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Gateways of Disease. Public Health in European and Asian Port Cities at the Birth of the Modern world in the late 19th and early 20th century

Introduction

Port Cities have played a critical role in international development and modernisation. Marketing and trade were important factors which affected the pattern of urban expansion or decline, and ports, after capital cities, frequently registered the greatest growth.¹ Port cities, therefore, served as the nexus of the growing world market. In the case of China and Japan, port cities played an even more pronounced role. They often were the main, and in Japan even the single inlet into the country and its hinterland. In China the so-called ‘treaty-ports’ served as bridgeholds for European colonialism. And the isolation of Japan – only accessible via the famous port of Deshima in the bay of Nagasaki – was intruded by the blockade of Yokohama, the harbour of the capital Tokyo.²

As a consequence of this function as hubs of the international streams of trade and traffic, port cities were invariably prone to an increased risk of exposure, particularly

¹ Lee, R. (1998): The Socio-Economic and Demographic Characteristics of Port Cities: a Typology for Comparative Analysis. In: *Urban History* 25: 147-172; Lawton R., Lee, R. (1989): Introduction: The Framework of Comparative Urban Population Studies in Western Europe, c 1750-1920. In: Lawton R., Lee, R. (eds.): *Urban Population Developments in Western Europe from the Late-Eighteenth to the Early-Twentieth Century*. Liverpool University Press, Liverpool, p. 1-26; Lawton R., Lee, R. (eds.) (2002): *Population and Society in Western European Port-Cities c. 1650-1939*. Liverpool University Press, Liverpool.

² Vögele, J., Fehle mann, S., Lee, R. (2004): “Kontakträume” – Europäische Hafenstädte während der Industrialisierung. In: Borsò, V., Gör ling, R. (eds.): *Kulturelle Topografien*. Metzler, Stuttgart, p. 213-228; Lawton/Lee 2002. Liverpool; Vögele, J. (2004): “Tore zum Tod”? – Zur Sterblichkeit in Hafenstädten. In: *Schiff und Zeit* 59: 28-32; Vögele, J. (2003): *Hafenstadt und Gesundheit im 19. Jahrhundert*. In: *Informationen zur modernen Stadtgeschichte* 2: 14-17; Amenda, L., Fuhrmann, M. (eds.) (2007): *Hafenstädte: Mobilität, Migration, Globalisierung [Comparative 17(2)]*. Leipzig; Vögele, J., Schulte Beehrbühl, M. (eds.) (2004): *Spinning the Commercial Web. International Trade, Merchants, and Commercial Cities, c. 1640-1939*. Peter Lang, Frankfurt. a. M.; Vögele, J., Schulte Beehrbühl, M. (2009): *Räumliche Konstruktion und soziale Normen in Handelsnetzwerken des 18. Jahrhunderts*. In: Fangerau, H., Halling, T. (ed.): *Netzwerke. Allgemeine Theorie oder Universalmetapher in den Wissenschaften. Ein transdisziplinärer Überblick*. transcript, Bielefeld, p. 93-110. About shipping and trade-networks in East Asia cf. Hamasita, T. (2001): *Tribute and Treaties: East Asian treaty ports networks in the era of negotiation, 1834-1894*. In: *European journal of East Asian studies* 1: 59-87; Hamasita, T. (1997): *The Intra-regional System in East Asia in Modern Times*. In: Katzenstein, P.J., Shiraishi, T. (eds.): *Network power. Japan and Asia*. Cornell University Press, Ithaca/London, p. 113-135; Hamasita, Takeshi (ed.) (1999): *Higashi Azia Sekai no Chiiki Network (in Japanese), [Interregional networks in East Asia]*. Yamakawa Shuppan sha, Tokyo.; Osterhammel, J. (2009): *Die Verwandlung der Welt. Eine Geschichte des 19. Jahrhunderts*. C.H. Beck, Munich, p. 1036-1037.



to infectious diseases. Many of the predominant epidemic diseases, such as plague, cholera, typhoid and yellow fever, followed trade routes and were imported via port cities which, in turn, accelerated disease diffusion in coastal areas and dependent hinterlands. The individual demographic regimes of large ports were moulded by similar factors and extending trading networks, together with high levels of immigration, aggravated the latent exposure risks of the indigenous population to endemic and epidemic diseases. In this sense port cities can be perceived as “gateways of disease”, as “portals of death”, and an analysis of health in port cities must take into account as the global as well as the local perspective, in a modern phrase it has to focus on the “glocal approach” – which is superbly reflected by the cover illustration of Tony Lane’s *History of Liverpool* (Figure 1).

