



A Preliminary Study on Urban Pollution and Modern Shanghai Society

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ABSTRACT

Urban pollution has been a problem in China since ancient times. In modern times, pollution was aggravated by industrialization and urbanization and became closely related to people's lives. Shanghai was the industrial center and the most urbanized place of modern China. As a price, it needed to face extremely serious urban pollution, and the treatment of this problem involved all aspects of social life. Noise pollution let foreigners to interpret the Chinese people and the city of Shanghai from a cultural perspective, and let Chinese residents to understand Shanghai and the nation from a civilized perspective. Pollution regulation made Shanghai the first city in modern China to implement overall pollution control and levy environmental protection fees. It also enabled the Chinese to gradually fight for their rights in urban governance. Urban pollution also brought business opportunities; in the highly commercial city of Shanghai, it promoted the development of some industries. The experience of urban pollution and its treatment prompted the people of Shanghai to rethink and re-recognize modern civilization, and also promoted the formation of Shanghai urban community.

Key Words: urban pollution, modern Shanghai, social life, regulation, modern civilization

I . Introduction

In the old days, there was already environmental pollution in Chinese cities. Especially during the Ming and Qing dynasties, when coal was used on a large scale, the smoke-filled Beijing city in the winter was described as: "Smoke swirled in the air and drifted around the capital with the wind." In modern times, Shanghai has gradually developed into an international metropolis. This is the city with the earliest and highest degree of modernization in China. However, the rapid industrialization and urbanization have also resulted in more serious modern environmental pollution than in the ancient times, making it one of the earliest places to discuss and control pollution in modern society.

Shanghai witnessed the beginning of China's industrialization in modern times. While most parts of the country were still facing underdevelopment, Shanghai already began to bear the negative effects of industrialization. China's first gas plant, power plant, machine cotton textile factory all appeared in Shanghai. While bringing prosperity to the city, new industries such as machinery, iron and steel, chemical engineering, metallurgy and textile have also brought hazards such as water pollution, noise pollution, air pollution and even soil pollution. The writer Ye Lingfeng once described the environment of old Shanghai in the following words: "although there are still many places in China without factory chimneys, it is impossible to stand on a roof of Shanghai without chimneys to block your vision." "This is a dirty Suzhou River, the western section of which is almost completely occupied by factories."¹⁾ The water and air pollution caused by chemical plants near the Suzhou River was particularly serious. As Shanghai people called chemical plants liquid medicine factories, a riverfront path near these factories with serious pollution problems was even called Liquid Medicine Lane.

Shanghai, a city with a rapid population growth in modern times, had a population of more than 540,000 in 1852, shortly after it opened as a port, and reached more than 3.85 million before the War of Resistance against Japanese Aggression, and more than 5.45 million before the liberation, making it the largest city in China for a long time. Statistics in 1950 showed that Shanghai's population density per square kilometer was as high as 52,000. The large population made the hazard caused by urban pollution especially obvious. In modern times, cholera, lung disease, dysentery and other epidemic diseases often broke out in Shanghai. A large amount of domestic sewage, garbage, soot and other pollution generated by the urban population every day were not been properly disposed

1) Ye Lingfeng: *Soot-River, Essay Collection of Lingfeng*, Shanghai Modern Publishing House, 1933, quoted from *Shanghai in the Night* compiled by Chen Zishan, Economic Daily Press, 2003, p.188.

of, which also worsened the living environment and made Shanghai residents have to face up to the problem of pollution control.

Shanghai is the cultural center of modern China. After the introduction of western learning to the east, Shanghai-style culture began to flourish and a large number of western academic works were introduced to Shanghai. Thanks to the introduction and publicity of newspapers, books and magazines, Shanghai residents began to realize from modern scientific knowledge that urban pollution, noise, soot were the sources of harm to human health and needed to be resisted. In addition, Shanghai was also a place where social organizations flourished in modern times. Faced with the common threat of urban pollution, Chinese and foreign residents began to work together for the improvement of Shanghai's environment. Governments from all walks of life introduced governance systems and policies with their own characteristics, and the earliest environmental protection organizations in modern China also emerged here, which promoted the rise of environment-related industries.

II . Urban noise: fusion, civilization and self-examination of the city

After the opening of the five treaty ports, a large number of expatriates moved to Shanghai. European expatriates already knew the concept of noise pollution, and they didn't ignore Shanghai's noise problem in the first place. The 1845 *Shanghai Land Regulations* forbade "unrestrained noise and disturbance". However, the noise of this eastern city soon made the aliens feel overwhelmed.

The initial noises were mainly human voices, such as the work songs of coolies at the docks of the Huangpu River, the vendor's hawking, and the quarrels of residents in the streets. With the prosperity of the city and the development of lighting technology, nightlife in Shanghai became richer and richer. More and more people were staying out late at night on the high streets, causing a bad feeling for residents living along the roads. One summer night in 1879, an alien suffering from insomnia caused by noises stepped out onto the balcony. From night till dawn, he counted the rickshaws passing by his house: between 12:30 a.m. to 1:30 a.m., 51 rickshaws passed by, of which 40 carried two people. Most of the passengers were drunk or agitated by other stimuli; between 1:30 and 2:30, a total of 32 rickshaws passed by, nearly all carrying two people, and almost all passengers were

shouting loudly.²⁾

The aliens initially believed that the noises in Shanghai were mostly made by the Chinese and might have something to do with their habits. An alien wrote the following sentences in *North China Daily News*: “almost every Chinese people talks to his friends in the street at the highest volume. They don’t talk, they shout, and when they get excited the shout turns into yell”, hence “there are more noises from a street in Shanghai than from an entire city in his home country”.³⁾ The alien’s descriptions were filled with discrimination and resentment against Chinese habits. This bias stemmed from early European notions of noises. In Europe in the early 17th and 18th centuries, the idea that noises equaled coarseness and vulgarity enjoyed popular support.

