This chapter illustrates the diffusion of a unique security regime wherein the principle and practice of “premium insurance,” was distinguished by the fact that it was clearly identifiable as a new and different system resting on a purely cultural substrate. It is not a technical tool or machine, but is based solely on ideas—in particular, on ideas about the “future,” a specific writing system, and the application of a few basic political and social accounting “rules” such as the law of “large numbers.” In some respects, premium-based insurance is therefore a product that is easily transferable across cultures; in other ways, however, its cultural character makes it more difficult to transfer than a simple technical instrument. If one controls the means and requirements of production, a mechanical tool as an artifact is only loosely bound to a cultural context. As long as there are pens, paper, and corresponding writing systems, the abstract and “impalpable” idea of insurance is, in principle, quite easily transferable; but it is also much more tightly integrated within a system of cultural hermeneutics and, therefore, is also burdened with substantial invisible barriers. Historically, these barriers were bound up with the transition to modern forms of security regimes, in ways that will be further specified—after all, even the early capitalist premium-based insurance of the Renaissance marked a difference from older economic styles—but they were also intertwined with cultural differences. Through the process of globalization, these temporal/epochal and cultural/spatial movements and resistances to transfer became increasingly intermingled.

It would be tempting to begin with a section on “Europeanization”: Even when different cultures were encountered in the early modern era there were obstacles to the transfer of insurance and even cases of backward development: I have noted above instances of the European-Ottoman encounter referred to in the literature, with effects on the import and decline of premium insurance business on islands occupied by either Venetians or by Ottomans. Similarly, I noted that the institutionalized (fire) insurance model in no way simply proceeded unobstructed through space and time, as for instance, it advanced not at all in France.1 The British insurance model thus began to make strides on the European continent only relatively lately, in the 1810s and 1820s, when private

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1 Cf. above Ch. 4, 2.3, notes 202, 221.
insurance companies had begun to pattern themselves after the English model in France, Germany, and then rapidly in other countries as well.²

The diffusion of such new capitalist techniques somehow implied a clash of cultures or even of periods: this was the case in Germany where at least the cameralist form of institutionalized premium insurance was already well in practice, albeit within the forms of early modern territorial cameralist state administration. How forms of the modern capitalist society were received in such an institutional-administrative environment of the Old Reich’s structure is beautifully illustrated by the following case record. A Hamburg citizen, Johann Augustin Level, had founded a paper mill in Walksfelde, an aristocratic estate located in Holstein, which he had insured with the British insurer Phoenix twice for three-year terms at the rate of 13,000 Courant Marks. Phoenix was the first insurer to expand outside the British islands, and had been represented in Hamburg by Hanbury and Lantz since 1786. On March 22, 1793, the mill burned down, along with a quantity of insured “raw materials” for making paper—rags. The insurance company did not want to pay because it suspected insurance fraud; Level resorted to “confiscating” the private assets of Hanbury and Lantz—a response that had been legally deemed unjustified in several previous instances. Phoenix insisted that Level could, at most, demand justice and his money at the central headquarters in London, because “the London Phoenix-Company [had] never established a fund in Hamburg or designated from where the putative damages should be paid.” Level appealed to the Imperial Chamber Court (Reichskammergericht) and cluttered the proceedings with the acta priora of the previous Danish and Hamburg instances summarized in two voluminous fascicles, but this became one of those court cases that remained undecided when the Imperial Court disbanded with the end of the Old Reich.³

The same problem essentially reappeared later, after the 1906 San Francisco earthquake: in this case too, legal disputes typically revolved around the location of the court; the US thus subsequently increasingly placed restrictions on foreign companies, obliging them to establish capital funding on-site in US locations, rather than relying on funding at distant company headquarters (e.g. London).⁴ The conjuncture between different eras, this “achrony”⁵ that pitted

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2 Festschrift 225 Jahre Braunschweigische Landes-Brandversicherungsanstalt 1754–1979, s.l., s.d. [1979], p. 20.
3 StAHHrg 1. 35 Teil 1 u. 2.
4 Cf. Tilman J. Röder, Rechtsbildung im wirtschaftlichen “Weltverkehr.” Das Erdbeben von San Francisco und die internationale Standardisierung von Vertragsbedingungen (1871–1914), Frankfurt am Main 2006.
5 On the concept of achrony, see Zwierlein: “Return to Premodern Times?”.
the leading insurance company of globalization in the British Empire against the backdrop of the beleaguered highest court of the thousand-year-old Reich, offers an almost concave reflection of the problem that British insurers encountered regarding societies outside of Britain. While this problem obviously concerns “space,” there is also an element of “time” invoked by the fact that these companies often teetered on the temporal edges of “modernity,” or even beyond the framework that defines “modernity.” Insurance agents were sometimes very aware of this, framing the “unmodern other” they encountered in Orientalist modes, but at other times they seemed unconscious of the invisible distinction between modernity and premodernity, which was constructed and reified through the cultural transfer of a hitherto unknown European cultural practice to non-European countries. Great Britain’s domination of the market on the other side of the Channel was remarkably quick—it began in about 1810 and was accomplished by mid-century. Simultaneously, and just as quickly, competing forms of insurance were also established across the Continent. These developments are clearly illustrated for the Rhine regions in the form of the insurance supervisory permits that were required in Prussian territories beginning in 1837 (the regulations were modified in 1853).\(^6\) Through these it is known that the following fire insurance companies were active between 1837 and 1848 in the district of Düsseldorf:\(^7\)

1. Fatherland Fire Insurance Society of Elberfeld
2. Aachen-Munich Fire Insurance Society
3. Fifth Hamburger Assecurance Company
4. Second Hamburg Sea and Land Fire Assecurance
5. Leipzig Fire Insurance Society
6. London Phoenix Fire Assecurance Society
7. Fire Insurance Bank of Gotha
8. English Sun Fire Office
9. English Royal Exchange
10. West of Scotland Fire Insurance Company
11. Mecklenburg Fire Assecuration Society of Neubrandenburg
12. Hamburg Patriotic Assecurance Company
13. Cologne Fire Insurance Company
14. Adriatic Security Society of Trieste [Reunione adriatica di sicurtà a Trieste]

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6 Michael Tigges, *Geschichte und Entwicklung der Versicherungsaufsicht*, Karlsruhe 1985, pp. 20–53.
7 “Verzeichniss der höhern Orth concessionirten Versicherungs-Gesellschaften,” in Stadtarchiv Solingen S-3143.
15. Rhine Prussian Fire Insurance Society of Dusseldorf
16. General Assurance Company of Paris [Compagnie d’assurances générales à Paris]
17. Leipzig Chattels Fire Insurance Bank [Leipziger Mobiliar-Brand-Versicherungs-Bank]
18. Fire Insurance Institute Borussia in Königsberg
19. Berlin Fire Insurance Society
20. Magdeburg Fire Insurance Society
21. National Insurance Society in Szczecin
22. Silesian Fire Insurance Society of Breslau.

While the history of each of these individual insurance companies would certainly be of great economic-historical interest, this topic cannot be pursued in detail here; it is sufficient to point out that the list demonstrates that within a relatively short period of time, up to the middle of the century, a large number of new domestic “start-ups” had emerged in addition to the territorial fire societies, and also that more than a quarter of these were foreign companies, from Britain in particular.8 Many of the early companies listed above no longer exist, and in most cases, even if they do still exist in a merged or otherwise transformed form, the company archives do not go all the way back to the companies’ beginnings. If they do go back this far, they often contain only a few pieces of information such as founding contracts, meeting notes, and general assembly protocols, and such pieces of information do not lend themselves to extensive cultural-historical analysis. The four major French fire insurance companies that were founded between 1818 and 1829 (Compagnie des Assurances générales, Le Phénix, L’Union, Le Soleil) all rapidly took hold in Europe, but were then quickly stymied in most parts of the German-speaking areas—although admittedly this is based on scant research relayed through archeval transmission. Consequently, it is difficult to track the European expansion of, for example, the French Compagnie d’assurances générales based on its own archival materials.9 Newspaper advertisements and advertising brochures

8 For the parallel case of German life insurance, see Heiss, Die Institutionalisierung, for the fifth long-lasting German establishment, see Alexander Müssener, Die Entwicklung der Aachener Feuer-Versicherungs-Gesellschaft im 19. Jahrhundert unter besonderer Berücksichtigung ihrer Allgemeinen Versicherungsbedingungen, Hamburg 2008.

9 According to La Compagnie d’Assurances générales contre l’incendie 1819–1919. Cent ans d’Assurance et de Sagesse Financière, Paris 1920, p. 93 the company gave up its foreign business “bientôt,” following an initial expansion, and reentered the global market only after World War I. The existing archives do, however, indicate a continued presence from 1820 to 1848 (in Stuttgart, Munich, and Koblenz as the main agency locations along the Rhine). The significance of this branch of the business, is, in any case, difficult to determine, since the
help establish the position in the German market (for example, concerning the Phénix founded in 1819, Le Soleil, founded in 1829, and the Union Paris). The French Phoenix had paid 25 million francs for fire damage between 1819 and 1837, of which 2 million was accounted for abroad.\(^{10}\) Some fires reveal a larger spread: in 1834 Greußen, a rural town of 2,315 inhabitants in the principality of Schwarzburg-Sondershausen near Erfurt, was afflicted by fire—of the 226 destroyed houses almost all (219) were insured with private companies, since the principality had no fire fund of its own. The inhabitants relied on German companies in only 88 cases; 131 homes, in contrast, were insured with the Compagnie royale and the Compagnie du Soleil. The radius of effect associated with these companies was thus in no way limited to French border areas;\(^{11}\) foreign insurance companies, it would seem, filled precisely those gaps not covered by territorial fire funds. German insurers always regarded foreign companies as strong rivals, first learning from them, but then trying to suppress them, using state revenues when necessary.\(^{12}\) Beginning

\(^{10}\) Cf. Baldur Graf, *Versicherungskaufmann* 3 (1987), p. 122 in Aachen AMB Generali Archiv Kasten 1825 as well as the newspaper clips collected by Graf from the 1830 Aachen and Cologne city newspaper: In the 1830 issues of the Cologne newspaper there were approximately 18 published advertisements—of those 8 were foreign (from Union Brussels and Union Paris). See also Rudolf Bergmann, *Geschichte des rheinischen Versicherungswesens*, Essen 1928, where the appearance of the French Phoenix is given for 1810—according to StA Düsseldorf, Reg. Aachen, Abt. 1 Nr. 31 however, the French Phoenix was not founded until 1819.

\(^{11}\) Paul Lürmann, *Der große Brand der Stadt Greüßen in der Nacht vom 16. zum 17. Oktober 1834*, Greüßen/Thuringia 1934, pp. 11–16.

\(^{12}\) Cf. the agent of the Lower Rhine insurance of goods (*Niederrheinische Güterassekuranz*), Wesel’s comments to the Düsseldorf government on October 22, 1843: “Von den französischen Gesellschaften ist namentlich die Pariser Compagnie d’assurance générale die gefährlichste und drückendste Konkurrentin, die überall und auf jede Weise uns entgegentritt und jedes Jahr bedeutende Summen dem Vaterlande entzieht. Blicken wir vollends auf die politischen Verhältnisse zwischen Frankreich und Preußen hin, wodurch die Sicherheit der bei französischen Gesellschaften Versichernden möglicherweise sehr gefährdet werden kann, so dürfen wir wohl das feste Vertrauen haben, daß uns der nötige Schutz gegen das Ausland zuteil wird” (qtd. Rudolf Bergmann, *Geschichte des rheinischen Versicherungswesens*, Essen 1928, p. 132).
in 1837, the permits of some foreign insurers in Prussia went unapproved or were even revoked.\textsuperscript{13} Local insurers quickly profited from this: Aachen (later Aachen-Munich) Insurance used the Treaty of 1840 to assume the insurance obligations of \textit{Compagnie d’assurances générales}, which amounted to 100 million francs of insured value; Colonia Insurance used the German stock of Union Paris to establish itself in 1837.\textsuperscript{14}

Even a brief look at this still largely unexplored topic of European expansion and competition in these markets during the first half of the nineteenth century demonstrates that in the initial phase, German insurance companies were strongly fixated on the domestic market and tried to dominate it. Throughout the nineteenth century, very few German insurance operations conducted business outside of Germany—with the exception of the Hamburg-Bremen Fire Insurance Company, founded in 1854, which entered the global market very aggressively.\textsuperscript{15} German-owned insurance companies operating from 1884

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\textsuperscript{13} Tigges, \textit{Geschichte und Entwicklung}, pp. 32–37. When this law with its permit conditions was enacted, the fire insurance institutions were already involved. In 1830 the founder of the Aachen society, David Hanseman, had already created a recommendation about the law’s decree regarding fire insurance bodies for the Westphalian provincial estates, which was printed in Aachen in 1834; the restrictive permit requirement for foreign companies was firmly established there in §§ 17–23 (Aachen AMB Generali Archiv, Fach Bücher).

\textsuperscript{14} Aachen AMB Generali Archiv, Kasten 1839: Excerpt from the general meeting minutes of March 30, 1840, Director Seyffardt made the Aachen business possible. Colonia acquired capital at the Rothschild Bank in order to buy out the French holdings; Klara van Eyll, “... genannt Colonia.” \textit{150 Jahre Kölnische Feuer-Versicherungs-Gesellschaft AG 1839–1989}, Cologne 1989, p. 16.

\textsuperscript{15} The first agencies were: 1855 in St. Thomas (Caribbean); Honolulu, San Francisco (1857); Maracaibo, Hong Kong (1858); Santiago de Cuba, Havana, Haiphong, Tonkin (1859); Valparaíso, Mexico City, Veracruz (1865); Caracas, La Guaira (1866); Port Elizabeth (South Africa), Mazatlán (1868). In 1871 the Chicago fire disaster led to a substantial expansion of the business in the USA: in 1879 Hamburg-Bremen Insurance sent over 250 agents to the USA; in 1871, agencies were also founded in Yokohama, Humacao (Puerto Rico); beginning in 1883 there was activity in India (1886), Siam (1887), The Straits Settlements and the Philippines (1888), Turkey (1888), Egypt (1891), Curaçao (1888), Costa Rica (1911), Trinidad (1897), Nicaragua (1891), Colombia (1889), Ecuador (1897), Peru (1889), Uruguay (1900), Togo (1896), Russia, Switzerland (1886), Malaga (1911), Ceylon, Cameroon, German South West Africa (1896), German East Africa (1896), Cape Colony (1896), Transvaal (1912), Natal (1896), Nigeria (1912), Guatamala (1912), Algeria, Tunis, Morocco (1912), Shanghai, The Congo (1896), Spanish Guinea (1896), Manchuria. The entire foreign business, however, collapsed during World War 1 in 1914. The archival holdings are currently combined in the \textit{ERGO} archives; there is unfortunately very little data for earlier periods, the general meeting minutes are only preserved beginning 23 May 1856. The 1954 commemorative publication \textit{100 Jahre Hamburg-Bremer Feuer-Versicherungs-Gesellschaft Hamburg 1854–1954}, pp. 53–84 does not offer much additional information (I thank the archivist Markus Holmer for helpful information). The holdings of Magdeburg Insurance, which also had
onwards in the German colonies, where the applicable legal standards were disputed anyway, were more a curiosity than a statistically relevant phenomenon. In any case, the cameralistic insurance model was not an institutional format that was adapted to globalization, and none of the territorial fire funds experienced any kind of true “expansion.” A remarkable and still scarcely researched exception can be found in the attempts by German governmental advisors from 1868 onwards to transfer the state insurance model to Japan during the Meiji period. However, the Japanese insurance founders proceeded to emulate the private companies that existed in Germany and were modelled on British companies such as the Gotha Insurance Bank. From the perspective of German insurers, it was not until the advent of World War I in 1914 that “the bridges with other countries” finally collapsed.

For the British insurers, Germany was a market among many in the world, albeit always recognized as the first—the long history of cameralistic insurance

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**Footnotes:**

16 In German East Africa, where the Hamburg-Bremen and the Aachen-Munich fire insurance companies underwrote a few policies, there was a discussion concerning the applicability of legislation from the Reich: since only the criminal law was directly transferable in the protectorates, insurance found itself in a more or less lawless arena—for example, the Prussian law from May 8, 1837 regulating the fire insurance bodies was not applicable. The governor’s police authorities tended to check the contracts for overinsurance without explicit authorization to do so—which was, of course, met with objection by the insurers. Through this process, insurance operations in the German colonies are thus archivally documented, more direct sources from the company holdings are not available (Bundesarchiv Berlin-Lichterfelde R 1001/826, December 1902-August 1903).

17 Paul Mayet, *Landwirtschaftliche Versicherung* [...] *Vorschläge zur Besserung der Lage des Japanischen Landmanns, im Auftrag des Kais. Jap. Ministeriums des Innern, Tokyo 1888*, pp. v-vii, as well as Paul Mayet, “[Mitschrift eines Vortrags gehalten vor der Deutsch-Asiatischen Gesellschaft in Tokyo],” LMA clc/B/192/019/31522/175, p. 281. There were no fire insurance-like institutions in Tokugawa Shogunat until 1868, Cf. Sand and Wills, “Governance, Arson, and Firefighting in Edo”. On Mayet cf. Richard J. Smetshurst, *Agricultural Development and Tenancy Disputes in Japan, 1870–1940*, Princeton 1986, pp. 58–60.

18 Takau Yoneyama, “Tsuneta Yano, Founder of the First Mutual Company in Japan,” in Robin Pearson and Takau Yoneyama (eds.), *Corporate Forms and Organizational Choice in International Insurance*, Oxford 2015, pp. 29–46.

19 Borscheid, Vertrauensgewinn und Vertrauensverlust, p. 327.
institutions had evidently resulted in a general familiarity with the principle of insurance, so that a strong demand quickly emerged. British insurance companies were the only ones who were extensively present outside their home country, using the knowledge and infrastructure developed within the official and unofficial economic structures of the British Empire.

