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SOAP AND THE MAKING OF MODERN MARSEILLE:
AN URBAN HISTORY OF FRANCE'S SECOND CITY

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Table of Contents

List of Figures	iii
Acknowledgements	vi
Abstract	x
Introduction: Marseille and the Making of French Public Health	1
Chapter 1. <i>La Cité des Savons</i>	41
Chapter 2. “A State of Permanent Combustion”: Coastal Soap Pollution in Marseille, 1820s–1840s.....	68
Chapter 3. The Soap Waste Debates: The Case of Saint-Lambert and the Battle over Urban Soap Pollution on Marseille’s <i>Conseil d’hygiène et de salubrité</i>	122
Chapter 4. The Urban Geography of Soap in Marseille, 1810–1917	164
Chapter 5. Producing Cleanliness: Labor in the Soap Factories of Marseille	222
Conclusion: The Sanitization of Soap	280
Bibliography	298

List of Figures

Figure 1. The main hall of a soap factory.....	45
Figure 2. The floorplan of a typical soap factory in Marseille.....	46
Figure 3. Workers cut the soap into bricks (<i>pains</i>) and then smaller bars (<i>barres</i>).....	47
Figure 4. Packaging of <i>Savon du Mikado</i>	59
Figure 5. Soap advertisements in the urban landscape, Marseille c. 1900	60
Figure 6. Shop sign announcing the sale of soaps “of all brands”	61
Figure 7. Soap factory in l’anse de l’ourse, late-eighteenth century.....	69
Figure 8. Distribution of soap factories in Marseille c.1810	79
Figure 9. Close-up on the concentration of soap factories on the Rive Neuve	83
Figure 10. Plan topographique de la ville de Marseille et de ses faubourgs, 1828	84
Figure 11. L’anse de la Joliette, c. Late eighteenth-early nineteenth century	85
Figure 12. Strong winds and currents at the entrance to the port, c.1833-1844	85
Figure 13. Street density in the Old Town	87
Figure 14. Fishermen pulling boats on to the Plage des Catalans	96
Figure 15. Map of projected construction project at the Joliette	114
Figure 16. The newly-constructed <i>bassin de la Joliette</i>	115
Figure 17. Topographical map of Marseille, 1830	144
Figure 18. Detail of topographical map of Marseille, 1830	145
Figure 19. View from the docks on the north side of the port, facing south	145
Figure 20. <i>Octroi</i> boundary expansion, 1864 versus 1875	172

Figure 21. Soap factory complex including five individual <i>fabriques</i> in Saint-Victor	180
Figure 22. Map of the Territory of Marseille, 1832	182
Figure 23. Map of the territory of Marseille, 1852	185
Figure 24. The proliferation of industry between 1811-1888	186
Figure 25. Industrial map of Marseille, 1926	188
Figure 26. Soap Factory Authorization Requests and Approvals	192
Figure 27. Quartiers of Les Crottes, to the north, and Bonneveine, to the south of the Vieux-Port	194
Figure 28. Quartiers of Belle-de-Mai and Baille	200
Figure 29. Quartier of Lodi, c. 1896	210
Figure 30. Expansion of urban space, c. 1909	217
Figure 31. Soap worker at the Savonnerie J. D. Bellon, late-nineteenth– early-twentieth century	227
Figure 32. <i>Salle des chaudières</i> at the Arnavon Soap Factory in Marseille	247
Figure 33. Soap vat (<i>chaudière</i>) and soap worker	247
Figure 34. Workers pour oil into the <i>Chaudière</i>	248
Figure 35. Workers break blocks of artificial soda ash	248
Figure 36. Workers remove spent soda ash	249
Figure 37. Worker lifting bricks of soap, shown wearing protective gloves	249
Figure 38. Packing and Weighing Shop	250
Figure 39. <i>Chaudières</i> at the Savonnerie Jounet, 1860	250
Figure 40. <i>Salle des chaudières</i> , 1910	251
Figure 41. Women working in a soap factory packing and storage shop,	

c. early twentieth-century	251
Figure 42. Diagram of a proposed design for a safety harness for soap factory workers	253
Figure 43. Policemen on the Cours Belsunce, c. December 1903	265
Figure 44. Sites of movement and major altercations during the “ <i>chasse aux italiens</i> ”	266
Figure 45. Soapmaking demonstration at MuSaMa	283
Figure 46. Cutting equipment at MuSaMa	283
Figure 47. Stamping station at MuSaMa	284
Figure 48. Scent guessing station at Musée du Savon de Marseille La Licorne	285
Figure 49. Mannequins and Oil Press at Musée du Savon de Marseille La Licorne	287
Figure 50. Soap display in the Marius Fabre factory gift shop	287
Figure 51. Equipment displays at Musée du Savon de Marseille La Licorne	288
Figure 52. Display at Musée du Savon de Marseille La Licorne	289
Figure 53. Aged soap display at Musée du Savon de Marseille La Licorne	290
Figure 54. Staged kitchen display at MuSaMa	291

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Abstract

This dissertation examines the relationship between soap manufacturing and the city of Marseille across the nineteenth and early twentieth centuries with a specific focus on the effects of toxic soap pollution on the central port neighborhoods of the city. In highlighting the impact of this pollution on the health of the city's residents, I argue that there were contradictions inherent to modern notions of 'cleanliness' and public health in which the aspirations of a cleaner and healthier bodies came into conflict with the aspiration for clean cities. During this period, the greater the obsession with health and cleanliness became, the more toxic soap waste filled the streets of Marseille. There was therefore a paradox at the heart of French public health management: cleanliness for some meant filth for others. Health for some depended on the sacrifice of others.

I focus on the period between 1810 and 1917, years which saw the two most significant pieces of legislation regulating industrial pollution in France, but which also span the years of peak soap production in Marseille and, thus, the most acute phase of the soap pollution crisis. I begin by tracing the evolving ways that Marseille's soap was used over time in order to highlight the preoccupations which gave rise to a growing demand for soap. I then turn to the historical methods used to produce soap to show how the expanding scale of production combined with new ingredients created an increasingly toxic waste product, setting the stage for ongoing challenges as city leaders struggled to manage the impact of that pollution.

I then explore *why* the institutional apparatus designed to regulate industry in Marseille failed to mitigate the effects of soap waste: namely, their unwillingness to compromise local business and the lack of adequate waste disposal techniques. In showcasing the failure of public officials to respond to the plight of affected residents, we can fully appreciate ‘the path not taken’ by local leaders.

The unique concentration of soap-production in Marseille also means that this story sheds light on the historical development of the city itself. I argue that the contextualization of the soap industry is essential for understanding the operation of local and departmental government and the physical remaking of the city by industrial development and waste management.

Lastly, the concentration of soap production in Marseille underscores the long-standing role that the city played in the management of public health in France since the Ancien Régime. From the central node in France’s quarantine apparatus to the leading French industrial producer of soap, Marseille stood at the helm of French public health management over the course of this period. In this way, the city which carried a reputation as one of the dirtiest cities in Europe might, ironically, deserve fresh appreciation as a city that has long protected Europe from disease. Indeed, this provincial city, long denigrated by popular stereotypes, offers key insight into the localized and decentralized ways that industrial regulation and public health administration functioned in France during this period.

Introduction.

Marseille and the Making of French Public Health

“*Une ville comme Marseille mérite qu’on s’occupe de son passé.*”— Joseph Méry, 1860¹

In the early nineteenth century, travelers coming to Marseille by sea would have sailed northward along the city’s coast, drifting past the entrance to its famous port under the shadow of two imposing fortresses, the Fort Saint-Jean and Fort Saint-Nicolas, which guarded either side of the harbor. On the journey they might have caught a glimpse, at a distance, of the bustling life along the quays: sailors, workers, and hawkers darting between ships, carts piled high with barrels and crates full of fruit and oil, sugar and dyed textiles—overflowing assortments of all the merchandise that flowed into the city from the Mediterranean, Africa, and the Levant. If the wind was blowing in the right direction, these travelers might have even heard the faint cries of the fishwives and dockworkers as they went about their business, at home in the choreographed chaos that characterized life in the busy port. If they did so, this introduction to the sights and sounds of Marseille would have lasted only a few moments, as they continued past the narrow mouth of the port, following the rocky, sun-bleached coast to the north.

Instead of docking along the quays, these travelers would have been directed to the quarantine station, or *lazaret*, known as Les Nouvelles Infirmeries, which sat above the Joliette cove on the city’s far northwest side. There, they would have disembarked and been sorted, along with any incoming merchandise, into the appropriate hall, and would have spent their first days in Marseille confined to their whitewashed rooms, devoid of furniture or decoration, unless

¹ Joseph Méry, *Marseille et les Marseillais* (Paris: Librairie Nouvelle, 1860), 125.

they could afford to pay extra for such comforts.² Trapped between the flat expanse of the Mediterranean on one side and the white stone walls of the city's ramparts on the other, the only indication of the world outside would likely have been the smell. The quarantine station shared the Joliette cove with the city's slaughterhouse and a number of factories, at least one of which manufactured soap and regularly dropped its sulfuric waste into the waters below.³ Medical staff from the station reported that fumes from the soap waste wafted over the walls and permeated the entire facility. After several days or weeks quarantine, depending on their port of departure, travelers received authorization to enter the city and would have left the station and made their way to the city walls, descending into the winding streets of the Old Town. This would have been a brief journey, but one which afforded them the opportunity to finally see for themselves the soap waste, whose odor they had come to know so well, smoking as it slid down the slopes of the coves and flowed into the port itself.

Some observers expressed dismay that such was the first vision of Marseille for incoming visitors, fearful that Marseille could never be a 'great city' if factories and factory waste made a lasting first impression.⁴ Others took a more optimistic note. While visiting the city in the early 1840s, for example, Alexandre Dumas wrote,

“The harbour in Marseilles is the most striking one I have ever seen, not on account of the many vessels it contains, nor of its panorama, which extends from

² The duration of one's stay in the quarantine facility depended on one's point of departure and itinerary and on the latest information regarding outbreaks in the regions bordering major Mediterranean port cities. It could also differ for merchandise and travelers. See Georges François, “Les Lazarets de Marseille,” Association des Amis du Patrimoine Médical de Marseille, Accessed November 21, 2021, http://patrimoinemedical.univmed.fr/articles/article_lazarets.pdf.

³ Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822, AMM 31 O 7.

⁴ The Marseillais artist, Joseph-Martin Marchand depicted the soap factories above the anse de l'ourse, for example, calling them “ugly” [*laide*] and arguing that they should be torn down and replaced by a monument that would be more impressive to visitors approaching the city by sea. He bemoaned the fact that the sights and smells of this factory were the first experiences of foreigners after they left the city's quarantine station. *Partie du fond de la anse de l'ourse, façade de l'Observance, église des carmélites, de l'extérieur, dôme de la Charité (folio 71, verso-70)*, AD BDR 50 Fi 327.

Notre-Dame to the tower of St. John; nor of its humming-birds, parrots, and monkeys, which deceived by this beautiful climate of the south, fancy they are still in their own country, and by their songs and gestures, amuse the passer-by in a thousand ways; but, because it is the rendezvous of the whole world. No two persons clothed in the same manner are to be met with there; nor two men speaking the same language. It is true that the water is very dirty; but above this water. . . there is so blue a sky, filled with such beautiful gulls in the day-time, and studded with such shining stars at night, that a man may certainly be allowed not to look down, when there is so fine a slight to view above him.”⁵

Dumas emphasized the glamour of Marseille’s port with images of the fascinating characters to be found along its quays and of the fabulous wealth which streamed into the city, even as he acknowledged its less desirable features. It was dirty, yes—but mesmerizing. In doing so, he painted a portrait of the city that has been taken up and repeated by observers across the nineteenth and twentieth centuries, perhaps most ardently by Albert Londres, who, nearly a century later, would refer to Marseille’s port as that “most magnificent kaleidoscope of coasts.”⁶

But it was in fact that small knot of buildings just *outside* the city’s port, the jumble of soap factories, quarantine facilities, and merchandise warehouses—far less glamorous and rarely described by travelers—that represented the very backbone of the city’s economy and which, together, pointed to the unique and outsized role that Marseille had played in the preservation of French public health since the early modern period. The quarantine station, constructed under the reign of Louis XIV, was described by one enthusiastic visitor as “the most handsome and best administered of all the *lazarets*” and was part of an elaborate network of such facilities in all the major port cities of the Mediterranean.⁷ These institutions actively collected and shared intelligence on the state of public health throughout the region, including, most importantly, any

⁵ Alexander Dumas, *Pictures of Travel in the South of France* (London: Offices of the National Illustrated Library, 1850), 277.

⁶ “*le plus merveilleux kaléidoscope des côtes*,” Albert Londres, *Marseille, porte du sud* (Paris: Arléa, 2008), 10.

⁷ “*Le lazaret de Marseille est l’un des plus grands, des plus beaux et des mieux administrés de tous les lazarets possibles*,” Georges François, “Les Lazarets de Marseille.”

news of an outbreak of plague. In France, the lazaret in Marseille constituted a critical early warning system for disease entering the country from the Mediterranean, reflecting both the public health priorities and mitigation strategies of the French central state during the Ancien Régime.

The adjacent soap factory, on the other hand, represented the different role that Marseille would take in the nineteenth century and, with it, changing conceptions and standards of public health and hygiene in the modern period. It would be as the continent's premier industrial producer of soap, first for textiles, including clothing and home furnishings, and later for bodies, that Marseille would make its mark on the history of public health in the nineteenth and twentieth centuries, long after the quarantine system has been abandoned. New health concerns were taking hold in France after the plague ceased to be the major and recurring problem that it had been in the Early Modern period. The physical hygiene of the domestic population, and of city-dwellers in particular, was beginning to take precedence as the first health priority of the French state. This was a concern that led to a number of efforts to 'clean up' urban areas with the circulation of fresh air, fresh water, and waste collection services, but also reached into the personal lives and habits of everyday people as new expectations around washing and personal hygiene emerged.

By focusing on Marseille, home to some of the earliest and most important quarantine facilities in France and the largest soap manufacturing operation in Europe, we can see, in sharp relief, the trajectory of public health administration in France from the eighteenth to the twentieth century from one which focused primarily on preventing epidemics, specifically by controlling population movement, to one that became increasingly concerned with the health and hygiene of its domestic space, and of its cities in particular. Soap became absolutely central to

that transition. Increasingly ubiquitous, soap was demanded in ever growing quantities in order to maintain the hygiene of the population with Marseille perfectly placed to meet that demand. The port city was surrounded by olive oil production and had easy access to sea water and to the coastal plants necessary to make soda ash—all the necessary ingredients to make the type of soap that would become eponymously identified with the city itself: *savon de Marseille*.

This type of soap, made cheaply and sold at massive markups, became the most important individual piece of Marseille's economy by the late eighteenth century and, like planets orbiting a bright star, the other economic sectors re-oriented themselves in order to meet the demands of that production. Crate and chalk manufacturers supplied the factories, olive growers and oil press workers depended on their business, dock work fluctuated according to the import and export needs of the soap industry and new industries, such as artificial soda ash factories, appeared, seemingly overnight, to ensure that soap manufacturing continued to prosper even as the region was depleted of the natural resources which had first brought the soap industry to the region.

On the surface, then, soap was a source of health and prosperity, both for the city and for the increasingly global markets that it supplied. Such was certainly the rhetoric that appeared in glowing accounts printed to accompany soap displays at the *Exposition universelle*, for example. Indeed, the wealth, health, and cleanliness that Marseille's soap theoretically made possible became intimately associated with the idea of civilization itself.⁸ In 1873, the writer and chemist Louis Figuier made the connection explicit. Paraphrasing the work of the German scientist Justus von Liebig, he wrote, "The amount of soap that a nation consumes could almost serve as a measure for gauging the degree of wealth and civilization that it has achieved. Between two

⁸ See, for example, L. Brisse, *Album de l'Exposition Universelle* (Paris: Bureaux de l'Abeille Impériale, 1856).

nations, equally populated, the richer and more civilized will be that which consumes the most soap.”⁹ Such arguments underscored the idea, espoused by French politicians, industrialists, and colonial boosters that France was both a bastion of civilization and uniquely positioned to bring health and hygiene to colonial outposts around the world as part of its *mission civilisatrice*.

But there was a dark side to the proliferation of soap production that went unmentioned in virtually all popular writing on the subject: Marseille was drowning beneath the weight of its toxic waste. The industry was producing hundreds of thousands of cubic meters of sulfuric waste, an amalgam of vegetal material and calcium sulfide leftover after saponification, the chemical process that allowed for the creation of soap from raw ingredients. This material formed a gelatinous magma that, when exposed to light, heat, and moisture in the air, could catch fire and give off highly corrosive sulfuric acid and hydrogen sulfide. Hydrogen sulfide, extremely poisonous, though easily-recognizable by its characteristic rotten-egg smell, wafted off the waste in a haze. It was this smell that staff from the quarantine station reported inside the facility. Contaminated liquid seeped from this material into the ground around factories and dumping grounds, poisoning well water and plant life. Even old waste, which had desiccated, hardened and became crusty with soot, which was carried by the wind around the city, irritating the eyes and chests of whoever came into contact with it.

It is clear therefore that there were contradictions between the pursuit of clean cities and clean bodies, and nowhere were those contradictions more visible than the streets of Marseille. The soap industry, which had existed in the city since the fourteenth century, had reached such a scale by the early nineteenth century that its toxic waste was becoming an insurmountable

⁹ “La quantité de savon que consomme une nation pourrait presque servir de mesure pour s’apprécier de degré de richesse et de civilisation auquel elle est parvenue. Entre deux nations également peuplées, la plus riche et la plus civilisée sera celle qui consommera le plus de savon.” Louis Figuier, *Les Merveilles de L’Industrie ou Description des principales industries modernes : industries chimiques* (Paris: Fume, Jouvet et Cie., 1873), 411.

problem.¹⁰ It was soap production itself which was poisoning the populations of people who worked in and lived near the factories, a situation which gave rise to some of the earliest anti-pollution protests in France.¹¹

But soap waste posed a number of other concerns for municipal authorities. Dumped along the coast, it was pushed by winds and tides, accumulating on beaches and clogging shipping lanes, to the great consternation of Marseille's powerful merchant class and to naval officials who feared for the safety of ships in the area. Fishermen complained that the pollution drove fish away and threatened the city's food supply. Property owners insisted that the waste caused property values to plummet. Residents complained that the waste made local well water undrinkable and those who lived near merchandise warehouses wrote to local officials decrying the fire risk posed by the combustible material. Workers in the soap factories, who were exposed to these materials in their highest concentration, were subject to a range of serious ailments from caustic burns to sudden asphyxiation after having inhaled toxic fumes. The production of soap, key to health and hygiene in the modern era, hailed as a symbol of civilization itself, was therefore actively contributing to the deterioration of public health conditions throughout the city and, in many cases, literally poisoning the workers who came into contact with its waste.

As a result, soap production in Marseille created tensions that pitted the interests of industrialists, political leaders, shipping giants, property owners, medical and scientific experts, and everyday citizens against one another in complex and shifting ways. In doing so, soap manufacturing represented both the priorities and the paradox at the heart of French public health

¹⁰ We see the first recorded evidence of soap production in the city during the fourteenth century, but it is likely that the earliest production preceded this date. Xavier Daumalin, Nicole Girard, and Olivier Raveux, eds., *Du Savon à la puce: L'industrie marseillaise du XVIIe siècle à nos jours* (Marseille: Editions Jean Lafitte, 2003), 28.

¹¹ Xavier Daumalin, "Neither leave here, nor die here, but really live here': Milestones for a social history of the anti-pollution movements in the Berre/Fos-sur-Mer industrial port zone," *Rives méditerranéennes* 61 (2020): 20–45, <https://journals.openedition.org/rives/7725>.

in the modern period: cleanliness for some meant filth for others. Health for some depended on the sacrifice of others. With the dawn of the nineteenth century, Marseille therefore became an early warning system of a different kind, signaling many of the medical, logistical, and political challenges that would soon arise with widespread industrial development, and with chemical manufacturing in particular.

As we shall see, neither national nor local officials were unaware of these harmful effects nor were they entirely inept in addressing them. There were limited regulations in place even during the Ancien Régime to push soap factories to the edge of populated areas where, theoretically, fewer people would be exposed to their effects. During the Napoleonic era, industrial regulation was overhauled by the imperial decree of 1810 *relatif aux Manufactures et Ateliers qui répandent une odeur insalubre ou incommode*, the first legislative effort at the national level to regulate industrial pollution in France. The text of this new law was based on a report published in 1809 by the Institut de France's chemistry division, which sought to classify the dangers posed by various kinds of industrial and manufacturing activity and to stipulate how far they should be from populated areas. The report had been prompted by a deluge of recent complaints made against soda ash factories on the outskirts of Paris, factories whose very *raison d'être* was to supply the country's growing soap industry. In this way, it was in fact the demands of the soap industry which triggered the state's first, hesitant steps towards industrial regulation.¹²

However, these early regulations, though an essential foundation for future reforms, were highly ineffective at reigning in the toxic effects of soap production on urban residents, and even

¹² For more on the decree of 1810, see "Avant-propos" and Chapter 1, "les nuisances industrielles en Révolution ou la chimie aux commandes," in Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle: France, 1789–1914* (Paris: Editions EHESS, 2010), 7–62.

less effective in terms of the protections they offered to workers in the factories themselves. This was the result of weak or absent enforcement mechanisms, of the cozy (and sometimes openly corrupt) relationship between industrialists and the government officials, of the prevailing political philosophy of laissez-faire liberalism towards industrial growth, and of insufficient scientific understanding of the medical harm posed by these waste products or of how to properly contain them. As the soap industry continued to grow, largely unrestrained by effective regulation, it offered an early and extreme example of the challenges posed by industrial chemical manufacturing and of the desperate, exhausted efforts of urban residents to protest the effects of those factories on their daily lives. If complaints against soda ash factories had inspired the first 1810 decree, complaints made against soap factories themselves were nearly constant in Marseille across the nineteenth century. But neither the lack of rigorous regulation nor the routine complaints made against these factories were unique to the soap industry. In this respect, the history of Marseille's soap industry offers instead an emblematic example of the failures of nineteenth-century French regulation of industrial development more broadly.

What was unique about this industry, however, is twofold. First, was its unique relationship specifically to the city of Marseille. No other city in the world produced as much soap as Marseille did in the nineteenth century. At the time of the *Exposition universelle* in 1855, Marseille boasted an annual production of 60 million kilograms of soap, meaning that the city alone produced more than half as much soap as the whole of Great Britain.¹³ This was a level of production that created roughly 150,000 cubic meters of waste in the city every year.¹⁴ The predominance of soap production in Marseille meant that industry and its waste shaped, both

¹³ At the same time, Great Britain was producing around 90 million kilograms of soap. L. Brisse, *Album de l'Exposition Universelle*, 279–280.

¹⁴ Letter from the Prefect of Bouches-du-Rhone to the Mayor of Marseille, 19 December 1854. AMM 31 O 7.

literally and metaphorically, urban development in the city from the late eighteenth to the early twentieth century. Indeed, to write a history of Marseille's soap industry during this period is in many ways to write a history of the city itself. It sheds light on the structure and operation of local and departmental government, on the relationship between business leaders and government officials, and on the physical remaking of the city by industrial development and waste management. In fact, the place of soap manufacturing in the physical heart of the city influenced a pattern of socio-economic geography in which the urban core was given over to shipping and industry—a pattern that persisted into the twentieth century—and one which ensured that industrial waste would remain a highly visible characteristic of life in the city. The infamous 'filthiness' of Marseille became so engrained in popular stereotypes about the city, that they have been deployed again and again over the course of the previous century to marginalize the city and to 'other' its multi-racial populations.

Perhaps most movingly, however, a study of Marseille's soap industry illuminates the relationship between its citizens and the state, their relationship with their city, and with one another as they navigated all the opportunities and challenges that soap production brought to the city. Though soap production in Marseille was already very old in the nineteenth century, its residents were far from complacent in their efforts to describe and, in many cases, to protest, its effects on their daily lives. In capturing the experience of the residents and workers who lived at the very center of a city built on soap, therefore, we can also see very early manifestations of both the philosophies and tools of protest that would come to characterize environmental consciousness in the region and in France more broadly.

The concentration of soap production in Marseille also underscores the long-standing, though evolving, role that the city played in the management of public health in France since the

Ancien Régime. From the central node in France’s quarantine apparatus, to, as we shall see, the hub of colonial medicine and infectious disease research, to the leading French industrial producer of soap, Marseille stood at the helm of French public health management, navigating the rough waters of emerging health challenges, even as governments changed, science evolved, and new priorities became central. This role was ironic given the city’s reputation for grime and disease, but it has continued to this day and was made startlingly apparent in the wake of the COVID-19 epidemic when manufacturers saw demand for traditional savon de Marseille quadruple overnight, prompting one news report to refer to Marseille’s soap as “Provence’s green gold.”¹⁵

While this story is therefore inextricable from the specific local conditions of Marseille, it also has much wider implications that have to do with the unique nature of the product itself. Soap was, and remains, essential to the definitions of hygiene and public health that came to characterize modernity. By tracing the use of soap first as an object designed to clean clothes and textiles, and later as a household item associated with personal and domestic cleanliness, we can grasp changing conceptions of hygiene across this period. But critically, by focusing on the soap industry, we gain unique insight into the relationship between public health and personal hygiene, for soap production necessitated the sacrifice of urban health for personal hygiene, at least in Marseille, where soap waste proliferated throughout the city. The greater the obsession with health, cleanliness, and disinfection became, an obsession made possible, in part, by the

¹⁵ Savonnerie de la Licorne in Marseille reported that their in-shop sales increased by 30% in March 2020 and online orders for delivery quadrupled. In May 2020, rival company Marius Fabre reported that their online orders had doubled. See, Julie Gaubert, “Coronavirus: Marseille soap firm cleaning up as people urged to wash hands to stop COVID-19,” Euronews.com, March, 21, 2020, <https://www.euronews.com/2020/03/21/coronavirus-marseille-soap-firm-cleaning-up-as-people-urged-to-wash-hands-to-stop-covid-19>; “Coronavirus: le savon de Marseille tire son épingle du jeu,” Franceinfo, May 5, 2020, https://www.francetvinfo.fr/sante/maladie/coronavirus/coronavirus-le-savon-de-marseille-tire-son-epingle-du-jeu_3949691.html; Alexis Steinman, “Raising the Bar: A Comeback for Marseille’s Olive Oil-Based Heritage Soap,” CulinaryBackstreets.com, May 11, 2020, <https://culinarybackstreets.com/cities-category/marseille/2020/savon-de-marseille/>.

ubiquity of soap, the more toxic waste filled the streets of Marseille or was dumped along the city's coastline. As a result, it is this industry in particular that highlights the contradictions inherent to the notions of 'cleanliness' that are central to modern definitions of public health, as certain workers, certain neighborhoods, and even whole cities were devoted to the production of cleanliness for other people, but were themselves sacrificed to the toxic effects inherent to that production.

The Kingdom's *Lazaret*: Marseille and French Public Health During the Ancien Régime

It is worth pausing here to elaborate on the notion of 'public health.' I use the term to describe the efforts of institutions, both inside and outside the state, that were responsible for protecting and promoting the health of the French population. During the Ancien Régime, the quarantine network constituted the most important element of that apparatus, with Marseille at the very center. Beginning in the seventeenth century, Marseille's role in the French public health apparatus was primarily one of epidemiological gatekeeper—a city designated as France's first line of defense against potential epidemic disease. For more than a century under the Ancien Régime, Marseille enjoyed a monopoly on all Levantine trade with France, which meant that all commercial ships from the Eastern Mediterranean needed to pass through the city's port before entering the French kingdom and, critically, through the city's quarantine center. This was an arrangement established by Louis XIV and his powerful Minister of State Jean-Baptiste Colbert, alongside a series of tax exemptions for trade in the city, that was designed to transform Marseille into bustling hub of Mediterranean trade. But, this system was also part of a concerted

effort to streamline French public health administration by limiting the points at which foreign trade, and potential carriers of disease, could enter the kingdom.¹⁶

Plague was of particular concern for French administrators during this period and one which they linked specifically to the Islamic world of the Eastern Mediterranean. French administrators and physicians insisted that plague was allowed to flourish in the Levant because of the ‘superstitions’ and ‘decadence’ of the Ottoman state, which prevented them from enacting public health measures, a situation which put the entire region at risk. According to Junko Thérèse Takeda, “European accounts encoded plague within a matrix that equated corrupt states and societies with corrupt bodies.”¹⁷ The anxiety created by the “Asiatic” disease was motivated by Orientalist impulses, but by the seventeenth century, she argues, there was also a scientific reality to the endemic nature of plague on the eastern and southern rim of the Mediterranean. “Climatic changes and rodent depopulation” in Europe since the Middle Ages “had reduced plague’s ‘permanent foci’ to the Near East, Africa, and Asia.”¹⁸ As far as the central state was concerned, this put Marseille on the frontlines combatting the most dangerous potential contagions entering the kingdom.

