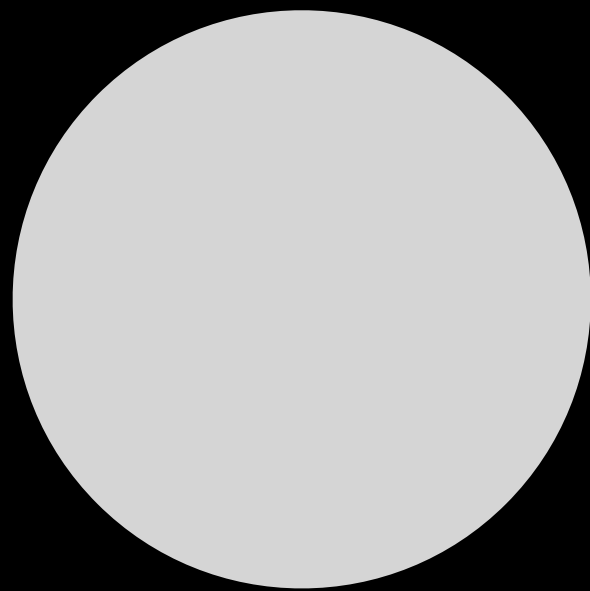
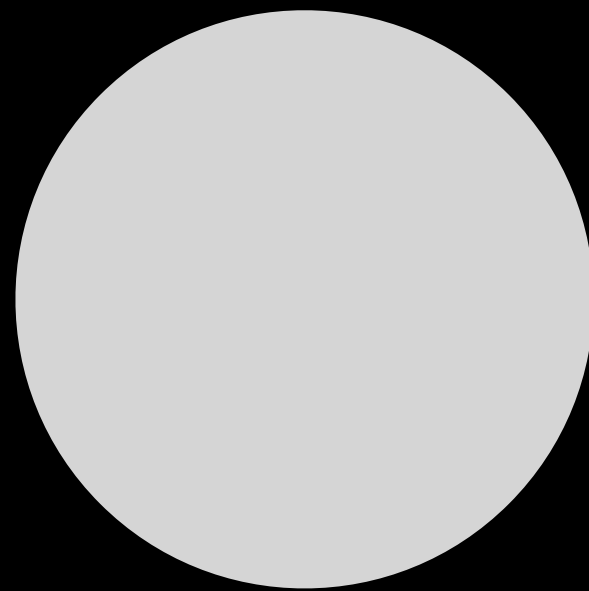
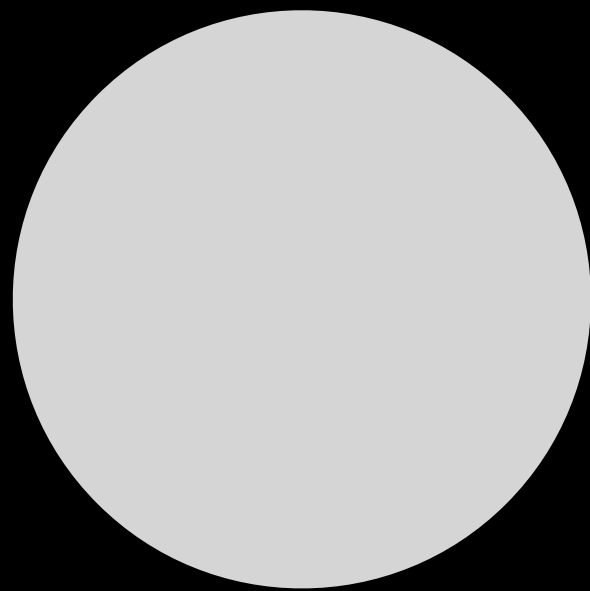
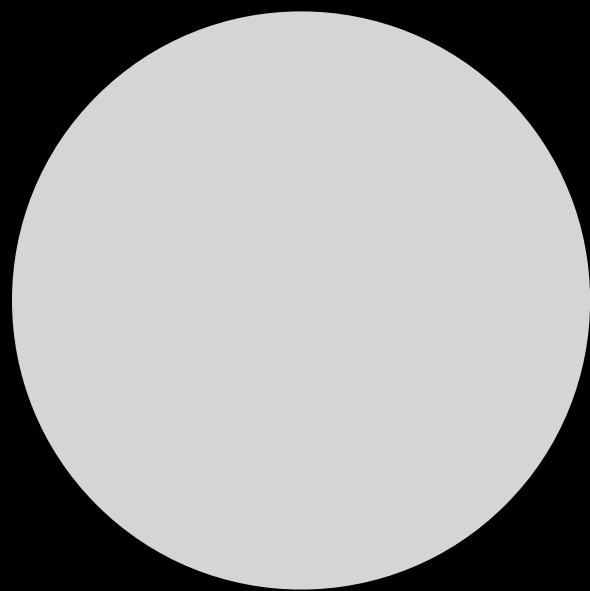
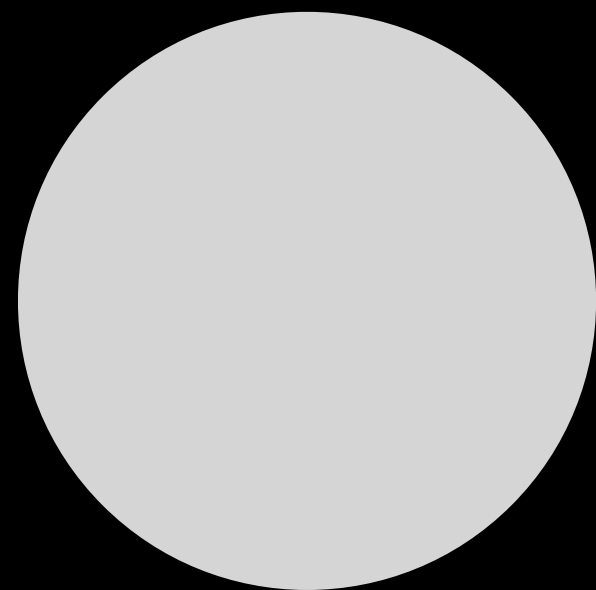
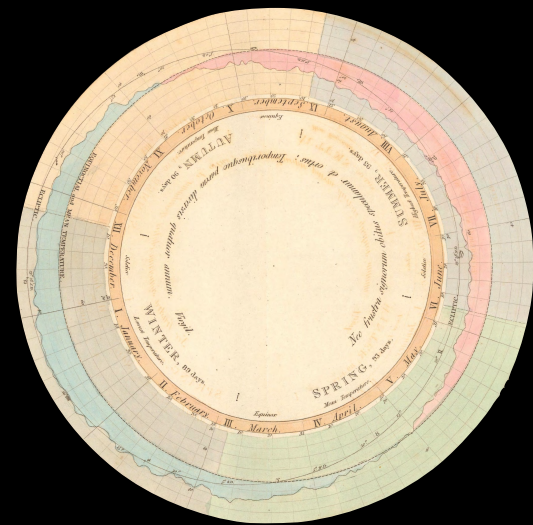
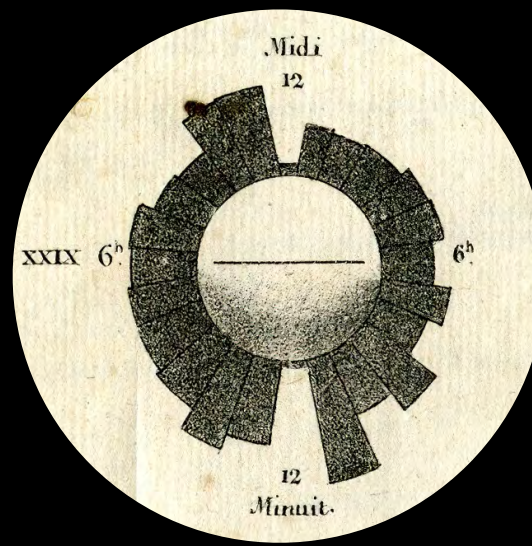
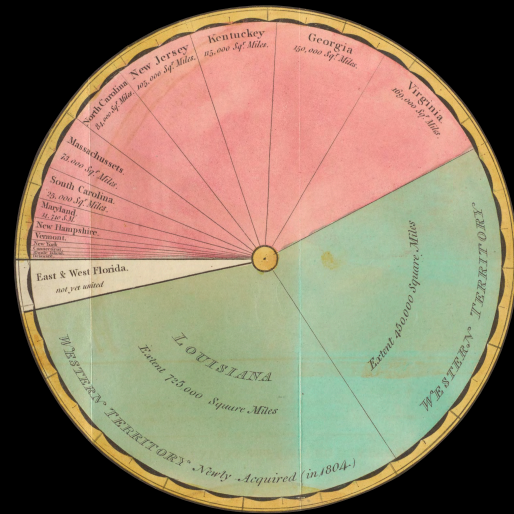
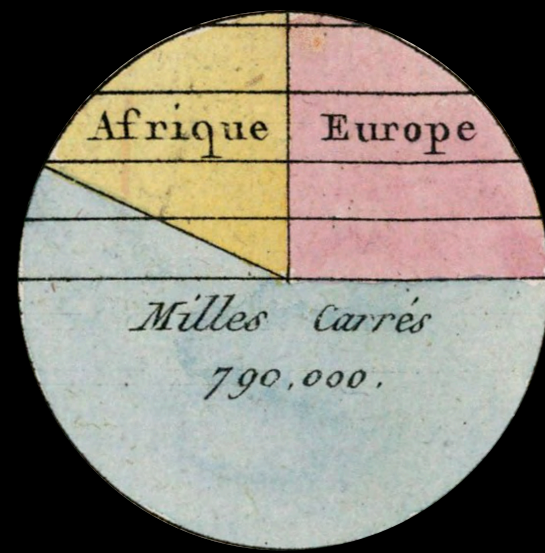
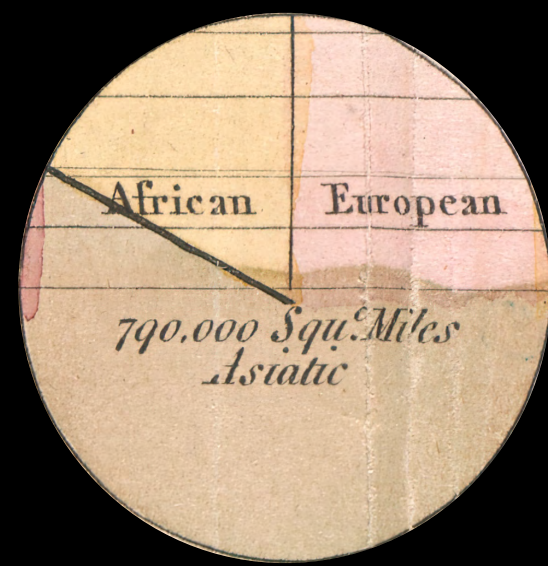




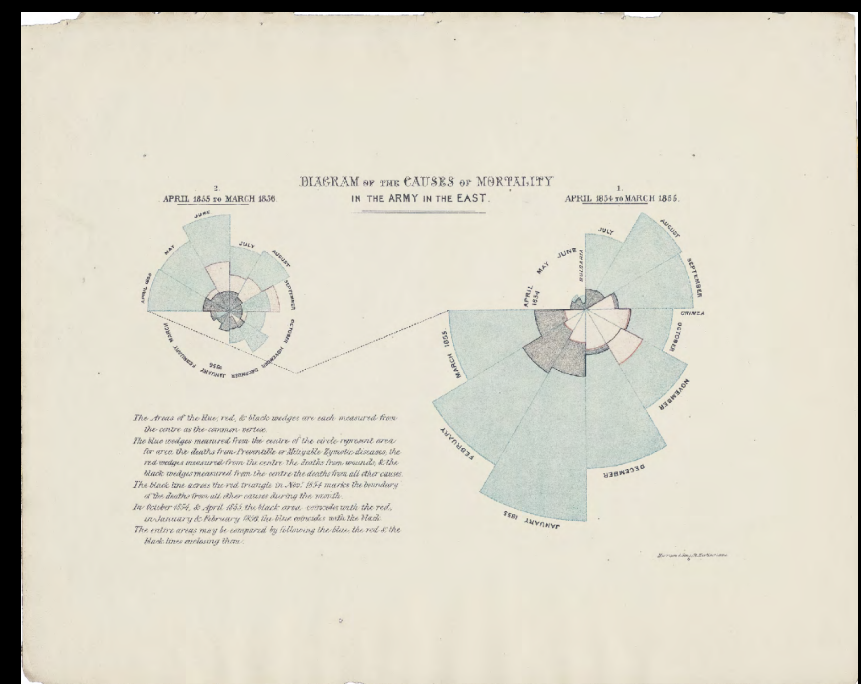
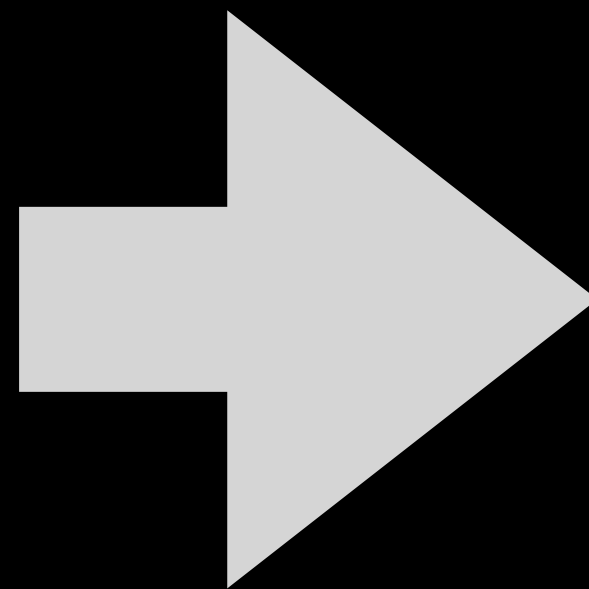
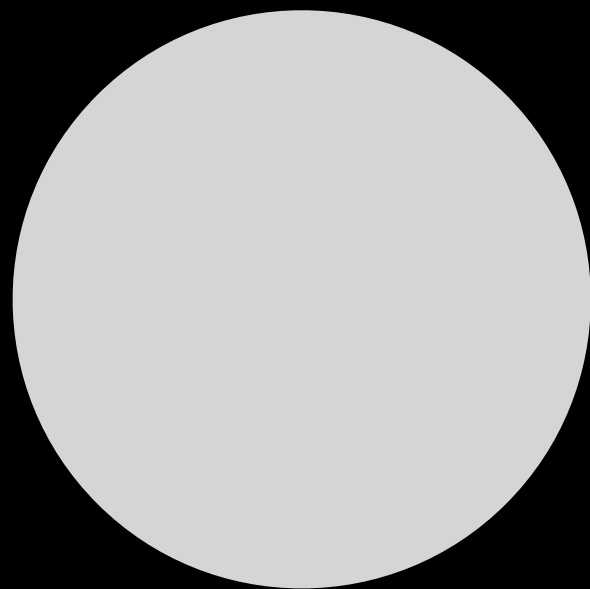
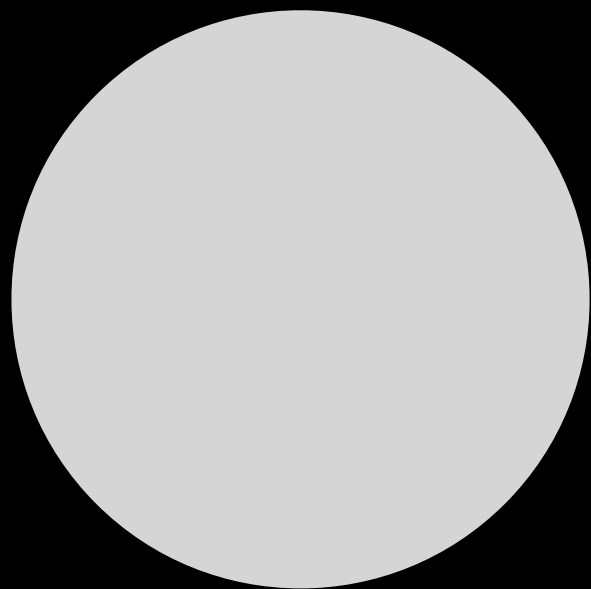
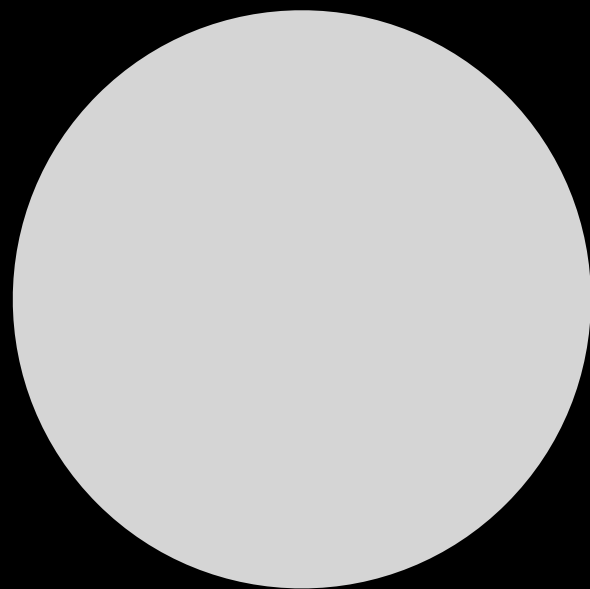
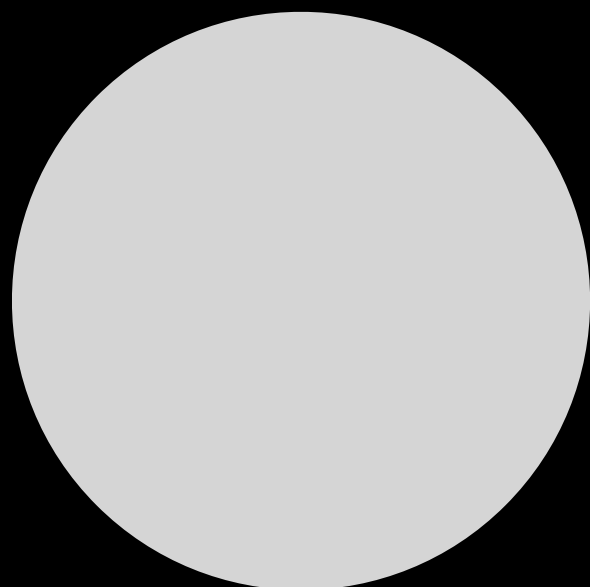
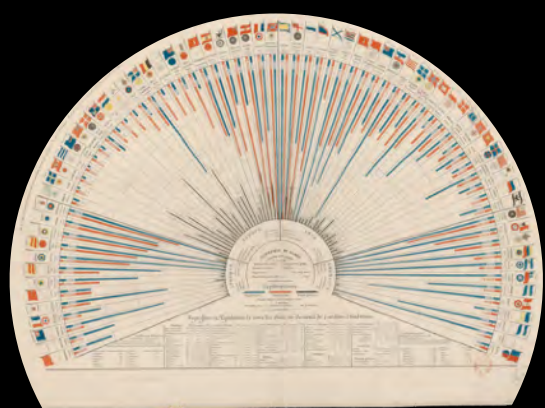
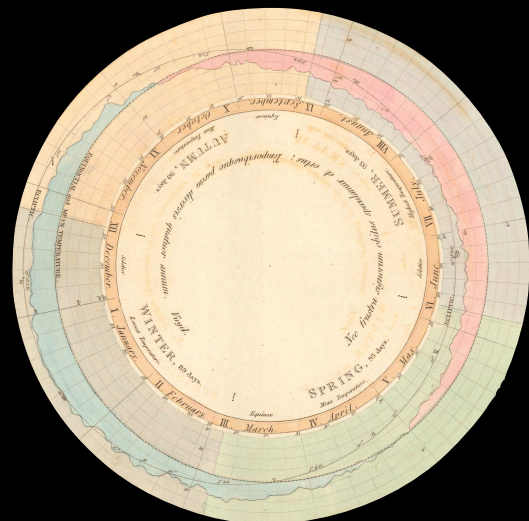
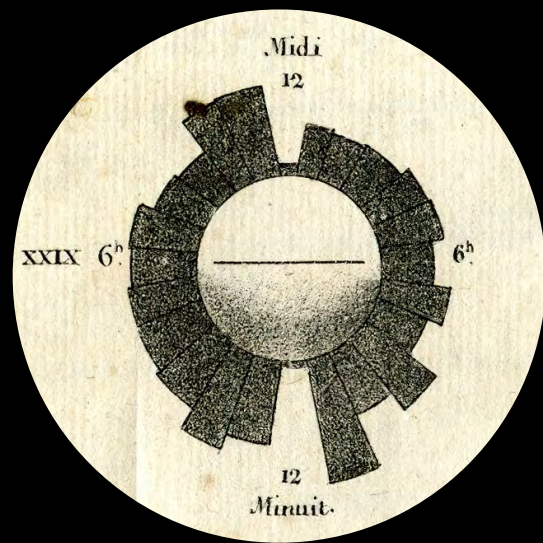
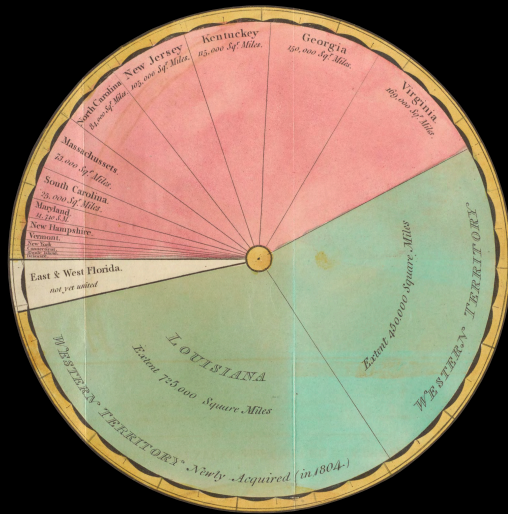
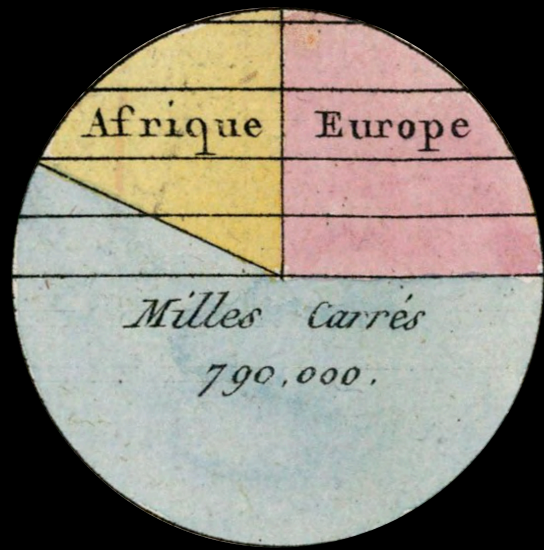


1833

Luke Howard, *The climate of London* (London, 1833).  
 David Rumsey Map Collection.



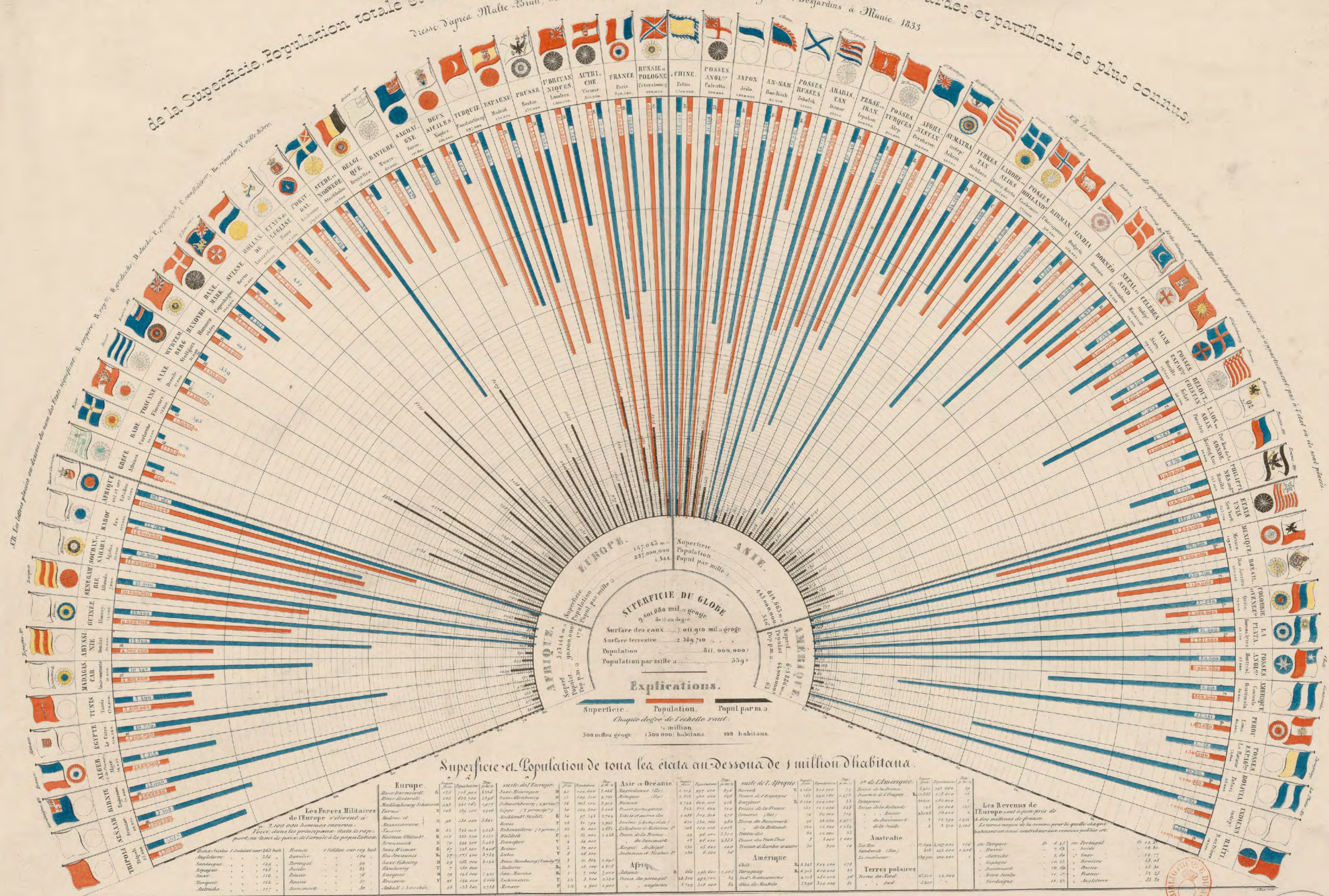




60877 C 615  
 (avec ZP)  
 Gouge par yant

TABLEAU COMPARATIF

de la Superficie, Population totale et Pop. par m. géogr. de tous les Etats du monde, avec les cocardes et pavillons les plus connus.  
 Dessiné d'après Maltz-Brun, Kassel, Balbi et autres sources authentiques, par C. Desjardins à Paris, 1833



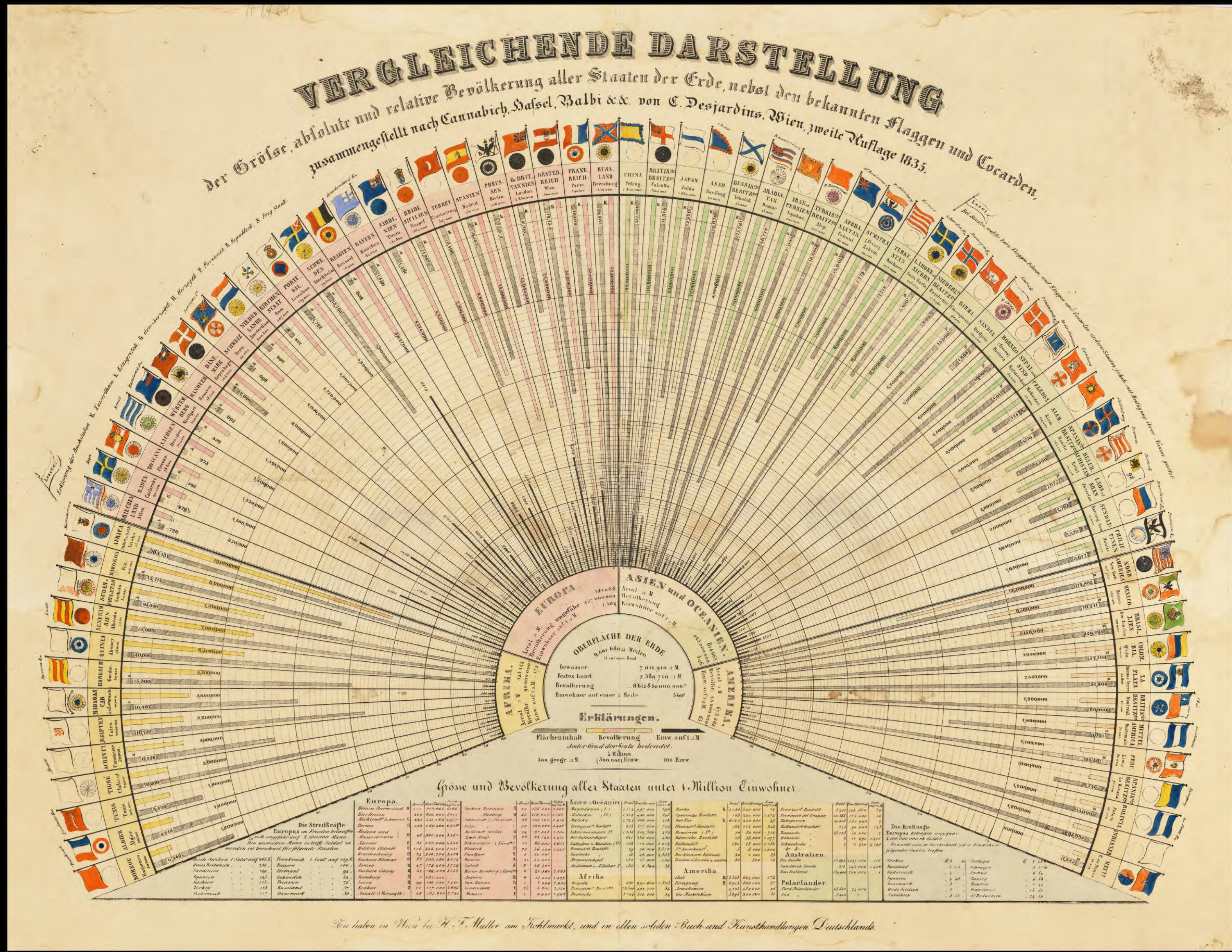
1833

Constantin Desjardins, "Tableau comparatif de la superficie ..." (Paris, 1833).  
 Bibliothèque nationale de France



1835

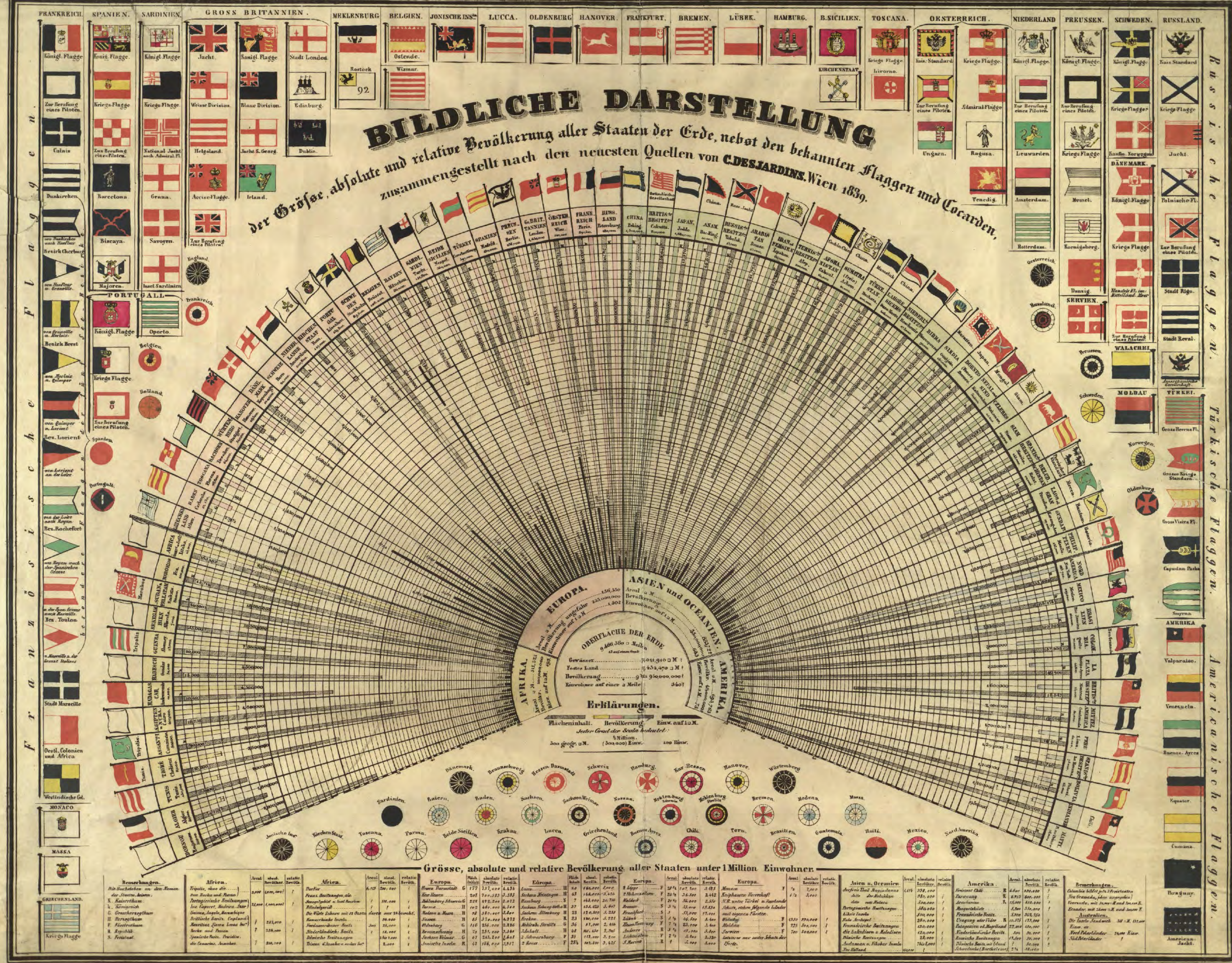
Constantin Desjardins, "Vergleichende Darstellung der Grosse" (Vienna, 1835).  
Barry L. Ruderman  
Antique Maps Inc.

