

CONTENTS

<i>List of Plates</i>	xvii
<i>List of Maps</i>	xix
<i>List of Figures</i>	xxi
<i>List of Tables</i>	xxiii
<i>List of Abbreviations</i>	xxv
I. THE WORLD THE MERCHANTS MADE	
a. Patricians and Politics	I
b. Fractions of Capital	28
c. Standards of Living	50
d. The Threat from Below	78
2. THE URBAN ENVIRONMENT	
a. Soap and Civilization	109
b. The Politics of Pollution	126
c. Troubled Waters	144
d. A Varied Diet	161
3. MATTERS OF LIFE AND DEATH	
a. Patterns of Mortality	180
b. Doctors' Dilemmas	205
c. The Challenge of Cholera	226
d. Empire of Germs	256
4. THE GREAT EPIDEMIC	
a. From Concealment to Catastrophe	285
b. Healing the Sick	327
c. Fear and Panic	346
d. Guilty Men	372

5. DIMENSIONS OF INEQUALITY	
a. Income and Class	403
b. Social Geography	416
c. Occupation and Age	433
d. Male and Female	450
6. REMAKING A WORLD	
a. The Limits of Compassion	470
b. Pettenkofer's Last Stand	490
c. Poverty and the State	508
d. Hamburg, Germany, and the World	539
<i>Statistical Appendix</i>	569
<i>Bibliography</i>	595
<i>Index</i>	627

LIST OF PLATES

Between pages 326 and 327

- 1 Burgomaster Johann Georg Mönckeberg (Staatsarchiv Hamburg, Bildsammlung)
- 2 Senator Gerhard Hachmann (Staatsarchiv Hamburg, Bildsammlung)
- 3 Senator Johannes Versmann (Staatsarchiv Hamburg, Bildsammlung)
- 4 Dr Heinrich Gieschen, President of the Property-Owners' Association 1878-96 (from Renate Hauschild-Thiessen, *Hundertfünfzig Jahre Hamburger Grundeigentümer-Verein*, Grundeigentümerversammlung zu Hamburg, 1982)
- 5 The Hamburg fleets (Herrengabelfleet at low tide: Staatliche Landesbildstelle, Hamburg)
- 6 Flood in the Neustadt (drawing by C. Förster, in J. C. W. Wendt and C. E. L. Kappelhoff, *Hamburgs Vergangenheit und Gegenwart. Eine Sammlung von Ansichten*, Hamburg, 1896, p. 259)
- 7 The Alley Quarters (courtyard in the Johannishöllwerk, called 'De scheebe Stebel,' from Fritz Lachmund and Rolf Müller, *Hamburg Seinerzeit zu Kaiserzeit*, Topographikon-Verlag Rolf Müller, Hamburg, 4th edn., Hamburg, 1976, p. 38)
- 8 Emigrants' lodging-house and rag-dealer's shop (in the 'Binnen-kajen,' after a drawing by Ebba Tesdorpf, in Wendt and Kappelhoff, *Hamburgs Vergangenheit und Gegenwart*, p. 209)
- 9 A one-room apartment in the Alley Quarters (Rademachergang, 1896, Staatliche Landesbildstelle Hamburg)
- 10 Toilets in the Alley Quarters (communal closets in the 'Langer Jammer' about 1890, Staatliche Landesbildstelle Hamburg)
- 11 William Lindley, sanitary engineer (Staatsarchiv Hamburg, Bildsammlung)
- 12 The German Crown Prince on a tour of the Hamburg sewers (print by H. Kaesebers, 1895. From Volker Plagemann (ed.), *Industriekultur in Hamburg*, C. H. Beck Verlag, Munich, 1984, p. 128; original in Museum für Hamburgische Geschichte)
- 13 Clearance of dwellings to make way for the new harbour, 1880s (demolition of the Brook- and Kehrwieper peninsula, 1885, from Lachmund and Müller, *Hamburg Seinerzeit*, p. 10)
- 14 Cholera in Hamburg 1832 (map from J. N. C. Rothenburg, *Die Cholera-Epidemie des Jahres 1832 in Hamburg*, Hamburg, 1836, copy in library of Staatsarchiv Hamburg)
- 15 Robert Koch (Staatliche Landesbildstelle, Hamburg)
- 16 Max von Pettenkofer (BBC Hulton Picture Library)
- 17 A cholera case in the tram (from *Über Land und Meer*, *Deutsche Illustrierte Zeitung*, 4 (1892), p. 80, Staatliche Landesbildstelle Hamburg)
- 18 Hospitalization of the sick ('Enlèvement de cholériques dans la Niedernstrasse,' *L'Illustration* 2,586, 17 Sept. 1892, p. 233, Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)