Among these companies, the archives of the Phoenix (investigated by Trebilcock) and those of the Sun Fire Office offer the material best suited for going beyond a pure balance sheet analysis toward a cultural-historical analysis of globalization from the perspective of an expanding company and its independent agents. Pursuant to an executive committee decision, the Sun Fire Office began to quickly expand outside of Great Britain in Europe and beyond. Beginning in the 1850s and within the space of a few years, a massive wave of agency founding occurred throughout the world, after which the Sun began to be a truly globally operating actor in the field. In so doing, the Sun was following a trend, started by Phoenix in the 1830s and actualized through a variety of English insurance companies: globalization, in this case, appears as the “self-spreading” of a branch of an industry and a market, expanding from central England/London into every corner of the “empire.” This development also reveals a certain continuity with the early movements of diffusion of the insurance principle and insurance industry in the Renaissance, in that this expansion always took place through—and almost exclusively in—port cities. Insurance was implemented in Japan not in Tokyo, but in Yokohama; in Chile, it appeared in Valparaiso rather than in Santiago; in India it emerged in Calcutta, Bombay, and Madras, but not in Delhi. The territorialization of insurance and its expansion into rural areas did not occur for a long time—with the exception of Hamburg, where a network of subagencies expanded into a Germany that was already predisposed toward accepting the concept of “insurance.” The “globalization of the insurance industry” (like the globalization of economics as such) can be conceptualized not as a widespread expansion, but rather as the construction of a network of port-city nodes.

The fact that this movement proceeded from the center of London outward should, however, not be dismissed. In the nineteenth century, global insurance management was an almost exclusively British endeavor. On-site operations in Latin America, the USA, and Asian cities typically used local insurance companies, which were in competition with the English, but such companies did not typically operate outside of their country or even outside their native city or region—with a few, mostly short-lived exceptions, such as a few Dutch companies and the Hamburg-Magdeburg Fire Insurance, which had a presence in Bombay.

Following the previous chapters that concentrated on the Enlightenment era threshold of 1680/1700 and the lines of development traced here for the
eighteenth century, this chapter will present a cross-sectional study on globalization based on the files of the Sun Fire Office. Unfortunately, a symmetrical comparison with German files is no longer possible, since there is no comparable German archival material for this period: Germany had not yet begun to substantially participate in the global market at this point. The asymmetry of the comparison is thus unavoidable; however, I will continue to address systematic questions concerning the consequences, functions, and patterns associated with the diffusion of insurance, as well as the accompanying perceptual modes. I will show that despite important epochal differences between the internal crucial European moment of 1700, with the institutionalization of the insurance principle, and the global European/Non-European interaction around 1830, there are phenomena and characteristics that are quite comparable on a structural level.

The Sun Fire Office preserved an impressive archival source body in the form of its so-called “Memorandum Books.” This set of sources is unlikely equaled by any other insurance archive and will facilitate this study of the company’s globalization. In addition to balance sheets, financial statements, management decision protocols, and correspondence, the Memorandum Books—of which there are approximately 300, each about 300–500 pages long—contain detailed reports from foreign branches of the company, which provide information about the local fire insurance markets, fire prevention measures, and the number and intensity of recent fires. Some parts of these volumes were collected pursuant to inspections of the agencies by members of the Sun’s Foreign Department (often by Francis Boyer Relton, who served as Foreign Department superintendent from 1868, and George Saward Manvell, clerk in the Foreign Department from 1864 on). Material was often collected retrospectively, going a few decades back. In addition to handwritten analysis by on-site representatives and the members of the Foreign Department in London, the volumes contain drawings, maps, early photographs, newspaper clippings,20 printed premium agreements, agent-association protocols for the respective locations, extracts and other parts of original correspondence, forms, and statistics. These volumes thus functioned as a kind of ever-growing encyclopaedia and fund of knowledge for the London head office and its global network of agencies and insurance markets. The volumes are a collection of strategic operational knowledge about hundreds of locations all over the world where

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20 Unfortunately, the newspaper excerpts and clippings do not always include all the requisite information (newspaper name, date, page); tracking down the exact page numbers in original would be like looking for needles in a haystack and hardly be worth it. When in doubt, therefore, I use the Memorandum Books to cite instead.
insurance had been implemented, and thus, in some way, represent global economic memory.\textsuperscript{21} Peter Dickson first made extensive use of these Memorandum Books in his monograph on the Sun in 1960;\textsuperscript{22} in the past couple of years they have attracted some further interest from historians, but the volumes still contain a wealth of heretofore unaddressed material.\textsuperscript{23} The company made the volumes accessible to the public in 1994 by entrusting them to the Guildhall Library in London, and they were subsequently transferred to the London Metropolitan Archives.

Assuming that the general question concerning the relationship between security and modernity is relevant to these materials in the context of the globalization process, there are a number of follow-up questions that take us beyond a strictly economic perspective: How was “security” sold and produced in new regions? How did insurance orient itself in new environments? How did “empiricism” relate to previous normative-type beliefs and the frameworks that structured perception? How was “modern” separated from “premodern”? How structurally similar or dissimilar were the cities in which insurance companies attempted to implement a notion of insurance based on the European model

\textsuperscript{21} As far as I know—outside of perhaps the Phoenix material in the Cambridge University library and that of the Norwich Union—there is no comparable body of insurance history in the nineteenth century covering the global outreach of an agency. The natural disasters branch of Munich Re would be a comparable well-furnished archive for a specialized research question from the 1970s or later, going back retrospectively to the 1950s; the Swiss Re manages a similarly dense archive in Zurich, which, however, does not cover to the same extent the agency network of a primary insurer.

\textsuperscript{22} Peter Dickson, \textit{The Sun Insurance Office 1710–1960. The History of Two and a Half Centuries of British Insurance}, London 1960, pp. 162–233.

\textsuperscript{23} Since the publication of the German language edition of this book, a few additional works have appeared that use the files of the Sun Fire Office for studies of insurance globalization, including Lee Kam Hing, \textit{A Matter of Risk. Insurance in Malaysia, 1826–1990}, Singapore 2012, pp. 11–96; Hüseyin Akbulut, \textit{Chumhuriyet Dönemine Kadar Osmani İmparatorluğu’nda Sigortacılık}, PhD thesis Istanbul Üniversitesi 2014; Gabriel Tortella Casares et al. (eds.), \textit{Historia del seguro en España}, Madrid 2014, p. 114; Monica Keneley and Grietjie Verhoef, “Establishing Insurance Markets in Settler Economies: A Comparison of Australian and South Africa Insurance Markets, 1820–1910,” \textit{African Historical Review} 47, 1 (2015), pp. 76–105; Monica Keneley, “Business Strategies and Conditions of Uncertainty: The Rise of Mutual Life Insurers in Colonial Australia,” in Pearson and Yoneyama (eds.), \textit{Corporate Forms}, pp. 169–92; Kristen Alff, “Levantine Joint-Stock Companies, Trans-Mediterranean Partnerships, and Nineteenth-Century Capitalist Development,” \textit{Comparative Studies in Society and History} 60, 1 (2018), pp. 150–177. In addition to the Sun and Phoenix holdings, comparably large records can be found with the Norwich Union Fire & Life holdings for questions concerning globalization. The material for European areas (Portugal, Frankreich, Deutschland) seems somewhat scant, but after 1864 (Calcutta), a not insignificant global expansion began; see Ryan, \textit{A History of the Norwich Union}, pp. 614–741.
of cities and markets? In a global context, can the fire danger/fire safety distinction still be superimposed onto the premodern/modern distinction?

For achieving the most meaningful comparison possible (eventually resulting in showing more contrasts than similarities), based on cities with very different and special characteristics, a choice of data from the Sun business balance sheets offers a very good first overview—and reveals also immediately some surprising differences that need explanation—and that, as we will see, the insurance agents could not explain or were not realizing immediately themselves. Evidently, some of the characteristics were learned only the hard way in the moment when the agents began to engage in new cities. In looking at the most significant cities simply in terms of premium payments, remarkable differences can be seen in the relationship between premium payments and damage payments over a decade or two ("loss ratio" with and without agency expenses, Table 4). This comparison was made by the insurers themselves, sometimes for the purpose of analysis of one or the other individual agency, but the records do not contain any global comprehensive narrative or analysis of a loss ratio comparison that might have been effectuated in the Sun Fire’s central agency in London around 1880 or 1900, as one might expect. To some extent, what follows is therefore, in this way, only a retrospective historical analysis apparently not accessible to, or conceivable to, the nineteenth-century businessmen themselves, though the data was produced and gathered by them.24 Indeed, the different cities engender very different values in a global comparison, which shows that even from the perspective of urban environmental history there were very different elements at work in these places.

The difference between Asian, American, and European cities is striking. As shall be seen, even the Sun was, in part, quite surprised by these facts. For the following discussion, I have chosen Hamburg, Constantinople (Istanbul), the Indian metropolises of Bombay (Mumbai) and Calcutta (Kolkata), “China” (Hong Kong and Shanghai), and New York (representing the USA), for the purpose of comparative analysis. It would certainly be preferable to be able to work with local archival material for each of the cities mentioned above in order to cross it with the Sun records, especially for the “non-Western” cities; this would provide insight into how insurance was perceived from the perspective of the non-European inhabitants of the countries included within the insurance market. A separate research agenda would involve

24 This so-called “underwriting” or “loss ratio” with the requisite business expenses not yet deducted, represented one of the most common n “measurements used by contemporary underwriters to ascertain the performance of a company’s business over time” (Pearson, Insuring, p. 36 n 37).
examine the transfer processes in more precisely differentiated sociohistorical contexts, extending to a linguistic study of the translations of insurance terms into different languages where the phenomenon was new. The data preserved within the advertising materials included in the Memorandum Books provide a wealth of information for such an endeavor in Arabic, Chinese, Bengali and many other languages; perhaps this information could even be compared with existing local court and administrative records. Unfortunately, this topic cannot be further addressed here, nor has it yet been tackled in any work of economic history. Nevertheless, attempting what is primarily a qualitative investigation into the perceptions of the field agents and the head office rather than looking at market trends should be a step forward in that direction. The possibility of integrating a more balanced, “non-Eurocentric” investigation into the process of the European expansion of insurance companies would therefore have to be separately and carefully evaluated for each city.

| City, Years | Premium Income | Damages (loss ratio in %) | Expenditures (loss ratio plus agency costs %) |
|------------|---------------|--------------------------|---------------------------------------------|
| Batavia (1858–1888) | 33,729 | 0 | 5,006 (14.84%) |
| Bombay (1852–1895) | 54,772 | 4,840 (8.84%) | 9,705 (26.56%) |
| Calcutta (1852–1895) | 51,944 | 8,615 (16.59%) | 4,925 (26.07%) |
| East Indies, China, Japan (1852–1888) | 39,938 | 101,698 (25.45%) | 52,999 (38.72%) |
| Shanghai (1852–1895) | 66,806 | 17,902 (26.79%) | 11,318 (43.73%) |
| Hong Kong (1852–1895) | 33,398 | 13,977 (41.80%) | 5,002 (56.80%) |
| Smyrna (1863–1895) | 166,585 | 77,595 (46.58%) | 32,784 (66.26%) |
| Yokohama (1864–1895) | 97,676 | 68,628 (70.26%) | 13,104 (83.68%) |
| Valparaiso (1857–1895) | 128,312 | 101,159 (78.80%) | 21,028 (95.00%) |
| Constantinople (1865–1895) | 158,214 | 137,087 (87.00%) | 20,892 (99.85%) |
| Hamburg (1837–1895) | 383,930 | 313,545 (81.67%) | 106,854 (109.50%) |
| New York (average of 22 foreign (US) insurance agencies: 60% loss ratio) | 313,545 | 106,854 | 109.50% |

\[ a \] Sources: LMA CLC/B/192/019/38852/1 u. 2; LMA CLC/B/192/019/31522/275, p. 184f., LMA CLC/B/192/019/1935K.
and region; until now, existing research does not suggest that there is a wealth of archival material that would be easily accessible to more knowledgeable scholars such as the present author for such an investigation, though such findings would certainly be very desirable.  

1 Hamburg

The Sun began to conduct business outside of Great Britain in 1836 in Hamburg under the agent William Elliott. Initially the company expanded rapidly—it established 81 agencies throughout Germany that were linked to the head office in London via the main German office in Hamburg. The value of insured properties in Hamburg rose in the six years from 1835 to 1842 from approximately £857,000 to £6,422,000, and premium income rose more than tenfold from about £2,045 to £25,000—no other agency outside England brought in more revenue. But just six years after the Sun entered the Hamburg market, the Hamburg fire of 1842 broke out, leading to claims amounting to £117,710 more than double the revenue that had been accrued to date—at which point the Sun withdrew from the German market (which seemed to be plagued by intense competition anyway, as well as a certain hostility toward foreign insurers), only to return again, just as quickly, focusing exclusively on Hamburg, Lübeck, and Bremen until World War I. Between 1845 and 1871 annual premium income stabilized at the moderate rate of about £4,000, slowly rising by 1855 to about £6,000 and once again yielding the highest revenues outside of England. As seen above concerning the Imperial Chamber Court case, the Phoenix, represented since 1786 by its agent, William Hanbury, had maintained a presence in Hamburg for a much longer period. Over the course of

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25 In any case, the recent literature quoted above in n. 23 does not differ substantially in terms of sources used and there are not many hints there to the wealth of local sources available that offer the possibility of an easy de-Europeanalysis of research approaches in this field. The first step must be a close analysis of the European perceptual frames of thought of these.

26 Some aspects of this paragraph have been further developed in Cornel Zwierlein, "Perceiving Urban Fire Regimes in Europe and China (1830 to 1870): British Fire Insurance Businesses and the Sudden Challenge of Globalisation,” in Gerrit J. Schenk (ed.), Historical Disaster Experiences, Heidelberg 2017, pp. 327–52.

27 According to LMA CLC/B/192/019/38852/1.

28 "Losses 1842,” LMA CLC/B/192/019/38853/1.

29 Dickson, The Sun Insurance Office, pp. 164–71.

30 LMA CLC/B/192/019/31522/111, p. 12.
seventy years, the second headquarters on the Elbe contributed more policies representing far greater revenues than the rest of the Phoenix foreign-agency network combined until the company entered the American market.31 With the Hamburg agency, Hanbury created “a full-blown satellite company of notable independence.”32 Although Phoenix ended up paying more than twice as much as the Sun in losses following the 1842 fire in Hamburg, Phoenix did not respond with the same panic and did not completely withdraw from the German market.33 Taking this situation into account, one might conclude that the Sun files on Hamburg and Germany would be of little interest. But the opposite is actually true: particularly in light of its rapid entrance into the market and the rash, almost panicked exit after 1842, it is possible to reconstruct the image the Sun had previously had of Germany, and Hamburg in particular.

While this image is reflected in the letters written by Elliott to the headquarters, it is more strongly presented in the reports written for the Sun by Richard Atkins, the head of the newly established Foreign Department, about his travels to Hamburg and Germany in 1837, 1839, and 1842. Atkins examined Elliott’s accounting and the informational basis for all the foreign cities where agents had been established, and reported being very impressed.34 Elliott, who had lived in Hamburg for over 50 years, pointed out the 150 sugar mills as particularly lucrative targets of insurance; although they obviously carried a degree of unavoidable risk, he could not recall more than one or two fire incidents in the past 50 years. At one point there were more than 500 refineries in Hamburg, but the larger ones had pushed the smaller ones out of the market over time.35 Atkins went on-site to inspect the various “risks,” i.e., the main

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31 Clive Trebilcock, The Phoenix Assurance and the Development of British Insurance, vol. 1, 1782–1870, Cambridge 1985, p. 189.
32 Trebilcock, The Phoenix Assurance, p. 193.
33 Trebilcock, The Phoenix Assurance, pp. 284–92. On Hanbury and his descendants, who followed the agency for decades, see HStA Hamburg, Best. 621-1, Hanbury posthumous work: Main Account Books of the Company, 1815–1864.
34 “In addition to the Office System, which he carries out completely, he has a book of streets for each of the considerable towns wherein are entered all the insurances in that street, so that at any moment of time he can tell the sum insured in each street by the numbers of the houses & references to maps & thus effectually control & supervise the extent of his risks & the conduct of his subagents” (LMA CLC/B/192/019/31522/106, p. 2).
35 Ibid., p. 3, 23. According to Petersson, Zuckersiedergewerbe, pp. 58, 229, the year 1807 was the highpoint with approximately 428 refineries. The decline of the Hamburg sugar industry was, above all, due to the progress of modern competitors in Hanover and Prussia (not in the still insignificant influence of beet sugar). The highpoint occurred within the Continental Blockade era; cf. Burghart Schmidt, Hamburg im Zeitalter der Französischen Revolution und Napoleons 1789–1813, 2 vols., Hamburg 1998 und Silvia Marzagalli, Les
potential properties to be insured, and drew a number of small sketches to illustrate the report. The steep gabled roofs of the reservoirs, for example, were considered to be a major risk in the event of a fire. In one traditional sugar refinery, which, from an English perspective, was built in the “simplest & most primitive form,” Atkins asked the longtime owner about the fire risk. At first, this appeared highly amusing to owner, since he claimed never to have heard of a fire in a sugarhouse: “though I brought him to confess that the insides of stores were sometimes burned.” Atkins examined the design of the ovens—for example, in the Dannenfeld sugarhouse on Altewall Street, which had been operated by the same owner since 1799—and found the fire risks associated with the equipment to be shocking: “This forms the most extraordinary risk I ever saw & it is to me quite unaccountable how the Hamburg refineries escape accident.” Each floor of the building was heated by ovens equipped with old, unsafe, six to seven-meter-long furnace pipes extending over the entire length of the room. Atkins drew a picture to illustrate the setup (Fig. 68) and expressed his astonishment at the owner’s claim that his rate with a local insurance company was nevertheless still far too high (1/5%).