At the beginning of the 20th century, cars began to appear in Shanghai, and the number increased rapidly, and the horns became an important source of noise pollution. An alien who took a taxi to work in the morning recorded the Chinese driver honking his horns 343 times over a 3.5-mile journey. A General Motors Corporation executive told reporter that he had never seen a city so obsessed with honking horns as Shanghai. If a foreign city honked once, Shanghai might have honked 50 times.⁴⁾

Why are drivers in Shanghai so keen on honking? Some aliens have made meticulous investigations on the streets, and one conclusion has gradually been agreed upon by almost everyone: car noises were caused by “the anxiety of Shanghainese and their failure to restrain themselves”. Drivers were anxious, pedestrians in Shanghai were anxious, and drivers became more anxious because of the traffic jams caused by the anxiety of pedestrians and rickshaw pullers. Honking is a crude way of telling someone to get out of the way, a sign of “road rage” among Shanghai drivers. This anxiety was the modern disease of this busy metropolis. Aliens generally believed that foreigners became edgy when they arrived in Shanghai. So it was the “Shanghainese” with the anxiety disorder that made the noises, not a certain country. *North China Daily News* gave the following comment: “the excessive honks in Shanghai confirm Byron’s eloquent philosophy that silence is hell to a busy heart. Drivers have to move fast, and if pedestrians or rickshaw pullers get in the way, I have to honk my horn until they hear me among all the honking.”⁵⁾

Ancient Chinese literati had a tradition of liking silence, and also regarded “noisiness” as an act of disturbing the order. In the *Book of Rites of the Western Zhou*, there was a record that “when

2) *North China Daily News*, July 1, 1879, page 3.

3) *North China Daily News*, February 18, 1885, page 8.

4) *North China Daily News*, June 22, 1920, page 4.

5) *North China Daily News*, June 3, 1930, page 15.

encountering national great sacrificial ceremony, the clamor is forbidden”. The *Tang Code* even stipulated that anyone who made noise in public would be punished with beatings for eighty times. But Chinese tradition back then rarely regarded noise as a public hazard to the health of city dwellers, so Shanghai residents initially did not understand the alien’s aversion to and management of noise. One night in February 1873, resident Shi Rengui and seven others listened to storytelling in a storyteller’s house. Their loud voices made the foreign house-owner feel unbearable, so he asked the police to send them to the Mixed Court. The Chinese official of the Mixed Court enquired the case in detail. In his opinion, these 8 people did not destroy anything or beat or insult anyone, and that the court had no reason to detain them. Perhaps the storyteller had a grudge with Shi Rengui and other officers, so he egged on the foreigner to set them up.⁶⁾ It can be seen that Chinese officials and citizens at that time did not regard noise as an urban hazard equivalent to injury and theft. When the concession government banned firecrackers in large areas to avoid noise, Chinese officials and citizens also thought it was a Chinese custom and “there is no need to investigate deeply”. They even had a strong curiosity about new things “as strange and suspicious” as cars and machines as they could make a lot of noises.

By the 20th century, Shanghai residents had a new understanding of noise. There were two reasons for this change. One is that the novelty wore off when they got used to various items, and their negative feelings about noise increased. On the other hand, the introduction of a great deal of western scientific knowledge in modern physics and medicine has made it clear to the Chinese that noise is an objective and substantial health hazard. The noise issue was not a reflection of foreigners’ being melodramatic and vulnerability, nor was it a subjective assumption related to cultural conventions. In the New Culture Movement, various newspapers repeatedly reported and introduced the principle of noise and its harm to human health. For example, health care journals such as *Common Health, Health and Strength, Social Hygiene and Medical Science*, science magazines such as *Science Illustrated, Science News, New Science and Science & Lifestyle*, social journals such as *Wisdom and Knowledge, Shanghai Police and Truth*, as well as *Shenbao Newspaper, The News* and other newspapers.

While receiving the newly introduced knowledge, the intellectual circle also had a heated discussion on the noise phenomenon in Shanghai. Initially, many intellectuals compared Shanghai with the mainland, and the noise was regarded as a symbol of advanced, scientific and civilized Shanghai. In an article entitled “Metropolis and Noise”, the author gloated: “noise and polluted air

6) Be Punished for Frolicking, *Shenbao Newspaper*, February 20, 1873, page 2.

are the products of modern culture. In addition to increasing the happiness of life, the advancement of science and the omnipotence of mechanical forces will also produce another negative product, which is noise.”⁷⁾ Modernist writers such as Shi Zhecun also regarded noise as one of the characteristics that sets modern Shanghai apart from the mainland: “Harbors filled with big ships, noisy factories, deep underground mines, dancing halls with Jazz music, department stores in skyscrapers, aerial warfare by airplanes, vast racetracks - even the natural scenery is different from that of previous generations.”⁸⁾ But such complacency was quickly criticized. Shanghai media reported a lot of news about noise control in New York, London, Paris and other cities, and then the argument that “Shanghai is uncivilized” became popular. In an article entitled “One of the Disastrous Effects of Urban Civilization”, the author argued that Shanghai’s failure to control noise reflected four shortcomings: the lack of advanced science and technology, the unreasonable layout of the city, the inadequate public regulations, and the low moral quality of its citizens.

III. Urban Pollution Control: Regulation and Control, Struggle and Public Participation

As Chinese and foreign citizens constantly complained about the city’s pollution, the governments of all walks of life in Shanghai launched a campaign against urban pollution. From an objective point of view, the concession government with financial and technological advantages did a better job than the Chinese government in the treatment of pollution. Among them, the International Settlement followed the principle of British control of pollution sources, while the French Concession advocated the model of overall layout and governance of the continent of Europe. Pollution control in the French Concession focused on urban industrial and commercial operations. Since 1913, the French Concession began to levy health contributions on all kinds of businesses, which is similar to today’s environmental tax. The health contributions were quickly resisted by business owners; they thought that this one-size-fits-all approach was unreasonable. The owners led by the Water and Wood Office thought that the tax was too heavy for small businesses to afford, and the owners led by the

7) Ai Zi: *Metropolis and Noise, Truth*, No. 44, 1934.

8) Shi Zhecun: *About the Poems in This Magazine, Modern Times*, No. 1 issue, vol. 4, 1933.

Pawnbroking Office felt that their business did not interfere with public health⁹⁾. In consideration of the complexity of the degree and scale of urban pollution, the government introduced an urban pollution control system that Paris had been experimenting with for a hundred years - *Établissements Classés*.

The *Établissements Classés* system aimed at controlling urban business and limiting pollution. It divided large and small businesses in Shanghai into three types of A, B and C according to the degree of harm to the environment. A mainly referred to the chemical industry with the most serious pollution, B mainly referred to the manual workshops and retail stores with unsanitary problems, and C mainly referred to the service industry and retail industry with a possibility of minor hazard. When businesses applied to open, they needed to go through a detailed review by the *Établissements Classés* committee, which included assessing pollution levels and listening to the views of nearby residents, similar to today's environmental assessment. If the review considered the pollution to be excessive, the application should be moved to a special *Établissements Classés Zone* or rejected outright. Even if the application was approved, the applicant still had to pay contribution fees and face investigators at any time. If pollution problems such as noise, sewage, soot and germs were found, those in charge would be required to carry out environment rectification and their business licenses would be revoked if the problems were found to be serious.¹⁰⁾ The administrative department of *Établissements Classés* had the power to revoke business license and was directly led by the head of government. Therefore, the environmental protection department with unified power and responsibility had a very high authority, which could carry out the layout and regulation in line with the environmental requirements to industrial and commercial business, so as to achieve good results in pollution control. At that time, the media commented on the residential areas of the French Concession as follows: "the layout is clean and the air is fresh, ranking first in the city."¹¹⁾

Another manifestation of the success of *Établissements Classés* system in controlling pollution was the increased social responsibility for the development of industry and commerce in Shanghai. Back then, science and technology were underdeveloped, and because pollution levels could not be quantified, a rigorous and detailed system led to arbitrary assumptions and penalties by law enforcement officials in evaluating pollution levels and grading contributions. Most of the Shanghai businessmen were Chinese, and they were initially very resistant to the system. They did not

9) *News on French Concession's Opposition to Additional Taxes and Levies, Shenbao Newspaper, January 25, 1929, page 4.*

10) See my article: *Management of Habitable City: Taking the Central Region of the French Concession in Shanghai as the Core. Social Sciences, No.12, 2011.*

11) Liu Peiqian. *A Guide to the Great Shanghai.* Zhonghua Book Company, 1936, p. 8.

understand this unprecedented system of environmental governance, which they called “health contributions with nothing to do with health”, but they were also concerned about the business environment in which they operated under such aggressive pollution control. And under the background of the Northern Expedition, the distrust between China and foreign countries intensified the antagonistic mood between the government and the people. In early March 1929, thousands of merchants and citizens went on strike and took to the streets to protest against the *Établissements Classés* practices. They posted anti-governance posters and clashed with police, leading to multiple arrests.¹²⁾ In this kind of crisis moment, the concession government and merchants all hoped to find some mediation force to stand out to mediate, but at that time there was no suitable coordination platform between the two sides, therefore they had to use personal relations to resort to Du Yuesheng, Zhang Xiaolin and other gang figures that could influence both sides. Through the coordination of Du Yuesheng and others, the concession government agreed to form a review committee composed of Chinese merchants to participate in the governance. This committee could carry on examination to the *Établissements Classés* regulations and put forward revision suggestions, and had certain supervisory power. As a result, Chinese firms gave up their tough resistance against the management practice.¹³⁾

After long-term exploration and struggle, Chinese merchants organized a hierarchical group feedback system corresponding to urban pollution control: first, businesses should report to the local neighborhood business federation, and then the latter should report to the General Federation of Business and the Chinese Ratepayers Association to discuss solutions at the joint conferences of the two associations. However, under the system of the concessions, Chinese merchants did not have effective mechanism for effective consultation with the government, and the two sides could not achieve real communication, so they still had to resort to Du Yuesheng and other gang leaders who had deep personal friendship with the senior leaders of concessions to serve as the leaders of social organizations. The gang members had just extricated themselves from the opium trade and were trying to make a good name. This opportunity enabled them to gain the support of both the government and the people, thus seizing both the leadership of the community and the appointment of Chinese directors by the concessions. Du Yuesheng founded the “Proceedings of Chinese Ratepayers Association”, which was controlled by the gang organizations and published the governance policies

12) *Follow-up News on French Concession's Opposition to Additional Taxes and Levies*, *Shenbao Newspaper*, March 15, 1929, page 15.

13) See my article: *Citizens' Groups in the French Concession in Shanghai from the Perspective of Boycotting Taxes and Levies (1919-1937)*, *Historical Review*, no.6, 2013.

issued by the government, so as to help the majority of the merchants with analysis and interpretation. The businessmen that were treated unfairly in management also could make a complaint in this newspaper and waited to be lodged by Du Yuesheng and others to the concession government finally.

IV. City Dwellers: Ways of Coping, Business Opportunities and Self-adjustment

After the beginning of the First World War, industry and commerce in Shanghai entered a golden age, followed by the sharp deterioration of the urban environment. At the time, someone lamented in the *Shenbao Newspaper* that “Shanghaiers are screwed”: “People who live in Shanghai are unlucky, and so are people born in Shanghai. If there is a hell, the people of Shanghai are in it, because they can’t get rid of the soot and dust everywhere.”¹⁴⁾ But most Shanghaiers still lived optimistically under all kinds of pressure, and they also took various measures to deal with the city’s pollution.

In the commercial modern Shanghai, urban pollution also brought a variety of business opportunities. The real estate industry began to pay attention to the external environment of housing, and created beautiful and pollution-free high-end residential districts in the west of Shanghai. Real estate ads back then also emphasized living conditions: At that time, real estate advertisements also saw living conditions as a major selling point: “The three-story western-style house in Pubai Lane... There are parks and schools nearby. The location is quiet without interference of noise.”¹⁵⁾ Of course, such houses were expensive, and the people who could afford them were not ordinary people. *Shenbao Newspaper* once described such high-end residential areas like this: “Foreigners and Chinese with a medium income or above usually live here. It has a beautiful landscape where residents can enjoy a leisurely stroll in the streets.” Therefore, there are a large number of former residences of celebrities in the west of Huangpu District, Jing’an District and Xuhui District. In his later years, Lu Xun was dissatisfied with the noisy environment in Hongkou. He mentioned in letters to friends that he wanted to move to the French Concession, but because houses there were not easy to buy, he did

14) Zhao San: *Shanghaiers are Screwed*, *Shenbao Newspaper*, March 1, 1924, page 8.

15) *Shenbao Newspaper*, August 13, 1934, page 13.

not achieve his dream until his death.¹⁶⁾

In addition to disseminating knowledge about urban pollution, the media industry also introduced various kinds of environmental protection tips that were close to life to meet the needs of the public. The science media was keen to promote the latest “environmental artifacts”, while the Shanghai-focused “*Zhixin News*” always captured new international science and technology information. In the 81st issue of the newspaper in 1899, there was an article entitled “A New Device for Treating Soot”. It described a new machine invented in London that could “completely burn and remove soot”, and it was hoped that China would introduce it immediately. The article stressed that the new machine would not only “completely incinerate and clean up the floating dust, without producing black or white clouds”, but also “be cheap, easy to operate and cost-effective, and users can save on coal and get more heat”. This was clearly aimed at the needs of urban civilians. In addition, the public’s favorite tabloids and magazines would also report on information such as new noise-proof curtains and new noise meters just appeared in the United States. Professional journals in industries such as textile and transportation published their own tips on how to reduce pollution, and even encouraged the rise of related environmental protection industries such as auto mufflers and predicted that the market would favor them. *The News and Shenbao Newspaper* and other media with greater social influence called on Chinese cities represented by Shanghai to learn from Europe and the United States to set up large social organizations such as “Soot-reduction Alliance” and “Anti-noise Committee” to fight pollution with social strength. The slogan of the youth magazine was “Save the Country by Keeping Fit”. In an article of the 10th issue of *Health and Strength* magazine in 1939, the “spiritual consolation method” was put forward to resist the noise of the city. “Recall childhood hobbies and the poems and other things that excite and delight us today”, and even fancy or recall “the quiet woods”, “the cool lakes” and other “pleasant and relaxing surroundings”.¹⁷⁾

In response to Shanghai’s severe pollution, the tourism industry launched short trips to help clean up the environment. China Travel Agency took the lead to cooperate with railway departments to launch high-quality outing plan package: “this train runs between the capital and Shanghai every day and passes through Kunshan, Suzhou, Wuxi, Changzhou, Zhenjiang and other stops, which are all China’s famous resorts with beautiful scenery. A short outing by this train is very good for the body and mind. For group trips, we can offer a discounted fare.” Such excursions were inexpensive and provided a quick escape from the polluted city, making them popular with Shanghai’s citizens.

16) Lu Xun: *To Song Lin, Lu Xun’s Letters*, vol. 4, People’s Literature Publishing House, 2006, p. 167.

17) Luo Kai: *How to Keep A Quiet Mind in A Noisy Environment, Health and Strength*, vol. 1, no. 10, 1939

In “A Trip in Early Summer”, the author Man Sha told the story of an urban youth who travelled to Nanxiang, a suburb of Shanghai, to escape the stifling environment: “As soon as people escape from the polluted city, her heart is suddenly broadened. Those who are disturbed by the smoke and clamor of the city all day long feel that the quiet and silent natural scenery of the countryside really can broaden people’s horizons and sublimate their hearts.” When she had to go back to Shanghai, he was “immediately shackled by the soot, noise and worldly matters of the city”.¹⁸⁾

V. Conclusion: Pollution, Governance and Urban Communities

Seeing from the perspective of historical development, the essence of urban pollution is the contradiction between human development and livability. This is still one of the most prominent problems in Chinese and foreign cities, and also a facet of Shanghai’s urban development. Shanghai is a rational and enlightened city. Faced with the hazards of urban pollution, the citizens of Shanghai in the 20th century did not resort to violence to resist, but reflected and rediscovered the modern civilization that brought the city prosperity. They also advocated “solving the problems brought by civilization in a civilized way”, took various measures to resist the infringement of pollution, and actively safeguard their own interests.

Pollution in a city often affected all residents of the area, regardless of their nationality, race, class or wealth. Under the threat of soot, sewage, noise and so on, all people were at risk. Modern Shanghainese needed to face the problem of urban pollution together. Various international pollution control experiences needed to adapt to the needs of China’s localization, and China’s traditional governance methods also needed to undergo the new test of modernization. All Chinese and foreign residents needed to experience the adjustment between different cultures, explore the way of harmonious coexistence, and gradually form the sense of community of international cities. In the face of the problem of urban pollution, foreign nationals living in Shanghai said in media such as *North China Daily News* that “we are neither foreigners nor Chinese, we are Shanghainese” and “Shanghai is our common home”.

18) Man Sha: *A Trip in Early Summer*, *Shenbao Newspaper*, May 23, 1935, page 19.

Ethical considerations

Ethical issues (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy) have been completely observed by authors.

Conflict of Interests

The authors have no conflict of interests to declare.

[原始中文]

初探城市污染与近代上海社会

1. 引言

传统时代的中国城市就有环境污染，特别是在大规模用煤的明清，冬日里烟尘弥漫的北京城被描绘为：“烟雾腾空上，随风锁都城。”进入近代，上海逐步崛起成国际大都市，是中国现代化起步最早、程度最高的城市，也因迅速的工业化和城市化而遭遇到远比古时更为严重的现代环境污染，也因而成为最早对现代污染进行探讨和治理的地方之一。

上海是中国近代工业化起步之地，国内大多数地方还面临发展不足之时，这里已经遭遇到工业化的负面影响。中国最早的煤气厂、电力厂、机器棉纺织厂等都出现在上海，机械、钢铁、化工、冶金、纺织等新式产业在带来城市繁荣的同时，也带来了水污染、噪音污染、空气污染，甚至土壤污染等危害。作家叶灵凤这样描述当时上海的环境：“虽然中国没有工厂烟囱的地方还有很多，但是立在上海的屋顶上要想没有烟囱遮断你的视线已是不可能的事了”，“一条污浊的苏州河，西段几乎完全给工厂占住了”。¹⁾苏州河附近化工厂导致的水污染和空气污染尤为严重，因为上海人称化工厂为药水厂，工厂附近一条被污染笼罩的临河小路甚至被称为药水弄。

上海是近代人口迅速增长的城市，开埠不久的1852年为54万余人，至抗战前达到385万余人，到解放前夕已达到545万余人，长期保持中国第一。据1950年统计，上海每平方公里的人口密度高达5.2万。大量人口聚集于此，让城市污染的危害尤为显著，近代上海经常爆发霍乱、肺病、痢疾等疫病。城市人口每天产生的大量生活污水、垃圾、烟尘等污染没有合理的处置，也让生活环境雪上加霜，使上海居民不得不直面污染的治理问题。

上海是近代中国的文化中心，西学东渐之后海派文化崛起，大量的西学著述传播入沪。在报刊、书籍、杂志的介绍与宣传中，上海市民开始从现代科学知识里认识到城市污染，意识到噪音、煤烟等是会给人体健康带来危害的源头，需要抵制。上海又是近代社会组织发达的

1) 叶灵凤：《煤烟·河》，见《灵凤小品集》，上海现代书局1933年版，转引自陈子善编：《夜上海》，经济日报出版社2003年版，第188页。

地方，面对城市污染这种共同的生活威胁，中外居民开始共同为上海的环境努力。各界政府出台了各具特色的治理制度和政策，民间出现了中国近代最早的环保组织，也使环保相关的产业开始兴起。

II. 城市噪音：融合、文明性与城市自省

五口通商后，大批外侨移居上海，已具有噪音污染观念的欧洲侨民，初始对上海的噪音问题就没有忽视，1845年的《土地章程》里就有禁止“肆意喧嚷滋扰”的规定，然而这座东方城市的噪音很快让外侨们感到崩溃。

最初的噪音主要来自人的声音，如黄浦江码头苦力的号子声、街头小贩的叫卖声、街巷里居民的争吵声。随着城市繁荣和照明技术发展，上海的夜生活愈加丰富，深夜从灯红酒绿的商业街回家之人日益增多，给道路旁的居民带来糟糕感受。1879年的一个夏夜，一名被噪音折磨得失眠的外侨走到阳台上，从晚上至凌晨认真数了经过家门口的人力车情况：12时半至凌晨1时半，共有51辆人力车经过，其中40辆车搭载了两个人，大部分乘客喝酒喝得醉醺醺的，或者受到其他刺激物而情绪激动；1时半至2时半，共有32辆人力车经过，几乎所有人力车都搭载两人，而且几乎所有乘客都大声喧哗。²⁾