- 19 The city ambulance (Staatsarchiv Hamburg, Medizinalkollegium II N 3, Vol. I, Bl.82)
- 20 A cholera death in the home ('Verwaist,' *Die Gartenlaube*, 43 (1892), p. 717, Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 21 Cholera barracks and field hospital in Hamburg, 1892 ('Armee-Feldlazareth, errichtet für Cholerakranke,' No. 4 from *Hamburger Bilder aus der Cholera-Zeit*. Lichtdruck und Verlag von Knackstedt und Näther, Hamburg-Eppendorf 1892, in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 22 Inside the cholera barracks, October 1892 ('Inneres einer Cholerabaracke vor dem Marienkrankenhaus,' Staatliche Landesbildstelle Hamburg)
- 23 The municipal cemetery during the 1892 epidemic ('Begräbnisstätte der Choleraleichen,' *Illustrierte Zeitung* 2569, 24 Sept. 1892, p. 375, in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 24 Burial in a mass grave ('The Cholera-Stricken City: An Open Grave in the Cholera Cemetery at Hamburg,' *The Graphic*, 46, No. 1, 1892, 8 Oct. 1892, p. 424)
- 25 Distribution of boiled water during the epidemic ('Verteilung gekochten Wassers am Messberg,' No. 3 from *Hamburger Bilder aus der Cholera-Zeit*. Lichtdruck und Verlag von Knackstedt und Näther, Hamburg-Eppendorf, 1892, in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 26 A disinfection squad poses for the camera in front of the disinfecting machine ('Angestellten des provisorischen Desinfektionsanstalts,' photographed by an amateur (Herr Feuerbach), 1892, G35d1 in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 27 The disinfection squad at work ('Eine Desinfektionskolonne vertheilt Anweisungen,' *Illustrierte Zeitung* 2,569, 24 Sept. 1892, p. 344, in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 28 Fear in Hamburg: the chemist does a roaring trade ('Vor einer Apotheke,' *Illustrierte Zeitung* 2,569, 24 Sept. 1892, p. 344, in Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 29 Fear outside Hamburg: The Hunters Hunted (*Kladderadatsch*, 25 Sept. 1892, in library of Staatsarchiv Hamburg)
- 30 Fear outside Hamburg: The Cholera-free Town Council (*Kladderadatsch*, 25 Sept. 1892, in library of Staatsarchiv Hamburg)
- 31 Fear outside Hamburg: Bismarck Disinfected (*Kladderadatsch*, 25 Sept. 1892, in library of Staatsarchiv Hamburg)
- 32 The charitable effort: a temporary soup-kitchen erected during the epidemic ('Speisehalle, Hansaplatz,' photographed by an amateur (Herr Feuerbach), P51-91a Staatsarchiv Hamburg, Plankammer 272, Medizinalwesen Mappe I)
- 33 The aftermath: clearance of the Alley Quarters, 1913 (demolition of the district south of the Steinstrasse, from Lachmund and Müller, *Hamburg Seinerzeit*, p. 89)
- 34 The aftermath: administrative reform ('Der Abschied der Cholera,' *Deutsche Wespen*, 30/42 1892 in library of Staatsarchiv Hamburg)
- 35 Remember the dead: a memorial placard (Staatsarchiv Hamburg)

LIST OF MAPS

1	Hamburg in December 1892: the districts (<i>Bezirke</i>) and their population	55
2	Percentage of surface area with housing, by district, Hamburg 1896	55
3	Inhabitants per hectare of built-up land, by district, Hamburg 1892	57
4	Annual per capita income, by district, Hamburg 1892	57
5	Economically independent occupied persons, by district, Hamburg 1895	59
6	Wage-earning manual workers, by district, Hamburg 1895	59
7	White-collar workers and overseers, by district, Hamburg 1895	61
8	Persons occupied in trade and transport by district, Hamburg 1895	61
9	Persons occupied in industry and building, by district, Hamburg 1895	63
10	Percentage of households with living-in servants, by district, Hamburg 1890	63
11	Percentage of accommodation rented for below 300 Marks a year, by district, Hamburg 1892	70
12	Percentage of households with lodgers, by district, Hamburg 1890	70
13	National Liberal vote, by district, Hamburg, Reichstag election 1890	83
14	Left-Liberal vote, by district, Hamburg, Reichstag election 1890	83
15	Social Democratic vote, by district, Hamburg, Reichstag election 1890	85
16	Citizens per thousand inhabitants, by district, Hamburg 1892	85
17	Percentage of households with own bathroom, by district Hamburg 1892	117
18	Average annual mortality rate, by district, Hamburg 1887-91	182
19	Average annual deaths from tuberculosis, by district, Hamburg 1885-94	187
20	Average annual typhoid mortality, by district, Hamburg 1885-8	193
21	Infant mortality, by district, Hamburg 1894	201
22	Crude birth rate, by district, Hamburg 1892	202
23	Illegitimate births per hundred births, by district, Hamburg 1892	204
24	Deaths from cholera on the Russo-German border, 1873	263
25	Deaths from cholera on the Russo-German border, 1894	280
26	Cholera on the Hamburg-Altona boundary, August-November 1892	291
27	Cholera in the German Empire 1892	298
28	Jews in Hamburg (1905), by district: absolute numbers	393
29	Anti-Semitic vote, by district, Reichstag election, Hamburg 1893	395
30	Cholera morbidity rate, by district, Hamburg 1873	417
31	Cholera mortality rate, by district, Hamburg 1873	418
32	Cholera morbidity rate, by district, Hamburg 1892	419
33	Cholera mortality rate, by district, Hamburg 1892	420
34	General mortality rate, by district, Hamburg 1892	421
35	Excess mortality, by district, Hamburg 1892 (1887-91 = 100)	422
36	Average increase in per capita income, by district, Hamburg 1889-1910	535
37	Decline in birth rate, by district, Hamburg 1890-1910	535