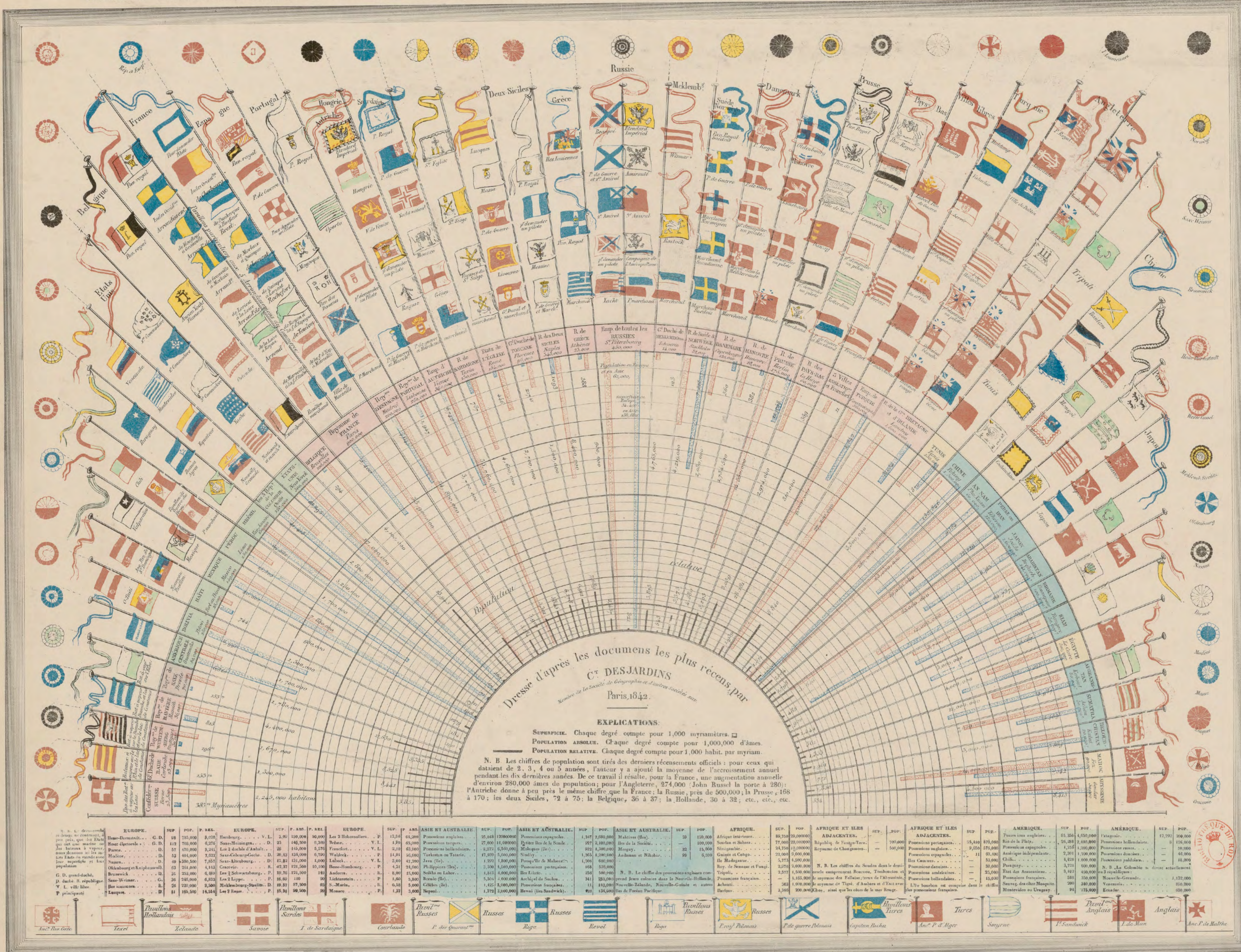


1839

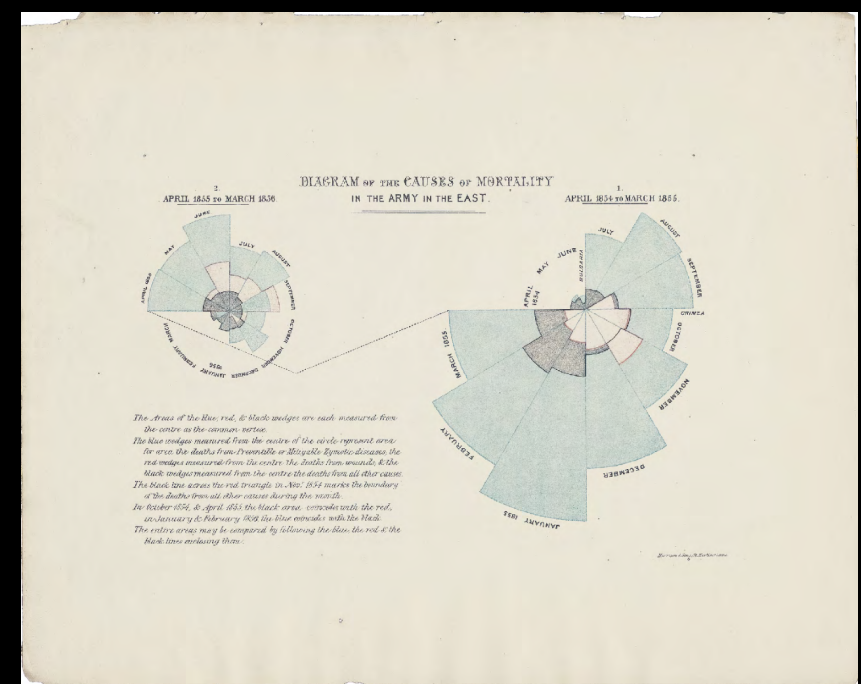
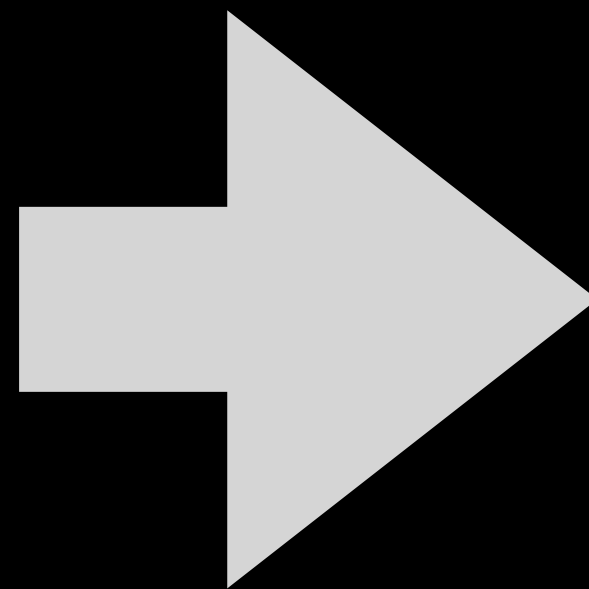
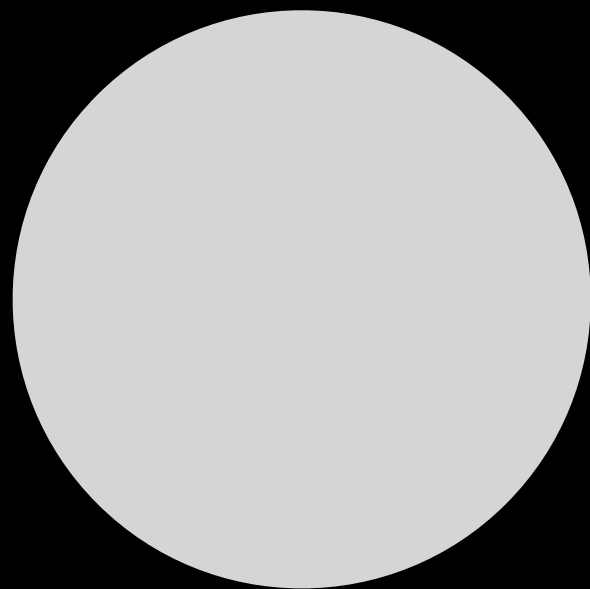
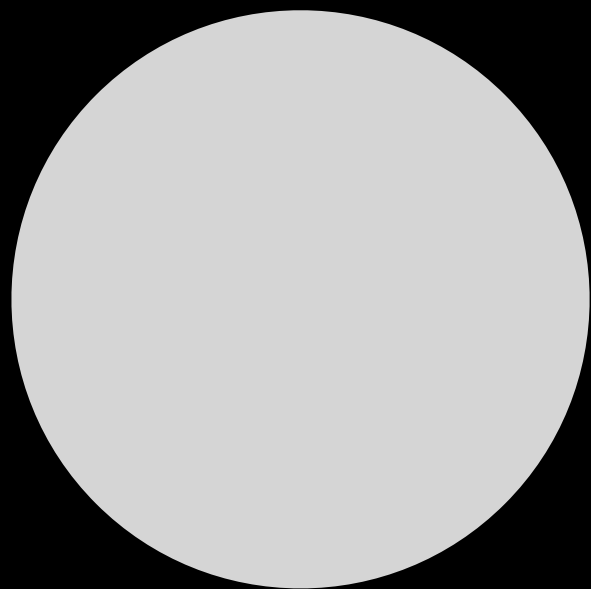
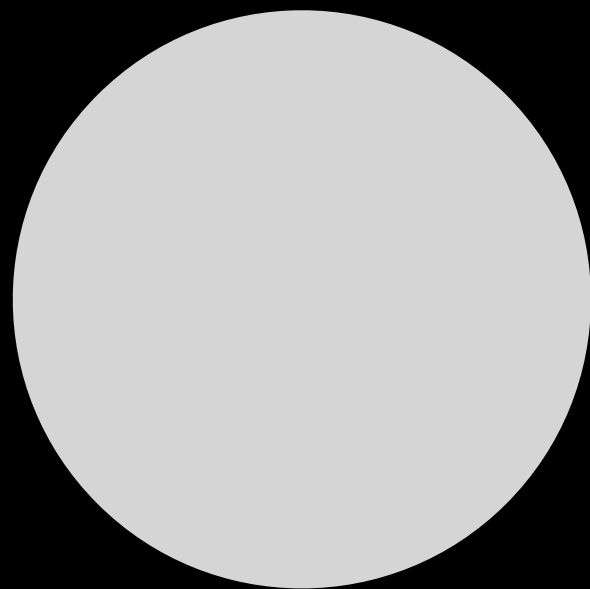
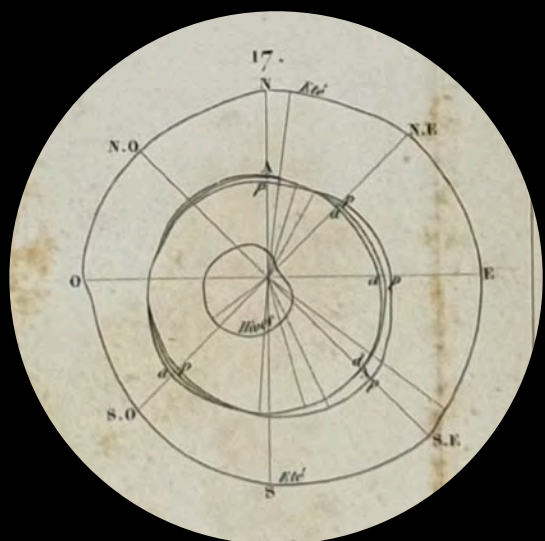
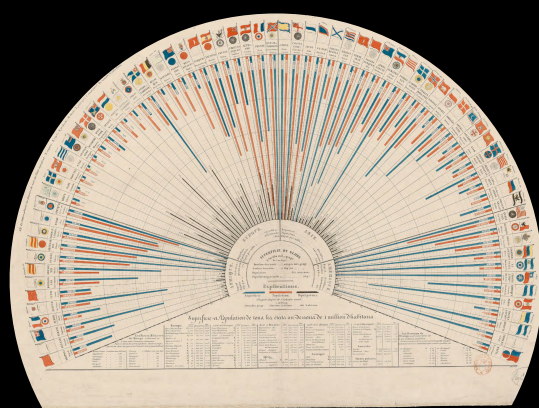
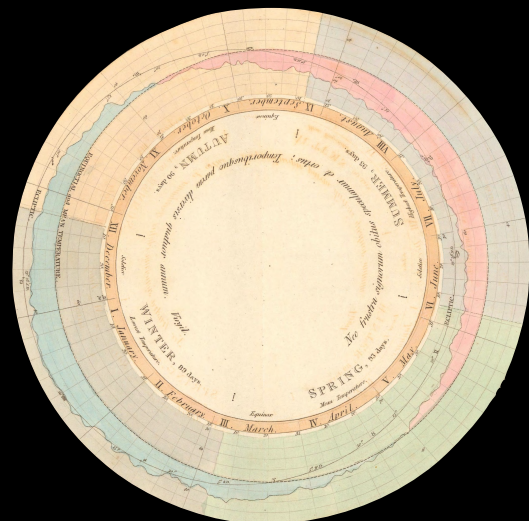
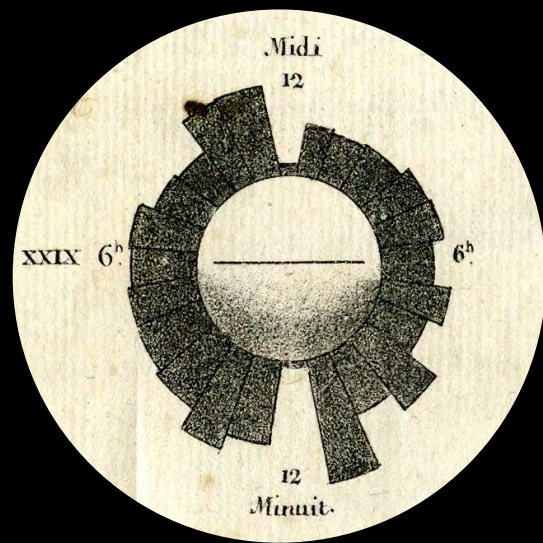
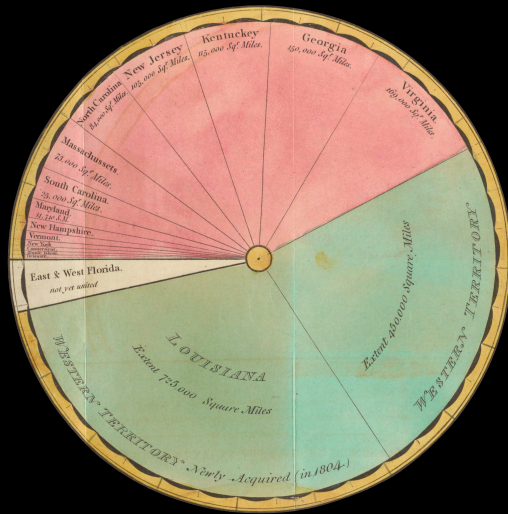
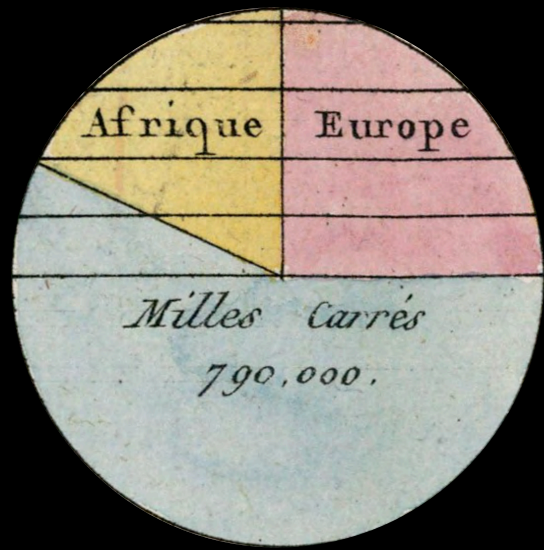
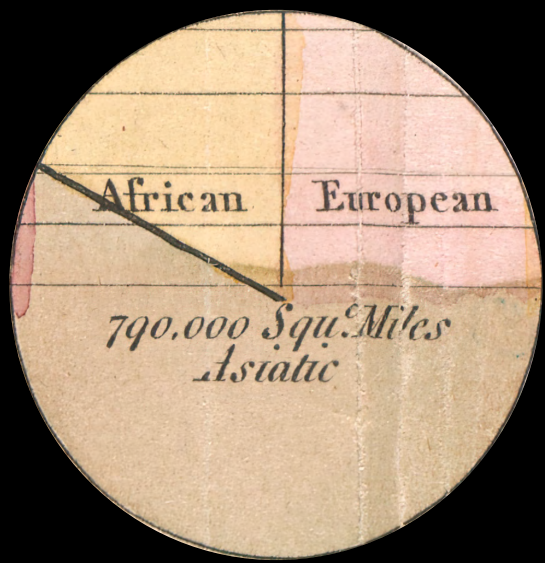
Constantin Desjardins, "Bildliche Darstellung der Grosse" (1839).

Czech National Library





1842 Constantin Desjardins, "Tableau comparatif de la superficie ..." (Paris, 1842).  
Bibliothèque nationale de France



COURS COMPLET  
DE  
**MÉTÉOROLOGIE**

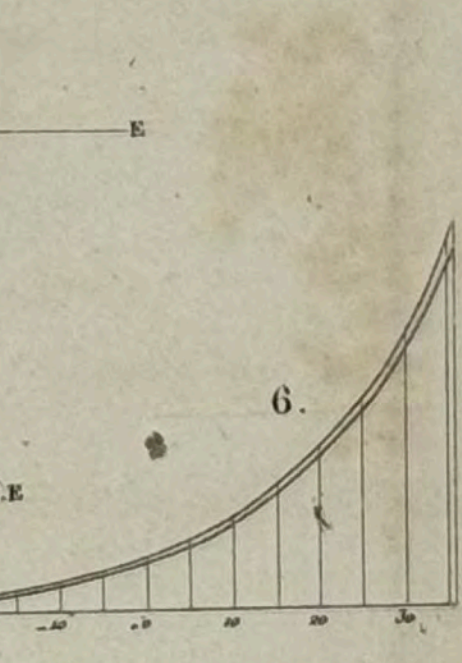
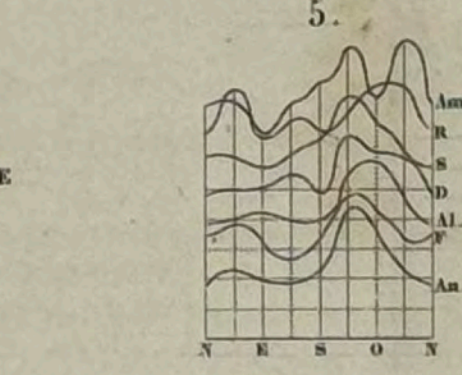
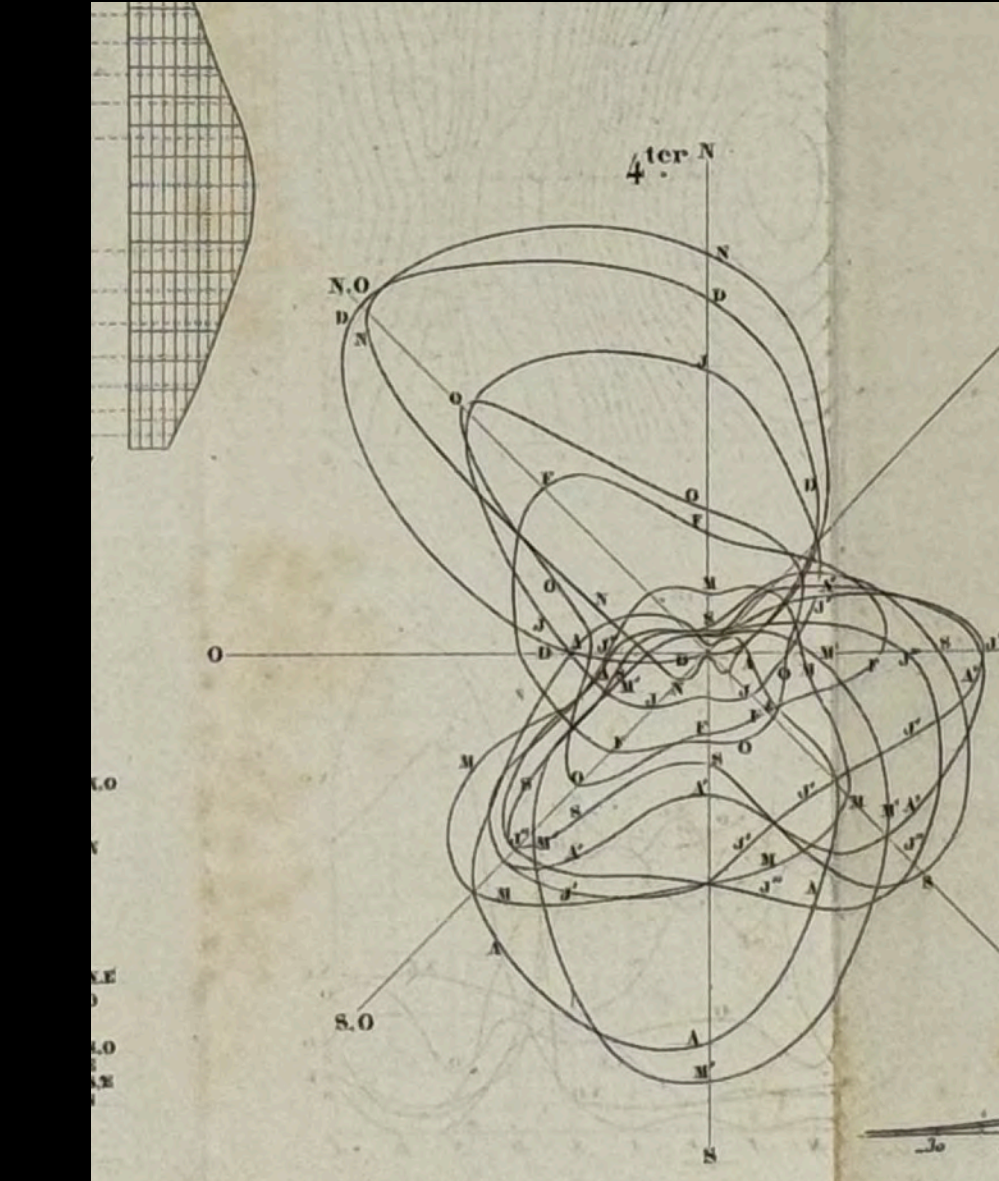
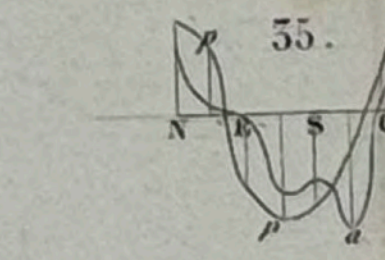
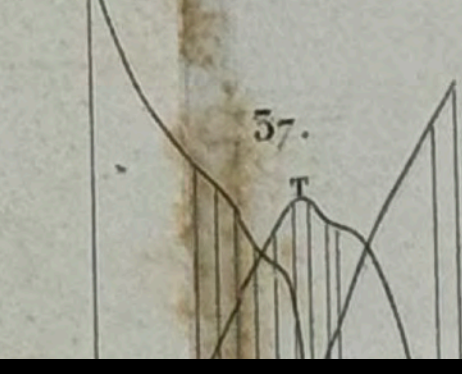
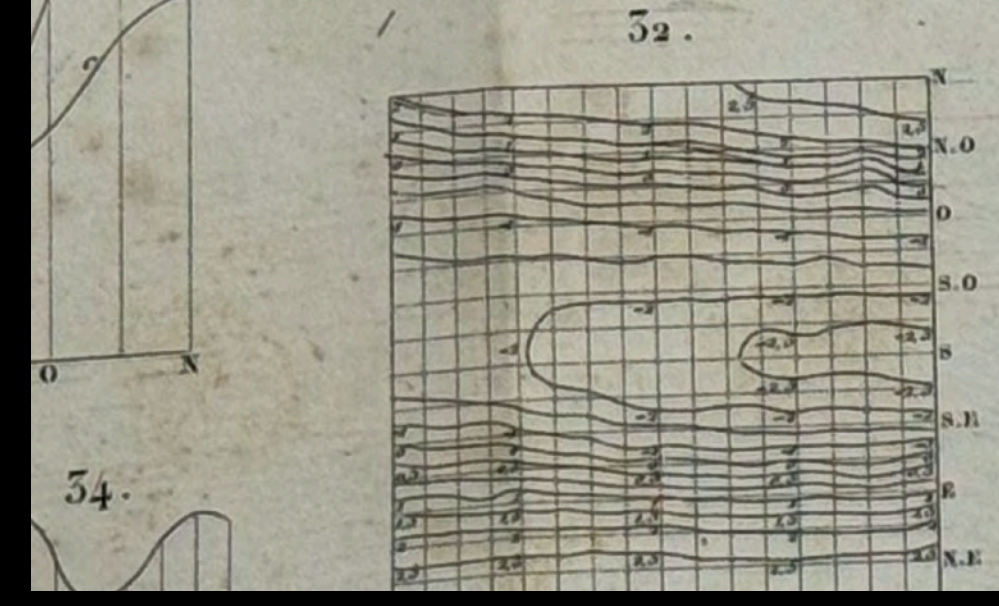
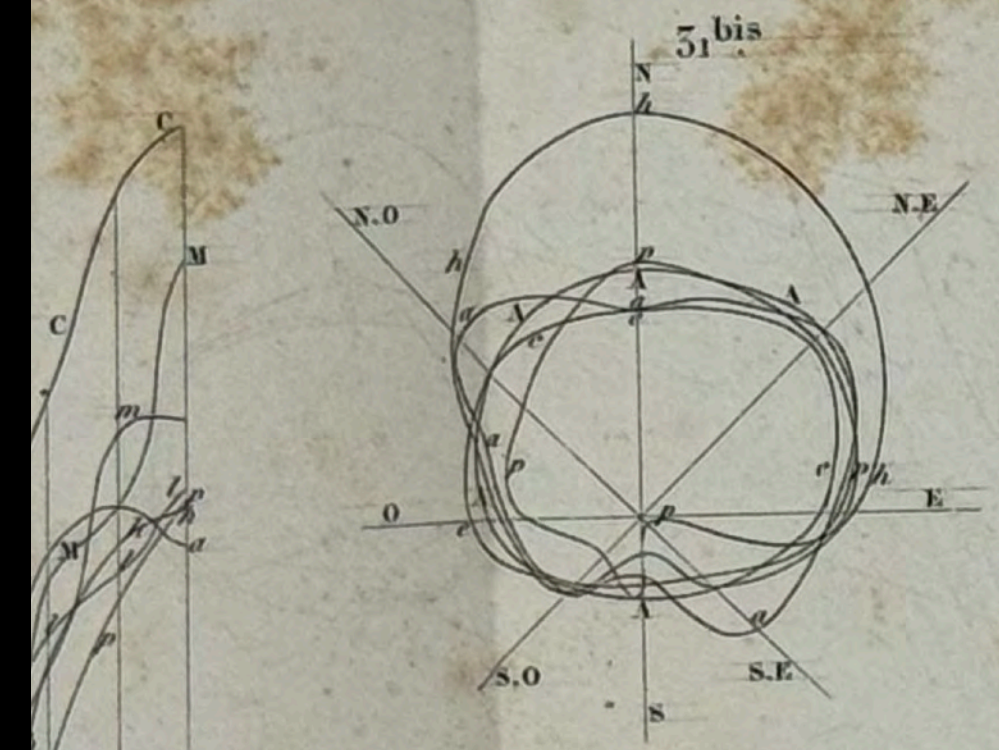
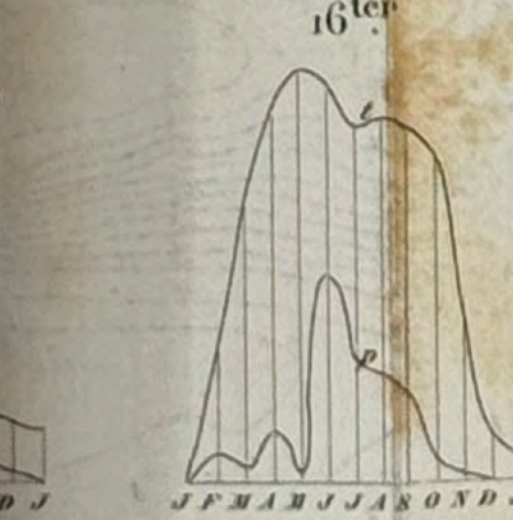
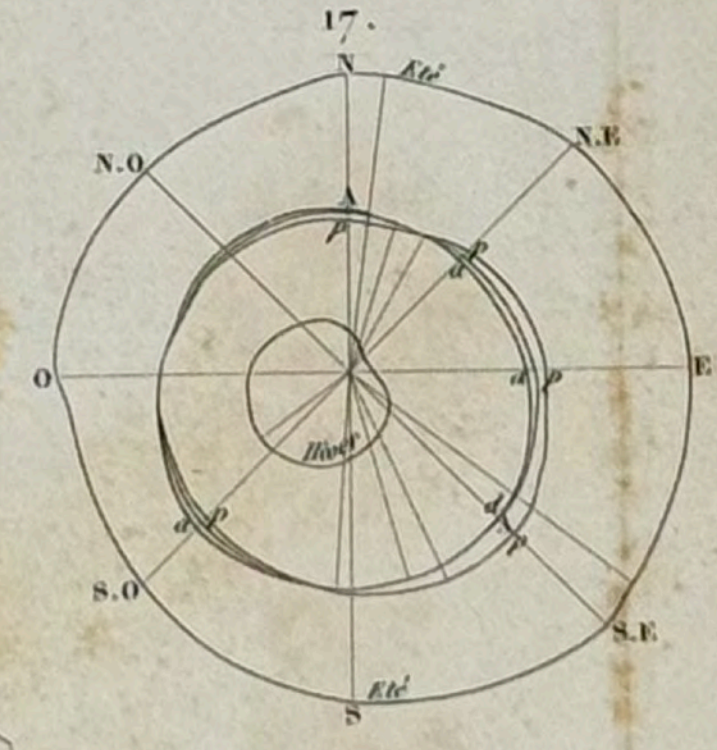
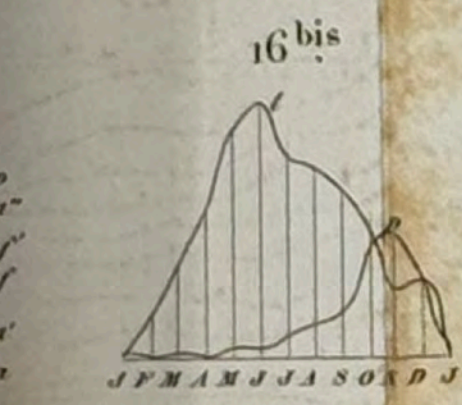
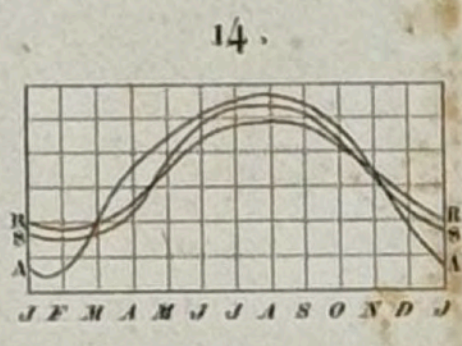
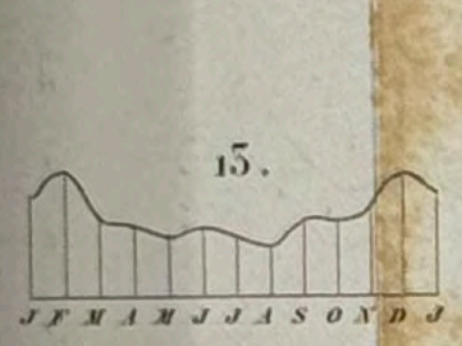
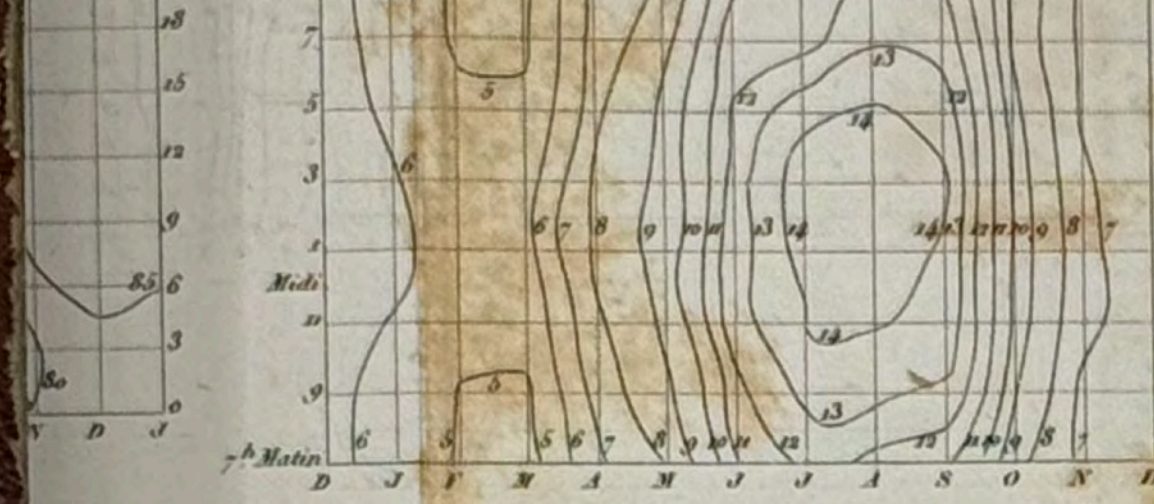
DE L. F. KAEMTZ  
PROFESSEUR DE PHYSIQUE A L'UNIVERSITÉ DE HALLE

TRADUIT ET ANNOTÉ  
PAR CH. MARTINS  
PROFESSEUR AGRÉGÉ D'HISTOIRE NATURELLE A LA FACULTÉ  
DE MÉDECINE DE PARIS

AVEC UN APPENDICE  
CONTENANT  
LA REPRÉSENTATION GRAPHIQUE DES TABLEAUX NUMÉRIQUES

PAR L. LALANNE  
INGÉNIEUR DES PONTS ET CHAUSSÉES

PARIS  
ADOLPHE DELAHAYS, LIBRAIRE-ÉDITEUR  
4-6, RUE VOLTAIRE, 4-6  
1858



1843 Léon Lalanne, charts in  
Kaemtz, *Météorologie*  
(Paris, 1843).  
RJ Andrews 1858  
edition shown.

COURS COMPLET  
DE  
**MÉTÉOROLOGIE**

DE L. F. KAEMTZ  
PROFESSEUR DE PHYSIQUE A L'UNIVERSITÉ DE HALLE

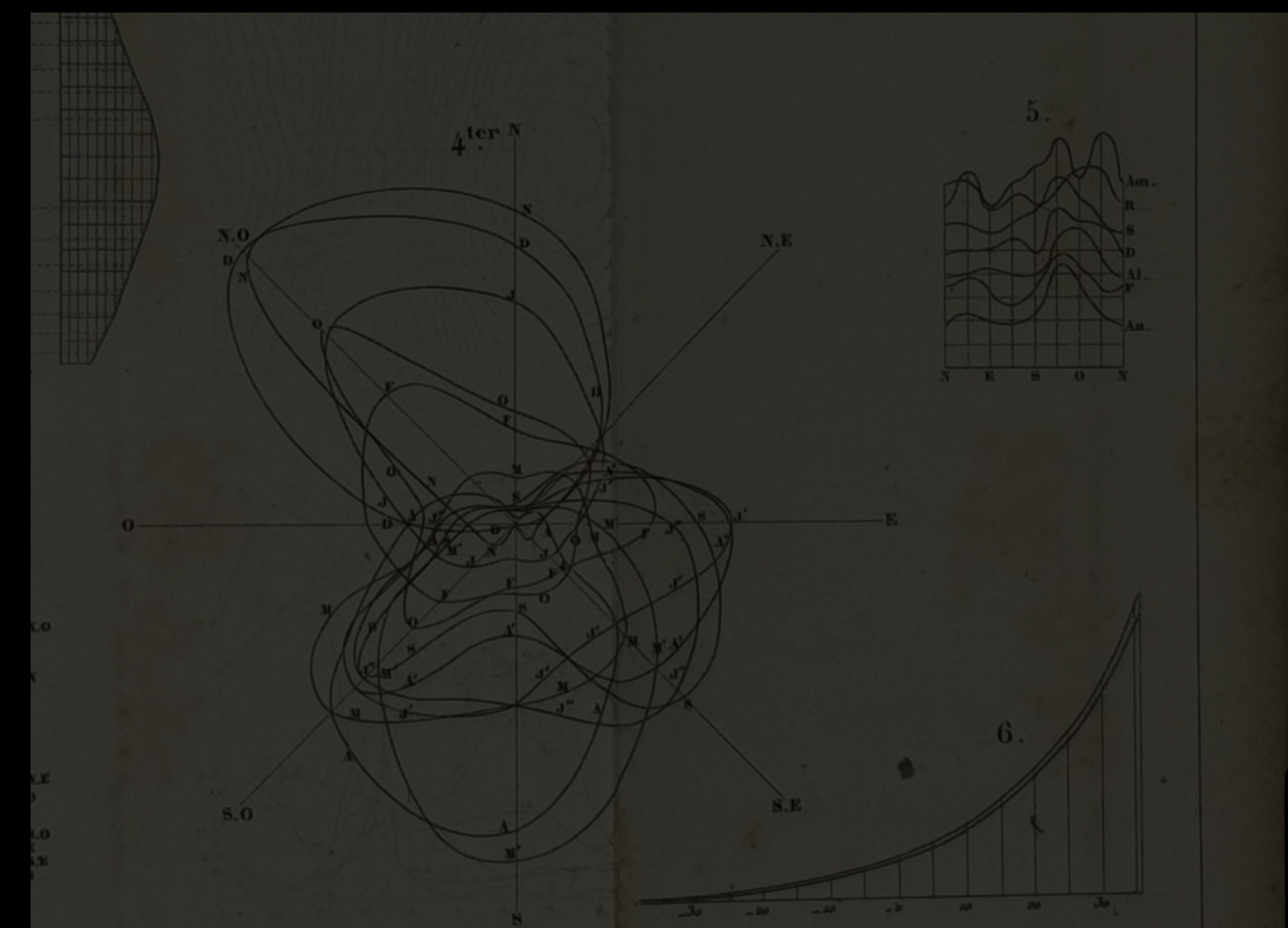
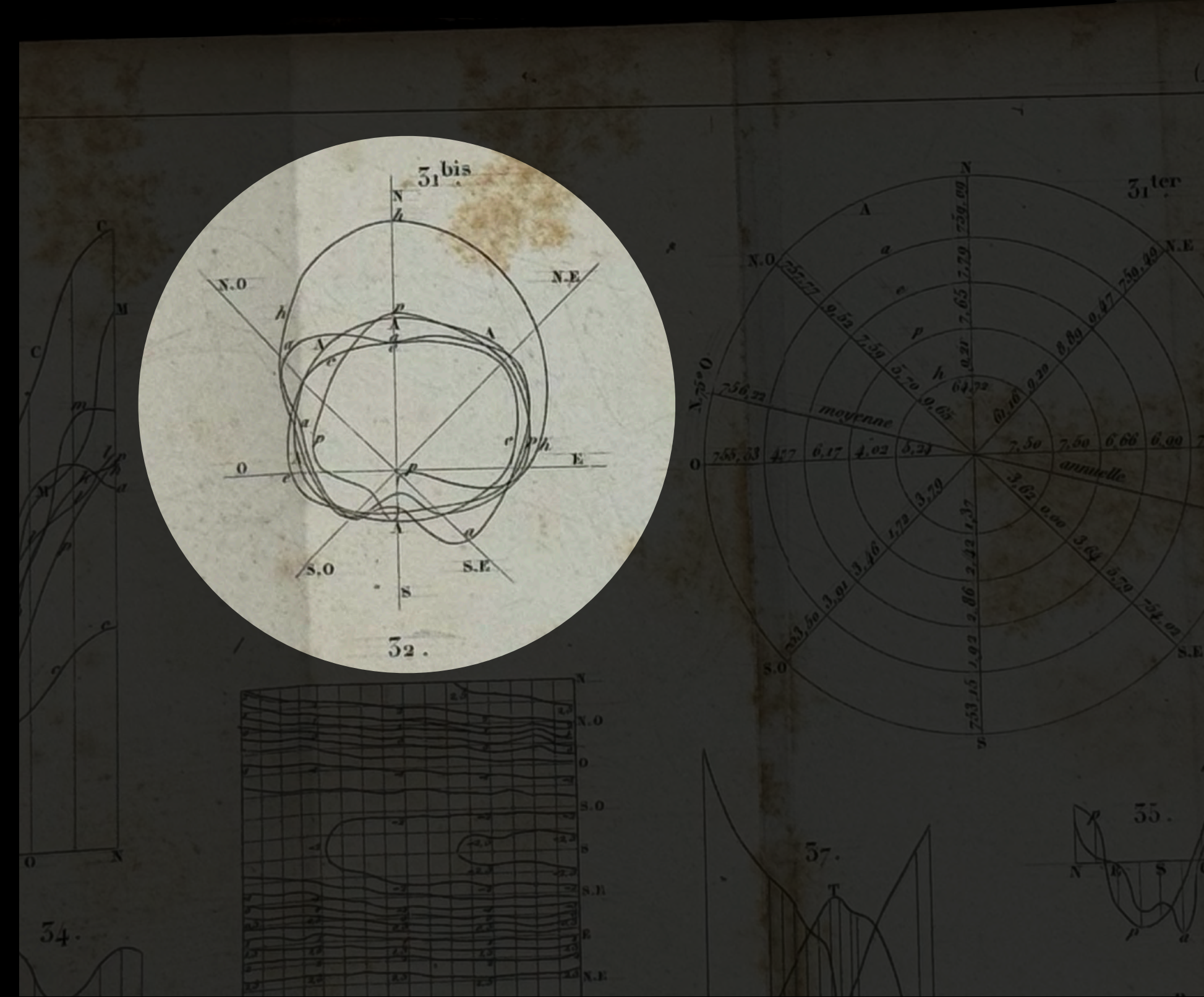
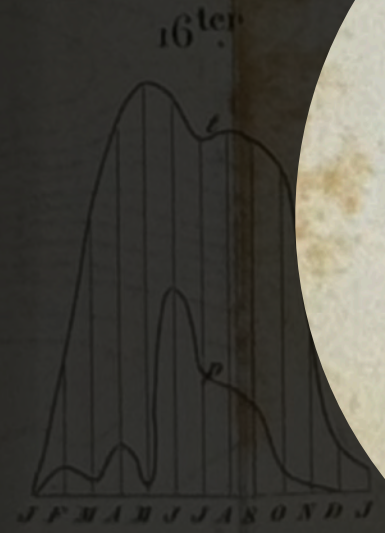
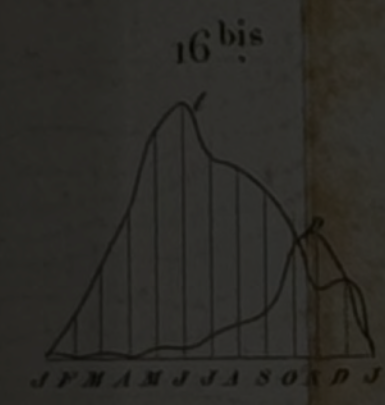
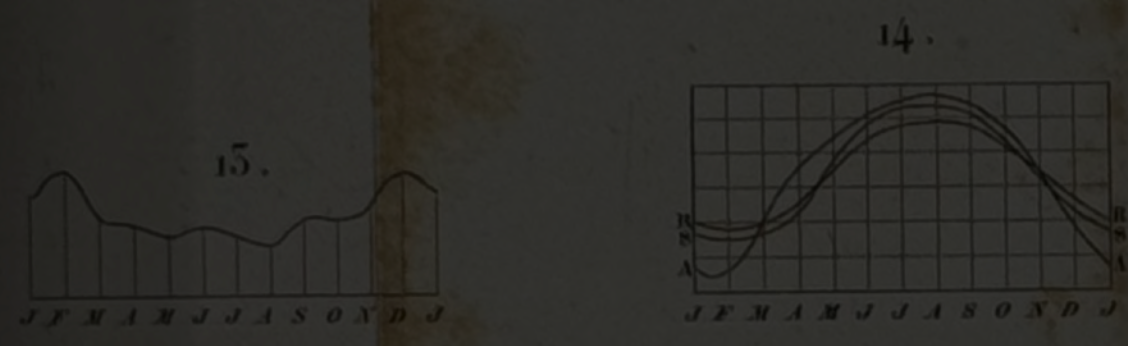
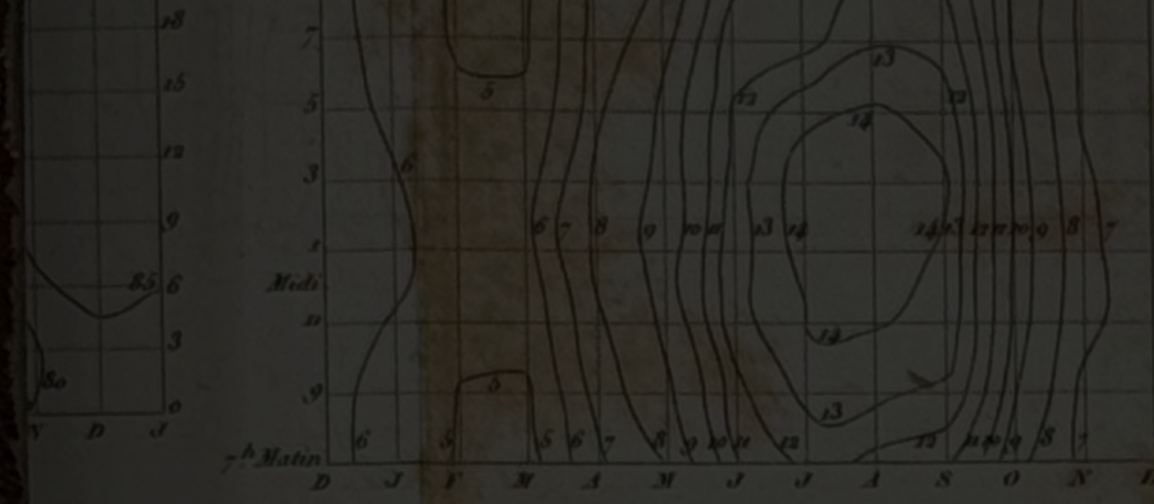
TRADUIT ET ANNOTÉ  
PAR CH. MARTINS  
PROFESSEUR AGREGÉ D'HISTOIRE NATURELLE A LA FACULTÉ  
DE MÉDECINE DE PARIS

