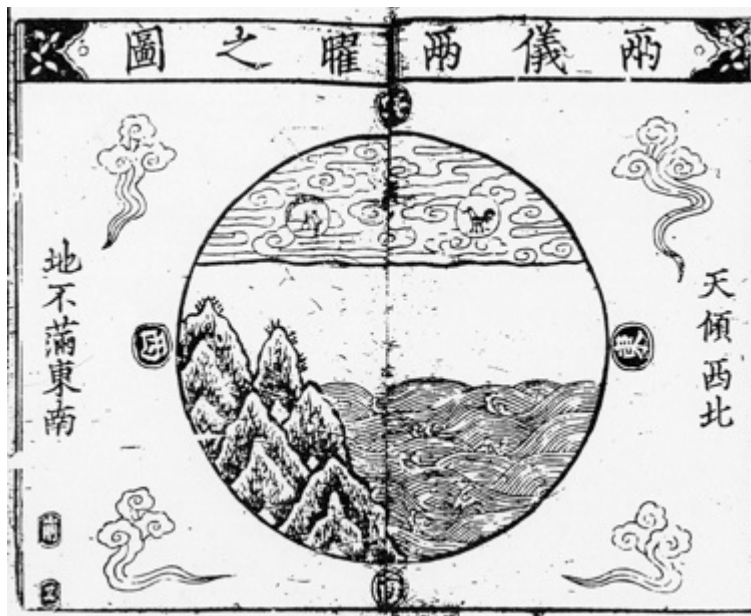


Visualizing the Geography of Disease: *The Diseases of China, 1870s-1920s*

Presented by Marta Hanson 韓嵩

Department of the History of Medicine, Johns Hopkins University



Ohio State University Center for Historical Research Program
Health, Disease, and Environment in World History (20 April 2012)

Outline

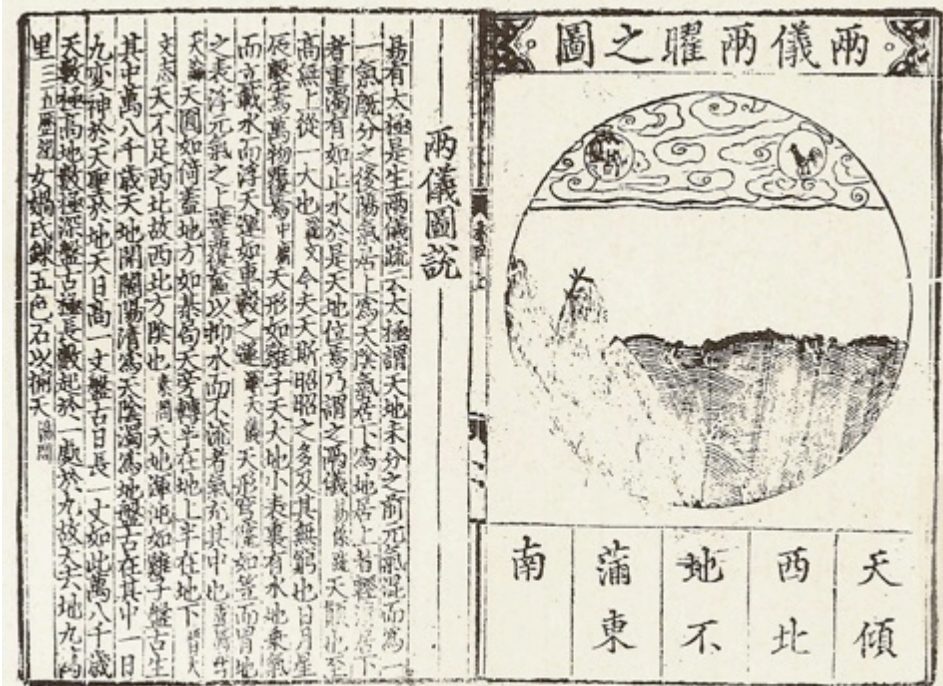
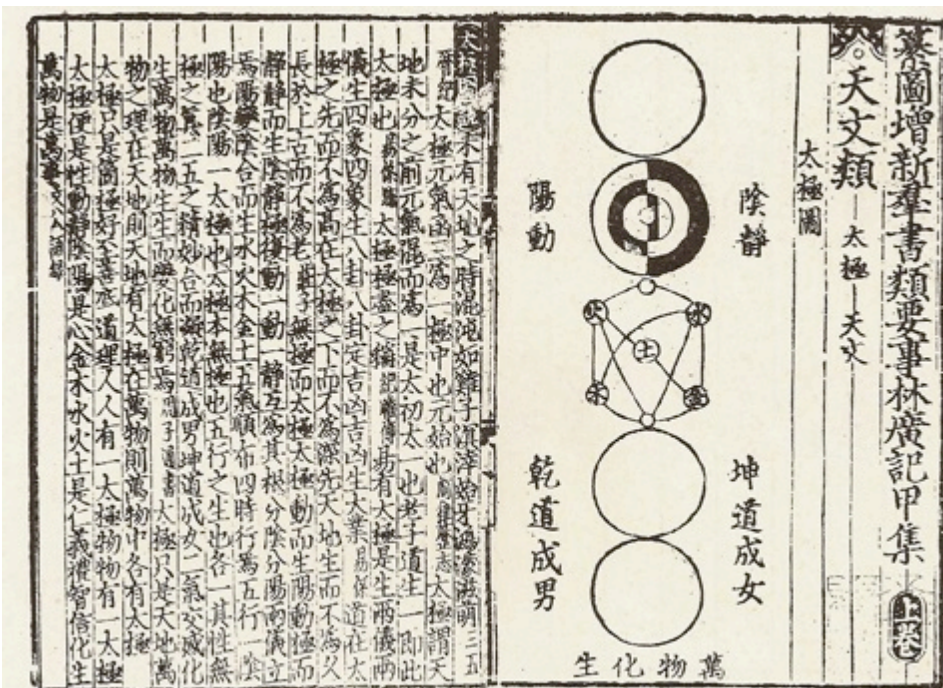
- I The Chinese Geographic Imagination
- II European Mapping Precedents, 1792-1875
- III Initial Mapping of the Diseases of China, 1877-1903
- IV *The Diseases of China, including Formosa and Korea*, 1910
- V Maps of the Manchurian Plague epidemic, 1910-11
- VI The North Manchurian Plague Prevention Service Reports, 1918-1928
- Conclusion *The Diseases of China, including Formosa and Korea*, second edition 1928

Shilin guangji
 事林廣記
*Broad-ranging Record
 on Many Matters*

by Chen Yuanjing
 陳元靚 (1137–81)

Yuan dynasty
 (1278-1368)

Zhishun edition
 (r. 1330-1333)





Shilin guangji

事林廣記

*Broad-ranging Record
on Many Matters*

by Chen Yuanjing

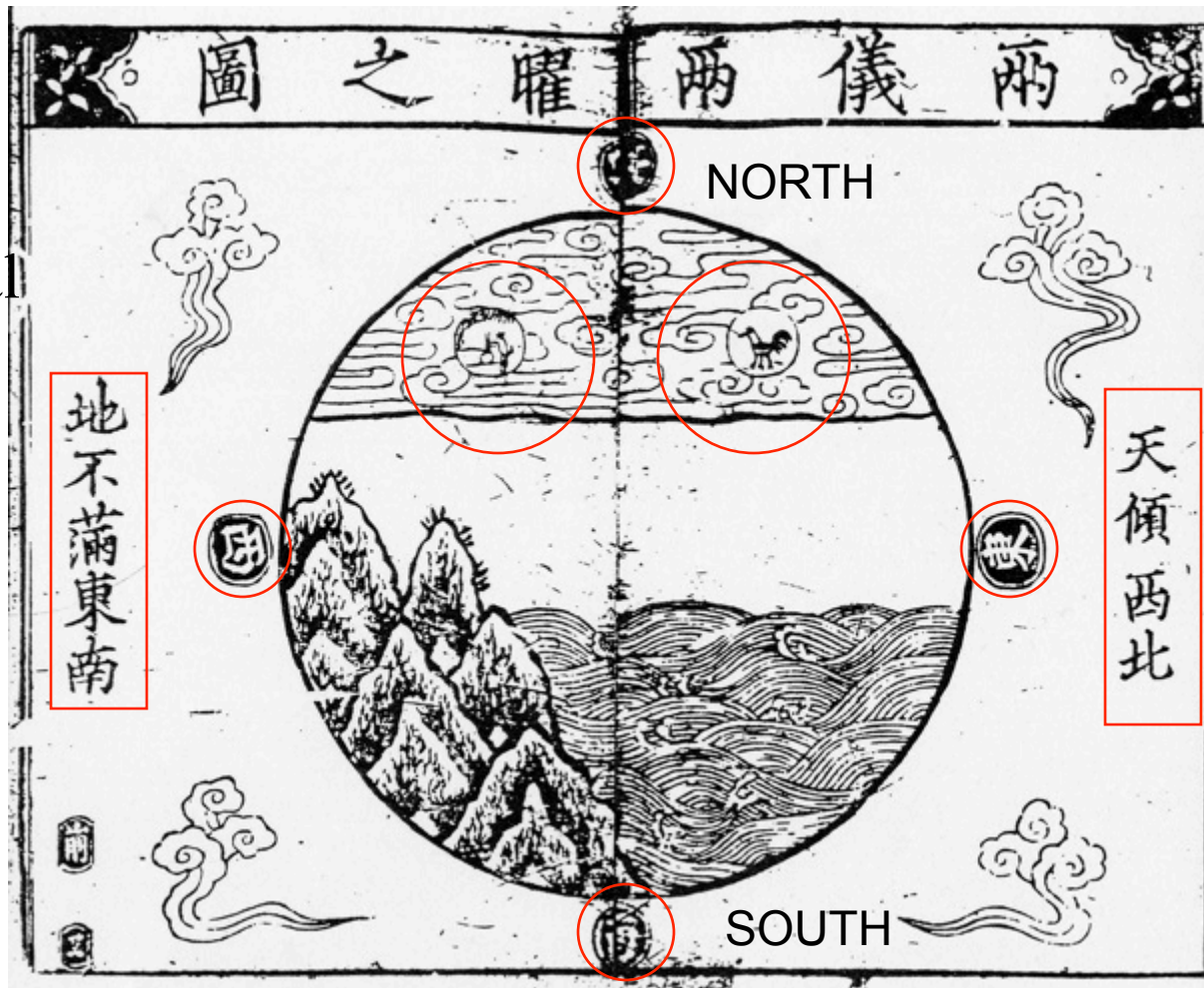
陳元靚 (1137–1181)

Ming dynasty
(1368–1644)

1498 edition

Broad-ranging Record on Many Matters
Ming dynasty, Wanli (r. 1488-1505) edition

仙兔月
Immortal
Rabbit
of the
Moon



烏鳥日
Black
Crow of
the Sun

“天傾西北”

“地不滿東南”

Heaven is collapsed in the northwest Earth is incomplete in the southeast

圖掌指泉在天司

Palm lines =
Rivers flowing from
lower right (northwest) to
upper left (southeast)

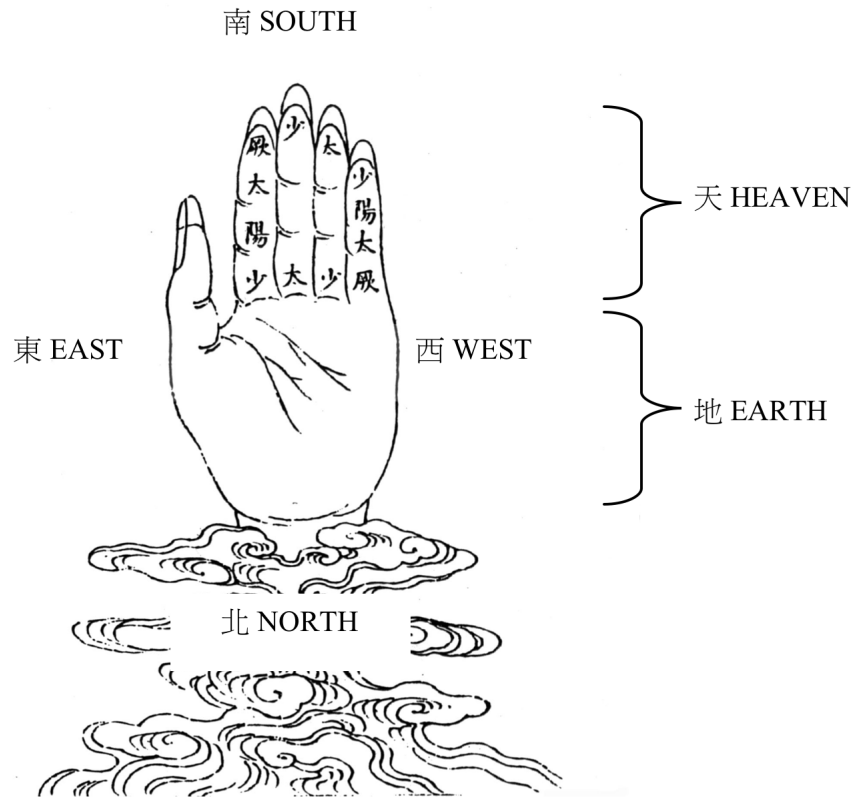


Figure 7

張介賓,《類經圖翼》‘指掌圖’
1782 四庫全書刻本。

新刻天如張先生精選石渠萬寶全書

Wanbao quanshu (10,000 Treasures), 1641

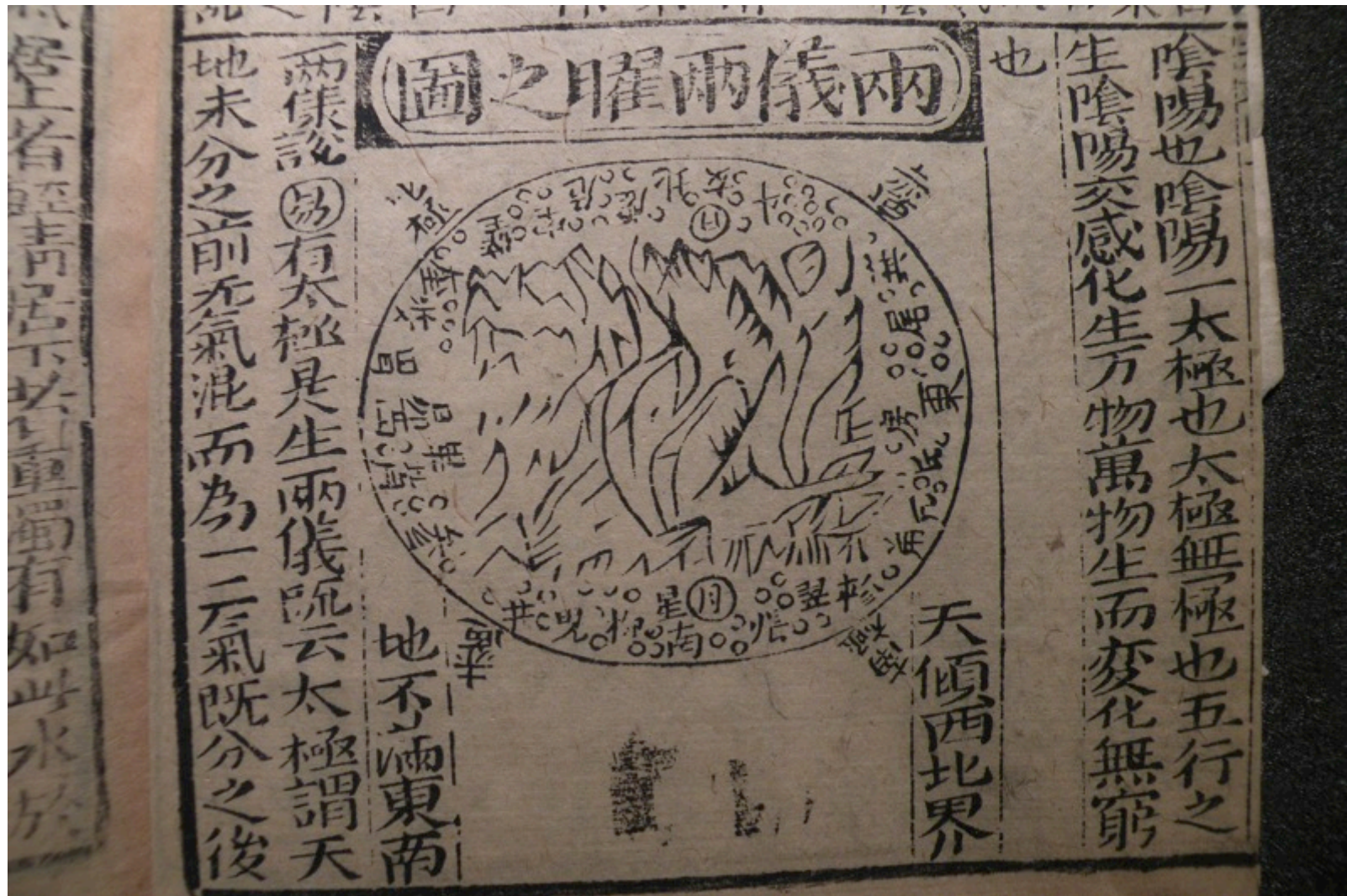
Bodleian Sinica 105

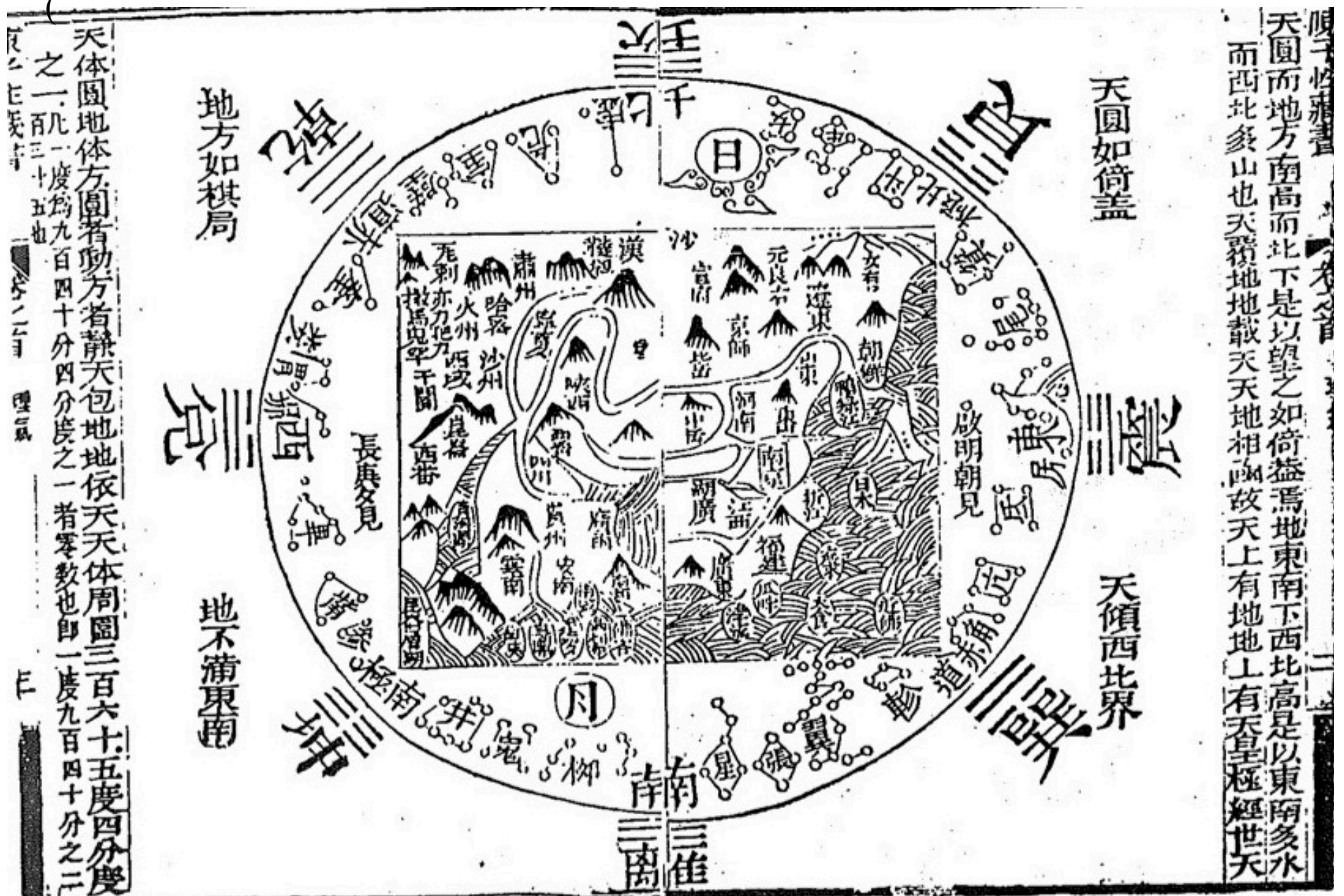


新鐔四民便用不求人萬斛明珠

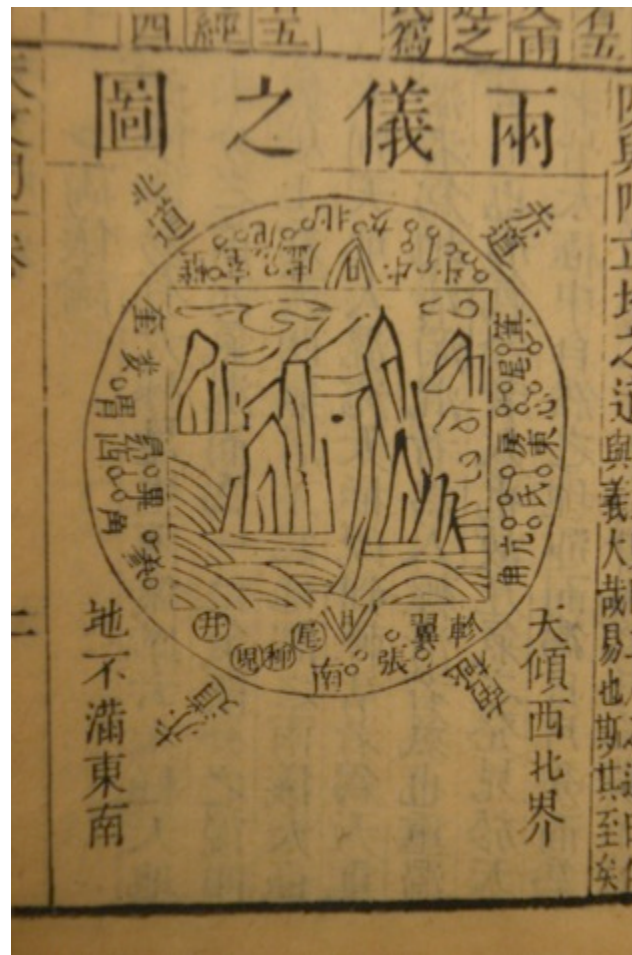
10,000 Treasures, Xu Xinlu ed. 徐心魯, 1662

Bodleian Sinica 119



陳子性藏本 *Chen Zixing's Collected Books*, 1684

增补万宝全书 *Zengbu Wanbao quanshu*
10,000 Treasures, 1749
Cambridge East Asian Collection FC.31.183



European Mapping Precedents, 1792-1875

Part II

Leonhard Ludwig Finke,
der Arzeney-Gelahrtheit Doctor und Professor zu Lingen,

V e r f u c h
einer allgemeinen medicinisch-praktischen
Geographie,
worin
der historifche Theil der einheimifchen
Völker- und Staaten-Arzeneykunde
vorgetragen wird.



Erfter Band,
welcher die Länder enthält, die ſich vom 45ten Grade, ſo wohl
nördlicher als ſüdlicher Breite, bis zur Linie erſtrecken.

L e i p z i g,
in der Weidmannſchen Buchhandlung, 1792.



Figure 3.10a Brigham's world map of the progress of cholera in 1832. The hand-drawn line represents cholera's progress around the world, the lines closely following existing trade routes.

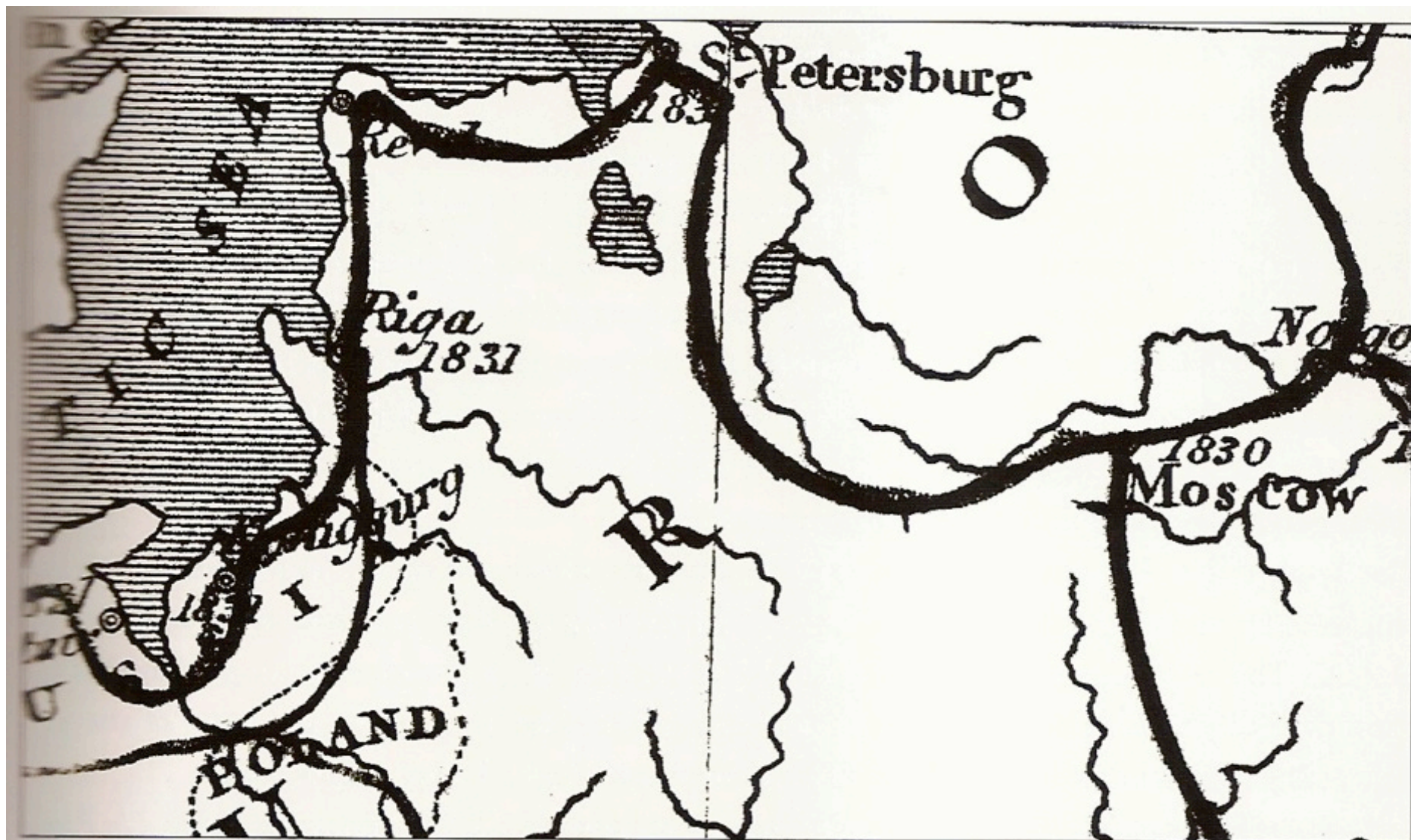
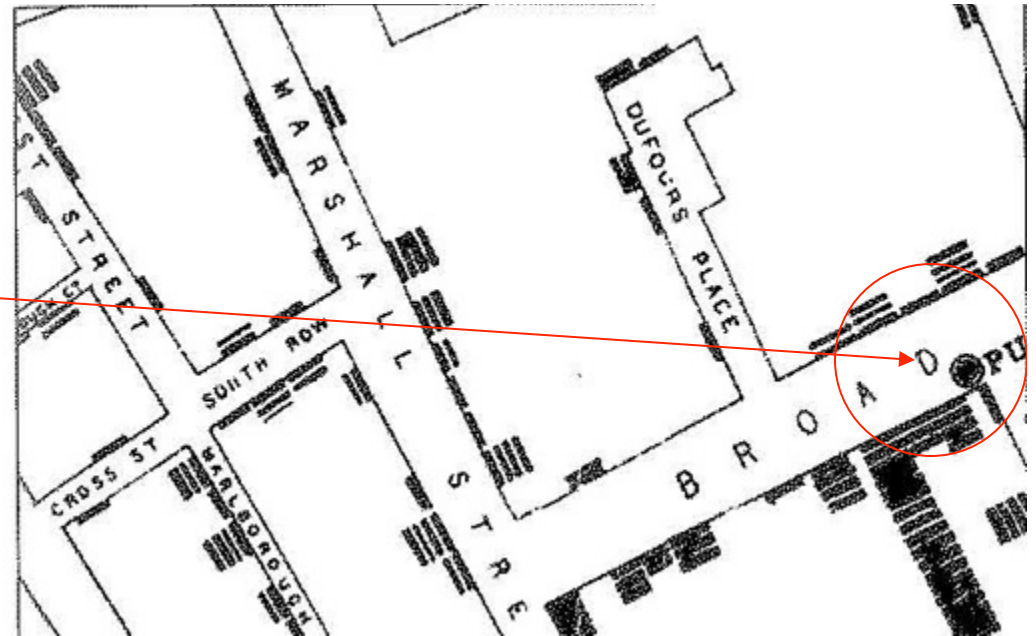
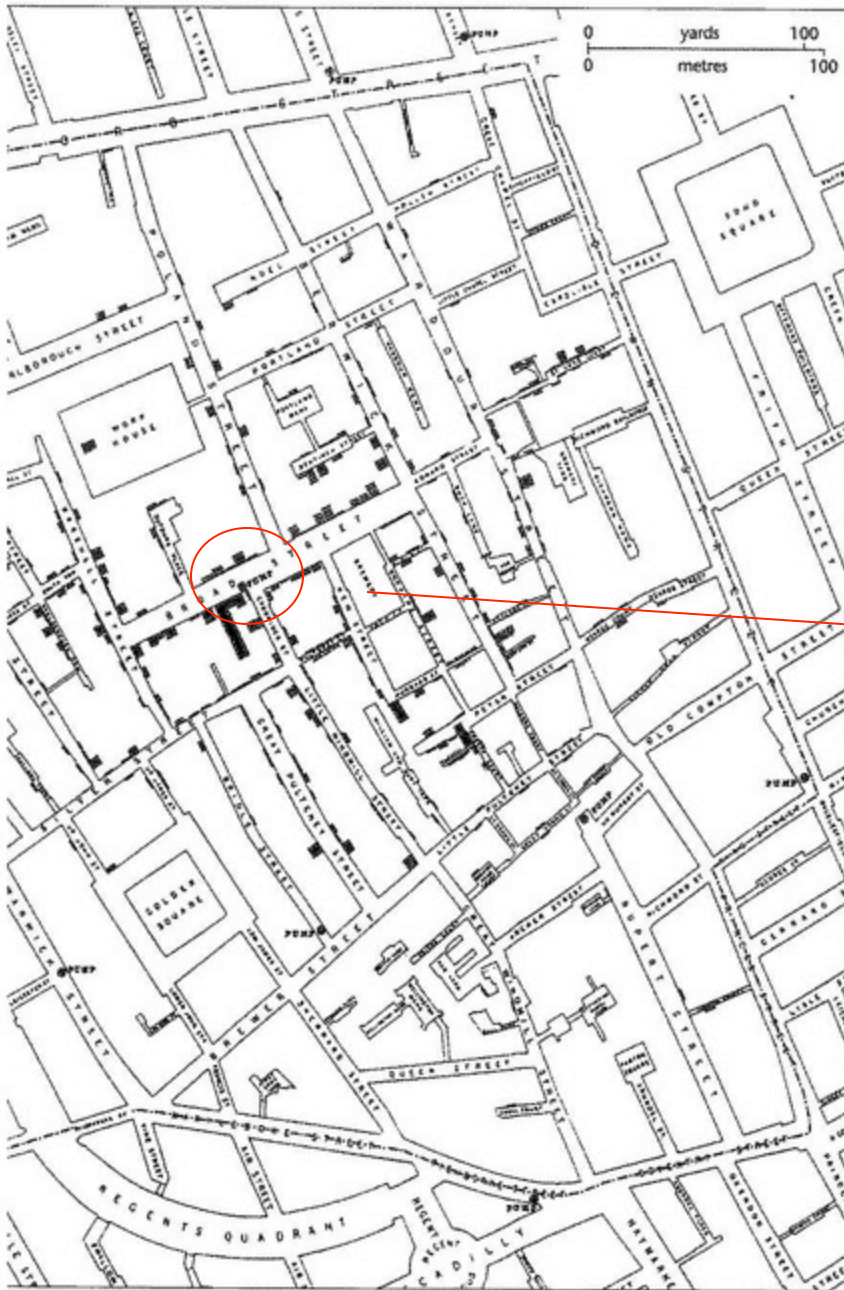


Figure 3.10b Black-and-white detail of Brigham's world map of the progress of cholera in 1832. The hand-drawn line represents cholera's progress with dates of outbreaks beside individual towns.

John Snow's 1854 Map of the Broad Street Outbreak of Cholera



Evidence for argument that the origin was the pump and the cause contaminated water

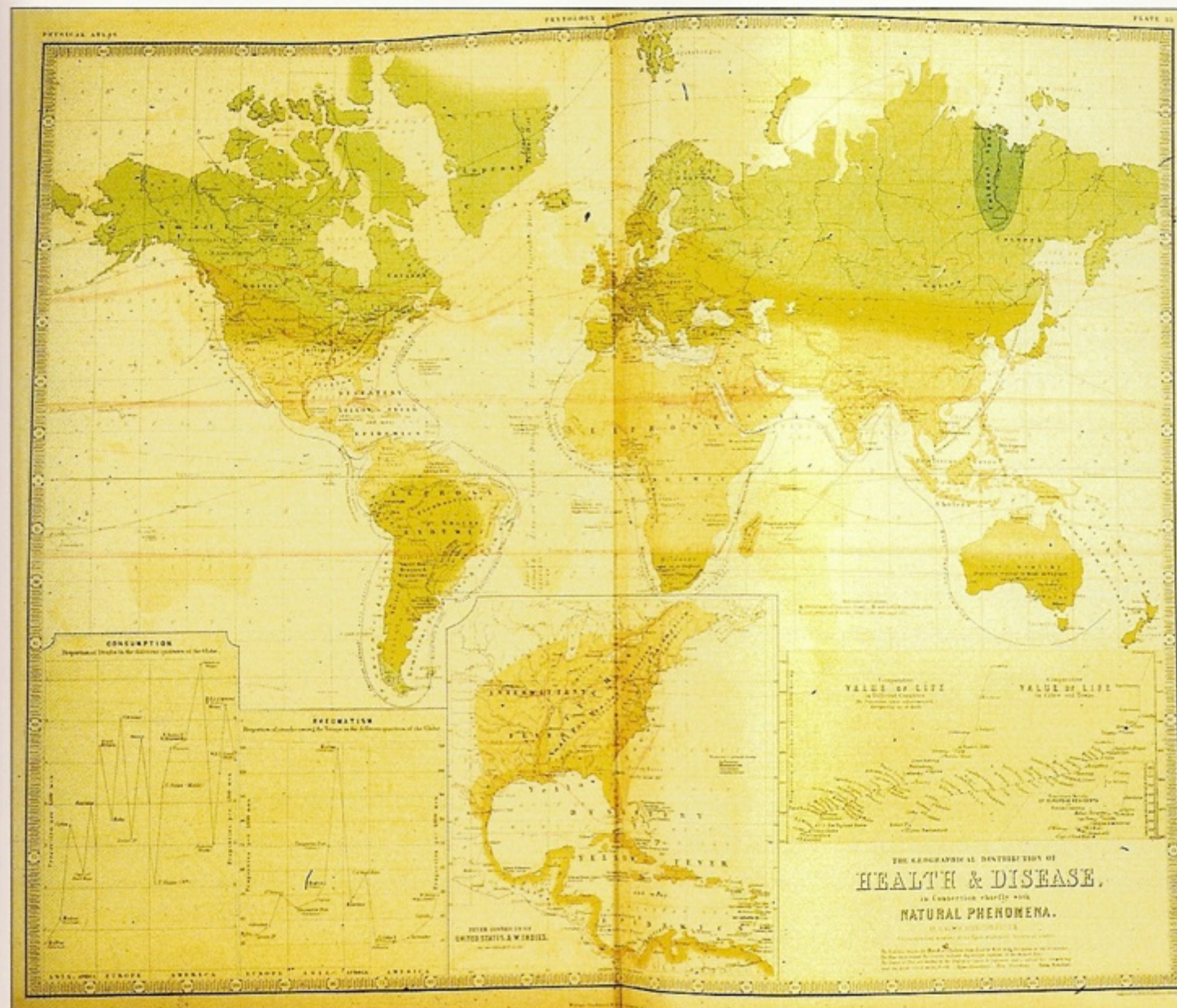


Figure 3.11a A. K. Johnston's map, *The Geographical Distribution of Health and Disease in Connection Chiefly with Natural Phenomena*, 1856.

Initial Mapping of the Diseases of China, 1878-1903

PART III

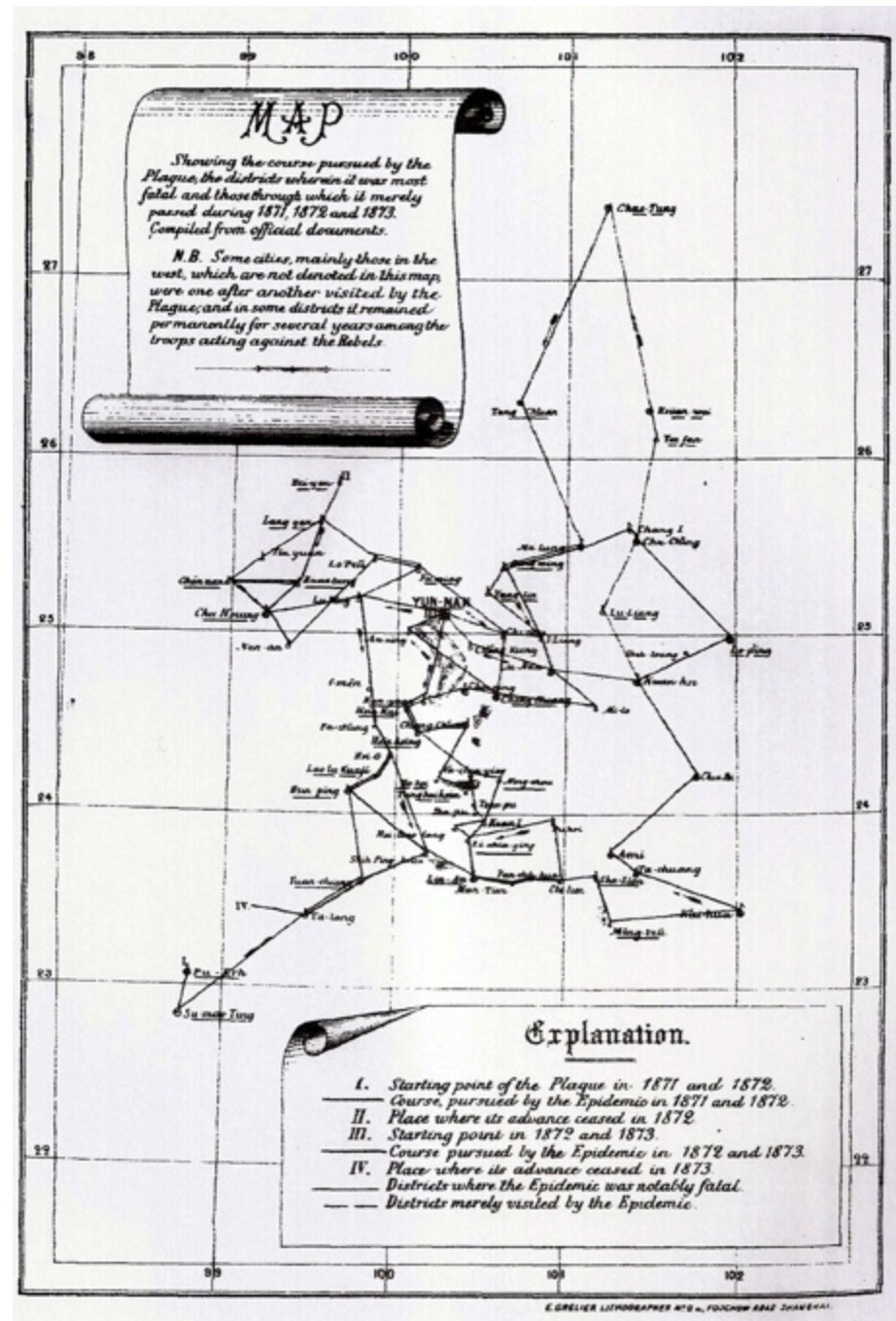
Maps from the
*Medical Reports of the Imperial
Maritime Customs Service,*
1878-1898

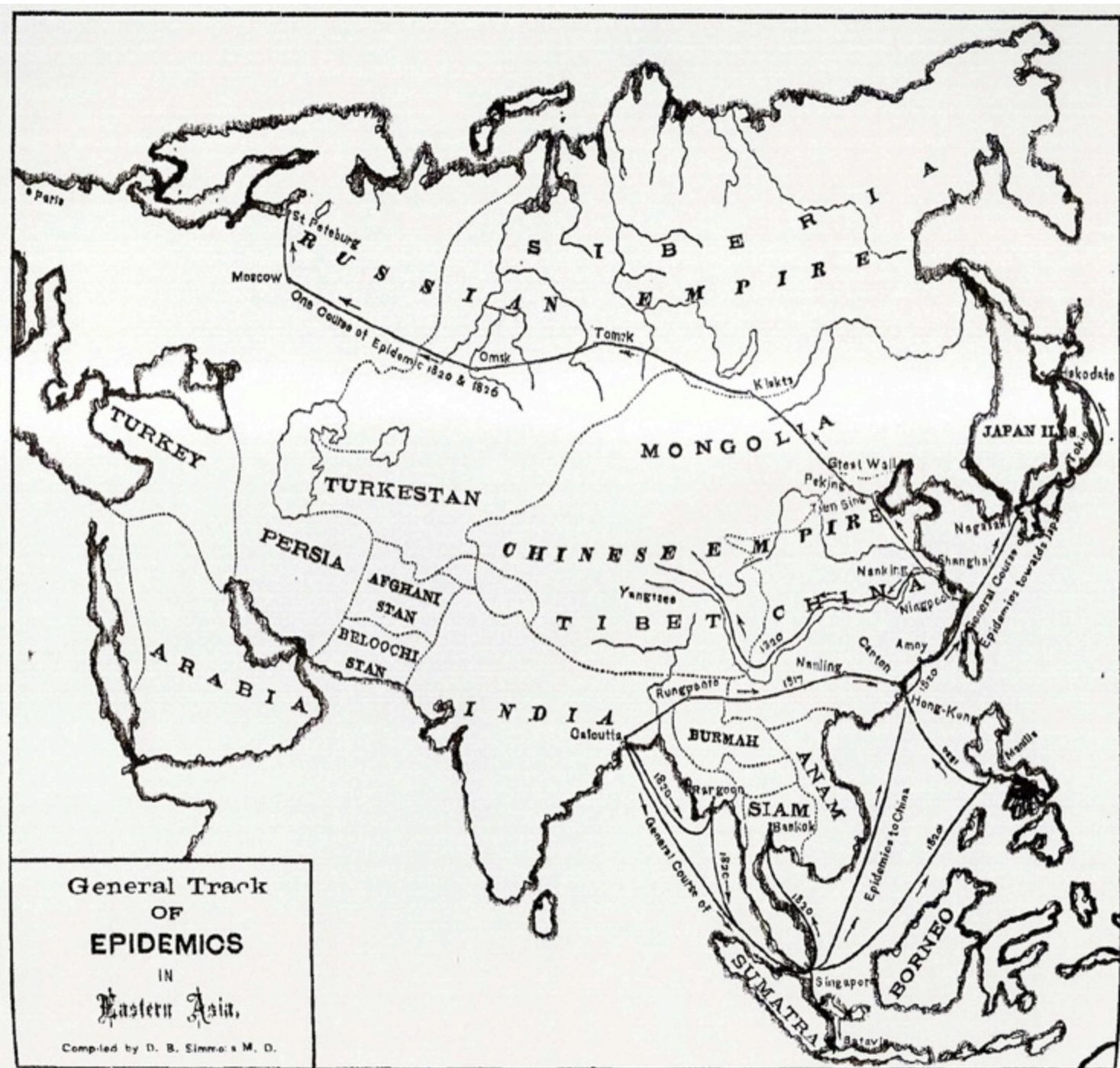
“Notes on the Plague in Yunnan”

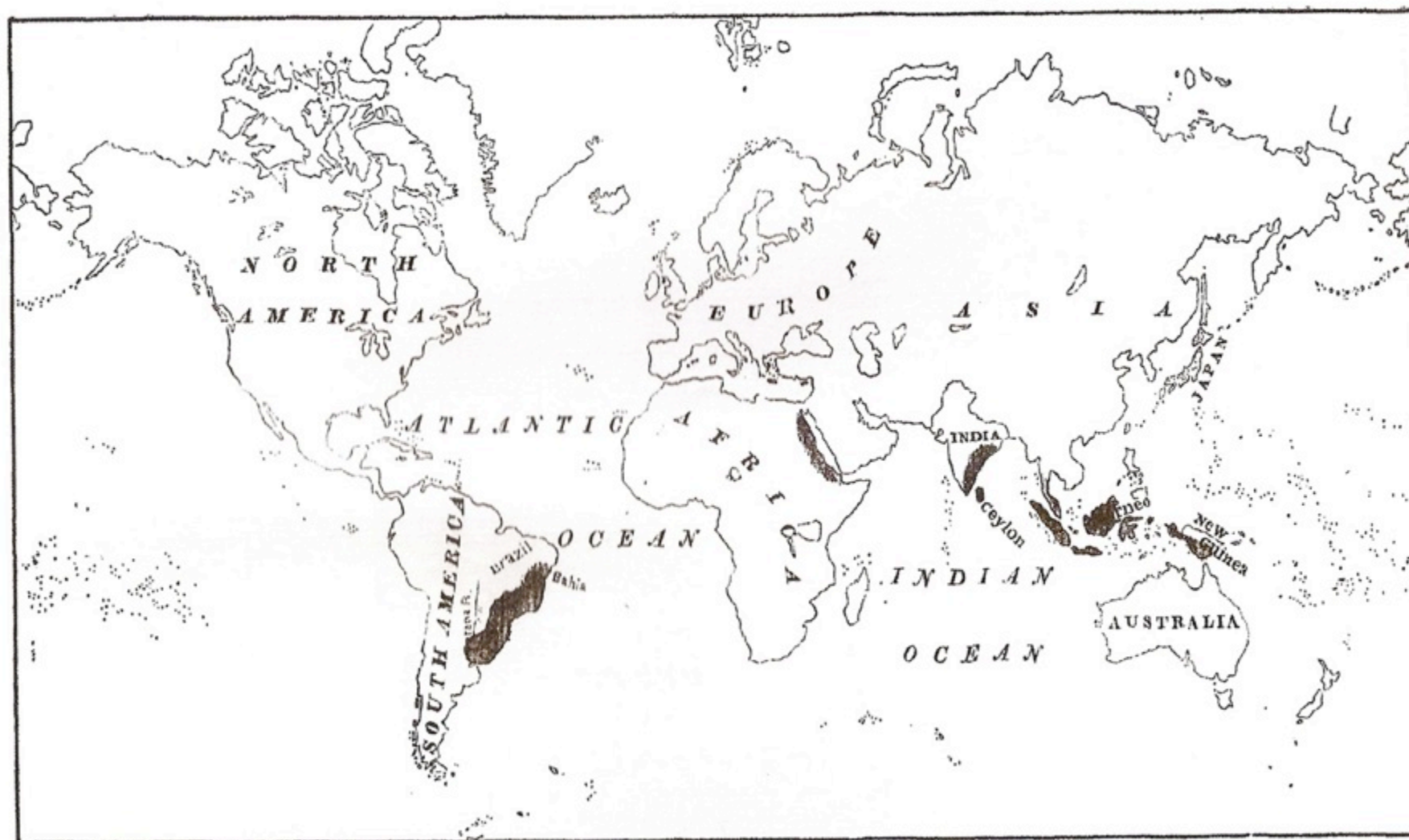
“Dr. Manson’s Report
on the Health of Amoy
for the Half-year ended
31st March 1878”

First map of the course
of an epidemic in China

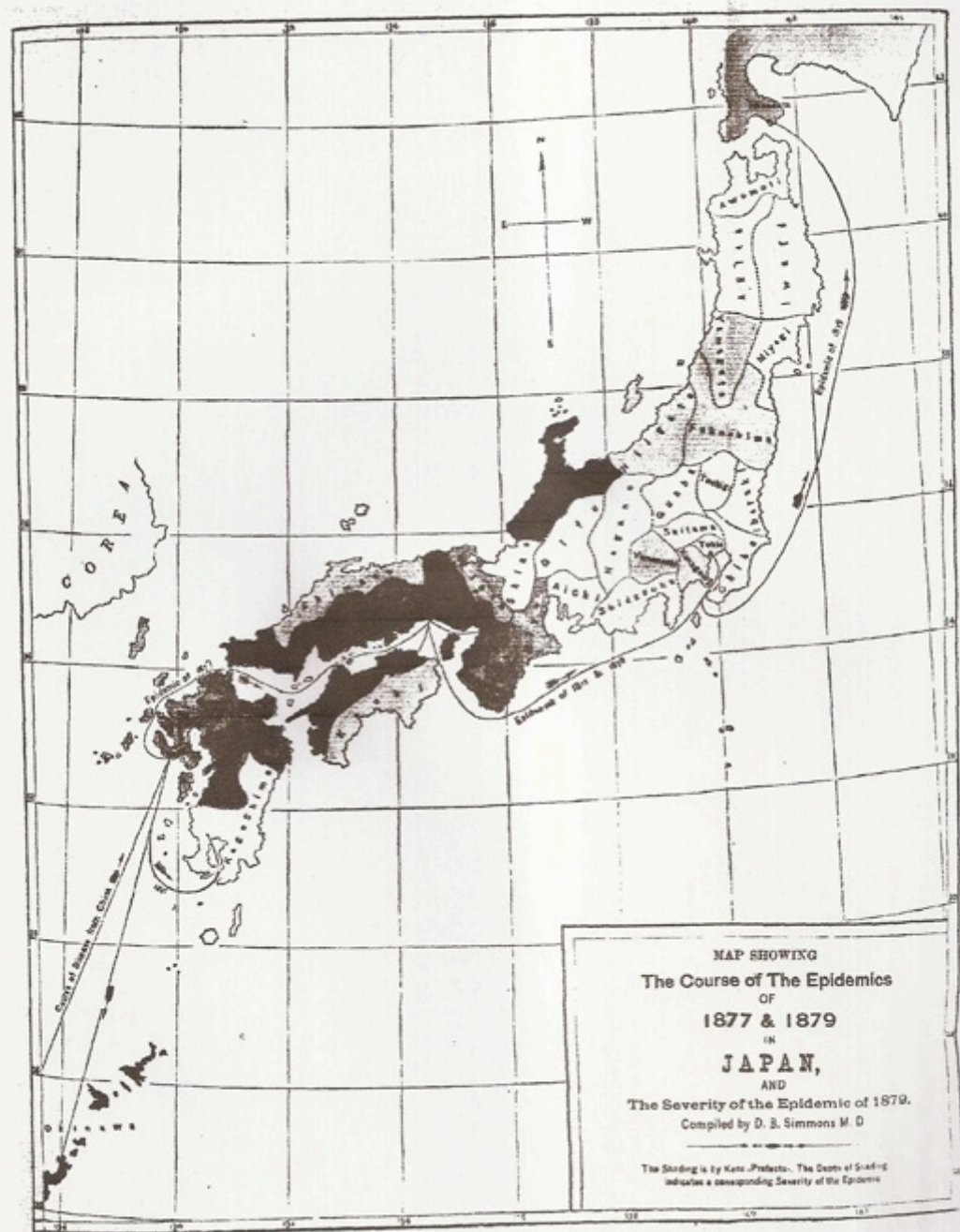
Maps the 1871-72
plague epidemics in Yunnan.



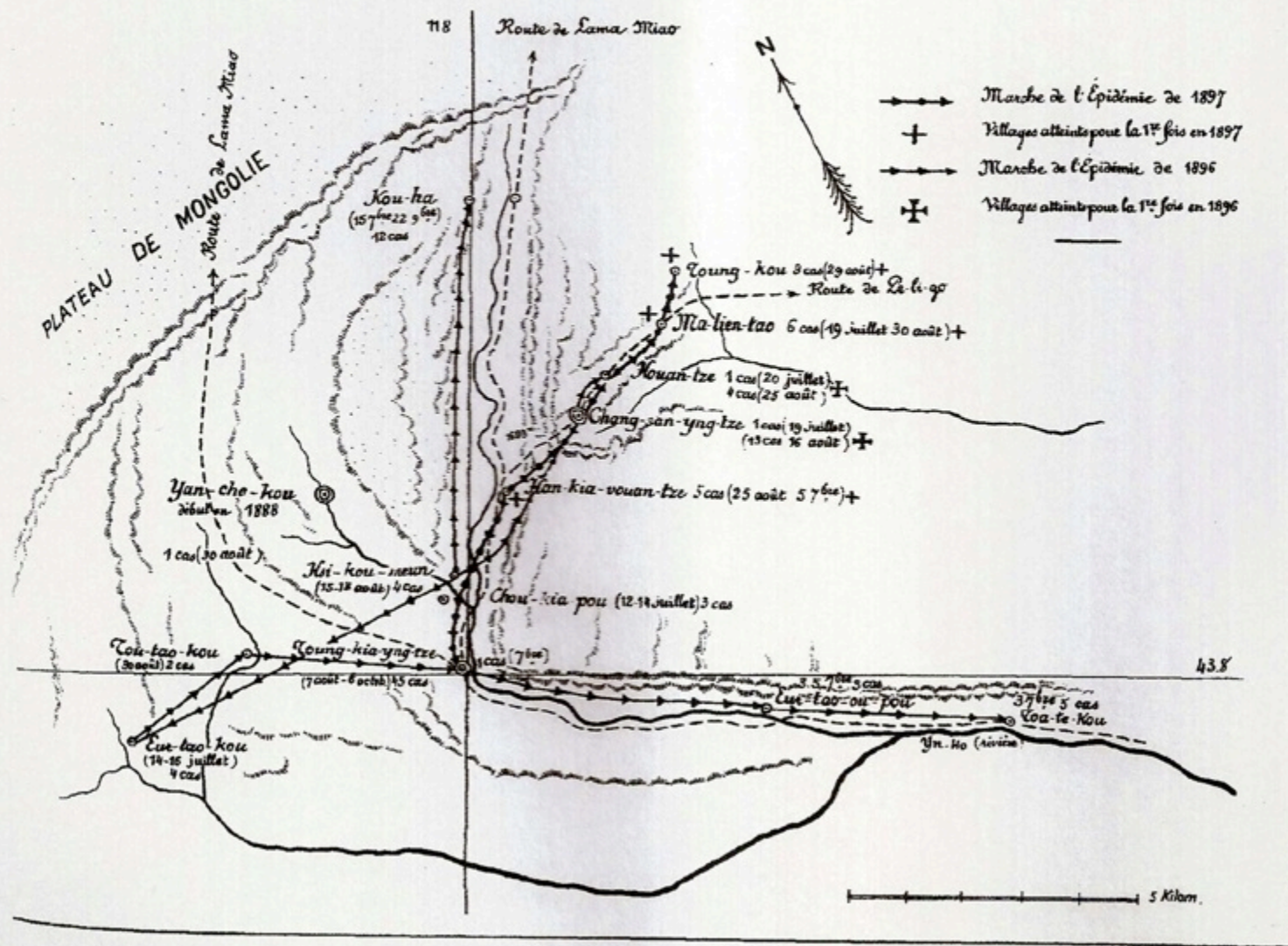




SKETCH MAP INDICATING THE GEOGRAPHICAL DISTRIBUTION OF BERIBERI.



LA VALLÉE DE SÔ-LEU-KÔ.



W.J. Simpson, *Report on the Causes and Continuance of Plague in Hong Kong and Suggestions as to Remedial Measures*

London: Waterlow and Sons, 1903

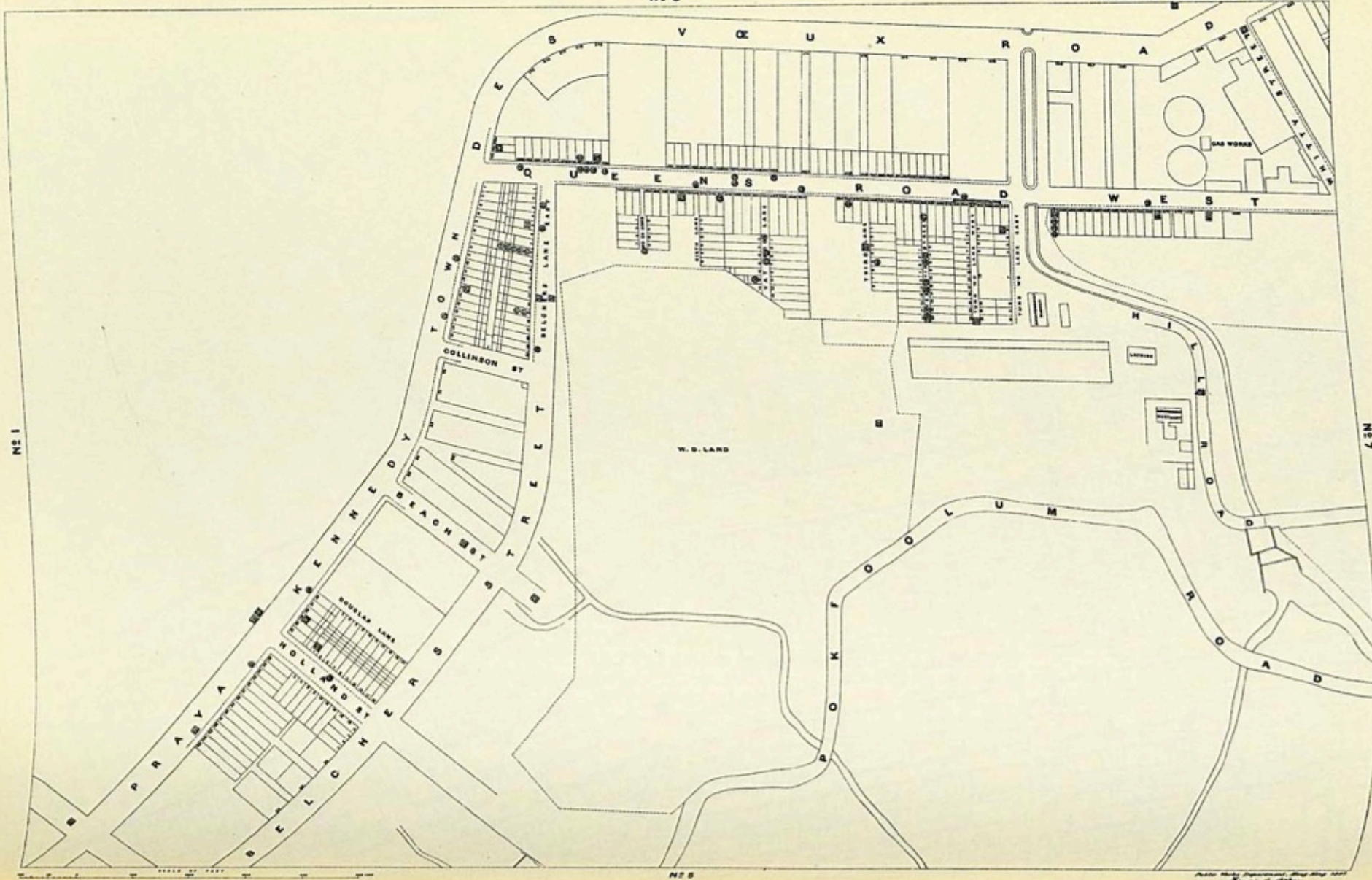
Maps of the incidence of plague in
Hong Kong 1894

- ☐ HUMAN PLAGUE.
☐ RAT PLAGUE.

THE NUMBER IN THE CIRCLE OR SQUARE REFERS TO THE WEEK IN WHICH THE CASE OCCURRED.

Nº 3

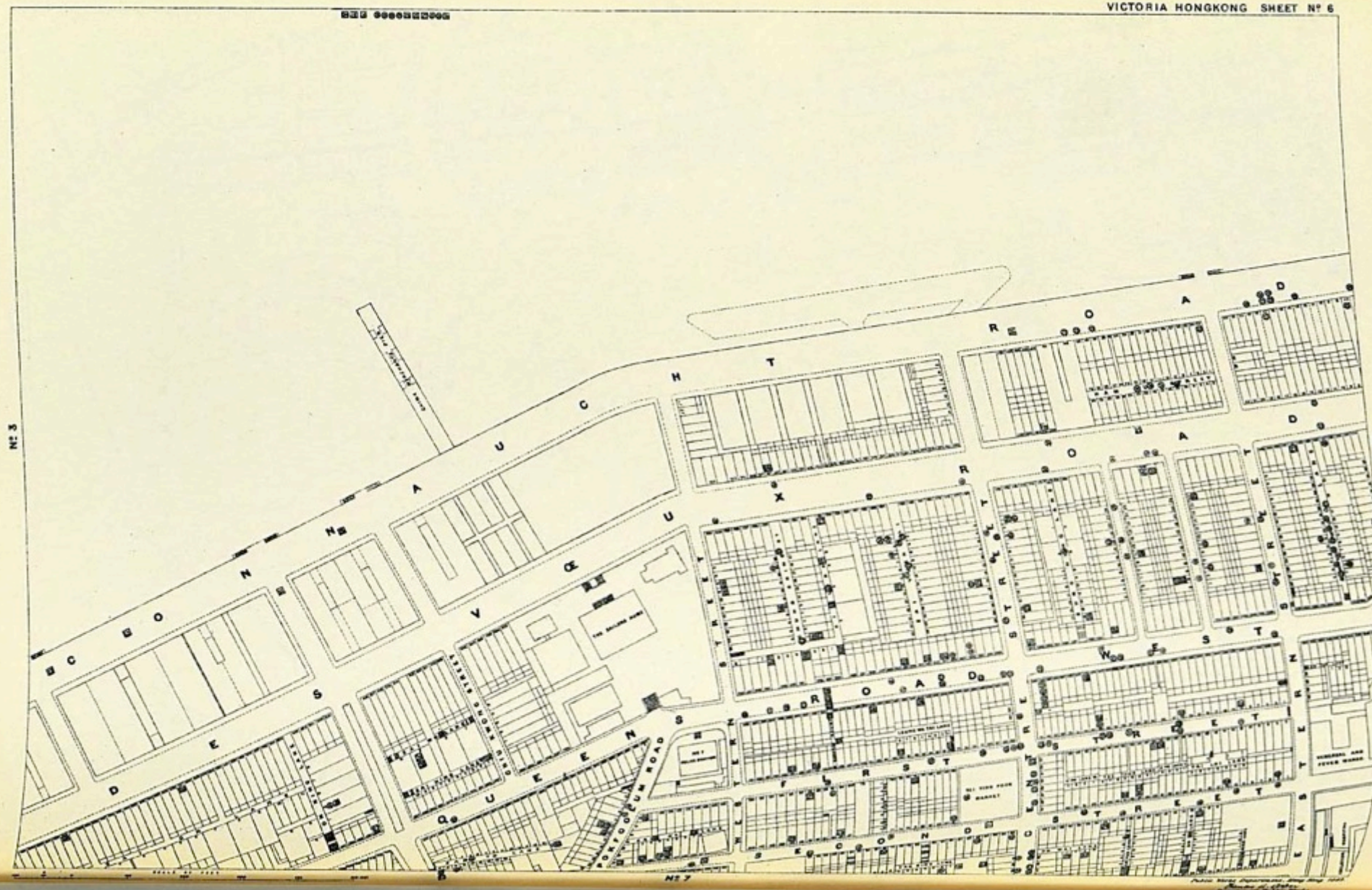
VICTORIA HONGKONG SHEET Nº 4



- ☐ HUMAN PLAGUE.
☐ RAT PLAGUE.

THE NUMBER IN THE CIRCLE OR SQUARE REFERS TO THE WEEK IN WHICH THE CASE OCCURRED.

VICTORIA HONGKONG SHEET No 6

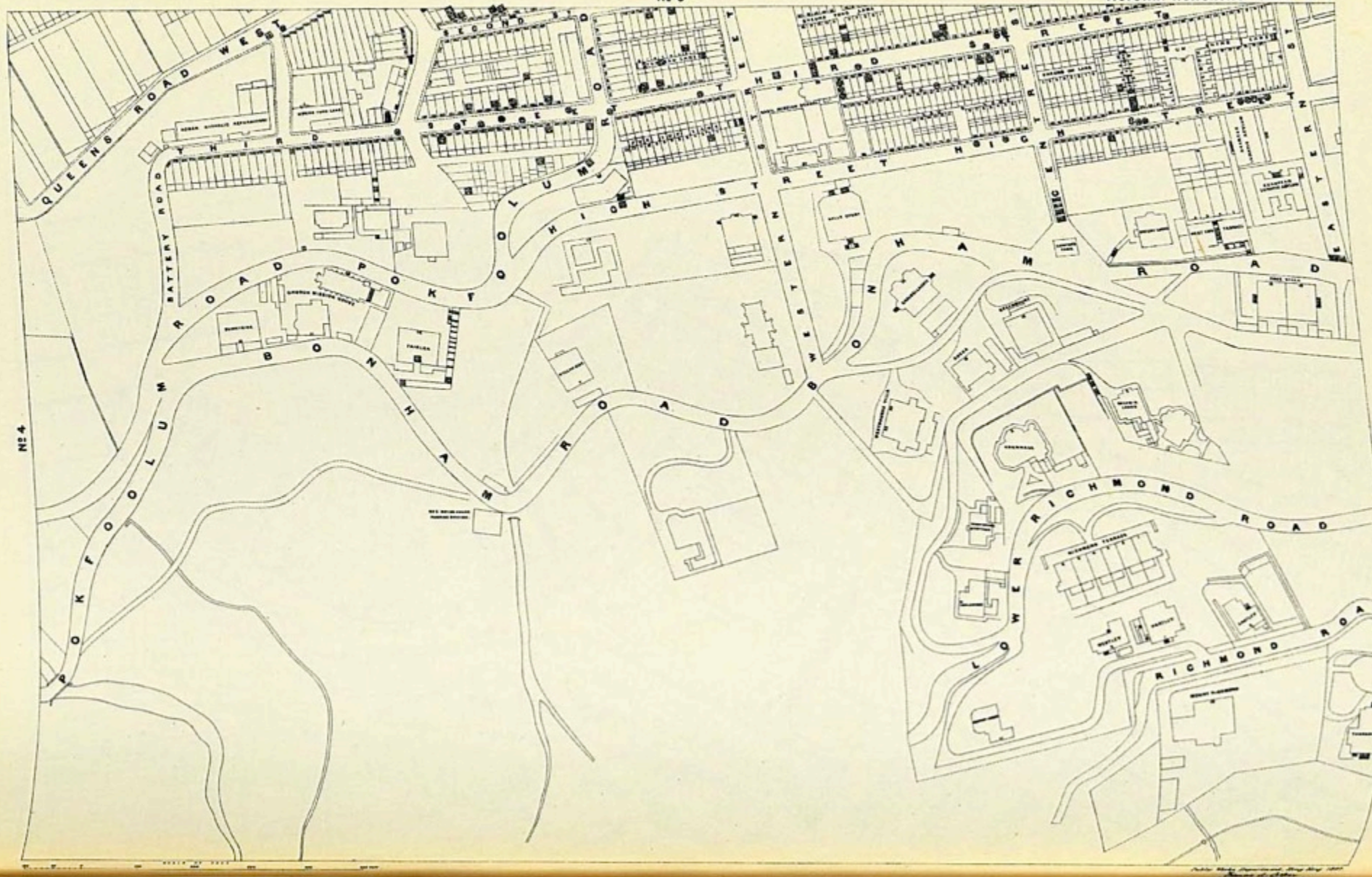


- ☐ HUMAN PLAGUE.
☐ RAT PLAGUE.

THE NUMBER IN THE CIRCLE OR SQUARE REFERS TO THE WEEK IN WHICH THE CASE OCCURRED.

N2 6

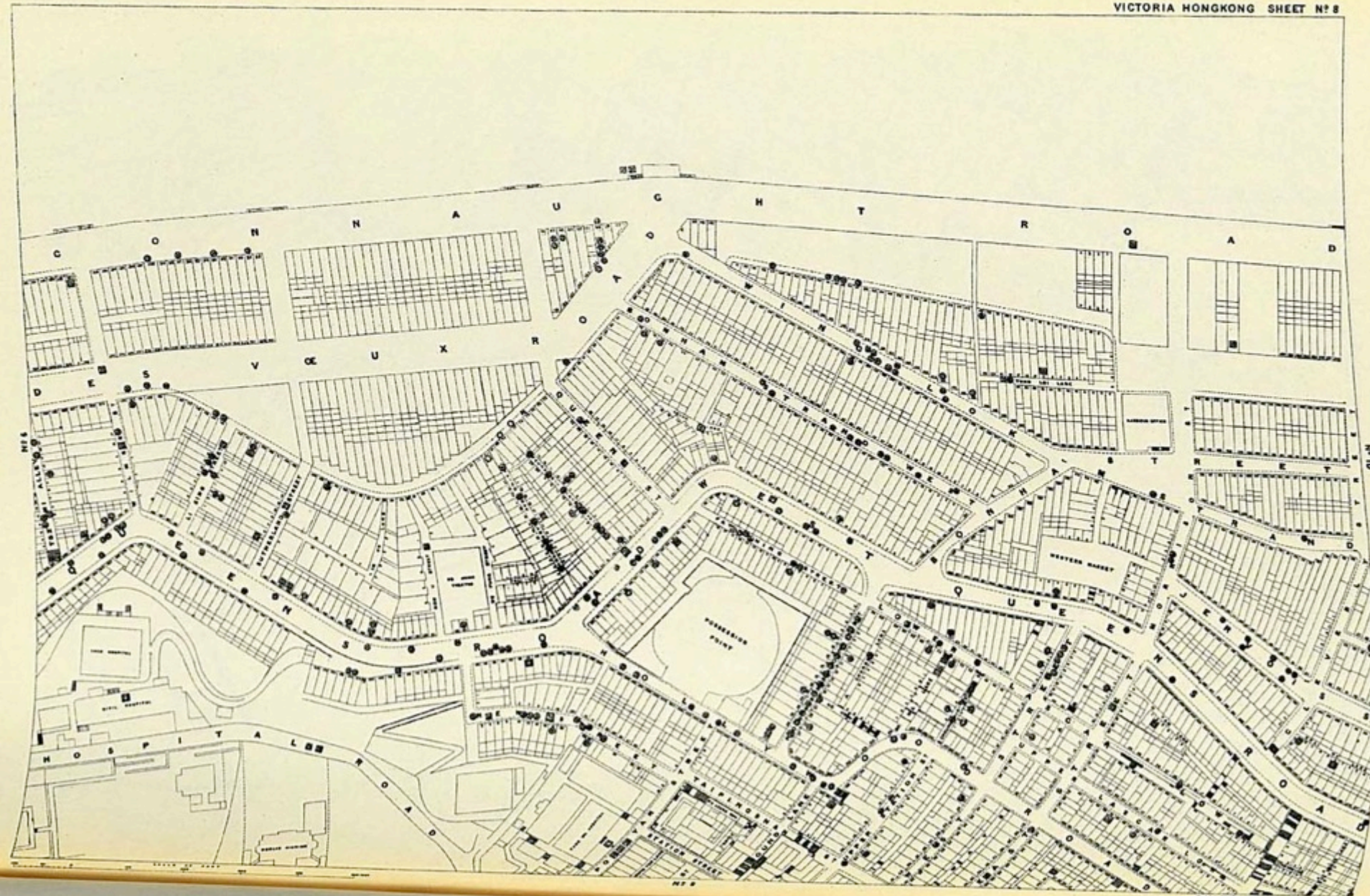
VICTORIA HONGKONG SHEET N° 7



- ☐ HUMAN PLAGUE.
 RAT PLAGUE.

THE NUMBER IN THE CIRCLE OR SQUARE REFERS TO THE WEEK IN WHICH THE CASE OCCURRED.

VICTORIA HONGKONG SHEET N° 8



*A Humorous Diplomatic Atlas of
Europe and Asia, 1904*

By Kisaburo Ohara at the
beginning of the Russo-Japanese
War (1904-5)

'Black Outpost' is a name newly given to Russia by a certain prominent Englishman. For the black outpost is so voracious, that he stretches out his eight arms in all directions, and seizes up every thing that comes within his reach. But as it sometimes happens he gets wounded seriously even by a small fish, owing to his too much covetousness. Indeed, a Japanese proverb says: "Great voracity is like unselfishness." We Japanese need not to say much on the cause of the present war. Suffice it to say, that the further existence of the Black Outpost will depend entirely upon how he comes out of this war. The Japanese fleet has already practically annihilated Russia's naval power in the Orient. The Japanese army is about to win a signal victory over Russia in Korea & Manchuria. And when..... St. Petersburg! Wait & see! The ugly Black Outpost! Hurrah! Hurrah! for Japan.

Nov. 1905. Kinsuro Ohara.

關生先平建村中 士博學法
案君郎三喜原小 生學大藝教慶

圖地交外亞歐

A HUMOROUS DIPLOMATIC ATLAS
OF EUROPE AND ASIA



滑替
歐亞外交地圖
附言
說明

此圖係作者於一九〇五年十一月間，在東京繪成。當時日俄戰爭尚未結束，作者有感於俄國之勢力過於擴張，故以「黑 outpost」為喻，繪成此圖。圖中將俄國描繪為一隻巨大的八腕章魚，其八腕分別伸向歐洲、亞洲、非洲、大洋洲、北美洲、南美洲、澳洲及日本。此種描繪，實為對俄國勢力之諷刺。作者為日本畫家小原喜三郎，其名為「滑替」。

大日本帝國萬歲!!!
明治三十七年三月

著作權所有

全圖係作者於一九〇五年十一月間，在東京繪成。

第四版

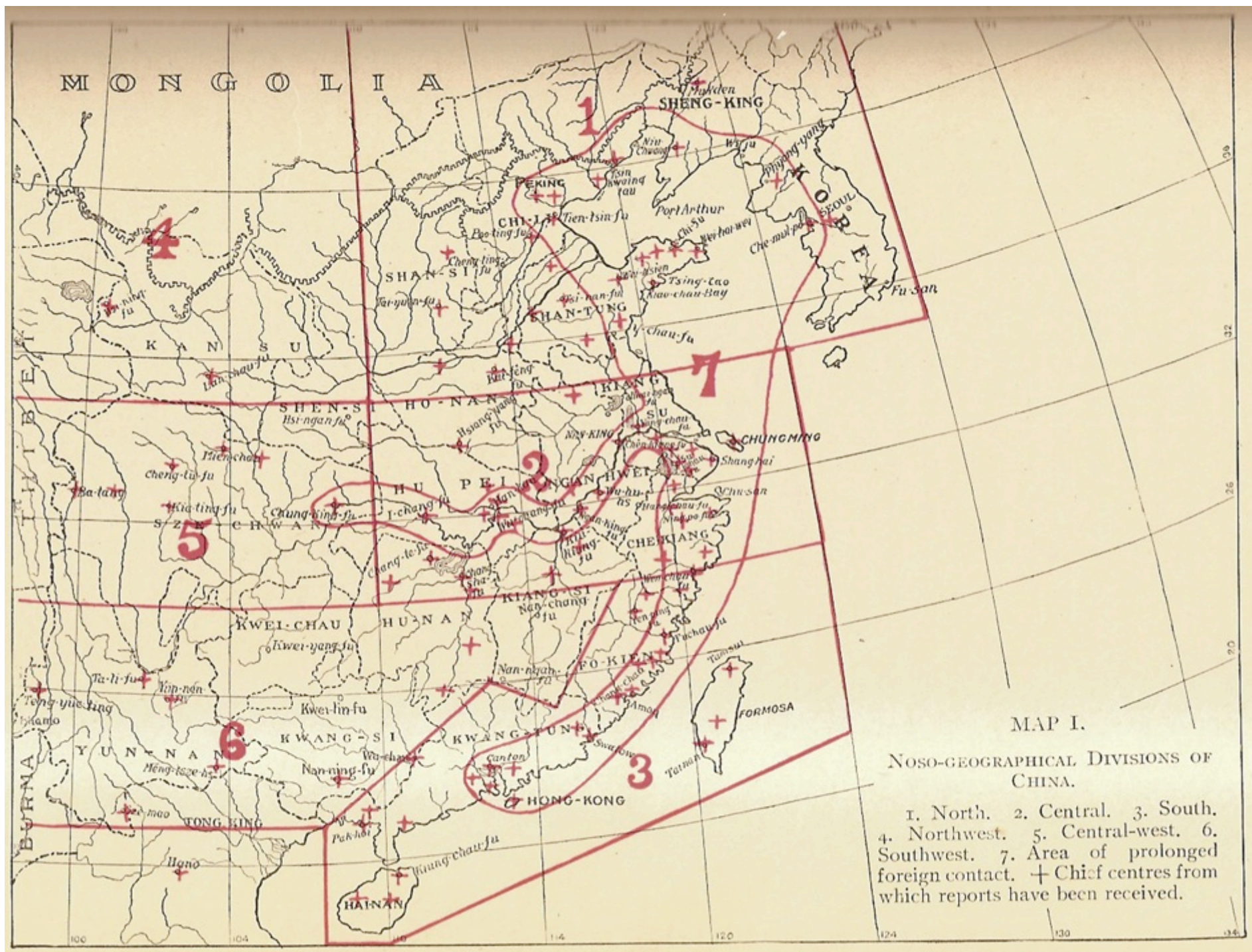
發行所 東京市丸の内區丸の内三丁目 小西天津館

*The Diseases of China, Including
Formosa and Korea, 1910*

PART IV

*The Diseases of China, Including
Formosa and Korea, 1910*

By Drs. Hamilton W/ Jefferys and
James L. Maxwell



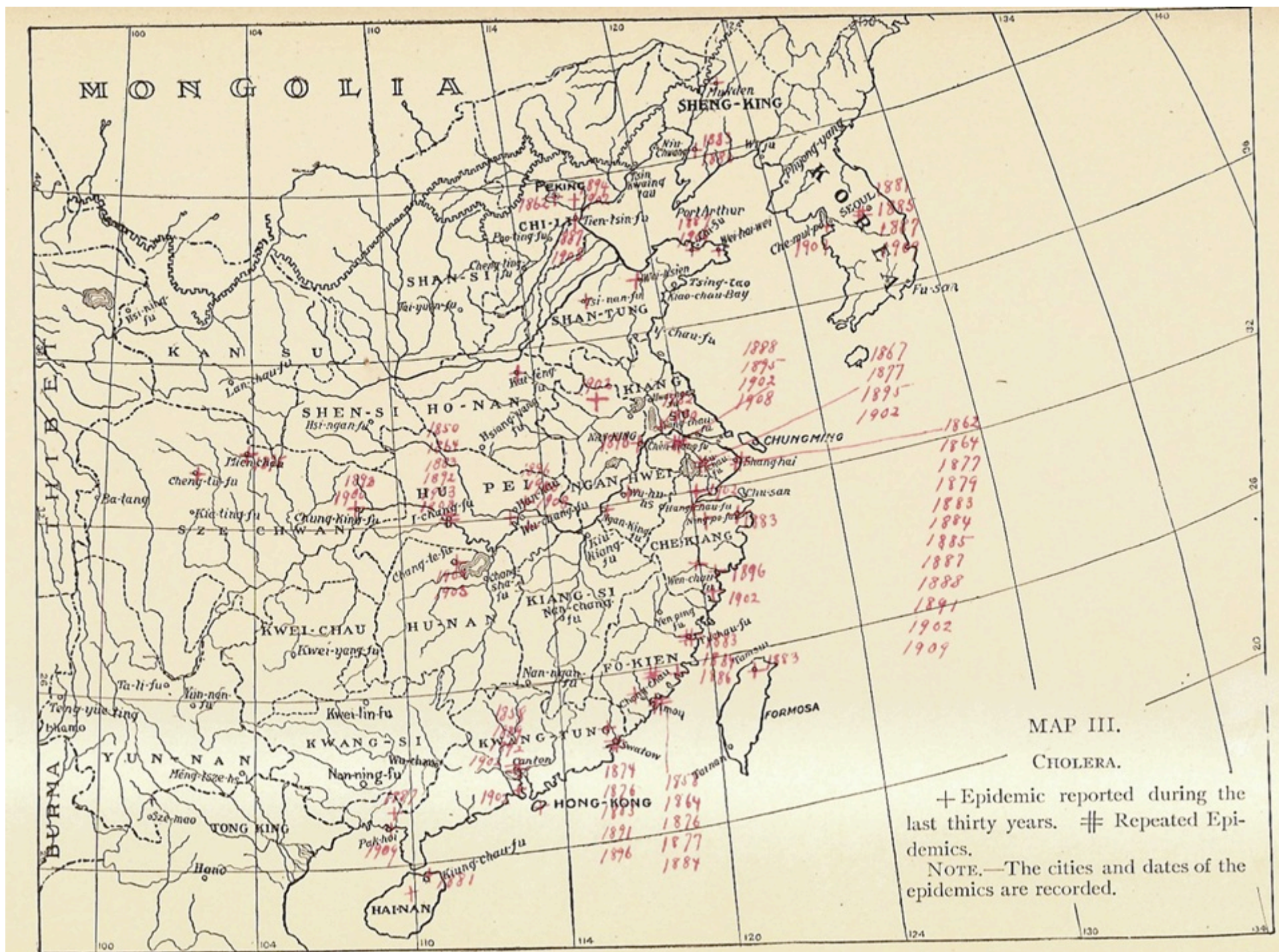
MAP I.

NOSO-GEOGRAPHICAL DIVISIONS OF CHINA.

1. North. 2. Central. 3. South.
4. Northwest. 5. Central-west. 6.
Southwest. 7. Area of prolonged
foreign contact. + Chief centres from
which reports have been received.

It may be taken as a starting-point that, as in our past experience in other land, the distribution of disease in China will **be largely governed by climatic conditions** [bold lettering is original]; and if we add to this factor that of the influence of lines of travel, and especially of foreign contact with the formerly for centuries undisturbed China, we have named the two points which will have the most influence on any diagrammatic representation of the subject that we may attempt (Diseases of China, 1910 p. 30).





Map of the Manchurian Plague Epidemic, 1910-11

Russian Source

PART V



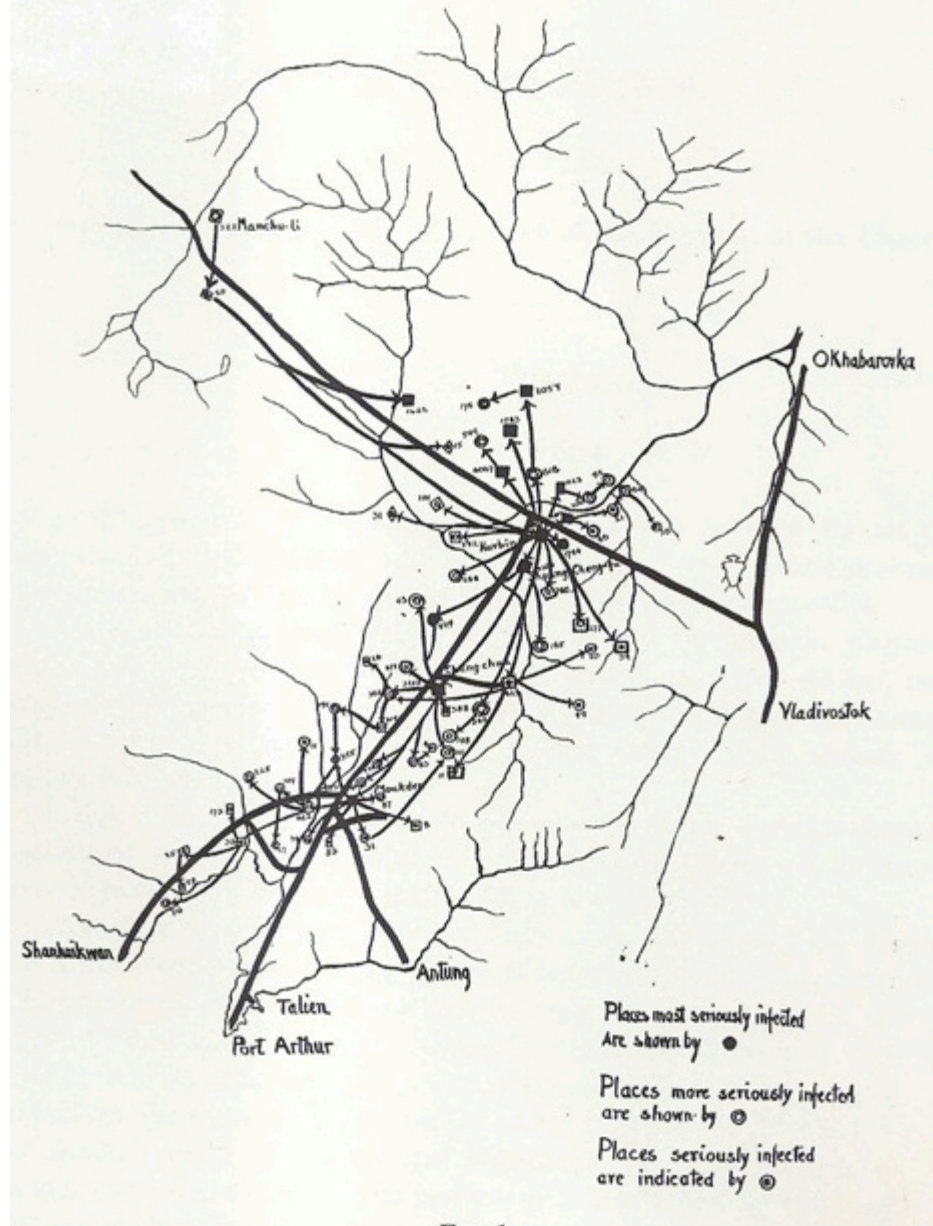
Figure 1.17 Russian plague map of Harbin. Location of cases and deaths from plague in the railway and port city of Harbin, Manchuria, 1911–12. Also mapped are the positions of various plague control facilities. Source: Khmara-Borshchevskii (1912).

Map of the Manchurian Plague Epidemic, 1910-11

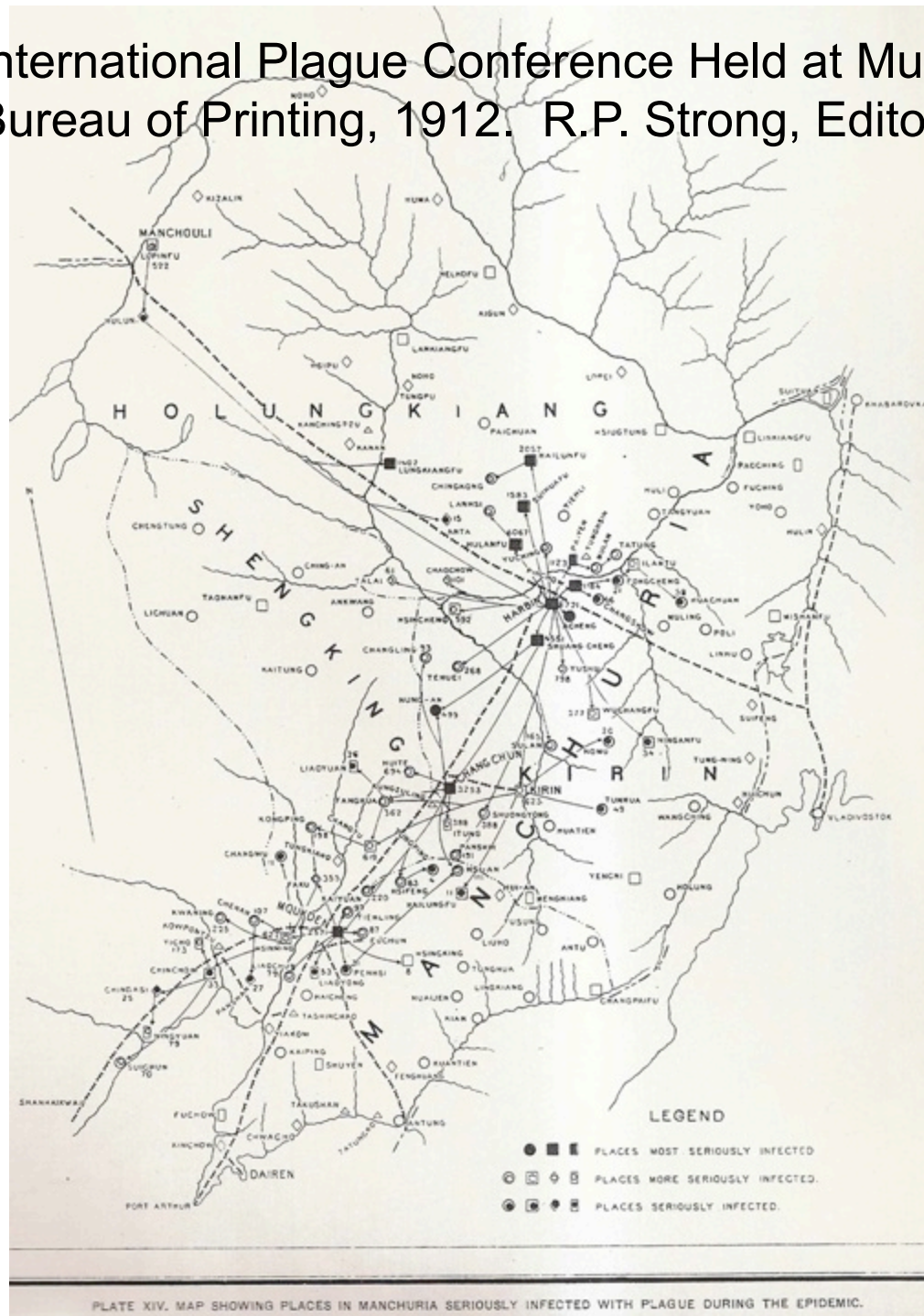
English Language Sources

Part V

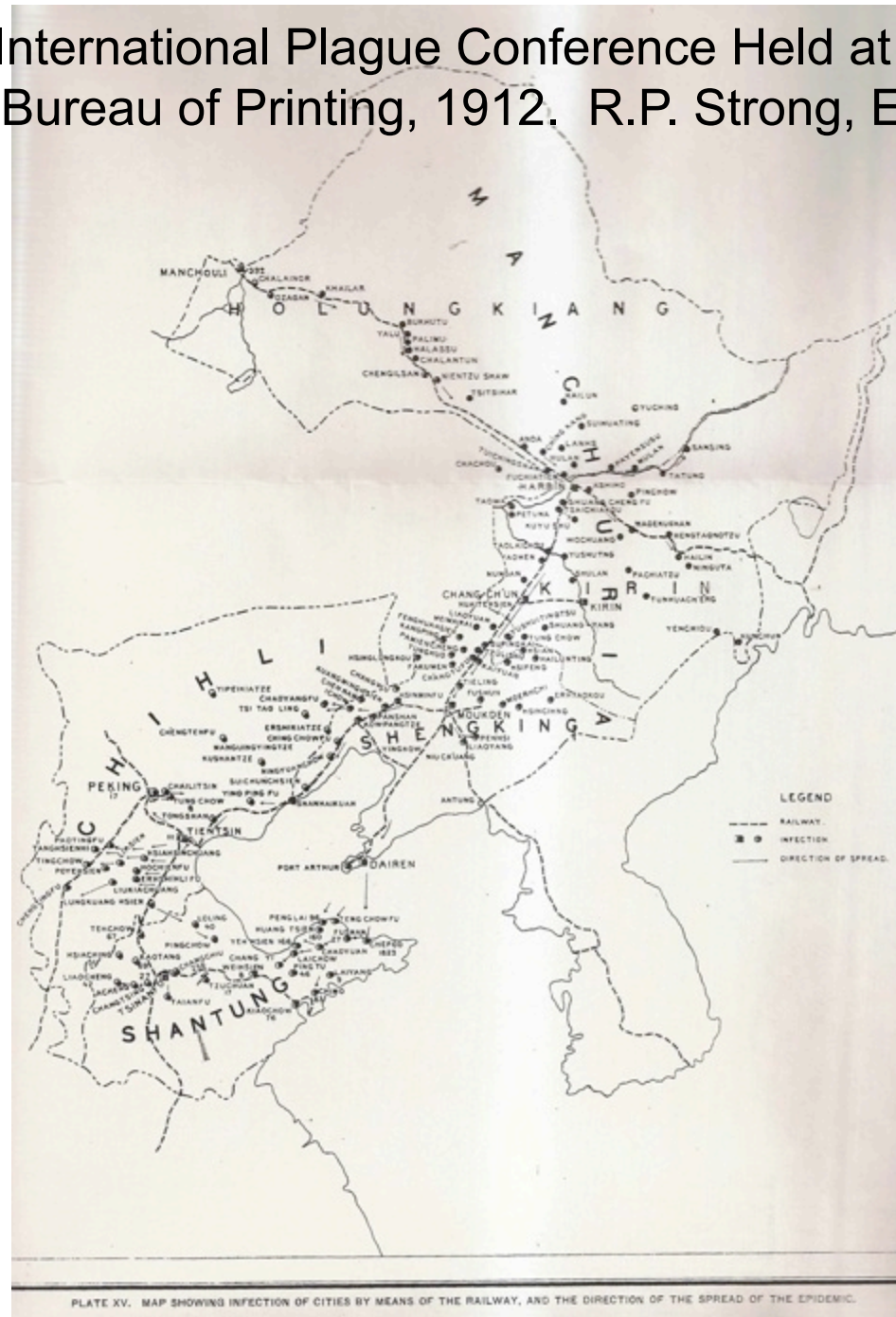
Proceedings of the Royal Society of Medicine v.5, part 2, 1912.



"Report of the International Plague Conference Held at Mukden, April 1911"
 Manila, Bureau of Printing, 1912. R.P. Strong, Editor. Plate XIV



"Report of the International Plague Conference Held at Mukden, April 1911"
 Manila, Bureau of Printing, 1912. R.P. Strong, Editor. Plate XV



Wu Lien-teh 伍连德 (1879-1960)
Penang, Malayan-Chinese



Maps from the North Manchurian
Plague Prevention Service
Reports, 1918-1928

PART VI

圖詳地各疫肺生發省三東

MAP OF PLAGUE REGION, MANCHURIA, 1921.

Dates after names indicate first cases recorded; arrows indicate first invasion of plague 1920.



Plague Fighter: The Autobiography of a Modern Chinese Physician (1959)



Office in the New Laboratory, Harbin completed in 1920, with steam-heating and running water supplied from artesian well. Working under such conditions during both winter and summer was much pleasanter.

圖點中疫鼠生發亞細亞北東

Map of North Eastern Asia showing important Plague Centres.



圖明說域區疫鼠有固

MAP TO ILLUSTRATE ENDEMIC PLAGUE AREAS.

GUIDE TO MAP.

- 1a. Benghazi, Tripolitania
- 1b. Morocco
- 2a. Victoria Nyanza
- 2b. Mauritius and Reunion
- 3. Assyr
- 4. Khurdistan
- 5. Kumaon and Gurwhal
- 6. Yunnan
- 7a. Transbaikalia
- 7b. Outer Mongolia
- 8. Inner Mongolia
- 9. Thibet
- 10a. Chinese Turkestan
- 10b. Semiretchinsk
- 10c. Russian Turkestan
- 11. Persia
- 11a. Khorassan.
- 11b. Seistan.
- 12. Astrakhan.



Plague:
A Manual for Medical and Public
Health Workers, 1936

By Wu Lien-teh, J. W. H. Chun,
R. Pollitzer, and C. Y. Wu
Weishengshu, Shanghai Station:
National Quarantine Service

BUBONIC
PLAGUE

腺 疫 症



Fig. 89: Propaganda poster of bubonic plague

(Designed by Dr. Wu Lien-teh)

Divided into six sections: 1. geographical distribution in (a) the world and (b) China; 2. causation; 3. mode of transmission; 4. signs and symptoms; 5. preventive measures (inoculation, rat-proofing, etc.); 6. treatment.

腺 疫 宣 傳 圖 解

BUBONIC PLAGUE

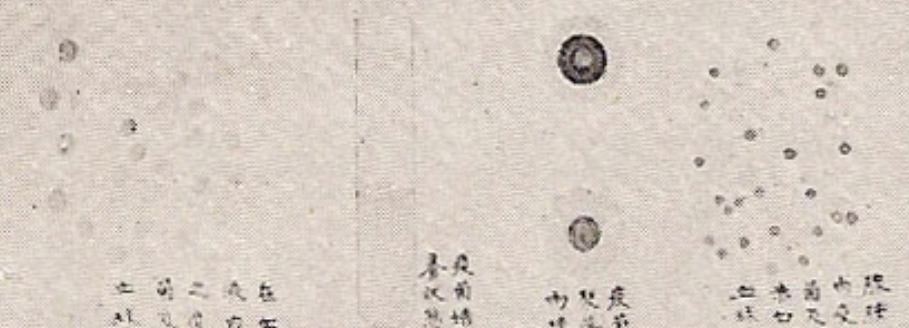
腺 疫 症



紅線示流行地

地理關係
溫帶如亞細亞
亞非利加南美
加爾仿尼亞吾
國廣東福建有
時山西東省綏
遠蒙古西伯利
亞西各部

Geog. Distribution (China World)



原因
短桿細菌
兩端有黴
染在各處
養基易發
育

Causation



傳染
甲家鼠兩種又
由鼠蚤傳染
人類
乙野鼠按各地
所產類不同
如東省及西
伯利亞產旱
獺等

Mode of Transmission

Earliest example of mapping disease in China in Chinese and intended for ordinary Chinese



Propaganda poster of bubonic plague 腺疫宣傳圖解 *Xianyi xuanchuan tujie*

Detail of the Geographical distribution in a) the world and b) China

肺疫症



Fig. 90: Propaganda poster of pneumonic plague.

(Designed by Dr. Wu Lien-teh)

Comprising as usual six sections. Among the more prominent features may be seen the part played by the tarabagan (Siberian marmot), underground habitation, direct coughing from patient to contact, use of cotton masks for protection and a model plague ward having glass partition between medical attendant and patient.

肺 疫 宣 傳 圖 解

PLAGUE
N. Q. S., Shanghai

PNEUMONIC PLAGUE

肺 疫 症

地理關係

局部倒多在腺疫
區越又東省俄國
埃及至阿非利加
曾於一九一零至
二一一年在東省一
九一七年至一八
軍在山面敘述有
時在加爾各答印
度及福建等地方流
行

七
年
七
月
廿
四

Geog. Distribution { China
World

China

The World

原因

與鼠疫菌風
但侵入門異
疫者含黃
由咬傷染東
省旱獭整年
保存疫菌時
常獭中疫流
行

Causation

疫菌肺炎菌(二十倍)

肺如形若肺子

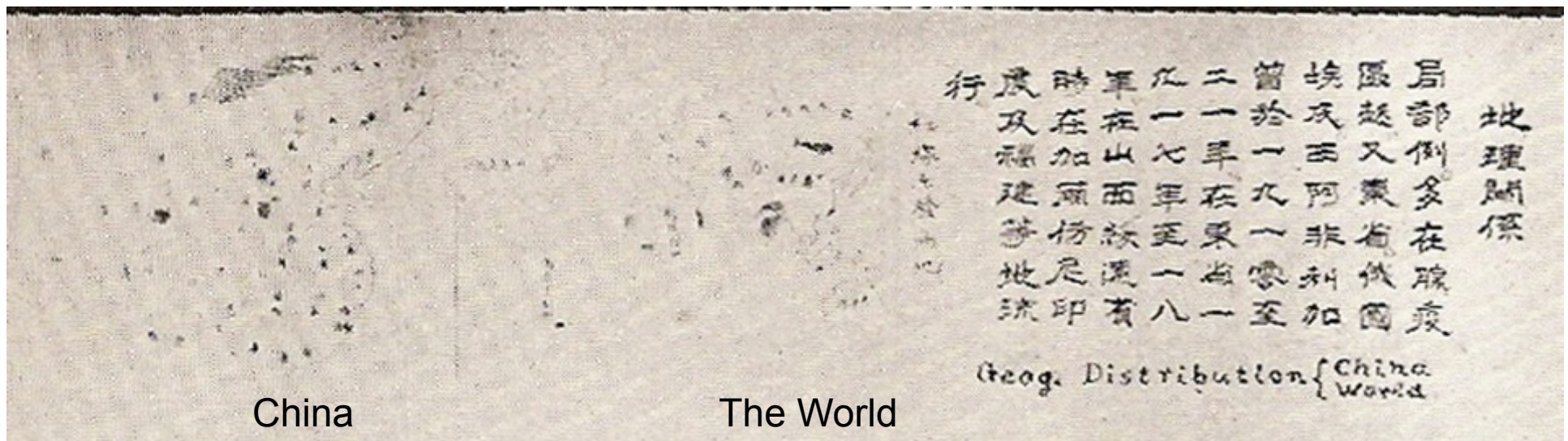


肺如形若肺子



肺子場
金剛人

Earliest example of mapping disease in China in Chinese and intended for ordinary Chinese



Propaganda poster of pneumonic plague 肺疫宣傳圖解 *Feiyi xuanchuan tujie*

Detail of the Geographical distribution in a) the world and b) China

CHOLERA

霍亂症



Fig. 13. POSTER DESIGNED BY DR. WU LIEN-TEH, DIRECTOR OF THE MANCHURIAN PLAGUE PREVENTION SERVICE (HARBIN, 1928). THERE ARE 6 SERIES OF PICTURES SHOWING FROM ABOVE DOWNWARDS: DISTRIBUTION, CAUSE, MODE OF SPREAD, SYMPTOMS, PROPHYLAXIS AND TREATMENT.

伍連德博士所製之貼紙

CHOLERA

霍亂症



地理關係

霍亂症在印
度、暹羅、安南、
阿拉伯、又在
吾國、南、中、各
省、上海、流行
時、由航輪、傳
染、入、東、省、各
埠。

中、外、各、埠、均、有、此、症。

China

The World

原因

為霍亂
桿菌在
鹼性培
養基中
發育、
發、黃、
變、毛、
動、及、
染色。

霍亂症之病原



霍亂症之病原

霍亂症之病原

霍亂症之病原