38	Mortality decline, by district, Hamburg 1890-1910	537
39	Decline in infant mortality, by district, Hamburg 1894-1910	537
40	Decline in tuberculosis mortality, by district, Hamburg 1894-1910	538
41	Infants per thousand inhabitants, by district, Hamburg 1890	585
42	Case-specific cholera mortality rate, by district, Hamburg 1892	586
43	Typhoid morbidity rate, by district, Hamburg 1892	587

LIST OF FIGURES

1	Population growth in Hamburg, 1821-1913	53
2	Mortality rate in Hamburg, 1820-1910	181
3	Tuberculosis mortality in Hamburg, 1820-1900	185
4	Typhus/typhoid in Hamburg, 1820-1900	190
5	Infant mortality in Hamburg, 1820-1960	198
6	Deaths from 'vomiting and diarrhoea,' Hamburg 1820-1900	199
7	Cholera in Hamburg before 1892	252
8	Russian citizens leaving Hamburg and Bremen for the USA, 1879-1905	281
9	Cholera cases in Hamburg, August-October 1892	293
10	Deaths from cholera in Hamburg, August-October 1892	294
11	Monthly death rates (per 1,000 inhabitants) for Hamburg, 1886-93	296
12	The eight major causes of death in Hamburg, 1892	297
13	Cholera in the German Empire, 1892	299
14	The flight from the city, August 1892	348
15	Number of communes and districts in the German Empire reporting cholera cases in 1892, by day	375
16	Residential migration into Hamburg, May-October 1891 and 1892	377
17	Guests registered in Hamburg hotels, August-November 1891 and 1892	378
18	Incidence of cholera by income group, Hamburg 1892	408
19	Occupation-specific cholera morbidity and mortality rates for major occupations, Hamburg 1892	435
20	Cholera morbidity and mortality rates by age-group, Hamburg 1892	446
21	Case-specific cholera mortality by age-group, Hamburg 1892	447
22	Sex-specific cholera mortality by age-group, Hamburg 1892	452
23	Sex-specific cholera morbidity by age-group, Hamburg 1873	453
24	Sex-specific cholera mortality by age-group, Hamburg 1873	454
25	Sex-specific excess mortality by age-group, Hamburg 1892 (1882-91 = 100)	455
26	Breakdown of cholera cases and deaths in households with two cholera cases or deaths, Hamburg 1892	459
27	Mortality rates among men, women, and children treated for cholera at home and in hospital, for St Georg Nord (families with more than one member suffering from cholera), 1892	460
28	Cholera corpses delivered to the public mortuaries in Hamburg, by sex, 22 August to 30 September 1892	462
29	Hamburg state budget: surplus and deficit 1890-6 (in Marks)	510
30	Weekly deaths from old age, Hamburg 1892	573
31	Cases of <i>cholera nostras</i> in Hamburg, 1892, by week	574

32	Deaths from diarrhoea and ‘summer cholera’ of infants under one year of age, by month, Hamburg 1889–92	575
33	Typhoid in Hamburg 1892: cases and deaths per week	577
34	Case-specific cholera mortality in selected occupational groups, Hamburg 1892	581

LIST OF TABLES

1	East and West Uhlenhorst: social characteristics in 1895	58
2	Average annual sex-specific typhoid morbidity rates by district, Hamburg 1885-8, among adults	191
3	Cholera morbidity and mortality in Berlin, 1831-73	260
4	Daily reported cholera cases and deaths, Hamburg 1892	295
5	Previous convictions of workers employed in the disinfection columns in Hamburg, 1892	323
6	Morbidity and mortality rates for Heine's Platz, Hinter dem Strohhaue 22, apartments with and without water-closets	425
7	Cholera morbidity and mortality by average living space per person, Hamburg 1892	427
8	Cholera deaths and cases by age group, Hamburg 1892	445
9	Sex-specific cholera morbidity and mortality rates for St Georg Nord, 1892	464
10	Excess mortality in Hamburg, 1892, from selected causes, among children aged 0-5	572
11	Cholera cases and deaths by occupation, Hamburg 1892	582
12	Live births per thousand population, Hamburg 1890-95	583
13	Rank-order of cholera morbidity correlations, Hamburg 1892	591
14	Rank-order of cholera mortality correlations, Hamburg 1892	591
15	Correlation matrix for cholera morbidity and mortality and twelve independent variables, for 20 districts, Hamburg 1892	593
16	The decline of mortality in Hamburg 1890-1910; correlations of income levels, birth rates, and mortality rates	594