By directing all trade with those areas through Marseille, French authorities hoped to limit the exposure of the broader population to contagious disease and, with it, the devastating interruption of commerce that inevitably followed an outbreak. As Laurence Brockliss and Colin Jones have written, “The preservation of health appeared a priority of governments increasingly committed to the saving of potentially productive manpower and a broad range of mercantilist

¹⁶ See Junko Thérèse Takeda, “Plague, Commerce, and Centralized Disease Control in Early Modern France,” in *Between Crown and Commerce: Marseille and the Early Modern Mediterranean* (Baltimore: Johns Hopkins University Press, 2011), 106–130; Junko Thérèse Takeda, “French Absolutism, Marseillais Civic Humanism, and the Languages of Public Good,” *The Historical Journal* 49, no. 3 (2006): 707–734.

¹⁷ Takeda, “Plague, Commerce, and Centralized Disease Control,” 107.

¹⁸ *Ibid.*, 115.

policies. Symptomatically, it had been Colbert, the cynosure of mercantilist lore, who had directed the anti-plague campaign of the 1660s.”¹⁹ To accomplish this goal, local administrators erected a complex logistical apparatus to manage incoming travelers. Within the port itself, certain waters were marked off for the docking of Levantine ships and other ships were forbidden from making any unauthorized contact with Levantine vessels.²⁰ In theory, therefore, the ‘corrupt bodies’ that inspired such terror would be stopped, quarantined, and disinfected in Marseille before they were allowed to set foot anywhere else in the kingdom.

The French Crown emphasized Marseille’s gatekeeper role by intervening with increasing regularity in the daily operations of the city’s public health administration, insisting that though the lazaret was a “communal institution,” it was “national property.”²¹ And indeed, Louis XIV had contributed 62,000 livres from his own coffers to pay for the construction of the new lazaret, completed in 1668.²² Royal oversight increased over the next half century with intendants of Marseille’s *Bureau de santé*, ostensibly an autonomous municipal office, required to submit weekly reports to the Crown and every two days during times of greater perceived risk. By the middle of the eighteenth century, they were being instructed not to execute any major decisions without “Versailles’ approval” and were reminded that “the king exercised direct rule. . . despite the officially formulated principle [of autonomy].”²³

The attention paid by the Crown to the quarantine infrastructure in Marseille indicated that “plague had become a matter of state,” according to Brockliss and Jones.²⁴ And the system was largely successful. The region of Provence saw seventy-two plague outbreaks between 1451

¹⁹ Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France* (Oxford: Oxford University Press, 1997), 352.

²⁰ Takeda, “Plague, Commerce, and Centralized Disease Control,” 124.

²¹ *Ibid.*, 117.

²² *Ibid.*, 117.

²³ *Ibid.*, 124.

²⁴ Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France*, 352.

and 1650, but only four after 1650.²⁵ That pattern of success led to relative complacency, however, which ultimately set the stage for disaster in 1720, during the last, but most devastating outbreak in the city's history.²⁶ In the spring of that year, a ship carrying passengers infected with the plague docked in Marseille after already having been refused entry at the port of Livorno and unloaded its cargo of flea-infested cloth against quarantine regulations. The crew was allowed to bring the cargo into the city because the ship was owned by a municipal official who pressured quarantine administrators to overlook the cargo so that he could sell the merchandise at the nearby fair in Beaucaire. Within a few weeks, the disease spread rampantly throughout the neighborhoods around the port, despite the insistence of municipal officials, who claimed that plague had *not* entered the city and attributed a string of suspicious deaths to poverty rather than disease. Such assurances notwithstanding, panic sent ten thousand of the city's ninety thousand residents fleeing to the countryside in an effort to escape the disease.²⁷ Over the next two years, fifty thousand residents of the city, more than half the population, would die from infection.²⁸

While the outbreak constituted the utter devastation of Marseille, Brockliss and Jones have argued that it was actually a success in terms of limiting the spread of infection to the wider region. In July of 1720, roughly two weeks after the first death, the Parliament in Aix issued a decree prohibiting any contact between residents of the city and the rest of Provence. The city was effectively cut off from the rest of the country by a strict *cordon sanitaire*. This was a decision that only made the situation more hellish in Marseille as panic, violence, and famine

²⁵ Ibid., 353.

²⁶ See "Marseilles in 1720: 'Days of Affliction and Mourning,'" in Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France*, 347–356; Christian A. Devaux, "Small oversights that led to the Great Plague of Marseille (1720–1723): Lessons from the past," *Infection, Genetics and Evolution* 14 (2013): 169–185.

²⁷ Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France*, 348.

²⁸ Ibid., 349.

exacerbated the effects of disease, but it effectively protected the surrounding areas. As Brockliss and Jones write,

“The fact of it was that while Marseilles and its neighboring localities suffered, they suffered alone. Measures of containment allowed the disease to be contained within a circumscribed south-eastern corner of France. Indeed, to a certain degree, Marseilles suffered so that others could be free of disease: the death rate was so exceptionally high precisely because no escape was allowed. The celebration of victory over plague was a redemptive act on the part of the afflicted community; but that redemption was organized by administrative confinement and state repression.”²⁹

Early on, therefore, the French state had established a policy of sacrificing Marseille in an effort to protect the public health and commerce of the rest of the country. But, as we shall see, that legacy would continue even after plague became a less pressing concern than other contagious diseases or threats to public health.

Indeed, by the early nineteenth century, Marseille’s unique role as the nation’s lazaret was beginning to change. The city’s traditional relationships with the Eastern Mediterranean had collapsed during the Revolution and during the British blockade of the Napoleonic years. When the smoke of war had finally cleared, Marseille’s merchants returned to their outposts around the Mediterranean to discover that they had largely been replaced by foreign competitors.³⁰ The city’s traders no longer held the preeminent position in the Levant that they once had. Trade remained critical to the city’s prosperity, but was falling behind industry as Marseille’s most dynamic economic sector. During the same period, the city’s public health bureaucracy was undergoing significant change. The quarantine system was disbanded in 1830 followed shortly afterwards by the elimination of the sanitary administration in 1849, both of which had faced criticism from merchants and industrialists who opposed the practice of sequestering

²⁹ Ibid., 350.

³⁰ Pierre Guiral and Paul Amargier, “La Quasi-ruine,” in *History de Marseille* (Paris: Editions Mazarine, 1983), 212–216.

merchandise before it was allowed to enter the city (a practice, which, they insisted, put them at an economic disadvantage compared to their Mediterranean competitors).³¹

Marseille would continue to be a source of concern for national administrators and to serve as a kind of early warning system for disease entering the country, even without its official quarantine system, however, particularly during the cholera epidemics of the 1830s and 1840s. Cholera, like plague, became associated in the public imagination with “Asiatic” origins, beliefs exacerbated by episodes like the 1865 epidemic, which began when infected travelers entered Marseille after a pilgrimage to Mecca.³² The tragic irony was that the quarantine system, which, when functioning properly, had been so successful in protecting the city from deadly outbreaks, was disbanded right as cholera became an ongoing problem in Europe. According to Gérard Fabre, this decision was undoubtedly affected by pressures from the business community, but also reflected changing beliefs about the greatest source of danger to public health. It was a moment in which anti-contagionists positioned themselves as progressive reformers who insisted that quarantine facilities were a relic of medieval superstition rather than science.³³ They should have no place in modern, industrializing cities. That assertion, combined with chronic complaints from the merchants and industrialists who played such a central role in Marseille’s local government, was convincing, or at the very least, convenient for city leaders.

Without the quarantine apparatus in Marseille, the city’s legacy as a center of both public health challenges and public health information-gathering would continue, but transform across the nineteenth century with the establishment of new institutions dedicated specifically to the

³¹ R. Barbieri and M. Drancourt, “Two thousand years of epidemics in Marseille and the Mediterranean Basin,” *New Microbes New Infections* 26 (2018): S4–S9, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6205573/#bib23>.

³² R. Barbieri, “Two thousand years of epidemics in Marseille.”

³³ Gérard Fabre, *Épidémies et Contagions: L’imaginaire du mal en Occident* (Paris: Presses universitaires de France, 1998), 127.

study of colonial medicine, and tropical infectious diseases in particular. Marseille's merchant and industrial class, invested heavily in French colonial expansion into West Africa, the Middle East, and East Asia, were especially interested in tropical botany, both as a potential source of new oleaginous products that could be incorporated into the soap-making process and as a source of medical research that would protect French expansion into those regions. In the latter half of the nineteenth century, the social elite of the city's shipping and industrial classes founded a series of research institutions to promote new botanical and medical discoveries, including an outpost of the Pasteur Institute, a laboratory for anti-diphtheria vaccines, a rabies vaccination institute, and, finally, in 1907, the Ecole d'application du service de santé coloniale, a military medical school design to prepare medical officers for overseas postings.³⁴

As Michael A. Osborne has argued, these new public health institutions were not founded solely with Marseille's overseas interests in mind. Boosters framed them specifically in terms of *local* interests since Marseille suffered from regular outbreaks of diseases that were becoming increasingly associated with tropical colonial outposts. As a leading port city, Marseille faced similar epidemiological challenges as that of shipping hubs like Liverpool and Manchester, but unlike the port cities of Northern Europe, Marseille enjoyed warm temperatures for much of the year. As a result, by the 1880s, "Marseille was the acknowledged leader [in France] in fatalities per capita from diphtheria. Typhoid too persisted there as well claiming 1,040 souls for every 100,000 residents in 1886 while Paris recorded less than half that total and Lyon registered by 295."³⁵ It was these local conditions, in addition to the city's colonial connections, that convinced military officials to found the Ecole d'application in Marseille. As Osborne writes, it

³⁴ Michael A. Osborne, "The Emergence of Colonial Medicine in Marseille," in *The Emergence of Tropical Medicine in France* (Chicago: The University of Chicago Press, 2014), 155–188.

³⁵ Osborne, "The Emergence of Colonial Medicine in Marseille," 158.

was Marseille's reputation as a "disease-laden place," as "a metropole of insalubrity, and the specificity of its disease ecology that clinched the deal."³⁶ The city's legacy at the forefront of disease research has continued to this day with the establishment of the Institut Hospitalo-Universitaire Méditerranée Infection (IHU-MI) in 2016, an institution that was touted as "Marseilles' lazaretto for the 21st century."³⁷

Industrialization in Marseille: Opportunities and Challenges

Despite this enduring reputation for infectious disease research, however, Marseille would never again serve in the same semi-official role as public health gatekeeper that it had in the early modern period. New medical priorities were emerging, both in popular understanding and in state policy at the national and local level. Epidemic disease remained a source of intense anxiety, but the locus of concern was beginning to change, particularly as cities began to industrialize and experience explosive demographic growth. Alain Corbin has argued that it was during this period that an eighteenth-century preoccupation with individual hygiene, with a particular focus on deodorization, would expand into an obsession with the hygiene of society as a whole. As he writes, "the new public health aimed at increasing the pace of disinfection; its target was all of space and all of society."³⁸ To this end, a series of legal changes in the first decade of the nineteenth century sought to reign in the worst polluting effects of industry in densely populated, urban areas, regulations which focused overwhelmingly on smell, which was

³⁶ Osborne, "The Emergence of Colonial Medicine in Marseille," 185.

³⁷ John McConnell, "Marseilles' Lazaretto for the 21st Century," *The Lancet* 17 (2017): 1242.

³⁸ Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination* (Cambridge: Harvard University Press, 1986), 128.

thought to be a vector of disease in itself. The interest of the state in urban hygiene was only accelerated by the cholera epidemics of the 1830s.³⁹

This transition was highly visible in Marseille where soap production exploded to meet ever-growing demand fueled by anxiety about health and hygiene at both the personal and national scale. The city's growing investment in soap production, alongside the secondary industries which arose to support it, came with its own public health challenges, however, as pollution became a growing cause for concern for residents and city leaders alike. The urban geography of Marseille was key in this respect. Marseille's soap industry, clustered around the port at the city's center, diverged from the pattern being established by industry in many other major cities by retaining its position at the urban core. Soap manufacturers were never forced to the urban periphery as was so often the case with other polluting industries. As a result, the residents of Marseille's central neighborhoods had a front row seat to the challenges posed by industrial waste, and by chemical waste in particular, and, as Daniel Faget has written, the city's response to those challenges served as a kind of "pilot program" for the management of chemical industrial pollution in France more broadly.⁴⁰

Given its pioneering role in the development of chemical manufacturing, Marseille might have served as a proverbial canary in the coal mine, much like it had in the early modern period, alerting administrators at the local and national level to health risks associated with unprecedented levels of urban pollution that would become increasingly widespread in the

³⁹ See Chapter 8, "Policy and Pollution," in Alain Corbin, *The Foul and the Fragrant*, 128–141. For more on the acceleration of these processes prompted by the cholera epidemics of the 1830s see Chapter 1, "The Crisis of Representations: From Man to Milieux," in Paul Rabinow, *French Modern: Norms and Forms of the Social Environment* (Chicago: The University of Chicago Press, 1989), 17–57.

⁴⁰ "un rôle pilote," Daniel Faget, "Une Cité sous les cendres: les territoires de la pollution savonnaire à Marseille (1750-1850)," in *Débordements industriels: Environnement, territoire et conflit (XVIII^e–XXI^e siècle)*, eds. Michel Letté and Thomas Le Roux (Rennes: Presses universitaires de Rennes, 2013), accessed November 21, 2021, <https://doi.org/10.4000/books.pur.111365>.

nineteenth and twentieth centuries. But, with a series of new political regimes at the helm in Paris, most of these warnings went unheeded. While the kings and ministers of the Ancien Régime had invested heavily in Marseille's public health infrastructure and taken seriously the information gathered by medical experts in the city, that system did not transition well to the new challenges posed by industrialization. New political leadership and economic priorities meant that Marseille would remain a key bellwether of public health in France, but, it seemed, far fewer people were listening.

French Public Health and Governance in the Modern Era

The very limited response by the French central state to the situation in Marseille was not unique, nor altogether surprising given the wealth of scholarship that exists on early industrial regulation and public health administration in France. French institutions of public health were not particularly robust during this period, despite the apparent impulse among national officials to mitigate some of the risks associated with industrial development with the decree of 1810. The decree established a classification system in which industries and other artisanal and manufacturing process were sorted into three classes.⁴¹ The first of those categories included industries that were considered the most dangerous and which were required to be separated from inhabited areas. The second category included industries that were not considered as dangerous, but which needed to be regulated so as not disturb the surrounding population. And the third included industries that were not considered particularly dangerous and could therefore be built within inhabited areas, but which still required regulation by local authorities. The decree designated different political bodies with the responsibility of regulating industries from

⁴¹ "Décret impérial du 15/10/1810 relatif aux Manufactures et Ateliers qui répandent une odeur insalubre ou incommode," AIDA, accessed January 10, 2022. https://aida.ineris.fr/consultation_document/3377.

each class. Manufacturers in the first class would need permission from the Conseil d'Etat, as advised by the Minister of the Interior, before they could begin operations. Industries in the second would be regulated by the prefect of the department and industries in the third class could be regulated by a sous-préfet, but in major cities like Marseille, where there was no sous-préfet, the prefect would be responsible.⁴² The bureaucratic structure created by this decree was therefore political—determinations would be made by agents of the government in Paris, not by the judiciary (as had often been the case during the Ancien Régime), nor necessarily with any input from medical or scientific experts.⁴³

In the first decades of the nineteenth century, several departments in France began establishing *conseils de salubrité*, or local health councils, that would take on the responsibility of advising the prefect on public health problems, including epidemics, regulations relating to livestock, and critically, industrial operations and pollution. But the regulations proposed by these councils were notoriously weak. Typically, a combination of local doctors, pharmacists, and scientific authorities were chosen by the prefect to sit on these councils, though 'scientific authorities' often included industrialists or scientists from local universities who were personally invested in local industry. One's role on the health council was a part-time job: the council was only convened by the discretion of the prefect and virtually all members had other jobs or private practices. This was necessary since service on the council was not paid until the end of the nineteenth century and council members often struggled to be successfully reimbursed for costs incurred in the process of doing council-related work, including traveling to inspect factories throughout the department, for example. Furthermore, local health councils of this kind were not

⁴² Nicholas Richardson, *The French Prefectoral Corps 1814–1830* (Cambridge: Cambridge University Press, 1966), 25.

⁴³ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 51.

required by national law until 1848⁴⁴. Prefects formed the councils of their own accord, and many departments had none at all.

Even when councils functioned relatively smoothly, they did not have the authority to craft health policy on their own. They could only advise prefects, who would make final determinations. It is also clear that council members rarely envisioned themselves as opponents of industry. Many people, even medical experts, remained unconvinced about the dangers posed by industrial labor or waste, and industrialists on the council explicitly announced their intention to protect industry whenever possible. This was a belief shaped by self-interest, and sometimes corruption, but was also built on the premise that “the prosperity created by unfettered economic activity” was “essential to the well-being of the nation, since a poor population would not be healthy.”⁴⁵ As a result, the institutions that composed the new public health bureaucracy in France were structurally weak, often corrupt, and divided philosophically over what their institutional role would be—a debate which sometimes became heated and personal, as council minutes attest.

The disorganization of public health policy during this period has led historian Matthew Ramsey to question the existence of a real public health apparatus in France. While there were a number of physicians among the medical elite who were calling for greater state-led interventions into the realm of public health—some of whom held positions on health councils, but more often were members of the medical faculty at major universities—“*L’hygiénisme* should not be identified with a larger social movement or even with the medical profession as a whole.”⁴⁶

⁴⁴ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 172.

⁴⁵ Matthew Ramsey, “Public Health in France,” 57.

⁴⁶ *Ibid.*, 54.

That began to change slowly through the middle of the nineteenth century as health councils became more professionalized and as a greater proportion of the medical elite began to accept contagionism as the cause of certain diseases (rather than poverty or individual behavior), which could be addressed by specific policies. But, public health, particularly around matters of hygiene, would become more formalized after 1870 with the advent of eugenics and ideologies of social hygiene as well as national republican ideology, which placed greater emphasis on the health of the population. The institutionalization of republican ideology also opened some space in the public discourse to discuss the notion of collectivity at the expense of property rights or the operations of private businesses. This was an idea voiced not only “by the growing ranks of socialists, but by moderate and progressive republicans who hoped to preserve social harmony by following a middle path between *laissez-faire* and socialism.”⁴⁷ It is during this period that we see health and hygiene becoming a standard part of public-school curriculums, not only in specific classes, but woven throughout the school day as health instruction formed an important part of reading and dictation exercises.⁴⁸ There, instructors began officially recommending the regular use of soap for washing the hands and body—a practice which had been controversial among medical authorities, some of whom had insisted that soap was too irritating (a belief not altogether unreasonable given the caustic ingredients used in some soap).⁴⁹ New institutions of public health appeared outside the state as well. There were a growing number of medical journals during his period, for example, as well as private organizations and philanthropies dedicated to a particular medical cause, such as alcoholism.⁵⁰ The Pasteur Institute was founded

⁴⁷ Ibid., 70.

⁴⁸ Katherine Ashenburg, *The Dirt on Clean: An Unsanitized History* (New York: Farrar, Straus and Giroux, 2007), 195.

⁴⁹ Ibid., 225.

⁵⁰ Matthew Ramsey, “Public Health in France,” 71.

in 1887 and opened its doors in 1888. In the 1880s and 1890s, important national-level health codes and workplace safety standards were established and much-needed improvements to urban sewer and water distribution networks were also implemented.⁵¹ Most public health regulation was still happening at the departmental level, but, by the end of the century, the central state and private national organizations were beginning to take a much larger role.

Decentralized and Urban: Nineteenth-Century Marseille as a Local Case Study

Historian Matthew Ramsey has argued that the paltry political response to public health challenges in fact constitutes one of the paradoxes that characterize French public health administration in the modern period. France, as he points out, was “a country which helped create the modern public health hygiene movement and establish public health as a scientific discipline,” and yet, it was extraordinarily “slow to apply public health measures on a wide scale.”⁵² If France was a pioneer in the science of public health, with the exception of the imperial decree of 1810, which was one of the first pieces of legislation in Europe that sought to regulate industrial pollution, it was not a political leader. By the middle of the nineteenth century, it was falling behind its neighbors in terms of proactive efforts to mitigate the polluting effects of industry and by the eve of the First World War, France “lagged a generation behind” other European countries, particularly Great Britain and Germany, in terms of legislative efforts to address widespread public health issues.⁵³ As Ramsey concludes: “France’s practical achievements fell far short of its contributions to the realm of ideas; certain health problems (alcoholism, tuberculosis) were more severe in France than elsewhere in Western Europe, and

⁵¹ Ibid., 77–81.

⁵² Ibid., 45.

⁵³ Ibid., 85.

the government had done little to ameliorate them.”⁵⁴ If French hygienists excelled as scientists and theoreticians, they largely failed as lobbyists, having failed to convince the French state to actually act on many of their ideas for much of the nineteenth century.

The reluctance of French leaders to intervene into matters of business or private property in the name of public health points to the second paradox, according to Ramsey, which is that “in France, whose name is virtually synonymous with centralization and the strong state, the central government long played a surprisingly limited role in public health. Far from subordinating the individual relentlessly to the public interest, France was one of the countries in which classic liberalism was most pervasive and persisted the longest.”⁵⁵ Traditions of “localism, voluntarism, and the defense of individual rights” in fact remained quite strong throughout the nineteenth and early twentieth centuries.⁵⁶ The public health administration inaugurated by the Napoleonic era relied heavily on patterns established during the Ancien Régime in which authority was delegated to municipalities, which addressed issues of public health in an ad hoc and highly localized manner. This dynamic of decentralization persisted until the Fifth Republic, according to Ramsey, though elements remain visible today.

The lethargic development of a permanent, centralized, and proactive public health administration in France has been traced to the contradictory political and philosophical legacies of the Revolution, and in the ways that subsequent regimes navigated those contradictions. The Revolution seemed, initially, to present a moment of real opportunity for the restructuring of social welfare and public health management in France, systems that, revolutionaries imagined, might be paid for by nationalized wealth from a dismantled Church. They tended to agree, for

⁵⁴ Ibid.

⁵⁵ Ibid., 45

⁵⁶ Ibid., 85.

example, that “the people enjoyed a right to health,” even if they disagreed on how to prioritize or achieve that goal. Ultimately, however, very few of the proposed reforms were implemented during those critical years.⁵⁷ In fact, some actions, including the disbanding of religious nursing orders and the confiscation of hospital endowments, seriously undermined public health across the nation. In an effort to stabilize the situation, those institutions were re-established under the Consulate and Empire and the public health apparatus largely returned to the *status quo ante* of the Ancien Régime.⁵⁸

Grand revolutionary proposals to re-make the health of the nation failed, according to Ramsey, because the priorities of the revolutionaries were fundamentally fractured and contradictory: “the right to health and assistance, taken together with the proposed mechanisms for state intervention, ran counter to the revolutionary principles of economic freedom and the sanctity of private property.”⁵⁹ “At a deeper level,” he insists, “revolutionary individualism proclaimed in the Declaration of the Rights of Man of 1789, conflicted with the communitarianism expressed in the radical Revolution’s conception of republican virtue; and the federalism and local autonomy favoured in the early stages of the Revolution found their antithesis in Jacobin centralization and the authoritarian state embodied by the Committee of Public Safety.”⁶⁰ With his rise to power, Napoleon would institute a working compromise between these priorities: the state would be centralized and powerful, but it would work to protect private property. It would be “strong but also non-interventionist.”⁶¹ Once established, subsequent reformers and advocates of the hygienist movement would have an incredibly

⁵⁷ Ibid., 48.

⁵⁸ Ibid., 49.

⁵⁹ Ibid., 50.

⁶⁰ Ibid.

⁶¹ Ibid., 51.

difficult time dislodging this compromise. Intervention of the central state into the realm of business and private property in the name of public health would be extremely limited over the course of the next century, even when compared with France's European neighbors.

The birth of modern public health administration in France was therefore local, decentralized, largely non-interventionist, and, as we shall see, distinctly urban. As Geneviève Massard-Guilbaud has written, inconveniences caused by industrial pollutants were only legally recognized by the state when they generated complaints, something that was far more likely to happen in densely-populated urban areas, though was not unheard of in rural regions.⁶² While most scholarship on public health in France has focused on Paris, it is therefore essential, in order to capture the trajectory of these developments, to turn our sights instead to France's provincial cities and to the municipal and departmental institutions that shaped the course of early public health management throughout the country.⁶³ In doing so, we can better see how they responded to both local and national challenges, sometimes in cooperation with the central state, other times in tension with or even completely independently of the capital.

Geneviève Massard-Guilbaud has similarly called for provincial studies of public health management in France with a specific focus on the regulation of industrial pollution.⁶⁴ The 1810-imperial decree delegated a large portion of the responsibility for industrial regulation to prefects, which means that the sources necessary to tell this story are scattered among departmental archives throughout the country. Paris is a tempting subject both for its scale and

⁶² Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 11.

⁶³ For Paris-centric work, see Alain Corbin's *The Foul and the Fragrant*, but also more recent work such as Thomas Le Roux, *Le laboratoire des pollutions industriels. Paris, 1770–1830*. Geneviève Massard-Guilbaud has similarly argued that the decentralized nature of public health administration in France, combined with the diversity of industries and local conditions, means that it is essential that we combine research on the departmental archives to existing research which has made extensive use of Parisian archives. See Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle: France, 1789–1914* (Paris: Editions EHESS, 2010).

⁶⁴ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 7–15.

centrality, but, she argues, “Paris is not France.”⁶⁵ The city’s response to industrial pollution and other questions of public health differed from other parts of the country as a result of its size and its particular institutional relationship to the central state—a dynamic which makes it essential to this history, but not necessarily representative. Nor did the capital experience the full diversity of industrial processes that would become so important in other parts of the country. There was a pocket of soap production in the outlying areas of the capital, for example, but it never saw the extreme concentration of soap manufacturing that characterized central Marseille.

In her work *Histoire de la pollution industrielle: France, 1789–1914*, Massard-Guilbaud has sought to rebalance this scholarly focus on Paris with an examination of case studies pulled from archives around the country. And yet, with the exception a brief study of the infamous Rio Tinto mining company facilities in L’Estaque, very few of her examples come from Marseille.⁶⁶ Given the early and dramatic effects of chemical industrial pollution in Marseille, described in extensive detail by Xavier Daumalin, Daniel Faget, Olivier Raveux, and others, this absence is somewhat surprising.⁶⁷

Marseille, in fact, offers an ideal example of a provincial city that struggled to manage its industrial pollution, constrained by its particular geography and the demands of its local economy. Soap production in particular demands a regional focus. As we shall see, because Marseille’s soap industry was categorized as a “third-class” industry by the decree of 1810, it was regulated by the prefect and not by the national state. Regional and local officials were

⁶⁵ “Paris n’est pas la France,” Ibid., 12.

⁶⁶ Ibid., 257–260.

⁶⁷ See, for example, Daniel Faget, “Une Cité sous les cendres; Xavier Daumalin, Nicole Girard, and Olivier Raveux, eds., *Du Savon à la puce*; Xavier Daumalin, *Du sel au pétrole: l’industrie chimique de Marseille-Berre au XIXe siècle* (Marseille: Tacussel, 2003); Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage : les soudières marseillaises au début du XIXe siècle,” in *Débordements industriels: Environnement, territoire et conflit (XVIIIe–XXIe siècle)*, eds. Michel Letté and Thomas Le Roux (Rennes: Presses universitaires de Rennes, 2013), accessed November 21, 2021, <https://books.openedition.org/pur/111278?lang=en>.

largely left up to their own devices to handle challenges from this industry as they arose. Soap manufacturing thus highlights some of the ways that industrial pollution and the resulting public health challenges were being managed, with mixed success, outside the capital. But the specificity of this industry is important too. Soap production was in and of itself increasingly understood as essential to public health, even as it actively undermined the health of residents in the city. As a result, by zooming in closely on the neighborhoods of central Marseille that formed the most important centers of soap production in the country, we can glimpse the lived realities of the contradiction at the heart of French public health administration more broadly. The history of savon de Marseille therefore necessitates a sliding scale of focus: one that is at once hyperlocal, regional, national, but also has implications for global trends in health and hygiene.