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36 boulevards de la fraude. Le négoce maritime et le blocus continental, 1806–1813, Villeneuve d’Ascq 1999.
37 LMA CLC/B/192/019/31522/106, p. 5.
37 Ibid., p. 4.
Later, Atkins encountered a factory in Hanover with almost twenty meters of unprotected heating pipes.\textsuperscript{38} The Andlys couch factory, in contrast, made a good impression because “everything [was] conducted on the English mode”\textsuperscript{39}—although he noticed that unlike in England, “preindustrial” work took place in the homes of daily laborers instead of in factory buildings.\textsuperscript{40} He deemed the water supply, which was operated by three water companies, to be very good; importantly, it was independent of the Elbe canals.\textsuperscript{41} Nevertheless, Atkins was not quite certain about the actual degree of fire risk and determined that it would be “desirable in the highest degree ... to limit the sums insured in quarters” and that Elliott should be “extremely cautious”. After touring northern and eastern Germany, his final judgment about the “motors of early German industrialization” remains somewhat ambiguous:

From my survey of the German manufactories of many kinds—especially Sugar Refineries, Cotton, Woollen & Flax Mills, I am decidedly of opinion that they present generally very bad risks—The Stoves with very long iron pipes in universal use cannot be considered but as greatly increasing the hazard. It is important however, to take into consideration the following facts—1st In respect of Sugar Refineries after a very large experience in Hamburg the insurance of them has proved a source of great profit both to the London & Local Offices. Whatever causes may be in operation, they have proved much better risks than the English refineries. In Hamburg the chief seat of them, the losses have been very few & in proportion to the number, present a remarkable contrast in the number of accidents to those which have happened in the London Refineries.\textsuperscript{42}

Also, regarding the cotton mills, he judged that in spite of the strange and dangerous pipe furnaces, “The systems of management in regard to the discipline

\textsuperscript{38} Ibid., p. 29.
\textsuperscript{39} Ibid., p. 12.
\textsuperscript{40} “The marked difference which subsists between all such manufactories in England & those in Hamburg, consists in the fact, that all the work that can be possibly done away from home, is sent out to be wrought in small workshops, or in the dwellings of the workmen—This I was told was the case with all branches of manufacture, Carpenters, Cabinet makers in short every trade, which in England is often brought into large buildings is here given out in piece work to journeymen who find a place for themselves to work in. There is not for example a large cabinet makers shop known in Hamburg” (ibid., p. 13).
\textsuperscript{41} Ibid., p. 15f.
\textsuperscript{42} Ibid., p. 102f.
of the workpeople & the internal arrangements are remarkable for strictness & as regard to security against fire.”⁴³ The miraculous fire safety of the antiquated German refineries, which he apparently believed to be credible, is quite inexplicable to Atkins, and the only compelling explication seems to be sociocultural—namely, there was a particular discipline and culture of safety that was at work within these factories. The meticulousness that he perceives as a positive attribute in this regard attracts his derision in a different context, when he encounters the cumbersome and obsessively detailed German business practices during his second visit to Germany in 1839:

The amount of correspondence is absolutely incredible. The lengthy proposals of the agents requiring for every policy however simple a careful perusal & dissection—the habit of carrying every thing out into the most minute & inconsequential details & raising an interminable correspondence upon them, present an amount of counting house labor which appears to me in contrasting it with English business absolutely frightful.⁴⁴

During an inspection, he offers a thoroughly positive evaluation of the 700 regular and 1800 replacement firefighters—mostly boatmen and other trustworthy individuals having access to water—however notes that their uniforms were inconceivably dysfunctional.⁴⁵ The Sun became increasingly engaged with insuring the existing steam-powered factories.⁴⁶ After a further inspection of the situation in Germany by Atkins in 1839, Elliott’s agency headquarters were transferred from Hamburg to Berlin, as they increasingly focused on Germany as a whole, or at least on the northern areas. On May 6, 1842 Atkins headed to Germany for a third time—for a routine inspection and the evaluation and appointment of a couple of agents—and arrived in Cuxhaven on May 8. The news of the disastrous Hamburg fire that raged in the city on May 4–8 reached him here: first, he returned briefly to London and was given instructions at the headquarters to go back to Hamburg on May 20, where he was to support Elliott in handling payments to the 287 victims who were insured by the Sun.

The massive scale and strong growth commitment of the Sun during the first six years shows, first and foremost, that according to the qualitative inspection analyses of their foreign specialists, Atkins had hardly anticipated

⁴³ Both quotes, ibid., p. 102f.
⁴⁴ LMA GLC/B/192/019/31522/106, p. 112.
⁴⁵ Ibid., p. 119f.
⁴⁶ E.g., the machine factory Gleichman & Büsse: ibid., p. 131f. with drawing.
such a large fire. From the outside it may seem surprising how little the “expertise” of the analyzing “experts” matched the reality. The files do not indicate any kind of awareness of an increase in the risk of fire, even though there were certainly indications: in Ch. 3, 1.6 I have used the Hamburg fire statistics by Bieber to explain Hamburg’s “fire ecology”, and in the files of the Sun, there is a version of Bieber’s work that extends to 1834 and one extending to 1840.47 The findings should have been alarming for insurance companies: following the relative paucity of fires throughout much of the eighteenth century, both the average number of firefighting incidents (over 100 per year), as well as the number of destroyed buildings significantly increased, especially between 1830 and 1841, in spite of substantial population stagnation. These findings curiously did not make their way into the merely quantitative statements included within the files of the Sun Fire Office, even though, as Atkin’s report shows, the Sun was particularly interested in the manufacturing systems of Germany. As clarified above in Chapter 3, 1.6, a large number of the approximately 575 buildings that burned between 1772 and 1841 were protoindustrial commercial sites, including 48 sugar factories and 17 distilleries/breweries, and there were many indications at this point that such buildings carried a particularly high fire risk. An evaluation of Bieber’s statistics could certainly have raised awareness for the Sun Fire Office, but the signs simply were not recognized. The analytical judgments present in Atkin’s qualitative inspections were thus somewhat indecisive and ambiguous, and in the end, insurance coverage was offered less discriminately here than was probably wise.

2 Istanbul

Istanbul—or Constantinople, as it is typically called in the English sources—is not one of the first cities where the Sun started business in outside of Europe,48 but the Tanzimat reform movement beginning in 1839, as well as the construction of the Orient Express railway, attracted new attention to the Ottoman Empire within London’s business community. Initially the Sun acquired an agent in Smyrna in 1863, and from there gained access to the most important cities in the

47 LMA CLC/B/192/019/31522/107, p. 2–8; LMA CLC/B/192/019/31522/109, p. 83f.
48 Dickson, The Sun Insurance Office, p. 188f. starts his chapter on the non-European engagement of the Sun with Smyrna. The balance sheets, however, betray its earlier activity in the Indian and West Indian outposts in Valparaíso, Singapore, Batavia, Hong Kong, Shanghai and Cape Town: LMA CLC/B/192/019/38852/1 und /2.
Middle East. Foremost among them was Istanbul/Constantinople, to which the Sun obtained access in 1864.

This city of approximately 500,000 residents was one of the most dangerous cities in the world at the time in terms of fire danger due to its heavy reliance on wood construction. As with other Middle Eastern cities, research into the history of fire in Istanbul is not terribly substantial; nevertheless, in her monograph on Istanbul in the nineteenth century, Zeynep Çelik includes an examination of the extent to which serial fires contributed an important element in the process of urban development—and sometimes stagnation—in contrast to, for example, the situation in Indian cities.\(^{49}\) Between 1633 and 1839 there were 109 major fires recorded in Istanbul, and 229 fire in the period from 1853 to 1906 significantly influenced the contours of the modern cityscape.\(^{50}\) The Sun sent one of its employees, Mr. Woods, from Smyrna (Izmir) to Constantinople in June 1864 to create a situational analysis evaluating where and how they could establish themselves in the city, and he was able to gain access to historical and current statistical material concerning the frequency of fires—albeit from unknown sources. Here, for example, is a list of unknown origin recording the major fires of the eighteenth century. This list would have certainly made any fire insurer queasy (Table 5).

In the period from 1841 to 1848, 13,750 destroyed houses were recorded in the city district of Pera;\(^{51}\) for the last four years, from 1859 to 1862, Woods was able to get exact statistics from the city administration, stating that for the Sixth district (Galata and Pera), which was of great interest to insurers, “only” 337 houses burned down. These statistics included a detailed breakdown of construction types and identified destroyed and rebuilt plots of land, which suggested that that this district had ultimately grown.\(^{52}\)“From 1865 to 1869” the

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\(^{49}\) There is not much research on the fire history of medieval and early modern Middle Eastern cities, cf. Anna Akasoy, “The Man-Made Disaster: Fire in Cities in the Medieval Middle East,” \textit{Historical Social Research} 32 (2007), pp. 75–87; Syrinx von Hees, “The Great Fire in Cairo in 1321: Interactions Between Nature and Society,” Schenk (ed.), \textit{Historical Disaster Experience}, pp. 307–326; Baer, “The Great Fire of 1660”; Doris Behrens-Abouseif, “The Fire of 884/1479 at the Umayyad Mosque in Damascus and an Account of Its Restoration,” \textit{Mamlûk Studies Review} 8 (2004), pp. 279–97.

\(^{50}\) Zeynep Çelik, \textit{The Remaking of Istanbul: Portrait of an Ottoman City in the Nineteenth Century}, Berkeley 1993, p. 52f. It is not true that no fires occurred in the first 180 years of Ottoman rule; cf. H. İnalçık, “Istanbul,” \textit{The Encyclopaedia of Islam} 4 (1978), pp. 224–48, 237 and especially Alfons Maria Schneider, “Brände in Konstantinopel,” \textit{Byzantinische Zeitschrift} 41 (1941), pp. 382–403.

\(^{51}\) LMA CLC/B/192/019/31522/257, p. 36.

\(^{52}\) “[…] le 6\textsuperscript{me} Cercle s’est augmenté, en quatre années de 424 bâtiments en pierre, et 206 bâtiments en bois, comprenant ensemble une surface de 45,127 piks carrés” (LMA
### Table 5
List of major fires in Constantinople of unknown origin, recorded by Agent Woods (LMA CLC/B/192/019/31522/257, p. 89).

| Year   | Location | Houses |
|--------|----------|--------|
| 1729   |          | 12,000 |
| 1745   |          | Fire: 5 days |
| 1749–50|          | 12,000 |
| 1750   |          | 10,000 |
| 1751   |          | 4,000  |
| 1756   |          | 500    |
| 1756 July |        | 15,000 |
| 1761   |          | large fire |
| 1765   |          | large fire |
| 1767   |          | large fire |
| 1769   |          | large fire |
| 1771   |          | large fire |
| 1778   |          | 2,000  |
| 1782 February | | 600 |
| 1782 June    | | 7,000 |
| 1782 August  | | 10,000 |
| 1784   |          | 10,000 |
| 1791 March and July | | 32,000 |
| 1792   |          | 7,000  |
| 1795   |          | 7,000  |
| 1799 Pera |        | 1,800 houses and other buildings |

* It reads on LMA CLC/B/192/019/31522/257, p. 32 "No records of number of Fires have been kept for any length of time." This list does not match the list of fires given in Schneider "Brände in Konstantinopel" and is not reliable; in terms of the dimensions, however, it would have given the insurance company a more or less accurate image of the high fire danger. This is also indicated by the evaluations found in the files of the Levant Company through Matterson in 1936, who gives numbers of destroyed houses for several years: in April 1696 there was a major fire, destroying almost all the houses of the English nation; in 1729, 20,000 houses were destroyed; in 1731, 75% of Galata was destroyed; in 1751, 11,000 houses were destroyed—in contrast, the major fires in Aleppo und Smyrna were no major issue for the Levant Company, so that in reality this all specifically concerns Istanbul. See Clarence H. Matterson, *English Trade in the Levant, 1693–1753*, PhD diss. Harvard University 1936 (Harvard University Archives HU 90,3052), pp. 31–32 drawing on The National Archives Kew, PRO SP 97/20; 97/24; 105/110; 110/72; 105/118.
city experienced “the most active phase of urban planning in [the] nineteenth-century.”\(^5\) At the same time, the city had been relentlessly plagued by uncontrolled fires. Even in the short time that Woods was in Constantinople, he witnessed a fire in the old town that “within three hours burnt out 500 families, about 300 houses, 80 of these families were Greeks.”\(^6\) Woods made observations about the existing fire-extinguishing technology in the city, which he judged as essentially ineffective.\(^7\) Constantinople was thus a city of fire, a city whose reform-era urban construction dynamics were strongly influenced by medium-sized and large fires. At times, urban planners took advantage of the fire-cleared areas as a development opportunity; however, the sheer misery of the fires often curtailed such an impetus.

The Sixth district had been selected in 1858 by the city council as a testing ground for modernization:\(^8\) the external pressure on the Ottoman Empire had become so great that in the atmosphere of the Tanzimat that it appeared necessary to approach Western standards and emulate the urban development of cities like London, Paris, or Vienna.\(^9\) The establishment of insurance at this point indicates that those in London hoped for a profitable outcome.\(^10\) Accordingly, on a map of the predominantly European-populated Sixth district (Pera, Galata,

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5. Celik, The Remaking, p. 63.
6. LMA CLC/B/192/019/31522/258, unpag. [p. 42].
7. Ibid. The “dry- or destruction fighting techniques” of the Turks, above all through the tearing down of buildings and only secondarily through the relatively inefficient use of small portable water sprayers is emphasized; cf. Lionel Frost, “Copin in Their Own Way: Asian Cities and the Problem of Fires,” Urban history 24, 1 (1997), pp. 5–16, for a different take on these “Asian” extinguishing techniques, see Jordan Sand and Steven Wills, “Governance, Arson, and Fire Fighting in Edo, 1600–1868,” in Greg Bankoff, Uwe Lübken, and Jordan Sand (eds.), Flammable Cities: Urban Fire and the Making of the Modern World, Madison, Wisconsin 2011, pp. 44–62.
8. Cf. Christoph K. Neumann, “Modernitäten im Konflikt. Der Sechste Munizipal-Bezirk von Istanbul, 1857–1912,” in Istanbul: vom imperialen Herrschersitz zur Megapolis. Historiographische Betrachtungen zu Gesellschaft, Institutionen und Räumen, Munich 2006, pp. 351–75 (see p. 369f. on the fire of 1879).
9. Emel Ardaman, “Perspective and Istanbul: The Capital of the Ottoman Empire,” Journal of Design History 20 (2007), pp. 109–30, 110–12.
10. False, according to İnalcik, “Istanbul,” p. 237: “fire-insurance began only in 1890.” At most what might be meant here is that on August 2–14, 1892, the first Ottoman fire insurance, the Société Générale d’Assurances Ottomane began its work and even until 1906 collected
which included the original distinct delineations between “Muslim” and “Christian” districts and neighborhoods, Woods once again marked in red those blocks that in his opinion were good enough to be insured: without exception, only “Christian” housing blocks were deemed insurable (Figure 69).\textsuperscript{60}

\textsuperscript{59} A graphic presentation of the mix of cultures in Galata/Pera, especially from the Greek perspective can be found in Akylas Mellas (ed.), \textit{Pera: The Crossroads of Constantinople}, Athens s.d. (ca. 2003).

\textsuperscript{60} For a later version of Stolpe’s map, see http://www.lib.uchicago.edu/e/su/maps/asian-cities/G7434-18-1882-S86.html. Announcement of the Routh & Son agency for the Sun in French, English, Turkish, and Greek: LMA CLC/B/192/019/31522/259, p. 14–17.
The heuristics of insurability extracts and delineates the supposedly secure European, stone-built, “modernity” from the closely spaced plurality of “nations,” cultures, and, in some respects, eras. The sizes of the eighteenth-century fires in the table above demonstrate that if one adopted the simplistic material and structural standpoint that modernity equates with fire-security (not accepted in this study, but always helpful as a quick reminder of an association and yardstick shared by many in Western societies then and now), Constantinople was still properly located in a phase of “premodernity”: In the eighteenth century, Constantinople suffered fires equal to the size of London’s famous fire of 1666 (ca. 12,000 homes destroyed) exactly ten times—a fact of which the European historical memory is hardly even aware. In 1865, just one year after Wood’s report, there were multiple serious fires, among them a fire on August 10, in which the old Serail palace was largely destroyed. On September 5–6, the largest ever fire broke out in Istanbul’s historic district. Early high estimates indicated that 8000 buildings were destroyed; the number was later revised down to 2744 buildings, including 1,879 houses and 751 shops.61 English newspapers took great pleasure in reporting on this fire, comparing it to the London double-disaster of 1665/66: just as in London, the Great Fire followed a major outbreak of the plague, in Constantinople, fire followed a major cholera epidemic. The comparisons clearly suggested that the state of Constantinople’s firefighting technology and administration also seemed to date from about “two hundred years” ago. People made jokes about the little hand fire extinguishers operated by running soldiers, typically imputed more to Oriental folklore, which were comparable to the English firefighting techniques of the early modern period (Fig. 70).62

The catastrophe encouraged European newspapers to publish great visions of urban planning à la Baron Haussmann for the burned areas of Istanbul. Regrets were even voiced that a larger part of the city had not succumbed to the flames; other voices, however, took a moralistic tone against the cynicism that allowed speculators “to fondle future landscapes from imaginary

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61 LMA CLC/B/192/019/31522/260, p. 44f. On the reconstruction after the “Hocapaşa” fire, see Çelik, The Remaking, pp. 55–59—and for a more precise map of the fire damaged area than in Çelik, The Remaking, p. 56, see LMA CLC/B/192/019/31522/260, p. 33. Cf. Ardaman, “Perspective,” p. 115.