外侨们最初看来，上海的噪音基本由中国人制造，可能与中国人的习惯有关。一名外侨在《字林西报》上写道：“几乎每个中国人与朋友在街道上聊天时都用最大的音量。他们不是说话，是嚷嚷，激动时嚷嚷就变成了大叫”，因此“上海一条街道的噪音比本国一整座城市的噪音都要多”。³⁾ 外侨的种种描述中，充满着对华人习惯的歧视与不满，这种偏见来自于欧洲早期的噪音观念，在17至18世纪初期，噪音等于粗俗与低级的看法深入人心。

20世纪初汽车进入上海并数量猛增，喇叭声又成为噪音污染的一大热点。一位早上坐出租上班的外侨，在3.5英里的路程里记录下中国司机总共按了343次喇叭。通用公司的一位高管告诉记者，他从未见过哪座城市像上海这样如此痴迷于鸣喇叭，国外城市如果按一次喇叭，上海这边可能已经按五十次了。⁴⁾

为什么上海司机热衷于按喇叭？许多外侨在街头作了细致调查，有一种结论逐渐得到了

2) 《字林西报》1879年7月1日，第3版。

3) 《字林西报》1885年2月18日，第8版。

4) 《字林西报》1920年6月22日，第4版。

几乎所有人的认同：汽车噪音是由“上海人”的“焦虑不安而难以自持”所导致的。焦虑不安的既是司机，也包括上海的行人，行人和人力车夫的焦虑不安导致了交通阻塞，更加剧了司机的焦虑不安，喇叭声其实是一种粗鲁的让路命令，是上海司机养成的“路怒症”。这种焦虑不安，正是上海这座忙碌的大都市导致的现代病。外侨们普遍感到，外国人到上海之后也开始变得急躁起来。所以是患有焦虑症的“上海人”，而不是哪个国家的人制造了噪音。《字林西报》这样评论：“上海之所以会出现滥鸣喇叭的现象，验证了拜伦那雄辩的哲学思想：对于一颗忙碌的心来说，安静就如同地狱。司机必须快速启动，要是有人或是人力车夫挡道，就只能拼命按喇叭，直到他们在众多喇叭声中听见我的喇叭声。”⁵⁾

中国古代文人有喜静的传统，也将“聒噪”看成是一种扰乱秩序的行为。《周礼》中，就有“国之太祭祀，令禁无器”的记载。《唐律疏议》更是规定，在公共场合高声惊扰者，处于杖八十的惩罚。但是中国传统中很少将噪音视为一种涉及城市居民身体健康的公共危害，因此最初上海居民对于外侨对噪音的反感和治理并不理解。1873年2月的一个夜晚，居民施仁桂等八人在一位唱书人家里听书，因高声喧哗，被难以忍受的外侨房主通知巡捕解送到会审公堂。会审公堂的中国官员详细询问了案情，认为这八人既没有毁坏东西，也没有殴辱他人，似乎并无理由被羁押，也许因为施仁桂等是公门中人，与唱书人有积怨，因此被其撺掇外侨陷害。⁶⁾可见，中国官民并不将噪音认定为等同于伤人、盗窃之类的城市危害。租界政府以噪音为由大面积禁放爆竹时，中国官民也认为此是中国风俗，“无足深究”，甚至对汽车、机器等发出轰鸣声的新鲜事物，抱有“这般机巧费猜疑”的强烈好奇心。

至20世纪，上海居民对噪音的认识开始转变。一方面是见惯各类器物之后，新奇感消失，对嘈杂闹声的负面感受增多了。一方面是现代物理学、医学方面的大量西学知识传入，让中国人知道噪音是客观存在的实质性健康损害，既不是外侨的矫情与脆弱所致，更不是与文化习俗相关的主观臆断。在新文化运动中，以《康健杂志》、《健与力》、《社会卫生》、《医药学》为代表的卫生健康类杂志，以《科学画报》、《科学新闻》、《新科学》、《科学生活》为代表的科技类杂志，以《智识》、《上海警察》、《老实话》为代表的社会类杂志，以及《申报》、《新闻报》等报刊，多次报道和介绍噪音的原理及其对人类健康的危害。

在知识传入的同时，知识界也对上海的噪音现象进行了热烈的讨论。最初很多知识人将上海与内地对比，噪音被视为代表上海先进、科学、文明的标志，在一篇题为《都会与噪音》的文章中，作者沾沾自喜地认为：“噪音和污浊的空气，是近代文化的产物。科学的进步和

5) 《字林西报》1930年6月3日，第15版。

6) 《嬉闹被咎》，《申报》1873年2月20日，第2版。

机械力的万能，在增进人生幸福之反面所产生的东西，就是噪音。”⁷⁾ 施蛰存等现代派作家，也将噪音视为上海作为与内地不同的现代都市的特点之一：“汇集着大船舶的港湾，轰响着噪音的工厂，深入地下的矿坑，奏着 Jazz 乐的舞场，摩天楼的百货店，飞机的空中战，广大的竞马场——甚至连自然景物也与前代的不同了。”⁸⁾ 不过这种沾沾自喜很快被批驳，上海媒体大量报道了纽约、伦敦、巴黎等城市关于噪音治理的新闻之后，“上海尚不文明”的论调开始占据主流。在一篇题为《都市文明的一个恶果》的文章中，作者认为上海无法很好地控制噪音，体现了四个方面的不足：科技水平不够先进，城市布局不够合理，公共法规不够完善，市民道德素质不够高。

III. 城市治污：调控、抗争与公众参与

由于中外市民对于城市污染投诉不断，上海各界政府都对城市污染展开了治理。客观而言，具有财力和技术优势的租界政府对污染的治理优于华界政府。其中，公共租界遵循英国式控制污染源的原则，法租界则推崇欧洲大陆的整体布局治理的模式。法租界将治理污染的重点聚焦于城市工商营业，自1913年开始向各种营业征收卫生捐，类似于今天的环保税。卫生捐很快遭到营业主的抵制，认为这种“一刀切”的征税办法并不合理。以水木公所为首的业主们认为捐税太重导致中小营业无法负担，以典当公所为首的业主们认为他们的业务对公共卫生并无妨碍⁹⁾。鉴于城市污染在程度和规模上都有相当的复杂性，政府引进了巴黎已经试用百年的城市污染治理制度——分类营业制度。

分类营业制度以控制城市营业而限制污染为宗旨，按对环境危害的轻重程度，将上海大大小小的营业分为甲、乙、丙三种，甲种主要是污染最严重的化工行业，乙种主要是具有不卫生问题的手工作坊和零售店，丙种则以具有轻微危害可能性的服务业和零售业为主。各类营业申请开业时，需要经过分类营业委员会的细致审查，包括评估污染程度、听取附近居民意见等，类似于今天的环评。如果审查认为污染过重，则必须迁入特设的分类营业区或者直接驳回申请。即使申请得到批准，也需要缴纳不同等级的捐费，并面临调查员随时上门调查。如果被发现噪音、污水、煤烟、病菌等污染问题，轻则被要求环保整顿，重则吊销营业

7) 爱子：《都会与噪音》，《老实话》1934年第44期。

8) 施蛰存：《又关于本刊中的诗》，《现代》1933年第4卷第1期。

9) 《法租界各业反对增捐消息》，《申报》1929年1月25日，第4版。

执照。¹⁰⁾ 分类营业的管理部门具有吊销营业执照的权力，并由政府首脑直接领导，因此权责统一的环保部门具有极高的权威，可以对工商营业有合乎环境要求的布局与调控，使污染治理取得了很好的成绩，当时媒体评价法租界的住宅区：“布置之整洁，空气之新鲜，为全市冠。”¹¹⁾

分类营业制度成功治理污染的另一面，是对上海工商业的发展提出了更多的社会责任。在科学技术尚不发达的当时，因为无法量化污染程度，严密详尽的制度反而导致执法人员在污染程度评估、捐费等级评定上的随意臆断和处罚。以中国人为大多数的上海商人们最初非常抵制，一方面不理解这种从未见识的环境治理制度，称其为“无关卫生之卫生捐”，另一方面对如此强势的污染治理下自己所处的营商环境感到担忧，而当时北伐背景下中外之间的互不信任的更加剧了官民之间的对抗情绪。1929年3月初，数千商民罢市并上街游行抗议分类营业管理，遍贴反对治理的布告，与警察爆发激烈冲突，多人被拘捕。¹²⁾ 危机时刻，租界政府和商民都希望能有中间斡旋力量进行调解，但是当时双方之间并没有合适的协调平台，因此都不得以私人关系求助能够影响双方的杜月笙、张啸林等帮会人物。经过杜月笙等人的协调，租界政府同意由华人商民组成审查委员会参与到治理中，可以对分类营业章程内容进行审查并提议修改，并有一定的监督权，而中国商号则放弃强硬对抗管理的作法。¹³⁾

经过长期的摸索与抗争，中国商民自行组织起与城市污染治理相对应的层级团体反馈体系：先由商家上报所在地的街区商业联合会，再由后者上报商界总联合会和纳税华人会，在两会联席会议上商讨应对办法。然而租界的体制下，并未给予中国商民能与政府有效协商的机制，使双方无法真正沟通，因而仍不得不请杜月笙等与租界高层私交颇深的帮会头目担任社会团体的领导。此时这些帮会人物也正处于从鸦片贸易中脱身，而努力进行“黑转白”的过程中，适逢这一机会获得了官民双方的支持，既攫取了社会团体的领导权，也被租界聘为华董。杜月笙创办了由帮会控制的《纳税会会报》，将政府历次出台的治理政策刊登出来，给广大商民进行分析和解读，而在治理中受到不公正对待的商家也可以在报上进行投诉，最终由杜月笙等人向租界政府提出交涉。

10) 见拙作：《宜居城市的管理：以上海法租界中部地区为中心》，《社会科学》2011年第12期。

11) 刘培潜：《大上海指南》，中华书局1936年版，第8页。

12) 《法租界商民反对营业招牌捐续讯》，《申报》1929年3月15日，第15版。

13) 见拙作：《抗捐视角中的上海法租界市民团体（1919-1937）》，《史林》2013年第6期。

IV. 城市人：应对、商机与自我调适

第一次世界大战开始后，上海工商业进入黄金时代，随之而来的是城市环境的急剧恶化，当时有人在《申报》上哀叹“上海人休矣”：“人不幸而住于上海，人不幸而生于上海。使地狱而果有其事者，上海人直在地狱中耳，煤烟之气，尘灰之味，飞扬左右，无由摆脱。”¹⁴⁾ 不过大多数上海人仍在各种压力下乐观地生活，并采取各种办法来应付城市污染。

在商业氛围浓厚的近代上海，城市污染也带来了种种商机。房地产业开始注重住宅的外部环境，在上海西部区域打造环境优美而远离污染的高级住宅区。当时的房地产广告也强调居住环境：“蒲柏坊内三层西式房屋，……公园在旁，学校林立，地点幽雅，无噪声杂扰。”¹⁵⁾ 当然此类住宅价格不菲，能购置的居民并非等闲，《申报》这样描述这样的高级住宅区：“外侨及中等以上之华人多寄居于此，风景有如乡村，闲来无事，街头散步，其乐也融融。”因此今天上海黄浦西部以及静安、徐汇等区域分布着大量名人故居。鲁迅先生晚年因虹口的喧嚣环境无法静养而颇有微词，在给友人的信中提及想搬至法租界居住，不过由于置房不易，直至逝世也没有达成心愿。¹⁶⁾

传媒业除了广泛宣传城市污染知识外，也不时推出各种贴近生活的环保小贴士，以迎合市民的需要。科学类媒体热衷于宣传新近出现的“环保神器”，关注沪上时事的《知新报》则总能捕捉到国际新科技信息，1899年81期一篇名为《治煤烟新器》的文章介绍伦敦有人新发明一种能够“尽焚烟尾”的机器，希望中国立即引进，强调其不仅能将经过的烟尘“皆焚化净尽而无黑白之烟云”，且具“价甚廉、易用而费耗不大，且用之者能省煤费而多得大热”的优点，显然是针对城市平民的需求。此外如刚发明的家居防噪音窗帘、美国新出现的噪音计等新闻也经常见诸市民偏爱的各类小报和杂志。纺织、交通等行业的专业类期刊则纷纷刊登本行业如何减少污染的妙招，甚至鼓动汽车静音器等相关环保产业的兴起，预言会得到市场的垂青。

《新闻报》、《申报》等社会影响力较大的媒体，则号召以上海为代表的中国城市学习欧美成立“减少煤烟联盟”、“取缔噪音委员会”等大型社会组织，以社会的力量抵制污染。以“健身救国”为旗号的青年杂志更独辟蹊径，《健与力》杂志在1939年第10期的文章中提出“心灵安慰法”来抵御城市噪音，“回忆童年时期的爱好、今日能使我们兴奋和愉快的诗歌和其他的事物”，甚至幻想或回忆出来例如“幽静的森林”、“清凉的湖边”等“能使心灵愉快和驰放的环境”。¹⁷⁾

14) 兆三：《上海人休矣》，《申报》1924年3月1日，第8版。

15) 《申报》1934年8月13日，第13版。

16) 鲁迅：《致宋琳》，《鲁迅书信》卷四，人民文学出版社2006年版，第167页。

17) 罗凯：《怎样在喧闹的环境中保持安恬的心灵文章来源》，《健与力》1939年第1卷第10期。

旅行社针对上海的严重污染，推出了以清新环境为主的短途郊游。中国旅行社开风气之先，联合铁路部门推出精品郊游套餐：“本路行车每日往首都上海之间经过各大站如昆山、苏州、无锡、常州、镇江等站，皆为中国名胜之区，风景幽秀，为全国冠，如乘车出行，作短期之郊游，于身体上精神上获益匪浅。团体旅行，本路订有定章，核减票价。”这种短途郊游费用不高，能够片刻远离污染的城市，受到上海平民的欢迎。作者曼莎在《初夏的行旅》中，讲述了一位都市青年为摆脱上海憋闷的环境，去郊外的南翔旅行，“人一从污浊的都市间脱出，心胸便突然扩大，长日吸着都市的煤烟和满装着都市的闹声，村野的静穆境况和沉寂的自然风物，真使人意味到眼界的扩张和心境的伸张”，当不得不坐车回上海时，“便立刻又被都市的煤烟，噪声，和人间烦琐的束缚绑住了”。¹⁸⁾

V. 结语：污染、治理与城市共同体

从历史发展的角度看，城市污染问题的本质是人类发展和宜居之间的矛盾，至今仍然是中外城市最突出的问题之一，也是上海城市发展的一个侧面。上海是个理性和开明的城市，面对城市污染的危害，20世纪的上海市民并没有以暴力方式抗拒，而是对带来城市繁荣的现代文明进行反思和再认识，提倡“以文明的方式解决文明带来的问题”，采取各种办法抵制污染的侵害，并从中积极维护自己的利益。

很多城市污染往往与这个区域的所有居民都息息相关，无论国籍、人种、阶层还是贫富，在煤烟、污水、噪音等威胁下都难以幸免。近代上海人需要共同面对城市污染，各种国际污染治理经验需要接受中国本土化的转变，中国传统治理方式也需要经受近代化的新考验，中外居民都需要经历不同文化之间的调适，寻求和谐相处之道，逐步形成国际城市的共同体意识。在《字林西报》等媒体上，寓沪各国外侨在面对城市污染时，就表达过“我们既不是外国人，也不是中国人，我们就是上海人”，“上海就是我们的共同家园”等含义。

18) 曼莎：《初夏的行旅》，《申报》1935年05月23日，第19版。

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