In addition to its scale, the periodization of this story is also important. The bulk of this dissertation will fall between 1810 and 1917, the years which saw the two most important landmark pieces of legislation regulating industrial development in France. This period also represents the peak of Marseille's soap industry, which reached its zenith in the mid-nineteenth century, but began to falter after the First World War and had nearly disappeared completely by the second half of the twentieth century. The Napoleonic era, which constitutes the earliest portion of that period, is also critical to the history of how soap was produced in Marseille. It was during that wartime blockade of the city's port that soap manufacturers were forced to incorporate new ingredients into their manufacturing process as traditional ingredients became unavailable. As we shall see, those new ingredients had a significant impact on the toxic nature of the waste that was produced by soap factories for much of the next century.

The years between 1810 and 1917 spanned one of the most tumultuous political periods in French history, encompassing six different regimes from the First Empire, Restoration, July

Monarchy, Second Republic, Second Empire, and Third Republic. While some general patterns emerge that might serve to separate the approach of each of those regimes concerning questions of public health and industrial pollution, political leadership actually mattered very little in terms of specific policies toward the soap industry. All of those regimes prioritized economic growth and the protection of key French industries and none were particularly proactive in regulation industry or industrial waste. Even the Restoration, which in many ways sought to turn back the political clock on the Revolution and the Napoleonic regime, kept many institutional reforms in place when it came to industrial policy and public health administration, including the prefectorial corps and tax incentives that were designed to protect the soda ash industry, for example.⁶⁸

As a result, the chronology recounted in this dissertation will not pay particular attention to the dates associated with the rise and fall of political regimes, but will instead focus on the years of the Empire, Restoration, and July Monarchy together as the crucial period during which soap production in Marseille reached its peak, and, when the policies and political bodies that managed that production were established and consolidated. As Matthew Ramsey has argued, the early impulses towards minimal industrial regulation evident during those years stagnated beginning in the July Monarchy and continued to do so into the Second Empire.⁶⁹ That only began to change slowly in the 1880s, once the Third Republic had begun to stabilize. That fallow period will be evident here, as local and regional administrators in Marseille settled into relative complacency regarding the challenges of soap factory waste, though, as will become clear, they did sometimes intervene in the placement of new soap factories in order to protect certain

⁶⁸ Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage,” <https://books.openedition.org/pur/111278?lang=en>.

⁶⁹ Matthew Ramsey, “Public Health in France,” 52.

neighborhoods from pollution in a kind of proto-zoning policy. If, however, city leaders changed very little across regime in terms of their approach to industrial regulation, it is quite clear that residents never settled into a similar pattern of inaction. They were active in both documenting and protesting the effects of soap production on their daily lives throughout this period and, as a result, their voices will be heard in each chapter throughout the dissertation.

This periodization, which one might loosely map on to what has been called “the long nineteenth century,” defined on one end by the rupture of the Revolution and on the other by the First World War, is also an essential period for the examination of the changing legal and political philosophies that informed widespread beliefs about the role of the state, and which drove state intervention into the realm of public health specifically. As Geneviève Massard-Guilbaud has argued, there is tendency, among historians as well as the wider public, to think of the development of public health administration as one of linear progress as our medical knowledge grows.⁷⁰ But, the nineteenth century, and a significant chunk of the century that followed, seems to represent a parenthetical period between the eighteenth and late twentieth centuries in which the French state actually *retreated* from intervening in areas of public health.

Officials of the Ancien Regime were well-aware of the dangers posed by certain industrial and manufacturing processes and regularly intervened in order to manage the placement of those facilities to more sparsely populated areas. This they did explicitly in order to protect public health. The idea that administrators of the Ancien Regime were hopelessly ineffective at protecting the health of the population through the regulation of early industry was, according to Massard-Guilbaud, a political justification of the Napoleonic regime to overhaul the public health apparatus in France along more ‘rational’ lines, ‘reforms’ which overwhelmingly

⁷⁰ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 23.

benefitted the French industrial class. This was a talking point that, she argues, has been uncritically repeated by historians themselves.⁷¹ This matches the chronology laid out by Matthew Ramsey, who insists that the state began to slowly intervene in the management of industry in the name of public health with greater frequency during the Third Republic, but would not become seriously interventionist until after the Second World War.⁷² Beginning with the First Empire, officials at both the national and the local level explicitly prioritized the expansion of industry, even when it necessitated certain sacrifices of public health. Marseille's soap industry thus once again sits at the nexus of these tensions: it was an industry dependent on demand created by new and growing concern for particular kinds of hygiene, but one which also benefitted from the increasingly robust protection of industry on the part of the central state, protections which in turn undermined the health of those lived and worked nearby.

Historiography

This dissertation will contribute, first and foremost, to scholarly discourse around historical urban geography in France, and in Marseille in particular. To do so, it will build on the work of Marseille specialists, such as Marcel Roncayolo, and others who have produced rich local studies, such as William H. Sewell, Jr.⁷³ Both have described the complex interplay between the city's industrial development and the metamorphosis of its urban space over time, but neither focused specifically on soap manufacturing as Marseille's most important industry during the nineteenth century. This dissertation will allow us to trace the specific role that soap production played in the physical development of the city. In doing so, it will rely on the work of other great

⁷¹ Ibid., 26–28.

⁷² Matthew Ramsey, "Public Health in France," 94–95.

⁷³ Marcel Roncayolo, *Les grammaires d'une ville: essai sur la genèse des structures urbaines à Marseille* (Paris: Editions de l'Ecole des hautes études en sciences sociales, 1996); William H. Sewell, *Structure and Mobility: The Men and Women of Marseille, 1820-1870* (Cambridge: Cambridge University Press, 1985).

urban geographers of France, including David Harvey, in its attention to capital and spatial production, but it will also take important inspiration from the work of Roncayolo, who insisted that cultural factors, and not economic variables alone, were essential for understanding the way urban space changed (or didn't change) over time.⁷⁴ Referring specifically to the inner-city neighborhoods of the Panier, for example, Roncayolo argued that the deeply entrenched reputation of the neighborhood for grime, crime, and working-class residents, prevented urban renovation schemes from dramatically re-shaping the social geography of the city, even when massive investments were made in such projects. This dissertation will shed light on one of the reasons that the central neighborhoods of Marseille, dominated by polluting soap factories, developed such a reputation in the first place.

This study will also join an increasingly vibrant field of historians working on industrial and environmental questions in France and around Marseille in particular. I borrow heavily from the periodization and archival methodology of Geneviève Massard-Guilbaud, but, as stated above, apply those tools to the specific case study of Marseille, which does not figure prominently in her work. I also lean heavily on the work of Xavier Daumalin, Olivier Raveux, and Daniel Faget who have written extensively on industrialization in Marseille and Bouches-du-Rhône.⁷⁵ Daniel Faget's article "Un Cité sous les Cendres" remains the only other scholarly treatment that I have found which focuses specifically on the role of soap waste in Marseille's urban life and the ways in which local political leaders attempted to navigate its many challenges. Daumalin and Raveux, both prolific historians of nineteenth-century industrialization in Marseille, have been essential in providing empirical detail and context for this story, but also theoretical and methodological inspiration. While this dissertation focuses most closely on the

⁷⁴ David Harvey, *Paris, Capital of Modernity* (New York: Routledge, 2006).

⁷⁵ See footnote 67.

central neighborhoods of the city, it also adopts a slightly wider lens, particularly in Chapter 4, in order to understand how (and to what effect) industry spread beyond the confines of the city proper. Daumalin has argued persuasively that one cannot understand the process of industrialization in Marseille by focusing exclusively on the port, though it often offered the most dramatic and visible signs of Marseille's industrialization. One must instead understand the ways inner city factories depending on a much wider network of labor, trade networks and material goods, and pollution disposal. This dissertation attempts to offer a compromise by showcasing the urban-specific elements of soap production in the region, while also emphasizing the regional context in which this story took place, with a particular emphasis on Mediterranean networks of trade and labor migration.

Lastly, this study will touch on the scholarly discourse surrounding concepts of hygiene, cleanliness, and health. In addition to the wealth of research that has been done on medical and scientific advancements that changed popular conceptions of hygiene, there has been a rich discussion of the cultural discourse that connected ideas of physical hygiene and social hygiene—ideas that were produced and exacerbated by soap advertising, for example, which associated 'dirtiness' with marginalized racial, religious, and colonized populations.⁷⁶ While informed by those studies, this dissertation will take a different tact by focusing on the production side of soap manufacturing rather than its consumer side—how it was made rather than how it was used. With that, I will focus on the material reality of its production, including the waste material inherent to that production, and how those realities were experienced differently according to socio-economic differences within the city itself. In doing so, it becomes

⁷⁶ See, for example, David Ciarlo, *Advertising empire: race and visual culture in imperial Germany* (Cambridge, Harvard University Press, 2011) ; Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture* (Cambridge: MIT Press, 1995).

clear that the discourse surrounding soap was not only a rhetorical weapon aimed at socially marginalized communities, but that soap manufacturing could also physically harm those communities in very real ways, particularly in regions with highly concentrated soap production.

Outline

The dissertation will shed new light on the contradictions inherent to this industry and to French management of public health more broadly. It will begin in Chapter 1 with an introduction to soap production in Marseille: how it came to the city, how soap was made, and how it was used. The ingredients used to make *savon de Marseille* changed overtime in ways that reflected the expansion of France's overseas empire. If Marseille first attracted soap producers because of its easy access to olive oil, for example, by the mid-nineteenth century, Marseille's soap producers were incorporating new, cheaper ingredients acquired from global colonial markets: palm, oil, and peanut oil from West Africa and, later, sesame oil from East Asia. The primary use of *savon de Marseille* also changed over the course of this period. In the early modern period, Marseille's soap was predominantly used to clean textiles, which followed early modern preoccupations with clean clothes as a marker of personal cleanliness. Increasingly in the modern period, however, it was used on bodies—to clean skin, nails, and hair—as new definitions of personal hygiene emerged. In this chapter, we will see how soap became a ubiquitous household item, but also an essential technology in the fight for public health at the societal level.

The second chapter will explain the period following the decree of 1810, during which time it became very clear in Marseille that the waste associated with soap production was increasingly toxic and proliferating at an alarming rate. Despite the full recognition of municipal and regional officials that the material posed a serious danger to public health, as well as to other

critical economic sectors like shipping and fishing, they were slow to respond with any effective policy that would address the problem. In this chapter, we will explore *why* the institutional apparatus in Marseille failed from the outset to mitigate the most harmful effects of soap waste: namely, their total unwillingness to compromise the business of soap manufacturers, which were considered critical to local economic prosperity (and many of whom held positions on the municipal council or within the chamber of commerce), and the lack of any truly adequate waste disposal techniques that would have met all the challenges of this particular kind of waste. This institutional response did not exist in a vacuum, however. Throughout this period, residents of the city were writing prodigiously to municipal administrators, but also the prefect and even officials in Paris, to document the situation and to demand greater action on the part of political leaders to address the crisis. From their accounts, we can glimpse the scale and the visceral reality of soap waste in their neighborhoods, but also capture the ways that citizens were conceptualizing the proper role of government in regulating industry in order to protect public health.

In the third chapter, we will turn to the regulatory apparatus itself in order to observe how the municipal and departmental governments functioned in theory and in practice to respond to specific soap waste challenges as they emerged. To do so, we will focus on the *conseil de salubrité*, which was designed to observe and manage industry in Marseille and the surrounding area of Bouches-du-Rhône. This chapter recounts the story of an incident from 1853 in which soap factory waste was used as landfill material on a construction site inside the city to demonstrate, first, how soap waste became a city-wide problem, even in areas that did not have any soap factories, and secondly, to highlight the structural limitations that existed within the institutions that theoretically regulated industry. In showcasing the failure of relevant officials,

including the medical and scientific authorities who sat on the council, to respond to the plight of affected residents, we can fully appreciate ‘the path not taken’ by local leaders. Given nearly half a century of observation since the introduction of new toxic ingredients in the soap-making process, they still refused to endorse any legal or policy changes at the departmental level that would have allowed for strict or proactive management of soap waste material. As we shall see, while institutional weakness and, in some cases, open corruption, played a significant role, philosophical differences among council members about the proper regulatory role of the state paralyzed any movement towards significant reform.

If local officials were generally hesitant to place greater restrictions on soap factory practices or on waste disposal regulation, they were not totally ‘hands off’ in their treatment of the soap industry either. In chapter 4, we will turn to the process by which soap manufacturers could apply to establish a new factory in the city. By taking the full body of these applications, submitted between 1810 and 1917 when regulation was significantly overhauled, we can see the long-term patterns that emerge in terms of where factories were allowed to exist in the city and by what logic. As becomes clear, both members of the *conseil de salubrité* and the prefect believed there was an ‘appropriate’ place for soap factories to exist and were comfortable sacrificing those areas to the effects of poorly-regulated pollution. Indeed, they were relatively careful to protect certain neighborhoods from the encroachment of industry in a form of proto-zoning policy, a practice that ultimately kept soap factories close to the center of the city and helped to solidify a pattern of urban social geography that persists to this day. Here, as in previous chapters, we can see how this particular industry and local attitudes among political leaders about *whose* health was worthy of protection, literally shaped the physical development

of the city, but also had implications for the way that Marseille was seen to contradict the standards of what a 'French city' should look like.

In chapter 5, we will enter the soap factories themselves in order to see how the operations of Marseille's soap industry affected the lives of workers who were dependent on those factories. If waste constituted a source of enduring anxiety for residents for much of this period, the soap workers who were regularly exposed to that waste and to the manufacturing process received substantially less attention and were not protected at all by the decree of 1810 and subsequent reforms to that decree, which offered limited protections to residents. It is clear, however, that workers suffered from a series of acute and chronic ailments as a result of their labor and that, by virtue of their seasonal work and immigration patterns, they formed a particularly vulnerable and precarious workforce who were not stable enough to take real part in the labor movements that would become so important in Marseille by the late nineteenth century. They lived, in many ways, at the margins of Marseille's social life even if they were at the very center of its economic prosperity and, indeed, they lived in the very center of the city. Despite this marginality, the 'image' of the soap factory worker would become politically important as a quintessential symbol of Marseille's working class and would be manipulated by figures on both the left and right of the political spectrum in order to justify certain policies towards the working class more broadly. The rhetorical value of the soap worker did not translate, at any point, into a greater degree of interest in workplace protections for those workers, and their daily lives represented the most explicit contradiction at the heart of public health in the city: they were surrounded by soap, but lived in filth, their health and bodies sacrificed in production of cleanliness for other people.

Finally, in the conclusion, we turn to the ways in which soap production is memorialized in Marseille today through soap museums and tourism. As the few remaining producers of traditional savon de Marseille turn increasingly to tourism as a way to supplement slow sales, they have crafted a narrative of historical soap production that fits their current marketing strategies, emphasizing small-scale, artisanal production and allusions to a ‘quaint’ and nostalgic Provençal past. This is a story which leaves little room for the realities of pollution, disease, injury, or environmental degradation that have characterized soap production in the city for much of its history. By deliberately ignoring this part of their history, soap producers hope to paint themselves in a positive light and survive in a competitive twenty-first-century marketplace of international conglomerates, but they obscure the critical role that their industry played in shaping the historical development of the city that they call home. This dissertation is an attempt to insert those realities back into the story and, in doing so, to highlight the ways that soap production affected urban life in Marseille in both the short and long term over the course of this period, but, just as critically, the ways that Marseille, in turn, steered the course of public health management in France. In this way, the port neighborhoods of Marseille—marginalized neighborhoods in a marginalized city—take on a central and under-appreciated role in the trajectory of modern French history more broadly.

Chapter 1.

La Cité des Savons

The ‘Pre-History’ of Modern Soap: Marseille and the Business of Soap Production Before 1850

Soap production in Marseille dates back at least to the fourteenth century. Crescas Davin, a Jewish merchant, was the first soap maker recorded in notarial archives and registered his soap business in 1371, leaving it to his son Salomon in 1404.⁷⁷ It is highly likely, however, that specialized soap-making predated this period. There are deep roots to soap-making in the Mediterranean region. The ancient Greeks, Egyptians, and Babylonians all developed the practice of using a combination of oil, clay, and the ashes of burnt plants in order to wash themselves—ingredients that were very similar to those that would eventually form the basis of *savon de Marseille*.⁷⁸ The Romans too, as early as the first century, used a kind of foaming paste made from the ashes of beech trees and animal fat, which they called *sapo* (from which the terms saponification and *savon* are derived). There is some evidence to suggest, however, that this particular form of early soap was actually the invention of the Gauls and brought it back to Rome during the Gallic Wars, a claim that Marseille’s soap producers would later use to insist that the ancient people of Provence had invented soap.⁷⁹ Pliny the Elder described Gallic tribes using this substance to wash and treat their hair, for example, a process which gave their hair a reddish tint

⁷⁷ Xavier Daumalin, Nicole Girard, and Olivier Raveux, eds., *Du Savon à la puce*, 28; Emmanuelle Dutertre, “Le ‘savon de Marseille’ réinventé ou comment la relance d’un produit ‘authentique’ allie tradition et innovation,” in *Carrières d’objets: Innovations et relances*, ed. Christian Bromberger and Denis Chevalier (Paris: Éditions de la Maison des sciences de l’homme, 1999), <https://books.openedition.org/editionsmsh/4064>.

⁷⁸ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille* (Aix-en-Provence: Édisud, 2007), 7.

⁷⁹ *Ibid.*, 8.

and became a mania among the fashionable elite of Rome following the invasion of Western Europe.⁸⁰

The Persians too developed a soap-like substance called *sabun*, which they made with the ashes of saltwater plants (much like the plants that would later be used for *savon de Marseille*), known in Arabic as *sud-al-qalī* or alkali, which meant ‘calcified ash.’⁸¹ Arabic soap makers were in fact that first large-scale producers of soap, thanks in part to the demand created by religious requirements for ritual washing, and maintained production long after the practice of personal bathing with soap had disappeared in medieval Europe.⁸² It was this recipe, made with the ashes of saltwater plants and olive oil, rather than animal fat, which would establish itself in the Mediterranean, in the fourteenth and fifteenth centuries, particularly in the area around Genoa, and the recipe that would later form the basis of ‘traditional’ *savon de Marseille*.⁸³

From this period until the turn of the nineteenth century, the basic method of producing soap remained remarkably unchanged. Under the direction of master soap makers, laborers would mix quantities of olive oil, soda ash, and salt water from the Mediterranean Sea in giant terracotta or iron cisterns, which were heated from below (traditional Marseillais soap used soda ash as its key alkaline material instead of potash, which was often used in other parts of the country).⁸⁴ This mixture was boiled for several days in a process now known as saponification before master soap makers determined by the smell or taste when it was ready to be removed

⁸⁰ Ibid. 8, 11, 14; A. Hyatt Verrill, *Perfumes and Spices, Including an Account of Soaps and Cosmetics: The Story of the History, Source, Preparation, and Use of the Spices, Perfumes, Soaps, and Cosmetics Which Are in Everyday Use* (Boston: L. C. Page & Company, 1940), 196.; Patrick Boulanger, *Le Savon de Marseille* (Saint-Rémy-de-Provence: Equinoxe, 2013), 15 ; Julien François Turgan, *Les Grandes Usines en France et à L’Etranger* (Paris : Calmann Lévy, 1880), 67–68 ; See Chapter 2, “Bathed in Christ” in Katherine Ashenburg, *The Dirt on Clean*, 49–72.

⁸¹ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 8.

⁸² Ibid., 11; See Chapter 2, “Bathed in Christ” in Katherine Ashenburg, *The Dirt on Clean*, 49–72.

⁸³ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 14–15.

⁸⁴ I use the term “soap maker” to refer to the artisans responsible for production itself and “soap producers” or “soap manufacturers” to refer to the owner of the factories. Patrick Boulanger, *Le Savon de Marseille*, 11.

from the heat, since soap which had not burned off all the alkaline material would burn the tongue (See Figure 1 below).⁸⁵ Different types of soap used oils of higher or lesser quality or different proportions of soda, which determined how harsh the final product would be. By the middle of the nineteenth century, roughly ninety percent of the soap manufactured in Marseille's factories was *savon marbré*, a white and pale blue soap that was primarily used for laundry.⁸⁶ Only about ten percent of Marseillais soap was *savon blanc*, a more gentle soap that could be used on the body or on more delicate fabrics.

When it had finished cooking, the molten soap was poured into large, flat molds where it was left to harden. When the soap had solidified to the point that it was stable enough to walk on, workers would use iron cords to cut the soap into bricks and then into smaller bars, which were left to continue drying outside for several more days (see Figure 3 below). Only then were the bars marked and packed into cases for delivery to customers, which were generally other industrial establishments, such as textile manufacturers, who relied on the soap to clean and treat their products, or small shops, where individuals could buy small blocks for domestic purposes.

Marseille offered an ideal location for soap production. Its coastal position meant that soap producers had easy access to salt water and to the saltwater plants that were necessary for soda ash production. In this early period, there was also abundant access to regional olive oil. The city's port also meant that raw materials could be imported and finished products could be exported quickly and efficiently. Waste materials, as we shall see, could also be easily disposed of simply by dumping them along the coast. As a result, factories proliferated on the southern

⁸⁵ Ibid., 12.

⁸⁶ These figures refer to production statistics for 1862. Each of these two types of soap should be distinguished from *savons de toilette*, which were made using the same methods, but with higher quality oil and a lower percentage of soda. They were also usually dyed, perfumed, and cut into smaller blocks than traditional Marseillais soap. Paris dominated the industry in *savons de toilette*, while Marseille produced mostly *savon blanc* and *savon marbré*. Julien Turgan, *Les Grandes Usines en France et à L'Étranger*, 76–77. Louis Figuier, *Les Merveilles de L'Industrie*, 454.

bank of the port, still largely undeveloped until the early eighteenth century, where there was space and access to both the port and the coast. The city's role as a regional hub also meant that soap producers had access to a constantly fluctuating pool of cheap labor. By the fifteenth century, the city's producers were able to capitalize on this situation to the extent that Marseille was producing soap on a scale large enough to supply both local consumers and a booming international export trade.⁸⁷

In addition to its natural advantages, however, the French central state also actively encouraged soap production in Marseille. In 1667, Colbert established a protective tariff on imported soaps and in 1669 announced that the port of Marseille would be duty-free, eliminating taxes on foreign merchants entering the city and allowing imported ingredients for soap to enter the city more cheaply.⁸⁸ In 1688, Colbert's son would continue that work, signing a new edict, which regulated specific elements of the soap-making process.⁸⁹ Designed to protect the quality, and therefore the reputation, of Marseille's soap, the edict forbid the use of any other type of oil other than olive oil for soap-making, listed certain requirements for the type of olive oil, and mandated that soap production stop in the summer when intense heat made it difficult for soap to cool to the right consistency.

⁸⁷ Patrick Boulanger, *Le Savon de Marseille*, 18.

⁸⁸ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 17.

⁸⁹ *Ibid.*; Xavier Daumalin, Nicole Girard, and Olivier Raveux, eds., *Du Savon à la puce*, 31.

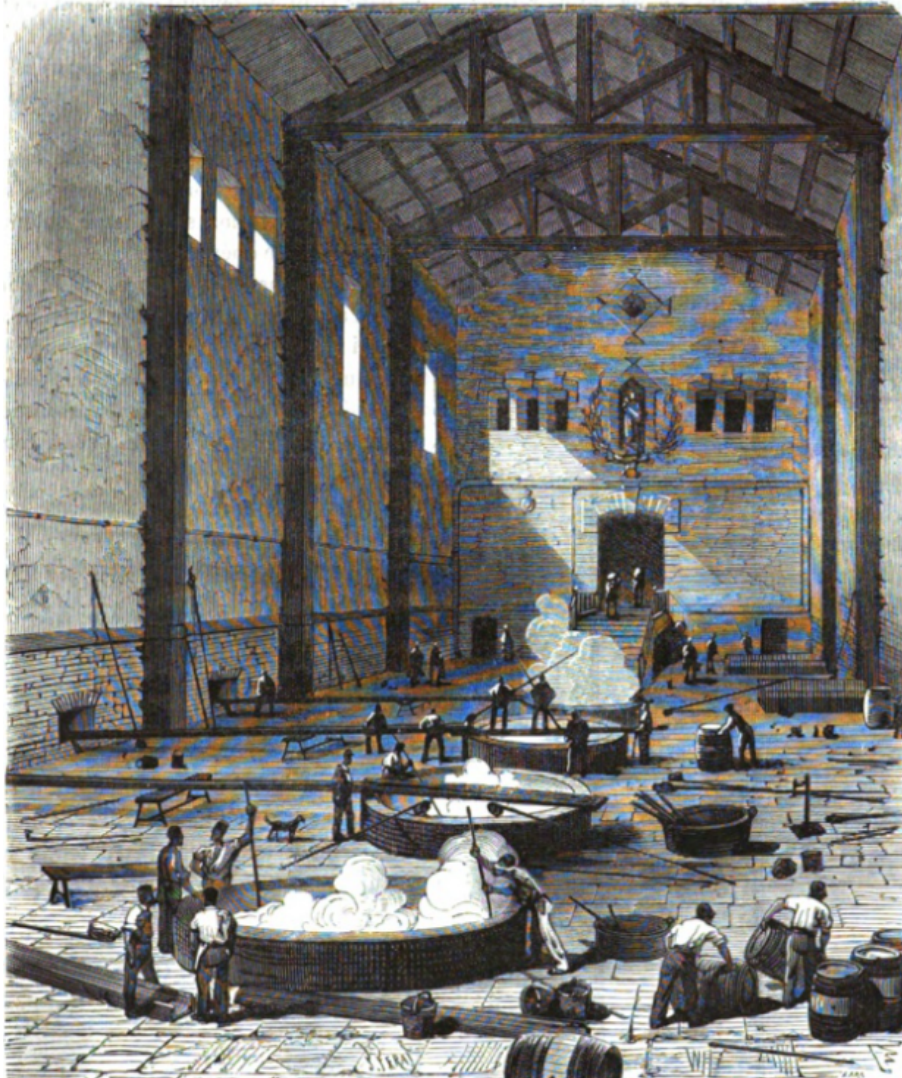


Figure 1: The main hall of a soap factory.⁹⁰

⁹⁰ Louis Figuier, *Les Merveilles de L'Industrie*, 425.