62 LMA CLC/B/192/019/31522/260, p. 37f. (Times of September 8). “[…] but to form any idea of a Turkish fire-engine we must call to mind those prodigious leathern squirts which are still preserved, with their attendant buckets, in a few City churches [sc. in England], and which, during the seventeenth century, were worked at London fires by the Bridewell boys. […] Moreover, in old Stamboul the term ‘house’ is eminently a title of courtesy. A Turkish house is, in plain language, a very dirty wooden box, with a big hole in it called a door, and a few little holes assumed to be windows.” (ibid., p. 39—Telegraph).
minarets” above the heads of the suffering residents. In any case, the appointed reconstruction commission worked relatively successfully until 1869. The Western disdain for the situation in the Muslim and Armenian districts was intensified by the fact that the fire broke out in “one of the most crowded and dirty districts of the old city” with a large number of wood buildings, while the British newspaper author imagined here the “professedly better-off quarter of Pera” as highly superior in comparison: although three to four large insurance companies (Royal, Imperial, Sun) had operated in Pera and Galata for two years, they would “naturally shrink from having anything to do with wooden-built Stamboul.”

Almost five years later, however, they were proven wrong by a major fire on June 5, 1870, when about 8,000 houses burned down in Pera and about 1,300 people died—and this, by tragical irony, in a quarter which had been

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63 Ibid., p. 41.
64 Ibid., p. 39.
65 Ibid., p. 35.
66 3,000 houses, according to Çelik, The Remaking, p. 64.
designated as “insurable” by Wood and where stone construction was already dominant (cf. the damage area plotted on Figure 71).

In the five years since the establishment of insurance, only a few houses had been insured, so the initial estimates of the damage amounts of the insurers (£30,000 Royal, £25,000 Imperial, £26,000 Sun) were minimal in comparison with the total estimated damages of £6 to 7 million. In fact, only 20 houses insured by the Sun were affected, amounting to a damage value of £17,174.67

Once again, visions of planning were sparked by this burned tabula rasa—for the most part, however, they remained largely unrealized and the special administration of the Sixth district was dissolved again within the same year.68 Pera’s reconstruction proceeded sluggishly, in a similar fashion to many

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67 *The Levant Times*, June 13, 1870, p. 661 in LMA CLC/B/192/019/31522/260, p. 113; for the risks actually encountered, cf. ibid., p. 160. In 1869 the total insured amount in Constantinople was £146,176 and the premium amount collected was £935 (cf. the general balance of the Foreign Department 1869/70 and “paid losses” 1870 in LMA CLC/B/192/019/38852/2).

68 Çelik, *The Remaking*, pp. 64f., 73 (with an imprecise map of the fire area featuring a damage zone that is much too small: this is also made clear by the photographs in in LMA CLC/B/192/019/31522/260, p. 171ff. See Ardaman, “Perspective,” p. 114 for a retrospective map of 1917).
European cities in the early modern period. The fire of 1870 was often compared to the Chicago fire one year later: while in Chicago, 18,000 houses had been rebuilt thirty months after the fire (“one house rebuilt every hour”), in Pera 600 houses had been rebuilt after forty-seven months (one house every 56.5 hours). While Western observers saw a huge side-effect of Chicago’s Fire in the massive growth of a hitherto unprecedented modern urban form, Pera’s fire was, for European observers, a significant indicator of the limited ability of the city to modernize.

Such an assessment is also reflected in the hard insurance numbers: the agents in Smyrna, Henry & Rose, had continued to judge this major fire as “quite an exceptional occurrence” and had determined that “the field of insurance at Constantinople” was “favorable for operations.” In fact, insurance did initially seem to be profitable. Income soared from £146,176 in 1869 to more than 10 times that number (£1,554,247) within four years. After another year of high damage payments (1874), insurance income settled at about half that number until about 1879. After 15 years of activity in Constantinople, the sum of premium income between 1865 and 1879 was only slightly higher than the total amount of paid losses (about £76,750 versus £74,434). The high fire danger within the city was thus reflected in some initial attempts at defensive policy writing practices for only a few “European” “good risks” which thus yielded lower returns; this was not an expansively growing, modern market in the same way as the North American cities, at least not until the Young Turk Revolution of 1908. Even as late as 1918, a large fire destroyed more than 7,000 houses.

Fires seemed to be an endemic, “progress”-halting problem in the city. It was no coincidence—or at most, a coincidence in the microarena of collective action patterns of ethnic groups and religious communities—that the endemic nature of this situation became an almost constant factor in the calculus of its building and residential patterns. While Baer has shown that in the reconstruction after the largest fire of Constantinople in 1660 (280,000 houses destroyed, 40,000 deaths), previously Christian and Jewish properties inside the city gates were Islamicized, Woods notices two hundred years later that the opposite

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69 LMA CLC/B/192/019/31522/262, p. 31.
70 “No other city in America had ever grown so large so quickly” (Cronon, Nature’s Metropolis, p. 9; “In the 1880s and early 1890s, Chicago was probably the fastest growing metropolis in the Western hemisphere” (Sawislak, Smoldering City, p. 283 n 21).
71 LMA CLC/B/192/019/31522/260, p. 205.
72 Based on the balance sheets and damage amounts in LMA CLC/B/192/019/31522/2.
73 Baer, “The Great Fire of 1660”.

tendency was true in Istanbul for the many “small” fires that affected several hundred houses in areas home to a plurality of ethnic and religious groups. The enforcer in such cases was not the state, which with its Western-oriented urban concepts had only minimal success; rather, it was the collectives of “nations” or “millets”:

The Fires appear to act as the Pioneers of other Nationalities & amongst the Turks. The Turks allow the Jews to settle amongst them, & the Jews do not object to Greeks amongst themselves, so by degrees the Quarter becomes a mixed Jewish & Greek quarter & these two nations side by side help one another to shoulder out the Turk. Other nations eventually inhabit the ceded Quarter, & so the whole of Stamboul seems likely to undergo in time a total change.74

If even in such catastrophic moments, divisions between “nations” remained intact, then the knowledge of local differences, customs, and even different jurisdictions within the city is significant. At the London headquarters, in addition to pure statistical material and information about the housing stock, there was also relevant cultural information about the ethnic/religious and national pluralism existing in Constantinople,75 albeit at a rudimentary level that hardly helped to overcome a strong Western “Orientalist” perspective.76

“Nationality” in Woods’s report refers on the one hand to “millets,” officially recognized as separate cooperative groups of non-Muslim subjects of the Ottoman Empire,77 and on the other hand, to citizens of European countries. Here it seems that in spite of concurrent processes of nationalization, the premodern “natio” continues to be entangled with modernity until the mid- to late nineteenth century.78

74 LMA CLC/B/192/019/31522/258, unpag. [p. 43, 45].
75 E.g. LMA CLC/B/192/019/31522/259, p. 89–108.
76 The fact that long into the twentieth century, even in the field of urban history, such an “oriental” view of “the” Muslim city as being a depraved form vis-à-vis the cities of antiquity, is demonstrated by: André Raymond, “Islamic City, Arab City: Orientalist Myth and Recent Views,” British Journal of Middle Eastern Studies 21 (1994), pp. 3–18.
77 Benjamin Braude and Bernard Lewis (eds.), Christians and Jews in the Ottoman Empire: The Functioning of a Plural Society, 2 vols., New York 1982 and Michael Ursinus, “Zur Diskussion um ‘millet’ im Osmanischen Reich,” Südost-Forschungen 48 (1989), pp. 195–207.
78 For example, an effect of the Greek War of Independence of 1821 is explicitly indicated: the houses, business, and lands of Greek settlers (primarily immigrating under Selim III, 1762–1808, ruled 1789–1807)—who quickly began to dominate a large part of the Mediterranean trade, and more or less took over the position of the Levant Company that was founded in 1581 and gradually lost significance in the mid-eighteenth century.
“Safety” and “modernity” had not yet established a balanced relationship with each other in Constantinople: the available forms of modern design, modern introspection, and modern belief in progress did not lead to sustainable fire safety. Elements of “premodernity” and “modernity” were intertwined here and the litmus test of fire safety did not function. The Sun’s perception of Constantinople was strongly influenced by the impression that if spatial planning was exact enough and areas where construction and (partial) fire safety were relatively “modern” were clearly identified, it should be possible to run an insurance business according to “modern conditions” in the Christian district. The map created by Woods served as the most important orienting instrument for precisely distinguishing “premodern” from “modern” areas. But this was more of a suggestion of predictability and empirically grounded truth, which, of course, failed in the end.

3 Bombay/Calcutta

The Sun Fire Office established itself in India in 1852, earlier than in the Middle East. Although further away, the relevant cities were part of the British Empire, and therefore “felt” closer than the Ottoman Empire cities that were, at most, economic players in the sphere of colonial powers. In India, Leckie & Co. was appointed as the managing agency in Bombay, Parry & Co. in Madras, and Cullen, Muir & Co. in Calcutta. In 1842 the local Bombay Fire Office had already terminated its activities and offered its remaining inventory and agents to the Sun; however, instead of the Sun, Imperial Insurance took over and the Sun was, in the end, only involved with the reinsurance of some outstanding risks. It was only in June 1852 that the

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79 LMA CLC/B/192/019/31522/259, p. 94f. For the context cf. Cornel Zwierlein, “Mediterranean Transformations: From the security of mercantilist trading empires to a modern security regime,” Pedralbes. Revista d’Història Moderna 40 (2020) [forthcoming].
79 LMA CLC/B/192/019/18249, vol. 13, f. 1, 2, 13, 14 (letters exchanges on establishing contact with the agencies in the three cities; cf. also the first balance sheets with Indian revenues)
80 Dickson, The Sun Insurance Office, p. 192f.: Dickson treats the Indian engagement of the Sun only in these two pages.
Sun commissioned its own agents. In Calcutta at this point, in addition to Imperial Insurance, Alliance, Phoenix, and Royal Insurance were already active players in the market. By 1852, Royal Exchange had entered the market, and they were quickly joined by a succession of companies: Liverpool & London Insurance (1853); Northern (1856); and Globe, London and Phoenix (1859). In the 1860s and '70s an additional twenty fire insurance companies from England, as well as one German company (Magdeburg-Hamburg) were also established. 81 There was a similar progression in Madras. 82 By 1827/28, Phoenix had agents in Calcutta and Madras, 83 but beyond this example, the expansion of the insurance market in India began primarily in the 1850s—thus, the Sun was one of the first to be established there. The major trade cities of the Indian subcontinent, had, of course, encountered the concept of premium-based insurance earlier, but only in the form of maritime transport insurance and essentially only within the internal trade circuit with Europeans: there is no documentation indicating an earlier integration of premium-based insurance in the Indian hinterlands or in other insurance arenas, such as “fire” or “life.” 84 In the seventeenth and eighteenth centuries, there were already insurance-like practices in India, which apparently resembled the Mediterranean foenus nauticum, i.e. the “insurance purchase” (bīmā) associated with maritime transport. But this was not a principle that had been generally applied to other areas. 85

In practical terms, the European insurance of the nineteenth century was initially directed toward the three major British economic centers, which were also India’s largest cities at the time. The East India Company was established

81 LMA CLC/B/192/019/31522/151, p. 21–76. In Brian Supple, The Royal Exchange Assurance: A History of British Insurance, 1720–1970, Cambridge 1970, p. 214.
82 LMA CLC/B/192/019/31522/164, p. 37.
83 Trebilcock, vol. 1, p. 233f.
84 There is still no comprehensive work on early Indian insurance history. Cf. G.R. Desai, Life Insurance Business in India, Delhi 1973, pp. 1–6; Benoy Kurmar Sarkar, Social insurance Legislation and Statistics, Calcutta 1937; Tirthankar Roy, The Economic History of India 1857–1947, 2nd ed., Oxford 2006, p. 288f.; Adrian Jitschin: Über die Versicherung der Ind. Indische Lebensversicherung 1874 bis 1988, PhD thesis, University of Marburg 2011, pp. 3–8; G. Balachandran, “India: From a Colonial Outpost to a Leading Market,” in Peter Borscheid and Niels Viggo Haueter (eds.), World insurance: the evolution of a global risk network, Oxford 2012, pp. 444–71, 444–47. Often, the insurance sector is omitted in general economic histories. Binay Bhushan Chaudhuri (ed.), Economic History of India from Eighteenth to Twentieth Century, New Delhi 2005; Sabyasachi Bhattacharya (ed.), The Cambridge Economic History of India, New Delhi 2005; Dietmar Rothermund, Indiens wirtschaftliche Entwicklung. Von der Kolonialherrschaft bis zur Gegenwart, Paderborn 1985.
85 A. B. Leonard, “Underwriting British Trade to India and China, 1780–1835,” The Historical Journal 55, 4 (2012), pp. 983–1006, 987–99.
in Madras and Calcutta in 1639 and 1690 respectively, and beginning in 1668 the British Crown backed Bombay through the East India Company. Following the adoption of British rule after the uprising—i.e., the First War of 1857—these port cities were the undisputed economic centers of the country. At the beginning of the nineteenth century, Calcutta had about 350,000 inhabitants (in the year 1820 CE), Madras about 300,000 (1802), and Bombay 200,000 (1825). Of the remaining non-British-occupied cities, only Lucknow, Lahore, and Hyderabad likely had populations topping 200,000—Delhi, in contrast, had only 100,000 inhabitants. According to the 1865 census, there was a population of 41,713 within the old, increasingly dilapidated city ramparts (i.e., within the fort) and 783,980 (or 816,562 including the “floating population”) in the city as a whole. For Bombay, Calcutta, and Madras the rates of population growth were roughly comparable to the major American cities. Between 1845 and 1875, Bombay experienced an intense period of urban planning and modernization. The London headquarters were initially very cautious and, in the beginning, limited policy amounts to £5000 and set relatively high premiums due to the degree of perceived risk. The main means of risk containment were issuing policies in the “European city” only, while prohibiting policies in the “native city.”

86 Christopher A. Bayly, *Indian Society and the Making of the British Empire*, Cambridge 1988, p. 68.
87 1826: 185,000, 1835: 250,000, 1844: 524,121, 1864: 816,562, 1872 decrease to 644,405: S.R. Kapse, *Police Administration in Bombay, 1600–1865*, Bombay/Delhi/Nagpur 1987, p. 181; Mariam Dossal, *Imperial Designs and Indian Realities: The Planning of Bombay City, 1845–1875*, Oxford 1991, p. 2. Robert Home, “British colonial civic improvement in the early twentieth century: E. P. Richards in Madras, Calcutta, and Singapore,” in: *Planning Perspectives* 31, 4 (2016), pp. 635–644.
88 Jim Masselos, “Changing Definitions of Bombay: City State to Capital City,” in Indu Banga (ed.), *Ports and Their Hinterlands in India (1700–1950)*, New Delhi 1992, pp. 273–316, 293.
89 Dossal, *Imperial Designs*, p. 3.
90 In the following, I am entering into an analysis of a specific form of colonial segregation within a field of economic interaction. It is not the place to render a full bibliography and discussion of segregation studies. One might note that systematic approaches define segregation as “the unevenness of the distribution of [a society’s] members across places or categories” (O. D. and B. Duncan, “A methodological analysis of segregation indices,” in: *American Sociological Review* 20 (1955), 210–217; C. J. Dawkins, “Measuring the Spatial Pattern of Residential Segregation,” in: *Urban Studies* 41, 4 (2004), 833–851, 833; P. Hennerdal/M. Meinild Nielsen, “A Multiscalar Approach for Identifying Clusters and Segregation Patterns That Avoids the Modifiable Areal Unit Problem,” in: *Annals of the American Association of Geographers* 107, 3 (2017),
Compared to other cities, by 1852, as insurance began to be established, there was still no really reliable knowledge about the history and risk of fire in Indian cities: the only event that was repeatedly mentioned was the 1803 fire in the Fort district of Bombay.\textsuperscript{91} For Madras, it was reported as late as 1852 that “the destruction of an European house by Fire is unknown and no record exists thereof.” There were only reports of small fires in warehouses (“godowns”) in the European part of the city. On the other hand, statements about the risk of fire in the “native town” were uncertain and contradictory: “8 or 9 years since there was an extensive Fire in the native Town ... difficult to judge of risk—Surrounded by and attached to small Native dwellings—There was danger on every side and such risk never could be insured.—It was extraordinary, few fires even there.”\textsuperscript{92} The information about this fire in 1843 or 1844 is very imprecise: while it suggests that under no circumstances should insurance be established there, this quote also reports that there were relatively few fires in the native town. After commissioning the respective agencies with the business of insurance, fires were documented from 1852 to about 1872 in the Memorandum Books: reports always focused on individual buildings, warehouses, jute-presses; the insured or uninsured damages were always noted. The fact that there were also other types of fires that attracted little attention from either the authorities or the insurance companies is occasionally alluded to.

On February 28, 1866 there is a report concerning the eastern suburbs of Calcutta: “This fire one of the most serious of its kind known at Calcutta for many

\textsuperscript{91} The mention of an 1803 fire that destroyed 1000 houses in the Madras Memorandum Books must refer to Bombay, LMA CLC/B/192/019/31522/164, p. 46; cf. LMA CLC/B/192/019/31522/154, p. 1; the fire of 17 Feb. 1803 is also the only one repeatedly invoked in: \textit{The Gazetteer of Bombay City and Island}, 3 vols., Bombay 1909, vol. 1, 362, 413, vol. 2, pp. 24 n 1, 130–132 (damage: 471 houses, 6 sacred buildings, and 5 barracks destroyed), vol. 2, pp. 326, 342f., vol. 3, p. 53—exception: one mention of the current fire statistics in 1908/09 (vol. 3, p. 51). On the 1803 fire, see Mariam Dossal, “Knowledge for Power: The Significance of the Bombay Revenue Survey, 1811–1827,” in Banga (ed.), \textit{Ports and Their Hinterlands}, pp. 227–232, 232–235.