AVEC UN APPENDICE  
CONTENANT  
LA REPRÉSENTATION GRAPHIQUE DES TABLEAUX NUMÉRIQUES

PAR L. LALANNE  
INGÉNIEUR DES PONTS ET CHAUSSÉES

PARIS  
ADOLPHE DELAHAYS, LIBRAIRE-ÉDITEUR  
1-6, RUE VOLTAIRE, 1-6  
1858

**1843** Léon Lalanne, charts in  
Kaemtz, *Météorologie*  
(Paris, 1843).  
📷 RJ Andrews 1858  
edition shown.





Nombre annuel moyen des jours de pluie (1773-1841). . . . . 144,5  
 Extrêmes (1806-1841).  
 Nombre maximum (1841). . . . . 204  
 Nombre minimum (1820). . . . . 112

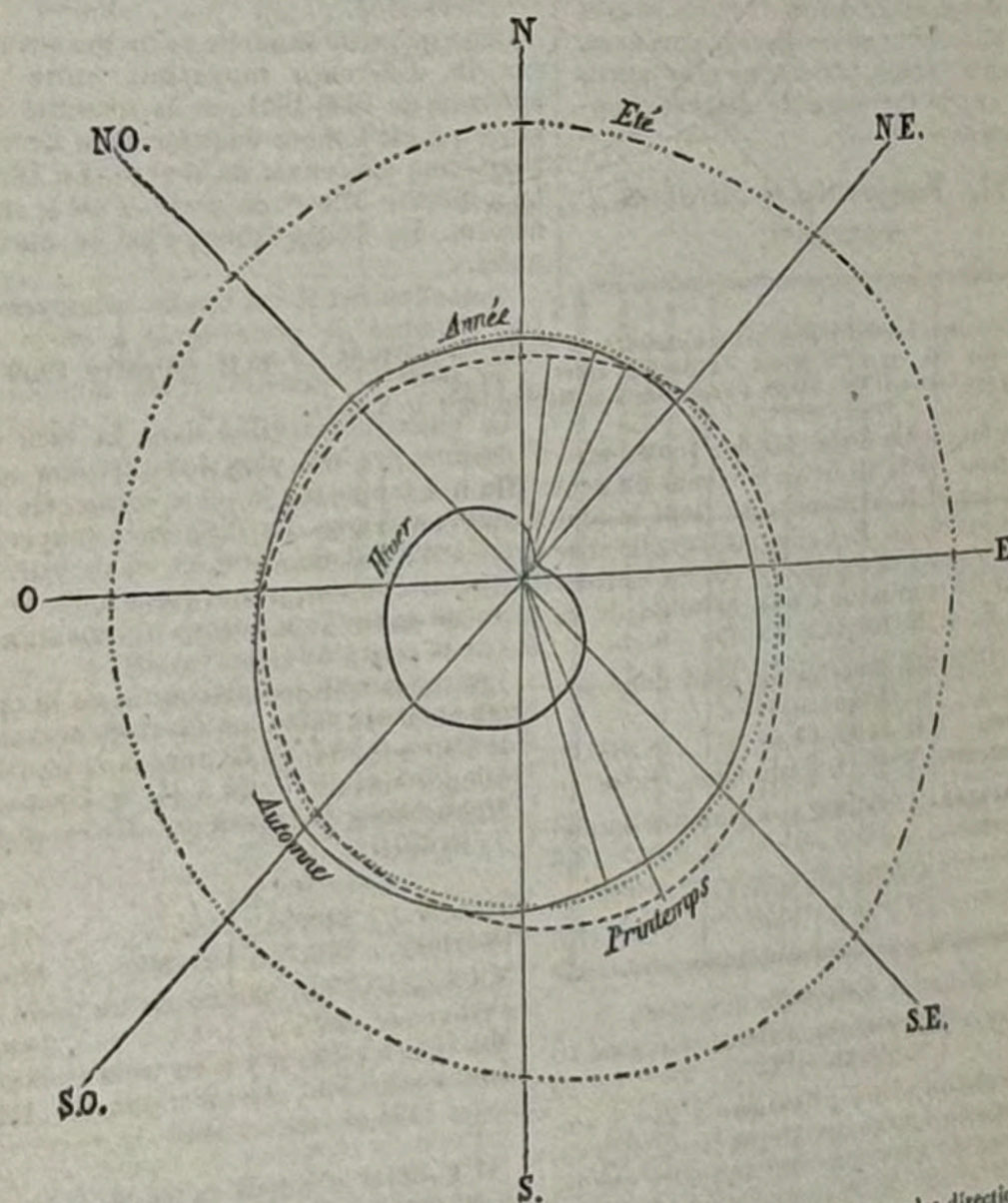
Nombre annuel moyen des jours de pluie dans les diverses saisons (1806-1826).  
 Hiver. . . . 34 j. | Été . . . . 36 j.  
 Printemps . 35 | Automne . . 37

de neige (1773-1824). 12  
 couverts (1806-1826). 184  
 nuageux. . . . . 181  
 de brouillards. . . . 180  
 de grêle. . . . . 9

[79] Vents.

FREQUENCE relative (1806-1826).	TEMPERATURE (11 années) à midi.	HAUTEUR MOYENNE du baromètre.
Nord . . . . . 127	. . . . . 12°, 08	. . . . . 750, 00
Nord-Est . . . . . 100	. . . . . 11, 76	. . . . . 750, 49
Est . . . . . 64	. . . . . 13, 50	. . . . . 751, 24
Sud-Est . . . . . 65	. . . . . 15, 25	. . . . . 754, 03
Sud . . . . . 173	. . . . . 15, 43	. . . . . 753, 15
Sud-Ouest . . . . . 181	. . . . . 14, 93	. . . . . 753, 33
Ouest . . . . . 190	. . . . . 13, 64	. . . . . 755, 7
Nord-Ouest. 94	. . . . . 12, 39	. . . . . 757, 78
Somme . . . 1000	Moy* 13°, 61	Moy* 756, 22

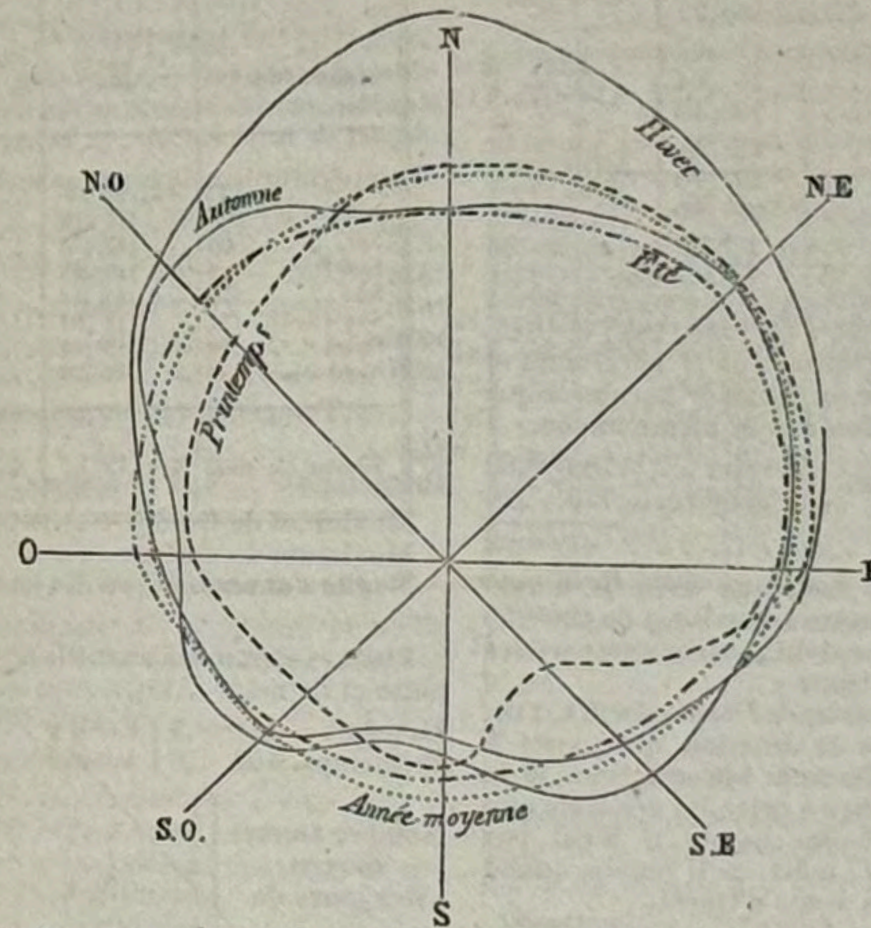
[21] Rose thermométrique des vents.



Les degrés du thermomètre correspondant aux différents vents ont été comptés sur les directions de ces vents à l'échelle de 1° = 5 par degré centigrade. Le nouveau mode de représentation a été ainsi donné pour la première fois dans l'appendice, à la météorologie de Kaemtz, déjà citée.

Le minimum de la rose des vents thermométrique, ou la direction moyenne du vent le plus froid, est N. 18° E. Celle du vent le plus chaud, S. 17° E.

[22] Rose barométrique des vents.



Les hauteurs barométriques ont été comptées à partir du centre de la Rose sur les directions correspondantes des vents, à raison du double après avoir retranché constamment 745 millimètres de toutes ces hauteurs. Voir encore l'appendice à la Météorologie de Kaemtz.

Le maximum de la rose des vents barométrique, ou la direction moyenne du vent avec lequel le baromètre se tient le plus haut, est N. 24° E. Celle par laquelle il se tient le plus bas est de S. 5° O. Sa hauteur moyenne correspond aux azimuts de S. 76° E. et N. 75° O.

Hauteur moyenne } à 9<sup>h</sup> du matin. . . . 756<sup>mm</sup>, 37  
 } à midi. . . . . 756 , 10  
 } à 3<sup>h</sup> soir. . . . . 755 , 62  
 } à 9<sup>h</sup> soir. . . . . 756 , 71

Variation diurne.  
 9<sup>h</sup> matin à 3<sup>h</sup> soir. . . . 0<sup>mm</sup>, 75  
 3<sup>h</sup> soir à 9<sup>h</sup> soir. . . . 0 , 27

Direction moyenne du vent dans chaque saison.  
 Hiver. . . S. 48° O. | Été. . . N. 88° O.  
 Printemps. N. 88 O. | Automne . S. 48 O.

Si nous retranchons la tension de la vapeur d'eau, nous aurons pour la pression de l'air sec, dans les différents mois, les valeurs suivantes (Kaemtz, *Lehrbuch der Meteorologie*, t. 1, p. 333; et t. II, p. 297).

Orages. (1785-1837). — Nombre annuel moyen. . . . . 13,6

Pression de l'air sec (1816-1826).

Orages par saisons.  
 Hiver . . . . 0,3 | Été . . . . . 7,6  
 Printemps. . . 3,8 | Automne. . . . 1,9

mm	mm
Janvier . . . 753 , 42	Juillet . . . 747 , 60
Février . . . 753 , 01	Août . . . 746 , 83
Mars . . . 750 , 98	Septembre. 747 , 36
Avril . . . 749 , 78	Octobre . . 746 , 81
Mai . . . 748 , 18	Novembre. 749 , 92
Juin . . . 749 , 11	Décembre . 750 , 06

Extremes.  
 Nombre { maximum (1811). . . . . 25  
 { minimum (1823). . . . . 6

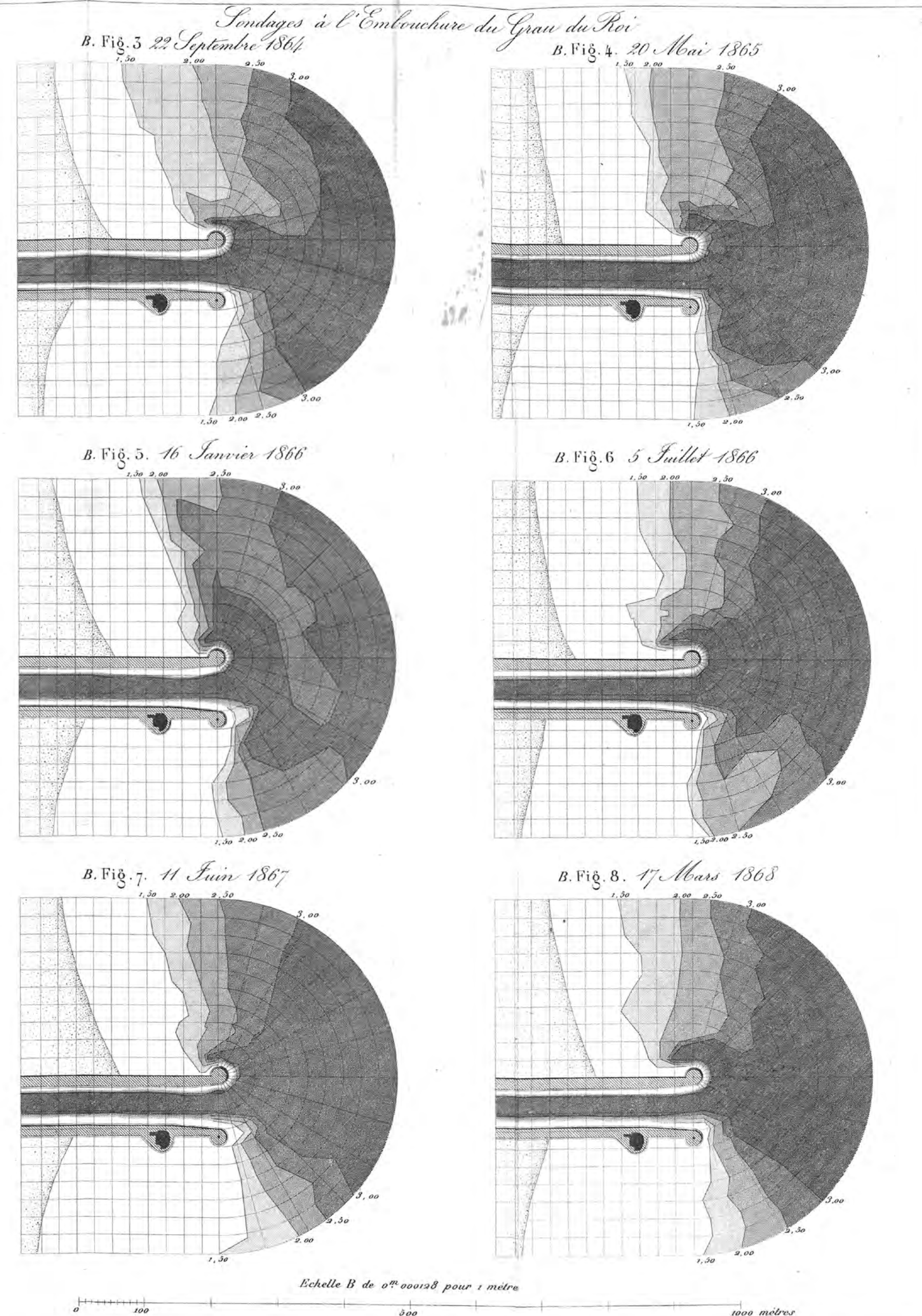
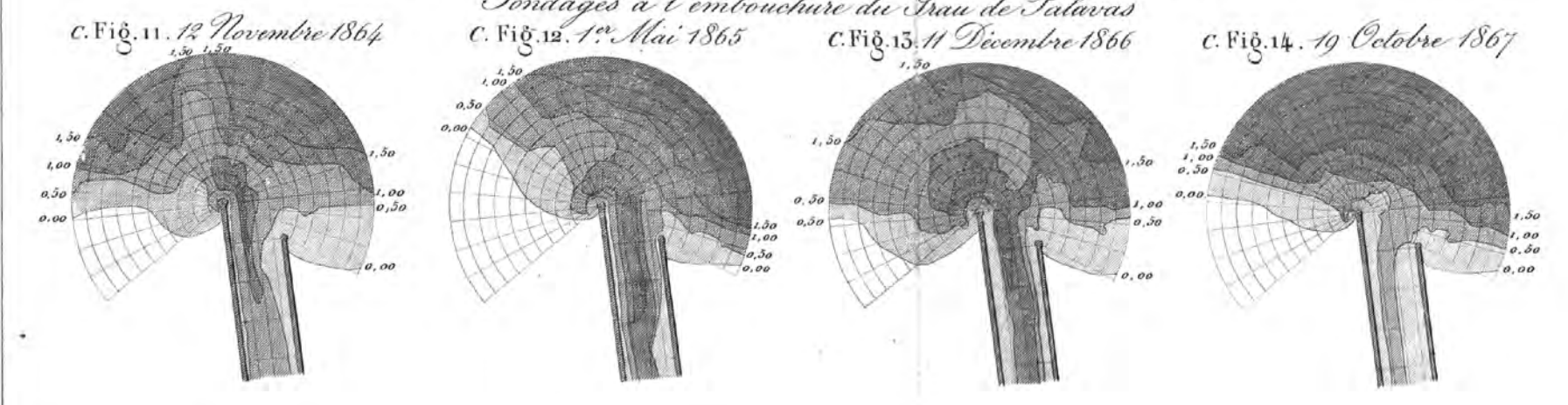
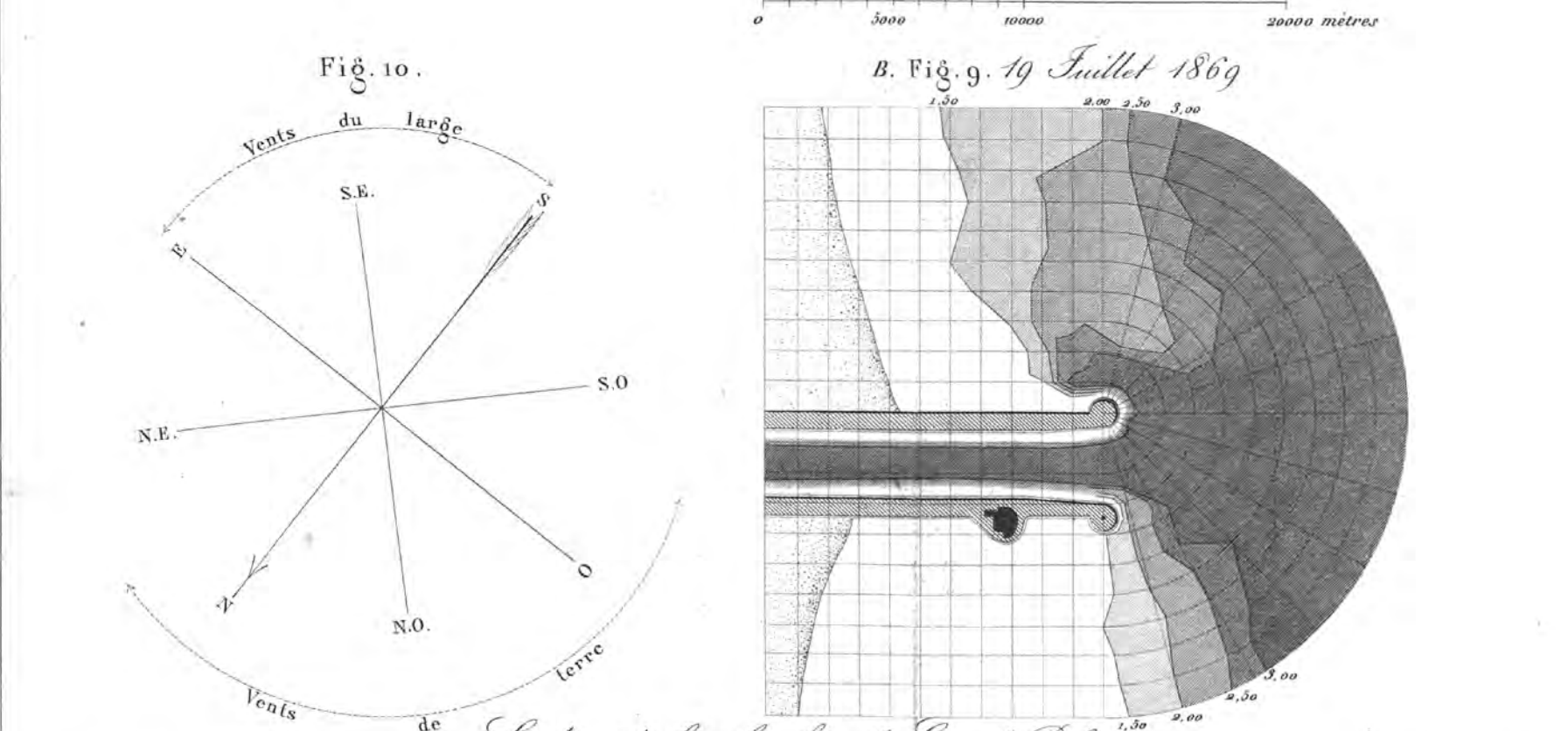
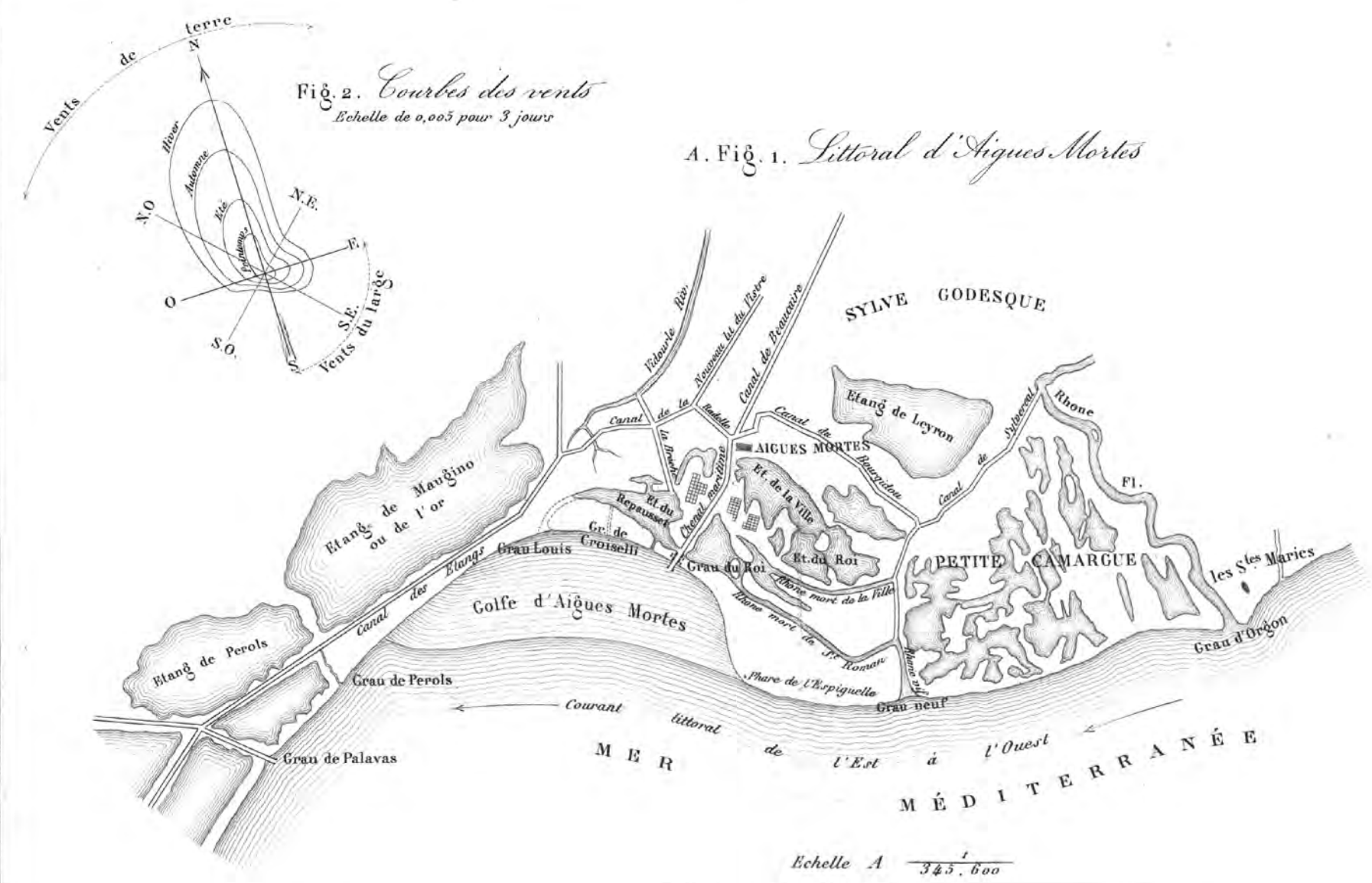
Pression moyenne de l'année. . . . 749 , 42

Pression atmosphérique à 65<sup>m</sup>, 8 au-dessus du niveau de la mer (A).  
 Hauteur moyenne du baromètre par les observations de 9<sup>h</sup> matin, midi et 3<sup>h</sup> soir (1816-1840). . . . . 756<sup>mm</sup>, 03

En hiver, le baromètre est plus haut qu'en été de 0<sup>mm</sup>, 27  
 Oscillation

Hauteurs moyennes horaires du baromètre.  
 (9<sup>h</sup> matin, midi et 3<sup>h</sup> soir 1816-1840; 9<sup>h</sup> soir 1816-1826.)

Décembre .  
 Janvier . .  
 Février . .



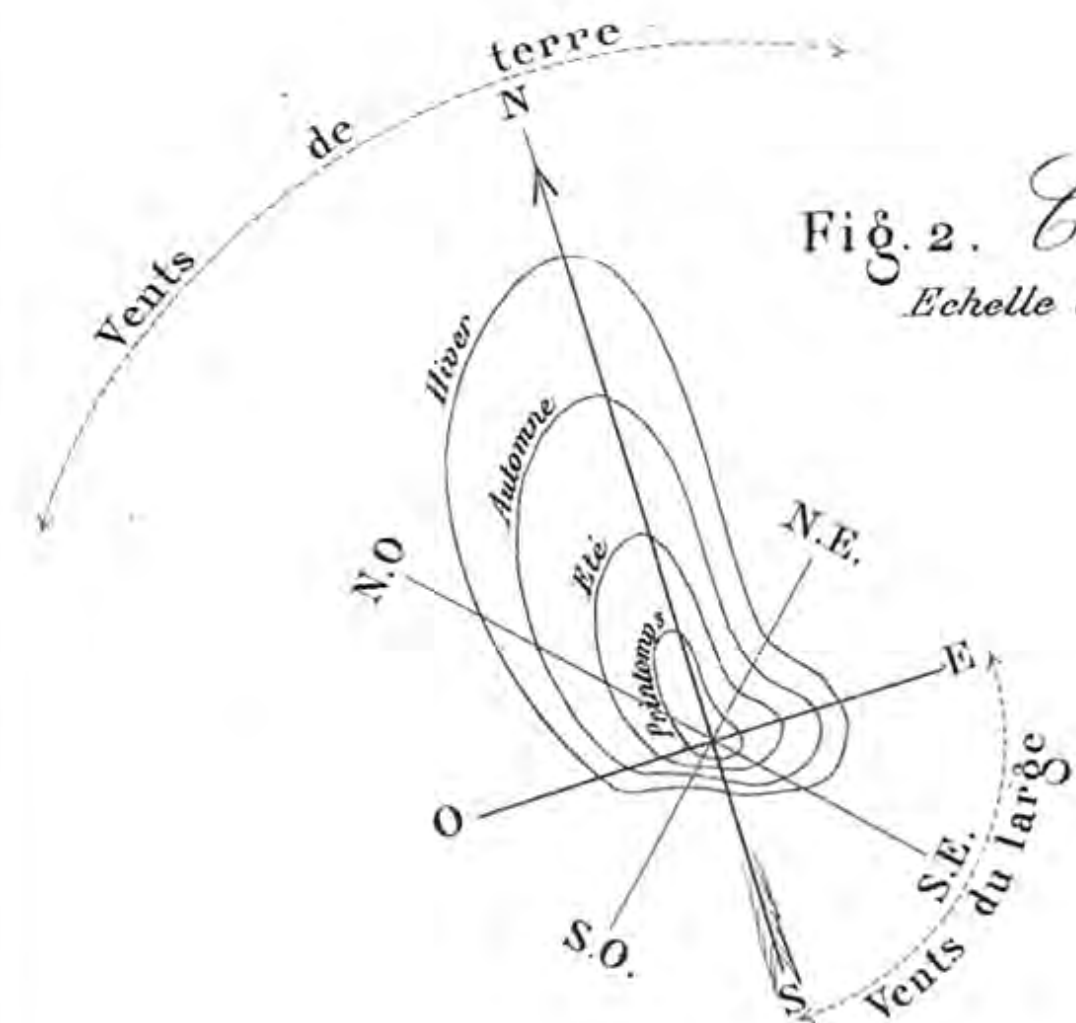
Echelle A  $\frac{1}{325,600}$   
0 5000 10000 20000 mètres

Echelle B de 0<sup>o</sup> 000128 pour 1 mètre  
0 100 500 1000 mètres

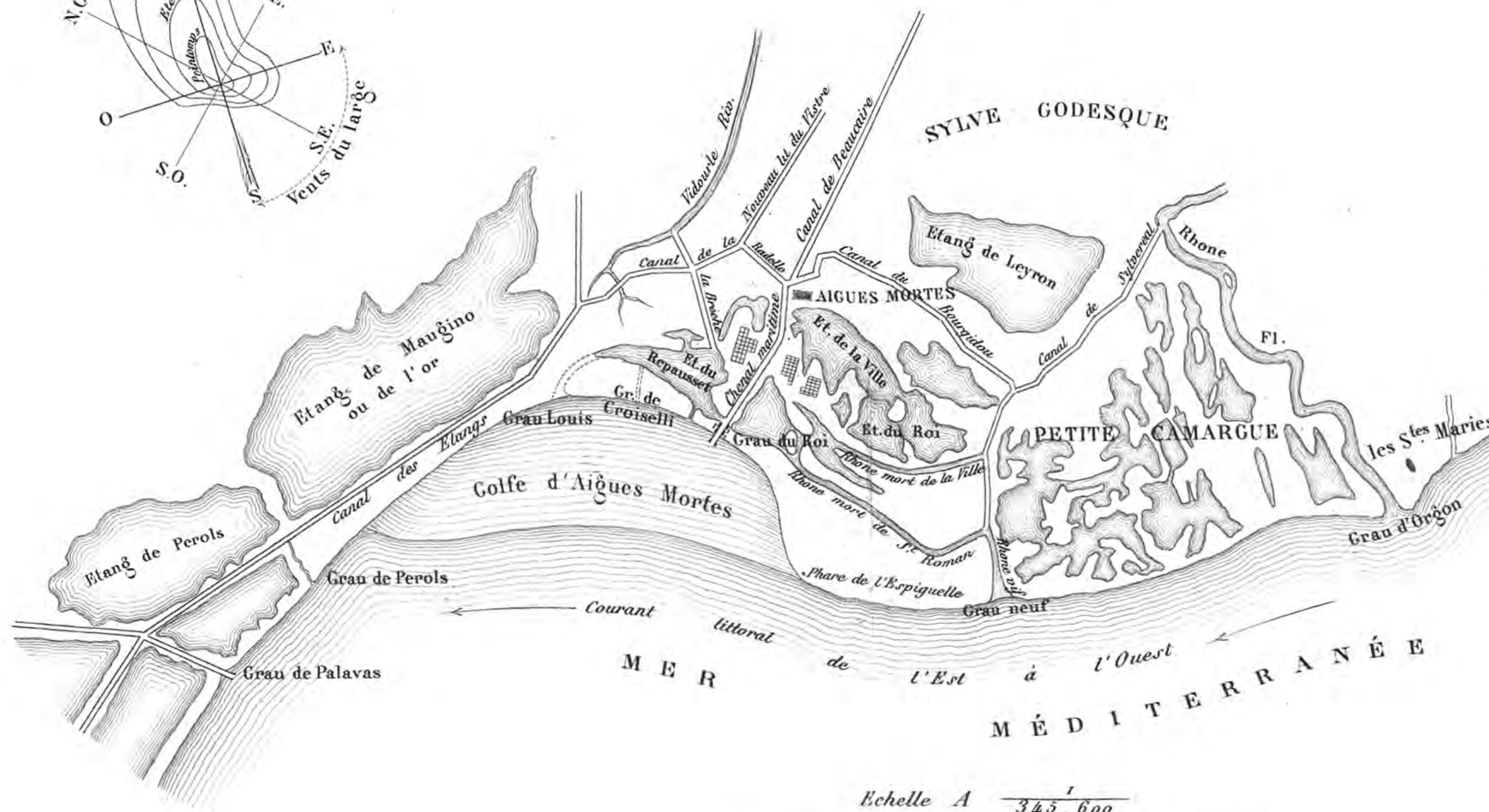
1872

Ch. Lenthéric, "...conditions nautiques du golfe et du mouillage d'Aigues-Mortes" (Paris, 1872).