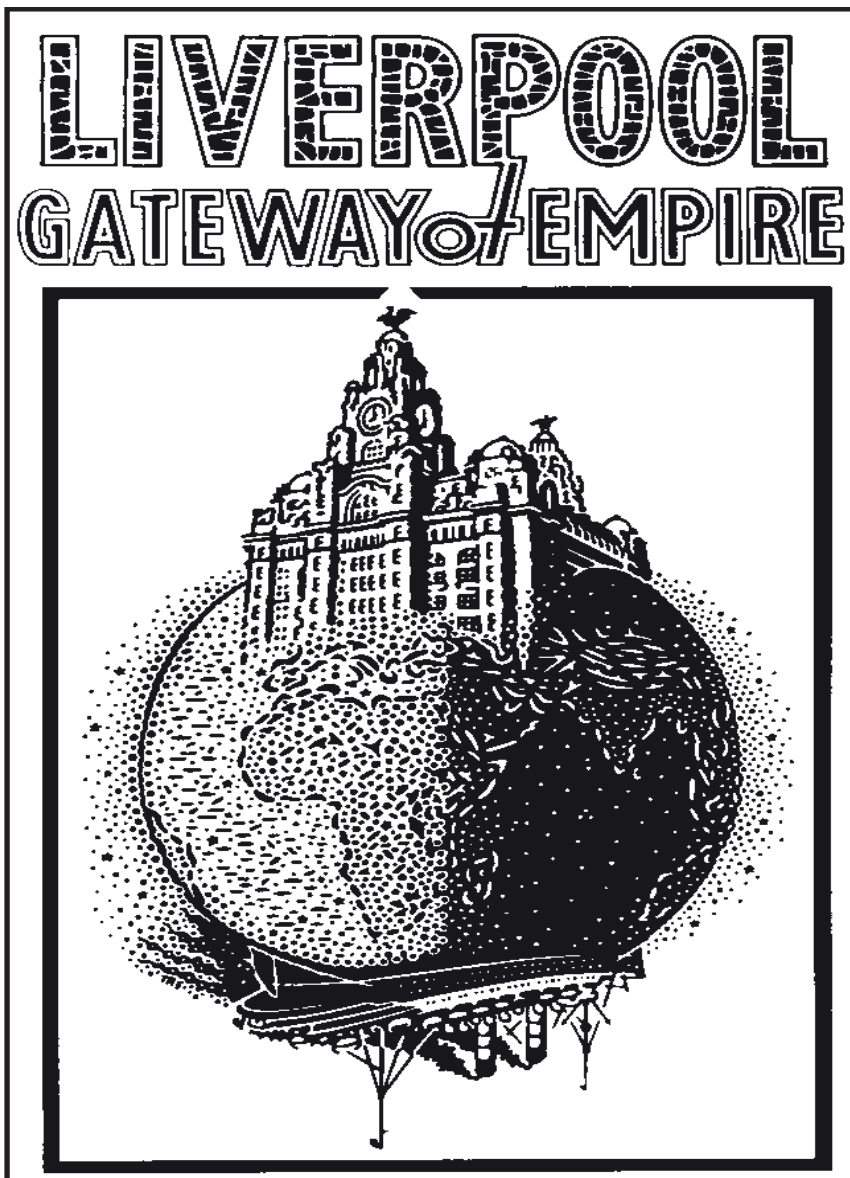


Figure 1: Gateway of Disease. Source: Lane, T. (1987): *Liverpool. City of the Sea*. Liverpool.

With the acceleration of trade and mass migration during the rising world economy also the diffusion of disease increased and accelerated – and included infectious diseases with a short incubation period (such as cholera) and a rapid transmission. Coming from the east, cholera swept through Europe from the 1830s onwards in various pandemic waves (Figure 2).³ In 1831 cholera was imported via ships to St. Petersburg and claimed more 6.000 casualties within the region until the end of the year.⁴ In May cholera had reached Danzig and other German port cities of the Baltic and the North Sea.⁵ From there the disease moved further westward along the trade routes via rivers and coastal areas towards English and Scottish port cities and from there – with the Irish emigration – to North and Middle. In the south-west Spain, Portugal and Northern Africa were affected.⁶ Another highly affected area was southern France, particularly Marseille and Toulon; from there ships carried the pathogen to Italian port cities such as Genua, Torino, Florence and Livorno.⁷ Similarly, the following pandemics followed the trade and shipping routes with devastating effects to the population of port cities: In Naples, the most important transit port in the Mediterranean for emigrants to Argentina and the US, cholera demanded about 20.000 casualties in 1884;⁸ Hamburg, for example, was in the 1890s heavily affected by the cholera with more than 8.000 victims within six weeks.⁹

So port cities are well known as places of intrusion and profusion of worldwide threatening acute epidemics like plague and cholera. The issue of port cities and well known ‘ordinary’ endemic infections, like typhoid, typhus or malaria seems to be a more hidden historical agenda. At the heights of imperialism many ports on the way to and also in the colonies had newly been built – mainly to subject the old or even newly gained territories to a global economic exchange, where the colonies produced the

³ Sticker, G. (1912): *Abhandlungen aus der Seuchengeschichte und Seuchenlehre*. Vol. 2: Die Cholera. Töpelmann, Gießen, p. 118-119; Haeser, H. (1882): *Lehrbuch der Geschichte der Medizin und der Epidemischen Krankheiten*. Vol. 3. Fischer, Jena, p. 933; Spink, W.W. (1978): *Infectious Diseases. Prevention and Treatment in the Nineteenth and Twentieth Centuries*. University of Minnesota Press, Minnesota, p. 142-167.

⁴ Olzscha, R. (1940): *Die Epidemiologie und Epidemiographie der Cholera in Rußland*. Schoetz, Berlin, p. 282-288.

⁵ Creighton, Ch. (1894[1]/1965[2]): *A History of Epidemics in Britain*. 2 volumes. Cambridge University Press, Cambridge, vol. 2, p. 794.

⁶ Haeser 1882, p. 798-943.

⁷ Haeser 1882, p. 825; Stolberg, M. (1992): *Die Cholera im Großherzogtum Toskana. Zur historischen Wissenssoziologie einer tödlichen Seuche*. Habilitation thesis, Munich, p. 20.

⁸ Snowden, F. M. (1995): *Naples in the Time of Cholera. 1884-1911*. Cambridge University Press, Cambridge.

⁹ Evans, R. (1987): *Death in Hamburg. Society and Politics in the Cholera Years 1830-1910*. Clarendon Press, Oxford.

basic materials, which were processed in the industrialised countries into products and then sold to the colonies. Thus, also old and well known diseases, which interfered in this world-wide exchange, came to a new awareness. Plague and cholera were of first interest because of the potential of international spread. But also local epidemics like typhoid or malaria got more and more interest, the narrower the commercial web was woven, and world-wide commerce increasingly spread disease.¹⁰



Figure 2: Cholera-pandemic in Europe 1829-1837. Source: Archiv Institut für Geschichte der Medizin, University of Düsseldorf.

¹⁰ Harrison, M. (2012): Contagion. How Commerce has Spread Disease. Yale University Press, New Heaven; Echenberg, M. J. (2007): Plague ports. The global urban impact of bubonic plague, 1894-1901. New York University Press, New York.



To give some examples: Besides the striking, but extremely expensive example of disease prevention during the building of the Panama-Canal, directed as well against yellow fever as malaria,¹¹ another example of a successful anti-malaria-campaign was situated in Ismailia, located at the Suez-Canal in 1902.¹² The main question goes to lasting forms of intervention against diseases as a main precondition to keep port-cities running. This often means to forget about sensational successes and to go into the every-day-business of public health. Another example may throw some light at this more specialised question. The port-city Klang and its new Port Swettenham, built for deep-going sea-vessels to exploit the plantations of British-Malaya and main gateway by sea into Malaysia, were known as notoriously malaria prone localities with the port itself located on a mangrove swamp. Within two months of its opening, the port had to be temporarily closed due to outbreak epidemic of malaria in 1901/02. The incidence and mortality was so high, that even Chinese coolies, normally known for their indolence, denied working in that region (mortality: 300 in 1.000 cases on Nov. 1902). So this large investment seemed to be in vain: the Governor gave permission to close the harbour.¹³

The economic prosperity resulting from the expanding maritime trade led to a remarkable population growth in the port cities and made them to core elements in the European urbanisation process. The dominance of trade had far reaching consequences for the development of the port cities, as domestic and foreign trade provided only a small basis for the broad scale of industrialisation. As a consequence trade and finance remained the economic basis for many port cities. Rather, the local economic structure was determined by the typical shipping industry and in addition to this by the processing of goods as well as banking and insurance companies. No substantial diversification of the industry took place. The economic sectors remained extremely one-sided and essentially depended on imported raw materials. As a result, port cities were extremely dependent on the routes and the structures of the emerging world market. At the same time, many ports were characterized by flexible labour markets, a strong reliance on casual work, extensive in-migration and a broad ethnic mix. Female participation in the official labour market was low, however, women were burdened with a multitude of tasks to contribute to the family income. Prostitution was a typical element of port cities. This typical structure of the labour market had a profound

¹¹ Gorgas, W.C. (1910): Malaria prevention on the Isthmus of Panama. In: Ross, R.: The Prevention of Malaria. Sect. 42, pp. 346-352. E. P. Dutton & Co., New York.

¹² Ross, R. (1903): Report on malaria at Ismailia and Suez. Longmans, Green & Co, London.

¹³ The New York Times (1905): Effective War on Mosquitos. 19. April.