

## Free Markets, Free Polluters

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**The historian Geneviève Massard-Guilbaud puts forward one of the first overviews of the regulation of pollution in the nineteenth century. She shows that the relevant legislation, sustained by the belief in technological progress, served at first to protect industrial activity. Yet at the same time, the populace were trying to make their right to public health prevail.**

About: Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle. France, 1789-1914*, Paris, Éditions de l'EHESS, 2010.

Sometimes the subject of a study seems so obviously compelling that we feel surprised that it has not attracted more attention. There is no doubt that, at a time of constantly increasing environmental risks, massive black tides in the Gulf of Mexico, and the onset of the "anthropocene" epoch of human society,<sup>1</sup> the history of the pollution, hazards and insalubrities related to the activity of economic production belongs in this category. Geneviève Massard-Guilbaud has tackled this issue, and with this important study she gives us the fruits of her research into the social history of industrial pollution in nineteenth-century urban France.<sup>2</sup>

Pollution, understood as the introduction of a "pollutant into a given milieu" (p. 7), is a complex idea, which really only becomes dominant at the end of the nineteenth century, when

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<sup>1</sup> This neologism has been coined and used by certain scientists – among them, Paul Crutzen, a Nobel Laureate in chemistry – to designate a new geological period, which begins with the "industrial revolution," when human activities became a geophysical force affecting the planet.

<sup>2</sup> In addition, she has directed a collaborative work that has helped introduce this set of issues in France: Christoph Bernhardt and Geneviève Massard-Guilbaud (eds.), *Le démon moderne. La pollution dans les sociétés industrielles et urbaines/ The Modern Demon. Pollution in Urban and Industrial European Societies*, Clermont-Ferrand, Presses universitaires Blaise-Pascal, 2002.

it replaces the ideas of hazard and insalubrity hitherto in use. It is clear from the outset that this is a complex story, inextricably blending social and economic history and the analysis of science and technology along with that of cultural performances. Professor Massard-Guilbaud remarks that economic and social historians were for a long time uninterested in this aspect of productive activity, because they were operating "in a culture that elevated industry into a cult, so much so that they were incapable of seeing this, and *a fortiori* of seeing its downsides" (p. 9).

However, this is far from virgin territory, and Professor Massard-Guilbaud's work relies both on anglophone historiography, which is particularly active on these issues, and on a number of recent investigations focussing on France.<sup>3</sup> This reliance enables her to offer one of the first attempts at an overview of the issue of pollution, of the reactions that it provoked, and of the strategies that were deployed to fight against it during the course of the nineteenth century. The author does not present a teleological history that would vainly seek to measure the progress or worsening of industrial pollution, but a dynamic and thoughtful history aware of the various actors who enter into the analysis and regulation of pollutions. That is why, rather than a chronological narrative that would privilege a diachronic evolution, she has chosen to proceed thematically, with a view to examining the influence of various actors in the regulation of pollution.

### **The importance of the revolutionary rupture**

The central theme of the study is the issue of regulation, that is, of the various strategies and measures adopted to reduce and to contain risks. This requires a social history of the state, aware of the competition among various actors (doctors, engineers, neighbours, workers, industrialists, and so on) to get recognition for their definition of what is insalubrious or dangerous to public health.

The thinking here is organized not by the size and kinds of pollution nor by the rhythms of industrialization, but by the institutional strategies put into place to confront it.

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<sup>3</sup> The works of Joel A. Tarr, Bill Luckin and Martin Melosi are standard references: Martin V. Melosi, *Pollution and Reform in American Cities, 1870-1930*, Austin, University of Texas Press, 1980; Bill Luckin, "Pollution in the city," in Martin Daunton (ed.), *Cambridge Urban History*, Cambridge, CUP, 2000, vol. 3, pp. 207-22; Joel A. Tarr, *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective*, Akron, University of Akron Press, 1996. In France we could cite for example the important research conducted at the Conservatoire National des Arts et Métiers: André Guillerme, Gérard Jigaudon and Anne-Cécile Lefort, *Dangereux, insalubre et incommodes. Paysages industriels en banlieue parisienne*, Seyssel, Champ Vallon, 2004; and the work of Estelle Barret-Bourgoin on the Grenoble region: *La ville industrielle et ses poisons. Les mutations des sensibilités aux nuisances et pollutions industrielles à Grenoble (1810-1914)*, Grenoble, PUG, 2005.