Bibliothèque nationale de France

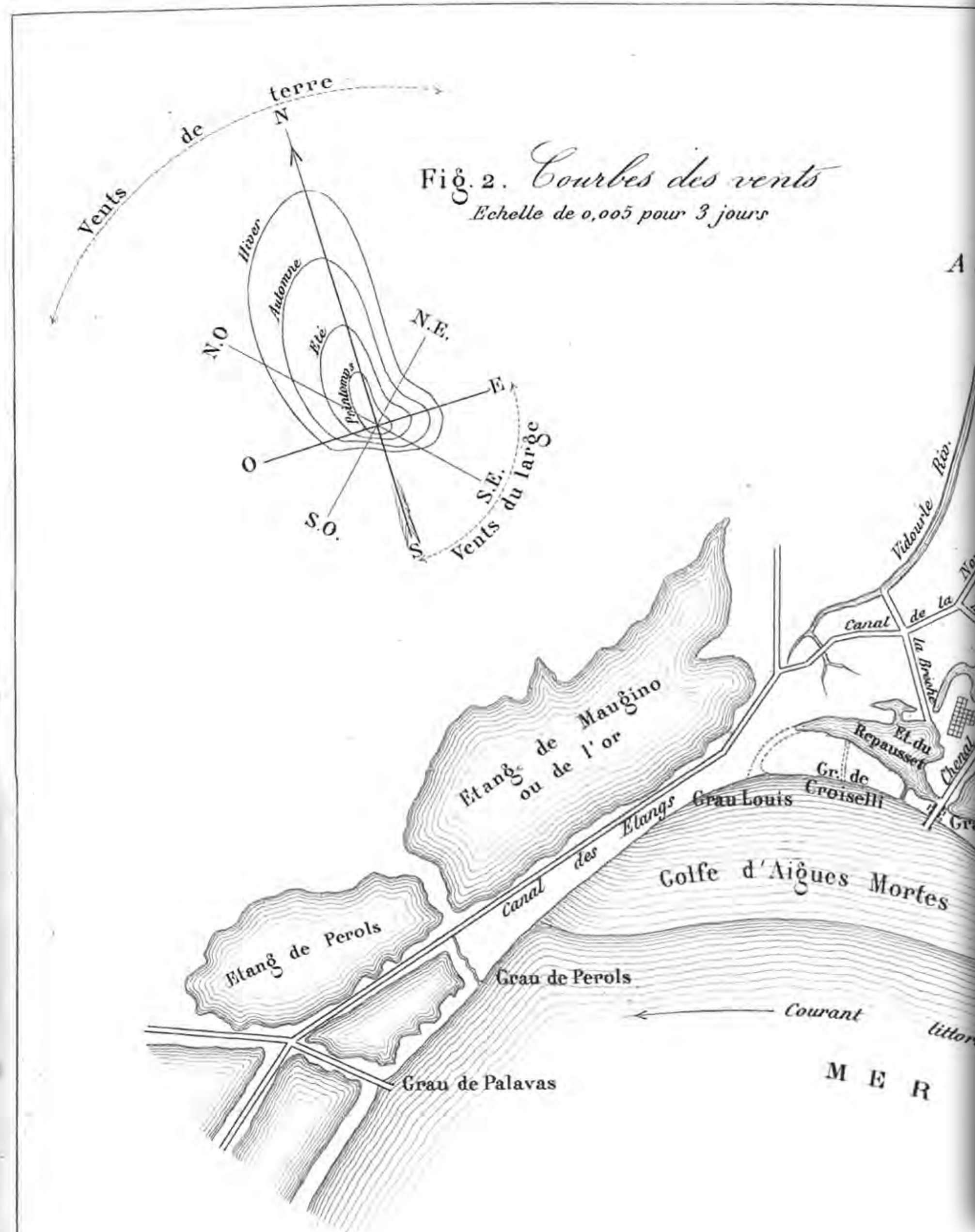


A. Fig. 1. Littoral d'Aigues Mortes



1872

Ch. Lenthéric, "...conditions nautiques du golfe et du mouillage d'Aigues-Mortes" (Paris, 1872).  
Bibliothèque nationale de France



1878

E.-J. Marey, *La méthode graphique* (Paris, 1878).  
 RJ Andrews 1885 edition shown.

1872

Ch. Lenthéric, "...conditions nautiques du golfe et du mouillage d'Aigues-Mortes" (Paris, 1872).  
 Bibliothèque nationale de France

maximum d'intensité avec laquelle le vent a soufflé dans cette direction, et l'on obtient une représentation saisissante du sens suivant lequel le vent souffle en tempête dans la localité où les observations ont été prises.

D'autres fois, on veut déterminer quelle est la direction ordinaire des vents dans une localité. On relève sur le registre d'observations le nombre de jours de l'année pendant lequel le vent a soufflé vers chacun des points de l'horizon, puis, portant sur chaque rayon vecteur une longueur proportionnelle au nombre de jours où le vent a soufflé dans la direction qu'il exprime, on obtient (fig. 34)

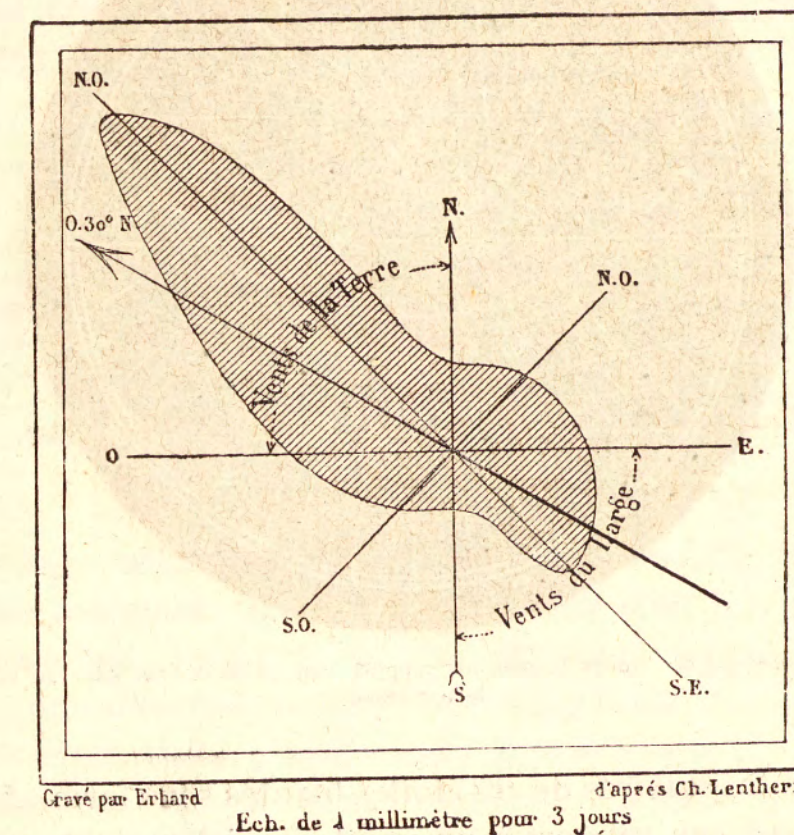



Fig. 34. Courbes exprimant la fréquence relative des différents vents à Aigues-Mortes.

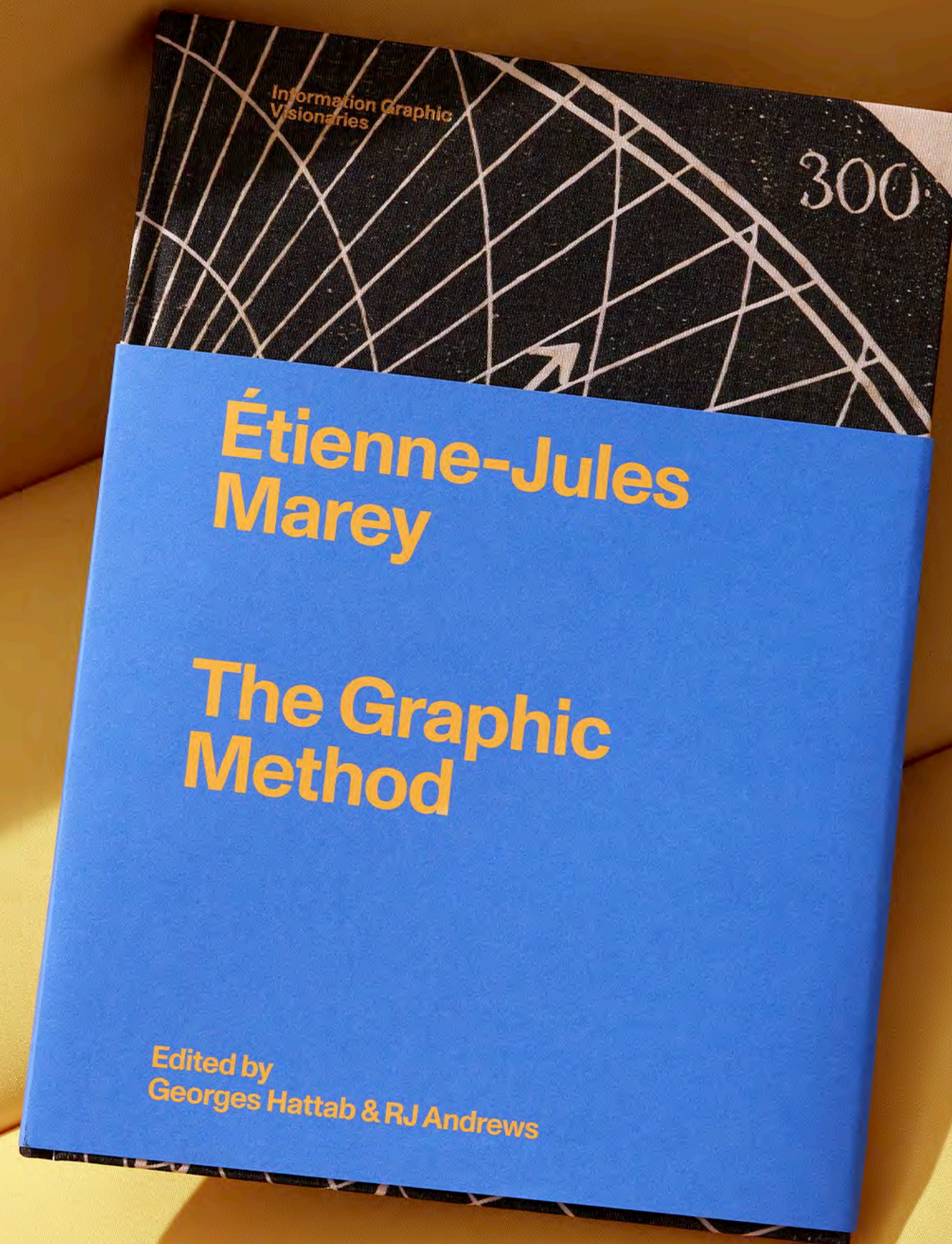
une courbe du même genre que celle dont nous venons de parler, mais dont la signification est tout autre. Cette figure montre d'une manière frappante la prédominance des vents de terre dans cette localité où le mistral souffle si fréquemment.

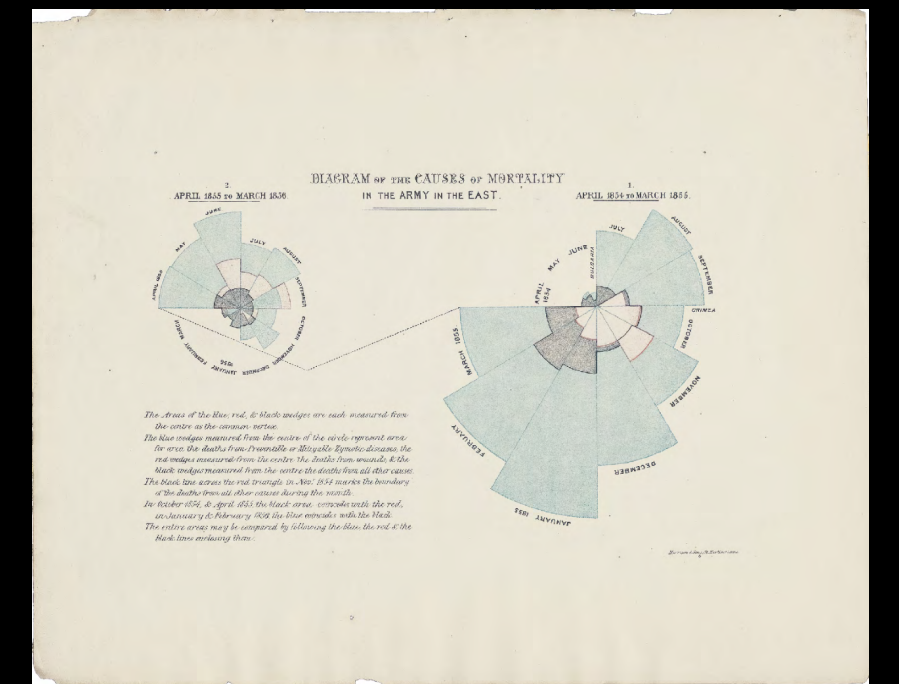
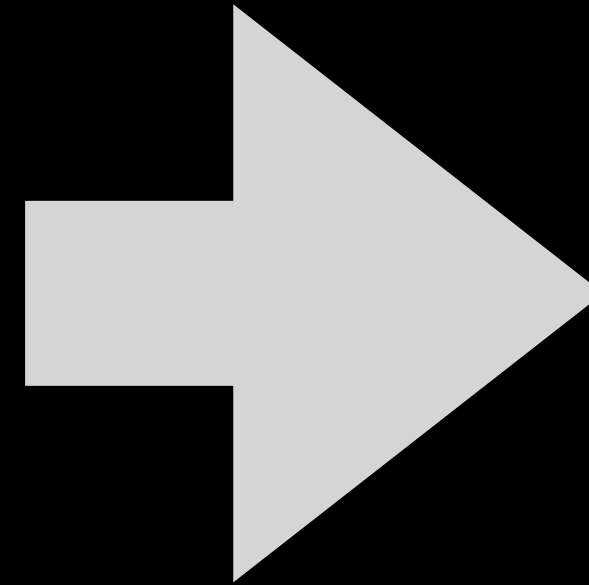
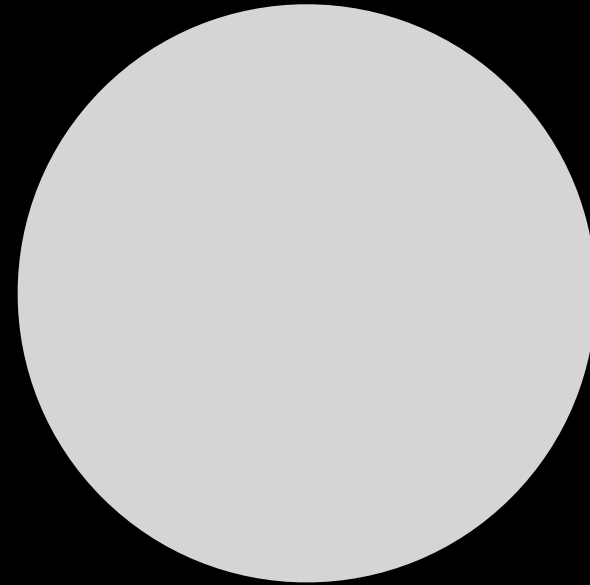
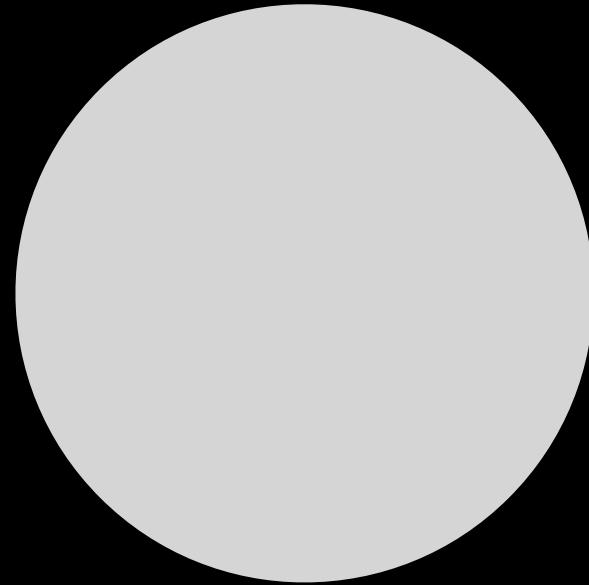
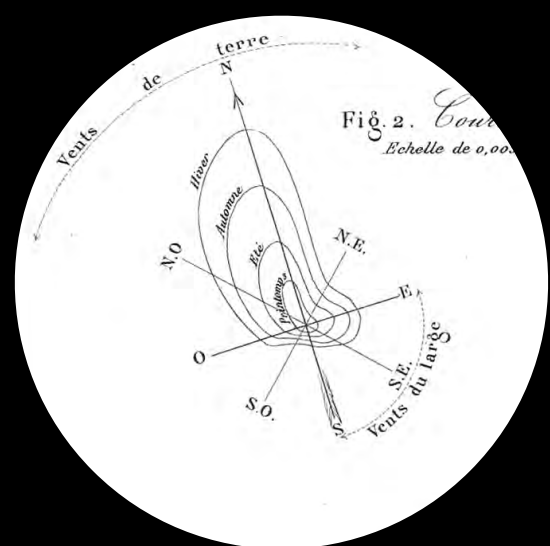
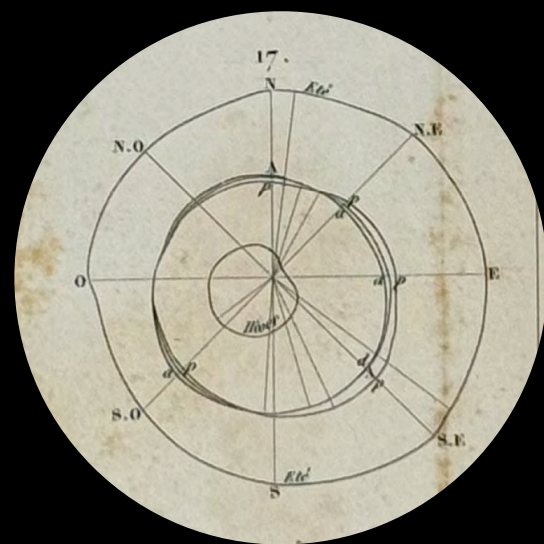
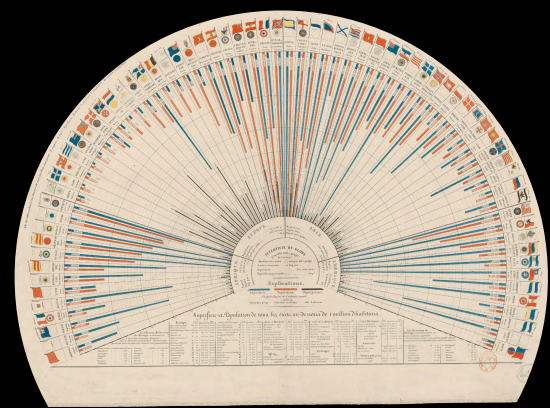
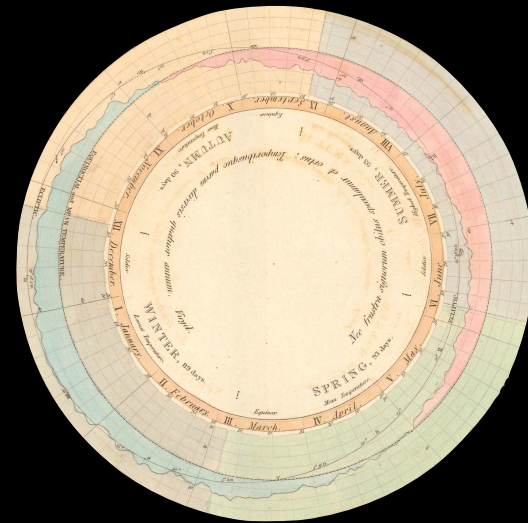
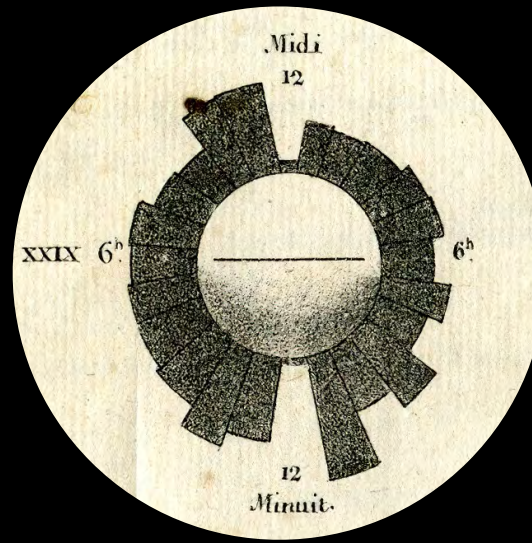
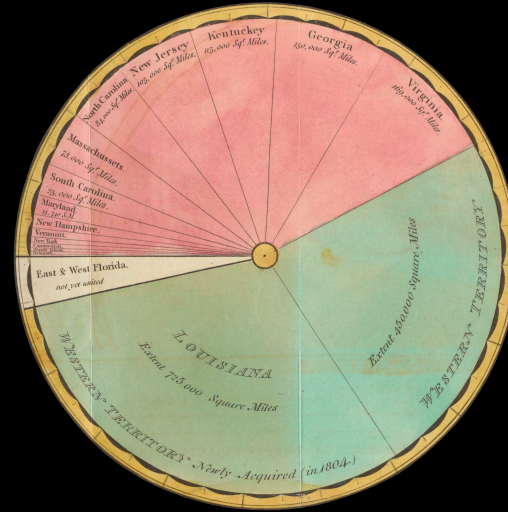
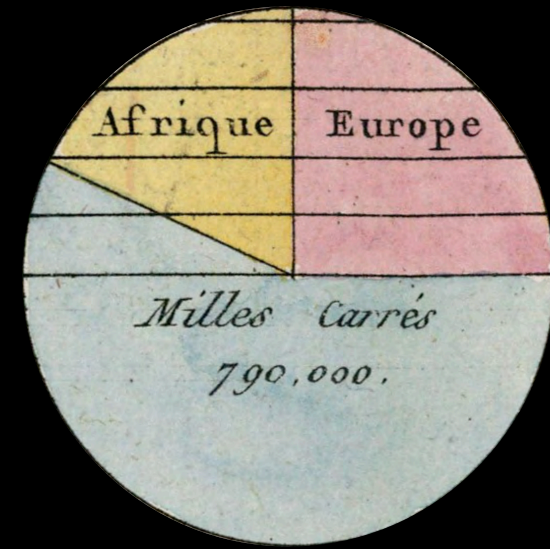
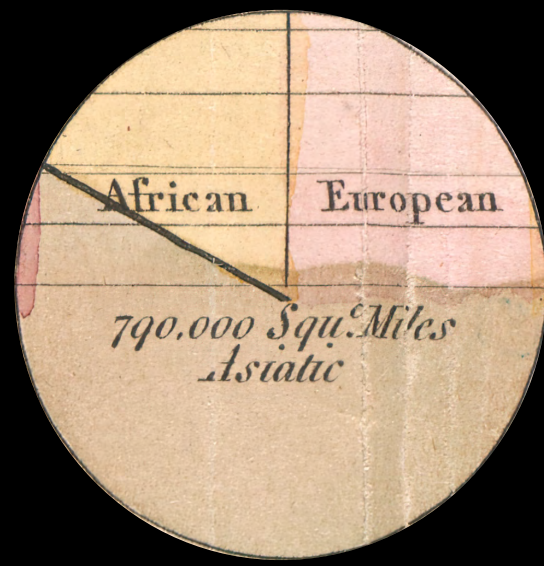
Les deux sortes de figures dont on vient de parler n'appartiennent plus au système de coordonnées orthogonales que jusqu'ici nous avons exclusivement rencontrés; les courbes des fréquences et des intensités du vent suivant ses directions diverses appartiennent au système des *coordonnées polaires* qui semble se prêter avec une facilité merveilleuse à exprimer les directions. Mais si l'on

2022

Georges Hattab and RJ  
Andrews, *Étienne-Jules  
Marey: The Graphic  
Method* (2022).