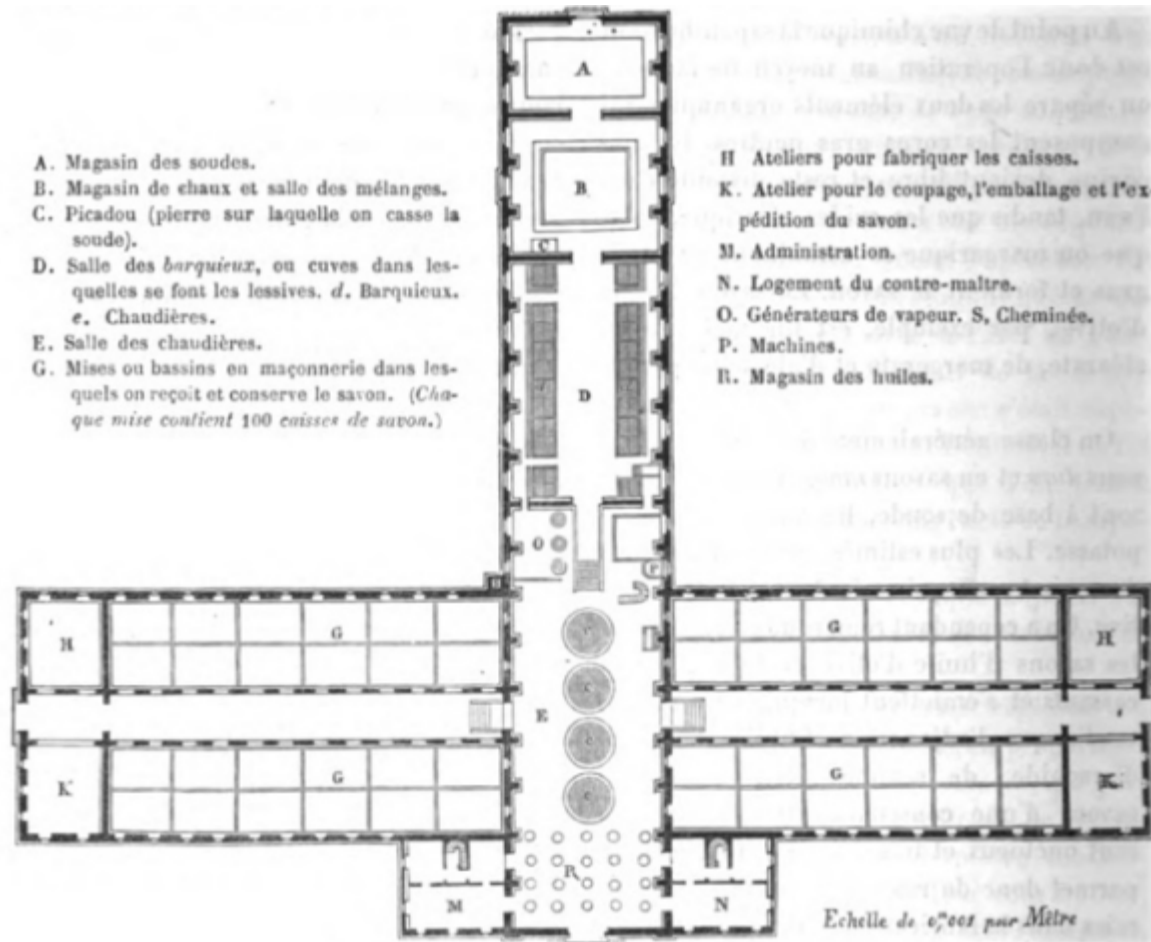


Fig. 277. — Plan général d'une savonnerie de Marseille.

Figure 2: The floorplan of a typical soap factory in Marseille. The great hall, pictured in Figure 1 above, is represented in this plan by the letter E, *salle des chaudières*.⁹¹

⁹¹ Ibid., 416.

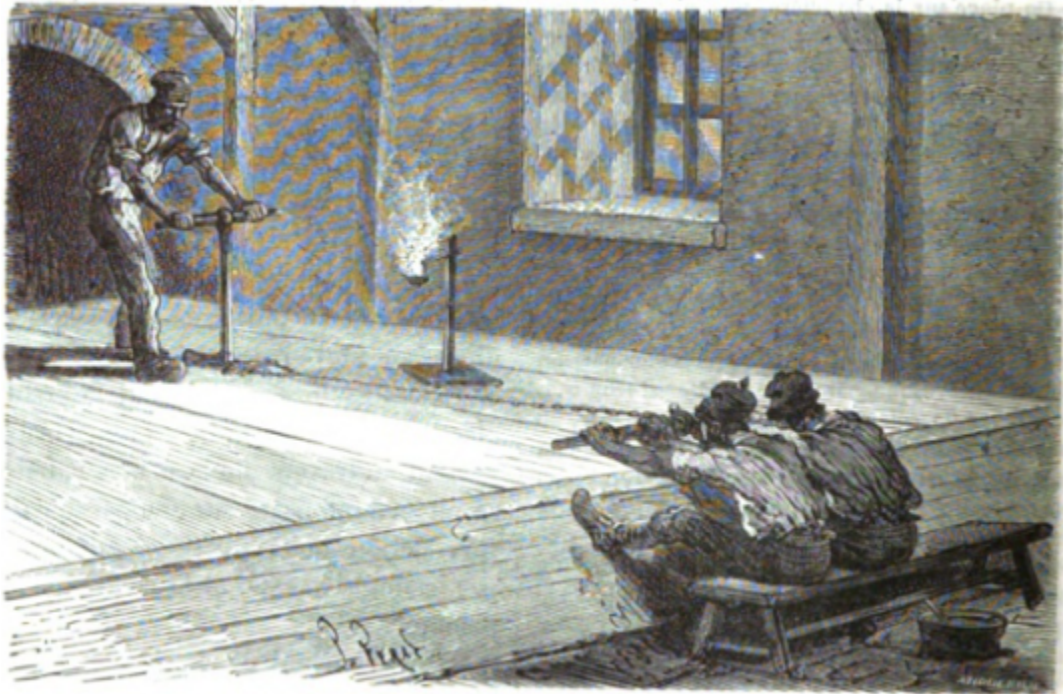


Figure 3: Workers cut the soap into bricks (*pains*) and then smaller bars (*barres*)⁹²

⁹² Ibid., 432–433.

Shocks to the Industry

By the turn of the nineteenth century, however, many of those standard practices were beginning to fall by the wayside. The custom of stopping production during the summer months was no longer enforced, and Marseille's factories were operating year around. The city's soap manufacturers also began to slightly modify the traditional ingredients. Freed from royal regulations by the Revolution, some manufacturers were experimenting with cheaper oils, modifying the recipe to include a larger proportion of water, or including various additives, such as chalk or flour, all to the detriment of the quality and reputation of Marseille's product.

During the Napoleonic era, they also replaced natural soda ash made from saltwater plants with artificial soda ash (produced in a factory setting) when British naval blockades made it impossible to continue importing natural soda from Spain. Soap made with this new ingredient was more fragile and crumbled easily, an effect that manufacturers tried to address by mixing in different types of nut-based oils or flax seed oil, both of which had the unfortunate side-effect of giving the soap an off-putting yellowish hue which immediately announced divergence from the traditional recipe.⁹³ Soap manufacturers apparently tried to hide, as much as they could, the introduction of new oils to their product, receiving shipments of flaxseed oil to the factory at night and in boxes marked with stamps from Sicily to suggest that they contained olive oil.⁹⁴

In an effort to combat further deterioration of quality, between 1811 and 1812, Napoleon instituted a series of regulations including the provision that manufacturers were required to mark each piece of soap indicating whether it was made from olive oil, grain oil, or animal fat. A year later, he further required soap made in Marseille with olive oil to be marked with the symbol of a pentagon, the word "Marseille," and the name of the manufacturer so that consumers

⁹³ Patrick Boulanger, *Le Savon de Marseille*, 34–35.

⁹⁴ Xavier Daumalin, Nicole Girard, and Olivier Raveux, eds., *Du Savon à la puce*, 112.

could be assured that they were receiving ‘true’ Marseille soap and that any quality issues could be traced back to a particular producer.⁹⁵ No manufacturer outside of Marseille could use this mark on their products. Fraudulently marked soaps would be confiscated and their producers fined. But, none of these regulations mandated a particular recipe beyond those stipulations.⁹⁶ Producers could use whatever proportion of oil or soda ash they wanted, for example. Through the 1840s and 1850s, as Marseille’s merchants expanded their commercial relationships in the West Africa and the Middle East, soap manufacturers also began to incorporate different oils, including palm and peanut oil from the Senegalese coast, which were less expensive than local olive oil.⁹⁷

There were some other small changes to the production process. Soap manufacturers began to use steam to heat the soap vats rather than coal or wood fires, for example. In the second half of the nineteenth century, they began to use artificial soda ash that had been produced by a chemical process known as the Solvay method, rather than the Leblanc method, which produced less pollution. They began to use laboratory testing rather than traditional methods like tasting to ensure the quality and consistency of their product. Overtime, the public also became slightly more forgiving of different kinds of oils and subsequent regulations allowed soaps made with at least 72 percent olive oil to maintain the pentagon mark, even if they contained a mixture of other oils.⁹⁸ For reasons of cost and quality, Marseille’s manufacturers slowly settled primarily on two soap recipes, one based on the traditional olive oil and the other

⁹⁵ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 28.

⁹⁶ Emmanuelle Dutertre, “Le ‘savon de Marseille’ réinventé.”

⁹⁷ Xavier Daumalin, “Commercial presence, colonial penetration: Marseille traders in West Africa in the nineteenth century,” in *From Slave Trade to Empire: European Colonisation of Black Africa, 1780s-1880s*, ed. Olivier Pétré-Grenouilleau (New York: Routledge, 2004), 209–230.

⁹⁸ Today’s remaining soap manufacturers in Marseille often maintain the ‘traditional’ pentagon mark and the stamp which indicates that product contains at least 72% olive oil. “Savonnerie du Midi, le savon de Marseille traditionnel,” Savonneriedumidi.fr. Accessed January 24, 2022. <https://www.savonneriedumidi.fr/en/>.

on coconut oil, recipes which produced soap of the pale green and white colors that are associated with savon de Marseille today.⁹⁹ But aside from these minor adjustments, the production process for savon de Marseille had become relatively consistent and standardized by the mid-nineteenth century.

Savon de Marseille and Its Many Uses

Today gift shops and grocery stores throughout France sell a wide variety of products that are called ‘savon de Marseille’: small, perfumed bars of hand soap, bottles of liquid hand and dish soap, even powdered soap for dish and laundry machines. But these are all inventions of the twentieth century and designed to meet the demand and hygiene concerns of twentieth and twenty-first century consumers. They are an attempt of the few remaining soap manufacturers in Marseille to stay afloat by supplementing the profits they make from selling the traditional cubes of unscented savon de Marseille. Or, more often, an effort on the part of international soap producers to capture some of the mystique of Marseille’s soap by marketing their product as being part of an old tradition of French soap and cosmetic production, even when they have nothing in common with either the methods or ingredients that were traditionally used in Marseille.¹⁰⁰ But none of these products reflect the way that savon de Marseille was used for most of its history.

Rather than a product for personal bodily hygiene, until the mid-nineteenth century, Marseille’s soap was used almost exclusively for laundry. The most important customers of Marseille’s soap manufacturers were large-scale textile producers, laundresses, and others engaged in domestic labor. If early forms of soap had been a fairly standard tool of personal care

⁹⁹ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 93.

¹⁰⁰ Emmanuelle Dutertre notes, for example, that many of the bars of savon de Marseille that are sold in tourist gift shops are made with animal fats instead of vegetal oil, olive or otherwise. “Le ‘savon de Marseille’ réinventé.”

in the ancient world, that practice had largely fallen away in Europe by the late Middle Ages, even for the most privileged classes. During this period, regularly bathing by fully submerging oneself in water was no longer considered beneficial, thanks to fears of plague and by prevailing medical advice on how to best protect oneself from illness.

By the late sixteenth century, horror surrounding the plague meant that public bathhouses had been shuttered throughout much of Europe as potential places of contagion.¹⁰¹ The popular associations between bath houses and acts of sexual promiscuity only compounded fears among certain elite circles that the sites needed to be closed in order to clean up the physical and spiritual life of European cities.¹⁰² Hippocratic medical theories also relied on the belief that harmful vapors could enter the body through the pores. Water on the skin, particularly water that was especially hot or cold, was considered to be dangerous, as it opened the pores and held the potential to upset the balance of humors in the body.¹⁰³ As a result, medical experts actively discouraged bathing, especially for vulnerable individuals or groups, such as infants. One could engage in dry washing, the practice of rubbing oneself with clean or even perfumed linen, for example, or in minimal, local washing, such as pouring water or spirits over one hands or face. But medical experts, by and large, advised avoiding water altogether and instead suggested that one wear close-fitting and tightly-woven clothing, which would protect one's pores from absorbing harmful vapors, and regularly change one's underclothes. As both Alain Corbin and Georges Vigarello have described, it was therefore the cleanliness of one's clothes that determined one's cleanliness during this period, not the regularity with which one bathed (and

¹⁰¹ Georges Vigarello, *Concepts of cleanliness: Changing attitudes in France since the Middle Ages*, trans. Jean Birrell (Cambridge: Cambridge University Press, 1988), 20–23.

¹⁰² *Ibid.*, 28–37.

¹⁰³ *Ibid.*, 7–20.

certainly not the use of soap and water).¹⁰⁴ The cleanliness of one's underclothes could be demonstrated by their whiteness and a fashion emerged in the late fifteenth century of revealing some of one's undergarments around the edges of outer clothes, in collars and cuffs, so that their whiteness could be seen as a mark of one's good hygiene.¹⁰⁵

Soaps like savon de Marseille were essential for cleaning linens and other clothing and the city's manufacturers developed a range of different products to be best used on specific fabrics. Those which included a smaller amount of alkaline material could be used on delicate silks, for example, while a range of increasingly caustic soaps could be used on linens, cottons, or wool.¹⁰⁶ As the industry in the city first developed, it therefore perfectly reflected the hygiene concerns of the time. Production continued to expand across the seventeenth and eighteenth centuries, especially as new fashions for dyed cotton textiles, known as '*indiennes*,' became popular, but soap was equally necessary for mousseline fabrics, linen, and the delicate gauze used for headdresses."¹⁰⁷

By the mid-eighteenth century, bathing practices were beginning to slowly change, at least for the socially elite. There was a slow movement away from the sumptuous fashions, epitomized by the court at Versailles, which had celebrated the use of cosmetics, strong perfumes, and elaborate hairpieces and clothing with many layers of varied fabrics. Prompted in part by the popularity of works like Rousseau's *Emile*, new trends emphasized simplicity, the 'natural,' and a lack of artifice.¹⁰⁸ When it came to personal hygiene, one's 'natural' odor should be sweet, rather than masked with heavy perfume. As a result, personal bathing was again on the

¹⁰⁴ See Alain Corbin, *The Foul and the Fragrant* and Georges Vigarello, *Concepts of Cleanliness*.

¹⁰⁵ Georges Vigarello, *Concepts of Cleanliness*, 58–77.

¹⁰⁶ The harshest soap, *savon bleu vif*, was used on thick wools and, later, exported in large quantities to the French colonies since it could better withstand tropical temperatures. Xavier Daumalin, *Du Savon à la puce*, 32; Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 93.

¹⁰⁷ Xavier Daumalin, *Du Savon à la puce*, 67.

¹⁰⁸ Georges Vigarello, *Concepts of Cleanliness*, 131–141.

rise, particularly among the great ladies of court. They could have baths drawn with scattered herbs or flower petals, though they still would not have used soap.

New expectations were emerging for men as well with the rise of Romantic conceptions of masculinity. Whereas luxurious, indoor baths were increasingly associated with the ‘indolent’ hyper-wealthy women of court, outdoor bathing in the cold waters of streams, rivers, or the sea could be ‘bracing’ and ‘manly’ and was even considered by some to have strengthening properties.¹⁰⁹ The practice of natural bathing was spearheaded, according to Georges Vigarello, by a new class of self-confident bourgeois men, who no longer feared water, as previous generations had done, and were uninterested in the luxurious frippery of court.¹¹⁰ Instead, it became a practice associated with a kind of ‘Roman toughness.’

By the turn of the nineteenth century, these trends together made it increasingly acceptable for both men and women to engage in more regular water bathing. Both Napoleon and Josephine were known to take long, hot daily baths, for example.¹¹¹ But this was still a practice confined to the relatively privileged, as having sufficient water carried indoors and heated represented an enormous luxury. And, even among those who could afford such habits, old fears persisted in some circles, particularly among older generations who had been taught to fear the harmful medical properties of water.¹¹²

According to Bertile Beunard, sea bathing also became more common as a bourgeois pastime and therapeutic practice, first in England in the mid-eighteenth century, and during the nineteenth century in France.¹¹³ But it seems it had long been a fairly common practice among

¹⁰⁹ Ibid., 112–130.

¹¹⁰ Ibid.

¹¹¹ Katherine Ashenburg, *The Dirt on Clean*, 6.

¹¹² Georges Vigarello, *Concepts of Cleanliness*, 93–111.

¹¹³ Bertile Beunard, “Marseille Plage: Les Bains de mer à Marseille au XIXe siècle,” *Ethnologie française* 23, no. 4 (1993): 569–590.

the working and lower classes of coastal regions. This was the case in Marseille until the nineteenth century, when busy shipping lanes and increasingly unavoidable industrial pollution (especially that of soap factories along the coast) made sea bathing much more difficult. In this way, the production of soap actually hindered older hygiene practices of the lower classes in the region. There were also a series of new restrictions placed on coastal bathing in Marseille during the early nineteenth century which forbid bathing or swimming in the nude in the areas immediately next to the port, for example—an effort, according to Beunard, to make this working-class pastime more palatable to the city’s bourgeois residents and to encourage sea bathing in the ‘proper’ places: namely, officially-sanctioned medical and therapeutic spas.

Not coincidentally, it was also during this period, beginning in the last quarter of the eighteenth century that an early notion of ‘public health’ began to emerge. Publications like *La Gazette de Santé*, first published in Paris in 1773 (and followed shortly after by equivalent publications in Bordeaux and Lyons) promoted new standards of cleanliness, offered medical advice and encouraged readers to heed the advice of medical experts, and began to propose certain policies designed to make cities and towns healthier.¹¹⁴ Among these suggestions were best practices for the location and maintenance of cemeteries (which sparked particular fears around ‘deadly exhalations’ being released in dense urban space), proposals for regular street washing, and, with that, writing on the need for water distribution systems and sewer networks to collect urban waste and waste water.¹¹⁵

This body of work, according to Georges Vigarello, represented a movement away from “the traditional fatalism shown towards death and disease” and a new interest in expanding the

¹¹⁴ Ibid., 142–143.

¹¹⁵ Ibid., 142–155.

lifespan of the population—a feat that doctors felt new confidence in their ability to achieve.¹¹⁶ If this emerging movement was partly motivated by “the old fight against suffering,” it was also economically motivated, much as early efforts to contain plague had been.¹¹⁷ As the physician Charles-Augustin Vandermonde wrote in 1756, “Men are the real wealth of States and it is this which is most neglected.”¹¹⁸ Writing two decades later, the demographer Jean-Baptiste Moheau agreed: “The number of people who can wield a spade, drive a plough, work at a trade, bear arms, and, lastly, reproduce themselves: such is the basis of the power of nations.”¹¹⁹

Personal hygiene in the form of regular water bathing did not yet form a key part of these early notions of ‘public health.’ The greater concern was unhealthy miasmas created by the decay of organic matter or spaces overcrowded with human bodies. Very occasionally in discussions of street cleaning and health in urban space, the issue of widely available water baths for people would arise as well, but the practice was still uncommon: first, because its benefits were not yet universally acknowledged by the medical community and secondly, because the technological infrastructure that would allow for the large-scale distribution of water would not begin to establish themselves in urban space until the mid-nineteenth century.¹²⁰

It would take another century for regular, personal bathing as we might recognize it to become a fairly standard practice. It would become more widely recommended by medical authorities and more widely available as the nineteenth century progressed. Free or cheap public bathhouses re-emerged in the middle of the century in Paris. In 1850, the National Assembly debated allocating 600,000 francs for the establishment of public bath houses throughout the city

¹¹⁶ Ibid., 142.

¹¹⁷ Ibid., 142–143.

¹¹⁸ Cited in Georges Vigarello, *Concepts of Cleanliness*, 143.

¹¹⁹ Ibid.

¹²⁰ Ibid., 152–153.

and in 1852, Napoleon III announced his support for such institutions and personally paid for the construction of 3 bath houses in poor districts of Paris.¹²¹ Some of these bath houses were attached to laundries so that one could clean one's body and one's clothing in the same place, attesting, according to Vigarello, to the overlap between old and new conceptions of cleanliness, but they were not initially very popular. The duration of one's bath in such establishments was strictly limited and the water was rarely a comfortable temperature. Bathers resented the fact that they were observed as they bathed and that the water was shut off when a certain amount had been dispensed.¹²² It is clear, however, that the practice was slowly becoming more widely acceptable and was endorsed by the central state as a means of improving the health, particularly of the urban population.

The role of soap was also remained ambiguous. In his 1869 treatise on public hygiene, the emperor's physician, Michel Lévy (also director of the Service de Santé Militaire) wrote that "the cosmetic *par excellence*, the instrument of cleanliness, is soap, this cosmetic of the people."¹²³ Soap, he believed, was necessary for breaking down greasy substances not dissolved by water alone and was "totally indispensable for certain groups of workers for maintaining the cleanliness of their hands and feet."¹²⁴ But he also acknowledged that soaps which were too harsh and contained too much alkaline material could irritate the skin. Other manuals continued to instruct readers to avoid the regular use of soap for exactly this reason.¹²⁵

¹²¹ Ibid., 198–199.

¹²² Ibid., 199.

¹²³ "Le cosmétique *par excellence*, l'instrument de la propreté, c'est le savon, ce cosmétique du peuple." Michel Lévy, *Traité d'hygiène publique et privée*, vol. 2 (Paris: J.-B. Baillière et fils, 1869), 130. (The first edition of this work appeared in 1845.)

¹²⁴ "...tout à fait indispensable à certaines classes d'ouvriers pour l'entretien de la propreté des mains et des pieds." Ibid., 39.

¹²⁵ Katherine Ashenburg, *The Dirt on Clean*, 191; Georges Vigarello, *Concepts of Cleanliness*, 169.

In other circles, however, personal bathing with soap was becoming mandatory. In 1857, for example, the French army experimented with a system of standardized washing in which soldiers would present themselves before a “hydropathic shower” for three minutes.¹²⁶ Each man was equipped with a bar of soap in order to clean themselves from head to foot before rinsing off and leaving the shower to the next group. Similar experiments were being conducted in prisons and later with school boarders.¹²⁷

Some of the soaps made in Marseille could be, and were, used on the body as they had been designed for very delicate fabrics. But we also see the emergence during this period in the mid-nineteenth century of small, perfumed bars of soap for personal use called *savons de toilette* or *savonnettes*. The production of this kind of soap was concentrated in Paris and in other parts of Europe, particularly the United Kingdom.¹²⁸ These types of soap, often produced by perfumers, were sold in fine packaging and wrapped in colored tissue paper, much to the chagrin of Marseille’s manufacturers, whose unscented product was typically sold wholesale in unadorned crates. Some of Marseille’s soap makers or city boosters insisted that these soap makers were trying to dupe customers with dishonest gimmicks at the expense of “honest” soap makers in Marseille.¹²⁹

It was only with the advent of Louis Pasteur’s work on bacteria that soap became a requisite part of personal bathing. Popular conceptions of hygiene now placed much more emphasis on clean skin rather clean linen and soap was necessary to eradicate invisible dangers that lurked on the body.¹³⁰ But Marseille’s producers were very late to transition into the

¹²⁶ Georges Vigarello, *Concepts of Cleanliness*, 221.

¹²⁷ *Ibid.*, 221–222.

¹²⁸ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 94–100.

¹²⁹ “*honnête*,” L. Brisse, *Album de L’Exposition Universelle*, 281.

¹³⁰ Georges Vigarello, *Concepts of Cleanliness*, 206.

production of *savon de toilette* and it never formed the core of their business. Some customers began to take matters into their own hands, melting down chunks of *savon de Marseille* and adding their own perfumes in order to make *savonnettes* themselves or grating the soap into pieces that could be used to make shaving cream. Such products were apparently readily available at barber's shops, for example.¹³¹ But Marseille's manufacturers were becoming increasingly concerned about competition from other soap-making regions, especially from Paris and in the United Kingdom where soap made with animal fat could be made much more cheaply than their plant-based soap. Bringing in new revenue from *savons de toilette* was beginning to look like a much more attractive, if not necessary, re-orientation of their business.

In the final decades of the nineteenth century, Marseille's soap manufacturers finally began to embrace such products, incorporating scents and artificial coloring for the first time. The first to launch a line of *savonnettes* was Félix Eydoux, who sold *Savon du Mikado*, made using "the violets of Nice," in elaborate packaging decorated to look like a lacquer box with painted flowers and a sumptuously-dressed Japanese woman on the front.¹³² Other local manufacturers soon followed suit, launching their own rival products. They also tried to accommodate new demands for domestic hygiene, developing a limited range of powdered versions of their products that could be more easily used for household tasks, and a range of cheap soap called *savon noir*, made with potash instead of soda ash, which was designed for industrial use (it was used in Marseille to clean boats, for example).

¹³¹ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 94–97.

¹³² *Ibid.*, 95–97.



Figure 4: Packaging of *Savon du Mikado*.¹³³

Despite these belated attempts to meet new consumer demands, Marseille's soap manufacturers faced stiff competition, both from one another and, increasingly, from British soap makers, like the Lever brothers, who made Sunlight soap, and the Pears family, who made Pears translucent soap. As a result, they turned to a rather novel technique to promote their products: mass advertising. Indeed, early advertising and the production of soap for personal use developed in tandem with one another. As Katherine Ashenburg writes, "soap makers and advertisers soon understood that they were natural allies. Since there was a high profit margin in soap but not a great deal to distinguish one brand from another, there was all the more reason to proclaim the superiority of individual brands.... By the end of the nineteenth century, soap [makers]... had become advertising's biggest customers."¹³⁴ The relatively recent accessibility of

¹³³ Image reproduced with permission of the owner, Louis Balestra. "Ancienne boîte à savon en carton Félix Eydoux 'SAVON du MIKADO' PARIS MARSEILLE," Ebay.com, accessed March 17, 2022, <https://www.ebay.com/itm/152713585505>.

¹³⁴ Katherine Ashenburg, *The Dirt on Clean*, 241.

color printing meant that there was a sudden explosion of poster advertisements that paper city streets around the country—each brand trying to out jockey their rivals.



Figure 5: Soap advertisements in the urban landscape, Marseille c. 1900.¹³⁵

¹³⁵ Photograph, “Lieu non identifié,” AMM 16 Fi 521.



Figure 6: Shop sign announcing the sale of soaps “of all brands.”¹³⁶

¹³⁶ “*toutes marques.*” Photograph, “Maison Bovet, 25 rue Pavé d’Amour, 7 mars 1897,” AMM 16 Fi 503.

On the eve of the First World War, the ubiquity of soap and soap advertisements gave the impression of an industry that was booming. There were forty factories in the city, which employed two thousand people.¹³⁷ In 1913, Marseille's soap producers set records, manufacturing nearly 180,000 tons of soap with a value of 100 million francs.¹³⁸ The city alone produced one half of all the soap sold in France and supplied a growing export market, particularly in the Maghreb and West Africa. But, as Xavier Daumalin and Philippe Mioche have written, those apparent signs of success actually masked serious structural weaknesses that would be revealed and exacerbated during and after the War.¹³⁹

Soap production was actually declining in importance compared to other industries. In the mid-eighteenth century, soap production alone accounted for thirty-six percent of the industrial and manufacturing economy in Marseille—the single largest economic sector by the value of its production. By the time of the Revolution, it represented *half* of the industrial economy in Marseille. At the dawn of the twentieth century, however, other industries were beginning to push soap makers off their pedestal. Heavy machinery production, naval construction, and chemical manufacturing were all on the rise, as were the tobacco and food processing industries. Even as the number of soap factories continued to rise or stay steady, other industries proliferated to such an extent that by 1888, soap factories represented only nine percent of the total number of factories in Marseille.¹⁴⁰ Even industries which had once been

¹³⁷ Xavier Daumalin, *Du Savon à la puce*, 172.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*, 172–175.

¹⁴⁰ There were 63 soap factories out of 669 industrial establishments listed in the survey (a figure which excludes the high number *vacheries* and *porcheries*, which were predominantly located in more rural parts of the commune, but were also technically listed as classed industrial establishments when they included a certain number of animals) If one includes the *vacheries* and *porcheries*, soap factories represent an even smaller portion of the industrial economy—63 of 1799 listed industrial and agricultural establishments in the commune of Marseille. (3.5%). *Relevé par arrondissement de police des établissements, classés ou non qui peuvent jouer un rôle dans la salubrité de la Commune de Marseille* (Marseille: Cayer, 1889). AD BDR 5 M 257.

totally dependent on soap manufacturers were becoming more independent. Oil presses, for example, were now re-orienting their business towards producing oils for cooking and domestic use rather than industrial use, which meant the oil they supplied to soap manufacturers was more expensive.¹⁴¹

More importantly, however, Marseille's soap makers were failing to keep up with British producers despite their extensive marketing campaigns. This, according to Daumalin and Mioche, was because they stubbornly refused to modernize. Soap manufacturers were overly concerned with importing the cheapest ingredients to turn a profit rather than investing in new machinery, for example, or in re-organizing the financial structure of their business. British manufacturers like the Lever brothers were vertically integrating their business so that they owned every step of the production line, from the plantations that produced the oil they used, to the shipping companies that brought the raw materials to sites of production, and even the oil presses and the soda manufacturers that supplied the soap factories.¹⁴² Marseille's producers never adopted those tactics on a wide scale and in 1913, the Lever brothers began to insert themselves into Marseille's soap market, buying up two major local soap operations: Eydoux and Canaple.¹⁴³

The relative decline of Marseille's soap industry continued in the interwar period and then plummeted after the Second World War. According to Olivier Lambert, the failure of Marseille's producers to adapt to changing markets was as much a cultural problem as a financial one. Local manufacturers continued to operate as if they were providing a specialized, artisanal product based on expertise and tradition rather than an object of mass consumption. And indeed,

¹⁴¹ Xavier Daumalin, *Du Savon à la puce*, 173.

¹⁴² *Ibid.*, 175.

¹⁴³ *Ibid.*

their workshops began to look increasingly like artisanal workshops compared with the heavy industrialization of British and American soap-making. As the marseillais historian Paul Masson wrote, Marseille's soap industry appeared to be "a traditionalist industry... which, like old women, [did] not detest old homes or installations that were a bit old fashioned."¹⁴⁴ They were slow to create products that could be used with new appliances like dishwashers or laundry machines, for example, which was ironic, since the detergent Persil was invented by a chemist in Marseille.¹⁴⁵ But, it seems, Marseille's soap manufacturers either could not afford to invest in new products or had lost any interest in doing so.

Perhaps more importantly, however, they continued to rely on marketing strategies that had lost their appeal by the mid-twentieth century. Consumers were consistently demonstrating a preference for synthetic cleaning products, particularly powdered detergent, which claimed to represent the latest scientific innovations for domestic and personal hygiene and offer convenience that large blocks of *savon de Marseille* could not.¹⁴⁶ An ancient product based on 'all natural' ingredients sounded increasingly like a relic of the past.

Surviving soap companies attempted to emphasize their roots with an older generation of consumers, even as they tried half-heartedly to adapt to changing times. Clearly demonstrating this awkward divide, a 1956-ad for La Sainte Famille laundry detergent, produced by the Marius Fabre company (one of the few companies which still exists today), shows an elderly woman holding a cube of traditional *savon de Marseille* in one hand and a box of powdered detergent in the other, suggesting they are part of one continuous history. She speaks in provençal, a dialect that was spoken almost exclusively by older people by the middle of the twentieth century, and says "I've

¹⁴⁴ "*La Savonnerie marseillaise apparaît comme 'une industrie traditionaliste et qui, ne déteste pas les vieilles maisons et les installations un peu désuètes.'*" Ibid., 228.

¹⁴⁵ Ibid., 238.

¹⁴⁶ Patrick Boulanger, *Le Savon de Marseille*, 91–94.

tried everything and come back to La Sainte Famille.” A younger woman, presumably her daughter, says in French, “Me too, I’ve adopted soap flakes and La Sainte Famille detergent.”¹⁴⁷ But if the Marius Fabre company was able to successfully navigate the new dynamics that emerged in the mid-twentieth century by expanding their range of products, such was rarely the case for their rival producers. Between the 1930s and 1950s, nearly all of Marseille’s manufacturers closed their doors or were bought by international conglomerates, such as the newly-formed Unilever or Procter & Gamble, and re-located.¹⁴⁸ Today there are only three producers of traditional savon de Marseille left in Marseille and one in the nearby town of Salon-de-Provence, which more closely resemble quaint tourist attractions than sites of big business.¹⁴⁹

Conclusion

Another way to conceive of the demise of Marseille soap-making might be as a failure to adjust to changing conceptions of cleanliness. As scientific and medical priorities shifted to the body rather than clothing, Marseille’s manufacturers never really adjusted their business accordingly. They clung to old products and attempted to market them in ways that suggested they could be used to meet the needs of a new generation of customers rather than simply expanding the kinds of products they offered. In some ways, their efforts to convince customers that savon de Marseille could replace other, newer products were successful. There are countless wives’ tales that persist about the beneficial properties of savon de Marseille. Some insist, for example, that it can cure menstrual cramps when kept under the bottom sheet of one’s bed. Others use it as a

¹⁴⁷ “*ai tout assaja é siou revengudo à la santo famillo,*” / “*moi aussi j’ai adopté les savon en copeaux et la lessive la Sainte Famille.*” See Patrick Boulanger, *Le Savon de Marseille*, 99.

¹⁴⁸ Xavier Daumalin, *Du Savon à la puce*, 239; Patrick Boulanger, *Le Savon de Marseille*, 95 ; Emmanuelle Dutertre, “Le ‘savon de Marseille’ réinventé.”

¹⁴⁹ “The Union of Marseille Soapmakers,” MariusFabre.com, accessed January 29, 2022, <https://www.marius-fabre.com/en/content/14-union-of-professionals-of-marseille-soap>.

toothpaste, to clean jewelry and leather goods, or to fend off bugs by mixing it with water to spray on plants.¹⁵⁰ Indeed, as the ad above suggests, the use of savon de Marseille is now one that many people associate with their grandmothers, who stored blocks of the soap in cupboards to be used for seemingly countless household tasks. But it lagged behind other products as a standard tool of personal hygiene and could not keep up with international companies that began to displace them in the production of laundry soap.

But, as we shall see, the production process of savon de Marseille always made its relationship to public health a complicated one regardless of the ways it was used or marketed overtime. The waste product created by the soap industry was so toxic and grew to such a scale throughout the nineteenth century that efforts to improve personal hygiene on the individual level with the use of soap—whether through the use of soap on laundry or on the body—devastated public health at the urban level in Marseille. No amount of bathing or laundry could overcome the effects of exposure to soap pollution, felt most acutely by the workers in soap factories and those who lived in the neighborhoods around those factories.

The place of soapmaking in Marseille therefore points to two important contradictions in the development of French public health policy. First, the pursuit of personal health and hygiene and the broad improvement of public health at the societal level were, in some moments and some places, rival and contradictory priorities rather than complementary ones. And secondly, Marseille retained a key position in the establishment of health and hygiene practices in the modern era through its production of soap despite the clear health costs of such production. Much as it had been during the Early Modern era, public health in the city was sacrificed so that it might be improved in the rest of the country. In the subsequent chapters, we will turn to Marseille itself in

¹⁵⁰ Angelika Pokovba, “Discover the Numerous Uses of Savon de Marseille,” Frenchly, November 16, 2021, <https://frenchly.us/savon-de-marseille-uses/>.

order to better understand how these processes played out on the ground with disproportionate effects on the certain neighborhoods and certain communities and with long term ramifications for the historical development of the city itself.

Chapter 2.

“A State of Permanent Combustion”: Coastal Soap Pollution in Marseille, 1820s-1840s

“The waste in the anse de l’Ourse formed a very steep slope of between sixty and eighty feet in length, the bottom portion of which was covered by the sea...in a dozen places, puffs of white smoke rose from the ground. Along the slope and spreading over the ledge above, these fumes gave off an extremely unpleasant odor in which it was easy to recognize hydrogen sulfide. I tried to make my way along the bottom of the slope to the nearest smoking crevice, but I could not get there, though climbing rapidly, so soft was the ground which yielded easily beneath my steps...Near the crevice, the earth was scorching hot. I remained there only a few moments during which time I observed that the edges of the crevice were covered with a sulfuric crust. A thermometer that I plunged into the soil at a depth of ten centimeters rose almost immediately to 110 degrees. I collected some of the gas which escaped from the crevice in a small vile... and after taking some samples from the surrounding area, I hurried to get down.”¹⁵¹

Such was the alarming report of one observer who described the heaps of industrial soap pollution that were accumulating off Marseille’s shore in the early 1820s. The account was that of Jean-Claude Eugène Pécelet, a young professor of physics and chemistry at the Collège de Marseille, who, following a surge of health complaints from nearby residents, had been commissioned by the city’s mayor to examine this waste and, if possible, to mitigate its effects on the surrounding neighborhoods.¹⁵² Pécelet’s notes depicted the conditions off Marseille’s coast in volcanic terms. The inlets and beaches to the north and south of the city’s famous port were

¹⁵¹ “... les résidus de l’anse de l’Ourse formaient une pente très rapide de 60 à 80 pieds de longueur dont la partie inférieure fait baignée par la mer...s’élevaient une douzaine de fumeroles des fumées blanchâtres. Longeaient la pente et venaient se répandus dans le plateau supérieur, ces fumées avaient une odeur extrêmement désagréables dans laquelle il était facile de reconnaître celle de l’hydrogen sulfure; j’essayais de parvenir par le bas de la pente jusqu’à la fumerole la plus voisine, je ne pas y arriver qu’en gravissant avec une grande rapidité, tant le terrain était meuble et cédant facilement sous le pas... autour de la fumerolle le sol était brulant. Je ne pas y rester que peu d’instant, pendant lesquels j’observais que les bords de l’excavation étaient garnis de concrétions sulfureuses. Un thermomètre que je plongeais dans le sol à la profondeur d’un décimètre monta presque subitement a 110°. Je recueillis dans un flacon... les gaz qui se dégageaient et après avoir pris quelques échantillons des matières environnantes, je me hâtai de descendre.” Jean-Claude Eugène Pécelet, Draft Report, 1822. AD BDR 6 M 1620.

¹⁵² A draft of this report is available in the departmental archives of Bouches-du-Rhône, AD BDR 6 M 1620. A more polished copy of Pécelet’s findings as they were reported to the Prefect appears in the “Additions et Corrections” section of Christophe Villeneuve-Bargemon, *Statistique du département des Bouches-du-Rhône, avec atlas. Tome premier* (Marseille: A. Ricard, 1821), 936–938.

piled high with sulfuric soap waste—smoking, noxious, and unstable. The shallow waters were tinted yellow and small flames dotted the shoreline where the waste had begun to spontaneously combust.¹⁵³ Fumes hovered along the coast, rising up from dumping grounds on the city’s western edge in a hazy curtain that separated the city from the Mediterranean Sea on the other side. From there, coastal winds carried the characteristic ‘rotten-egg smell’ of hydrogen sulfide through the streets of the densely-populated neighborhoods of the Old Town, adding to “appalling odor” for which the city was already well-known.¹⁵⁴



Figure 7: Soap factory in l’anse de l’ourse, late-eighteenth century. This illustration shows the artificial slopes, described in Péclet’s account, that were created by the disposal of soap factory waste in the cove.¹⁵⁵

¹⁵³ Sélim-Ernest Maurin, *Esquisse sur Marseille au point de vue de l’hygiène* (Montpellier: Boehm et fils, 1861), 20–21; Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

¹⁵⁴ “l’exécrable odeur,” See Stendhal, *Voyage dans le midi de la France* (Paris: Le Divan, 1930), 273. Marseille is well-known for its violent coastal winds, the most famous of which is known as *le Mistral*, a cold wind, which blows from north and northwest and is usually strongest during the winter. As dumping grounds were increasingly isolated to Marseille’s northwestern coast, this wind would have brought the smells of the soap waste into the city center.

¹⁵⁵ Illustration by the Marseillais artist, Joseph-Martin Marchand. *Partie du fond de la anse de l’Ourse, façade de l’Observance, église des carmélites, de l’extérieur, dôme de la Charité* (folio 71, verso-70). Pencil. AD BDR 50 Fi

As Marseille's mayor contemplated what to do next, deliberating with the city council and with Marseille's powerful Chamber of Commerce, across the port, the prefect of Bouches-du-Rhône sat in his offices at the Hôtel Roux de Corse, reading a copy of Péclet's report for himself. The professor had forwarded him a collection of his observations concerning the soap waste, feeling that the material presented "very particular concerns for public health," and recommended strict regulations to manage its disposal.¹⁵⁶ Inclined to agree, the Prefect, Christophe de Villeneuve-Bargemon, was becoming increasingly distressed by the situation off Marseille's coast and increasingly irritated with the mayor's apparent lethargy in addressing the problem.

Despite the state of Marseille's coast, already highly disturbing in the early years of the nineteenth century, Péclet's report represented only the very beginning of Marseille's struggle with industrial pollution, and with soap factory pollution in particular. Jean-Baptiste de Montgrand, who served as Marseille's mayor throughout the 1820s, would engage in a tense, if cordial, standoff with the prefect concerning the management of soap pollution over the next decade, though the problem would outlive both men. It was a perpetual subject of debate among municipal and regional leaders well into the mid-nineteenth century. In 1854, more than thirty years after Péclet's first observations, the prefect of Bouches-du-Rhône still referred to Marseille's soap waste problem as "one of the most important questions to be resolved by the

327. In the margins, Marchand disparaged the "ugly soap factory" [*laide fabrique à savon*] that occupied the coast above this cove, arguing that it should be torn down and replaced by a monument that would be more impressive to visitors approaching the city by sea. He bemoaned the fact that the sights and smells of this factory were the first experiences of foreigners after they left the city's quarantine station.

¹⁵⁶ "...qui intéressent la santé publique d'une manière toute particulière."; "...il est dans l'intérêt de la salubrité publique que l'autorité locale donne des ordres sévères à cet égard." See Christophe Villeneuve-Bargemon, *Statistique du département des Bouches-du-Rhône*, 936, 938.

city.”¹⁵⁷ The discourse around this problem remained constant even as the city was buffeted by successive revolutions, regime change, and economic crises. Indeed, political regime seemed to matter very little for the management of this urban pollution. Throughout the nineteenth century, the priority of mayors and prefects alike was to maintain the health of Marseille’s booming soap industry and to protect the surrounding coastal environment to the extent that it remained a safe and profitable shipping hub. Individuals differed only slightly in terms of their preferred method for accomplishing that goal or in the extent to which they were willing to balance that priority with other concerns, including public health.

However, the years between 1820 and the late 1840s are essential to the urban and environmental history of Marseille in that they represent the early years of the soap pollution crisis in the city—the period during which the nature and the scope of the problems associated with soap waste became clear. Despite this alarming reality, these years also demonstrated the persistent unwillingness of local political leaders to act with the foresight that would have limited the consequential damage to property and public health, to the viability of other industries, including fishing, which depended on a healthy coastal eco-system, and, of course, to the environment itself. It was during this period that the first major reforms around the disposal of soap waste would be implemented as local leaders made decisions about where waste would go and, consequently, which parts of the city would be sacrificed to its damaging effects.¹⁵⁸ As a result, it was also during these two decades that the stakeholders in the debate about how best to manage this waste would first assert themselves. In addition to the political interests of the

¹⁵⁷ “*Cette question, quand on vient à l’examiner de près, est une des plus considérables qui soient à résoudre par la municipalité de Marseille.*” Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 19 December 1854. AMM 31 O 7.

¹⁵⁸ The focus here on municipal leaders is, in part, an effort to answer questions posed by Harold Platt on the important role played by local city halls during the nineteenth century in creating segregated zones of industrial pollution. See Harold L. Platt, *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago* (Chicago: The University of Chicago Press, 2005), 21–23.

mayor, the prefect, and the municipal council, soap manufacturers and their representatives in the Chamber of Commerce also played a key role in shaping legislation. But, physicians, chemists, naturalists, local property-holders, and residents were also active in these debates through their own publications and petitions. As we shall see, these individuals gave voice to far more diverse motivations and rhetorical strategies than those in government or in business. They marshaled arguments in favor of the protection of private property from damage caused by industrial waste, they appealed to local leaders to protect public health and act in favor of ‘the public good,’ and, in some cases, they made emotional claims that they had the moral, if not legal, right to live in a healthy environment.¹⁵⁹ If, as Daniel Faget has written, the early dominance of the soap industry in Marseille made it a kind of pilot program for the management of industrial pollution in France more broadly, the decades between the 1820s and the 1840s represented the first critical years in which that program was developed.¹⁶⁰ Just as importantly, however, they were the years in which Marseille’s inhabitants began advancing and defending their own claims to participate in the process of managing their urban environment.

¹⁵⁹ Geneviève Massard-Guilbaud has similarly found evidence of an early assertion of demands to what she calls a right to health [*le droit à santé*]. In examining complaints and petitions made against a variety of industries throughout France during the nineteenth century, she writes, “*Cependant, dès le début du siècle, les plaignants mirent toujours en avant un droit à la santé et le devoir, pour les autorités publiques, de la protéger en se plaçant au-dessus des intérêts particuliers. Il s’agit là d’un phénomène très important: l’affirmation, par les citoyens eux-mêmes, et bien avant que l’État ne leur donne raison, de la nécessité d’une politique de santé publique. ‘La santé publique est sous la sauvegarde des lois et la protection de l’autorité,’ peut-on lire par exemple dans une pétition collective adressée au préfet du Put-de-Dôme en 1855, à propos d’une fabrique de bitume.*” See Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 84.

¹⁶⁰ Faget writes, “*Le secteur de la savonnerie, avant même celui de la chimie des acides ou de la métallurgie des non ferreux, a joué à Marseille un rôle pilote dans l’expérimentation des politiques successives de maîtrise de la pollution industrielle.*” See Daniel Faget, “Une cité sous les cendres,” <https://books.openedition.org/pur/111365?lang=en>.

The Costs of Economic Recovery: The New Nature of Soap Pollution Under the Restoration

If political leaders of the central state had long demonstrated a keen interest in promoting Marseille's soap manufacturing as a key French industry, there is little evidence before the early nineteenth century to suggest that they were overly concerned with the pollution produced by that industry.¹⁶¹ Throughout the ancien régime, regulation of the waste produced by soap factories, as with most other trades and manufacturing processes, were left up to the provincial parlements and to the municipalities, and local officials in Marseille were relatively active in their efforts to control both the placement of soap factories and the disposal of the soap waste during that period.¹⁶² Indeed, many of the problems associated with soap waste were already well-established in the eighteenth century.¹⁶³

The first challenge for local officials seeking to manage soap factory waste was that, already in the eighteenth century, the production of waste seemed to outstrip the city's ability to find a suitable and easily-accessible place for it to go. The situation was exacerbated by the fact that soap manufacturers regularly disobeyed the regulations imposed on them, including the legally-required disposal of their waste in designated locations along the coast. It is clear, for example, that soap manufacturers were successfully brought to court for the improper disposal of

¹⁶¹ The most significant of these efforts to promote the industry was Colbert's edict of 1688, which attempted to protect the reputation of Marseille's soap (and thereby its domination of the market) by strictly regulating its production. These regulations included, for example, mandating the exclusive use of olive oil (as opposed to any animal fats). For more, see Xavier Daumalin, *Du savon à la puce*, 31–32. See also Patrick Boulanger, *Le savon de Marseille*, 19–21.

¹⁶² According to Geneviève Massard-Guilbaud, the consequential dispersal of archives related to industrial waste regulation is part of what has made a comprehensive study of its history so difficult in France. Pierre Guiral has shown that municipal officials in Marseille were already concerned about pollution in public spaces and in the local water supply (in that case, as a result of waste from tanneries) as early as the early fourteenth century. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 18, 24; Pierre Guiral, *Histoire de Marseille*, 101.

¹⁶³ Geneviève Massard-Guilbaud has argued, in fact, that industries were often better regulated during the Ancien Régime than they later were during the nineteenth century. Industrial regulation was not a linear process of increasingly proactive regulation. Instead, she argues, that nineteenth century represented a parenthetical period between the Ancien Régime and the twentieth century in which industrial production was explicitly prioritized over public health. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 17.

their waste numerous times throughout the eighteenth century, the first case occurring as early as 1727.¹⁶⁴ Violations of municipal regulations seemed to be so common, in fact, that the city was forced to repeatedly re-issue a series of regulations about the designated locations for soap waste disposal beginning in the 1730s.¹⁶⁵ From these sources, we hear the testimony of residents and municipal officials who describe soap factory waste flowing down streets and into the port, accumulating at street corners and on local beaches, and, during periods of heavy rain, flooding passageways and seeping into the basements of nearby homes and businesses. It seems that by the early eighteenth century, soap waste, concentrated in, but not limited to, the neighborhoods immediately along the coast, had already become a permanent physical feature of daily life in the city.

However, even when soap manufacturers complied with legal requirements by dropping waste in the required locations along the coast, they were faced with problems caused by the geography of the city itself. We know, for example, that waste which flowed into the port remained there for long periods of time because the entrance to the port was so narrow that it was not regularly washed out by natural tides or currents.¹⁶⁶ Any waste that was dumped along the coast would also have been pushed by dominant wind and water currents back towards the port.¹⁶⁷ The resulting accumulation of soap waste in the basin of the port posed a serious problem

¹⁶⁴ These cases seem to have been a highly successful method by which residents could have their grievances addressed. Of the four cases I found in the municipal archives, the soap manufacturer was found guilty in every one. Nicolas Maughan has also found that soap manufacturers were among the most commonly-sued industries in the city—far more commonly sued than tanneries, for example which were also highly disruptive to urban life. For more on these police ordinances and court cases, see AMM FF 190, AMM FF 191, AMM FF 375, AMM FF 378, AMM FF 391. See also Nicolas Maughan, “Toxicité et nuisances des tanneries Marseillaises: Essai d’histoire environnementale sur l’impact d’une activité artisanale polluante en zone urbaine (XVIIIe-XIXe siècle),” in *Arisanat et Métiers en Méditerranée Médiévale et Moderne*, ed. Sylvain Burri and Mohamed Ouerfelli (Aix-en-Provence: Presses Universitaires de Provence, 2018), 375.

¹⁶⁵ AMM FF 191.

¹⁶⁶ Pierre Vidal-Naquet, *Les Ruisseaux, le Canal, et la Mer – Les Eaux de Marseille* (Paris: L’Harmattan, 1993), 125–126.

¹⁶⁷ *Ibid.*

for shipping traffic.¹⁶⁸ Once in the water, the soap waste mixed with other waste and debris, some of which settled into sediment along the ocean floor, reducing the port's already shallow depth, while other elements coagulated into hard masses that floated and obstructed navigation along the coast.

In addition to physically obstructing streets and access to the coast, however, observers were also already concerned with the toxic nature of the soap waste itself, even when left offshore. One naturalist explicitly blamed this waste for the declining population of Marseille's coastal fish populations, writing in 1769 that the soap waste was a "cruel poison" for fish, leaving them "no choice, but to flee or perish."¹⁶⁹ The ecological effects of soap waste were therefore also a matter of maintaining social order, as any decline in the availability of fish directly threatened the city's ability to feed itself. Before the major irrigation projects of the mid-nineteenth century dramatically increased the agricultural productivity of the provençal hinterland, municipal officials in Marseille expressed nearly-constant anxiety about the health of local fish populations throughout this period—concerns that would have particularly urgent for the poorest segments of society, who depended most heavily on inexpensive seafood to supplement their diet.¹⁷⁰

As a result of these challenges, local police during the eighteenth and early nineteenth centuries had attempted to push soap factories, with mixed success, to the edge of the city—an

¹⁶⁸ In 1777, the Captain of Marseille's port complained of "the shocking quantity of soap waste, which, because of the poor obedience of police orders on the part of the soap factories, are brought by the rain" into the port. "*la quantité étonnante de terre de savonneries qui, par le peu d'obéissance des fabriques à vos ordres de police, sont entraînées par les pluies...*" Quoted in Daniel Faget, "Une cité sous les cendres."

¹⁶⁹ "...ces sels, dis-je, sont pour lui de cruels poisons, qui ne lui laissent que le choix ou de fuir ou de périr..." Paul-antoine Menc, *Mémoire composé par le R.P. Menc, ... sur cette question ... Quelles sont les causes de la diminution de la pêche sur les côtes de la Provence? et quels sont les moyens de la rendre plus abondante?* (Marseille: Sibié, 1769), 9.

¹⁷⁰ For more on local anxieties about declining fish populations, see Daniel Faget, "Chapitre V: Un thème qui s'affirme au XVIIIe siècle: le dépeuplement du golfe de Marseille," in *Marseille et la mer: Hommes et environnement marin (XVIIIe–XXe siècle)* (Rennes : Presses universitaires de Rennes, 2011), 175–200.

imperfect solution, but one which isolated the greatest concentration of soap waste to the urban periphery.¹⁷¹ The vast majority soap factories were therefore located along the southern bank of the port, known as the *Rive neuve*, which had been settled and incorporated into the city in the late seventeenth century, while a few factories remained along the northern edge of the Old Town, along the Boulevard des Dames (See Figures 8 and 9 below).¹⁷² When regulations were properly followed, waste from both production sites was regularly collected and taken by a fleet of cart-drivers to legally-designated coves to the north and south of the port.¹⁷³

Whatever their experience in managing soap factory pollution, however, municipal administrators were clearly losing control of the problem by the 1810s. First, though both the Boulevard des Dames and the *Rive neuve* had been peripheral when they were initially chosen as sites for soap production, by the nineteenth century, dense urban settlement was encroaching on that space. Furthermore, the central government was beginning to take a more active role in the

¹⁷¹ Marseille's *Commissaire de Police* wrote to the Prefect of Bouches-du-Rhône in 1803, for example, in hopes of clarifying exactly how much authority he had to force "unhealthy or dangerous" establishments away from the city center given recent imperial decrees. He reported having pushed several unhealthy factories to the city's edge, but complained that some remained firmly entrenched in the city center despite these efforts. In this vein, Geneviève Massard-Guilbaud has demonstrated that the primary method of controlling pollution in France throughout the Ancien Régime and well into the nineteenth century was isolation—pushing unhealthy or undesirable materials to the edge of urban settlement in much the same way that hospitals and prisons were also forced the edges of city limits—though this isolation was never complete. Thomas Le Roux has complicated that argument, somewhat, however, arguing that distance from the urban core was the rule only for cities that were not essentially industrial from birth (cities like Manchester, for example) and, even in those places, industry was increasingly welcomed back into the city by the early nineteenth century, as industrialists and their allies on the *conseils de salubrité* were growing ever more confident in their ability to control pollution with new and improved production techniques. Industries often chose to move to the outskirts of town irrespective of any regulation, since it offered space, often water resources, proximity to other industries, etc. Letter from the *Commissaire Général de Police* to the Prefect of Bouches-du-Rhône, 16 Brumaire An 12 [8 November 1803]. AD BDR 6 M 1620; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 11, 20–21; 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* 24, no. 2 (2009): 31–70.

¹⁷² The *Rive neuve* was particularly attractive to soap manufacturers since its proximity both to the port and to the southwestern coast of the city meant they had easy access to imported raw materials and to the legally-mandated waste disposal site of the *plage des Catalans*.

¹⁷³ It seems that part of the problem associated with waste that was collected in factories is that it was often stored there for several days before waste cart-drivers came to remove it, meaning it had ample time to leak from containers, saturate the ground, and give off dangerous fumes. See Sélim-Ernest Maurin, *Esquisse de Marseille au point de vue de l'hygiène*, 100.

management of industrial waste—a shift with profound repercussions for the ability of local administrators to control the placement of soap factories. The recently-issued imperial decree of 1810 *relatif aux Manufactures et Ateliers qui répandent une odeur insalubre ou incommode* was the first national attempt to regulate industrial pollution, and according to this new ordinance, soap factories were included in the ‘third class’ of regulated industries—that is, among those industries considered to be the *least* potentially harmful for the surrounding area.¹⁷⁴ This categorization, adopted on the advice of a number of chemists and industrialists at the *Institut de France* (some of whom were personally invested in the artificial soda ash industry, and thus dependent on the soap industry itself) meant that soap factories were not included on the list of industries which were required to be isolated from inhabited areas.¹⁷⁵ Meanwhile, soap waste disposal sites were not included in the list of ‘classed’ industries at all—a policy that allowed for soap waste to be stored on private property, well within the city limits, and dumped in large quantities along a series of designated public spaces as determined by the municipality.¹⁷⁶ The

¹⁷⁴ This decree is seen as a pioneering law in early industrial regulation and would come almost forty years before equivalent national legislation in Great Britain, for example. “Décret impérial du 15 Octobre 1810, n° 6059,” *Bulletin des Lois*, 323, année 1810 (Paris: Imprimerie impériale, 1811), 397–402; “Ordonnance du Roi contenant Règlement sur les Manufactures, Etablissements et Ateliers qui répandent une odeur insalubre ou incommode, n° 668,” *Bulletin des Lois*, 76, année 1815 (Paris: Imprimerie impériale, 1811), 53–59. For more, see the Institut report that formed the basis of the 1810 law: Jean-Antoine Chaptal, Louis-Bernard Guyton de Morveau, Nicolas Deyeux, Antoine-François Fourcroy, Nicolas Vauquelin, “Rapport sur les manufactures de produits chimiques qui peuvent être dangereuses,” 30 octobre 1809, in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 4* (Hendaye: L’Observatoire d’Abbadia, 1809), 268–273; Jean-Antoine Chaptal and Louis-Bernard Guyton de Morveau, “Rapport demandé à la classe de Sciences Physiques et Mathématiques de l’Institut sur la question de savoir si les manufactures qui exhalent une odeur désagréable peuvent être nuisibles à la santé, séance du lundi 26 frimaire An 13 (17 décembre 1804),” in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 3* (Hendaye, L’Observatoire d’Abbadia, 1913), 164–168; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 42.

¹⁷⁵ Thomas Le Roux has also argued that industries were often classed lower than one might expect when they were already well-entrenched in a particular location. See, for example, Thomas Le Roux, “Du bienfait des acides. Guyton de Morveau et le grand basculement de l’expertise sanitaire et environnementale (1773-1809),” *Annales historiques de la Révolution française*, vol. 383, no. 1 (2016): 165; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 36; Thomas Le Roux, “La mise à distance de l’insalubrité et du risque industriel en ville,” 60.

¹⁷⁶ Rapport de Travaux Publics, 13 October 1847; Letter from the Commissare de Police to the Mayor, 6 October 1847. AMM 31 O 7.

areas being most acutely affected by soap waste were therefore no longer as peripheral as they once were.

Secondly, as the local economy recovered from the ruin of the Napoleonic years, soap factories increased production and new factories sprouted up around the city, such that Marseille's soap production had doubled its pre-Revolutionary levels by 1820, with 88 factories producing a total of roughly 40,000 metric tons of soap annually.¹⁷⁷ In 1823, the Chief Engineer of Bouches-du-Rhône estimated that this level of production created 30,000 cubic meters of waste each year.¹⁷⁸ Within thirty years, that number had increased five-fold, reaching 150,000 cubic meters annually.¹⁷⁹ Urban settlement was therefore expanding towards soap factories and towards the sites of waste disposal, just as that waste was reaching unprecedented levels and beginning to spill well beyond the coves and beaches to which had been previously confined.

¹⁷⁷ The Prefect Villeneuve-Bargemon reported that there were 46 soap factories in Marseille containing 200 furnaces and producing 200,000 *quintaux métriques* (or 20,000 metric tons) annually in 1789. By 1820, that number had increased to 88 factories with 420 furnaces. He says that production doubled, but does not give an exact production amount for 1820. Christophe Villeneuve-Bargemon, *Statistique du département des Bouches-du-Rhône*, 695. The economic devastation of the Napoleonic period was caused by a number of factors, the most fundamental of which was the seemingly-endless series of wars during that period, a several of which were with important Mediterranean trading partners. This downturn was further exacerbated by the British blockade of Marseille's port, which prevented local manufacturers from accessing the raw materials they needed. Throughout what Xavier Daumalin calls "the somber years," traffic coming in and out of Marseille's port dropped dramatically, even for local cabotage, the city's population fell from 101,000 in 1801 to 94,000 in 1811, and by 1813, the city's industry was producing less than a quarter of what it had on the eve of the Revolution. Fully recovering from this period of commercial downturn after Napoleon's final exile was an extended process, particularly for the city's shipping interests, as Marseille's merchants discovered that their positions in ports around the Mediterranean had since been usurped by rival traders in the intervening years. As a result, the very structure of Marseille's trading economy was thrown into disarray. See Xavier Daumalin, *Du savon à la puce*, 212.

¹⁷⁸ "...les résidus provenant des fabriques exigent pour leur transport journalier cent tombereaux à trois coliers, M. L'ingénieur en chef en a conclu, que leur cube est de 100 mètres par jour, ce qui pour trois cents jours de travail seulement, par année, forme un total de trente mille mètres, or, continue M. L'ingénieur en chef, comme le prix du curage dans la passe du port est payé à raison de 2.2232 le mètre cube, l'augmentation de dépense que produira l'enlèvement par portions de ces 30,000 mètres cube de matières étrangères, sera réellement de 66,696s par année." Quoted in Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

¹⁷⁹ Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 19 December 1854. AMM 31 O 7.

Greatly exacerbating the problem, the decree of 1810 meant that local administrators had lost the authority to force those factories farther outside the city.¹⁸⁰

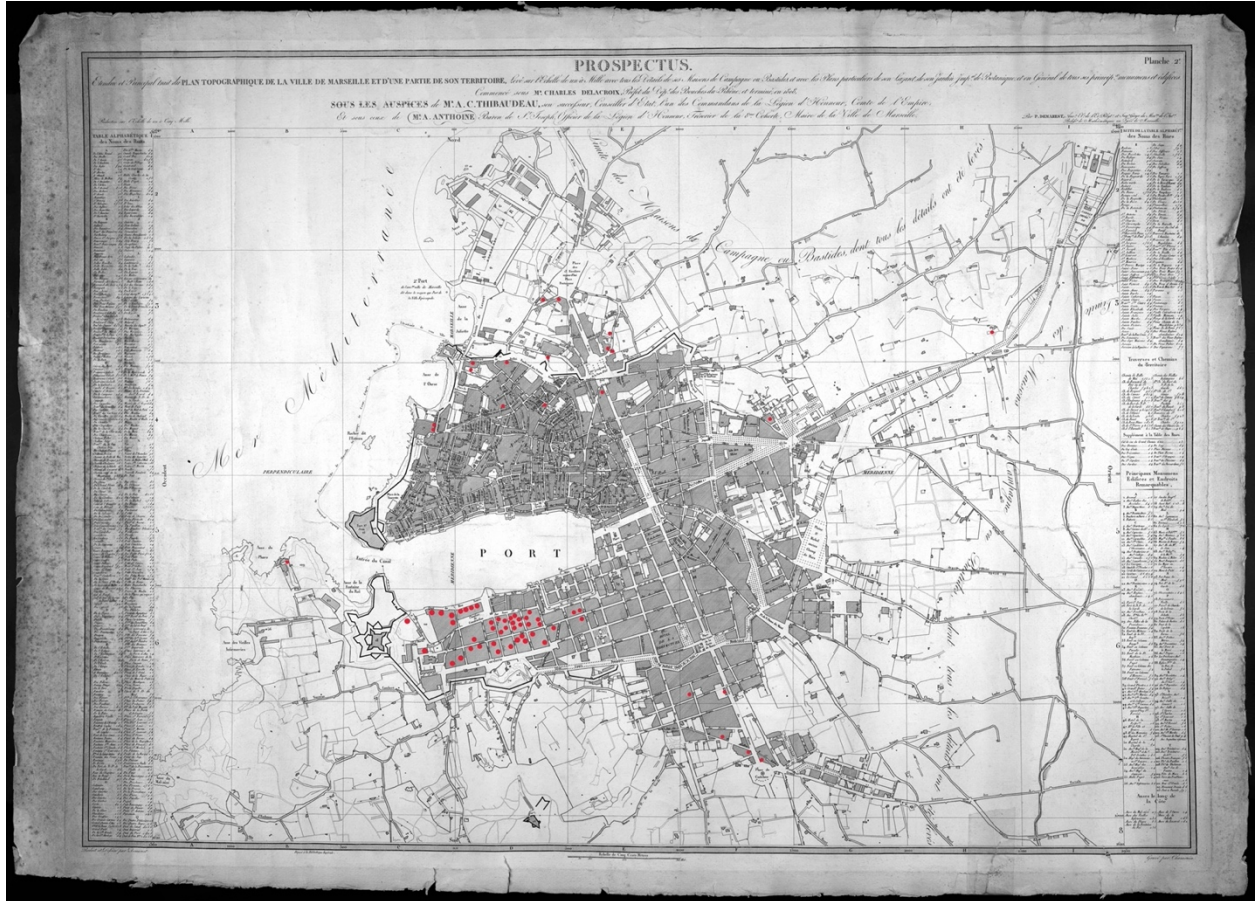


Figure 8: Distribution of soap factories in Marseille c.1810 showing a clear concentration on the southern bank of the port.¹⁸¹

¹⁸⁰ In fact, as Geneviève Massard-Guilbaud argues, mayors were consequently stripped of much of their authority to control the development of urban space in their own cities. They could register an opinion with the *Conseil de salubrité* or with the prefect directly, but they no longer had the power to approve or deny new factories or to control their location, nor were the *Conseil de salubrité* or the prefect obligated to honor their wishes. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 43, 117, 151-162. This process will be further discussed in the following two chapters.

¹⁸¹ Map edited by the author to show the distribution of soap factories. P. Demarest (gravé par Chamoin), "Plan topographique de la Ville de Marseille et d'une partie de son territoire," 1/5000, 1808. AMM 78 Fi 357. For factory addresses, see "Etat des frabriques et manufactures de Marseille répandant une odeur insalubre ou incommode," 21 February 1811. AD BDR 5 M 257.

As legal changes and economic growth were transforming the urban industrial landscape, Marseille's soap manufacturers were also changing key ingredients in the recipe that had traditionally been used to make *savon de Marseille* with important consequences for the waste byproducts they produced. These new manufacturing methods relied on artificially-produced soda ash rather than 'natural' or vegetal soda ash. Natural soda ash had been produced for centuries along the Mediterranean coast by burning certain aquatic plants, including the barilla plant (commonly referred to in English as 'saltwort') and rinsing the ashes in water. Having depleted their own coastline of the necessary plants, by the early nineteenth century Marseille's soap manufacturers were importing natural soda ash from Spain in massive quantities. Artificial soda ash, on the other hand, was produced in a factory setting by chemically treating salt with sulfuric acid and calcium carbonate in a recently-discovered chemical process known as the Leblanc process. Marseille's soap manufacturers first turned to this new ingredient hesitantly and on a temporary basis in an effort to replace imported natural soda ash, which had become unavailable during the British blockade of the city's port.¹⁸² But, in 1810, eager to encourage the budding French chemical industry, and the artificial soda ash industry in particular, Napoleon forbid the importation of natural soda ash and forced Marseille's soap manufacturers to use artificial soda ash on a permanent basis.¹⁸³

As would quickly become clear, however, soap made with artificial soda ash produced waste that was significantly more caustic than that which had been produced during the pre-

¹⁸² According to Charles C. Gillispie, the shortage of natural soda ash was also due to increased wartime demand: "Not only was the normal Spanish supply cut off, but this happened at precisely the moment when soda, in addition to its usual uses, had to be substituted wherever possible for potash, all stocks of which and more were required for the emergency manufacture of saltpetre." Charles C. Gillispie, "The Discovery of the Leblanc process," *Isis* 48, no. 2 (1957): 161.

¹⁸³ Xavier Daumalin, "Industrie et environnement en Provence sous l'Empire et la Restauration," *Rives nord-méditerranéennes* 23 (2006): 27–46. See also, William H. Sewell, *Structure and Mobility: The Men and Women of Marseille, 1820-1870* (Cambridge: Cambridge University Press, 1985), 26.

Napoleonic period. Soda ash produced in this way, sometimes called ‘black ash,’ contained much higher amounts of calcium sulfide, a compound, which, when exposed to water or moisture in the air—as was the case when it was dumped along the Mediterranean coast—produced sulfuric acid and hydrogen sulfide, both of which are highly corrosive.¹⁸⁴ It was this hydrogen sulfide in particular, well-known for its rotten-egg smell, that made this new soap waste flammable and far more poisonous than earlier iterations. By the late 1810s, soap waste made with this more dangerous ingredient, described by one observer as a kind of “magma,” had been accumulating in the streets, beaches, and port of Marseille for a decade.¹⁸⁵ During the early years of the Restoration, the scale *and* the nature of Marseille’s pollution problem were therefore changing simultaneously.

The First Reforms: Legal Dumping Grounds in the 1820s

As soap production reached new heights throughout the 1810s, Marseille’s manufacturers continued, initially, to dispose of waste according to long-standing methods. The two main sites for waste disposal were still coves to the north and south of the city’s port— in the *anse de la Joliette* to the north, the legally-mandated site for factories in the Old Town, and in the *plage des Catalans* to the south, for factories on the Rive neuve.¹⁸⁶ Both locations were remote from the physical and social centers of the city, but the *plage des Catalans* was characterized by an

¹⁸⁴ Jaime Wisniak, “Sodium Carbonate—From Natural Resources to Leblanc and Back,” *Indian Journal of Chemical Technology* 10 (2003): 107; Daniel Faget, “Une cité sous les cendres.”; Jean-Marie Roland de la Platière, *Encyclopédie Méthodique. Manufactures et Arts. Tome 4* (Paris: Agasse, 1828), 77.

¹⁸⁵ “*Ce magma, qui reste sur les barquieux, est-il porté sur les bords de mer...*” Sélime-Ernest Maurin, *Esquisse de Marseille au point de vue de l’hygiène*, 20. Artificial soda saw a veritable boom between 1809-1811. Xavier Daumalin reports that in the space of 4 months, Marseille saw a sudden investment of 4 million francs and 30 new entrepreneurs moving into the artificial soda business as a result of the announcement of war with Spain, which interrupted the city’s supply of natural soda. This movement towards artificial soda was further solidified by imperial decrees in 1809 and 1810, the first of which reduced taxes on the salt used to produce artificial soda and the second prohibited outright the importation of foreign natural soda. See Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage.”

¹⁸⁶ See AD BDR C 2481, AD BDR C 3953. AMM FF 190, AMM FF 191, AMM FF 375, FF 378, FF 391.

additional layer of social marginality. It was on this beach, as its name suggests, that a colony of Catalan fishing families had established themselves in the early eighteenth century. Immortalized by Alexandre Dumas as “gipsies of the sea” in *The Count of Monte Cristo*, the Catalan colony lived largely apart from the rest of the city, settling, according to Dumas, “like a flight of seabirds” on “an uninhabited spit of land,” where they never “mixed with the Marseillaise population, intermarried, and preserved their original customs and the costume of their mother-country, as they have preserved its language.”¹⁸⁷ Despite their social isolation, however, the Catalans were protected during the early years of their presence near Marseille, both by local administrators and by officials in Paris, who wanted to avoid a diplomatic incident with the Spanish Crown and to retain the critical supply of seafood that the fishermen brought to the city.¹⁸⁸

¹⁸⁷ “bohémiens de la mer”; “ce promontoire nu et aride”; “une langue de terre inhabitée”; “Depuis trois ou quatre siècles, ils sont encore demeurés fidèles à ce petit promontoire sur lequel ils s’étaient abattus, pareils à une bande d’oiseux de mer, sans se mêler en rien à la populations marseillaise, se mariant entre eux et ayant conservé les moeurs et le costume de leur mère patrie, comme ils en ont conservé le langage.” Alexandre Dumas, *Le Comte de Monte Cristo* (Paris: Gallimard, 1981), 21; Alexandre Dumas, *The Count of Monte Cristo* (New York: Modern Library, 1996), 24; Alexandre Dumas, *Impressions de voyage: le midi de la France* tome 2 (Paris: Calmann Lévy, 1887), 220–221.

¹⁸⁸ For more on diplomatic maneuverings concerning the Catalan fishermen, see correspondence between the mayor, prefect, Spanish consul, and French minister of foreign affairs in AMM 18 F 6. For more on the importance of seafood supplied by the Catalans, see Daniel Faget, *Marseille et la mer*, 48–49. Faget has argued that the different boats and techniques used by the Catalans allowed them travel farther out to sea and to catch certain prized fish, including marlin (the Mediterranean spearfish). He suggests that there was a gendered element to the tension that arose between native and Catalan fishermen in that native fishermen felt the need to prove that the Catalans were not ‘braver’ or better fishermen despite their reputation for catching more ‘noble’ fish.



Figure 9: Close-up on the concentration of soap factories on the Rive Neuve.¹⁸⁹

¹⁸⁹ Map edited by author to show the distribution of soap factories along the *Rive neuve*. Edouard Matheron, "Centre-ville - Saint-Victor, Feuille 2," 1/1000, 1820. AMM 3 P 1208. For factory addresses, see "Etat des fabriques et manufactures de Marseille répandant une odeur insalubre ou incommode," 21 February 1811. AD BDR 5 M 257.

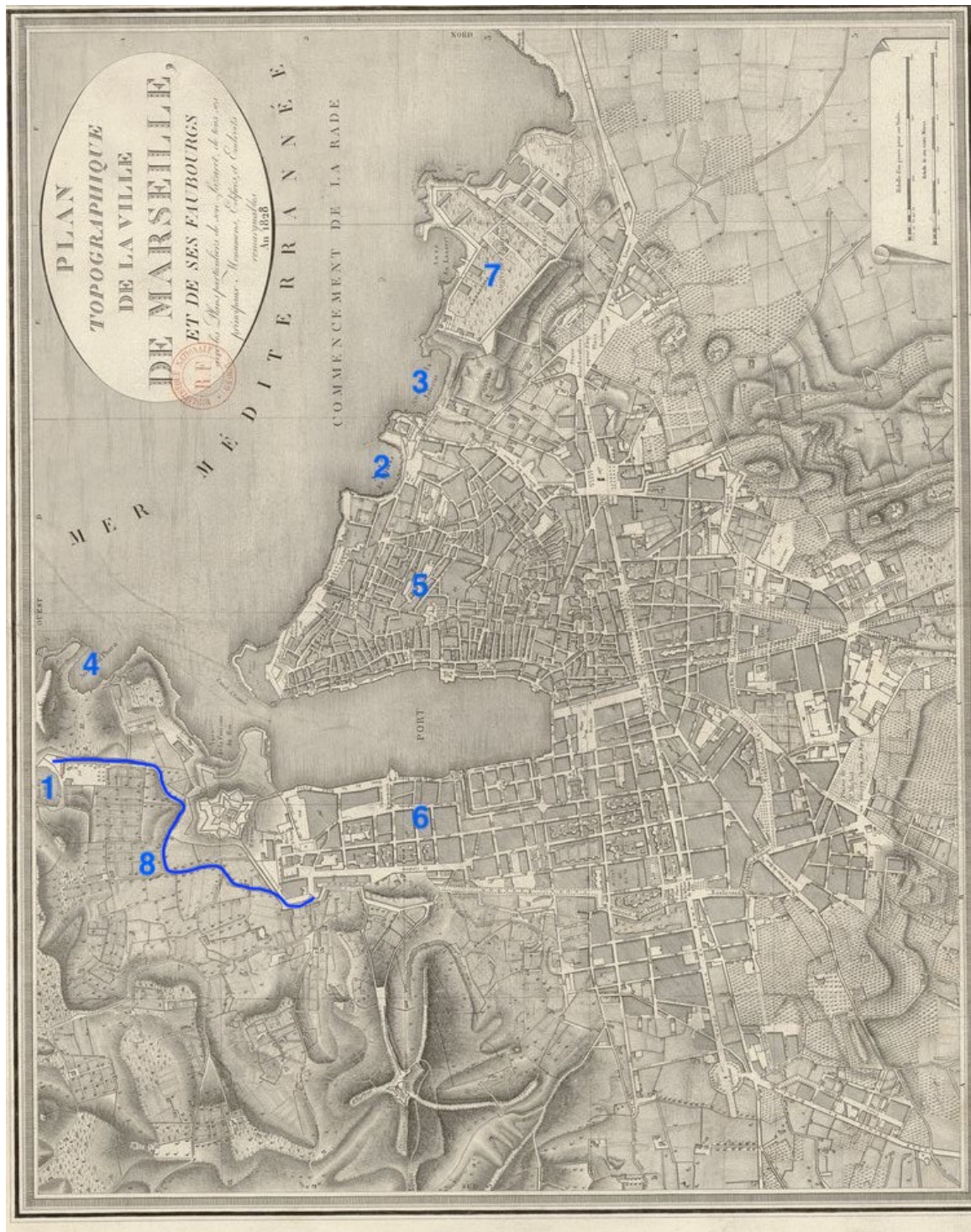


Figure 10: 1 - La plage des Catalans, 2 - L'anse de l'Ourse, 3 - L'anse de la Joliette, 4 - L'anse du Pharo, 5- Old Town, 6- Rive Neuve, 7- Lazaret, 8- Chemin des Vieilles Infirmeries (the path by which waste was taken from the Rive Neuve to the Plage des Catalans).¹⁹⁰

¹⁹⁰ This map has been rotated to show a north-south orientation and edited by the author to show key locations. *Plan topographique de la ville de Marseille et de ses faubourgs, avec les plans particuliers de son lazaret, de tous ses principaux monuments, édifices et endroits remarquables*. Scale not given, 1828. Bibliothèque nationale de France, département Cartes et plans, GE C-1599. 25 October 2012. Accessed 20 April 2020. <https://gallica.bnf.fr/ark:/12148/btv1b530277126/f1.item>.

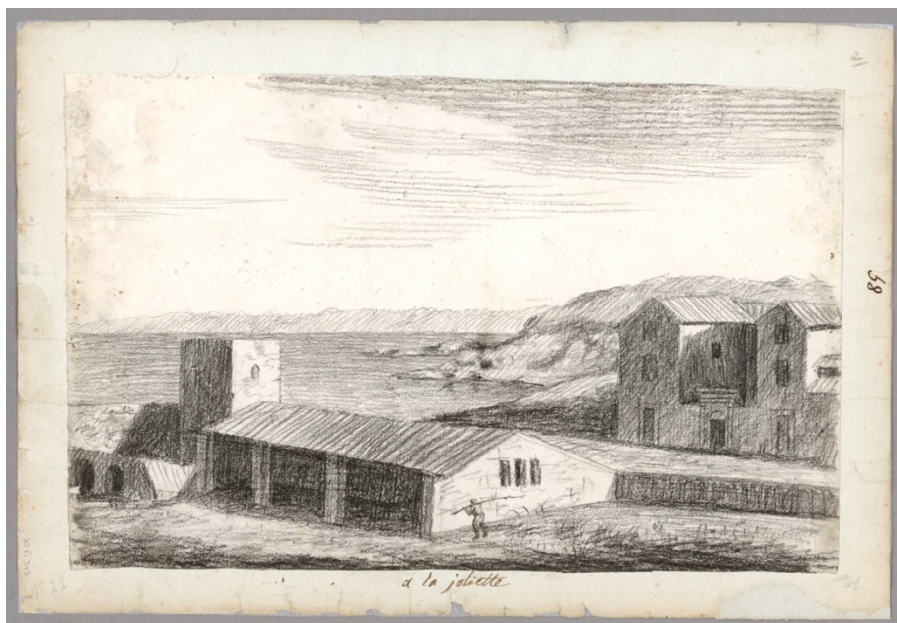


Figure 11: L'anse de la Joliette, c. Late eighteenth-early nineteenth century.¹⁹¹



Figure 12: Strong winds and currents at the entrance to the port, c.1833-1844.¹⁹²

¹⁹¹ Joseph-Martin Marchand, *A la Joliette, vue du rivage et bâtiments, un pêcheur* (folio 58). Pencil. AD BDR 50 Fi 311.

¹⁹² G. Larbalestrier, *Marseille*. Print, c. 1833-1844. The British Museum. Accessed 13 August 2020. https://www.britishmuseum.org/collection/object/P_1900-1231-1428

Competition between native and Catalan fishermen made the Catalans the subject of intense hatred (and sometimes physical violence) from local fishing communities and, placed under immense pressure to emigrate during the Revolution, by the early nineteenth century, there were only a few dozen Catalan families who remained on Marseille's coast.¹⁹³ There they were able to eke out a meager existence, made all the more difficult by daily deliveries of soap waste to their beach. Indeed, it is likely that the physical isolation and socially marginal connotations of the *plage des Catalans* contributed to its initial selection as a site for soap waste disposal and even, as Daniel Faget has suggested, that the site was chosen strategically so as to clear the cove of Catalan occupants in advance of settlement by local residents.¹⁹⁴

In 1820, however, the Catalan fishing families seemed to have finally found a reprieve. Deteriorating conditions along the shore, particularly acute in the *plage des Catalans*, which received the vast majority of the city's soap waste, prompted the mayor Montgrand to announce suddenly that the *plage des Catalans* would be off limits for the disposal of any industrial waste—naming soap manufacturers specifically. He justified the legal change entirely in terms of economic motivations, noting first that floating masses of soap waste, which accumulated off the coast, had now become so significant that they were posing serious dangers for shipping by obstructing the port and coves that offered critical shelter in times of bad weather. The waste was making the navigation of Marseille's infamously violent coastal winds even more treacherous. It

¹⁹³ By the 1840s, for Dumas, the beach and the straggling families that remained there were symbols of a doomed, if noble, civilization, already fading into local folklore. “[T]he little colony has grown smaller each year,” he wrote. “In a half century, they will perhaps have disappeared, as is the case with all strange or picturesque things.” Make no mistake, he wrote, “It is civilization which is killing the poor Catalans.” [“*Cependant, depuis un siècle ou deux, la petite colonie va diminuant chaque année. Un demi-siècle encore, peut-être elle aura disparu, comme disparaît tout ce qui est étrange ou pittoresque... C’est la civilisation qui tue les pauvres Catalans.*”] See also: Daniel Faget, *Marseille et la mer*, 23–49, 64.

¹⁹⁴ Daniel Faget has hypothesized that there was an ‘instrumentalization of polluting practices’ and that local fishermen understood the disposal of soap waste as a weapon against competing fishermen. Daniel Faget, “Une cité sous les cendres.”

was also now obviously threatening the viability of the local fishing industry, he said, destabilizing an important source of local employment and the ability of fishermen to supply local markets. As a result, the mayor wrote, “the cove of Joliette is designated to be the only point where one may dispose of rubble, soap factory waste, industrial waste, and other materials or debris. It is consequently forbidden to dispose of such material in any other part of public space or along the coast...”¹⁹⁵ Henceforth, soap waste would therefore be isolated to the neighborhoods northwest of the port.



Figure 13: Street density in the Old Town¹⁹⁶

¹⁹⁵ “Considérant qu’il a été reconnu par cette Délibération qu’on ne pourrait continuer dans l’Anse des vieilles infirmeries dite des Catalans, le jet des déblais, résidus des fabriques et autres matières qui y avait été indiqué pour les établissemens [sic] du quartier de Rive-Neuve, sans occasionner le rétrécissement et l’encombrement de cette Anse, nécessaire à l’une des principales branches des pêcheries locales, et qui dans des temps orageux peut offrir un accès et un refuge utiles aux embarcations qui se trouveraient en danger...L’anse de la Joliette est indiquée pour le seul point où pourra s’opérer le jet des déblais, terres des savonneries, résidus des fabriques et autres matières ou décombres; en conséquence, défenses sont faites de jeter [sic] lesdites matières sur toutes autres parties de la voie publique ou des rivages de la mer...” Arrêté du Maire, 17 November 1820. AMM 31 O 7.

¹⁹⁶ Centre-ville - Saint-Laurent, Feuille 1, 1/1000, 1820. AMM 3 P 1163.

However, the removal of the *plage des Catalans* as a legal dumping ground for waste posed a problem for the huge number of soap manufacturers located on the southern bank of the city's port. Whereas the *plage des Catalans* had been conveniently located to the southwest of the city, connected to the *Rive neuve* by a cart path specifically built to facilitate the disposal of soap waste on that beach, the *anse de la Joliette* was located to the north of the port, on the opposite side of the city. This meant that any waste would have to be collected in carts and driven around the port and through some of the most densely-packed neighborhoods of the city to the northwest coast. It could, alternatively, be piled on the docks of the *Rive neuve* and taken by boat from the port to the designated cove. Both, soap manufacturers argued, would be prohibitively expensive. As a result, many manufacturers apparently ignored this new order altogether and continued dumping illegally on the *plage des Catalans*, or worse, along the path that led out of the city before they had even reached the beach.¹⁹⁷ In an apparent concession to the soap manufacturers, less than two months after this new order, the mayor announced two additional legal dumping zones on the south side of the city, off the *Pointe du Pharo* and on a piece of private property known as the *Corderie Neuve*, on a street immediately behind the industrial neighborhood in which the soap factories were concentrated.

Far from resolving the situation, this first series of reforms seems to have worsened conditions along every part of the coast. The prohibition of soap waste disposal on the *plage des Catalans* only exacerbated public health concerns in the *anse de la Joliette*, where waste was now even more heavily concentrated. The ever-increasing quantity of soap waste that was being

¹⁹⁷ As Daniel Faget notes, in order to make their journeys more quickly, cart drivers were incentivized to dump the waste as soon as they could and therefore often left waste immediately outside the city, along the walls of the fortress Saint-Nicolas or along the path that led to the *plage des Catalans* rather than on the beach itself. Though the cart drivers were threatened with heavy fines and with the confiscation of their cart and horses, Chamber of Commerce deliberations reveal that the path was already heavily encumbered with illegally-dumped soap waste in 1767. AD BDR C 2481. Daniel Faget, "Une cité sous les cendres."

dumped along the coast was no longer being submerged by seawater, but rising above the waterline. Exposed to the air and sitting for days beneath the sun, the waste began to spontaneously combust, giving off smoke and fumes that settled like a fog along the shore. City Council deliberations from 1822 reveal the alarming evolution of the problem in the two years since the mayor's first order. Acknowledging the recent legislative changes which designated the Pointe du Pharo and l'anse de la Joliette as the primary dumping grounds, the council's reporter wrote that, "These measures were executed for a considerable time without demonstrating any noticeable inconvenience, but for several months, the heap of material thrown in the Joliette, along the path to the *Lazaret*, has experienced a fermentation accompanied by a phenomenon which was until now without precedent. These materials have entered into a state of permanent combustion and constantly produce fumes which circulate widely and give off a foul odor."¹⁹⁸ The mayor had attempted to work with scientific authorities at the Royal College in Marseille to prevent this "incandescence," but these efforts had so far not delivered their promised results.¹⁹⁹

Furthermore, the anse de la Joliette, now permanently on fire, sat in close proximity to the Lazaret, a sanitary station in which incoming passengers and merchandise from the port were quarantined before being allowed into the city. Sanitary authorities from the Lazaret wrote to the mayor to express their own growing unease.²⁰⁰ Not only did fumes from the waste waft into the

¹⁹⁸ "Ces mesures ont reçu, pendant assez longtemps, leur exécution sans qu'il se soit manifesté d'inconvénients sensibles; mais depuis quelques mois, l'amas de matières versées à la Joliette, sur le chemin du Lazaret, a éprouvé une fermentation accompagnée de phénomènes jusqu'alors sans exemple. Ces matières sont entrées dans un état de combustion permanent, et il s'en exhale, constamment, une fumée qui s'étend au loin, et répand une odeur infecte." Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

¹⁹⁹ "Les moyens que M. Le Maire a concerté tant avec le Directeur des travaux publics qu'avec M. Pecset, professeur de physique et de chimie, au Collège royale de cette ville, pour obvier aux inconvénients de l'incandésisme de ces résidus, n'ont point obtenu les résultats qu'on s'en était promis." Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

²⁰⁰ Interestingly, it appears that administrators at the Lazaret had initially *requested* that soap waste be disposed along *La Joliette* and the path which led to the Lazaret in an effort to protect the coastal path from erosion. However, they ultimately determined that the negatives effects of the waste were "worse than the problem they had wanted to solve" and asked that the disposal be immediately stopped in that location. "Cette opération présente, aujourd'hui,

quarantine station itself, negatively impacting the health of both travelers and staff, but the location of this combustible waste immediately next to merchandise warehouses created a virtual powder keg, everyday threatening to create a explosion, “the results of which would be incalculable.”²⁰¹ Similar complaints had been made by the administrators of the nearby *hospice de la Charité*, then operating as a home for orphaned children and the elderly.²⁰² As a result, the council reporter noted, “the mayor himself recognized how important it was, in the interest of public health, to prevent this cause of inconvenience and disease.”²⁰³ In conjunction with the City Council, the mayor Montgrand named a special commission to investigate a new location for the disposal of this material. The commission recommended using a different point along the same cove, behind the city’s slaughterhouses, as the new designated dumping ground, suggesting that if the material could be fully submerged in seawater, it could not combust.²⁰⁴

Public health concerns were compounded by fears that the waste was still making the port too dangerous to use, particularly after the mayor had conceded the Pointe du Pharo as a disposal site for soap manufacturers on the southern side of the city. In October of 1823, the Prefect Villeneuve wrote to Montgrand to tell him that he had been informed by the Chief Engineer of

des résultats pires que le mal auquel on avait voulu remédier et qu’il est instant de le faire cesser.” Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

²⁰¹“ *L’intendance sanitaire, attendu la proximité du Lazaret avec l’anse de la Joliette, a adressé le 16 de ce mois, à M. Le Maire, une lettre dans laquelle elle représente les inquiétudes qu’elle conçoit du voisinage de ce foyer, en exposant que la fumée qui s’en exhale, et les vapeurs infectes qu’elle répand, ne peuvent en retombant sur le Lazaret, qui préjudicient à la santé des passagers qui y sont en quarantaine, des employés qui les surveillent, et détériores les marchandises qui y sont mises en purge en plan air, et sous les sous les hangars; qu’un autre dangers pourrait résulter du voisinage de ces matières inflammables avec la poudrière du commerce adossée au Lazaret; pourqu’il pourrait être cause d’une explosion dont les résultats seraient incalculables.*” Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

²⁰²“ *Des réclamations semblables ont été présentées par l’administration des hôpitaux, attendu le voisinage de l’hospice de la Charité avec le lieu de ces exhalaisons...*” Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

²⁰³“ *...M. Le Maire a reconnu lui même combien il importait, dans l’intérêt général de la salubrité publique d’obvier à cette cause d’incommodité et de méphitisme.*” Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

²⁰⁴ Extrait des Registres des délibérations du Conseil Municipal de la Ville de Marseille, 29 November 1822. AMM 31 O 7.

the department that the dumping site at the Pointe du Pharo was dramatically reducing the depth of the port and that coastal currents were bringing material that been dumped off the point directly into the entrance of the port. This waste reduced the navigability of the port and raised the costs associated with port maintenance.²⁰⁵ The engineer therefore strongly recommended that soap waste be dumped exclusively at the anses de l'ourse and de la Joliette along the city's northwest coast, where, at the very least, ocean currents would not bring it back into the entrance of the port. The prefect asked the mayor to make an announcement to that effect.²⁰⁶

If dumping grounds along the city's northwestern coast were therefore beginning to look untenable for public health reasons, waste disposal sites to the south were threatening the day-to-day operations of the port. Without an immediately obvious solution, Montgrand responded to the prefect a few days later with a letter, writing, "You know well, *Monsieur le Préfet*, the extent to which the choice of a convenient location for...the disposal of these materials has lately occupied the municipal administration and presented difficulties."²⁰⁷ Instead of issuing the prefect's order to isolate waste to the northwestern coast of the city, he insisted that he was at his wit's end trying to deal with the waste that already existed in those coves. He reminded the prefect of the current state of affairs in the anse de la Joliette, writing "an unfortunate phenomenon of decomposition occurred in these locations, resulting from the chemical

²⁰⁵ "...les résidus provenant des fabriques exigent pour leur transport journalier cent tombereaux à trois coliers, M. L'ingénieur en chef en a conclu, que leur cube est de 100 mètres par jour, ce qui pour trois cents jours de travail seulement, par année, forme un total de trente mille mètres, or, continue M. L'ingénieur en chef, comme le prix du curage dans la passe du port est payé à raison de 2.2232 le mètre cube, l'augmentation de dépense que produira l'enlèvement par portions de ces 30,000 mètres cube de matières étrangères, sera réellement de 66,696s par année." Quoted in Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²⁰⁶ "Ces propositions me paraissant mériter d'être prises en considération, j'ai l'honneur de de vous prier de prendre un arrêté de police qui y soit conforme." Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 8 October 1823. AMM 31 O 7.

²⁰⁷ "Vous n'ignorez point Monsieur le Préfet combien les choix de locaux convenables pour le [illegible] et le dépôt de les matières a dans les derniers temps occupés l'administration municipale les a présenté de difficultés." Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

components contained in artificial soda ash. The materials deposited on the banks of l'anse de l'ourse and de la Joliette entered successively into a state of conflagration. Abundant and continuous smoke emanated from this location."²⁰⁸ Visible flames "announced the concentrated fermentation of this mass of waste" and "these artificial volcanos followed the direction of the winds, spreading vapors and emanations, extremely bothersome as a result of their odor, to various parts of the city, which cannot be without effect on the healthiness of the air."²⁰⁹ The only solution, he wrote, was to wait for the materials to be consumed by their own combustion, a process which took around eighteen months.²¹⁰ Any additional waste brought to those coves would only accumulate, catch fire, and delay this process.²¹¹

Despite his insistence on public health concerns, however, Montgrand betrayed what were perhaps his true motivations in rejecting large-scale transport of soap waste to l'anse de la Joliette by repeatedly reiterating the financial costs of forcing soap manufacturers to transport their waste around the port. "It is very important for the commercial interests of Marseille not to burden this industry with onerous charges that tend to increase the cost of their product," he

²⁰⁸ "*Peu après que ces choix ont été ainsi fixés, une phénomène fâcheux, jusque alors inconnue à Marseille, de la décomposition, résultant des principes chimiques contenues dans les soudes factices, s'est manifesté en ces locaux. Les matières déposées en talus sur les côtes de l'ourse et celle de la Joliette sont successivement entrées en conflagration. Une fumée abondante et continue s'en est exhalée...*" Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

²⁰⁹ "...on y a même vu une flamme légère et superficielle qui annonçait la fermentation concentrée de cette masse de résidus. Ces volcans factices, suivant la direction des vents, ont répandu dans divers quartiers de la ville, des vapeurs et des emanations [illegible] extrêmement incommodes par leurs odeurs, et qui pouvaient n'être pas sans influence pour la salubrité de l'air." Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

²¹⁰ He noted in the margins that the fermentation had so far not stopped in the *L'anse de l'ourse*, nor in the *l'anse de la Joliette*, where it had begun later and where they had continued to bring new material after they had stopped doing so at *L'anse de l'ourse*. "*Il a fallu pour obtenir cet effet attendre que les substances...fussent consumées par leur propre combustion. Ces résultats n'a été atteint qu'après un espace de dix huit mois environs.*" "*A l'anse de l'ourse, la fermentation n'as pas encore cessé, tout à fait à l'anse de la joliette ou elle s'était manifesté plus tard, et où l'on a cessé plus tard aussi de porter de nouvelles matières*" Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

²¹¹ "*Les matières provenant des fabriques de la ville vieille sont déjà trop abondants relatives aux moyens d'absorption de local où elles sont jettées...*" Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

wrote.²¹² Even if manufacturers could be compelled to pay these additional transport costs—a fact by no means certain given the regularity with which they already flouted waste disposal laws—such fees might irreparably damage one of Marseille’s most critical industries and even put the manufacturers out of business altogether. With this reality in mind, the mayor ended his letter, persuaded, he wrote, that the prefect would recognize the necessity of maintaining the “established methods” of soap waste disposal in Marseille by allowing soap-makers to dump waste in the southern coves.²¹³

Ongoing Abuse: Illegal Dumping in *la Plage des catalans*

Meanwhile, conditions were deteriorating rapidly in the *plage des Catalans* as soap manufacturers in the *Rive neuve* continued to ignore regulations and dump waste illegally in the cove. The issue became so severe that in the summer of 1826 the Commissioner of the Navy felt compelled to initiate an investigation into the situation off Marseille’s coast. The two officers who led the investigation described the cove in terms eerily similar to those of Péclet from four years prior, writing that the beach was entirely covered in “a mountain of ash.”²¹⁴ “This volcanic material,” they continued, “the sulfuric part of which burns continuously and gives off such light that at night it can be seen at a great distance from the shore, hardens upon contact with the air, but does not become so solid that large pieces of it are prevented from breaking off from time to time. These pieces of rubble block the area around this point in great masses and make it

²¹² “*Il est d’un autre côté très important à l’intérêt commercial de Marseille de ne pas grever cette fabrication de charges* (here the word’s *très* and *trop* are written and then crossed out) *onéreuses qui tendraient renchérir les produits.*” Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

²¹³ “*Je présente, Monsieur le Préfet, ces réflexions à votre sagesse persuadé que vous reconnaitrez la nécessité de ne rien changer aux moyens établis pour le jet de ces résidus...*” Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

²¹⁴ “*...est couvert par une montagne de cendres qui a la base dans la mer.*” Rapport de la commission chargée d’examiner les inconveniens qui peuvent resulter du jet des terres de savonnieres à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

dangerous [for ships] to approach...”²¹⁵ Confirming the fears of the department’s chief engineer, they observed that the waste reduced ocean depth along Marseille’s coast to the extent that at a distance of 60 *brasses* from the shore (roughly 325 feet), the water was only 12 feet deep.²¹⁶

The shallow waters were only part of the problem, however. Strong winds from the west and northwest meant that ships coming out of the port needed to stay as close as possible to the Pointe du Pharo, hugging the coast along the *plage des Catalans* before safely reaching the open waters of the Gulf of Lion.²¹⁷ These were the exact areas now cluttered with floating masses of flaming soap waste and, instead of carrying this waste out to sea, the great swells merely broke the masses into smaller pieces. “We furthermore observe,” the officers wrote, “that this waste will ultimately not only make the sea immediately around these dumping grounds impracticable, but that it will extend over a considerable distance by the effects of currents and winds” and render the entire coastline too dangerous for ships.²¹⁸

²¹⁵“*Ces matières volcaniques dont la partie sulfureuse brule continuellement avec dégagement de lumière qui, pendant la nuit s’aperçoit à une assez grande distance, se durcissent à l’air, mais ne peuvent cependant devenir assez solides pour empêcher que de grands quarter ne s’en détachent de temps en temps. Ces éboulements encomrent les parages de ces pointes de grosses masses qui en rendent l’approche dangereux...*” Rapport de la commission chargée d’examiner les inconvénients qui peuvent résulter du jet des terres de savonneries à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²¹⁶ A ‘*brasse*’ is a nautical measurement of depth or distance, roughly equivalent to the fathom in the anglophone world, and measured approximately 5.4 feet (the distance between a man’s outstretched fingers from tip to tip). In the anglophone world, this measurement was closer to six feet (one thousandth of a nautical mile) and it has since been standardized to measure six feet exactly. “*La fonde à 60 brasses de distance, n’a rapporté que 12 pieds d’eau.*” Rapport de la commission chargée d’examiner les inconvénients qui peuvent résulter du jet des terres de savonneries à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²¹⁷ “*Les bâtimens [sic] qui déjà ne pouvant plus ranger cette côte d’aussi près qu’auparavant, doivent être fort circonspects pour y passer: inconvénient très majeur qui peut gêner beaucoup les navires qui, sortis du port part les vents d’O.N.O. et appareillant des bouées sur lesquelles ils se sont tonés[illegible?], ne peuvent s’élever dans le golfe, et sont obligés de ranger le plus près possible la pointe de la batterie du pharo, ainsi que celle de Banerton et des Catalans, qui viennent après, et qui sont précisément celles dont les abords s’encomrent...*” Rapport de la commission chargée d’examiner les inconvénients qui peuvent résulter du jet des terres de savonneries à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²¹⁸ “*Il en à craindre que la forte houle n’entraîne plus loin ces roches mouvantes, qu’elle n’en détache de nouvelles, et que cette partie de la rade ne devienne impracticable pour les bâtimens [sic] qui déjà ne pouvant plus ranger cette cote d’aussi près qu’au paravant... Nous observons encore que ces cendres finiront, non seulement par rendre impracticable la portion de mer qui environne les lieux ou l’on jette, mais encore qu’elles se disséminent à une assez grande distance par l’effet des courants ou des vents.*” Rapport de la commission chargée d’examiner les

If the waste was dangerous for large vessels, it was a constant and overwhelming battle for the fishermen who launched their boats from the plage des Catalans. The sand on the beach and at the bottom of the cove mixed with the traces of artificial soda and calcium carbonate in the soap waste to form a hard rock similar to puddingstone (a conglomerate of quartz and other sediment), which settled to the ocean floor, while other elements of debris floated and hovered menacingly just beneath the surface. Fishermen were forced to break up the hardened waste with oars and other tools before they could bring their boats to shore.²¹⁹ This was a task made particularly treacherous in bad weather. As the officers described, the fishermen, returning to the beach with strong winds and heavy seas, were now forced to navigate a cove with a jagged rock bottom instead of sand, with masses of hardened soap waste extending “twelve, fifteen, twenty feet from the shore.”²²⁰ The waste had “deprived them of a refuge all the more precious because it is the only one on this part of the coast.”²²¹

inconveniens qui peuvent resulter du jet des terres de savonnieres à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²¹⁹ “...le fond ainsi que la plage étaient font de sable, lequel combine avec la soude et la carbonate de chaux qui composent les cendres de savonnieres, forme une pierre dure dans le genre des rochers appelés poudingue, qui s’établit par coucher que les pêcheurs sont obligés de rompre afin de pouvoir tenir leurs bateaux à terre pendant le mauvais temps.” Underline appears in the original. Rapport de la commission chargée d’examiner les inconveniens qui peuvent resulter du jet des terres de savonnieres à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²²⁰ “...ces roches durcies s’étendent à 12, 15, et 20 pieds du rivage....Deja même les bateaux de pêche y courent quelque dangers, lorsqu’ils y arrivent avec un vent forte et grosse mer, attendu que le fond est dur, au lieu d’être de sable comme il l’était antérieurement.” Rapport de la commission chargée d’examiner les inconveniens qui peuvent resulter du jet des terres de savonnieres à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

²²¹ “...le port des catalans deviendra inabordable et la navigation, ainsi que la pêche se trouveront privés dans le mauvais temps, d’un refuge d’autant plus précieux qu’il est le seul que présente cette parte de la cote.” Rapport de la commission chargée d’examiner les inconveniens qui peuvent resulter du jet des terres de savonnieres à la pointe des Catalans, 27 June 1826. AMM 31 O 7.

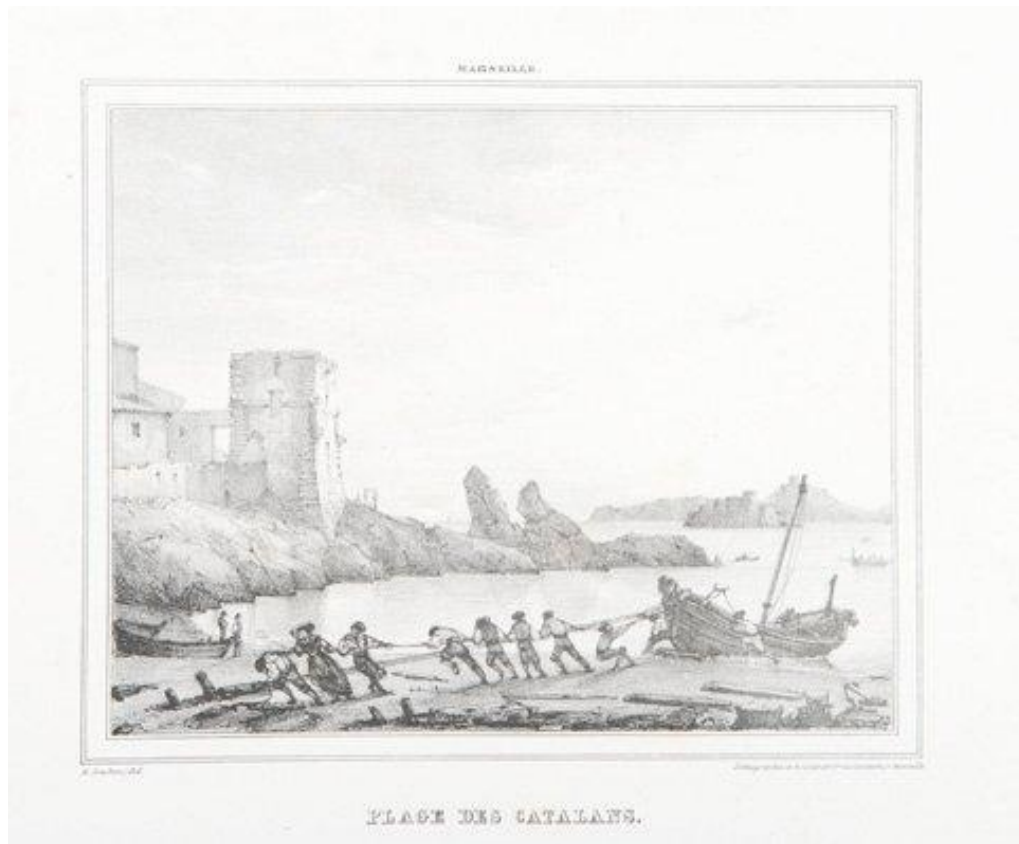


Figure 14: Fishermen pulling boats on to the Plage des Catalans.²²²

The bobbing masses of waste would have also made traditional fishing practices virtually impossible. The *pêche au boeuf* technique, for example, which was common among the coastal fishing communities of Provence, relied on two small boats dragging a fishing net between them, a feat which would have been exceedingly dangerous as the net filled with waste or snagged on the cragged sediment along the ocean floor.²²³ Physical obstructions were only one part of the problem, however; as the Commissioner of the Navy would later report, the sea water itself had become so corrosive, that it was causing fishing nets to disintegrate.²²⁴

²²² Loubon, “La Plage des Catalans.” Print. Leclere Maison des Ventes. Accessed 13 August 2020. <https://leclere-mdv.com/html/fiche.jsp?id=2362033&np=1&lng=en&npp=10000&ordre=&aff=&sold=&r=>.

²²³ For more on the introduction of this technique to Marseille, see Daniel Faget, *Marseille et la mer*, 40.

²²⁴ The Commissioner referred to “*L’inconvénient très-grave de nuire à la pêche du Gangui, du Bourgin, des Tis, qui se fait dans ces parages, où il existe une grand quantité de poissons qui, fuyant les eaux viciées par le jet des résidus, s’éloigneraient de cette côte, comme ils l’ont fait de celle des Catalans; L’inconvénient non moins grave d’éloigner de cette partie de la côte les pêcheurs qui auraient à redouter pour leurs filets l’influence corrosive de ces eaux...*” Arrêté du Maire de la Ville de Marseille. 12 April 1834. AMM 31 O 7.

The investigating officers ended their report, noting that the problems caused by waste in this area were already well-recognized by local authorities, but local administrators were refusing to enforce their own regulations. They had personally witnessed cart drivers brazenly dumping soap waste on the *plage des Catalans* illegally during the course of their investigation, writing that the obstructions on this part of the coast were caused “not only by rubble from old waste, which has been petrified, but by the dumping which is done there daily and which the carts freely discharge on the coast, the greatest part of which rolls directly into the sea, as we observed when we went there to survey this location.”²²⁵ The 1820 law which forbid disposal at the Catalans was apparently “no longer being executed.”²²⁶

Institutions of Resistance

As conditions worsened up and down the coast, the Chamber of Commerce, representing the interests of the soap manufacturers, lobbied against any further restrictions on waste disposal and pushed to have existing restrictions rescinded. In 1824, for example, they pushed back aggressively on the chief engineer’s assertion that waste needed to be limited to the northwestern coves in order to protect the navigability of the port. Disputing his calculations and his analysis of local currents, the Chamber wrote that “not all waste dumped at the *Pointe du Pharo* washes into the entrance of the port, and, if it does contribute to a reduction in depth, it is not the one and

²²⁵ “...non seulement par les éboulements des cendres anciennes pétrifiées, mais par les jets qui se font journellement et que les charrettes déchargent tellement à l’extrémité de la cote, que la plus grande partie route directement jusqu’à la mer, comme nous l’avons observé dans le moment ou nous étions occupés à sonder dans cet endroit.” Rapport de la commission chargée d’examiner les inconvénients qui peuvent resulter du jet des terres de savonneries à la pointe des Catalans, 7 June 1826. AMM 31 O 7.

²²⁶ “Nous ajouterons que ces inconvénients paraissent avoir été si bien reconnu par l’autorité civile que, d’après un arrêté de Mr le Maire, en date du 17 November 1820, qui nous a été communiqué, a qui paraît avoir été rapporté, puisqu’il n’en plus exécuté, on avait défendu sous peine d’être traduit devant les tribunaux de jeter sur ce point des déblais, terres de savonneries, résidu de fabriques et autres matières et décombres.” Rapport de la commission chargée d’examiner les inconvénients qui peuvent resulter du jet des terres de savonneries à la pointe des Catalans, 7 June 1826. AMM 31 O 7.

only cause.”²²⁷ “One cannot attribute the obstruction of the port solely to the disposal of soap waste” in this location (underlined in the original).²²⁸ Furthermore, they noted, in October 1823, when the chief engineer had made his observations, *curage*, the process by which the port was regularly dredged of sediment and waste, had been momentarily interrupted, artificially inflating his calculations and his estimation of the problem. If he had made his recommendations during a period in which *curage* was operating normally, his calculations would have been far inferior to those presented in his report.²²⁹ They asked, therefore, not only that these two dumping sites at La Joliette and the Pointe du Pharo remain available to them, but also that they be allowed to dump at an *additional* site on the south side of the the Pointe du Pharo. Such a plan, they wrote, “would conform with the interests of commerce as well as that of the police and the conservation of public health.”²³⁰ They closed their letter, underscoring the “extreme difficulty, if not moral impossibility” of any further prohibition on the disposal of soap waste along the southwestern coast.²³¹

²²⁷ “...toutes les terres jetées au dessus de la batterie du Pharo ne sont pas entraînées dans la passe et que si elles concourent à on atterrissement, leur jet n’en est pas cependant la seule et unique cause.” Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²²⁸ “...ce n’est qu’au jet de ces terres près du Pharo qu’on peut attribuer l’atterrissement de cette passe...” Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²²⁹ “A cette époque le curage du port était interrompu depuis le mois de juin 1822; dans toute cet intervalle il fut repris seulement au mois de mai, et pour ce seule unique mois... Ne peut-on pas présumer qu’une aussi longue interruption a amoncelés dans la passe, non seulement la portion des terres et résidus des savonneries qui peuvent y avoir été entraînées, mais encore, tous les débris, toutes les terres que les vents et les eaux y peuvent conduire soit de la ville, soit de la rade. Si cette conjecture n’est pas sans fondement, on doit en induire que l’atterrissement reconnu à la passe serait moindre, et peut être insensible, en supposant le curage opère comme il doit l’être et de suite, et que par conséquent de dépense n’en serait pas augmenté, on ne le serait que dans une proportion bien inférieur au taux auquel l’a évaluée M. L’ingénieur en chef, par l’effet des causes qu’il a présumées et présentées comme réelles.” Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²³⁰ “Elles paraissent à la chambre se concilier autant avec l’intérêt du commerce, qu’avec ceux de la police et de la conservation de la salubrité publique.” Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²³¹ “La chambre ne peut rien ajouter au développement que vous avez donné de leurs motifs, non plus qu’à celui de l’extrême difficulté, et même de l’impossibilité morale de leur en substituer qui puissent être adoptées.”

Interestingly, the soap manufacturers close their letter by shifting the blame to their artificial soda ash suppliers. Eager to resume importing natural soda ash, which was still cheaper than the artificial alternative, the soap manufacturers pointed out that the worst effects of this pollution were not felt until they had made the switch to artificial soda ash. Leaving the mayor to draw his own conclusions, they asked pointedly: “...this scarcity of fish,

In 1828, soap manufacturers again banded together, writing to the mayor to demand that the *plage des Catalans* be reopened to them as a disposal site (neglecting to mention in their letter that many manufacturers had never actually stopped dumping waste there since it had been banned nearly a decade beforehand). They wrote, “Since the existence of soap factories on the *Rive neuve*, the waste produced by those factories has always been disposed in the *anse des Catalans*, that location having been designated for the purpose given that no other location offered the same level of safety for both the horses harnessed to the carts and for the men driving them.”²³² However, “a law written by you, *Monsieur le Maire*, changed these practices and forced us to carry waste to the space between the *anse des Catalans* and the *batterie du Pharo*.”²³³ Though the mayor had allowed dumping at the *Pointe du Pharo* in an apparent concession to soap makers, and the Chamber of Commerce had forcefully defended their right to continue dumping there, soap manufacturers now argued that the location was far too treacherous, both because of the “terrifying height” of the cliffs on the point and because of the “terrible winds” at the entrance of the port.²³⁴ They listed a series of accidents that had occurred when cart drivers tried to navigate the rocky point, insisting that whatever objections municipal administrators might have to waste at the *plage des Catalans*, they must surely understand “how important it is,

has it not reached the greatest intensity since the introduction of artificial soda?” “*Cette crainte, manifestée par les auteurs qui ont écrit sur les causes de l’abondance ou de la rareté du poisson, n’est-elle pas devenue d’une plus grande intensité, depuis que les soudes factices sont en usage?*” Letter from the Chamber of Commerce to the Mayor of Marseille, 2 January 1824. AMM 31 O 7.

²³² “...*depuis l’existence des fabriques à savon, dans le quartier de Rive neuve, les terres de savonnerie & résidu provenant de ces fabriques ont toujours été déposés dans l’anse des Catalans, cette endroit leur ayant été désigné pour cet objet, attendu qu’aucune autre localité ne présentait autant de sûreté, soit pour les chevaux attelés aux tombereaux, soit pour les hommes qui les conduisent.*” Letter from the Fabricants de Savon au quartier de Riveneuve to the Mayor of Marseille, 23 August 1828. AMM 31 O 7.

²³³ “*Une ordonnance rendue par vous, Monsieur le Maire, a changé ces dispositions & nous a enjoint de porter les terres et résidus entre la pointe des Catalans & la batterie du Pharo.*” Letter from the Fabricants de Savon au quartier de Riveneuve to the Mayor of Marseille, 23 August 1828. AMM 31 O 7.

²³⁴ “*L’endroit où nous mettons actuellement les terres est impraticable, tant par sa hauteur effrayante, que par le vent qui y souffle d’une manière épouvantable & encore par le chemin qui y conduit.*” Letter from the Fabricants de Savon au quartier de Riveneuve to the Mayor of Marseille, 23 August 1828. AMM 31 O 7.

in the interest of humanity as well as in the interest of an industry from which commerce receives the greatest utility, that the waste of soap factories is dumped, as before, in the anse des Catalans.”²³⁵ The letter was signed by more than a dozen manufacturers.

For his part, the prefect was increasingly frustrated with the mayor’s inaction and with the constant stonewalling of the manufacturers themselves and set about looking for a more long-term solution. As early as 1822, he began to experiment with a system of ocean transport in which soap waste could be collected on the docks of the Rive neuve and taken by boat to be dumped in the open ocean, evacuating the material from the city but also preventing it from accumulating along the coast.²³⁶ The mayor forwarded this proposal to the Chamber of Commerce, who denied that such a program was necessary. The prefect raised the issue again in 1829, suggesting a number of points farther south along the coast, including the *cap gros*, a point 7.5 miles southeast of the city where the waste could be disposed “without posing any inconvenience for the safety of the port.”²³⁷ But this suggestion too was rejected by the manufacturers as being prohibitively expensive.²³⁸

²³⁵ “...combien il importe, tant dans l’intérêt de l’humanité que pour le maintien d’une entreprise dans le commerce retire la plus grande utilité, que les terres & résidus des fabriques à savon, soient jettées [sic] comme auparavant dans l’anse des Catalans.” Letter from the Fabricants de Savon au quartier de Riveneuve to the Mayor of Marseille, 23 August 1828. AMM 31 O 7.

²³⁶ In October of 1823, the Prefect mentioned that this program had already been functioning for almost two years. “Mr. l’ingénieur pense encore que le transport ainsi effectué devant se faire à meilleur marché que maintenant, les fabricants de Marseille ne pourraient se plaindre de l’innovation qu’il propose parce que l’essai qui en a été fait depuis près de 2 ans, lui a paru avoir un heureux résultat.” Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 27 October 1823. AMM 31 O 7. For more on this program, see *Extrait des registres des arrêtés de la préfecture*, 7 June 1822. AMM 31 O 7. As both Daniel Faget and Pierre Vidal-Naquet have noted, there was not widespread concern about the need to protect oceans from waste. Oceans, unlike streams or rivers, were thought to have an unlimited capacity to absorb waste and even purify corrupted material. See Daniel Faget, “Une cité sous les cendres” ; Pierre Vidal-Naquet, *Les Ruisseaux, le Canal, et la Mer*, 145–146.

²³⁷ “...où les cendres de savonneries pourraient être déposés, sans qu’il put en résulter aucun inconvénient pour la sûreté du port.” Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 7 May 1829. AMM 31 O 7.

²³⁸ The Mayor apparently responded to this effect prompting the Prefect to demand that he then choose another location in coordination with an investigative committee, begging him to take the matter seriously. “Je vous prie, Monsieur le Maire, de vouloir bien engager la Commission à hâter son travail, attendu l’urgence et l’importance de l’objet, et à mettre ensuite ses propositions sous les yeux du conseil municipal, dont vous voudrez bien me faire

The inability of the prefect to enact his preferred policy in this area highlights the convoluted nature of political authority in matters of industrial waste regulation. The categorization of soap factories as a third-class industry according to the decree of 1810 meant that their regulation could be dealt with at the departmental rather than the national level. As the representative of the central state in the department, (prefects were appointed by the monarch during this period) decisions about how to govern those factories, including, for example, where they could exist in the city or any constraints placed on their production methods, therefore fell under the authority of the prefect. In placing the regulation of these factories under the jurisdiction of the prefect, the decree had taken such authority away from the judiciary, and made the approval or denial of new factories into a fundamentally political process.²³⁹ Henceforth, it would be political figures, not medical or scientific authorities, nor legal experts, who made the final decision about the management of soap factories in the city.²⁴⁰

The prefect thus played a key role in determining the fate of soap factories in the city, but his authority was in fact severely limited by the fact that the maintenance of public streets and spaces in the early nineteenth century was still a matter policed by local authorities.²⁴¹ This meant that waste that accumulated in public spaces fell under the mayor's jurisdiction.²⁴² During the Restoration, the mayor of Marseille was named by the monarch independently of the prefect

connaître la délibération." Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 22 July 1829. AMM 31 O 7.

²³⁹ Though the courts were still a venue in which residents could sue for damage to private property, they no longer had the authority to force factories to close or move their operations. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 44, 51.

²⁴⁰ As will be discussed in the next chapter, the prefect would seek the recommendation of the *Conseil de salubrité* regarding the installation of new factories beginning in 1826, when the council was first formed, but the prefect was under no obligation to follow their counsel.

²⁴¹ In fact, both Geneviève Massard-Guilbaud and Xavier Daumalin have argued that mayors in the early nineteenth century generally had more leeway to contest national policy, especially in matters related to the management of industry and urban space, than they have typically been given credit for. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 151–157. Xavier Daumalin, "Le conflit environnemental entre instrumentalisation et arbitrage."

²⁴² Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 19 December 1854. AMM 31 O 7.

and sat at the head of a municipal council, which was elected by extremely restricted voter base of wealthy electors.²⁴³ Far more intimately connected to the Chamber of Commerce and to local economic interests, the mayor proved to be much less interested in using his authority to curb the activity of soap manufacturers and, in fact, acted in order to shield them from greater regulation whenever possible.²⁴⁴

While prefects were also eager to promote local business interests, their jurisdiction over the entire department meant that they had to mediate interests beyond those of any one particular city or industry.²⁴⁵ As such, Daniel Faget has argued that the prefects of Bouches-du-Rhône were generally more interested than Marseille's mayors in developing what he has called a 'rational' model of pollution management—that is, one that was not necessarily beholden exclusively to

²⁴³ Crucially, this would change with the advent of the July Monarchy: mayors were then named by the prefects. Beginning in 1848, the city council was elected by universal male suffrage and would choose the mayor from among their own ranks. Under the Second Empire, mayors were once again chosen by the prefects. According to Alèssi Dell'Umbria, industrialists in the oil and soap industries ranked at the very top of the social and economic hierarchy in Marseille and "these business interests would dominate the City Council until the end of the Second Empire." "*Le haut du pavé se composait des huiliers et savonniers, éminences de plein droit' ... Ces milieux d'affaires avaient dominé le conseil municipal jusqu'à la chute du Seconde Empire.*" Fredercik B. Artz, "The Electoral System in France during the Bourbon Restoration, 1815-1830," *The Journal of Modern History* 1, no. 2 (1929): 205–218. See also Alèssi Dell'Umbria, *Histoire Universelle De Marseille: De L'an Mil à L'an Deux Mille* (Marseille: Agone, 2006), 416–416, 713–714.

²⁴⁴ Both Montgrand and Villeneuve were, in fact, native to the area, though only Montgrand was actually from Marseille. Villeneuve was from Bargemon, a village in the department of Var. Daniel Faget has described Marseille's mayors and its Chamber of Commerce as being totally dominated by the interests of the soap manufacturers, though, as Massard-Guilbaud has argued, mayors typically became more nuanced in their support of industry by the late nineteenth century, when elections meant that they were more accountable to public demands for regulation. Massard-Guilbaud has also offered a slightly more generous interpretation of mayoral activity during this period, for example, writing that the greatest fear of most mayors was simply social unrest caused by unemployment. As a result, mayors were hesitant to actively regulate industry, even in the limited ways that were available to them, not necessarily because they were supportive of industry per se, but because were willing to tolerate a great deal of pollution if it meant business was thriving and unemployment remained low. She has also acknowledged, however, that industry was largely successful in putting pressure on local officials from a very early date to limit regulation, particularly when an industry was particularly important or well-established in a certain area, as was the case with soap manufacturing in Marseille. Xavier Daumalin has also complicated the role of mayors in managing industrial pollution. He has argued that while mayors are generally seen as being staunch pro-industrialists (and, indeed, that was often the case in Marseille), mayors of the smaller towns outside Marseille saw firsthand the devastating effects of industrial pollution when factories from the city were removed to more rural areas near their towns. Unlike the mayors of Marseille, they fought to have industrial waste more strictly regulated. Daniel Faget, "Une cité sous les cendres." ; Xavier Daumalin, "Le conflit environnemental entre instrumentalisation et arbitrage."; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 157, 317, 337-338.

²⁴⁵ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 14–15.

the short-term interests of the soap manufacturers.²⁴⁶ In the particular case of Christophe de Villeneuve-Bargemon, whose tenure as prefect stretched across the entire Restoration period (1816-1829), it is also interesting to note that he repeatedly expressed concerns about balancing the needs of agriculture, industry, and commerce and even explicitly articulated early conservationist ideas. He publicly acknowledged, for example, that he was concerned about permanent damage that may have been done to the natural resources of the department as a result of deforestation and irrigation projects and voiced some apprehension about the negative health effects caused by the city's growing industrial sector.²⁴⁷ He insisted that without "prompt correction," local administrators were in danger of "depriving future generations of most necessary resources."²⁴⁸

According to Xavier Daumalin, however, the political disputes between the mayor and the prefect on these issues should not be seen as a reflection of any of anti-industrialist

²⁴⁶ Daniel Faget, "Une cité sous les cendres."

²⁴⁷ Christophe de Villeneuve-Bargemon, "Discours préliminaire de la Statistique du département des Bouches-du-Rhône," in *Collection de discours administratifs et académiques, de notices historiques, mémoires, rapports, et autres oeuvres littéraires* (Marseille: Achard, 1829), 229. See also Christophe de Villeneuve, "Discours prononcé à l'installation du Conseil du salubrité, à Marseille, le 20 Décembre 1825," in *Collection de discours administratifs et académiques, mémoires, rapports, et autres oeuvres littéraires de M. Le Comte de Villeneuve. Tome Premier* (Marseille: Achard, 1829), 148. These personal inclinations are significant. As Gilas Tanguy has argued, for example, it is key to understand the individual personalities, interests, and agency of prefects, rather than conceptualizing their role as one of mechanistic application of law in the department. Villeneuve's concerns also fit neatly with Richard Grove's assertion that timber shortages formed the basis of early environmental anxiety in metropolitan Europe. Gilas Tanguy, "Le préfet dans tous ses états." Une histoire de l'institution préfectorale est-elle (encore) possible?" *Histoire@Politique* 3, no. 27 (2015): 9–10; Richard H. Grove, *Green Imperialism: Colonial expansion, tropical island Edens and the origins of Environmentalism* (Cambridge: Cambridge University Press, 1995), 95. For more on fears concerning deforestation in the nineteenth century, and indeed, concerns that deforestation the midi was particularly severe, see Caroline Ford, "Saving the Forests First" in *Natural Interests: The Contest Over the Environment in Modern France* (Cambridge, Massachusetts: Harvard University Press, 2016), 43–65.

²⁴⁸ "...l'aspect seul de nos montagnes indique les maux qu'ont produit des déboisements et des défrichements entreprises sans précautions: et donc essentiel d'y remédier promptement, sous peine de voir les générations qui nous suivent privées des récoltes les plus nécessaires." Christophe de Villeneuve-Bargemon, "Discours préliminaire de la Statistique du département des Bouches-du-Rhône," 229.

sentiments on the part of the prefect.²⁴⁹ In attempting to find a sustainable solution for soap waste disposal, the prefect was in fact acting in what he understood to be the best long-term interests of the manufacturers by protecting them from litigation that would threaten to put them out of business altogether. One of Villeneuve's successors as prefect, Élysée de Suleau, seemed to openly embrace such logic when he rejected the application for a new soap factory in the elite neighborhood of Bonneveine after being told that the rejection was "in the interest" of the factory owner himself, who would likely be sued for damages and forced to stop production after having already invested heavily in his factory.²⁵⁰ Though they differed in strategy, therefore, both mayors and prefects shared the goal of preserving Marseille's dominant soap industry.

Whatever their motivations, the back-and-forth between various levels of local government was apparently brought to a temporary close with the united opposition of the mayor and the Chamber of Commerce. Dumping continued unabated at la plage des Catalans, l'anse de la Joliette, l'anse de l'ourse, and the Pointe du Pharo, accumulating along the coast in ever-greater quantities—neither the public health problems nor shipping concerns resolved.

Residents Respond: Petitions of the 1830s and 1840s

In the late 1820s and early 1830s, as the local government settled into relative complacency regarding the situation, a series of letters from local residents began to arrive at the mayor's office. In them we see residents rehearsing arguments and different rhetorical and political strategies designed to provoke greater action on the part of the municipal government. These

²⁴⁹ Xavier Daumalin, "Le conflit environnemental entre instrumentalisation et arbitrage." See also, Xavier Daumalin, "Industrie et environnement en Provence sous l'Empire et la Restauration," *Rives nord-méditerranéennes* 23 (2006): 27–46.

²⁵⁰ "la commission en vous proposant ce rejet, croit agir dans l'intérêt même du sieur Amphoux qui, assailli probablement par des procès en dommages et intérêts, se verrait bientôt dans la nécessité de cesser la fabrication après avoir fait des dépenses considérables." Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 168. AD BDR Delta 6548. Also available at AD BDR Phi 527 4

residents, several of whom were property-holders who rented land to fishing families along the *plage des Catalans*, began by describing the damage done to their property and livelihoods as illegal soap waste drove fishermen from the coves. They described the never-ending task of trying to clear the cove of waste material (a project that they were forced to take on at their own expense), work that could barely be finished before more waste washed ashore and they were compelled to begin again.²⁵¹ One of these petitioners, Joseph Clair Emilie Estelle, wrote that the petrified waste material caused so much damage to boats that the fishermen were forced to fully repair their vessels every six months, and, despite the care they took, they routinely found themselves in the position of losing their boats altogether during periods of bad weather.²⁵²

Not only did this waste therefore threaten to destroy a key sector of the local economy, but it put the lives of sailors and entire shipping crews at risk. “Beaten by winds,” he wrote, ships were often prevented from entering the port upon their first arrival and found shelter in the *Catalans* where they could wait out the storm before moving northward along the coast.²⁵³ It was this “solitary shelter...which saved them from shipwreck.”²⁵⁴ “There is no one in Marseille, and certainly no sailor, who does not know the importance of this cove,” he wrote, “nor in how many cases [sailors] have found their salvation there.”²⁵⁵ After writing several letters, Estelle finally

²⁵¹ “...si je n’avais pris le parti de la faire souvent nettoyer à mes fraix en faisant rompre et entraire les matières pétrifiées. Mais ce travail qu’il faut recommencer souvent, parce qu’on y jet continuellement...” Letter from Joseph Clair Emilie Estelle to the Mayor of Marseille, 2 August 1828. AMM 31 O 7.

²⁵² “...tous les six mois ils sont obligés de réparer leur bateaux et toutes les sois qu’ils viennent avec le mauvais temps ils se voient sur le point de perdre leur bateaux.” Letter from Joseph Clair Emilie Estelle to the Mayor of Marseille, 22 January 1827. AMM 31 O 7.

²⁵³ “Les navires qui, batus par les vents dans des temps orageux, ne peuvent entrer dans le port et qui trouvent un abri, qui les garantit du naufrage.” Letter from Joseph Clair Emilie Estelle to the Mayor of Marseille, 2 August 1828. AMM 31 O 7.

²⁵⁴ “Les navires qui, batus par les vents dans des temps orageux, ne peuvent entrer dans le port et qui trouvent un abri, qui les garantit du naufrage.” Letter from Joseph Clair Emilie Estelle to the Mayor of Marseille, 2 August 1828. AMM 31 O 7.

²⁵⁵ “Il n’est personne à Marseille, et surtout parmi les marins qui ne sache combien cette anse est utile, et dans combien de circonstances plusieurs u one trouvé leur salut.” Letter from Joseph Clair Emilie Estelle to the Mayor of Marseille, 2 August 1828. AMM 31 O 7.

received a response that the matter would be submitted to a commission for investigation. He was still waiting for a response nearly two years later.

The mayor was apparently disinclined to answer many of these letters, usually responding only when he had received several letters from the same person or when the petitioner had gone above his head and written directly to the prefect, who would then ask the mayor to respond. The letters continued well into the 1830s, however, from property-holders both in the anse de la Joliette and in the plage des Catalans. One of these petitioners, Jean-Baptiste Valentin Vidal, who owned land near the plage des Catalans, was particularly persistent in his demands. In his early letters, Vidal deployed many of the same arguments that previous petitioners had used. He referred, for example, to the “incalculable damages” caused by the soap waste, to the sharp reduction in property value along the coast, and to the destruction of the local fishing industry, which threatened to ruin the livelihoods of the fishing families in the cove and create food shortages, since it was precisely these fishermen who “provided all the fish necessary on a daily basis” to supply local markets.²⁵⁶ He also emphasized public health ramifications, referring to the cove as a “contagious swamp” with “fetid fumes” that wafted through the neighborhood and compromised the health of everyone who lived and worked nearby.²⁵⁷

However, Vidal also emphasized a line of argument that had been only briefly mentioned by his predecessors—that of the common good [*l'intérêt général*]. He wrote, for example, that he was surprised to see “the interests of manufacturers, and only their interests...prevailing over

²⁵⁶ “*dommages incalculables*” Letter from Vidal to Consolat, 26 April 1832. AMM 31 O 7; “...*fournir toute le poisson journellement nécessaire à la consommation de les nombreux habitants.*” Vidal insisted that property values along the *plage des Catalans* were becoming “fundamentally compromised if not totally worthless” because of the damage caused by soap waste. “*domaine...dont la valeur foncière serait essentiellement compromise, ou pour mieux dire nulle...*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁵⁷ “*marais contagieux...*” Letter from Vidal to the Prefect of Bouches-du-Rhône. 9 May 1833. AMM 31 O 7; “...*les exhalations fétides qui émanent de ces terres des savonnrières et qui peuvent compromettre la salubrité des nombreux habitants du domaine des Catalans...*” Letter from Vidal to the Mayor of Marseille, 17 December 1832. AMM 31 O 7.

the respect for property, over the heavy considerations which weigh in favor of the one hundred fishing families who live in the *Catalans* and who rely exclusively on fishing... and, moreover, over the general interest of commerce and navigation...so gravely compromised [by the current situation], and finally over those of Marseille itself.”²⁵⁸ Though he had been “crying in the desert for nine months” (an apparent reference to his many unanswered letters to the mayor), he continued to hold out hope, he wrote, that the city of Marseille would finally recognize that it also had a vested interest in the prohibition of waste on this point.²⁵⁹ “If his voice was not heard,” Vidal wrote, “the destruction of the *Catalans* would be sooner or later inevitable.”²⁶⁰ Vidal ended his note with a desperate plea for the mayor to enforce the regulations of 1820 and suggested that to do otherwise could mean that the city itself would be liable for the damages caused by this waste.²⁶¹

Curiously, in the margins of Vidal’s letter, the Commissioner of the Maritime Authority (*Commissaire, Chef Maritime*) included his own note to the new mayor, Maximin-Dominique Consolat, who had taken office less than a year beforehand. He wrote, “This petition seems to me to be worthy of great consideration by *Monsieur le Maire*...All of the descriptions made by Monsieur Vidal are, unfortunately, only too accurate and the time is near when the anse des *Catalans*, which was formerly so useful to both fishing and shipping, will be entirely filled and

²⁵⁸ “...l’intérêt, le seul intérêt, des fabricants de la ville...de prévaloir sur le respect dû à la propriétaire, sur les avantages immenses que l’anse des *Catalans* prête à la pêche locale, sur la conservation de cents familles de pêcheurs qui peuple le domaine des *Catalans* et que la pêche seule aliment, sur l’intérêt général du commerce et de la navigation si évidemment démontré Mons. Le Commissaire de Marine et si gravement compromis par le fait de la commune de Marseille et finalement sur l’intérêt de cette commune elle-même...” Letter from Vidal to the Prefect of Bouches-du-Rhône, 9 May 1833. AMM 31 O 7.

²⁵⁹ “*Cependant l’exposant crie dans le desert depuis neuf mois...*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁶⁰ “...si sa voix n’est pas étendue, la ruine du domaine des *Catalans* tot ou tard inévitable...” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁶¹ “*L’emploi de cette mesure peut seul aussi dispenser d’examiner plus tard la question de savoir, si la commune de Marseille qui autorise les jets des susdites matières dans l’anse des vieilles infirmeries serait ou ne serait pas responsable des pertes et dommages incalculables qui ne pourraient qu’être occasionnés par ce jet...*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

inaccessible.”²⁶² Alerting the mayor to the Royal Navy’s investigation into the matter, which had taken place six year prior, he wrote, “Today, more than ever, it is my duty to remind *Monsieur le Maire* of this grave situation, which has fallen into neglect despite the enormous concern it causes...”²⁶³ The interests of the fishing and shipping industries, “combined with those of the petitioner, who defends the highly respectable rights of property-owners, will capture, I have no doubt, the full attention of Monsieur Consolat, who cannot be indifferent to such an important question of the public good [*“utilité publique”*].”²⁶⁴ It seems, however, that neither Vidal’s threat of litigation nor the endorsement of the Maritime Commissioner inspired a great sense of urgency for the new mayor.

Rebuffed by Consolat, Vidal decided to write to the prefect directly, repeating his complaints and expressing intense frustration at the apparent apathy of local officials. “It seems,” he wrote, “that all the measures that could be taken to avoid these calamities, which may soon be without remedy, escape both the foresight and the wisdom of the communal administration.”²⁶⁵ In 1833, the mayor and the city council finally formed a committee to investigate Vidal’s claims, agreeing to visit the site for themselves in order to examine whether the conditions described were accurate and if the demands made by Monsieur Vidal were, in fact, “well-founded.”²⁶⁶

²⁶² “*Cette pétition me paraît de nature à être prise en grande considération par Monsieur le Maire dont la vive sollicitude s’étend à tous les intérêts. Tous les faits énoncés par M. Vidal ne sont malheureusement que trop vraies et l’époque est prochaine où l’anse des Catalans qui était jadis si utile à la pêche et à la navigation sera entièrement comblée et inabordable.*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁶³ “*Aujourd’hui plus que jamais il est encore de mon devoir de signaler à Monsieur le Maire cette grave question qui est tombée dans l’oubli malgré le haut intérêt qu’elle doit exciter.*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁶⁴ “*Ces deux grands intérêts réunis à ceux du pétitionnaire, qui défend sur droits de propriétés bien respectables, fixeront, je n’en doute pas, toute l’attention de Monsieur Consolat qui ne peut-être indifférent à une si haute question d’utilité publique.*” Letter from Vidal to the Mayor of Marseille, 21 July 1832. AMM 31 O 7.

²⁶⁵ “*Mais il semble que toutes mesures propres à détourner des calamités qui seront peut-être bientôt sans remède échappent à la prévoyance comme à la sagacité de l’administration communale...*” Letter from Vidal to the Prefect of Bouches-du-Rhône. 9 May 1833. AMM 31 O 7.

²⁶⁶ “*La Commission réunie pour l’examen de la réclamation de Monsr. Vidal, pour le jet des matières...est d’avis 1. Qu’elle se transportera sur les lieux au premier temps favorable pour examiner si les réclamations de Monsr. Vidal*

After nearly six months, the committee concluded that Vidal's descriptions were accurate and, worse, that the city could indeed be exposed to litigation for damages to Monsieur Vidal. For those reasons, and for that of the public good [*"utilité publique"*], the commissioners wrote, waste disposal in the anse des Catalans should be stopped "with the briefest possible delay."²⁶⁷

It would be a full year before the mayor finally announced that the disposal of soap waste would be henceforth be prohibited in the anse des Catalans and the Pointe du Pharo.²⁶⁸ Soap factories in the Old Town, according to this new law, would continue dumping their waste in the anse de l'Ourse while the vast majority of Marseille's soap factories on the Rive neuve would be required to leave their waste on a designated location, west of the Rive neuve, for collection and disposal at sea—exactly the plan that the prefect had proposed nearly a decade beforehand. The change, which had been written by the prefect and endorsed by the Chief Engineer of the *Ponts et Chaussées* for Bouches-du-Rhône, the Chief Commissioner of the Navy, the municipal council, and even the Chamber of Commerce (presumably because it was now universally acknowledged that disposal at sea would, in fact, reduce the cost of waste disposal), was justified entirely in terms of the necessity of preventing sediment build-up in the port. There was no mention of the health problems posed by waste disposal sites along the city's populous northwestern coast, nor of concerns for the protection of private property, and no adoption of Vidal's rhetoric of the 'common good.'

Reshaping the City: Recycled Soap Waste and the Construction of La Joliette

sont fondées, si les inconvéniens signalés par Mer. Garelles [?] et Blechamps sont exactes." 17 January 1833. AMM 31 O 7.

²⁶⁷ "La commission est d'avis que la ville peut-être exposée à un procès endommages intérêts de la part de Mr. Vidal et que sous ce rapport comme sous celui d'une [illegible] cette utilité publique il y a lieu de faire cesser sous le plus bref délai l'état de choses dont se plaint le réclamant." May or June 1833. AMM 31 O 7.

²⁶⁸ Arrêté du Maire de la Ville de Marseille. 12 April 1834. AMM 31 O 7.

The situation once again stabilized through the 1830s and early 1840s with waste disposal banned in the *plage des Catalans* and concentrated ever-more heavily along the coast of the Old Town and in the open ocean beyond the city's immediate coastline. This solution effectively eliminated the worst of the sedimentation problems in the port, but exacerbated public health problems, particularly when the *anse de la Joliette* became the designated site of garbage and human waste disposal as well. In 1839, forty-three residents from the Joliette neighborhood signed a petition to several members of the Chamber of Deputies demanding that all waste disposal be stopped in the cove.²⁶⁹ Their demands had already been rejected by the Mayor and by the City Council, as well as the Minister of the Interior and the Minister of Justice, who told them that it was an issue to be dealt with at the local level. In response, they received a letter saying that because the practice of waste disposal in the cove was inconvenient, but not illegal, there was nothing the Deputies could do to help them.²⁷⁰ Despite this disappointment, one of the signatories would continue to write to the mayor for a decade between 1836 and 1846, decrying the damage that had been done to his property. A note in the margins of one these letters suggests that the dismissive attitude of the mayor's office remained quite unchanged even as personnel turned over. "The municipal administration cannot constantly deal with the same demands," the note reads. "It has made the petitioner aware of the reasons that prevent it from successfully resolving this issue. It can only refer them to previous decisions."²⁷¹

²⁶⁹ Letter from F. G. Ciant to the Mayor of Marseille and to the City Council, 20 December 1846. AMM 31 O 7.

²⁷⁰ In fact, the petitioner seems to have forwarded his complaint to the Minister of the Interior, the Minister of Justice, to the Duc d'Orléans, and to the Chamber of Deputies. "*Si la délibération du Conseil, et l'arrêté de prefecture étaient ataqués [sic] au point de vue de la légalité, la chambre pourrait recommander l'affaire au ministre, mais il s'agit uniquement de convenance qu'elle ne peut apprécier.*" Quoted in Letter from F. G. