

## The Century of the Hygienist

Thomas Le Roux

**How did physician-chemists go about putting public hygiene on the agenda during the nineteenth century? Constructing a panorama of their ambitions and projects, Gérard Jorland gives us a sweeping summa that favours the grand narrative at the expense of explaining social complexity.**

Reviewed: Gérard Jorland, *Une société à soigner. Hygiène et salubrité publiques en France au XIX<sup>e</sup> siècle*, Paris, Gallimard, collection "Bibliothèque des Histoires," 2010, 361 p.

### **The narrow choices of the historical narrative**

"The nineteenth century would prove to be the century of public hygiene." This book begins with this summary report, and it proceeds to construct a historical panorama of public hygiene in France running through the nineteenth century. No such overview had yet made it possible to sum up a historiography that has been up to now essentially written in English. Gérard Jorland thus follows in the footsteps of his American forerunners, William Coleman (1982) and Ann La Berge (1992),<sup>1</sup> who some decades ago provided crucial elements of the history of this intellectual movement with practical goals.

But why have so many French works, especially those appearing in the last decade, been ignored here? Just for example, and in no particular order: Patrice Bourdelais, Georges

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<sup>1</sup> William Coleman, *Death is a Social Disease. Public Health and Political Economy in Early Industrial France*, Wisconsin, UWP, 1982. Ann Fowler La Berge, *Mission and Method. The Early-Nineteenth-Century French Public Health Movement*, Cambridge, CUP, 1992 (2<sup>nd</sup> ed. 2002).

Vigarello, Bernard-Pierre Lecuyer, and Claire Salomon-Bayet on the hygienists;<sup>2</sup> Caroline Moriceau, Geneviève Massard-Guilbaud, and Vincent Viet on industrial pollution and hygienism;<sup>3</sup> Sabine Barles and André Guillerme on urban metabolism and miasmas;<sup>4</sup> Olivier Faure and Yannick Marec on medicine and social work;<sup>5</sup> François Ewald, Pierre Rosanvallon, and Paolo Napoli on the welfare state and government service;<sup>6</sup> and finally Alessandro Stanziani on food standards<sup>7</sup>. And how can one discuss tuberculosis, the river Bièvre, Lavoisier or Pasteur without mentioning the many articles and books on them?

The definition of the subject, the construction of the purpose, the objectives and the historical method of the work are all clearly stated. The chronological range, running from the Lavoisian revolution of the 1770s to health legislation in 1902, is coherent and persuasive; it clearly constitutes a historical sequence during which public hygiene acquired its sway in French society. The "episteme of Lavoisier," which provides the basis of the hygienist paradigm of the nineteenth century, fully justifies taking the analysis back to the Enlightenment reformers at the end of the *Ancien Régime*. As for the chronological exit sign, it should be understood as the moment when parliamentarians tried to incorporate hygienists' ideas into the law.

Public hygiene is defined as a set of related disciplines, including medicine, pharmaceuticals, chemistry, civil and military engineering, public administration, statistics, and political economy. The hygienists thus being alternately physicians, chemists or administrators, Jorland relies on their writings to analyse their role. He assembles a corpus of treatises, manuals, manuscript reports of the prefectural Councils of Public Hygiene, and

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<sup>2</sup> Patrice Bourdelais, ed., *Les hygiénistes. Enjeux, modèles et pratiques*, Belin, 2001. Georges Vigarello, *Le sain et le malsain. Santé et mieux-être depuis le Moyen Age*, Paris, Seuil, 1993. Bernard P. Lecuyer, "L'hygiène en France avant Pasteur, 1750-1850," in Claire Salomon-Bayet, ed., *Pasteur et la révolution pasteurienne*, Payot, 1986, p. 67-139.

<sup>3</sup> Geneviève Massard-Guilbaud, *Culture, technique, gestion de l'espace. Une histoire sociale de la pollution industrielle dans les villes françaises (1789-1914)*, HDR, Université Lumière Lyon II, 2003, forthcoming 2010 as *Histoire de la pollution industrielle, France 1789-1914*, Editions de l'EHESS. Moriceau Caroline, *Les douleurs de d'industrie. L'hygiénisme industriel en France, 1860-1914*, Paris, Editions de l'EHESS, 2009. Vincent Viet, *Les voltigeurs de la République: l'inspection du travail en France jusqu'en 1914*, CNRS, 1994.

<sup>4</sup> Sabine Barles, *La ville délétère. Médecins et ingénieurs dans l'espace urbain, XVIII<sup>e</sup>-XIX<sup>e</sup> siècle*, Seyssel, Champvallon, 1999. André Guillerme & alli, *Dangereux, insalubres et incommodes. Paysages industriels en banlieue parisienne, XIX<sup>e</sup>-XX<sup>e</sup> siècles*, Champvallon, 2004.

<sup>5</sup> Olivier Faure, *Histoire sociale de la médecine (XVIII<sup>e</sup>-XX<sup>e</sup> siècle)*, Anthropos, 1994. Yannick Marec, *Pauvreté et protection sociale aux XIX<sup>e</sup> et XX<sup>e</sup> siècles*, Presses universitaires de Rennes, 2006.

<sup>6</sup> François Ewald, *L'État providence*, Grasset, Paris, 1986. Pierre Rosanvallon, *La crise de l'État-providence*, Paris, Le Seuil, 1992. Paolo Napoli, *Naissance de la police moderne. Pouvoir, normes, société*, La Découverte, 2003.

<sup>7</sup> Alessandro Stanziani, *Histoire de la qualité alimentaire. France, XIX<sup>e</sup>-XX<sup>e</sup> siècles*, Paris, Seuil, Liber, 2005.

finally articles from the first three series of the *Annales d'hygiène publique et de médecine légale*, from 1829 to 1903. He does not explore hospital, administrative, or economic sources, or those of engineers. In keeping with this decision to remain close to his sources, Jorland describes the hygienists' preoccupations more than the kind of caring that results from them, and favours theory over practice; in this "healing society" ("*société à soigner*" in the book's title), hospitals and practising physicians are absent. On the other hand, the hygienists are there, writing, sometimes acting, talking and listening to each other, and observing themselves.

Through this mirror of the hygienists, the narrative juxtaposes in the same scene many disparate elements (prisons, the river Bièvre, drains, cretinism, babies, miasmas, microbes, etc.), with the intention of tying them together in the chronological dynamic. The overall result is an alternation between taking an overview and trying to make original historiographical contributions (including exhaustive notes in abundance), and this makes the narration appear discontinuous. Captivated by the literary profusion of the hygienists and writers close to them (like Flaubert), Jorland appears to be a prisoner of his sources. But this is certainly a deliberate choice. Indeed, the tone was established at the end of the introduction:

Against recent historiographical fashions that turn away from philosophic history and seek to give the sciences a social explanation, the ambition of this book is to show that by reversing the burden of proof, by no longer considering the sciences as the result but on the contrary as a maker of contemporary history, this history will be seen in a new light.  
(p. 15)

Indeed, for the author, science (and therefore public hygiene) advances by its own inner logic and transforms the social; science is not (as Science Studies sees it) a set of practices caught up in a complex social mesh.

### **The hygienists' optimistic and politically correct vision**

Sure of his methodological choices, Jorland makes it clear where he is steering his narrative: based on theory and science, public hygiene becomes institutionalized in various councils and committees, publishes and distributes its findings, surmounts obstacles, combats obscurantism and administrative inertia, fashions itself an ideology, and, truth on the march, wins power and legislates for the good of society. Great scholars are involved in this movement towards progress: Lavoisier, Hallé, Villermé, Pasteur. In short, "science became a determining factor of history" (the last sentence in the book, p. 323). One will put the book

down reassured by this optimistic reading of the course of history, relieved of the cynicism of historical sociology's disenchanting criticisms, unless of course one remains a little sceptical about a vision that sees public hygiene as an essentially progressive and progressivist movement. Among the many fascinating points raised by the author, five will be discussed here.

### **Chemistry as a transforming principle**

It is highly appropriate to go back to Lavoisier and the birth of modern chemistry to explain the public hygiene paradigm, and this is surely one of the most important contributions of this book. True, pre-hygienism had already been analysed, but until now the figure of the great scholar had been too little emphasized in this origin. Onto the previous, neo-Hippocratic climatic vision, still in vogue at the end of the eighteenth century at the *Société royale de médecine* in medical topographies and epidemiological studies, Lavoisier superimposed a modern chemistry that transformed ideas about public health. Because the state had always had public health as part of its royal remit, Lavoisier did not create the idea of public health policy, he transformed it into public hygiene. After Lavoisier, Jorland suggests as next in the line of descent Jean Noël Hallé, the distinguished physician recognized in the work of Alain Corbin<sup>8</sup>.

Here a distinction needs to be made, because, in his teaching as professor of hygiene at the *École de Santé* in Paris, even while incorporating the new Lavoisian ideas, Hallé calmly continued to support the neo-Hippocratic ideas of previous centuries. For the purposes of the new paradigm, it would have been wise to emphasize also the figures of Fourcroy, Guyton de Morveau, and Berthollet as loyal disciples of Lavoisier; and also Cadet de Vaux, Parmentier, or Chaptal, all of them previously-trained physicians (or pharmacists) who became exponents of the new chemistry and defined new rules for public health regulation. More precisely, these rules began their real transformation at the Paris Health Council founded in 1802, under the direction of Lavoisier's heirs and of figures indebted to Chaptal: Parmentier, Cadet de Gassicourt, Darcet, Marc, Deyeux, Vauquelin. We must not fail to mention the personality of Chaptal, who is ever so emblematic of this French connection of economics-public administration-medicine-chemistry. With this physician who became a chemical products entrepreneur and finally Minister of the Interior (1800-1804), the authority of the state backed up by industry and statistics makes its debut in public hygiene.

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<sup>8</sup> Alain Corbin, *Le miasme et la jonquille*, Paris, Aubier, 1982.

## **Miasmatic medicine and social medicine**

Supported by statistics, public hygiene matured in the years 1825-1840, under the influence of the physician Villermé. Here again, the influence of Darcet and of Parent-Duchâtelet, his colleagues at the Paris Health Council, is not adequately recognized in this transition from miasmatic medicine to social medicine. However, in the end that is a mere detail relative to the conclusion expounded by Jorland: with Villermé, it is no longer environmental factors that are considered to be the causes of illness or death, but social conditions, the first of these being the wretchedness and the morals of the lower classes. In spite of the debates that it provoked among hygienists in France and elsewhere, the theory of social inequality in relation to death and illness was important enough to be called by the author the "Villermé Law." With Villermé, hygienists soon appealed for the improvement of working conditions, focusing their efforts on children, and it is true that the concepts of the famous hygienist did greatly influence the drafting of the law of 1841 on child labour. Unfortunately the author does not analyse the role of instrumentalization in this appeal, nor the consolidation of the bourgeois and manufacturing order by those in power when the "social question" was being discussed.<sup>9</sup> For this reason, the liberalism of the hygienists (see especially p. 123) would have been worth developing at greater length.

## **The hygienist community**

Jorland is right to underline the important connection between public hygiene and public administration. To see this, one has only to read the editorial of the first issue of the *Annales d'hygiène publique et de médecine légale* (1829), by the physician Marc, or the writings of Parent-Duchâtelet<sup>10</sup>. But did the hygienists form a monolithic bloc, a community welded together by the precepts of the founding fathers, Lavoisier and Hallé? That is hardly the case.

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<sup>9</sup> See for example Francis Démier, "Le *Tableau* de Villermé et les enquêtes ouvrières du premier XIX<sup>e</sup> siècle," in Louis-René Villermé, *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine et de soie*, 1989 (1<sup>st</sup> ed., 1840), p. 31-75.

<sup>10</sup> "The purpose of medicine is not only to study and to cure illnesses, it is intimately related to social organization. ...Public hygiene, which is the art of safeguarding the health of men united in society, is destined to be greatly developed and to contribute in many ways to the perfection of our institutions." *AHPML*, 1829, vol. 1, prospectus (no pagination). Alexandre Parent-Duchâtelet, *Hygiène publique*, 1836.

A first dividing line separated the members of the Paris Health Council, consisting of great scholars who had access to men in power, from those of provincial towns (then, after 1851, of Prefectures), who wound up being discouraged by the uselessness of their activity. This split partially overlapped with differences in ideas: social hygienism had not completely seen off the theory of miasmas, and for a long time physicians remained divided on this question (thus the debates on workplace health in the 1840s). More profoundly, many demanded a regulation that was more interventionist and less confident about liberalism. Thus, from 1813, the physician Fodéré, who had been a member of the Marseille *Société de médecine*, and who was to hold the chair of public hygiene in Strasbourg (the second in France), criticized the physician-chemists with access to the powerful. A man of the *Ancien Régime*, Fodéré had not forgotten the preventive practices of health policies in the previous century, and he demanded more assertive intervention in this matter by the state.<sup>11</sup>

If this long-term movement, which extended as far as the creation of the *Revue d'hygiène et de police sanitaire* (1879), had been more put into perspective, the portrayal of the rise in power of public hygiene through the century could have been more nuanced, without having to oppose hygienists to engineers or to administrators, who were very often identical. Ultimately, Jorland asks why the hygienists were so seldom listened to by the powers that be. If one were to note that some hygienists were friendly associates of these powers, while others were challenging the health policies in force, perhaps the answer would become clear.

### **Industry, cities and public health**

Throughout the century, the substance of the work of the Councils of Hygiene involve the application of the decree of 1810 on polluting and dangerous works, and urbanization is very often an indicator of public health problems – two aspects that Jorland rightly evokes repeatedly. From his point of view, the hygienists fought against the industrial presence in cities and "did not seek to spare the industrialists" (p. 120).

Thanks to the interpretations of recent or already old<sup>12</sup> historical works related to the industrial and urban issue, another interpretation is possible. Of course, locally, a lot of

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<sup>11</sup> François-Emmanuel Fodéré, *Traité de médecine légale et d'hygiène publique*, 1813, 6 vols.

<sup>12</sup> For example, Alain Faure, "Autorités publiques et implantations industrielles en région parisienne (1860-1914)," in Danièle Voldman, *Région parisienne, approche d'une notion, 1860-1980*, Cahiers de l'IHTP, 12, 1989, p. 93-104.

hygienists tried to impede the installation of hazardous enterprises, but their recommendations were only rarely followed, precisely because the industrial state could justify its acts from the public health point of view, thanks to the theories of distinguished Parisian hygienists (Darcet, Parent-Duchâtelet, Villermé) or of the editorial staff of the *Annales d'hygiène publique*, which proclaimed the innocuousness of industry.

And when the authorities did eject harmful workshops from the city centres (as with the abattoirs, and during Haussmann's radical transformation of Paris), their concerns related more to local magistrates' worries and to working-class fears than to hygienist preferences. To demonstrate on the contrary the influence of hygienism, Jorland relies on two ministerial reports from the middle of the century and the "wind polygon" designed by Darcet in 1843, a theoretical instrument the purpose of which was to measure the pollution areas of factories, and from which the hygienists would have achieved "meticulous, not to say obsessional, wind speed measurements" (p. 257). In fact, this wind polygon remained an object of pure intellectual speculation and, moreover, its purpose was to help industries find emplacements, not to protect dwellings from their effluvia. The enormous mass of documentation on classified enterprises clearly shows the industrial character of French administrative regulation and its connection with influential hygienist voices, at least up to 1860.<sup>13</sup>

### **The role of the state**

In Jorland's argument, which draws on Isabelle Cavé's doctoral thesis,<sup>14</sup> the hygienists adopted a "strategy" to get their ideas applied, and, especially after 1870, they propelled themselves "into the political battle to get enacted the measures of hygiene and salubrity that they had never ceased recommending, or even demanding" (p. 256). Appointed to important positions in public administration or elected to the *Chambre de députés*, they legislated from 1874 to 1902, on child labour, workplace accidents, insalubrious housing, vaccination, the organization of health officers, etc. To accomplish this, the hygienist movement had to assimilate Pasteur's discoveries, "to turn itself into a hygiene party" (p. 298); in fact it had to set up an ideology opposed to liberalism: solidarism.

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<sup>13</sup> I mention here my own work: Thomas Le Roux, "La mise à distance de l'insalubrité et du risque industriel en ville: le décret de 1810 mis en perspectives (1760-1840)," *Histoire & Mesure*, no. 24-2. "Mesurer la ville," 2009, p. 31-70; and more generally, *Les nuisances artisanales et industrielles à Paris, 1770-1830*, thèse de l'université Paris I, dir. Denis Woronoff, 2007, forthcoming under a different title in the éditions Albin Michel, 2011.

<sup>14</sup> Isabelle Cavé, *Les médecins législateurs de la III<sup>e</sup> République*, thèse de l'EHESS, dir. Gérard Jorland, à soutenir.

The evolutionary package that takes a discipline from its origins to its establishment as part of the administrative machinery raises a background question as to the role of the French state and its involvement in public hygiene. According to the author, the state was too weak to impose hygienist precepts on society, and political instability in large part explains French tardiness in public health, compared to other European countries. It was only at the end of the century that important public health laws consolidated the republican consensus and finally rewarded the constant efforts of the hygienists.

So distinctly separating state officialdom from the hygienist community, when their interrelations, starting with Lavoisier or Cadet de Vaux, were both close and complex, prevents thinking about their action even in the establishment of the bourgeois industrial order of the new post-revolutionary state, with all its imperatives and its messages: the acclimatization of industry by the legitimization of its pollutions, for it was necessary to accumulate capital and to produce without hindrance; the moral stigmatization of lower-class habits (alcoholism, onanism, cretinism, hoarding rubbish – in short, everything to do with degeneracy), for it was necessary to justify the conservative policies of social segregation; and, finally, the assimilation of hygienist theories to science, for it was necessary to fabricate a discourse of progress, against recollections of the *Ancien Régime*.

This rich and well-documented narrative lacks a critical take, which leads to a traditional outlook that plays it safe with historical evolution. All the same, one does get from this interesting book the idea that with public hygiene was born a political project, a "paradigmatic" vision of society. There remain divergent interpretations that can be applied to the hygienists. They can appear innovative, concerned or fatalistic, but in any case certain of the necessity of reforms for the good of society. One can also see them as supporting actors who are sympathetic to an emerging industrial society that pauperizes one part of the population, without being the spearheads either of political change or of social transformation.

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