

Taking the measure of those responsible for air pollution (France, years 1900-1961)

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For most of the 19th century, “air pollution” was not considered as such in France : it was factory chimneys which from time to time caused problems of proximity, due to the massive conversion of industry to the use of coal as its source of energy, towards the end of the century (later than in Great Britain : Mosley, 2008 and Thorsheim, 2006).

It was only at the end of this century that concern for the problem posed by the abundance of smoke over a whole agglomeration appeared, firstly in Paris : a survey commission of the hygiene council of the Seine département, works of measurement by Armand Gautier, by order of the police Préfet against smoke (July-August 1889 : 15,770 establishments given notice to comply with the order which took effect as from 23 December). In Lyon however, the question did not appear to be an issue, as following investigation requested from the different Lyon police commissaires on the establishments producing smoke in their areas, the reports insisted on the fact that there had been no complaints from the population on this subject¹. However, a few years later a byelaw of 4 August 1905 followed the Parisian ruling by banning the production of “thick, black, prolonged smoke” and two months later a commission was set up to give the municipal administration its advice on procedures and devices capable of reducing the quantity of smoke produced by the furnaces installed in the different municipal buildings². This was the time of estimation of pollution by visual means such as the Ringelmann scale (Uekoetter 2005).

After the First World War, the problem of smoke became more and more visible in scientific publication and municipal magazines. This led to legislative action with the Morizet law of 20 April 1932 on industrial smoke) and a few pioneer experiments. In Lyon the chief city engineer since 1910 had the opportunity to discourse on the question of smoke on a report produced by a habitation congress held in his city in 1920. On the other hand, the council led by Edouard Herriot, a mayor known for his participation in innovative hygiene experiments before 1914, took two initiatives.

- 1) On 25 February 1929, the mayor published a new byelaw to replace that of 1905. It gave the establishments concerned a period of one year to comply with the law : this meant all the industrial, commercial or administrative furnaces situated in the city as well as the furnaces of buildings equipped with central heating. The highway maintenance team which the byelaw made responsible for “monitoring”, practised persuasion, preferring incentive to repression in a field in which fines were generally minimal (5 francs). The following year, a similar measure was decided in the neighbouring industrial town of Villeurbanne, but less successfully. It started by consultation with a questionnaire to industrialists to discover the characteristics of their furnaces and to know whether they used devices to reduce emissions. It continued with the collaboration of the council services with the Lyon association of owners of steam machines which played the role of provider of advice to the industrialists needing to solve problems of smoke. Further to consultation of 240 establishments, the results of the council initiative were mapped out in 1932 to show the high proportion of establishments having plans to modify their combustion installations³. The Morizet law then paralysed these efforts as it then allowed for more

1 Municipal records of Lyon, 1125 WP 022/1.

2 Byelaw of the mayor of Lyon of 27 October 1905.

3 Municipal records of Lyon, 1111 WP 10, minutes of the special commission meeting of 26 March 1931,

generous times for industries and obliged the administration to set an example. The hospital or school furnaces which smoked were used as an excuse by entrepreneurs to be in no great hurry to modify their installations.

- 2) The Mairie encouraged the foundation of a Département Commission to study the fog and smoke in the Lyon agglomeration in 1931. The publicity given to the event of the “lethal fog” in the Meuse Valley in Belgium in December 1930 certainly had something to do with this⁴. The question was now going beyond the framework of the administrative limits of the municipality. As one of the members of the city council and the fog commission, Dr Garin explained “Eliminating Lyon smoke will have an insufficient effect if the surrounding municipalities continue to pour theirs out on the outskirts of the city”⁵. From the spring of 1931, whilst in France no measure of systematic measurement of pollution had yet been taken, although this already existed in England (Mosley, 2009), scientists of various disciplines met in a commission and carried out experiments to see why the atmosphere in Lyon was so smoky. We can then look at the work of proof and the experiments of observation and instrumentation set up in the 1930s.

All these measures indicate a restriction of the definition of the problem of air pollution to the question of industrial smoke at a time when the specialists were however insisting on the necessity of considering another source of danger : “in big cities, we can add that the smoke produced by thousands of domestic chimneys, are just as dangerous as those of the great chimneys of industrial establishments which are more common on the outskirts [...] we repeat, along with the smoke of large factory chimneys, the plume of which unpleasantly attracts one’s gaze on certain days, we should not forget the less visible smoke produced by domestic smoke and which in a large city is even more dangerous”⁶.

However, we can see only weak effects of the experience of the 1930s on the years following the Second World War, despite the reference made by council leaders to this commission in letters to the engineer in 1949 and 1951. Generally speaking “most factory furnaces are equipped with smoke-reducing devices” and only a handful of establishments continued to give rise to the complaints stored in boxes in the records⁷. We can then study the arguments used in these petitions, the definition of the damages and the method chosen to attract the attention of the authorities.

In France, after the implementation of systematic measures in Paris around 1954-1955, and in the context of time following the deadly smog of London (December 1952), air pollution became a problem which was more and more dealt with both at government and media level. The real turning point which inaugurated regular measuring of atmospheric pollution took place at the end of the 1950s, when the national association (Association pour la Prévention de la Pollution Atmosphérique, founded in 1958)) undertook to structure a community of scientists and practitioners around a more complex definition of air pollution, including private heating and traffic in its factors to measure and fight against it. In its quarterly journal published from 1959 on, the APPA set up a network of measurements (and of those

observation made by Mr. Garin : “ out of 300 establishments, 140 or 150 have undertaken effective measures, according to Mr Chalumeau’s report”.

4 The “deadly fog accident “ in the Meuse valley was covered by the big national daily newspapers such as *Le Temps*, *Le Figaro*, *Le Matin*.

5 *Ibid.*, minutes of the session of 25 March 1931.

6 Lyon municipal records, 1127 WP 92, report of the highways general director, 4 October 1927.

7 Archives municipales de Lyon, 1170 WP 10. Citation issue d’une note du commissaire central au maire de Lyon, 16 juillet 1948.

undertaking and commenting on them) on the national level and the circulation of technical information exchanged on international level. Measurements of sulphur dioxide were made in Lyon from 1960 under the responsibility of the municipal hygiene bureau in Lyon, the director of which also ran the local APPA section.

During this decade in which the French public authorities made a first undertaking by the law of 2 August 1961 to tackle the problem, the publication of measured evaluations of the part caused by domestic heating in the global phenomenon of atmospheric pollution (in Lyon in 1961, 62% of the pollution by particles and 73% of SO₂ were attributed to domestic furnaces⁸) appeared to eclipse industry which at the same time was equipping itself with measuring and controlling systems and specific interest groups CATPA, CITEPA...) and thus perhaps escaped an increase in public control of its activity.

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8 Lyon municipal records, 1177 WP 4, « étude de la pollution de l'atmosphère. Ville de Lyon et ville de Villeurbanne, année 1961 ».