\textsuperscript{92} LMA CLC/B/192/019/31522/164, p. 46.
years. Hundreds of native huts, straw, haystacks and such like burnt. ... Loss $8,000$ to $10,000$ Rps [rupees]."³⁹³ This is the only such entry in the Sun documents concerning any of the three cities—the economic damage of such a fire of several hundred “huts” of “natives” was equivalent to only a tenth to a twentieth of the monetary loss represented by a single burned jute warehouse. Therefore, very little can be established about the frequency and intensity of fires in the native towns of the three cities during this time. The Sun requested a “fire record” in 1871 from the police commissioner of Calcutta, Stuart Hogg, and received a list of 53 fires that had taken place from 1865 to 1870. While fourteen fires in “filed huts” were listed, there was no further description; all in all these fire statistics were not terribly meaningful since they contained no damage estimates.³⁹⁴ In the very detailed fire documentation for Bombay,³⁹⁵ there is a separate—but rather unspectacular—section devoted to fires in the native town; one of the larger fires in 1868 apparently affected barracks of Ethiopian migrant workers, but the actual scope and magnitude of the fire is not given:³⁹⁶ relatively speaking, fire events appear in these sources quite rarely.

Beyond the Sun Fire Office sources there is comparatively little mention of major fires in the literature on the urban history of Madras, Calcutta, and Bombay—let alone any kind of systematic investigation of fire trends in these cities. When the topic of fire did attract attention, it would seem that contemporaries, at least during the first half of the nineteenth century, were primarily interested in fire events in the “native” sections of Indian cities. Two fires were reported in Calcutta in 1780—in one 700 huts burned down, in the other 15,000.³⁹⁷ Travelers to India often clearly articulated their perception of a dual city, divided into a “black town” and a “white town,” which were, respectively, highly prone to fires and almost fireproof. Thus, Walter Hamilton reported frequent fires in the native town in 1820, while the European district seemed almost “incombustible.”³⁹⁸ Wallace lists nine major fires in the native town

³⁹³ LMA CLC/B/192/019/31522/158, p. 257.
³⁹⁴ LMA CLC/B/192/019/31522/158, p. 253–276; vol. 163, p. 167; vol. 161, p. 47 (fire with great damages in the amount of 300,000 rupees on May 15, 1882); vol. 164, p. 46–48.
³⁹⁵ LMA CLC/B/192/019/31522/154, p. 1–136—the Post Office fire of 1869 is described as one of the largest fires.
³⁹⁶ Ibid., pp. 71ff.
³⁹⁷ James Long and J.H. Stocqueler, British Social Life in Ancient Calcutta (1750 to 1850), ed. with notes P. Thankappan Nair, Calcutta 1983, pp. 19, 31, 76f.
³⁹⁸ Walter Hamilton, “A Geographical, Statistical, and Historical Description of Hindostan and The Adjacent Countries [1820],” in Calcutta in the 19th Century (Company’s Days), Calcutta 1989, pp. 220–44, 224.
between February and May of 1813; in one of them 400 huts were destroyed, in another 300, and in a third fire 1,000 huts were burnt. He summarizes the situation thus:

Throughout India, for some time before the commencement of the monsoon, the atmosphere becomes heated to an extreme degree, and very high winds prevail. During the months of May and June, this agitated state of the air is severely felt in Calcutta; and destructive conflagrations from fire often desolate the native quarters of the city, where the houses are constructed of such inflammable materials, that a spark bursts forth into a blaze in a moment, and is carried like lightning along by the wind. The houses of the Europeans and rich natives, being built of brick and terraced, escape with little damage on these frightful occasions; for the course of the destructive element is so rapid that such buildings are passed before any serious impression is made on their external parts. It is melancholy to contemplate the effects of these fires. The little all of the poor natives, their furniture, cows, goats, horses, are consumed; and frequently the lives of the owners lost in vain endeavours to save their property. Yet the evil is of such a nature as not to be easily remedied; for were the huts to be removed from the town, the same destruction would attend them, as is seen in the suburbs, and all over India where the ghurs are made of reeds.  

Arson and negligence in the handling of fire were often at work, but the somber spectacle of these fires was reported as “so common all over India, that the eye becomes familiarized by habit, and feels a shock every time of less painful disgust.” The incidence of fires in the huts of the “natives” is mentioned until the mid-nineteenth century in travelogues, while, with the exception

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99 Excerpt from Lt. R.G. Wallace, *Fifteen Years in India: Or Sketches of A Soldier’s Life. Being an Attempt to Describe Persons and Things in Various Parts of Hindostan* [1822, 2nd ed., 1823], in *Calcutta in the 19th Century*, pp. 301–34, 318f.
100 Ibid., p. 320.
101 William Huggins, “Sketches in India, Treating on Subjects connected with the Government; Civil and Military Establishments; Characters of the European, and Customs of the Native Inhabitants [1824],” in *Calcutta in the 19th Century*, pp. 411–26, 415 and in Emily Eden, “Letters from India [1836/37, 1840/42, pub. 1872],” ibid., pp. 650–756, 710: “80,000 homeless people last week” due to a fire; Leopold von Orlich, *Travels in India, Including Sinde and the Punjab* [1845, trans. from German, here a letter from Alexander von Humboldt 1843], in ibid., pp. 860–906, 867: referring to the division into one city of Christians and one of natives, the native town “as in all Oriental cities” is closely built. The palm-roofed bamboo
of the 1866 incident above, such fires were not mentioned in the Sun Fire Office files originating from the second half of the nineteenth century. Were they simply not recorded, even though every individual house fire in the European section of the three cities was precisely described? While this is certainly conceivable, it is nevertheless strange, since there was certainly a discussion about whether insurance should play a role in the native towns, which would have made such information significant and necessary.

One gets the impression that travelers to India and merchants were endowed with a “European eye”: they imagined Indian cities as divided between “European” and “native” sections and on site they simply reproduced and reified this notion. While the information in the insurance files initially appears to be collected and communicated using seemingly unbiased and impartial inductive-empirical data collection techniques, on closer inspection it becomes clear that certain thresholds of prejudice were maintained. The insurance business began in 1852 under the assumption that only “European” buildings (i.e., not those of “natives”) would be insured, and for this purpose it became necessary to cognitively support the idea in the London headquarters of a divided and distinct “white town” and “black town” that could be precisely delineated cartographically and topographically on a map (Fig. 72).

102 Swati Chattopadhyay, *Representing Calcutta. Modernity, nationalism, and the Colonial Uncanny*, London 2005, pp. 21–28 and passim. Dossal, *Imperial Designs*, p. 4 emphasizes, in contrast, that the Indians also describe themselves as “natives”: “Nineteenth century Bombay was thus inhabited not by ‘Indians’ and ‘Englishmen,’ but by ‘Natives’ and ‘Europeans.’” Cf. Cornel Zwierlein, “Insurances as Part of Human Security, their Timescapes, and Spatiality,” *Historical Social Research* 35, 4 (2010), pp. 253–74, 264–66.

103 Sun Fire Office London to the Leckie & Co. Agency, Bombay, August 12, 1852: “[…] but it is considered a point of great importance, to limit our Insurances strictly to those for European Firms & of the best Class of Buildings only. Our rule of business must, for the present at least, altogether exclude insurances for native Firms & be confined as to locality to the European part of the Port & Colaba on the same terms as the Imperial—say 18 annas per Cent for the former & 14 annas per Cent for the latter” (LMA CLC/B/192/019/18249/13, f. 14v).

104 LMA CLC/B/192/019/31522/158, after p. 241—earlier, p. 238–240 the copy of a letter from Henderson to the London headquarters from February 23, 1872, in which, however, reference is made to a different map. The placement of the boundaries for the “white town” correspond quite precisely to those that were described by R.G. Wallace in 1822, cf. Chattopadhyay, *Representing Calcutta*, p. 78 (Fig. 2.1—there the author had actually marked the areas himself, while here a contemporary cartographic drawing followed). On the “divided town,” see also Dossal, *Imperial Designs*, pp. 16–20.
There is evidence that Agent Peel offered to procure a high-resolution map of the “European part of the City (late Fort)” of Bombay; however, there is no such map to be found in the files. Today, there is only a commonly available map from 1866 delineating the districts. Nevertheless, there are many photos, as well as precise measurements of the length and width of the sixteen main streets in the Fort district and the three main roads in the native town. In 1869, Agent Scott, a Sun employee, described the southern section of the Fort district, which in the meantime had become primarily an office and business area, since even Europeans lived in the suburbs at this point: “It could be expected as is the case, that houses in this Quarter should be substantially built, the streets are tolerably wide, & the whole aspect & appearance is European. ... All Buildings throughout Bombay, native & European, are roofed with tiles: & water pipes with a plentiful supply of water are laid through the principal streets.” Here, and particularly for the prestigious buildings erected in 1864 through Scott and McClelland’s Elphinstone Circle project, insurance initially was established because Scott and McClelland offered certain assurances:

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105 A letter or note written to the headquarters on November 12, 1870, LMA CLC/B/192/019/31522/151, p. 161.
106 LMA CLC/B/192/019/31522/152, p. 127.
107 Ibid., pp. 178–99.
108 LMA CLC/B/192/019/31522/151, p. 201 (‘European part of City’).
It is our decided opinion that there is less risk of fire with the Elphinstone Circle buildings than with those of the best class in England. We believe we are right in stating that English fires usually originate from fireplaces, Chimneys, gas or lucifer matches.

None of the buildings under consideration have fireplaces or Chimneys in any room except the Cook room (Kitchen) such not being required in the hot Bombay Climate.\textsuperscript{109}

Plans and photos of the magnificent new buildings were sent to the headquarters in order to convince the Board of the Company of the trustworthiness of their wares.\textsuperscript{110} In 1869 Scott had, however, used much more negative undertones when writing about the “Native part of Fort” (Fig. 73):

The native quarter of the Fort 600 Yards long, by 300 yards broad, is of an entirely different character. The streets are narrow and torturous, the houses are divided by narrow cross streets and passages.

A Native house is constructed of Wood, simply and entirely. Upright posts are first put up, upon which the floor beams are fixed, it is thus carried on from floor to floor (often five stories in height) till the roof is fixed. Then brick walls are built from bottom to top leaving the posts to project slightly beyond the plaster either on the inside or outside of the house: often the posts and walls of the upper floors, supported upon curiously carved wood blocks—project beyond the posts of the ground floor and this feature taken together with the wood projecting Verandah which invariably goes with it, gives the peculiar aspect to Eastern Houses. The brick walls being intended merely as a shelter from the sun in the hot season, and from the rain in the monsoon are built as thin as possible. ... There is at least one Cook room on each floor, and Chimneys are rather the exception than the rule. The floor of the Cookroom will be in most cases of plaster and brick, and the fire place is invariably of the same materials and well built, by the side of it is the sink with a store of water: so that really there is not much need for a Chimney as wood is used, to be lighted only when a meal is being cooked.\textsuperscript{111}

\textsuperscript{109} Ibid., p. 212.
\textsuperscript{110} Map of \textit{Elphinstone Circle} between the “native” and “European” sections of the Fort, ibid., 214f.
\textsuperscript{111} Ibid., p. 232.
Photographs and prints in newspapers like the *Bombay Gazette*, which were cut out and collected at the headquarters, gave the impression of a high fire-risk situation based on the sole use of wood in construction—apart from the reassuring news, of course, that there was hardly any danger from heating and ovens.

Despite the very stereotypical characterizations of the opposition between the European and native towns, there were agents in Bombay, who were unsure how to draw the boundary lines for the Sun headquarters and also for the other insurers active there, since they had not yet been precisely determined by 1852. Since some insurance companies offered policies on certain streets of the native town at the lower rates offered to the European town, the lack of clarity concerning the boundary between the “white” and “black” towns led to excessive competition, where rates of a united, “weakly collusive” market of companies otherwise prevailed. In 1855 the Sun gave agents permission

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112 LMA CLC/B/192/019/31522/151, p. 228. Cf. Robin Pearson and Mikael Lönnborg, “Regulatory Regimes and Multinational Insurers before 1914,” *Business History Review* 82 (2008), pp. 59–86, 69; comparable with Monica Keneley, “The Origins of Formal Collusion in Australian Fire Insurance, 1873–1923,” *Australian Economic History* 42 (2002), pp. 54–76.
to sell insurance in the native town as well “if Agents [were] satisfied as to their [i.e., the natives’] respectability.” Following that, the agents of Leckie & Co. also wrote in 1861, when the question came up again, that they thought “it would be desirable to extend the business of the Office to Risks in the Native Town and other places outside the Fort within the Island of Bombay.” At this point it became a serious struggle to define “native town”. The headquarters, probably under pressure due to competition with other companies, decided very carefully that Leckie & Co. should be allowed to issue policies in the native town and across the whole city (“Bombay Island”) in strict accordance with six criteria of exclusion: in particular, insurable buildings had to be made of brick, have tile roofs, not be adjacent to wooden structures, and not shelter “hazardous” businesses—timber trade, fire-intensive manufacturing, etc. Such policies were offered with a ceiling of 30,000 rupees of insured value. When the Sun later lost out on a lucrative deal in 1863 because of this limitation, the maximum limit was raised to 50,000 rupees. It was only in 1893 that the Bombay Association of Fire Insurance Agents came to an agreement among the agents of all locally operating insurance companies, which finally delineated the borders of the native town and established common rates (Fig. 74). To educate and orient local insurers, a special map of the native town boundaries was created.

The disputed boundary between the European and native towns, or even—as a visitor in 1876 formulated it—between “Modern Town and Native Town,” and the tendency of agents in Bombay to issue policies in the native town as well “if Agents [were] satisfied as to their [i.e., the natives’] respectability.” Following that, the agents of Leckie & Co. also wrote in 1861, when the question came up again, that they thought “it would be desirable to extend the business of the Office to Risks in the Native Town and other places outside the Fort within the Island of Bombay.” At this point it became a serious struggle to define “native town”. The headquarters, probably under pressure due to competition with other companies, decided very carefully that Leckie & Co. should be allowed to issue policies in the native town and across the whole city (“Bombay Island”) in strict accordance with six criteria of exclusion: in particular, insurable buildings had to be made of brick, have tile roofs, not be adjacent to wooden structures, and not shelter “hazardous” businesses—timber trade, fire-intensive manufacturing, etc. Such policies were offered with a ceiling of 30,000 rupees of insured value. When the Sun later lost out on a lucrative deal in 1863 because of this limitation, the maximum limit was raised to 50,000 rupees. It was only in 1893 that the Bombay Association of Fire Insurance Agents came to an agreement among the agents of all locally operating insurance companies, which finally delineated the borders of the native town and established common rates (Fig. 74). To educate and orient local insurers, a special map of the native town boundaries was created.

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113 LMA CLC/B/192/019/31522/152, p. 108.
114 LMA CLC/B/192/019/31522/151, p. 258f.
115 “First, as to the definition of the term ‘Native Town,’ we think that this term should be applied only to that part of the island inhabited exclusively by natives and which you will find marked ‘Native Town’ in the small map accompanying the Times of India Calendar forwarded to you by last mail [i.e., the map in LMA CLC/B/192/019/31522/152, p. 127]. We do not as a rule, recommend the acceptance of such risks, but your Managers might leave us a discretionary power in the matter, in that case we should use the greatest caution, and with regard to the rates we submit that they should be the same as those charged by the Alliance & Phoenix, in preference to that given by the North British” (ibid., p. 258).
116 Decision of 8 Oct. 1861 (LMA CLC/B/192/019/31522/152, p. 108).
117 Ibid., p. 109.
118 LMA CLC/B/192/019/31522/156, p. 307 (Circular of Clement Poole, secretary of the Bombay Association of Fire Insurance Agents, 4 Oct. 1893).
119 Mrs. Guthrie, “Modern Town and Native Town,” in Charm of Bombay: An Anthology of Writing in Praise of the First City in India (ed.), R.P. Karkaria, Bombay 1915, pp. 314–316, qtd. in Prashant Kidambi, The Making of an Indian Metropolis. Colonial Governance and Public Culture in Bombay, 1890–1920, Aldershot 2007, p. 35.
Figure 74  Plan Defining the Limits of the Native Town of Bombay and the Native Quarter of the Fort, for the Purposes of the Agreement of the 1st November, 1893, issued by The Bombay Association of Fire Insurance Agents, LMA CLC/B/192/019/31522/156, p. 307
town in spite of the borders, ultimately indicates how tentatively this spatial division was anchored in the mind, while also demonstrating the prevalent mixing of societies and habitats, particularly in economic contexts, as pointed out by Swati Chattopadhyay for Calcutta: “the black and white towns were far from being autonomous entities; the economic, political, and social conditions of colonial culture penetrated the insularity of both towns, although at different levels and to varying degrees.”120 In fact, taken together, the fire trends of both the European and native town—in comparison with other contemporary, similarly rapidly growing cities of the nineteenth century—reveal a highly unusual character. Insurance companies recognized the quite remarkable numbers that emerged from India only after several years: in Bombay, according to Chamber of Commerce data, the ratio of losses to premium income of all insurers was 10.05% for the period of 1847–69;121 for the Sun, the figure was 7.81%;122 in Calcutta, the ratio was only 1.07% for the period between 1852 and 1871; in Madras no damage payments at all were made between 1852 and 1878 (Table 6).

The Indian agencies were thus consistently some of the most profitable foreign agencies, because while agencies in cities such as Hamburg and Yokohama always drew significantly higher premium incomes (two to three times higher), they also had to invest a much larger proportion of that income into damage payments—the major Hamburg fire of 1842 and the Yokohama fire of 1867 alone constituted two high loss values that persisted on the balance sheets for a long time.

The Chamber of Commerce of Bombay stressed that “in 22 years’ time (from 1847 to the beginning of 1869) only eight fires of any importance have occurred within the limits of the Port, Including Both the Native and European parts.”123 These figures thus run counter to the “Orientalist” perception that the native town contained low-quality buildings and high fire frequency and possessed a completely different, premodern character. Perhaps the fire extinguishing system that was established and repeatedly extended by Henry Conybeare, the superintendent for repairs from 1852, contributed to the relative fire immunity of Bombay.124 However, such an explanation is clearly not entirely sufficient,

120 Chattopadhyay, Representing Calcutta, p. 76.
121 Report of the Chambre of Commerce 1869, LMA CLC/B/192/019/31522/153, p. 66, 81.
122 LMA CLC/B/192/019/31522/156, p. 63ff.
123 Report of the Chambre of Commerce 1869, LMA CLC/B/192/019/31522/153, p. 66, 81—my emphasis.
124 Kidambi, The Making, p. 39; Dossal, Imperial Designs, pp. 95–124: Dossal offers an in-depth treatment of the water supply system, but never touches on the possible connection to questions about firefighting. As such, the link to the fire question remains very hypothetical.
especially since Calcutta also boasted similar exceptional fire characteristics, even though there was still no comparable fire extinguishing system in place by 1870. There were many theories that attempted to explain this exceptionally low fire rate, which almost seemed like a reversal of the descriptions in the above-cited reports and travelogues about Calcutta from the late eighteenth century to about 1840. When the news of the Chicago fire broke in India in 1872, astounded writers comparing the situation in America arrived at the shocking conclusion that Indians lived in much safer cities in terms of fire danger. Among other things, this was obviously indicated by “natives, who, encouraged by the immunity from Fire which Bombay has so long enjoyed, prefer to take their chance rather than pay the heavy rates asked for.”

There was thus a persistent debate at the headquarters in London about whether or not insurance rates should be reduced in India to make insurance purchases more popular. Sun agents prepared a report that initially aligned with the popular perception of European superiority, asserting that “there are no buildings whatever in Bombay constructed according to scientific principles to guard against fire.” They maintained that the houses were all built “with a very heavy proportion of wood-work, in a large number of cases the frame work, the floors and roofs are finished before a wall is commenced either external or internal”—a fact that would significantly raise the fire risk in a typical English house. But, as they also conceded: “it is surprising how few fires there are either in the Fort or thickly populated native town, and still more surprising when a fire does occur,

|                | Premium revenue | Regular expenses | Fire damage |
|----------------|-----------------|------------------|-------------|
| Bombay 1852–1878 | £38334          | £5289            | £2995       |
| Calcutta 1852–1871 | £18365          | £2646            | £198.9      |
| Madras 1852–1878  | £4829           | £663             | -           |

125 “The non-inflammable nature of the woods principally used in the construction of houses here in addition to the manner of constructing them, [...] would render almost impossible a great conflagration like that in Chicago” (W. Nicol & Co., Agents of the North British and Mercantile Insurance Company and the other active insurance agencies in Bombay, Bombay, 23 Aug. 1872, LMA CLC/B/192/019/31522/153, p. 3).

126 Ibid.
how very rarely it is known to spread to the adjoining houses.”127 The miracle of fire immunity also explicitly applied to the native town. As D. Gostling similarly noted in the Bombay Gazette ten years later on May 18, 1883: “We have never been, in a large city, so exempt from serious fires as Bombay. In one year a greater destruction of property from this cause takes place in New York than we have known in 35 years in Bombay. We confess that we are unable to explain the comparative immunity of Bombay in this particular.” Gostling then attempted to come up with some underlying reasons for this, which coincided with the main points of Scott and McLelland’s explanations from 1872: In a tropical city like Bombay, fireplaces are not needed for heating; furthermore, after cooking, fires were always immediately extinguished, since with the absence of chimneys, cooking produced a lot of smoke. Fireplaces for cooking were made of fireproof chunam, a mortar made of sand and mussel glue. On the wooden planks of the foundational flooring, six inches of chunam or cement was applied, and wood covered with chunam does not burn. Like other tropical hardwoods, Indian teak does not burn as quickly as wood grown in temperate climates. “Hence, practically, native houses are, if not fireproof, at least fire-preventive.” Thus, over the course of more than twenty years, fires only affected individual houses. “Where is there an instance of a fire burning down half a street? It is not to be found.” English fire insurance companies shied away from insuring “native” houses due to a fear over ritual arson, but it turned out to be a groundless concern: “I believe human nature is much the same all the world over, and that there is just as large, or small, a proportion of rogues in Europe and America as in India.”128

The phenomenon of overly densely populated areas, though typically interpreted as a sign of inadequate housing conditions,129 is cited as another reason that major fires rarely take hold: fires were always immediately detected. While it was suggested in the travelogues mentioned above that monsoon winds caused fires to tear through the huts, the emphasis now shifted to the high humidity of the season, which was thought to literally dampen any such proclivity — the insurance companies used Bombay’s rainfall statistics between 1825 and 1870 to vividly establish the state of permanent moisture reigning in the city between June and September or October.131 It is astounding to take note of the reversal of the Eurocentric/Orientalist sense of superiority: suddenly, Indian

127 Extract from report by Messrs. Scott & McLelland [1872], LMA CLC/B/192/019/31522/153, p. 112f.
128 LMA CLC/B/192/019/31522/156, p. 164.
129 In 1849, sometimes a very high number such as 43 inhabitants per house were registered, cf. Kidambi, The Making, 33.
130 Star of India, 30 Nov. 1872, LMA CLC/B/192/019/31522/151, p. 182f.
131 LMA CLC/B/192/019/31522/153, p. 183.
houses were deemed exemplary in terms of their fire-resistant construction in contrast to the far inferior, average English house, which burnt quickly and easily. While the Chicago fire of 1871 was invoked in Constantinople as an example of the high modernism of the American city, at least in terms of the speed of reconstruction contrasted with the slow “Oriental/premodern” pace of reconstruction in the Ottoman capital, in India the Chicago fire was used to show that Indian cities should be understood as firesafe areas. It was, of course, a type of safety that was not really “modern” from an outside perspective, but through a strange reversal of standards, it was a phenomenon that emerged from “native” practices and the general climatic conditions of India. The result was a kind of “premodern safety,” whereby Indian cities experienced population growth as stunning as that of American cities and some European metropoles, but did not experience the typical side effects of large fires, such as those that occurred in the United States. The strange discrepancy between European travelers’ reports of frequent slum fires in the early nineteenth century and their utter disappearance in the sources beginning in the second half of the century is difficult to reconcile. Most likely it was because they were reporting fires in bamboo and palm leaf huts, and while these probably also occurred in the later period, as is still often the case in the megacity slums of the twenty-first century, they did not attract the attention of insurers, who were only concerned with solid-built sections of the city, be they part of the native or the European towns.

However, the observations of contemporaries concerning the fire immunity of Indian cities was clearly limited to handwritten recommendations, evaluations, and a few newspaper articles—there is no echo of them in the recently burgeoning field of Indian urban history, though this would be one means of approaching an important element of a specific “colonial modernity—not a colonizer’s modernity.” On the level of global historical comparison, this

132 “On the other hand what is the case with an ordinary English house. The dons, windows, floors and roofs are constructed of deal a wood that cracks splits, expands and explodes on being fired. This wood is very soft and takes fire with the greatest ease. The roofs are covered with slates, a light material that flakes and turns to powder under fire. Houses have been known to take fire in consequence of heavy flaming embers falling on the slade roofs. Party walls on the roofs are an absolute necessity. The chimney flues also are a constant source of danger, many fires having arisen from the ends of beams and joists being built into the walls too near the flues.” (LMA CLC/B/192/319/31522/153, p. 113 ff.—report by Scott and McLelland).

One might be surprised that this move from ignorance toward gathering data and experience with regard to such essentials as the monsoon were noted only now or now anew a bit more systematically by British agents after nearly 300 years of experience of European travelers and colonists through and in India. However, it is known that this climatic specificity of India, though basically known to ship captains, was “étrangement ... peu évoquée dans les correspondances entre Lorient et Paris” around 1700 (Marie Ménard-Jacob, La Première Compagnie des Indes. Apprentissages, échecs et héritage 1664-1704, Rennes 2016, pp. 79-81).

133 Chattopadhyay, Representing Calcutta, p. 6.
phenomenon is not addressed at all—in fact, Lionel Frost seems to impose a common “premodern” typology of fire characteristics, fire prevention, and firefighting upon all “Asian cities” from Constantinople to Hankou to Tokyo, which effectively obscures the entire urbanity of India with its special monsoon climate. While Frost’s analysis became a popular theoretical position, it nevertheless completely elides the reality of the obvious diversity and complexity of the problematics concerning the dichotomies of “modern/premodern,” exemplified by findings such as those invoked by Indian cities between 1850 and 1900. The correlation between “security” and “modernity” is disrupted here, since Indian “premodernity” appears to be at least as safe as colonial modernity. Nevertheless, the type of fire “safety” observed since the 1850s is of a different kind—it is at this point in history that the modern and Western schema of threat predictions, risk assessment, and security production takes hold, and the relative lack of danger first begins to be noticed. Through the successful reduction of threats in premodernity, combined with colonial horizons of expectations and concepts of security, a kind of “other” modernity is revealed.

4 China

In 1842, following the Opium War, the Treaty of Nanjing forced the Qing government to accept the installation of five “Treaty Ports” in Shanghai, Canton, Xiamen, Fuzhou, and Ningbo, which were opened to British trade. The Chinese were required to pay an indemnity of $21 million over four years. “Consuls were to be permitted at these five places. … The island of Hong Kong was to pass to Her Majesty in perpetuity,” and the British fleet would not leave Nanking until it had loaded the first six million of the total indemnity sum. Before the Treaty of Nanjing, Shanghai had been a medium-sized port serving the more important cities of Suzhou and Hangzhou (Fig. 75), but now the roles changed

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134 Lionel Frost, “Coping,” pp. 5–16.
135 On fires in Canton, see the recent work, John M. Carroll, “Slow Burn in China: Factories, Fear, and Fire in Canton,” in Empires of Panic: Epidemics and Colonial Anxieties, Hong Kong 2015, pp. 35–55.
136 See John King Fairbank, Trade and Diplomacy on the China Coast: The Opening of the Treaty Ports, 1842–1854, Cambridge, Mass. 1964; for Shanghai, see Linda Cooke Johnson, Shanghai: From Market Town to Treaty Port, 1074–1858, Stanford 1995; the contributions in Robert Bickers and Christian Henriot (eds.), New Frontiers: Imperialism’s New Communities in East Asia, 1842–1953, Manchester 2000 generally address the years after the Opium War.
137 Peter Ward Fay, The Opium War, 1840–1842, 2nd ed., Chapel Hill 1997, p. 362; Brian Hook, Shanghai and the Yangtze Delta: A City Reborn, Oxford 1998, pp. 8–12; William T. Rowe, China’s Last Empire: The Great Qing, Cambridge 2009, p. 172.
and Shanghai became a far more important city than Hangzhou. Its population exploded from 400,000 to one million by about 1900. The British arrived in Shanghai in November 1843, and the Treaty of Nanjing allowed them to reside in the city. In 1845, the Qing intendant, Gong, published the Land Regulations, which precisely defined the Chinese and foreign districts. The British established their district north of the walled Chinese city near the Huangpu River. The Americans merged their settlements with those of the British in 1863, while the French established a separate settlement between the walled city and the British sector. The jurisdiction and government of the international settlement was in the hands of a municipal council which, from the very first days, applied the principle of extraterritoriality. Europeans were judged by their own national laws rather than by Chinese law. The economic importance of Shanghai rose quickly: its internal trade in silk, cotton, tea, silver, and opium comprised close to 50% of domestic trade by the 1850s. Therefore, on contemporary maps, Shanghai was represented as a conglomerate of spatially distinct clusters of supposedly pure ethnic identity, plotted next to each other with clear-cut boundaries. In general, this represented reality accurately, but examining the situation in more detail revealed many hybrid elements within the city.

Hong Kong had been ceded to the crown after a two-year-long occupation in 1843 (cf. for a view on the port Fig. 77). Even more quickly than Shanghai, the city grew and took on the role of one of the world’s most important trade centers and port cities, a development which the British diligently observed and proudly noted. In a note on “the rise and progress of Hong Kong,” they showed the change in relevant indicators—the rise in the local population from about 7,500 in 1841 to 121,970 in 1869; the rise in receipts (revenues and parliamentary grants) from £38,813 in 1841 to £192,428 in 1869; the rise in the number of ships (1845: 334; 1869: 4426) and the tonnage of shipping in the harbor (1845: 117,210; 1869: 2,256,049). A contemporary analysis of 1876 represents the function of the city as a center of trade and finance, stressing that it was much more important than, for example, Cape Town:

"It has been well observed that one of the most profitable and useful purposes to which the surplus means of an old country can be applied is the prudent development of the resources of newer settlements where...

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138 See Marie-Claire Bergère, *Histoire de Shanghai*, Paris 2002, pp. 35–44.

139 See Catherine Vance Yeh, “Representing the City: Shanghai and Its Maps,” in David Faure and Tao Tao Liu (eds.), *Town and Country in China: Identity and Perception*, Basingstoke 2002, pp. 166–202.

140 The Rise and Progress of Hong Kong, LMA CLC/B/192/019/31522/62, p. 13.
money is scarce. In this way the investing class in England has within its reach the higher scale of interest constantly ruling in the East. In China for a long time past money has been exceptionally dear. Banks of undoubted standing and credit have been paying at the rate of 12 and 14 per cent. per annum on deposits in Hong Kong, and elsewhere much higher figures have prevailed. These loans have at the same time proved highly advantageous to the borrowers. Amongst the permanent causes of high rates may be pointed out the active employment of all accumulated capital; the large business profits which are generally made by native traders; and their instinctive fear of any display or acknowledgement of wealth. ... The rich retired native merchants generally like to own property in Hong Kong, as it is beyond the reach of the Mandarins’ squeezes.141

Business in China was extremely good for the Sun.142 All in all, the company earned £66,806 in Shanghai between 1852 and 1895, while the expenses for the

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141 Granville Sharp, Bank Buildings, Statistical Account of Hong Kong, Nov. 1876, LMA CLC/B/192/019/31522/62, p. 79.
142 I am using the foreign Memorandum Books China 1–4 of the Sun Fire Office here, LMA CLC/B/192/019/31522/60 to 63.
agency were only £11,318, and only £17,902 had to be paid out in losses. In Hong Kong during the same time, the Sun earned a £33,398 premium income, had to pay only £5002 in overheads, and only £13,977 in losses. In comparison with many of the Sun’s other agencies around the world, the Chinese agencies were important for business volume as well as for net gain (Fig. 76).143 In comparison with other European agencies, the Sun became established early in the Chinese market. The Phoenix, otherwise the pioneer in the globalizing insurance market alongside the old sugar trading networks, entered Shanghai only in 1858, and Hong Kong in 1862, roughly 10 years after the Sun.144 In 1960, Peter Dickson devoted two pages to the history of Sun agencies in the Chinese treaty ports: according to this analysis, the prosperous early years, inferred from the numbers above, lasted until around 1870. At first, the Sun competed only with other British insurers, the only early German exception being the Hamburg-Bremen Insurance Company.145 During those years, several attempts by European merchants to set up local fire insurance businesses (the first China Fire Insurance Company of Shanghai in 1864, the Victoria of Hong Kong, 1870) soon went bankrupt. Only a merger of the Hong Kong Fire Insurance Company of

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143 See Zwierlein, “Grenzen der Versicherbarkeit,” p. 438.
144 Trebilcock, The Phoenix Assurance, p. 313.
145 In Hong Kong, the Imperial, London, Alliance, Royal Liverpool, Phoenix, the Liverpool & London & Globe, the North British, the Northern, Queen, Commercial Union, Guardian, the Manchester, London & Lancashire, and Norwich Union are mentioned; among the non-British insurance companies are the China Fire Insurance, the Australian, and the Hamburg Bremen. In Shanghai, all the same offices are represented, with the exception of the Guardian, the Norwich Union, and the Australian, LMA CLC/B/192/019/38553 vols. 1 and 2.
1866 and the second China Fire Insurance Company of 1870 was competitive. Anticipating changes, the Sun slowed its engagement in China. In 1887, German insurance companies entered the market, and in 1895 the Sun transferred its representational duties to the German mercantile firm Siemssen & Co., where they remained until World War I.\footnote{Dickson, \textit{The Sun Insurance Office}, 196–197.}

Looking at the development of the insurance sum, it can be seen that although the market was favorable, the Sun faced some unforeseen difficulties, mainly due to changing agents, many of whom declared bankruptcy. By contrast, the payments of losses were not of great importance, even for years with large fires, such as 1867 and 1878 in Hong Kong. The only effect was the increase in insurance sums in Hong Kong after 1867, as was usual after great fires: demand for insurance always rose quickly in the aftermath of such disasters before normalizing again after a time. However, the other peaks and valleys of the graph cannot be explained by the influence of major fires. The part of the city that was particularly interesting and important for the Sun was Victoria Harbor.

Two great fires struck Hong Kong, one in 1867 and one in 1878. On the evening of October 30, 1867, a conflagration broke out at about 7:00 pm. This destroyed 200 houses, warehouses, and harbor storehouses known as “godowns (Fig. 78).”

Most Chinese houses and property were uninsured; the total losses of the insured properties ($453,505) were divided among the insurance companies in Hong Kong.\footnote{The losses were divided as follows: China Insurance $110,000, Royal $110,000, Hong Kong $100,000, Imperial $50,000, Sun $24,005, Guardian $17,000, Northern $16,000, Northern

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure77.png}
\caption{General view of Victoria, Hong Kong, from a newspaper clipping cut out for the Sun Fire Office headquarters in London (from \textit{The Illustrated London News}, 5 May 1866, lma clc/ B/ 192/ 019/ 31522/ 60, fol. 141)}
\end{figure}
insurance companies met and discussed possible improvements, but there were no decisive changes such as the introduction of an organized volunteer or even a professional fire department. However, it should be emphasized that large fires were rare in China in comparison to other East Asian markets such as Japan, where the Yokohama fire of 1867, among others, testified to the hazardous situation there.

The second great fire in Hong Kong struck on Christmas in 1878. It started at Endicott Lane at the corner of Queen's Street and destroyed 350 to 400 houses. A sketch of the portion of Victoria Harbor destroyed by the fire was published and the agents of the Sun meticulously marked the fortunately small number of destroyed houses they had insured (Fig. 79).

The distribution of the damages, estimated at $1 million, was different from the fire eleven years earlier. The Sun was even luckier than in 1867 and only

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148 British & Mercantile $12,000, Liverpool & London $5000, London $5000, Phoenix $4500, LMA CLC/B/192/019/31522/60, 79.

148 The Hong Kong Fire: $150,000; China Fire: $70,000; the first real Chinese Company, the On Tai: $20,000; Phoenix, Liverpool, London and Globe: $80,000; Transatlantic
had to pay $500 (£91) in losses. For the first time, an insurance company exclusively operated by the Chinese was afflicted: On Tai Insurance, which had been founded just one year previously and insured maritime transport as well as fire (Fig. 80). The Hong Kong and the first and second China Fire Insurance Companies were run largely by Europeans, even though they were based locally. Around 1876–77, three Chinese companies were founded, run exclusively by Chinese citizens but based on European principles. With the advent of On Tai Insurance (and the brief existence of the Sheong Insurance Company), advertisements and policy forms in Chinese were sent to London by Sun agents for the first time.

Fire Insurance Company of Hamburg: $50,000; Imperial: $30,000; Lancashire $17,000; Royal: $10,000 (LMA CLC/B/192/019/31522/62, p. 128. These are rough estimates).

149 Ibid., p. 135.
Figure 80

Newspaper advertisement by the On Tai company foundation to attract new customers, 1877 (Figure 80a, top), and its police forms (Figure 80b, bottom) (LMA CLC/B/192/019/31522/62, pp. 110-112); The translation by the British contemporaries of the text on the left reads “Prospectus—Mr. Santos asked me to take down the comprador's translation as he could not quite make it out of [!] without any punctuation] the following is a liberal translation [!]”. The first half is printed in the Hong Kong Daily News. It goes on to say: “Foreign Insurance Companies pay well; a large business is done by Natives and they have no Insurance Companies. There are plenty of rich Chinamen and if they wish they can easily make a Company on same principles as a Foreign one. Last year the China Merchants started a Company which paid well. This year number seven moon another was started also doing very well. It is now proposed to start a third called ‘On Tai’ on Foreign principles. 2000 shares in Taels 200 of which Taels 100 is paid up. Guaranteed 1% p. mensem from time of starting.” Letter to Linstead 16 Oct. 1877. In fact, this renders only the last, most technical sentences of the text. It starts with some interesting general remarks on economic competition (“The whole world is one family and there is no difference between China and the West. As for the opportunity for enrichment, who doesn't fight about it?”) and goes on to remark that “Our country [China] has many merchants, but surprisingly there is no insurance” and finally espouses the national-mercantilist vision that the profits of the insurance business should not be left to foreign merchants. It gives an account of the prior foundations of the first two Chinese insurance companies. The document only refers to maritime cargo insurance at that moment, but On Tai Company was active later on in the fire insurance market. Thanks to Florin-Stefan Morar for a translation of that clipping. Cf. a brief remark on the On Tai Insurance Company in David Faure and Elisabeth Köll, “China: The Indigenization of Insurance,” in Borscheid and Haueter, World Insurance, pp. 472–494. 475 and n 10.
There are glimpses of a “cultural transfer” of the insurance principle within the melting pot of European/Asian business in Hong Kong. It is typical that this transfer happened in the last third of the nineteenth century: at that time, there was a certain national, sometimes nationalist, “backlash” in many regions of the world, and local companies were being founded in competition with the British. Also, apparently as early as 1847, there was an unsuccessful project to construct bankruptcy insurance as a hybrid between the existing form of guild associations (gongsuo) and the newly introduced principle of European premium-based insurance. However, evidence of this is scarce and it would be necessary to consult the archival sources for the further precise (and also linguistic) descriptions of that transfer process. Consequently, this analysis will focus on how Europeans managed themselves and their insurance businesses in Hong Kong and Shanghai.

150 The directors of the On Tai Insurance Company, as first founded for Marine Risks on Goods, 1 June 1877, were Lee Sing, of the Lai Hing Firm; Chan Shung Lai, of the Lai Yuen Firm; Wong Yik Pun, of the Chun Cheong Wing Hong; Loo Yee, of the Yee On Firm; Fong Soey Fung, of the Tung Sang We Hong; Wong Pak Cheong, of the San Tye Lee Hong; and Pun Pong, of the Wy Sing Firm. The Manager was Ho Amei, LMA clc/B/192/019/31522/62, 109.

151 The founding of the first local fire insurance institution in Singapore represents a typical global parallel for this point in time in the last quarter of the nineteenth century, Hing, A Matter of Risk, pp. 49–96.

152 It is the account of Linda Cooke Johnson that illuminates this phenomenon; she refers here to the “Reports from the Consulate at Shanghai,” Public Record Office, Kew, Foreign Office 223/76, f. 287r. Johnson, Shanghai, pp. 143–44, 167, 219. However, we cannot judge from her text whether it relies on contemporary English accounts or on Chinese sources handed over to the Consul; the nineteenth-century English description may already have influenced the account by identifying some guild funding operation as “(premium) insurance.” I would hesitate to conflate the gongsuo plan, as Johnson does, with “insurance” (in the sense of premium insurance) because there may persist some misunderstanding about the character, history, and functioning of European insurance (cf. the statement “Insurance—a newly introduced practice in nineteenth-century Europe and America […]” on p. 323). In medieval and early modern insurance history, the relationship between guild practices of security production and the Mediterranean premium insurance system, and later on, the British joint stock company system, is much discussed: some give the guilds priority in a history of the invention of the insurance; others rather distinguish both practices from one another; some third voices stress the hybridisation of both types, see the rather one-sided Schewe, Geschichte. Faure and Köll, “China,” do not touch upon the gongsuo problem. For an overview on the state of research on the gongsuo or huiguan guilds or guild and corporation halls cf. Christine Moll-Murata, “Merchant and Craft Guilds”, in: Ead., State and Crafts in the Qing Dynasty.
Fire insurance companies approach new cities through the lenses of “rates” and “risk” classification. In China, the typical difference between first-class risks (brick or stone-built buildings) and second-class risks (wood or half-timbered construction) was complicated by the location of the house within the city. Insurance companies exclusively insured buildings in foreign-settled sections of the city. They noted in their lists of rates whether the dwellings and warehouses to be insured were “surrounded by Chinese houses,” whether the “Native Town [was] separated by a Street 20 feet wide,” whether the buildings were “in risk of Native houses” or whether they were “near” or “surrounded by Chinese houses.” In the latter case, in some cities, they added an extra fee to the premium.\(^\text{153}\) The Memorandum Books illustrate the evolution of this crucial question from 1852 onwards. At first, there were no Chinese houses in these settlements, but in 1853, the city was “taken by the Rebels” and many Chinese refugees began to settle within their borders until 1865.\(^\text{154}\) In 1854, the company’s directors asked their agent in Shanghai if the company should insure 1) buildings on foreign property, erected in the European manner and in all parts resembling those occupied by Europeans, if belonging to and occupied by Chinese; 2) the same buildings, belonging to Europeans, but occupied by respectable Chinese merchants; 3) property in those houses. At that point, the London headquarters decided to insure only European houses occupied by Chinese (the second case) and signed a £304,000 insured sum at 1.5%. From 1868 onward, the Sun also insured Chinese houses in Hong Kong, but doubled the premium rates (50 shillings per £100—i.e., 2.5%). A photograph in the memorandum books shows three typical buildings, marked on a cadastre map that has not survived as Lot. 190 (Chinese), 196, 197 (European) which

\(^{153}\) China. Rates for Foreign Settlements (Tariff 13 April 1864 to 9 June 1866), LMA CLC/B/192/019/31522/60, p. 36.

\(^{154}\) See Bergère, Histoire de Shanghai, pp. 46–57. This explains why the situation of European and Chinese housing was far more complicated than in the 1820s and 1830s. For Canton Carroll, “Slow Burn in China,” p. 41 states that “[f]or the most part, the foreign factories and their contents were less vulnerable to fire than the rest of Canton and its suburbs”—but the very distinction between the ‘European’ and the Chinese became difficult, at least in Hong Kong in our later period when European fire insurances had settled.
Chapter 6

illustrates what the agents had in mind when they distinguished roughly the type of building (Fig. 81).

By 1895, the description and differentiation of risks for Hong Kong had developed into ten classes of “European occupation and construction” (residential homes, retail shops, godowns, saltpeter, coal, kerosene oil godowns, ... explosives). Moreover, buildings that were not “purely” European were now listed under the second subcategory of “European risks” as “mixed occupation.” There was a distinction between:

1. Houses of Semi-European or Chinese Construction, occupied entirely by Europeans and/or others, except Chinese [a. (sic, subcategory like this in the source) If partly occupied by Chinese]

2. Buildings of European Construction, occupied partly by Europeans and/or others, and partly by Chinese and the Rates were formed for Europeans and/or others except Chinese.155

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155 LMA CLC/B/192/019/31522/63, p. 101.
Under “Europeans risks,” agents included “Europeans, Americans, Armenians, Portuguese, Parsees, Indians and Japanese.” It is telling that Japanese and Indians were treated as equivalent to Europeans, and that Portuguese had to be included explicitly as Europeans.\textsuperscript{156} In the second major category, “Chinese Risks,” the agents had to distinguish between 1) those Chinese buildings occupied by Europeans, and 2) those Chinese buildings occupied by Chinese, the latter category having ten different subcategories, including “4) Houses of European construction, occupied exclusively or partly by Chinese and partly by Europeans (including Compradors’ effects in European Offices),\textsuperscript{157} 5) Houses of Chinese or Semi-European construction used as Shops and/or Dwellings,” and 10) an additional 25% if the property was “Suburban (outside City Boundaries).”\textsuperscript{158} In Shanghai, also in 1895, rates were similarly differentiated according to European or Chinese occupation, but with fewer subcategories.\textsuperscript{159}

The many categories and distinctions were the result of long discussions and communications, which are mirrored in the Memorandum Books. As early as 1854, we read:

The Imperial and the Alliance take risks on buildings owned by Europeans and occupied by Chinese as godowns only at the same rate as on buildings occupied and owned by Europeans. ... Risks on European built buildings owned by Europeans occupied by Chinese, as before remarked we consider in every way as desirable as if occupied by Europeans, indeed even more so, for as in the one case the property within the godown being utterly uninsured (Insurance being unknown to the Chinese) it is but reasonable to expect even greater precautions against Fire than where the property as in the case of Foreign occupation, is covered against fire.\textsuperscript{160}

\textsuperscript{156} Japanese Immigration in “Treaty Port China” started in the 1870s but grew quickly, especially after 1904; for Shanghai, see Christian Henriot: “‘Little Japan’ in Shanghai: an insulated community, 1875–1945,” in Bickers and Henriot, \textit{New Frontiers}, p. 148.

\textsuperscript{157} “Comprador” was the usual term in colonial trade for Cantonese mediators, translators, and trading contact men who worked for the British and who “themselves did business mostly with other Cantonese” (for the importance of those compradors to Shanghai see Johnson, \textit{Shanghai}, p. 197; Bergère, \textit{Histoire de Shanghai}, pp. 83–84).

\textsuperscript{158} LMA CLC/B/192/019/31522/63, pp. 101–102.

\textsuperscript{159} Ibid., p. 138.

\textsuperscript{160} LMA CLC/B/192/019/31522/60, p. 156f. (August 1854).
The statement that insurance was completely unknown to Chinese is only partly true if we think of the *gongsuo* system.\(^{161}\) Normally, in the Treaty Port of Shanghai, the Chinese were not allowed to own houses, but they managed to buy them through the mediation of Europeans:

The French side contains a very great number of Native houses and as a rule we would not accept risks there unless on property situated on the Bund or entirely separated by a large open space from Native buildings, nearly all the respectable people live on the Bund. The American side contains also a good many Native houses, but they are clustered together and any risk we would be likely to be offered is quite away from them.\(^{162}\)

In 1866/67, the Sun’s agent Chapman counted 11,774 Chinese houses and only 354 “purely” European houses in the English settlement. However, most Chinese houses were in English hands: “Chinamen cannot own property in the settlement; if they buy houses, it is in the name of some European.”\(^{163}\) Such practices undermined the clear native/European border, and although insurance companies reacted as flexibly as possible, they were unable to remove the distinction between European and Chinese. The steering committee of the Sun in its London headquarters was likely concerned about the problem of “Chinese houses” and issued an official definition in 1869:

It may be useful to remark that the term “Chinese houses” has the definite meaning of “Houses occupied by Chinese, whether owned by them or by Europeans.” The evidence of persons who have resided in the Settlements and Treaty Ports seems to establish the fact that at such places the Natives only dwell in houses of a kind which Europeans never occupy. Hence the occupation sufficiently and accurately defines the construction of a house.\(^{164}\)

\(^{161}\) Johnson, *Shanghai*, pp. 143–144, 167; but see above note 152. Faure and Köll, *China*, pp. 472–73 point to the first introduction of (maritime) insurance in Guangzhou (Canton) as early as 1805.

\(^{162}\) Agents Chapman/King & Co. to Sun Fire Office, April 8, 1869, London, LMA CLC/B/192/O19/31522/60, p. 166f.

\(^{163}\) LMA CLC/B/192/O19/31522/60, p. 173.

\(^{164}\) LMA CLC/B/192/O19/31522/60, p. 112.
The committee was concerned but could not give any clear advice: “The Committee, however, do not feel able to submit any definite recommendation, as the intermixture of European and Chinese risks is so general and complicated that the question can only be satisfactorily dealt with on the spot.” Agents were tasked with dividing the town into districts corresponding to that intermixture of Chinese and European premises. All in all, the definition was strange because it drew conclusions from habits and manners and imposed them onto the material substance of buildings.

Given that the intermixing between ethnicities became more and more complex, the efforts made to distinguish between “European” and “Chinese” seem to have followed an increasingly ethnic or even racial logic, rather than an economic one. For the case of India, the even stricter separation between the European and native districts of Bombay and Calcutta was economically dysfunctional, as has been seen. For Shanghai and Hong Kong, the ethnically hybrid situation of both cities does not lend a good legitimation, from our ex post perspective and from a point of view of simple economic calculation, for all those subtle categories and subcategories centered on the Chinese/European distinction. The reason for this ethnic mixing lies in the difficult political situation in the surrounding Chinese Empire and the attractiveness of open trade ports. European settlements grew massively: the London headquarters even noted that they did “not apprehend so much danger from Chinese buildings in the English settlement] as you [the local agents] seem to” have done. Given the short distances between them, a fire starting at a Chinese house would have immediately affected nearby European houses; however, Chinese houses were as safe as those of Europeans: “The buildings in Shanghai are very much more substantially built than those in Japan. The Native houses are built of wooden framework filled in with bricks and are very easily pulled down in the event of fire.” Throughout the sixty years of business in China before World War 1, no major fires broke out in Shanghai, and the two great fires in Hong Kong, in 1867 and 1878, did not confirm the rationale for the distinction between Chinese and European.

5 USA/New York

Although the Sun’s very first foreign policy was issued in 1836 for one “risk” in New York, the insurance company was one of the last British companies to

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165 Ibid.
166 LMA CLC/B/192/019/31522/60, p. 165.
167 LMA CLC/B/192/019/31522/60, p. 165.
168 For a general overview of the American market, see Robin Pearson, “Organizational Forms in Insurance: A Comparison of the USA and Germany During Industrialization,”
establish itself in what had been the largest fire insurance market in the world beginning in the second half of the nineteenth century: from 1836 to 1875, only sixty-one scattered individual policies had been purchased.\textsuperscript{169} While other cities were later much more “carelessly” and quickly engaged, in the US it was deemed necessary to wait until it became clear whether the high fire frequency derived from a specific arson culture:

The truly alarming accounts of Fires which have recently reached England are of a nature which makes it prudent for the Managers to abstain altogether from extending their habilities in the United States, or at least to wait until such intelligence has been received as may tend to remove the existing impression that many of these conflagrations are not the result of any of the common causes of fires, but of arson or incendiarism.\textsuperscript{170}

Whenever the fire numbers were particularly high (for example, around 1866), the Sun was asked if it wanted to enter the market, while local insurers raised rates by 25% during these periods (as in February 1867) and were often financially backed against a wall or simply failed.\textsuperscript{171} On the one hand, the American market, at least by 1835,\textsuperscript{172} was more open than the heavily state-regulated German market;\textsuperscript{173} on the other hand, it was obviously more difficult to approach and there was strong resentment against European insurers in America. A satirical one-act play titled “London Assurance” appearing in a New York newspaper in 1871 mocked the effect of the sudden dominance of English insurers in the US market after the Chicago Fire: a customer turned to the London “Whirlpool and Undone Insurance Company” and attempted to

\textsuperscript{169} in Pearson and Yoneyama, \textit{Corporate Forms}, pp. 114–42 as well as Tebeau, \textit{Eating Smoke}, pp. 78–85 and passim.

\textsuperscript{170} LMA GLC/B/192/019/31522/275, p. 10f., 17.

\textsuperscript{171} LMA GLC/B/192/019/31522/275, p. 5.

\textsuperscript{172} “The Chicago & Boston Fires 1871–72 also tended to send Business to England,” ibid., p. 16. Cf. Pearson and Lönnborg, “Regulatory Regimes,” p. 62.

\textsuperscript{173} Earli\textsuperscript{er}, in 1810/1814 in Pennsylvania and New York, foreign companies were barred from managing businesses; however, in 1833, after the major fire in New York, this prohibition had to be abandoned, since the capital power of the British insurers was required; see F. C. Oviatt, “Historical Study of Fire Insurance in the United States,” \textit{Annals of the American Academy of Political and Social Science} 26 (1905), pp. 155–78, here 162.

\textsuperscript{173} In 1837 Prussia introduced permit requirements for non-Prussian fire insurance enterprises; see Hans Christoph Atzpodien, \textit{Die Entwicklung der preußischen Staatsaufsicht über das private Versicherungswesen im 19. Jahrhundert unter besonderer Berücksichtigung ihres Verhältnisses zum Wirtschaftsliberalismus}, Bonn 1982; Sonja Heiss, \textit{Die Institutionalisierung der deutschen Lebensversicherung}, Berlin 2006, p. 111.
determine its business balances, which seemed to become less credible, smaller, less reliable, and more antiquated with every question.\textsuperscript{174} Another, somewhat bitter short story “A British Victory; Or, Time’s Revenge” appearing in the \textit{Brooklyn Local Intelligence} of January 13, 1872, addresses the relative financial strength of British fire insurance companies, which allowed them to dominate the American market going back to the wartime period of 1803 to 1814. During this time, some private lenders made good profits on loans to the US state. The American payments on these loans allowed the lenders to establish insurance companies: these companies now threatened domestic insurers, although they had been financed de facto by Americans—a belated British victory, on the financial level at least, following the loss of the old colonies.\textsuperscript{175} The Sun observed these developments and made self-critical comments: “Several English Companies Conducted business in a manner unnecessarily offensive to Local Interests—to be regretted that a more just truthful & conciliatory course had not been pursued.”\textsuperscript{176} In the end, the Sun was not sustainably engaged in the market until 1882 and was then rewarded with high profits, which allowed them to take over the locally operated Watertown Insurance Company with its 156,000 policies.\textsuperscript{177} In this regard, it would be useful to further investigate the directly preceding time period, when the Sun tracked the American market very closely and developed the practical skills that allowed them to then relatively securely enter the market on July 31, 1882.

Of the 103 fire insurance companies operating in New York in 1870, most were not older than twenty years (Fig. 82): the oldest firm operating at that time was Knickerbocker Fire Insurance, a mutual society, which was founded in 1787 and lasted until 1890; a total of eleven insurance companies emerged in the initial stage of proliferation between 1821 and 1825. Around 1820, there were seventeen joint-stock insurance companies based in New York, six in Pennsylvania, two in Connecticut, and one each in Rhode Island, New Jersey and Massachusetts;\textsuperscript{178} however, many of these early companies fell victim to the major fire of December 1835, resulting in a stagnation in the market and few new companies emerging until about 1850.\textsuperscript{179} After this point there was a boom in new businesses, which corresponded with a global trend in the insurance market. In 1853 alone, 19 new insurance companies were established; and 62

\textsuperscript{174} LMA CLC/B/192/019/31522/275, p. 129.
\textsuperscript{175} LMA CLC/B/192/019/31522/275, p. 139.
\textsuperscript{176} Ibid., p. 153.
\textsuperscript{177} Dickson, \textit{The Sun Insurance Office}, pp. 221–231.
\textsuperscript{178} Oviatt, “Historical Study,” p. 162.
\textsuperscript{179} Also the judgment in Oviatt, “Historical Study,” p. 163.
of the 103 insurance companies active in 1870 were founded between 1849 and 1859. Most of the 22 foreign insurers who operated in New York in 1882 entered the market only after the major fires of 1871/72, which had heavily burdened American insurance companies and, as discussed above, created a point of entry for foreign companies.

What was known about New York, or American cities more generally? Although by the second half of the nineteenth century they often boasted impressive architectural achievements, American cities were certainly associated with great risks, and great fire risk in particular, as demonstrated by the enormous fires of Chicago in 1871, Boston in 1872, and Baltimore in 1904. Christine Meisner Rosen has shown the extent to which these fires indicated significant structural problems in cities that were growing too fast and in turn spurred the adaptation of appropriate structural safety measures. Her study is dedicated to the process of reconstruction within these cities; the earlier fire characteristics of these cities had not previously been examined, which is why these major fires are presented as solitary trigger events for decisions concerning urbanization and the urban development process.

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180 LMA CLC/B/192/019/31522/275, p. 102 (Summary in table form from The Spectator, October 1871, p. 372).
181 LMA CLC/B/192/019/31522/275, p. 184f.
182 Cf. Pearson and Lönnborg, "Regulatory Regimes", pp. 59–86, 63.
183 Meisner Rosen, The Limits of Power.
184 Miller, American Apocalypse, p. 67 similarly briefly mentions the fact that there were frequent fires in the drought period of 1870/71. Sawislak, Smoldering City, pp. 21–67 also
For example, the Sun had a copy of the report by Mr. Marsden, a Guardian Insurance employee, who in 1872 summarized these informative statistics from the fire commissioners of the city of New York over the previous five years (Table 7).

From these statistics, Marsden concluded: “It will thus be seen that the Commissioners are justified in taking credit in their report that fires are generally confined to the Buildings in which they originate & that while the number of Fires has increased with the growth of the City, the value of property destroyed has steadily diminished.”185 This statement was not true for the prolific fire year

| Year               | Number of fires | Estimated costs (in $) |
|--------------------|----------------|------------------------|
| 1866               | 746            | 6,428,000              |
| 1867               | 873            | 5,711,000              |
| 1868               | 740            | 4,342,000              |
| 1869               | 850            | 2,626,000              |
| December 1, 1869-April 1870 | 354 | 1,069,000 |
| April 1870–71      | 1105           | 7,389,000              |
| 1871–72            | 1370           | 1,633,253              |

For the fire year 1870–71, see, in addition to Röder, *Rechtsbildung*, and also Andrea Rees Davies, *Saving San Francisco: Relief and Recovery after the 1906 Disaster*, Philadelphia 2012, pp. 105–42.

185 Ibid., p. 20.
of 1870/71, when the drought that so dramatically affected Chicago was also felt in New York, but all in all, these numbers should have been reassuring enough for the Sun to enter the market. Nevertheless, they continued to wait. It may be that the perception of the fires in Chicago and Boston contributed significantly to this hesitation: these fires, which destroyed street after street of brick-built buildings, hit on a nerve during this “progressive” period from the 1850s on, when older constructions of wooden pillars and beams had been increasingly replaced with iron. It was believed that this type of construction would be fireproof when combined with brick—although as brick was considerably more expensive, its use was not widely implemented.186 One of the Chicago buildings that resisted the flames the longest, the Tribune Building, had the reputation before the fire of being “one of the most absolutely fire-proof buildings ever erected.” Even this building could not be saved in the end, so that contemporary witnesses simply had to conclude with bitter humor: “That is, it was fire-proof up to the date of its destruction.”187 In another report, written in 1876, Sun employee George Manvell initially offers a general impression of the cityscape that was scarcely related to the business of insurance at all. He describes the “celebrated 5[th] Avenue” as “monotonous” and maintains that Marsden’s somewhat disparaging characterization of Broadway as “a mixture of Whitechapel & Tottenham Court Road” is not incorrect, comparing the split use of the walkway to Hamburg and Copenhagen. The “un-English” impression presented by New York was primarily a result of the many advertisements on the buildings. In terms of fire danger, Manvell emphasizes the often-intense heating employed in the basement of the buildings, which dried the wooden beams; however, he notes that the roads are much wider than in Europe, which impedes the spread of fire and facilitates firefighting efforts. He points out the widespread use of bricks in construction but states that wood was also still used—for example, in the form of the ubiquitous wooden window blinds. The so-called “dry goods district” between Worth, Thomas, Church Street, and Broadway comprised the largest concentration of value in New York—its worth was estimated at $25 million.188

The burning of a few blocks in one of these quarters would cause a loss to be reckoned by millions, & would mercilessly reduce to Bankruptcy a whole row of Insurance Companies. ... No Insurer can traverse the Dry

186 Sara E. Wermiel, The Fireproof Building: Technology and Public Safety in the Nineteenth Century American City, Baltimore 2000.
187 Miller, American Apocalypse, p. 67.
188 Augustine E. Costello, A history of the New York Fire Departments, Volunteer and Paid, Derived from Original Sources and Authorities, New York 1887, Ch. 53, part 5.
The Globalization of Safety Regimes

Goods District, the neighbourhood of the Cotton Stores & Stock Exchanges, or John Street & Maiden Lane without a Shudder. Only a few blocks there need burn down to cause a loss of hundreds of Million Dollars ... assuming the simultaneous occurrence in different parts of the City of 2 large fires, a scarcely water supply—as is too often the case & at the same time a strong sea breeze—we have the Elements of a Catastrophe compared with which even that of Chicago would sink into insignificance.189

Although some observations appeared pejoratively inflected, it also seems they were reported to London out of dutiful skepticism, since after all, it was impossible for visitors to avoid conceding the strengths of the city: “After all this I must say that I like New York & in some things they are certainly before us.”190 There was no other country in which the Sun operated where such a judgment was reported to the headquarters.

In 1882, when the Sun finally decided to enter the insurance market through its takeover of the Watertown Company, precise financial information was available for each of the twenty-two foreign insurers in New York. A very reliable average value for the ratio between premium revenue and loss payments had been calculated because there were 167 years of data to fall back on, even though each individual company had been operating in New York for only between two and twenty-one years: the “loss ratio” hovered at 60.9% of the premium payments.191 The danger of fire and associated damages in the city had therefore by no means been underestimated, and compared with the major Indian cities, New York initially seemed to be a much more dangerous and perhaps less profitable market. The ultimately high fire danger, however, obviously also led to a very high demand for the services offered by “fire insurance,” resulting in an American market that quickly became profitable for foreign companies.

6 Comparative Analysis

It would seem that the pure numbers of the loss ratio addressed at the beginning of this chapter— i.e., the ratio between premium income and claims payments (nearly 9% for Bombay, 27% and 42% for Shanghai and Hong Kong respectively, 60% for New York, 82% for Hamburg, 87% for Istanbul)—while

189 LMA CLC/B/192/019/31522/276, p. 195.
190 LMA CLC/B/192/019/31522/276, p. 144–46.
191 Cf. tables in LMA CLC/B/192/019/31522/275, p. 184f.
themselves very diverse, conceal urban worlds that are even more different from each other. The fire and fire-danger statistics of these cities emerged as a response to entirely different conditions.

In particular, the files of the Sun Fire Office offer insight into how insurance ultimately employed important practical and simple mechanisms to effect globalization during the second half of the nineteenth century, as well as offering an illustration of the perceptual schemata at work: First, there is clearly a difference between Western European cities and those perceived as non-Western. The Sun’s foreign Memorandum Books did not contain maps of Hamburg and even not for New York that meticulously defined insurable and uninsurable zones—though detailed fire insurance maps certainly existed in general for England and the US at that time. The dichotomies of “European” vs. “native” towns, or “Christian”/“European” vs. “Muslim” were also absent in such Western regions at that time. Ethnic segregation, which concerning US cities around 1900 has already been thoroughly thematized in conjunction with disaster history, seems initially not to play a decisive role in the cartographic tradition of fire insurance: the separation between good and bad risks was determined almost solely by differences in building materials. Today, segregation historians do in fact use fire insurance maps because of their detailed rendering of the housing stock around 1880/1900, but they project back Census and city directory data (as for Washington, Nashville and Charleston) to get a clear impression about the way how (and how differently from one city to the other) black/white segregation and coexistence was realized in the fast growing cities of the United States.

An initial result of the comparison is thus that the “overvalued” predominance of colonial and “Orientalist” classification strategies really had little to do with systematic economic considerations foremost for Colonial Cities or Treaty Port Cities in a large Asia from Istanbul to China and Japan. In India, it even became apparent that the “native town” was no more vulnerable to fire than the European part of the city and thereby represented an equally good or—due to the relatively low demand for insurance—bad market. The fact that a fire insurance company as important

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192 For “racialized views” during the San Francisco disaster regarding interactions with the residents of Chinatown, see Davies, Saving San Francisco, passim.
193 On early hazard mapping, particularly in relation to American cities, see Tebeau, Eating Smoke, pp. 101–08; van Manen, “Les plans d’assurance incendie de Goad,” p. 172; Monmonier, Cartographies of Danger, p. 286.
194 J. R. Logan and M. J. Martinez, “The Spatial Scale and Spatial Configuration of Residential Settlement: Measuring Segregation in the Postbellum South,” in: American Journal of Sociology 123, 4 (2018), pp. 1161–1203; Cornel Zwierlein, Florian Wagner, "Close distance. Social segregation in trading empires and colonies - An introduction", Journal of Modern European History 18, 2 (2020), pp. 140-155.
The Sun (in addition to the other companies already operating in India) apparently took many years to recognize the basic causal relationship associated with the monsoon climate and using tropical timber as a building material is really quite astounding. In Istanbul, the flagship Sixth district burned just as readily as the Muslim Stamboul did a few years earlier. The overzealous inspection narratives, and the “expert” reports by Woods, Atkins, and Manvell seem almost to be nothing but a waste of paper. The whole process functioned according to trial-and-error. It took twenty years for companies to collect the necessary data—namely, their own and others’ loss ratios—that constituted perhaps the only reliable criteria for answering the question of whether engaging in insurance practice was advisable. The typically scanty information that could be derived from outside sources about the fire characteristics of the cities in any given location was apparently rarely used as a management tool. In China, the mixing and complex blending of ethnic boundaries within the Treaty Ports further demonstrates how basic patterns of perception concerning the native/European binary, which was de facto used as a business management control, reproduced itself almost ad absurdum. Instead abandoning it in the face of evidence, the Sun encouraged increasingly fine subdifferentiation on an involutional level, at least in terms of the economic process of premium calculation.

Although the material collected did suggest certain conclusions, such conclusions were not really elicited from the data in London; rather, this collection of data was taken as a whole and accompanied by the processes of preliminary probing and the establishment of agencies and branches of business and used to create a qualitative and quantitative memory of the very different relationships between “city” and “fire,” or “city” and “fire hazard,” for the entire world. As such, in some sense these data exist in a transverse relationship to the pre-defined schemata: the fire safety of Indian cities did not fit with the apparent affinity between “safety” and “modernity,” as envisaged in the European narrative of development, which was consciously or unconsciously acknowledged by the major players in the market; nevertheless, the “native towns” of India were categorized as premodern anyway. It was tempting to reduce the great fire of Hamburg to a consequence of premodern mortgages, as was also done in the case of Istanbul, when the major fires of 1865/70 were resignedly recorded simply as proof of a completely failed Tanzimat and “unmodernizable” unsafe conditions associated with the Oriental city. The fire danger of the rapidly expanding American cities, however, was classified in a different manner. In this case, insurers perceived “progress”—it was even tentatively noted that the Americans were in many ways superior to the old colonizers—but this necessarily brought new threats along with it.
Overall, the way in which the insurance giants of the nineteenth century operated during their global expansion into countries and markets unknown to them is not so different from the early days of fire insurance in London, when Barbon attempted to identify fire statistics and gross damage/loss averages: certainly, Barbon knew London, but his state of knowledge concerning prior and reliable “data” on its fire ecology was quite similar to that of his followers two centuries later in different cities of the world. In the globalization process, pluralization effects are employed both to determine the “reality of the environmental conditions” (do the cities burn or not?) and to influence forms of perception. The observation of both processes at such different times identifies transepochal comparisons—i.e., comparisons of processes concerning the separation of modernity in the developmental diachrony of “old Europe” (seventeenth century) with the processes of cultural diffusion in the synchrony of globalization (nineteenth century)—as a serious task of historical science.

In the first chapter (Ch. 2), the spatial dimension of maritime transport insurance was highlighted and distinguished from later developments. The previous two chapters (Ch. 4, 5), exposed aspects of temporalization (concepts and practices of growth and improvement and the similarity to sustainability thinking) regarding the insurance practices of the Enlightenment. With globalization, space seems to reenter as the dominant perceptual matrix, especially concerning contact with non-Western societies and hybrid colonial societies. While in the context of the “known” Western markets of Germany and the US, individual analyses dominate, the harsh distinction between native and European dominated the perceptions of the offices and agents for the Middle and Far East and for colonial regions so thoroughly that city maps and maps reifying those ethnic segregations became the main orienting tool. Eventually, the idea of value stabilization and, in some cases, the possibility of value growth through insurance established in Europe, also resonated in the “European towns” of the colonial cities; thus, the temporalizing aspect of insurance was also relevant. However, this was more of an initial condition, first implemented in the European-influenced parts of the cities and countries, which were, in a sense, located on one side of the fundamental distinction between native and European like in a small biotope or laboratory. Plotting the contours of the safe, normal world on the maps along the borders of the colonial European ghettos, which reflect the trend toward the tendential self-referentiality of the colonial economy in general, allows “space” to reemerge in a different way as the dominant principle in the global implementation of insurance as a specific tool of security production and as a security regime. Zoning and space boundaries are once again transposed and superimposed onto the cultural tool and technique of security.
production during its global transfer—despite the epistemic linkage to futurity. Nevertheless, the Enlightenment notion—long since taken for granted on a technical level—of the paradoxically contrafactual expectation of safety and security as the normal situation, of fire and disaster as exceptional events, remains deeply embedded as a driving force within global relationships in Western mental maps. It is as if the colonial agents wanted to delineate the borders of small “normal secure societies” transferred out of Europe in each world region on their (real) maps by distinguishing between native and European zones without fully understanding the complexity of the encounter and of the process itself. The agents’ unconscious guiding principle would have been something like the diffusion and unilinear expansion of the Enlightenment’s “secure normal society” across the globe, but the reality that was found, produced, and experienced, fractured and pluralized the guiding patterns of expectation in the wake of globalization. This resulted in breaches and also in the unexpected questioning of patterns of perception that, in the long term, had distinct repercussions on a decentered European home society that recognized the plurality of relationships between different types of cities, different forms of security regimes, and different forms of modernity.