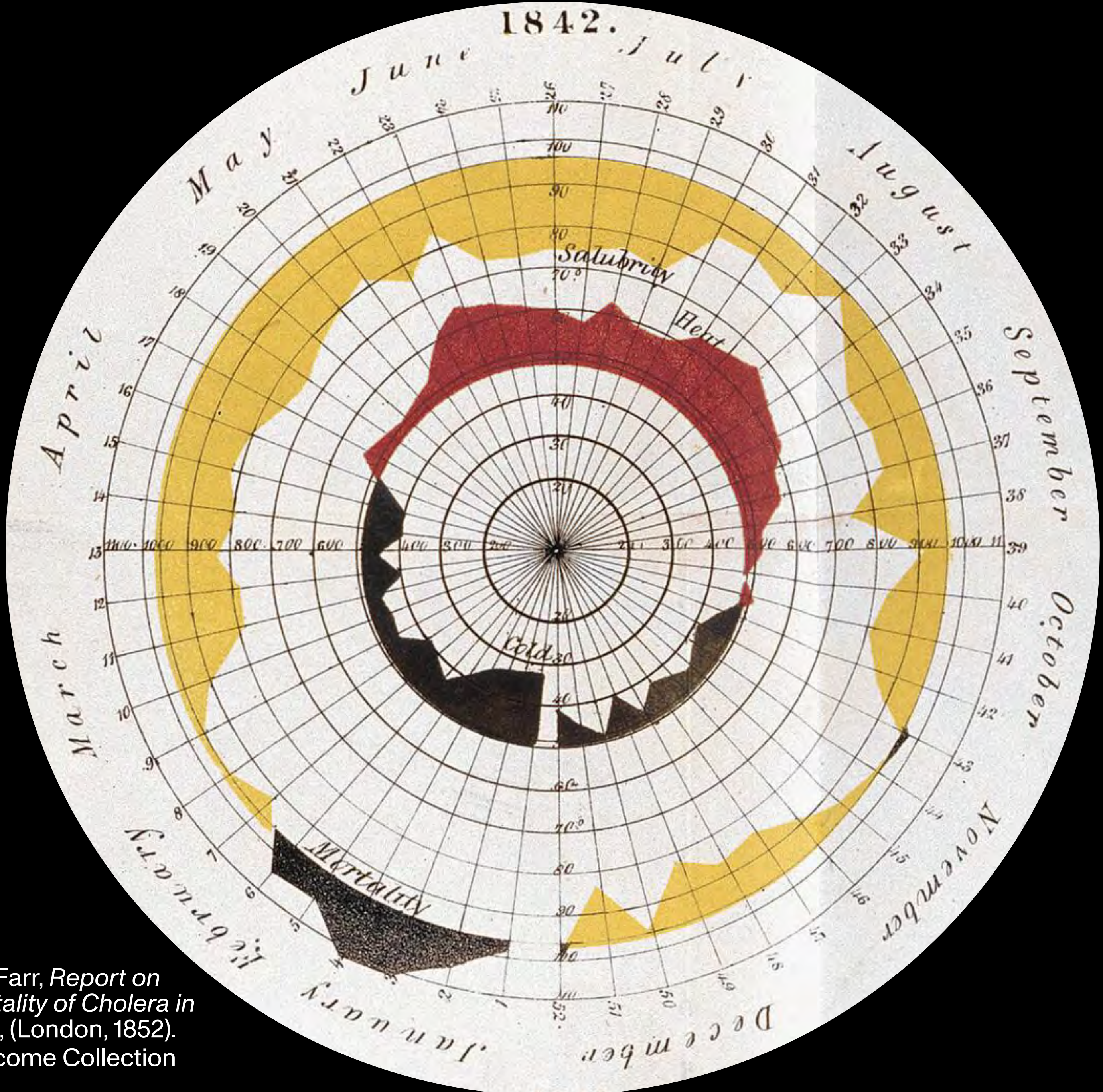
 Visionary Press





story time

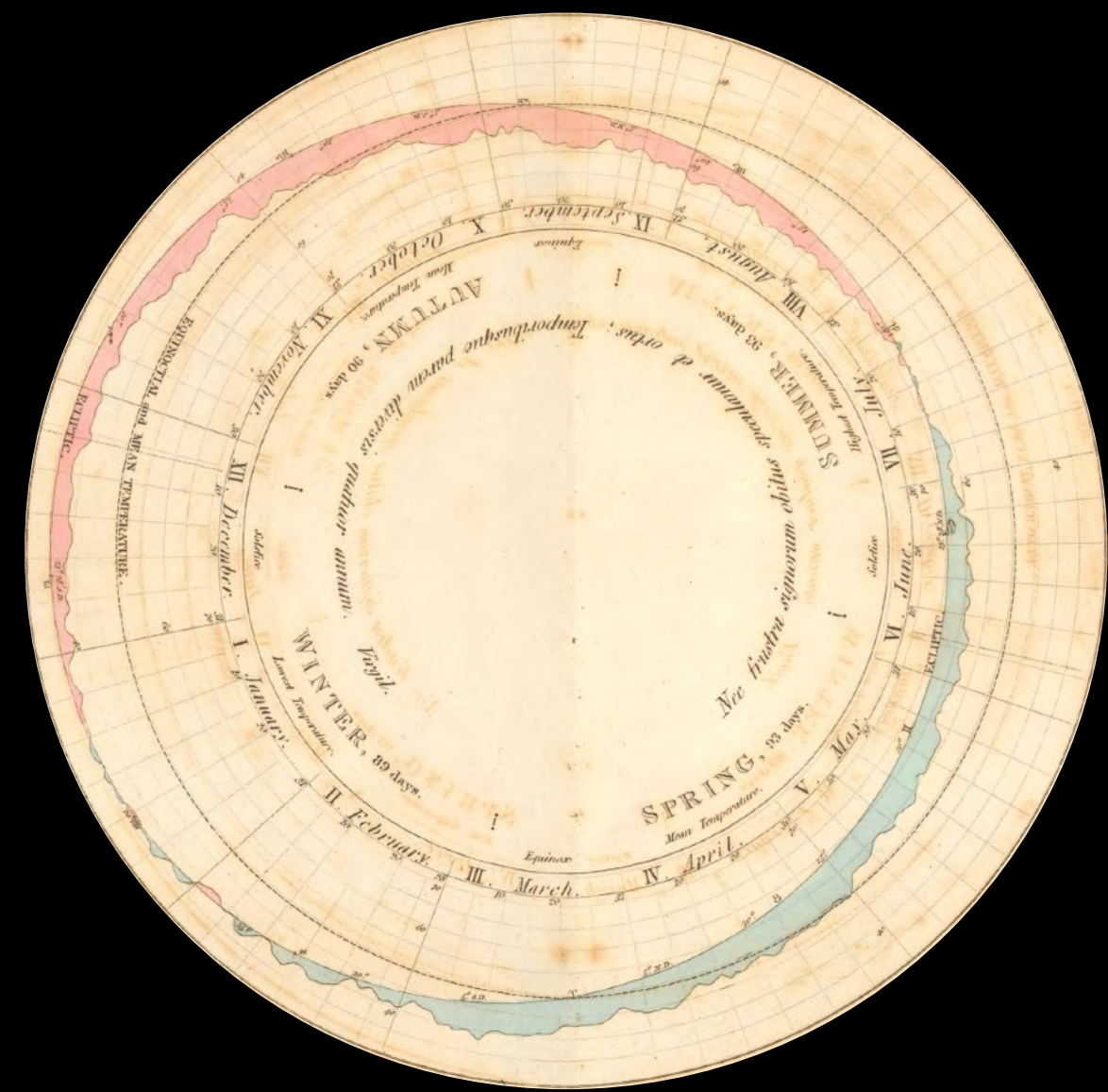
---



1852 William Farr, Report on the Mortality of Cholera in England, (London, 1852). Wellcome Collection

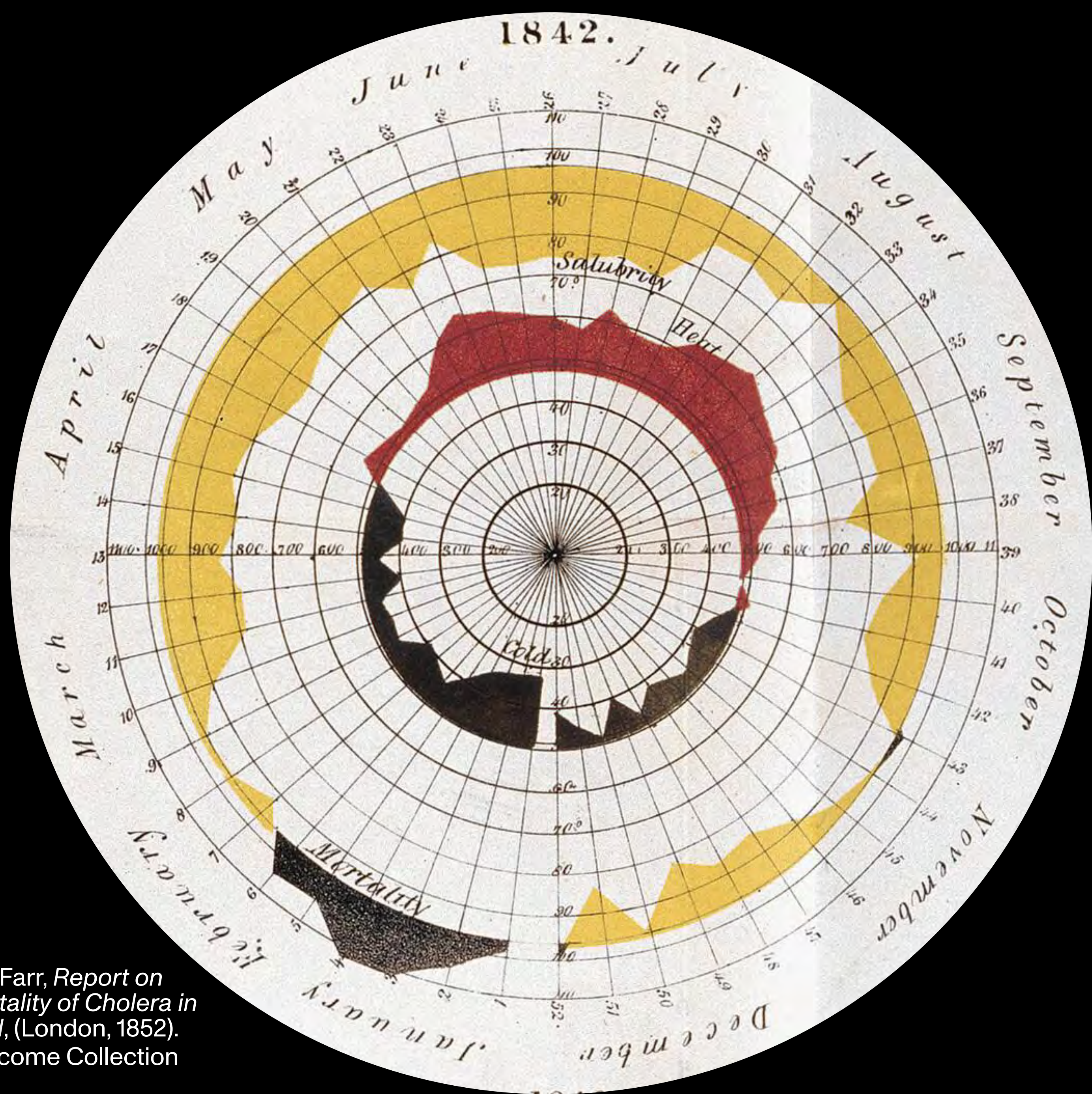


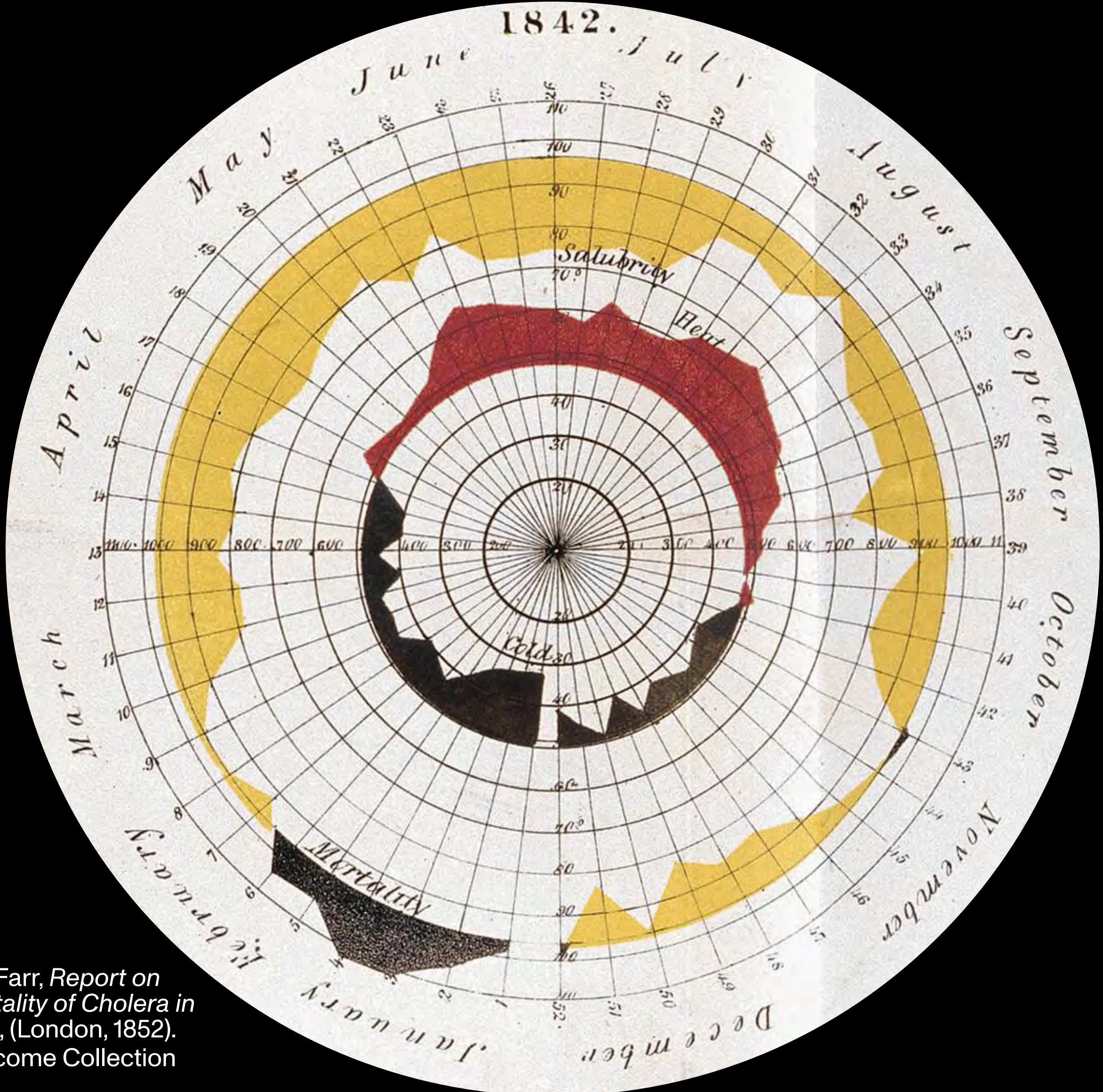
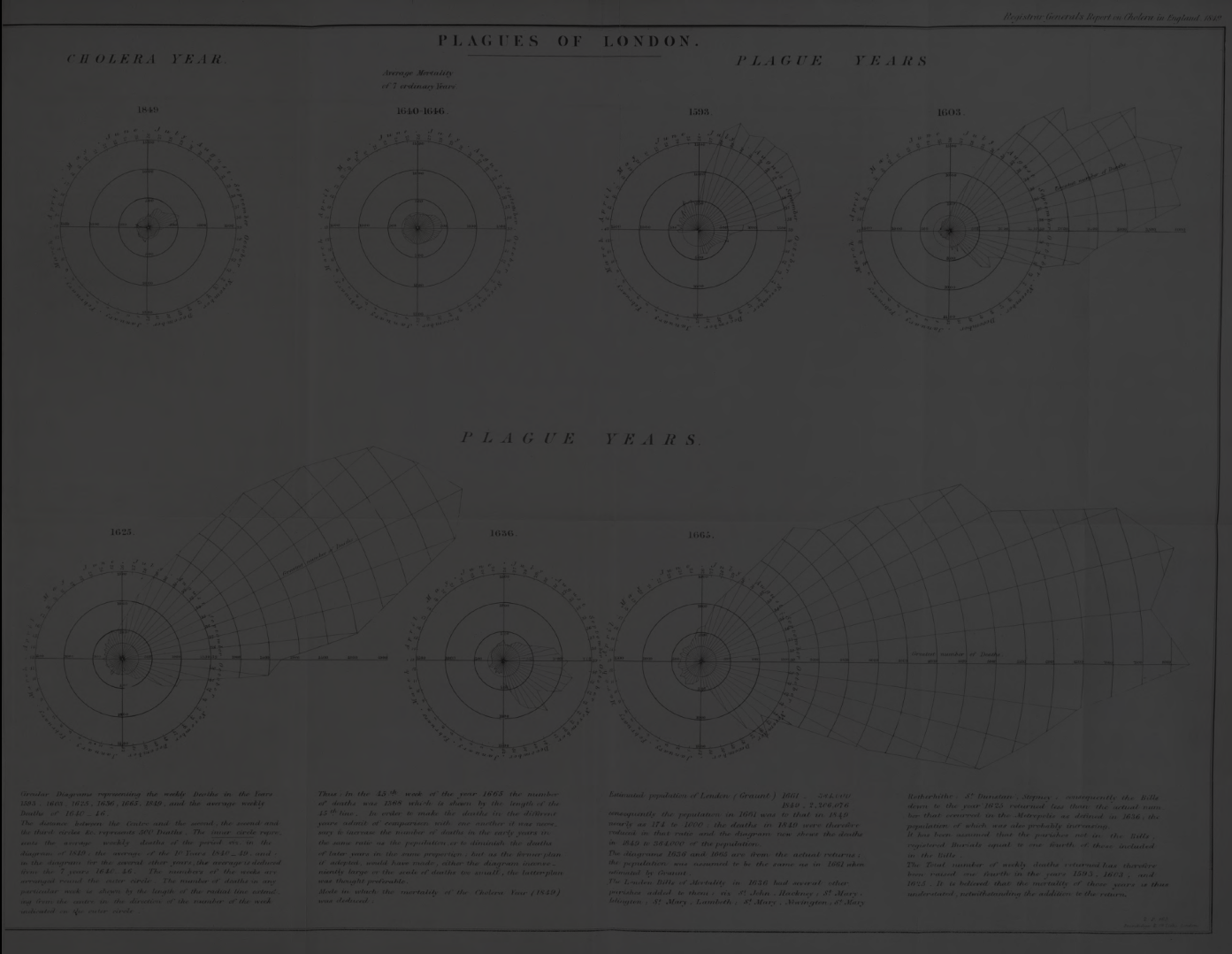
1833



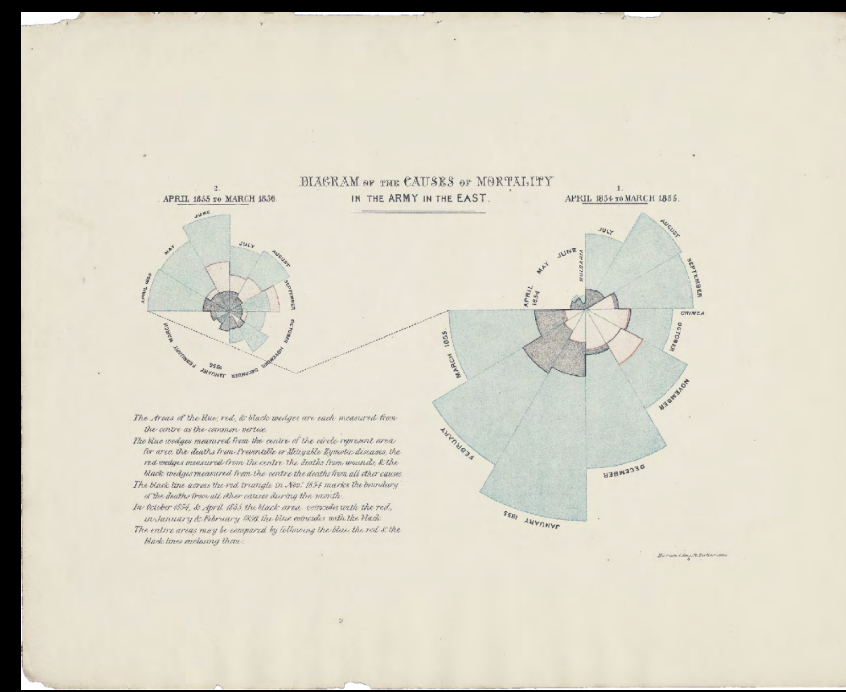
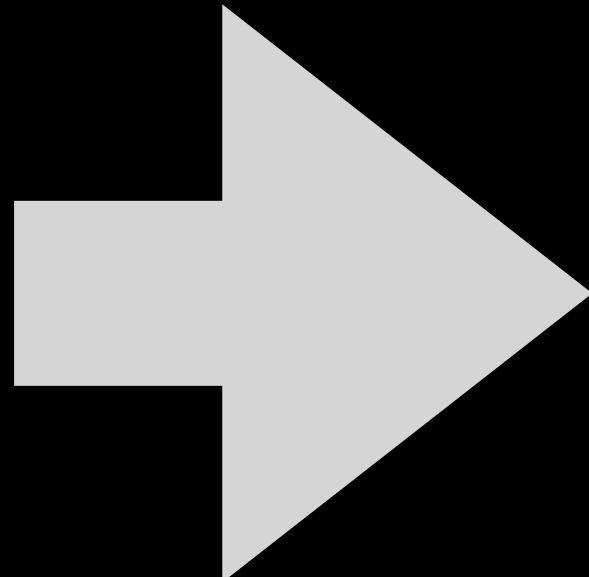
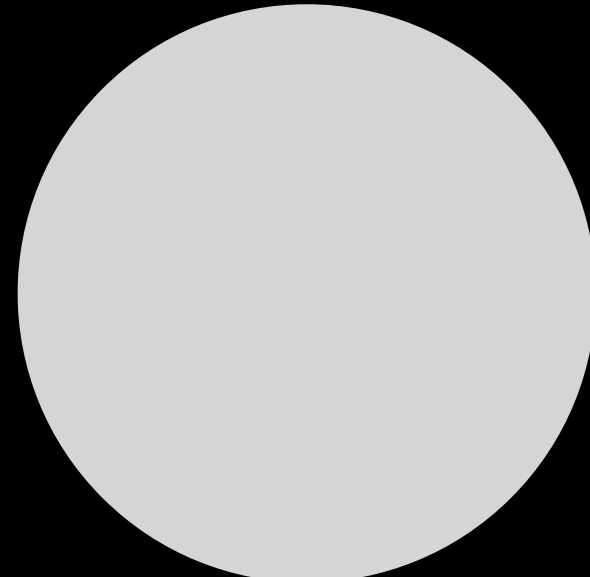
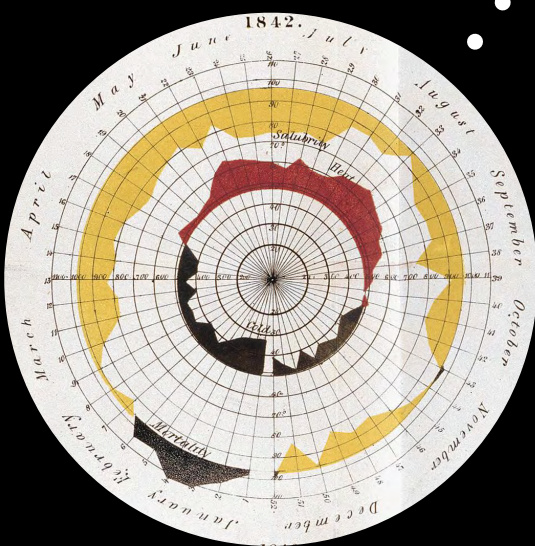
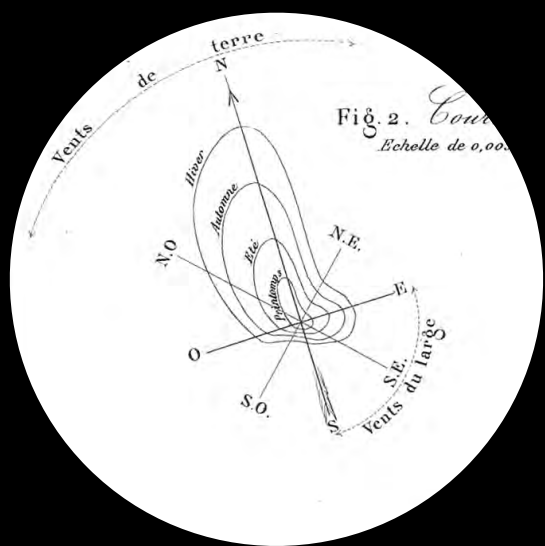
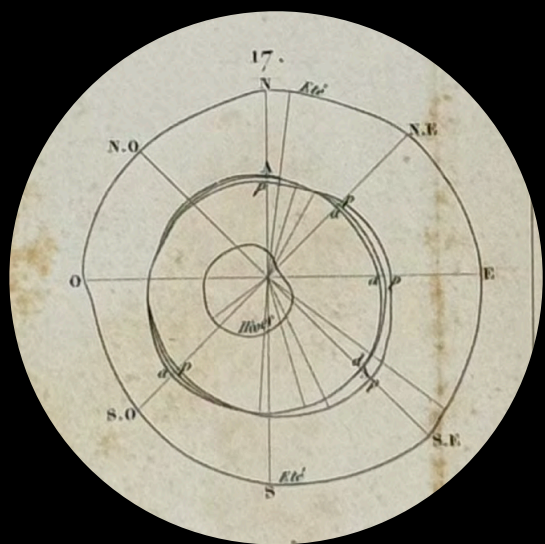
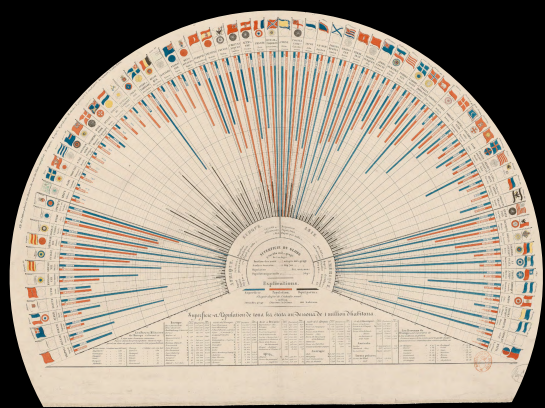
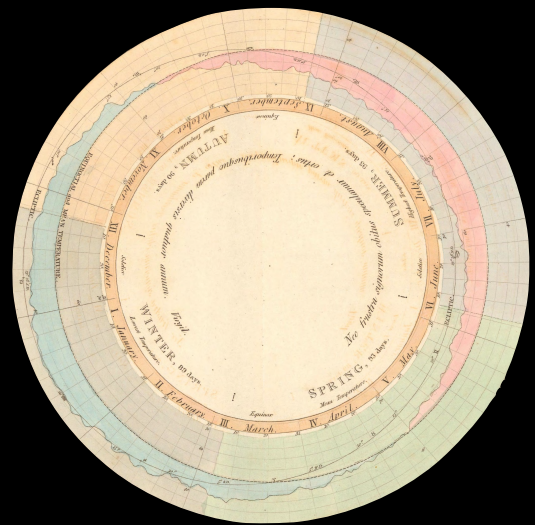
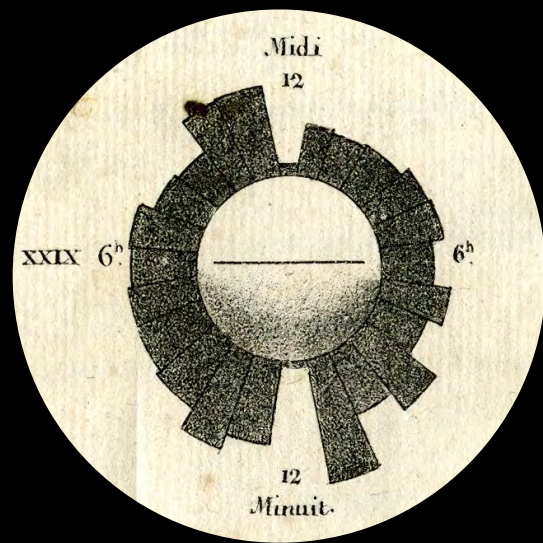
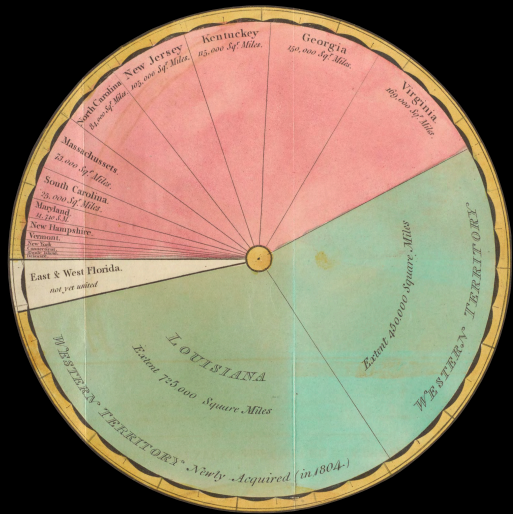
1852

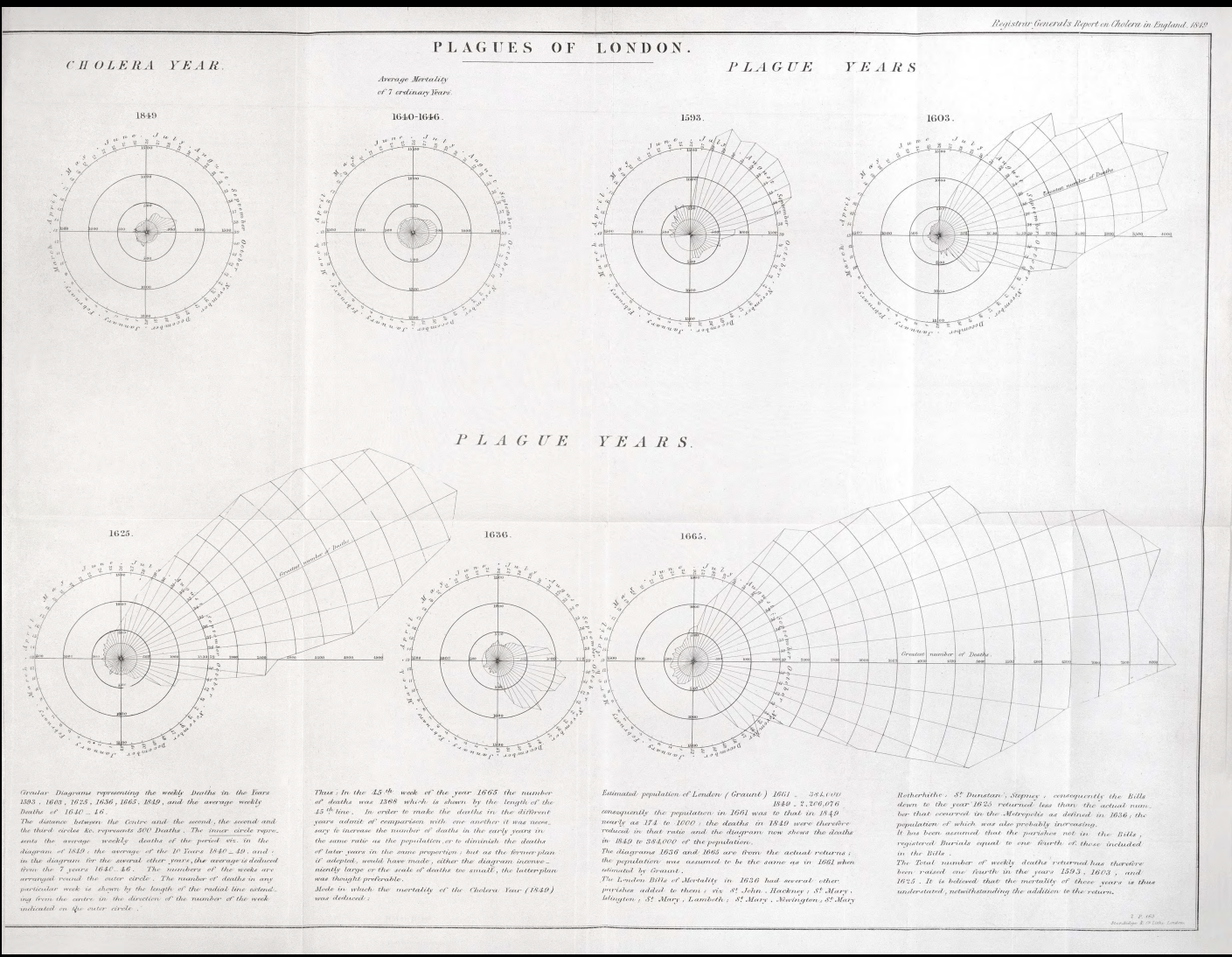
William Farr, Report on the Mortality of Cholera in England, (London, 1852).  
Wellcome Collection



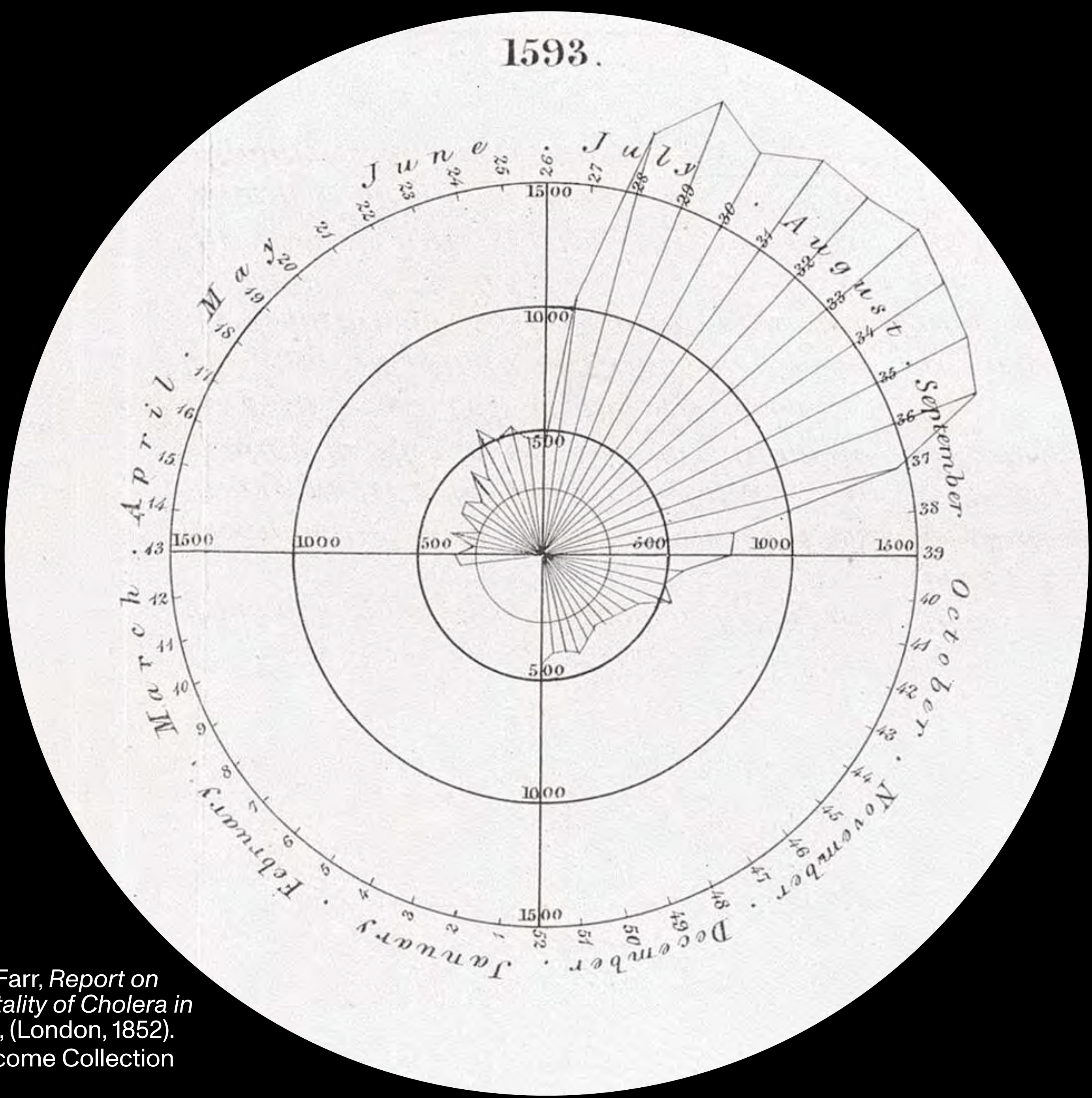


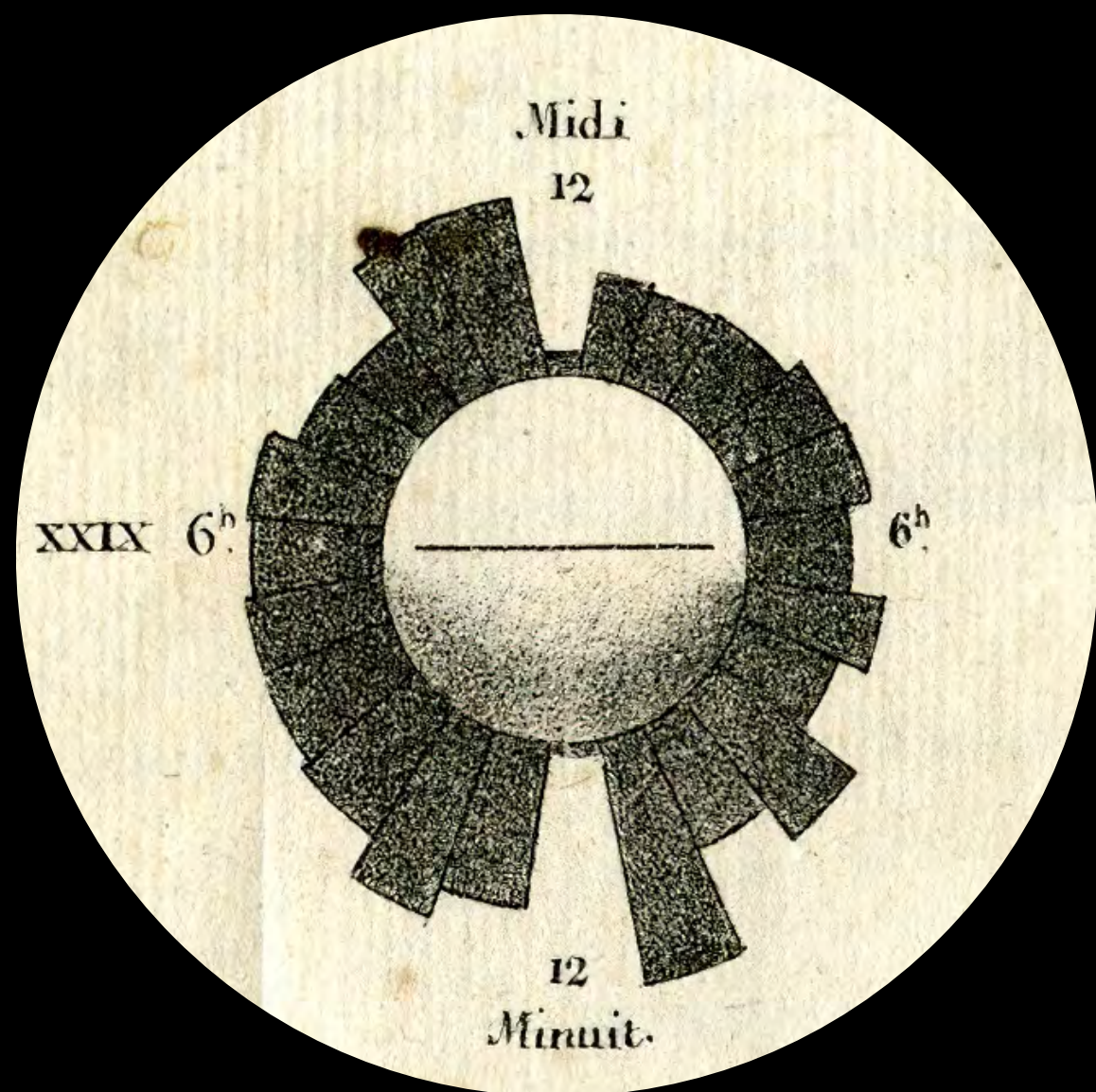
1852 William Farr, Report on the Mortality of Cholera in England, (London, 1852). Wellcome Collection



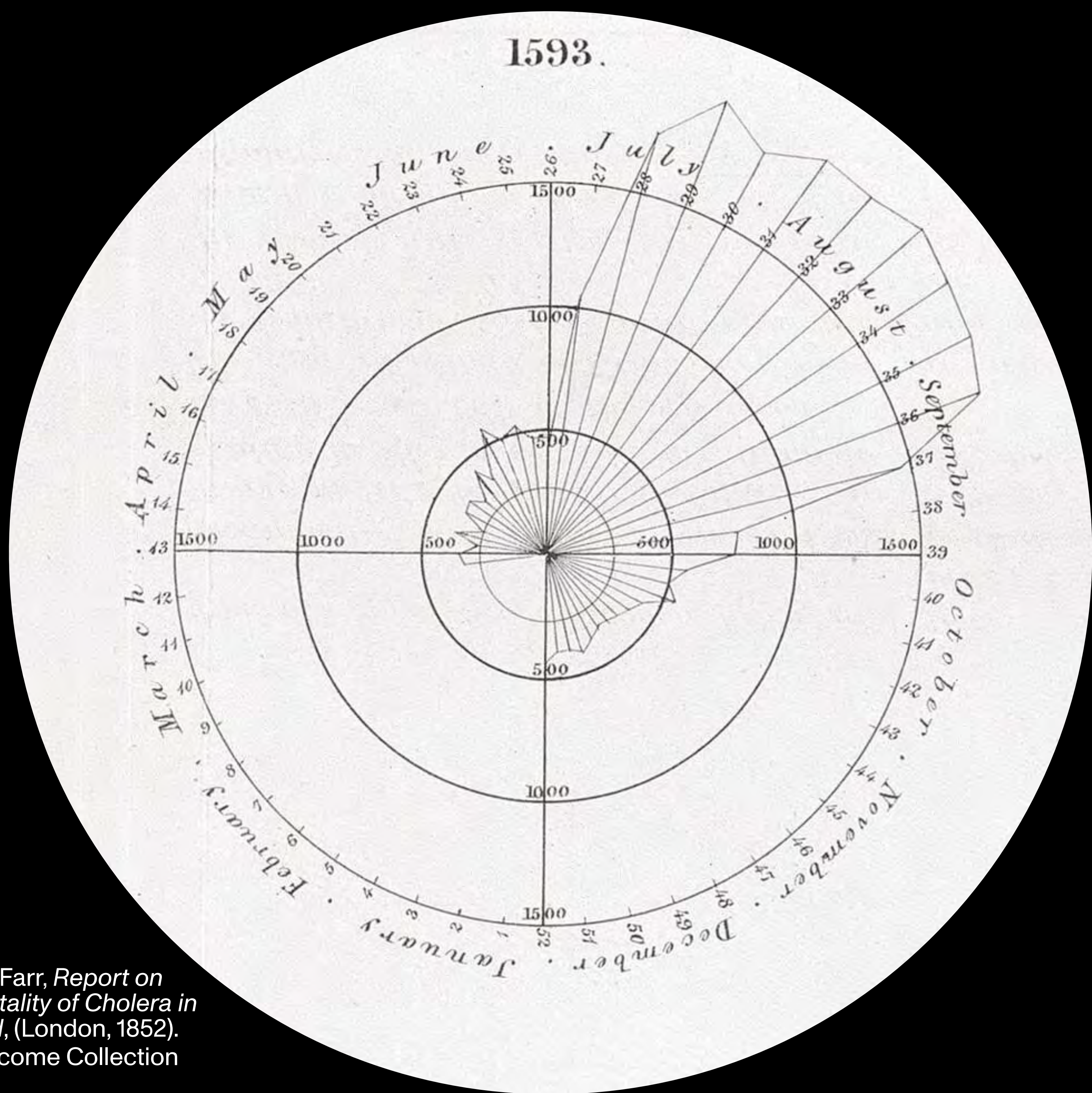


**1852** William Farr, Report on the Mortality of Cholera in England, (London, 1852). Wellcome Collection



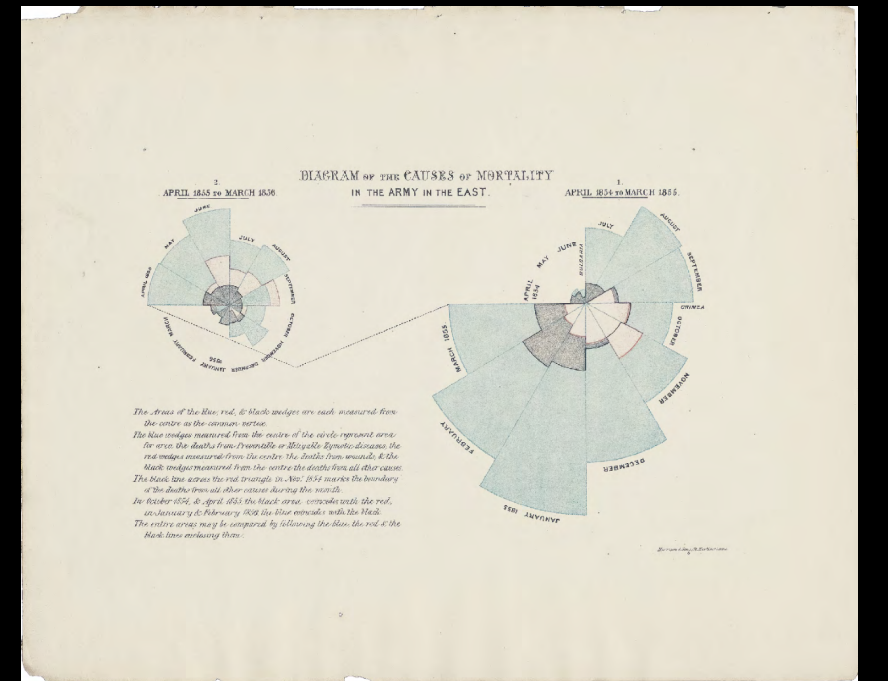
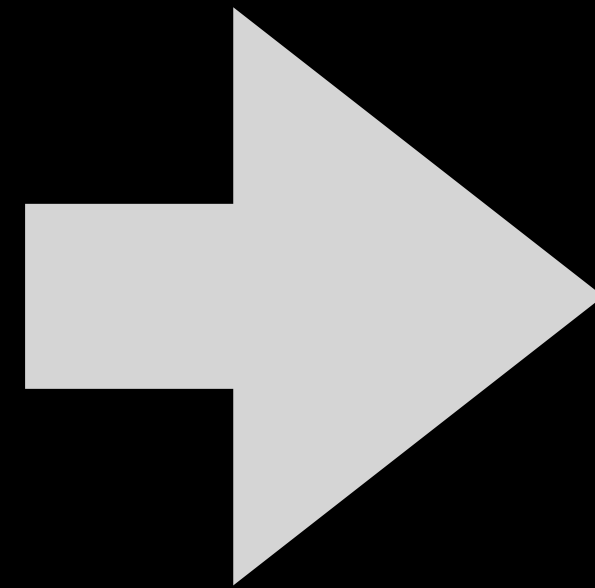
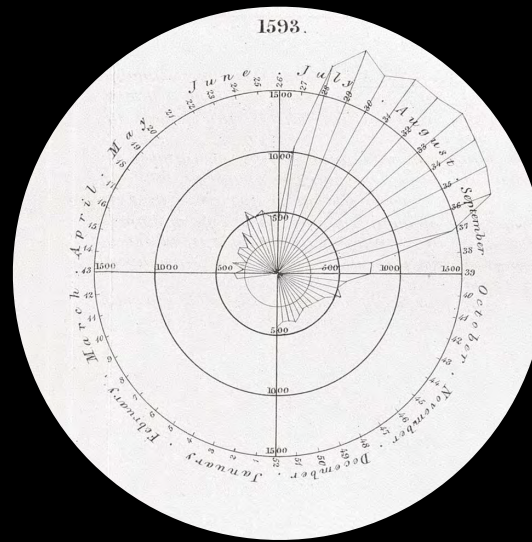
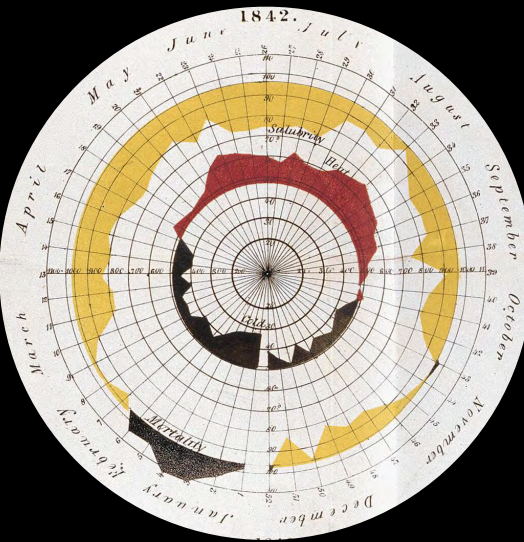
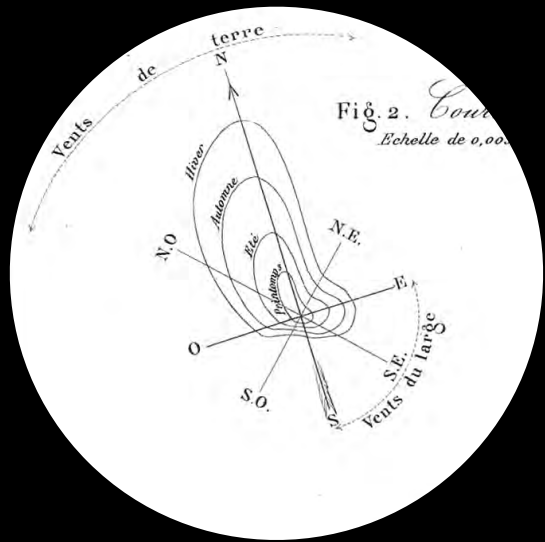
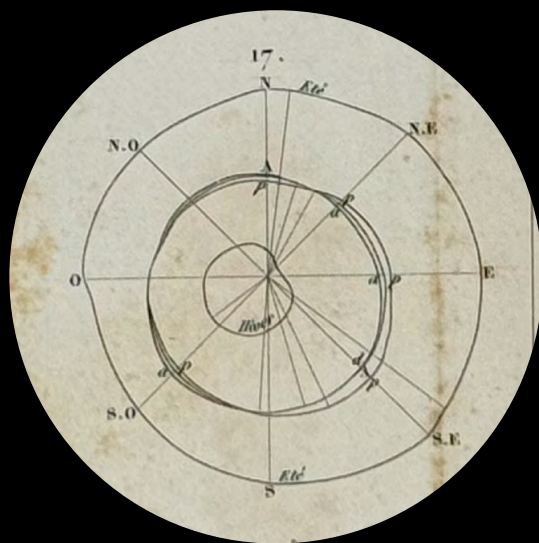
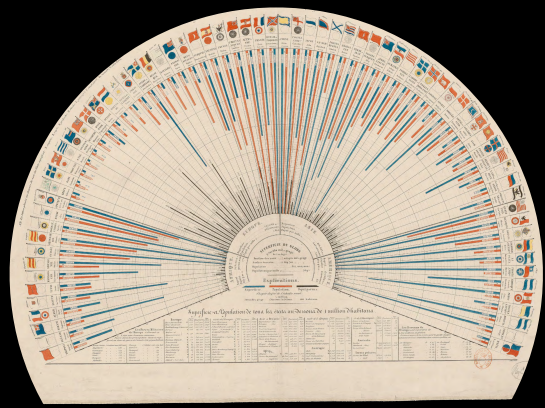
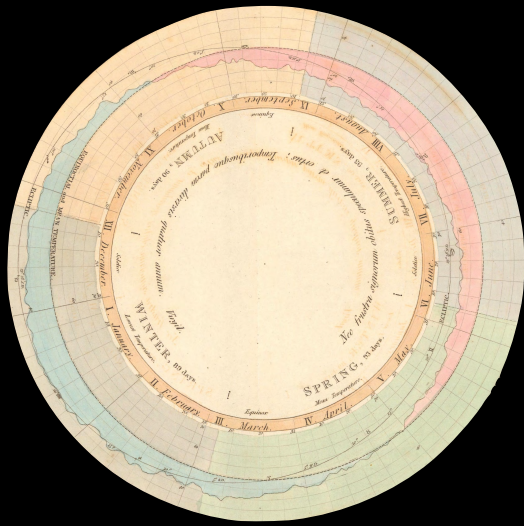
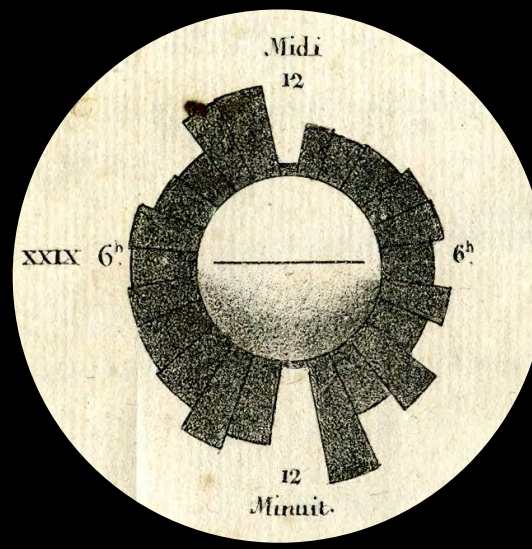
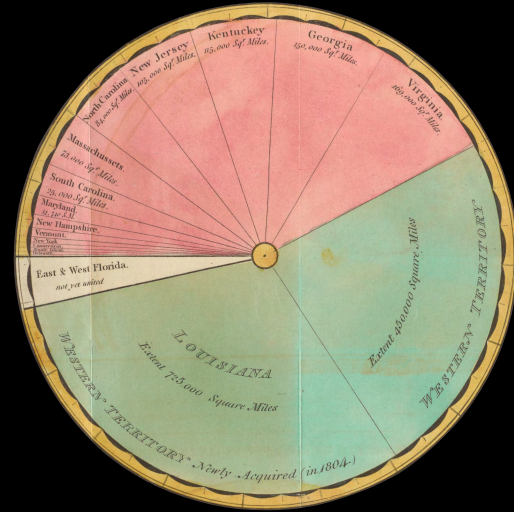
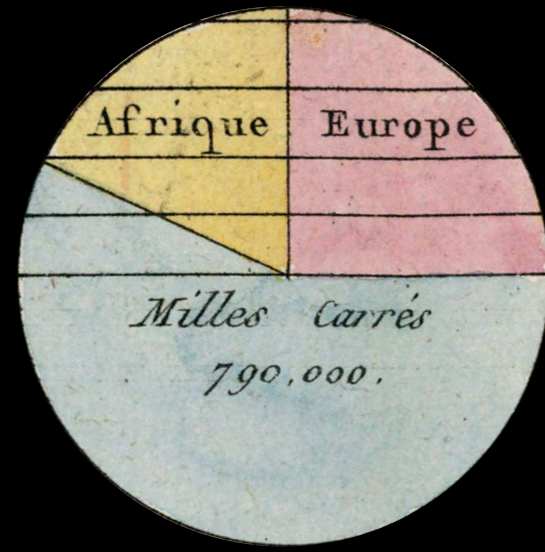
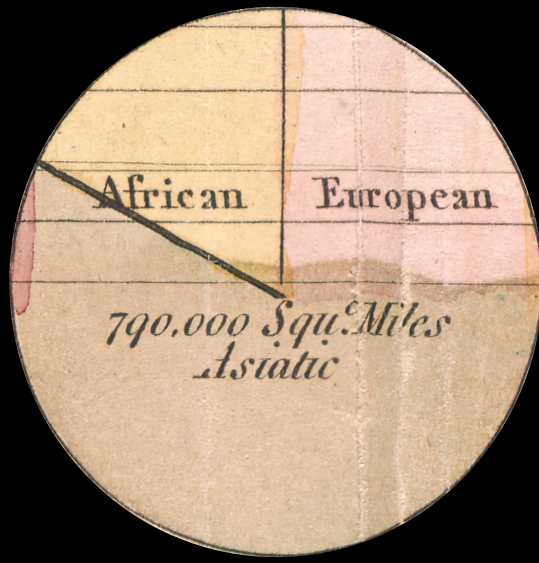


1829



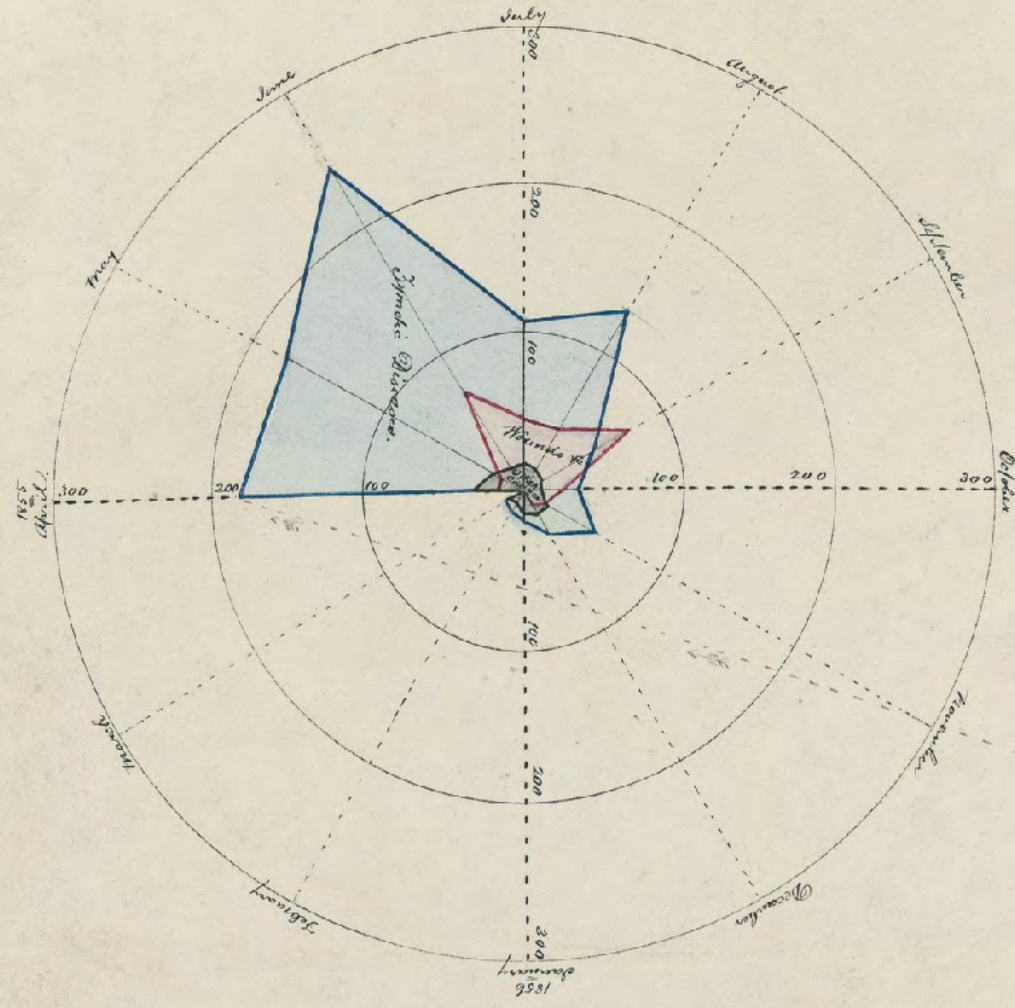
1852

William Farr, *Report on the Mortality of Cholera in England*, (London, 1852).  
Wellcome Collection

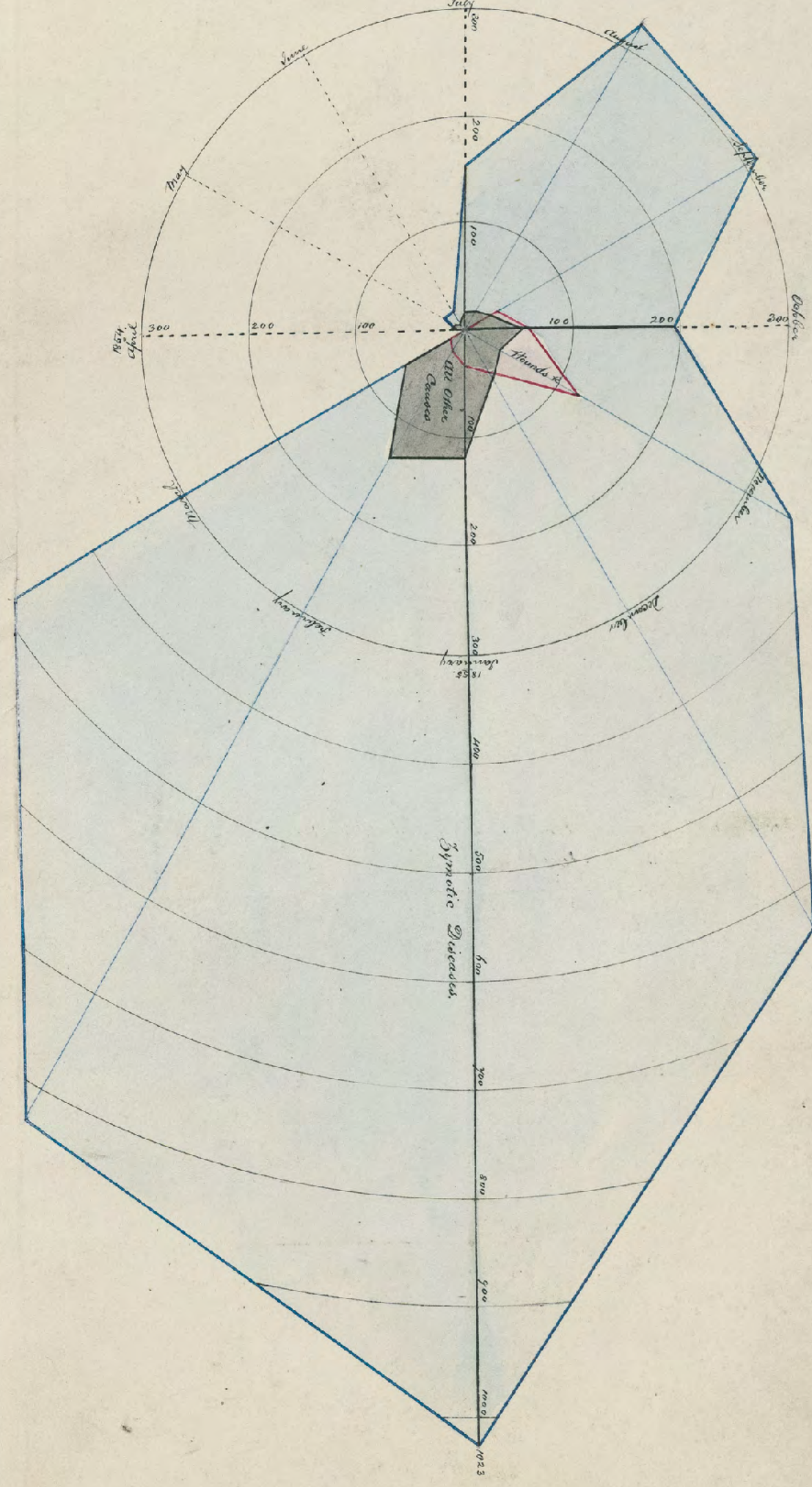


*Diagrams representing the relative Mortality from Zymotic Diseases (blue), from Wounds &c (red); and from All Other Causes (black); - in the Hospitals of the Army in the East for each Month from April 1854 to March 1856.*

*April 1854 to March 1856.*

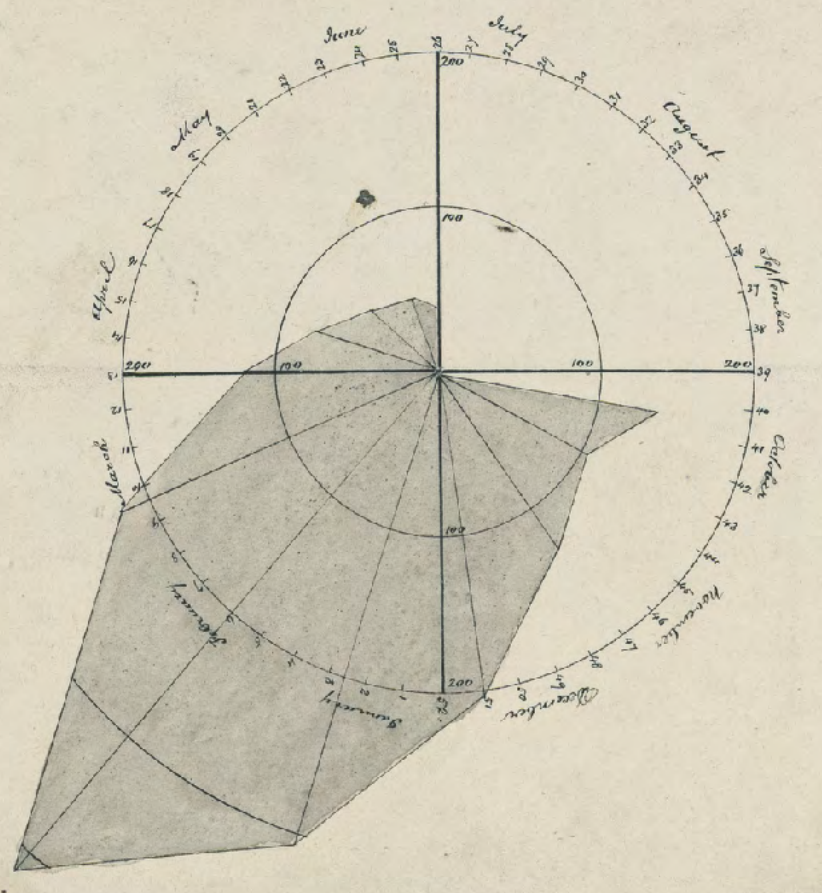


*April 1854 to March 1855.*




*Diagram showing the Annual Rate of Mortality Per Cent on the Sick Population at Scutari - from October 1<sup>st</sup> 1854 to June 30<sup>th</sup> 1855.*

*Fig. 2*



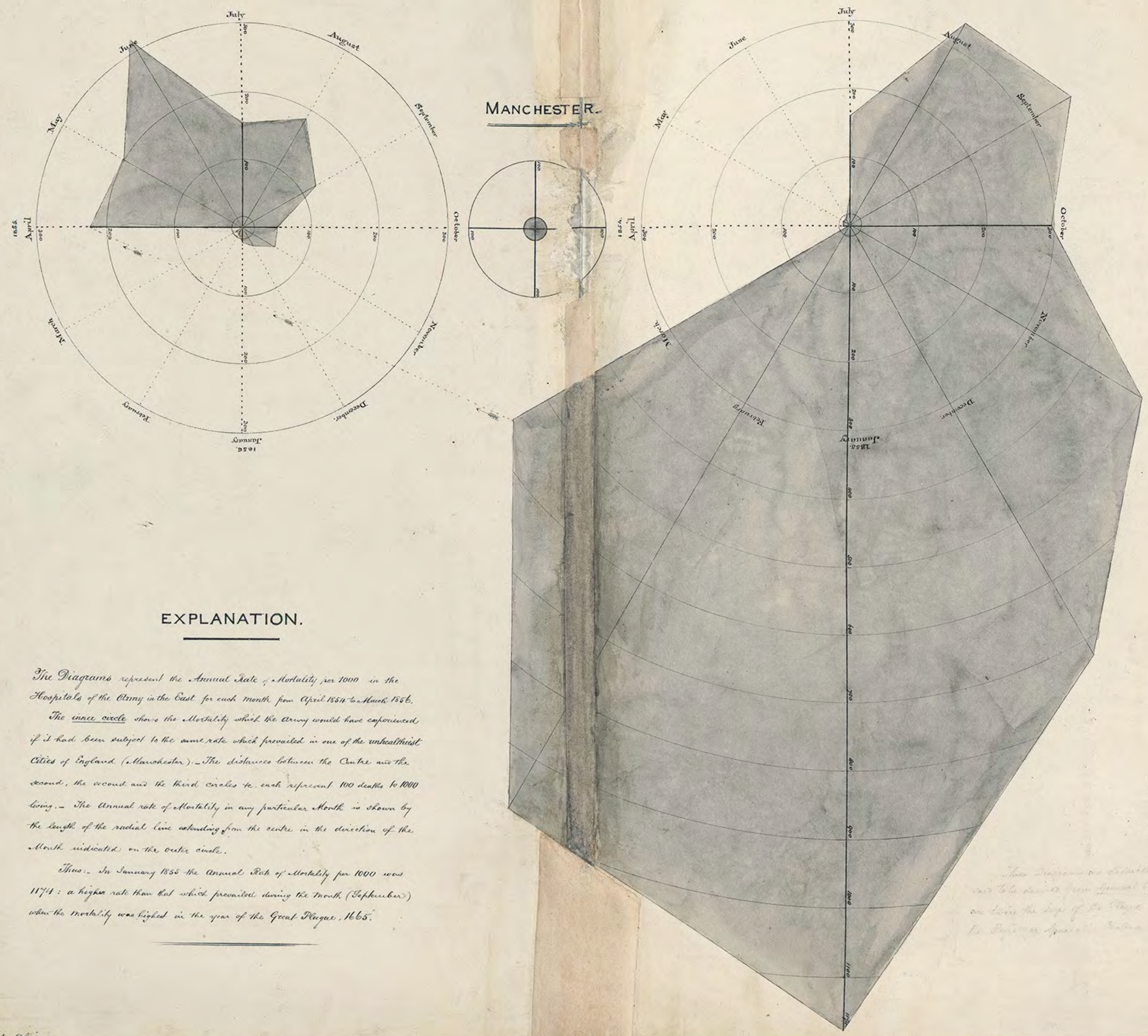
*James Lewis.*

**1857** James Lewis, General Register Office, GB, "Diagrams representing the relative mortality..." (London, c.1857).  
 British Library

(G.)  
ARMY IN THE EAST.

April 1855 to March 1856.

April 1854 to March 1855.



EXPLANATION.

The Diagrams represent the Annual Rate of Mortality per 1000 in the Hospitals of the Army in the East for each month from April 1854 to March 1856.

The inner circle shows the Mortality which the Army would have experienced if it had been subject to the same rate which prevailed in one of the unhealthiest Cities of England (Manchester).—The distances between the Centre and the second, the second and the third circles &c. each represent 100 deaths to 1000 living.—The Annual rate of Mortality in any particular Month is shown by the length of the radial line extending from the centre in the direction of the Month indicated on the outer circle.

Thus.—In January 1855 the Annual Rate of Mortality per 1000 was 1174: a higher rate than that which prevailed during the Month (September) when the mortality was highest in the year of the Great Plague, 1665.

*These Diagrams are drawn from a table and the data from General Lewis's Army in the East, 1854-55.*

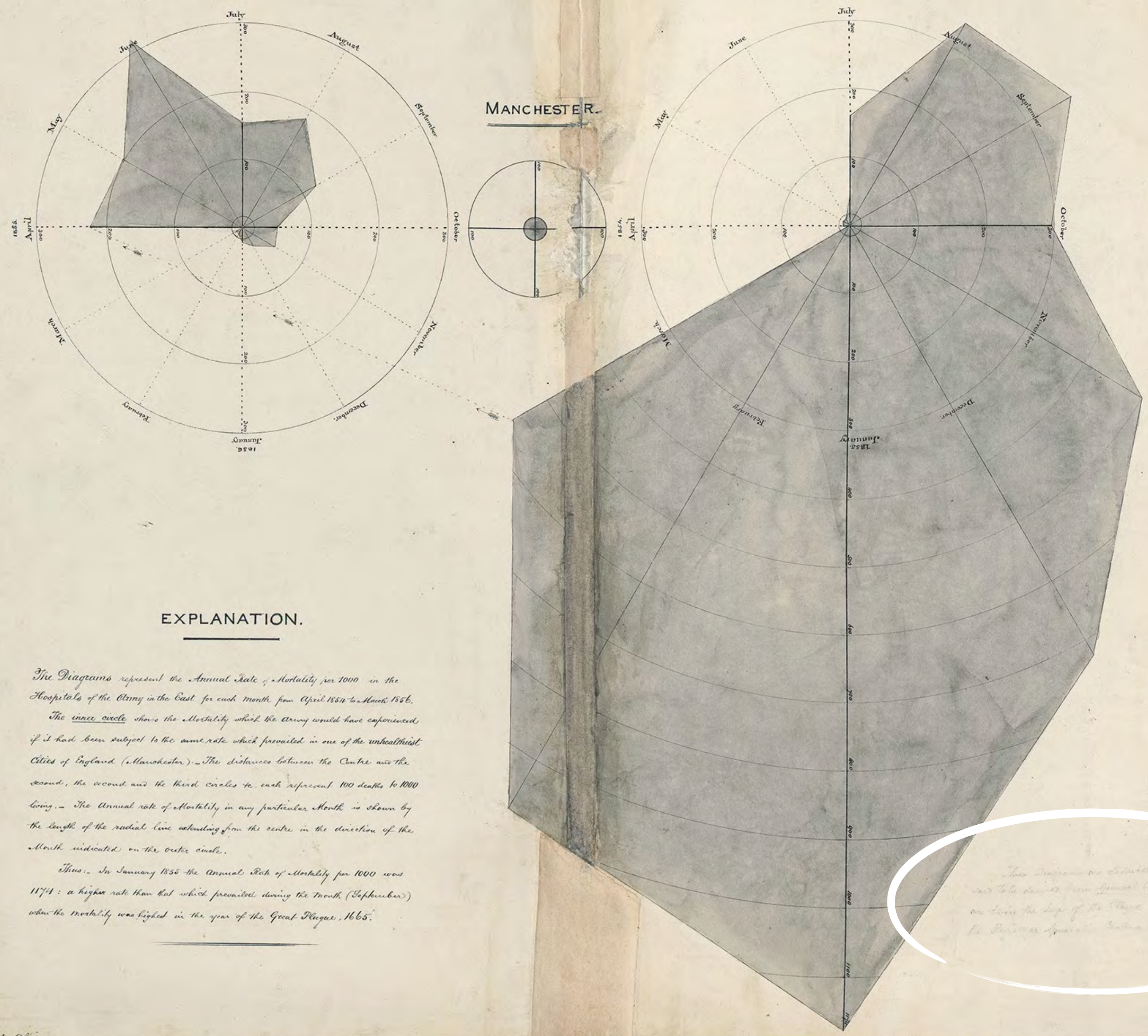
**1857** James Lewis, General Register Office, GB, "Army in the East," (London, c.1857).  
British Library



<sup>(G.)</sup>  
**ARMY IN THE EAST.**

April 1855 to March 1856.

April 1854 to March 1855.

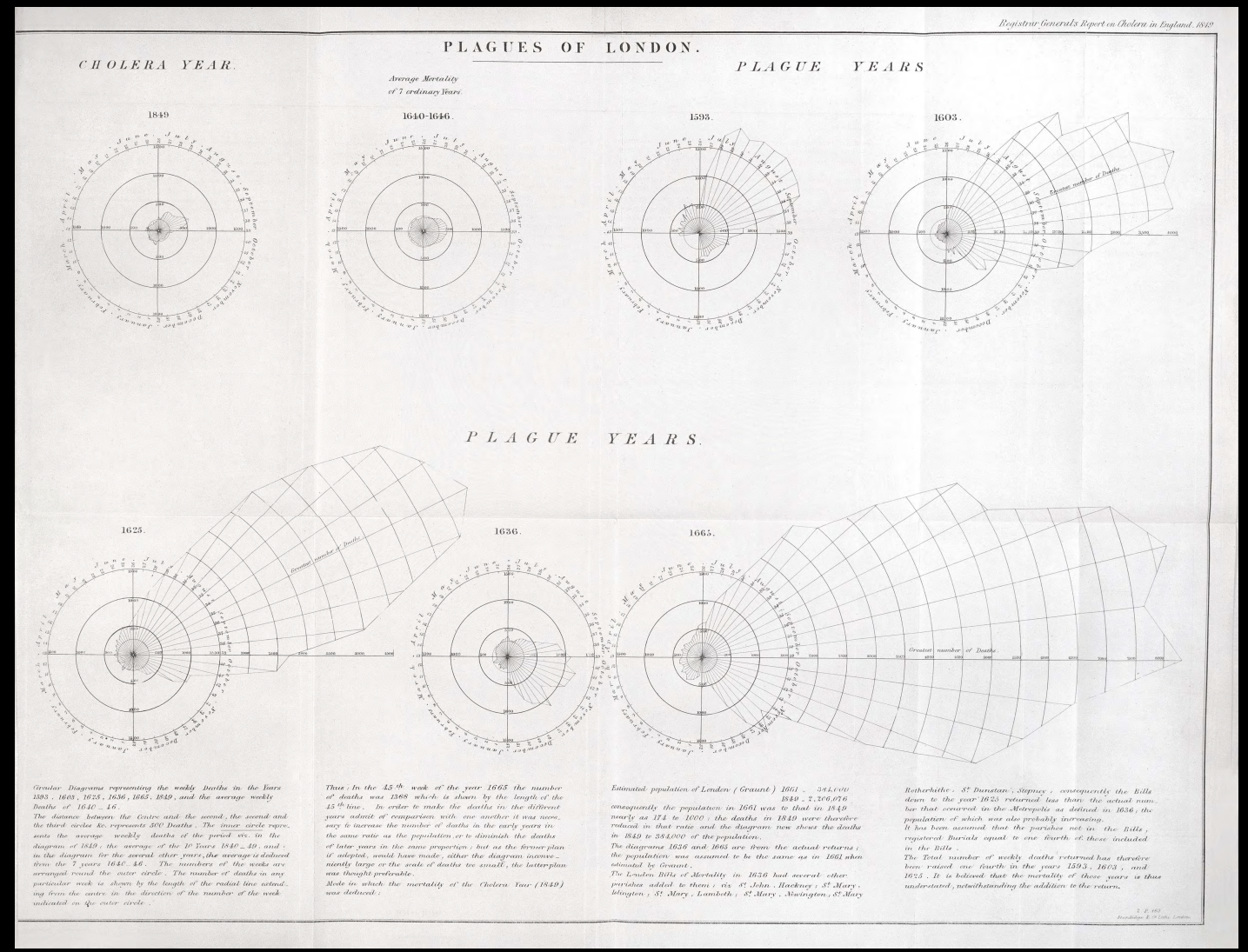


**EXPLANATION.**

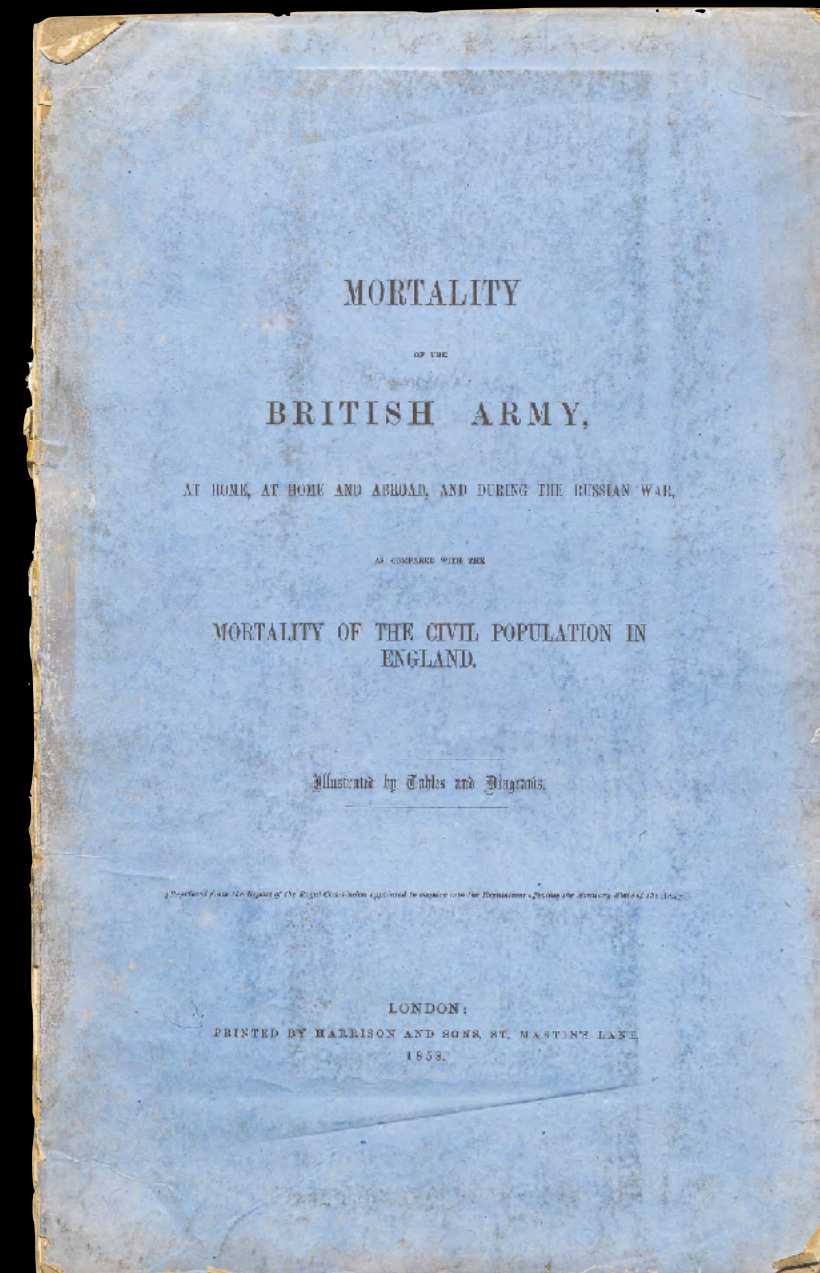
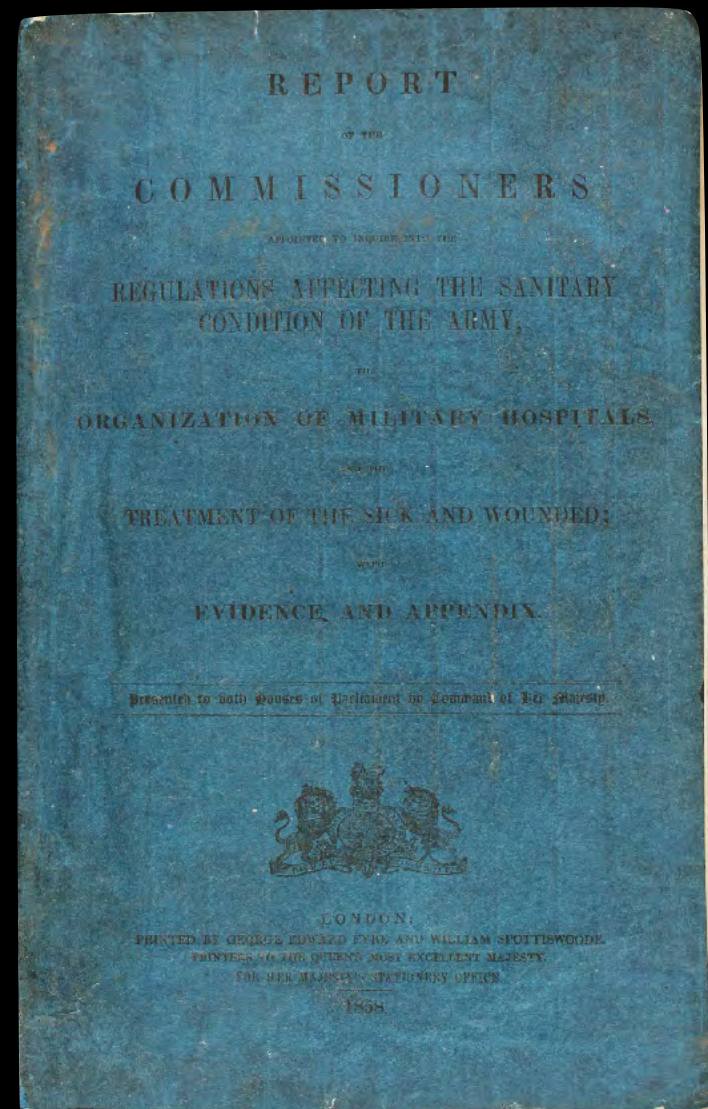
The Diagrams represent the Annual Rate of Mortality per 1000 in the Hospitals of the Army in the East for each month from April 1854 to March 1856. The inner circle shows the Mortality which the Army would have experienced if it had been subject to the same rate which prevailed in one of the unhealthiest Cities of England (Manchester). The distance between the Centre and the second, the second and the third circles, each represent 100 deaths to 1000 living. The Annual rate of Mortality in any particular Month is shown by the length of the radial line extending from the centre in the direction of the Month indicated on the outer circle.

Thus, in January 1855 the Annual Rate of Mortality per 1000 was 117.4: a higher rate than that which prevailed during the Month (September) when the mortality was highest in the year of the Great Plague, 1665.

*These Diagrams are deduced from a Table said to be derived from General Return Ch. They are twice the size of the Plague Diagrams in the Registrar General's Cholera Report.*

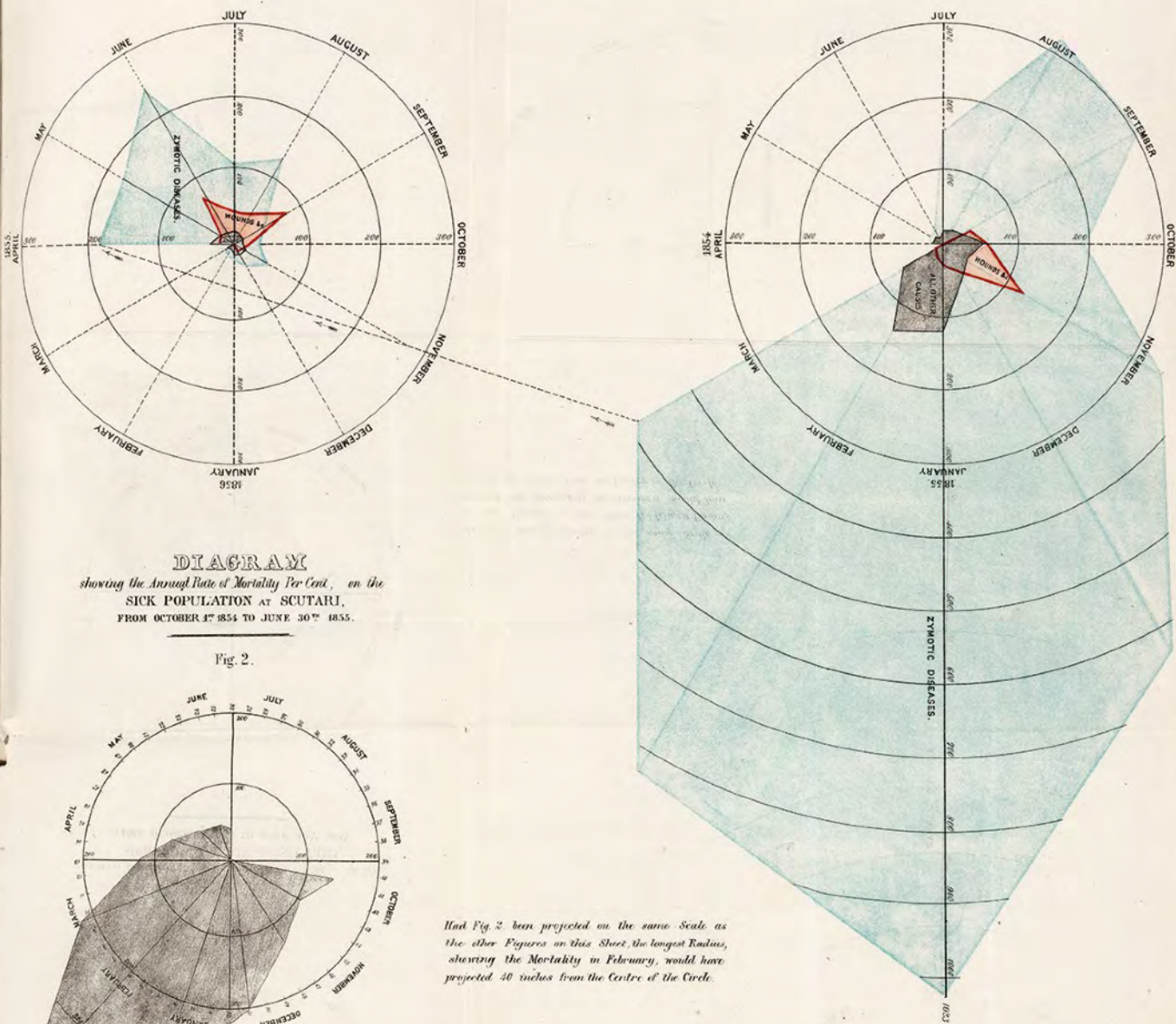


*These Diagrams are deduced from a Table said to be derived from General Return Ch. They are twice the size of the Plague Diagrams in the Registrar General's Cholera Report.*



(R.)  
**DIAGRAMS**

representing the relative Mortality from **ZYMOTIC DISEASES** (blue), from **FURUNCLE** (red), and from **ALL OTHER CAUSES** (black),—  
in the **HOSPITALS** of the ARMY in the EAST,  
FOR EACH MONTH FROM APRIL 1854 to MARCH 1855. APRIL 1855 TO MARCH 1855.



**DIAGRAM**  
showing the Average Rate of Mortality Per Cent, on the  
SICK POPULATION at SCUTARI,  
FROM OCTOBER 1854 TO JUNE 1855.

Fig. 2.

Had Fig. 2 been projected on the same scale as  
the other Figures on this Sheet, the longest Radius,  
showing the Mortality in February, would have  
projected 40 inches from the Centre of the Circle.

**MORTALITY**  
OF THE  
**BRITISH ARMY,**

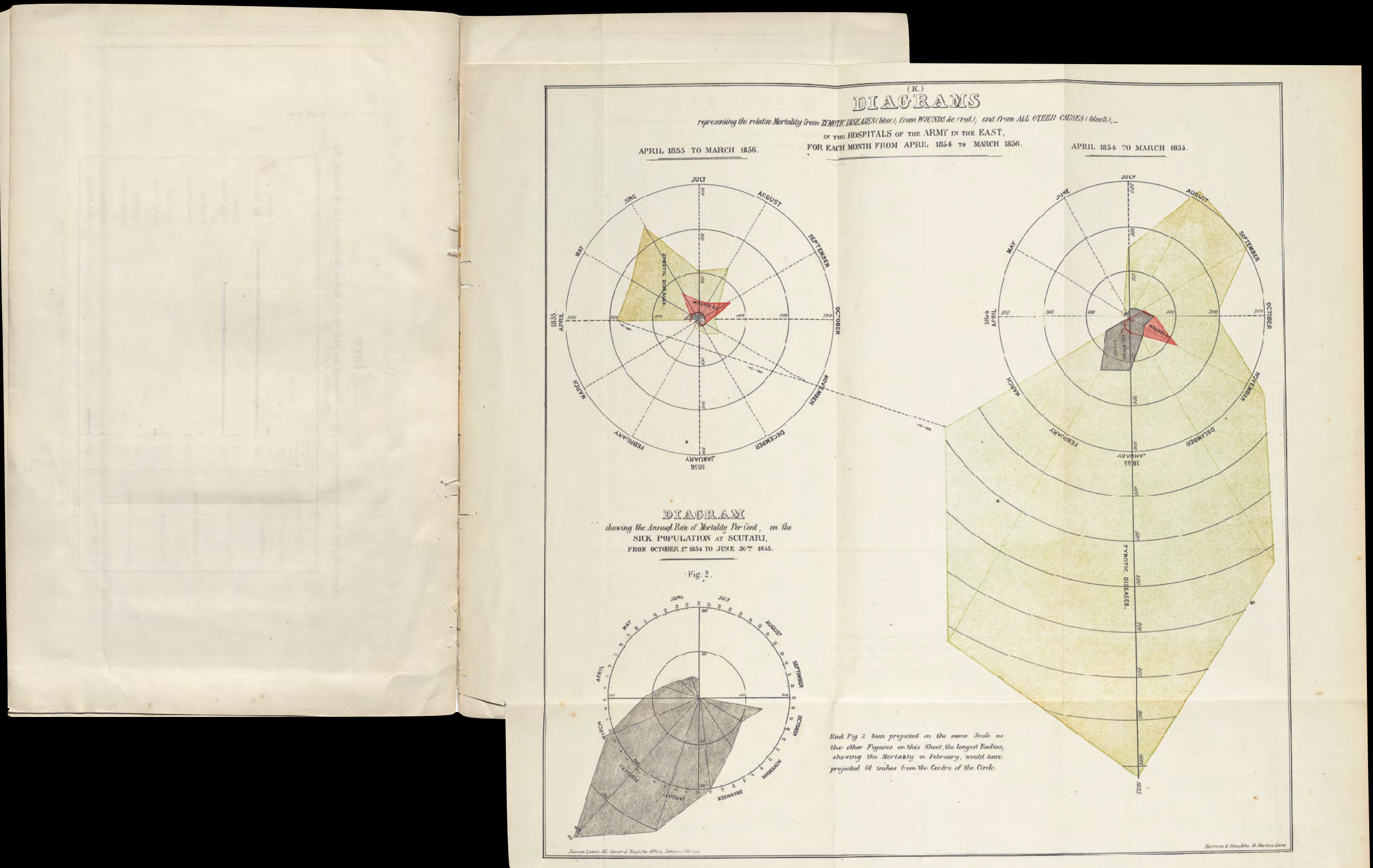
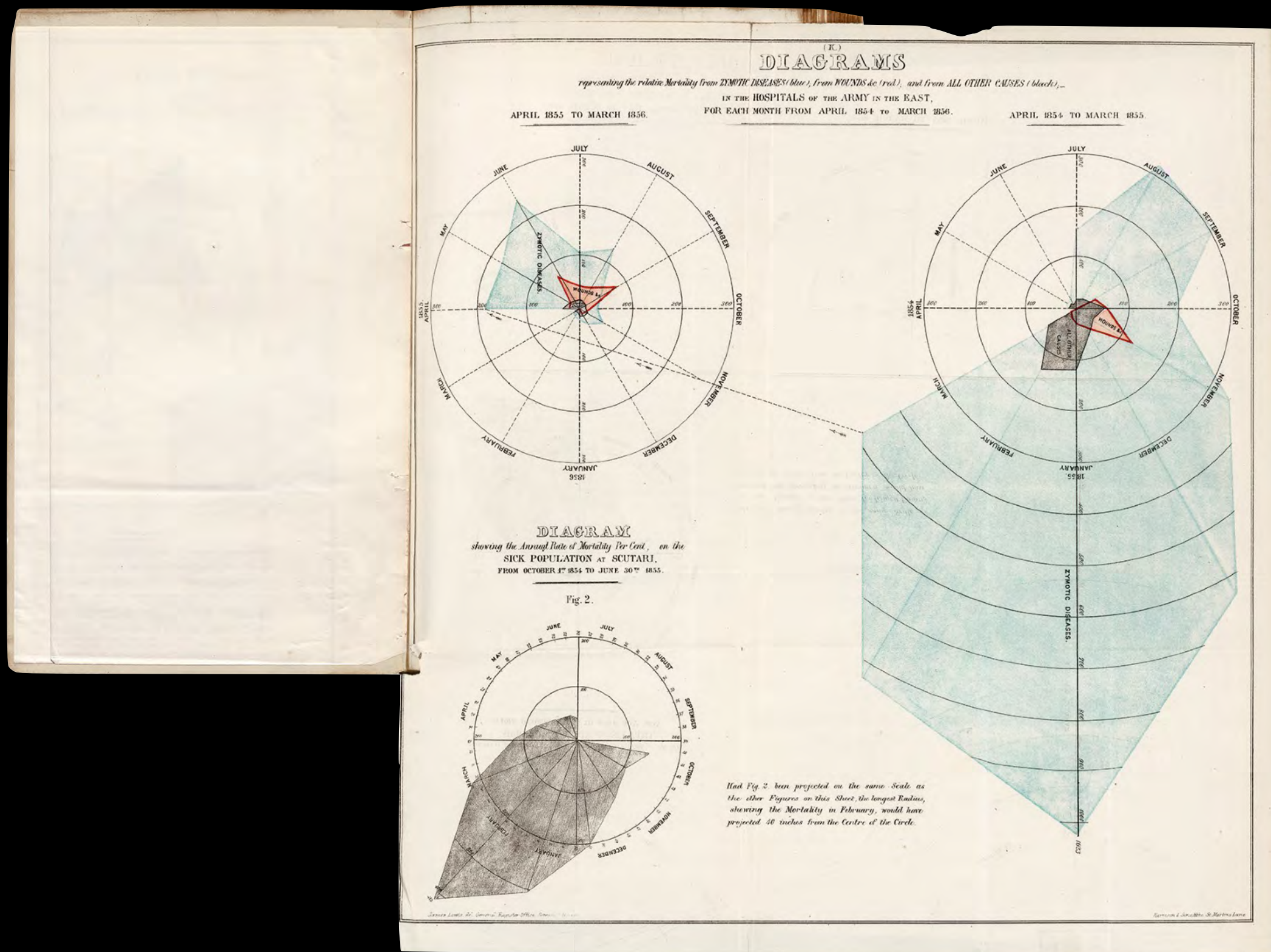
AT HOREK, AT HORE AND ARBOD, AND DURING THE RUSSIAN WAR,

AS COMPARED WITH THE

MORTALITY OF THE CIVIL POPULATION IN  
ENGLAND.

Illustrated by Edwin and Hygeia.

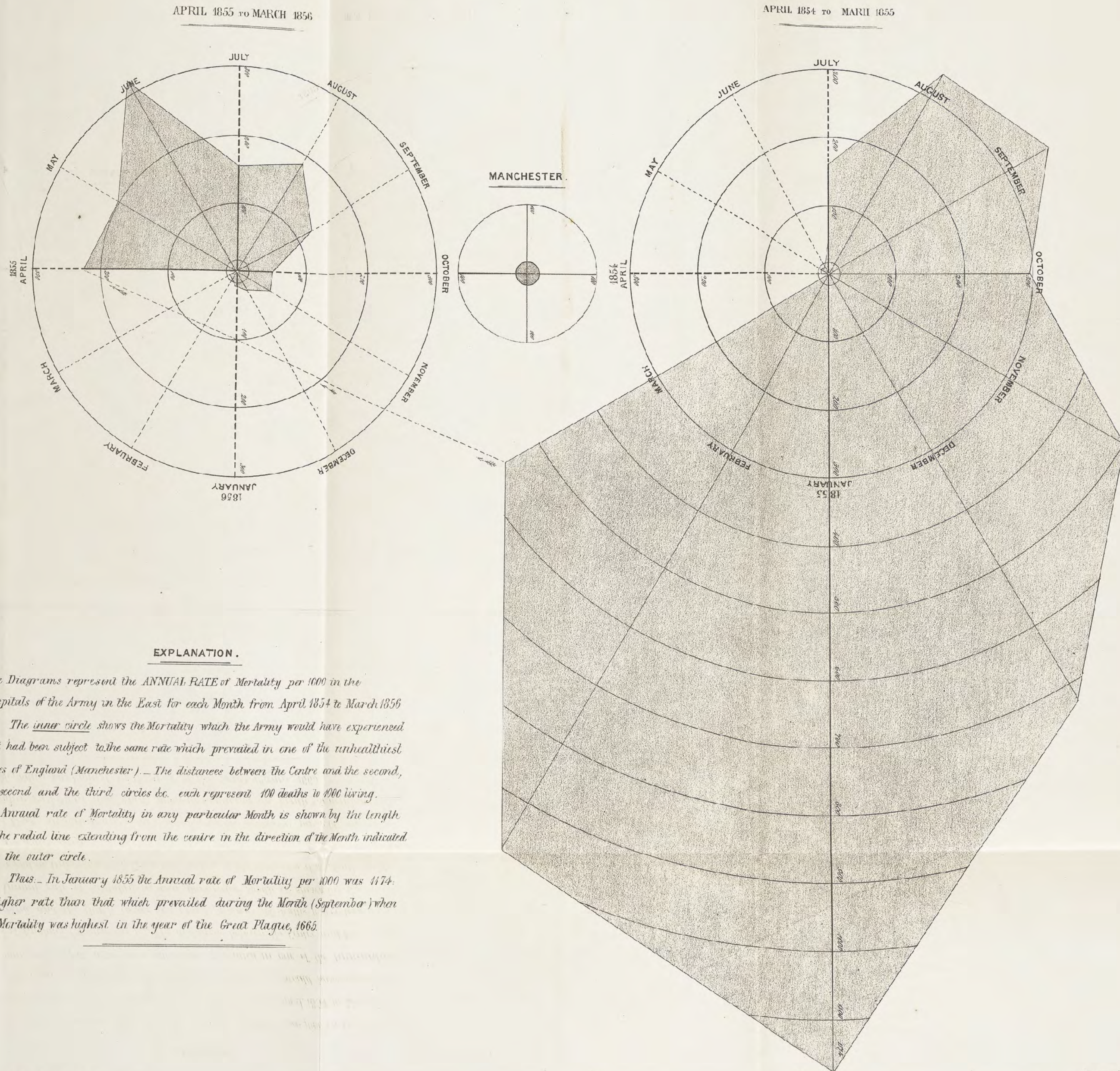
LONDON,  
PRINTED BY HARRISON AND ROSK AT WASTON'S LANE,  
1852.



**1858** Florence Nightingale and Sidney Herbert, GB, Royal Commission Appointed to Inquire into the Sanitary Condition of the Army, *Report of the Commissioners ...* (London, 1858).  
David Rumsey Map Collection

**1858** Florence Nightingale, Mortality of the British Army, at Home, at Home and Abroad, and During the Russian War, as Compared with the Mortality of the Civil Population in England (London, 1858).  
UCLA

(I)  
**ARMY IN THE EAST.**



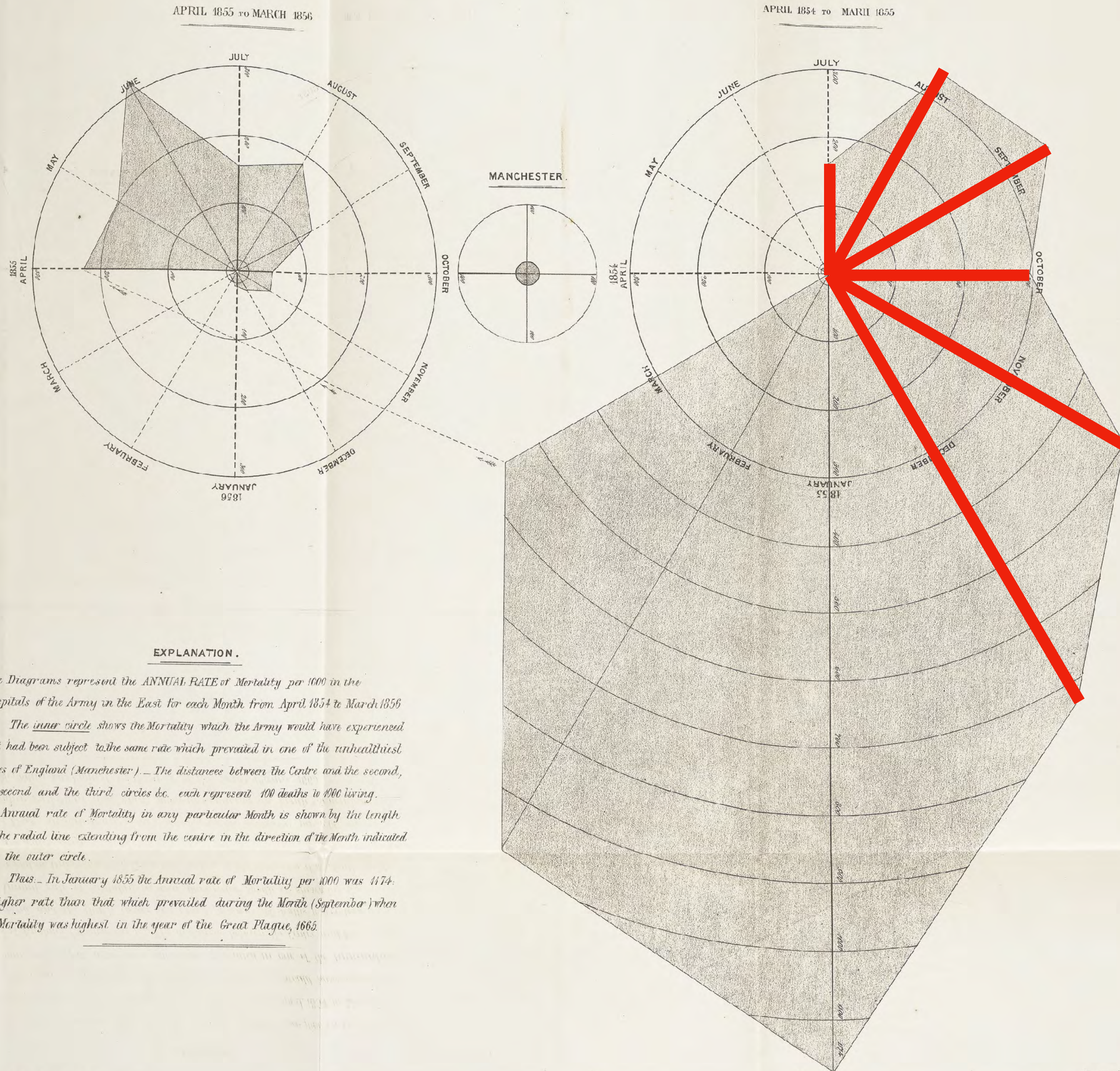
**EXPLANATION.**

The Diagrams represent the ANNUAL RATE of Mortality per 1000 in the Hospitals of the Army in the East for each Month from April 1854 to March 1856

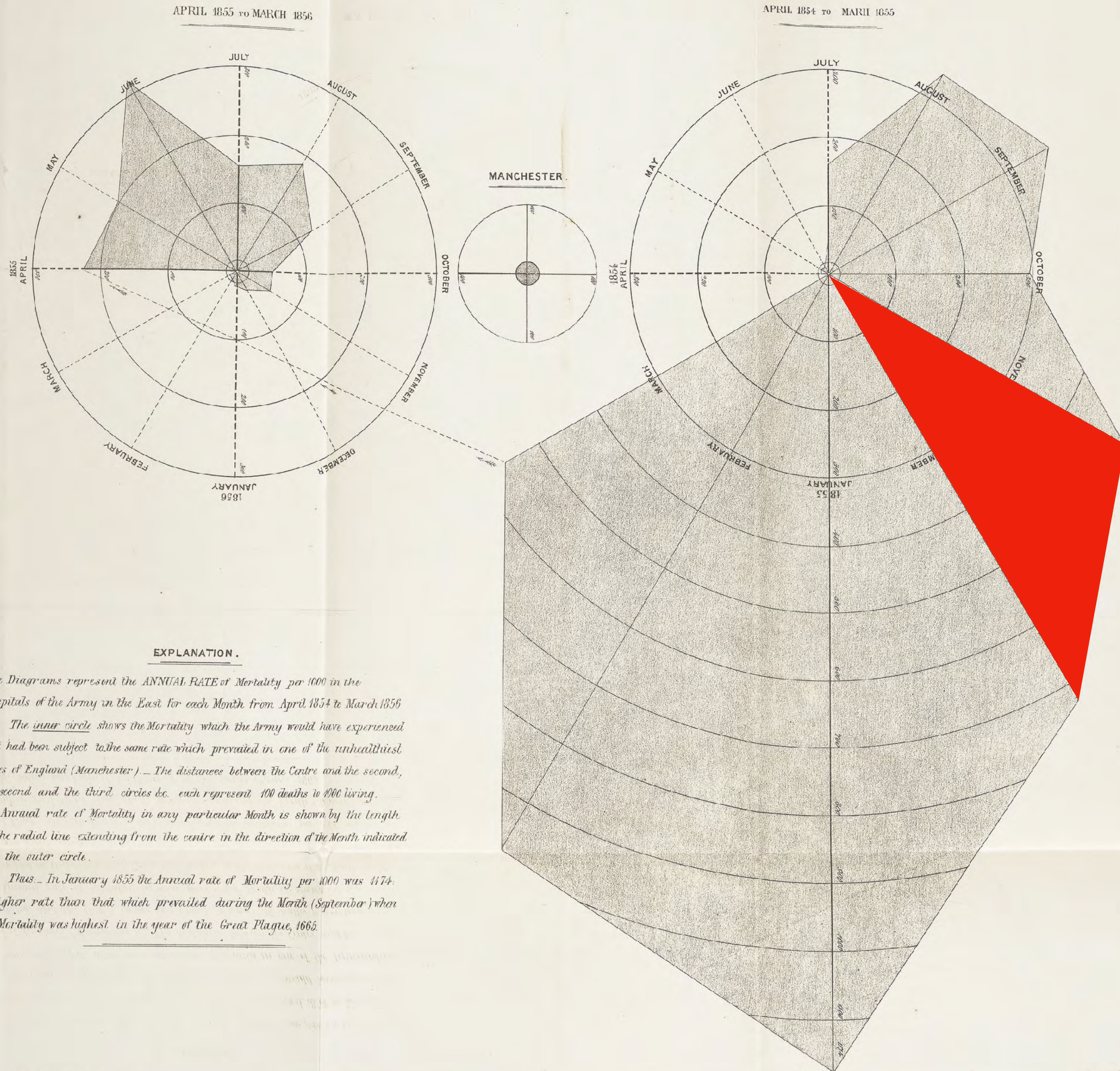
The inner circle shows the Mortality which the Army would have experienced if it had been subject to the same rate which prevailed in one of the unhealthiest Cities of England (Manchester). — The distances between the Centre and the second, the second and the third circles &c. each represent 100 deaths to 1000 living. — The Annual rate of Mortality in any particular Month is shown by the length of the radial line extending from the centre in the direction of the Month indicated on the outer circle.

Thus. — In January 1855 the Annual rate of Mortality per 1000 was 1174, a higher rate than that which prevailed during the Month (September) when the Mortality was highest in the year of the Great Plague, 1665.

(I)  
ARMY IN THE EAST.



(I)  
ARMY IN THE EAST.



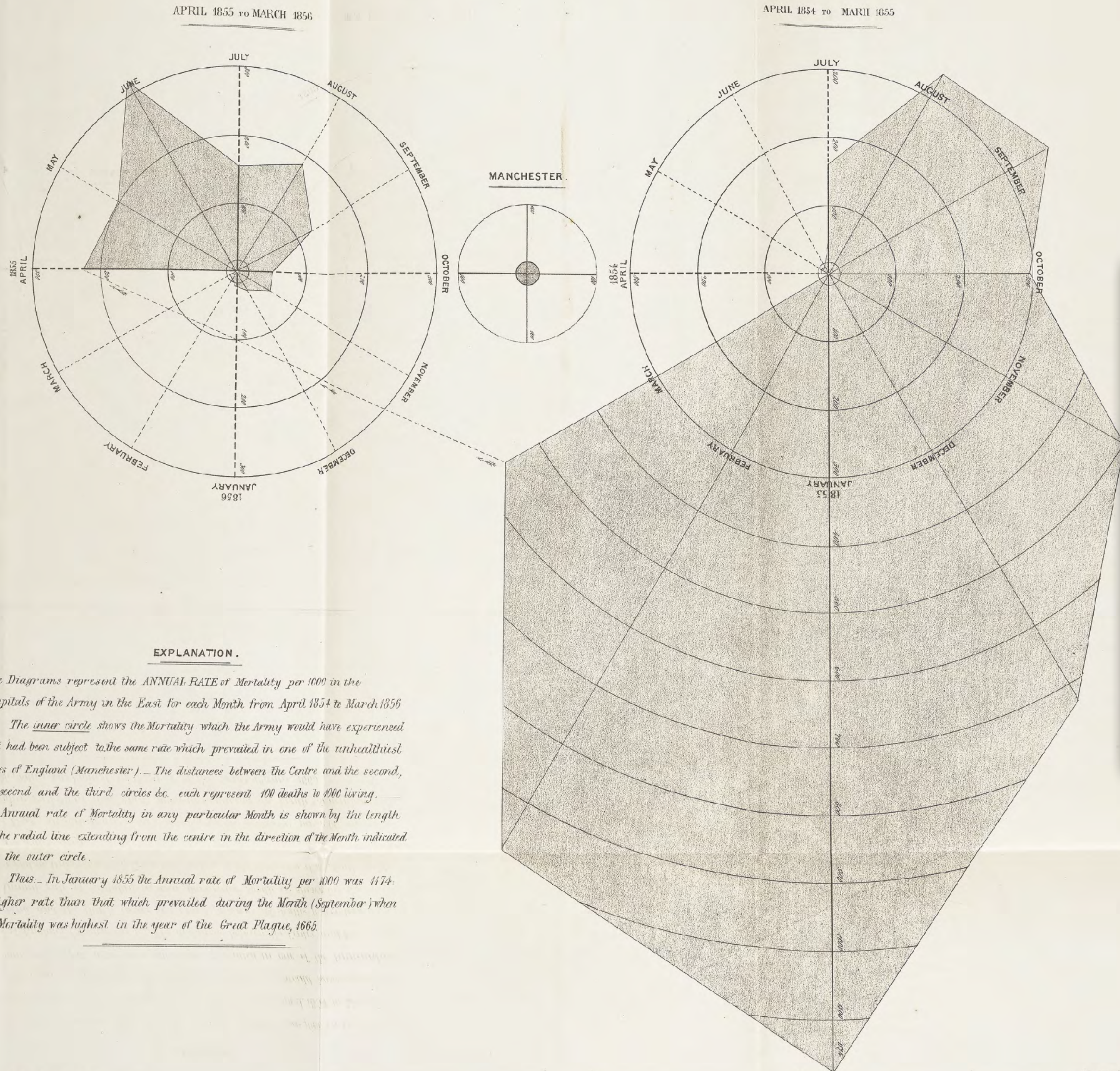
EXPLANATION.

The Diagrams represent the ANNUAL RATE of Mortality per 1000 in the Hospitals of the Army in the East for each Month from April 1854 to March 1856

The inner circle shows the Mortality which the Army would have experienced if it had been subject to the same rate which prevailed in one of the unhealthiest Cities of England (Manchester). — The distances between the Centre and the second, the second and the third circles &c. each represent 100 deaths to 1000 living. — The Annual rate of Mortality in any particular Month is shown by the length of the radial line extending from the centre in the direction of the Month indicated on the outer circle.

Thus. — In January 1855 the Annual rate of Mortality per 1000 was 1174, a higher rate than that which prevailed during the Month (September) when the Mortality was highest in the year of the Great Plague, 1665.

(I)  
**ARMY IN THE EAST.**



**EXPLANATION.**

The Diagrams represent the ANNUAL RATE of Mortality per 1000 in the Hospitals of the Army in the East for each Month from April 1854 to March 1856

The inner circle shows the Mortality which the Army would have experienced if it had been subject to the same rate which prevailed in one of the unhealthiest Cities of England (Manchester). — The distances between the Centre and the second, the second and the third circles &c. each represent 100 deaths to 1000 living.

The Annual rate of Mortality in any particular Month is shown by the length of the radial line extending from the centre in the direction of the Month indicated on the outer circle.

Thus. — In January 1855 the Annual rate of Mortality per 1000 was 4174, a higher rate than that which prevailed during the Month (September) when the Mortality was highest in the year of the Great Plague, 1665.

**NOTE.**

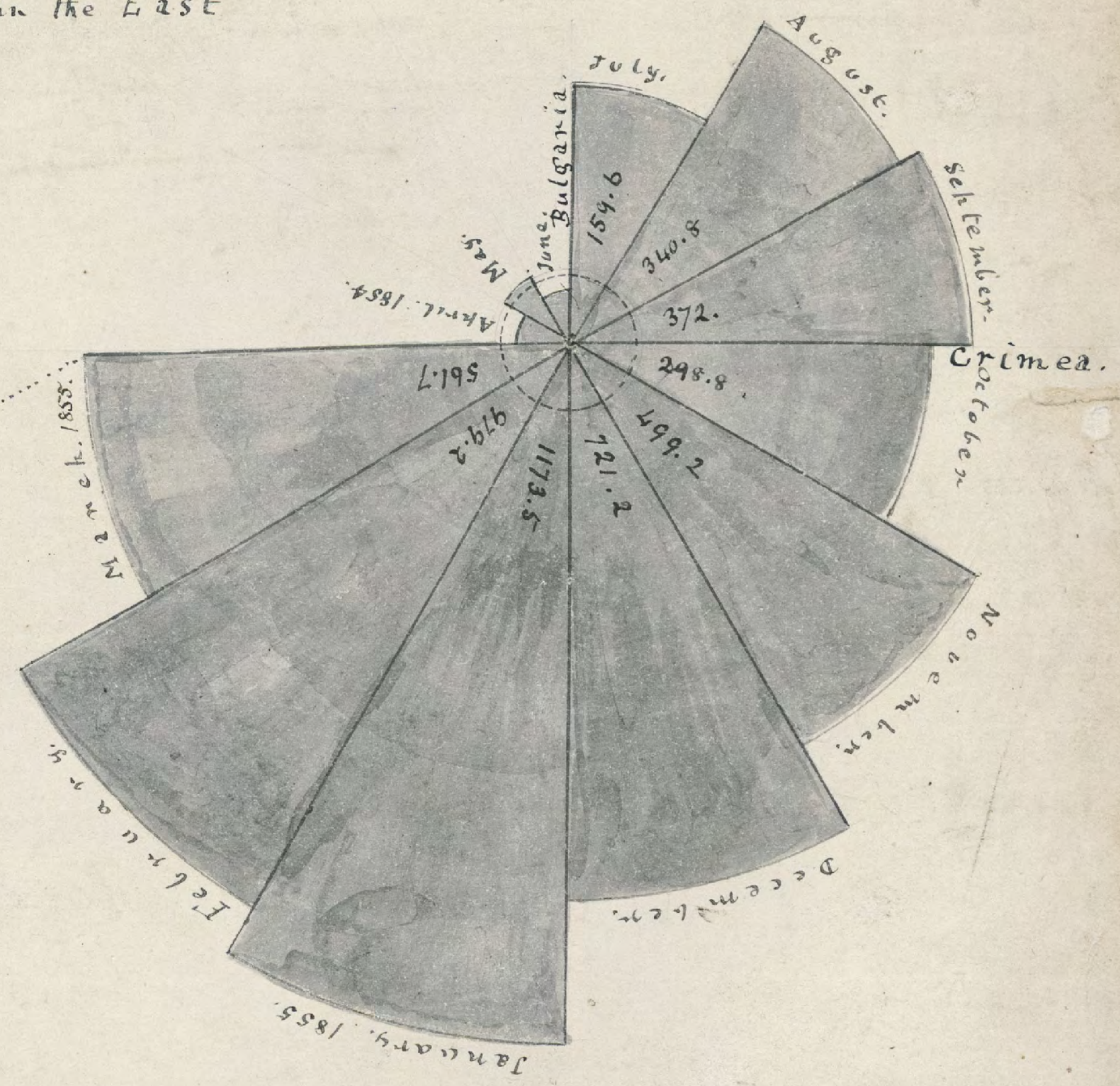
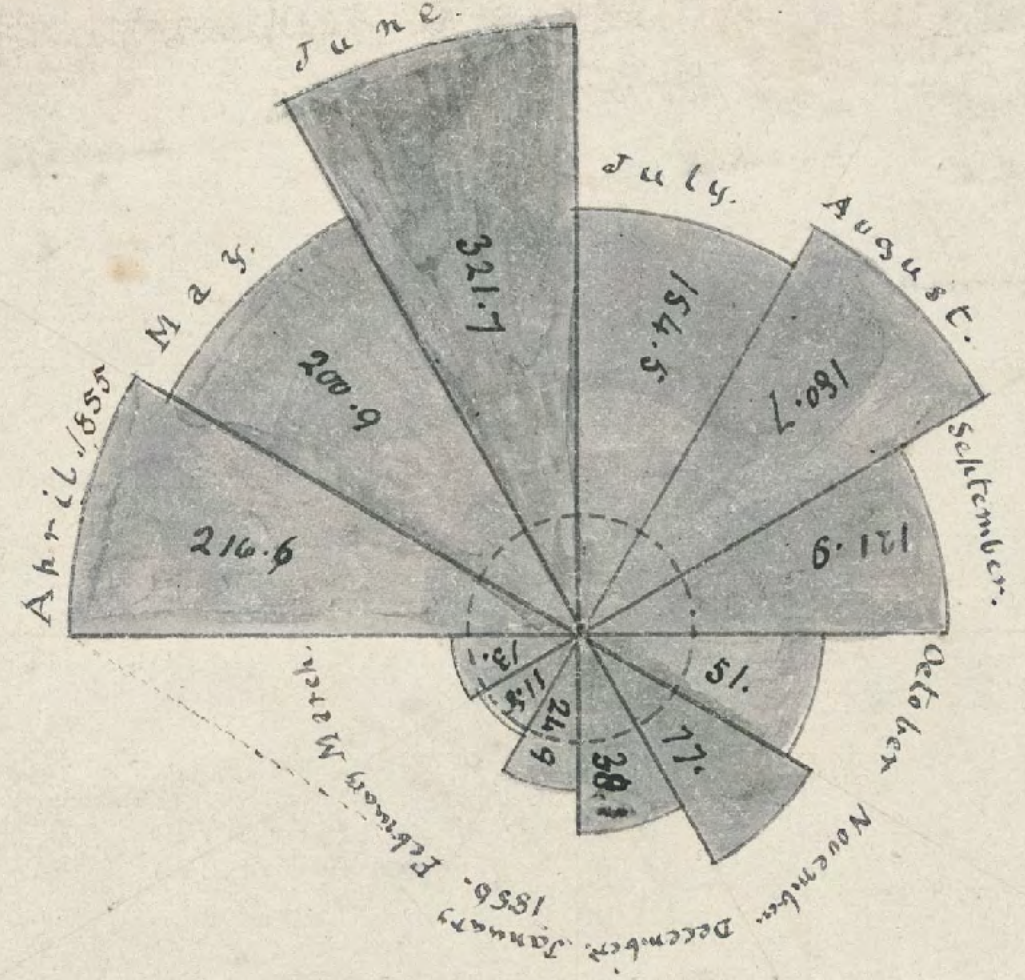
The circular diagrams I and K, representing the Crimean mortality, consist of radial lines of different lengths, each of which shows the mortality for a particular month. These lines being joined by shading or colour, to impress on the eye more clearly the rise, decline, and extent of the mortality, the shaded and coloured areas are liable to be interpreted as representing the mortality which is shown only by the comparative length of the lines. In one passage in the text, this may appear to have been done, and it is needful that this distinction should be kept in view. It is not intended that the larger area should be contrasted with the smaller, but simply the longer with the shorter line.



### Diagrams of the Mortality in the Army in the East

2. April 1855 to March 1856

1. April 1854 to March 1855.



The dotted circle represents what the Mortality would have been had the Army been as healthy as Manchester, = 12.4 per 1000 per Annum. The Area of each monthly division exhibits the <sup>relative</sup> actual Mortality in the Army during the Month. Each wedge admits of Comparison, area for Area with any other wedge, and with the Manchester Circle, and each wedge shows the Mortality per 1000 per annum for the month. The dark area outside the Circle exhibits the excess of mortality in the Army, for the same ages, over that of one of the most unhealthy Towns in England. The figures show the Mortality per 1000 per Annum.