Thus the study begins with the revolutionary rupture of 1789 and the radical reorganization that led to the adoption of the decree of 1810 on insalubrious industrial enterprises. The revolutionary period was indeed a decisive moment in the reorganization of public policies on issues of salubrity: the concern with safeguarding public health, visible in the rules in force in the Ancien Régime, gave way to a growing concern for the protection of industry. Professor Massard-Guilbaud here largely concurs with Thomas Le Roux's analyses of the "paradigm" shift emerging during this period: the liberal and industrial thrust opened the way to legitimizing an unremitting increase in industrial and craft pollution, in the name of industrial "progress".<sup>4</sup>

This new paradigm was embodied in the decree of October 15<sup>th</sup>, 1810, on classified enterprises. The fruit of a long gestation, this text established a nomenclature of industrial enterprises based on their degree of insalubrity, and required from then on that every entrepreneur wanting to start a business request permission and undergo a complex enquiry into its advantages and inconveniences (*commodo et incommodo*). This decree signalled a strengthening of the power of chemists over doctors: distancing herself from "mythical" readings of this text, the author shows that it embodied a "scientific turn" and an industrial policy concerned above all with anticipating conflicts and protecting industrialists from complaints by their neighbours.

This re-reading of the decree of 1810 makes it possible to emphasize the extent to which the common view that sees in the second half of the twentieth century the tardy arrival of an awareness of pollution and risks is erroneous and simplistic. In fact, old societies had at their disposal a wide array of instruments to regulate hazards and to safeguard the health of the populace. It is rather our contemporary period, with its scientism and its industrialism, that constitutes an interlude of "unawareness".

### **Regulating pollution in the liberal era**

The book then explores the conditions under which the decree of 1810 was applied, its evolution, and the successive interpretations it was subjected to by various protagonists: neighbours, industrialists, engineers, doctors, local and national authorities. Professor

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<sup>4</sup> Thomas Le Roux, *Les nuisances artisanales et industrielles à Paris, 1770-1830*, Thèse d'histoire, Université Paris 1, 2007, 2 vols., 814 p. [forthcoming]; see also Jean-Baptiste Fressoz and Thomas Le Roux, "The great transformation of pollution regulation. France, 1750-1850," in Geneviève Massard-Guilbaud and Stephen Mosley (eds.), *Common Ground. Integrating the Social and Environmental in History*, Cambridge Scholars Press, 2010.

Massard-Guilbaud traces the evolution and application of the legislation through the nineteenth century, showing how state action developed, in support of industry conceived of as the engine of national grandeur, but also in response to the growing concern for safeguarding the people's health, as expressed in the rise of hygienism. She conveys to us a complex and subtle history, although the diachronic evolutions could have been made clearer. Indeed, most of the cases examined concern the second half of the century, thus making less visible the peculiarities of the early, more distinctly "industrialist" nineteenth century.<sup>5</sup> The author follows various actors through their daily work, demonstrating with evocative narratives the suffering brought on by lead fumes, sulphurous gases and other acidic waste products.

In addition, Professor Massard-Guilbaud's approach entails a certain number of methodological shifts, relative to previous work on these issues. Against the dominant juristic analysis, she sets great attentiveness to the actors from below and to the subtle thinking that governs their actions. Against the anthropology of performances and sensitivities, introduced by Alain Corbin, she sets a history that intends to be economic and social.<sup>6</sup> Against an approach centred on Paris and national institutions, she sets a dependence on local archives and the analysis of provincial situations. In this perspective, she suggests, for example, an interesting reassessment of the provincial Councils of Salubrity; rather than being the "more or less somnolent institutions, episodically assembling a few notables lacking in distinction" (p. 170) that are described in the historiography, these institutions prove to be active, competent and dynamic, even if local situations substantially varied. The study thus relies on a very wide array of written and manuscript sources, although two cases have been more particularly taken into account (which incidentally would have deserved being better justified): Clermont-Ferrand and Nantes, two industrial cities that were experiencing growth during the course of the century.

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<sup>5</sup> The recent work of Jean-Baptiste Fressoz has helped us to historicize with precision what "environment" was in the nineteenth century, especially by demonstrating the passage, during the first half of that century, from a predominantly environmental etiology to a social etiology; little by little, social conditions, more than the climate, became the determinants of health: J-B. Fressoz, *La fin du monde par la science: innovations, risques et régulations de l'inoculation à la machine à vapeur, 1750-1850*, Thèse EHESS, 2009 [forthcoming]; and "Circonvenir les circumfusa: la chimie, l'hygiénisme et la libéralisation des choses environnantes. France, 1750-1850," *Revue d'histoire moderne et contemporaine*, special issue "Histoire environnementale," pp. 56-4, Decembre 2009, pp. 39-76.

<sup>6</sup> The allusion to the contribution of Alain Corbin is no doubt too rapid; he was a trail blazer on the subject and his general conclusion on the work of the Councils of Salubrity as the people's "foundation course for industrialization" does not appear to be invalidated by the complementary analysis of Massard-Guilbaud: A. Corbin, *Le miasme et la jonquille. L'odorat et l'imaginaire social aux XVIIIe et XIXe siècles*, Paris, Flammarion, 1982.

If the state is a major actor in this history, it is not an abstract and all-powerful state that makes an appearance here, but a pragmatic one, evolving in line with the balance of power. An especially important role is assigned to prefects and their activity, since it was up to them to authorize and to investigate the effects of industrial facilities.<sup>7</sup> The author clearly demonstrates how policies that accepted pollution came into being, and how rivalries between different groups of technicians worked, between industrial engineers and hygienists more concerned with public health. By repeated pressure on the authorities, polluting industrialists strove to bypass the system in order to get impunity, in the manner of those acetylene makers who fought to get their product removed from the list of dangerous products by flooding the minister with brochures and – as always – by tugging at the heartstrings with appeals to patriotism and international competition. The book thus furnishes many materials with which to sketch the history of lobbying of the authorities by industrialists. In fact, this lobbying often succeeded effortlessly, when state officials had personal interests at stake. For example, Chaptal and Gay-Lussac played a large role in the classification of insalubrious industries even while holding significant interests in the chemical industry.

In the liberal capitalist regime of the nineteenth century, industrialists waged a long "war of attrition" (p. 325) to resist all of the decisions and policies that the state tried to impose in order to reduce pollution. Most of the time, prefects' decisions were not respected and commentators incessantly called for the restoration of the authority of the state. Moreover, it was not until 1917, when the decree of 1810 was reformed, that inspectors of classified enterprises were created, and this step only imperfectly solved the problem, since it did not create a specific corps remunerated by the central state.

### **Mobilizations, conflicts and civil society**

The other compelling idea of this book is in its analysis of the interventions of civil society into issues of industrial hazards. The history of industrial pollution is not a linear, teleological history demonstrating the progressive triumph of a state concerned with safeguarding the health of its citizens, it is a complex and discontinuous history, made up of incessant conflicts among groups with divergent interests. The book clearly shows how the

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<sup>7</sup> In this context, the analysis of state actions could also have drawn on recent research focussing on the activity of prefects and the management of the grain crises of the first half of the nineteenth century: Nicolas Bourguinat, *Les Grains du désordre. L'État face aux violences frumentaires dans la première moitié du XIX<sup>e</sup> siècle*, Paris, Éditions de l'École des Hautes Études en Sciences Sociales, 2002; Pierre Karila-Cohen, *L'État des esprits. L'invention de l'enquête politique en France (1814-1848)*, Rennes, PUR, 2008.

mobilization of neighbours shaped the application of the law of 1810 to industrial hazards during the nineteenth century. Government officials kept records of spontaneous complaints as well as of depositions taken during *commodo* enquiries. These records allow us to reconstruct both the contemporary view of the hierarchy of hazards (up to the 1880s, odours took first place, followed by noise, fumes, risks of explosions, and so on) and the strategies the actors deployed to combat them.

The author's thesis is that the townspeople and the working classes learned how to use the decree of 1810 to subvert the original intentions of the legislature. In contrast to the advocates of unbridled industrialization, workaday actors sought to go back to the *Ancien Régime's* concepts of the need for protection. For all that, Professor Massard-Guilbaud, alert to the danger of anachronism, emphasizes that one does not find any precocious environmental or ecological qualms, nor any desire to protect nature as such. The vision was exclusively anthropocentric, the primary concern being to defend one's life, one's activity, and one's job.

Finally, Professor Massard-Guilbaud suggests some stimulating theses that need to be explored and refined. For example, it appears that the bourgeois were not alone in complaining about hazards: the fracture line did not run between bourgeois and proletariat, but between those who made a living from industry and those who did not. Similarly, one must pay attention to the differentiated effects of hazards on populations, in other words to the environmental inequalities that so often intensified the social inequalities of the industrial era.<sup>8</sup> The attitude of the workers is significant in this context, even though few sources allow taking it into account. The analysis of industrial pollution in the nineteenth century confirms the inanity of a vision that would leave the state and the individual directly confronting each other. As in several other recent works, the issue of reacting to industrial pollution raises the question of the role of collective organizations in the creation and application of norms. Associations, unions, sundry various networks all intervened in the definition and regulation of pollution, and should be more often studied in this perspective.

### **What lessons for the present?**

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<sup>8</sup> This challenging theme of "environmental justice", little heard of in France, is incidentally the subject of the author's current research: Geneviève Massard-Guilbaud and Richard Rodger, *Environmental and Social Inequalities in the City, 18th-20th centuries*, White Horse Press [forthcoming in 2011].

Historians have absolutely no need to justify their discourse by connecting it with the present; nevertheless, in the field being studied here, a history that was totally unconnected with contemporary preoccupations would surely be a bit lame. Professor Massard-Guilbaud is well aware of this, and she endeavours to draw some lessons from her analyses, even while keeping her distance from any activist commitment. Her book is thus dotted with references to the present, which in my view are its most disputable points. For example, to justify her subject the author remarks that "the nuisance that our ancestors had to put up with would make us find almost pleasant our atmospheres full of CO<sub>2</sub> and ozone, and our radioactive wastes!" (p. 14).

In the conclusion, she endeavours to draw up a "balance sheet of a century of regulation", attempting an overall evaluation of the results of legislation on the evolution of pollution. In contradiction to her warnings about the danger of anachronism, the author concludes:

Thus some improvements did become apparent, albeit limited to certain kinds of production. It will be objected that the improvement was not linear and that the environmental situation was never as alarming as today. This is true at the global level, but false at the local level. For example, even though air pollution in our countries is still an alarming cause of mortality, it is less significant than the air pollution that the generations who came before us "benefited" from. Today Londoners no longer have the pea soup of Victorian and Edwardian times, and the skies of industrial valleys have recaptured their colour. Our twenty-first-century pollutions are more subtle, those of the nineteenth century were more directly perceptible and more brutal. (p. 344)

All in all, the inheritance of the nineteenth century would thus be positive in the field of the policy of fighting against pollution, the elites having become aware of the importance of this issue, and technological innovations having facilitated removing the most flagrant dangers. However, apart from the fact that the sociology of pollution control technology remains largely unexplored, this conclusion is debatable. It seems contradictory to the author's repeated assertions that quantitative measurement of the extent of pollutions is impossible. In spite of the complexity of measurements in this field, there is little doubt that the quantity of CO<sub>2</sub> discharged on the eve of World War I was far greater than it was in 1850. In any case these questions deserve to be studied in some detail.

Moreover, the issue of pollutions and their evolution would no doubt merit more thoroughly analytic reflection. While the exclusively French framework of this study may be perfectly valid for thinking about the issue of regulation, it is however more questionable for considering the extent of pollutions and their evolution. Thus, as to the improvement of

salubrity "at the local level" in Europe or North America, was it not done in large part by a transfer of the most polluting activities outside the cities, and also outside of France?<sup>9</sup> A more precise and systematic study of the outsourcing of insalubrious activities to the suburbs, to rural zones, and also to the colonies would have been interesting. Analysis of the contemporary situation in China, in India, and in several African countries, shows that these territories are every bit as badly off as the worst situations of industrial Europe in the nineteenth century. Unquestionably, to understand the issue of industrial pollution and its evolution, we must give greater consideration to the process of economic and industrial globalization in the second half of the nineteenth century. Though coal mines close in the North, and chemical industries transform and sanitize in France, do they not multiply in Africa and Asia?

This point obviously subtracts nothing from the validity of the author's analyses of the evolution of regulations. Far from being a new problem arising out of debates in the 1960s-1970s, the issue of industrial pollution is one of the major challenges that has confronted capitalism since its early stages. Faced with the dangers, in spite of undeniable evolutions, the state and the industrialists of the nineteenth century globally constructed the framework for a liberal thinking that gives priority to profit and to industry. This intellectual universe remains ours today, and the much-vaunted concepts of "sustainable development" and "green growth" are but reformulations of the sociocultural thinking that came into being before 1914. One of the immense merits of this book is to have thrown light on this process that for a long time had remained invisible.

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<sup>9</sup> As Anne-Cécile Lefort has clearly demonstrated in her thesis: *Les établissements dangereux insalubres ou incommodes dans la proche banlieue parisienne (1860-1980)*, Thèse CNAM, 2002. On the politics of urban sanitation, note also the recent thesis of Stéphane Frioux, *Les réseaux de la modernité, amélioration de l'environnement et diffusion de l'innovation dans la France urbaine (fin XIXe siècle-années 1950)*, Thèse d'histoire, Université Lyon 2, 2009.