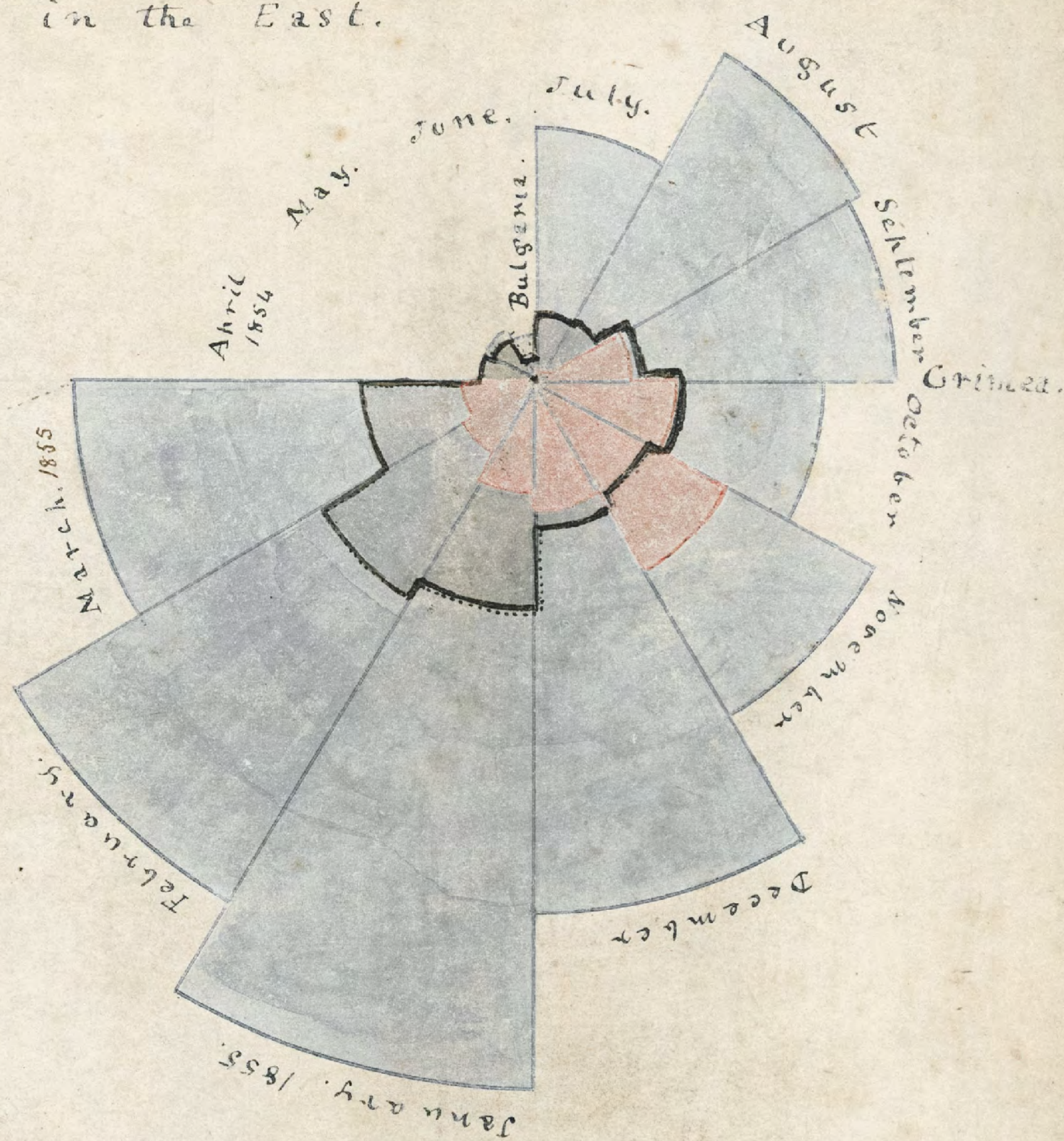
# 1858

F. J. Williams, General Register Office, GB, "Diagrams of the Mortality of the Army of the East," British Library

2. April 1855 to March 1856.

# Diagram of the Causes of Mortality in the Army in the East.

1. April 1854, to March 1855



The Blue wedges represent Area for Area the deaths per 1000 per Annum among the Troops from Typhoid Diseases of Mitigable or Preventible types.

The <sup>red</sup> triangular spaces enclosed by the red lines represent the Mortality per 1000 per Annum from Wounds.

The <sup>dark</sup> triangular spaces within the Black lines represent the Mortality per 1000 per Annum from All Other Causes.

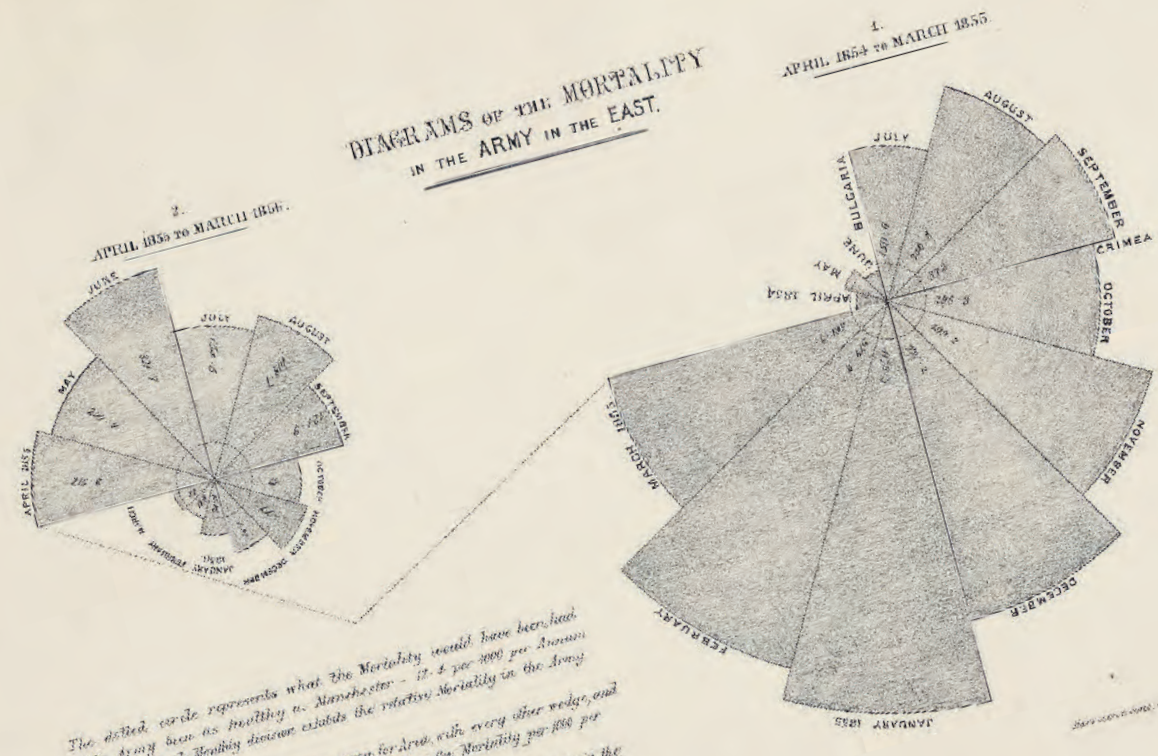
The Areas <sup>represented</sup> for the different causes of Mortality are superimposed one on the other.

Lithographer  
 None of the lines in this  
 diagram are to be dotted  
 send proof in lines  
 with the lettering before  
 the Colours are put  
 in the lines  
 must be blue, red  
 black.

# 1858

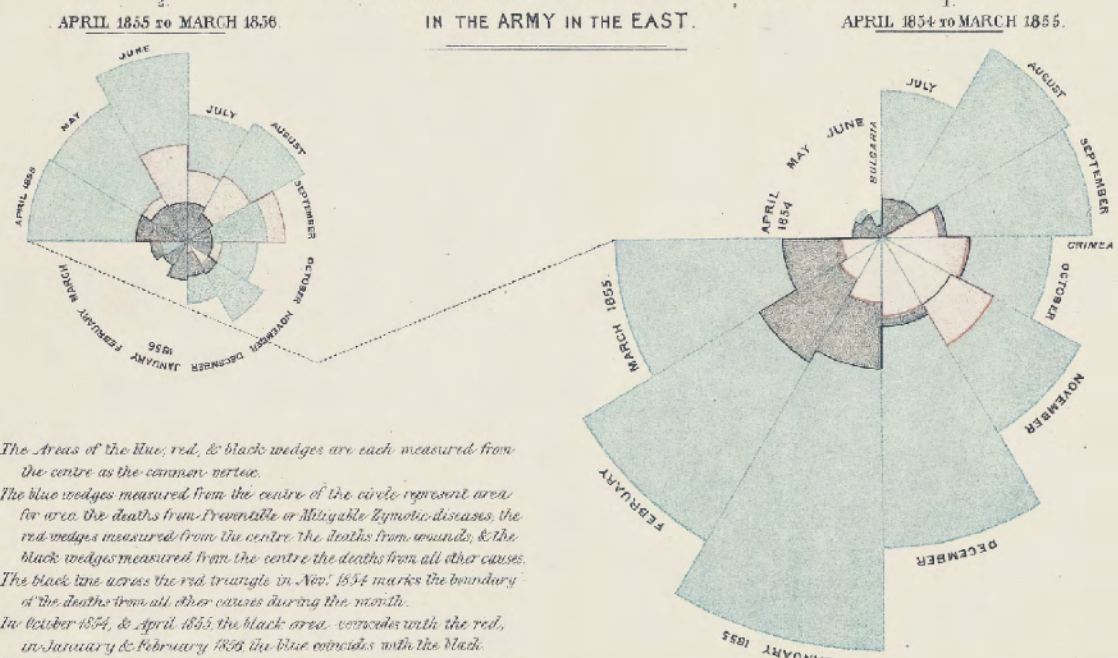
General Register Office, GB, "Diagram of the Causes of Mortality in the Army in the East" (London, 1858).

DIAGRAMS OF THE MORTALITY  
IN THE ARMY IN THE EAST.



The dotted circle represents what the Mortality would have been had the Army been as healthy as Manchester - 25.4 per 1000 per Annum during the Month.  
Each wedge outside of Comparison, area is drawn with every other wedge and with the Manchester circle, and each wedge shows the Mortality in the Army for the Month.  
The area drawn outside the Manchester circle exhibits the excess of Mortality in the Army for the same year over that of one of the most unhealthy towns in England.  
The figures show the Mortality per 1000 per Annum.

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



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 Typhoid or Malignant 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.

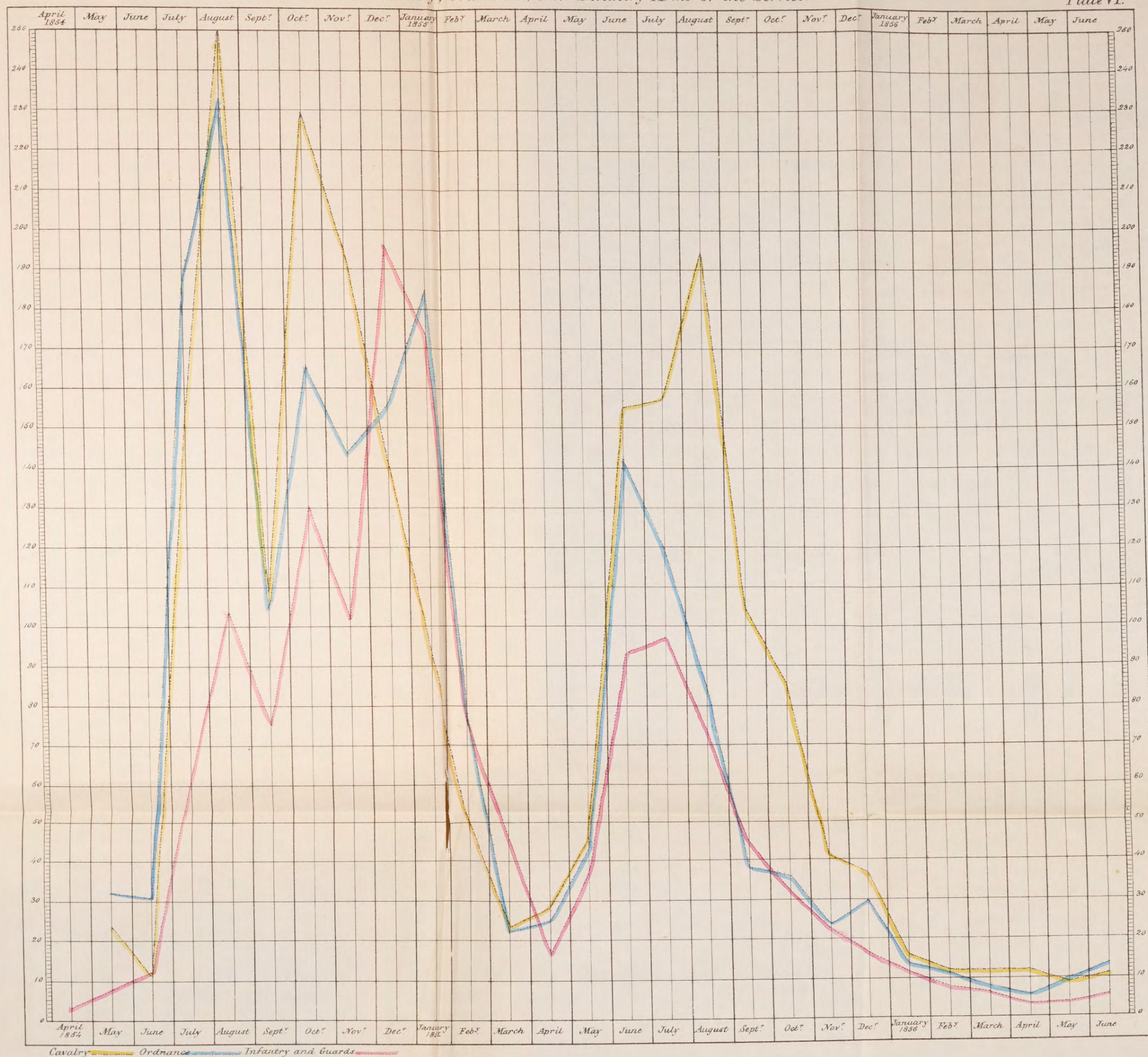
DIAGRAM REPRESENTING THE MORTALITY IN THE HOSPITALS  
AT SCUTARI AND KULALI, FROM OCTOBER 1ST 1854, TO SEPT 30TH 1855.



The area within the dotted circumference represents the average annual mortality in the Military Hospitals in and near London - 25.5 per 1000.  
The black wedges measured from the Centre represent to their area the Mortality per 1000 in each ward in the Hospitals at Scutari and Kulali in 1854 & 1855.

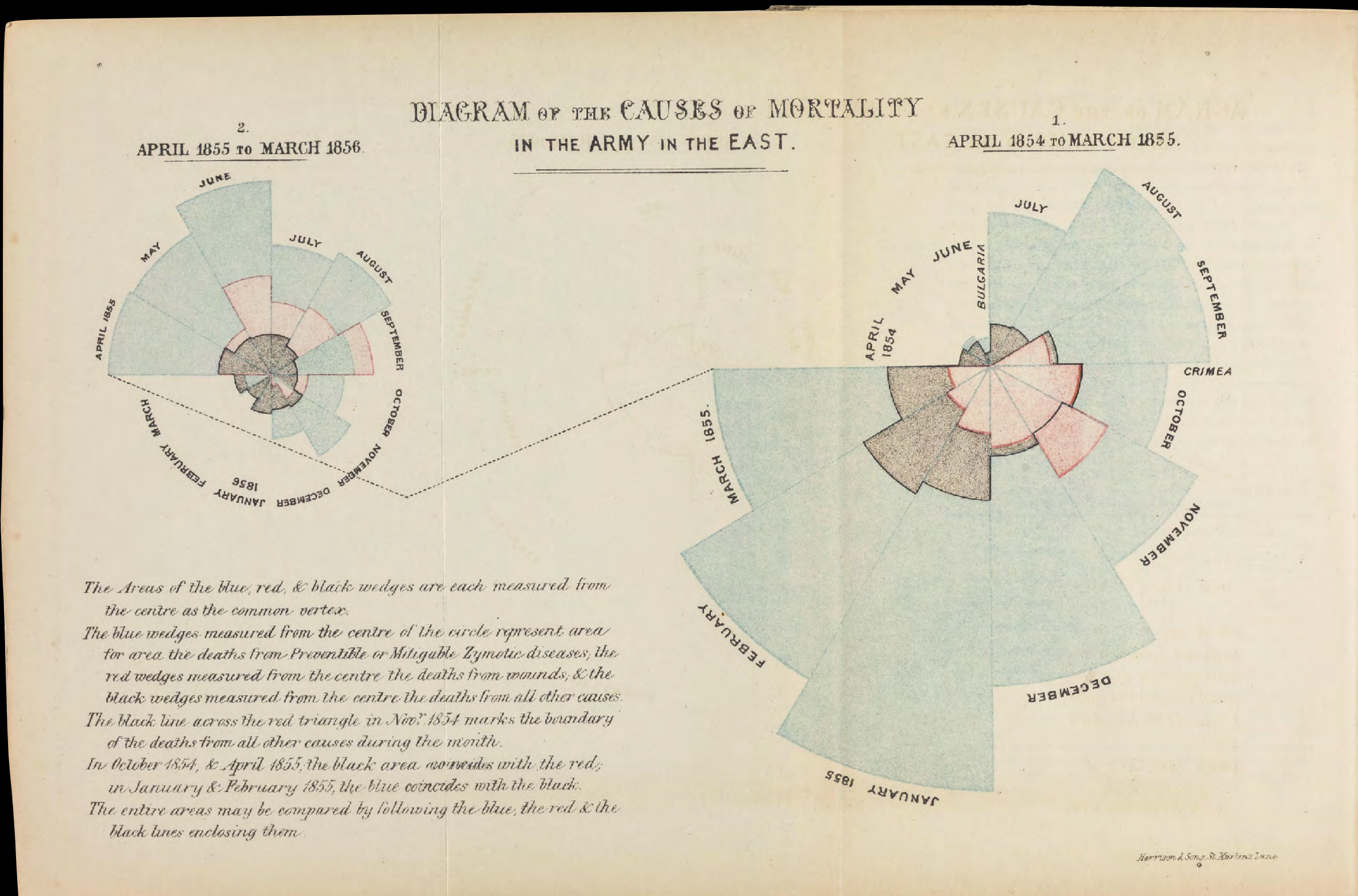
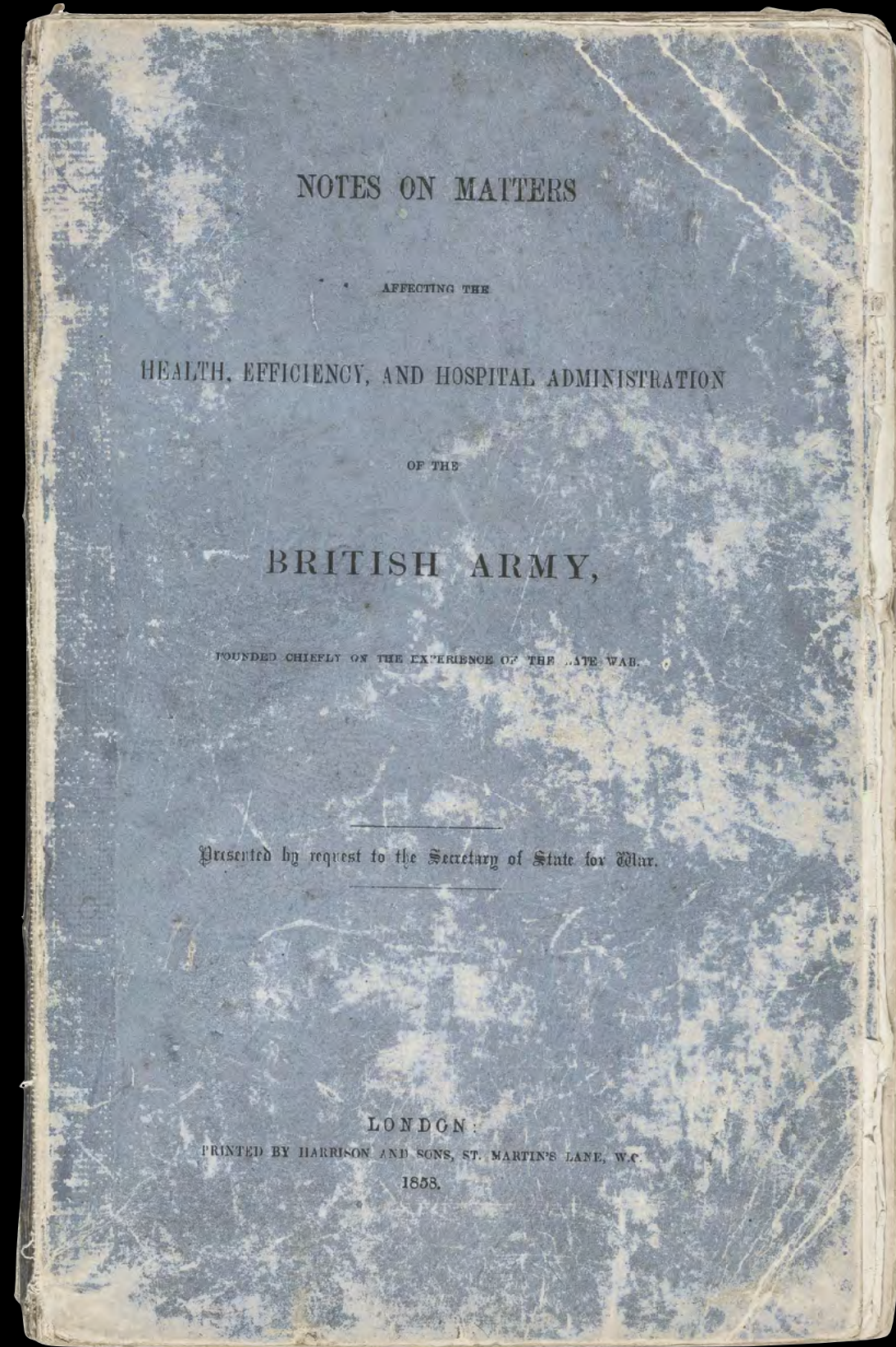
Diagram shewing the admissions into Hospital per 1000 of strength for DISEASES of the STOMACH and BOWELS in the Cavalry, Ordnance, and Infantry Arms of the Service.

Plate VI.



# 1858

Andrew Smith, Army Medical Services, GB, *Medical and Surgical History of the British Army Which Served in Turkey and the Crimea During the War Against Russia in the Years 1854-55-56, in Two Volumes, vol. 2* (London, 1858).



#### OF SCURVY IN THE ARMY. 315

TABLE No. 2.

Table showing the Estimated Average Monthly Strength of the Army; and the Deaths and Annual Rate of Mortality per 1,000 in each month, from April 1854 to March 1856 (inclusive), in the Hospitals of the Army in the East.

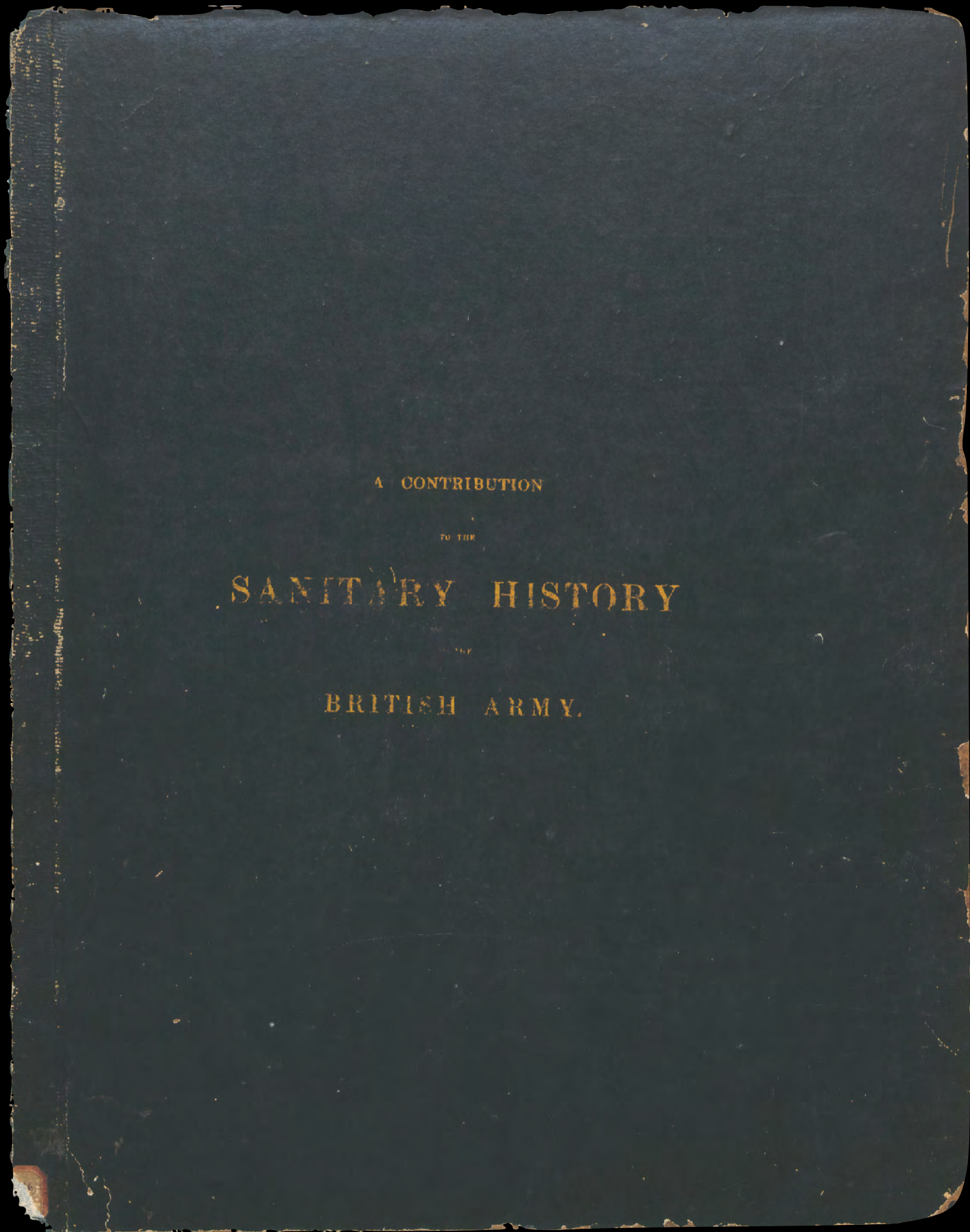
	Estimated Average Monthly Strength of the Army.	Deaths.			Annual Rate of Mortality per 1000.		
		Zymotic Diseases.	Wounds and Injuries.	All other Causes.	Zymotic Diseases.	Wounds and Injuries.	All other Causes.
1854. April ..	8,571	1	5	14	..	70	
May ..	23,333	12	9	62	..	43	
June ..	28,333	11	6	47	..	26	
July ..	24,722	359	33	1500	..	96	
August ..	30,548	828	1	8235	..	119	
September ..	30,290	788	81	3122	..	277	
October ..	30,648	608	132	1970	..	501	
November ..	29,738	844	287	3406	1156	428	
December ..	32,779	1,725	114	6315	417	480	
1855. January ..	32,393	2,761	83	10228	807	1200	
February ..	30,919	2,120	42	8228	163	1401	
March ..	30,107	1,205	32	4903	128	686	
April ..	32,232	477	48	1775	179	212	
May ..	35,473	508	49	1718	769	125	
June ..	38,863	802	209	2476	645	98	
July ..	42,647	382	134	1075	377	93	
August ..	44,614	483	164	1299	441	67	
September ..	47,751	189	276	475	694	50	
October ..	49,852	128	53	328	136	46	
November ..	37,853	173	33	554	105	101	
December ..	42,217	81	18	253	50	78	
1856. January ..	44,212	42	2	114	5	130	
February ..	43,485	24	..	65	..	52	
March ..	46,140	15	..	39	..	91	

The Deaths under the head of "Wounds and Injuries" comprise the following Causes:—Luxatio, Sub-Luxatio, Vulnus Scapularum, Vulnus Incisum, Contusio, Fractura, Ambustio, and Concussio Cerebri.

In eight Regiments, viz., the 46th, 95th, 63rd, 33rd, 23rd, 50th, 28th, and 44th, the mortality from disease alone, in seven months, was 73 per cent.; a fact unparalleled in English history, except in the short Burmese war of 1826. Walcheren, so often referred to, gives only the

# 1858

Florence Nightingale, *Notes on Matters Affecting the Health, Efficiency and Hospital Administration of the British Army, Founded Chiefly on the Experience of the Late War* (London, 1858).

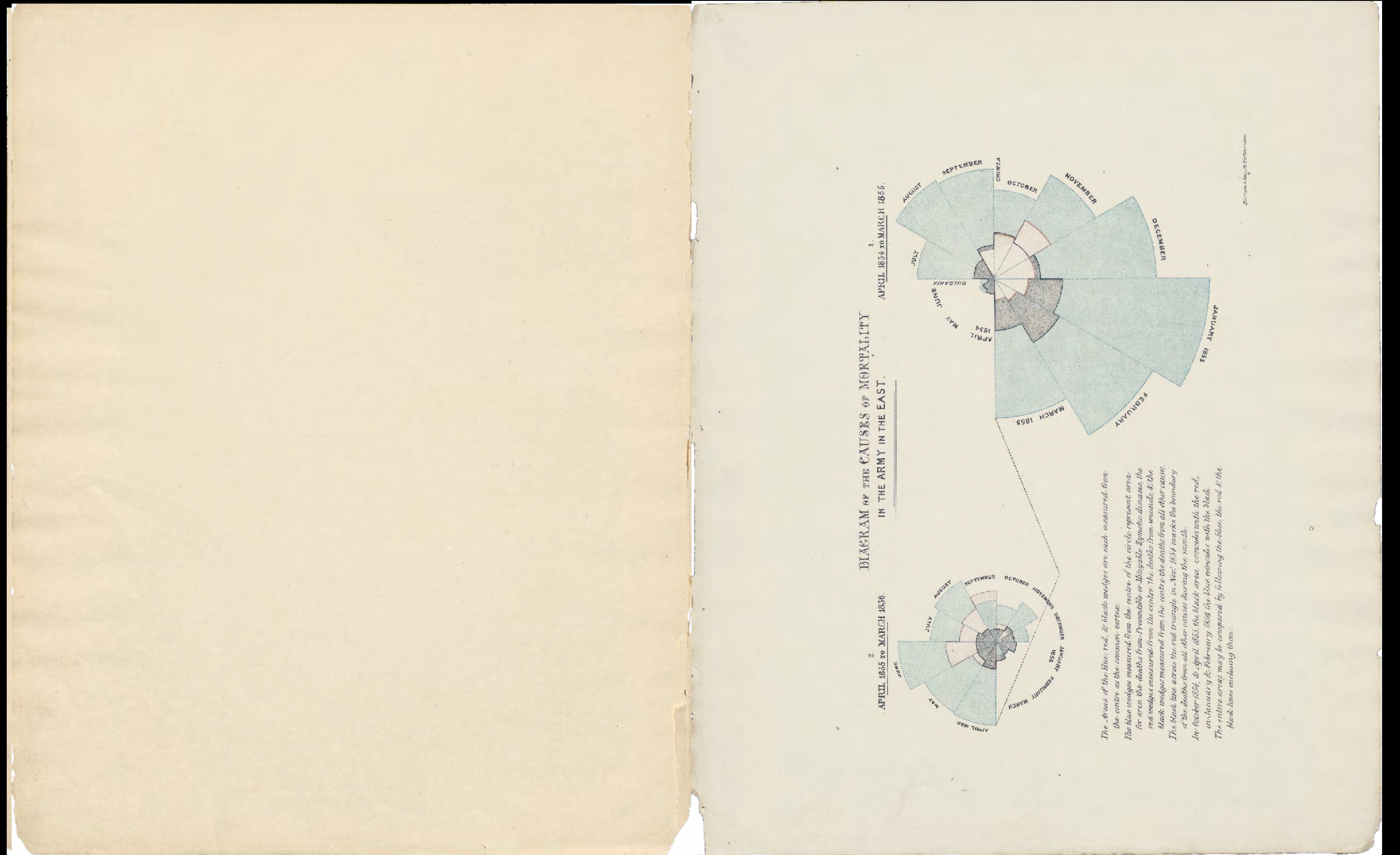


A CONTRIBUTION  
TO THE  
SANITARY HISTORY  
OF THE  
BRITISH ARMY.

1859

Florence Nightingale, *A Contribution to the Sanitary History of the British Army During the Late War with Russia* (London, 1859).

 Harvard Library



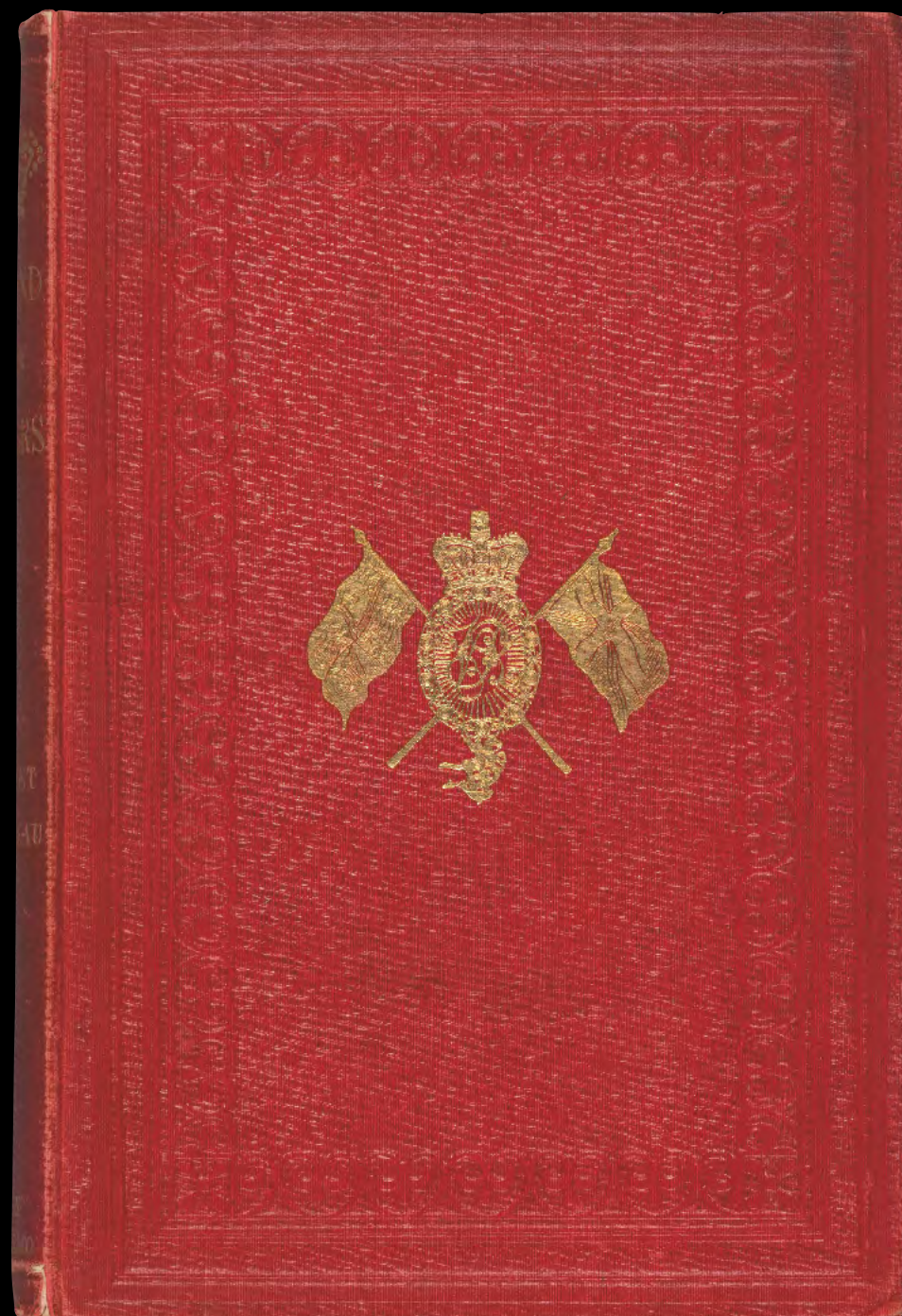
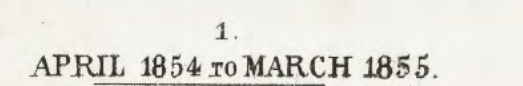
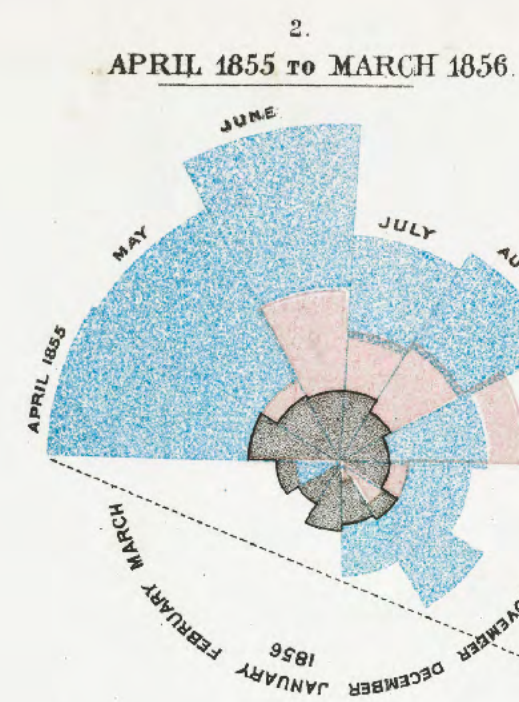


DIAGRAM OF THE CAUSES OF MORTALITY  
IN THE ARMY IN THE EAST.



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. 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.

ENGLAND AND HER SOLDIERS.

BY HARRIET MARTINEAU.

"Let me speak frankly—Till the Constable  
Ourselves, and our ill, are all restrained  
With raily mourning in the painful field,  
There's not a piece of leather in our host  
(Good argument, I hope, we shall not fly,  
And time hath worn us into slavery,  
But, by the mass, our hearts are in the trim."  
KING HENRY V., Act IV. Scene 2.  
"I know already by your forwardness, that you have deserved rewards and  
crowns; and we do assure you, on the word of a prince, they shall be duly  
paid you."  
QUEEN OF ENGLAND to her Soldiers, 1288.

WITH THREE ILLUSTRATIVE DIAGRAMS.

LONDON  
SMITH, ELDER, & CO. 65 CORNHILL.  
1859

The right of translation is reserved.

1859

Harriet Martineau, *England and Her Soldiers* (London, 1859).  
David Rumsey Map Collection



Florence  
Nightingale  
Mortality  
and Health  
Diagrams


Edited by  
RJ Andrews

CRIMEA  
OCTOBER

Information Graphic  
Visionaries

2022

RJ Andrews, *Florence  
Nightingale: Mortality and  
Health Diagrams* (2022).

 Visionary Press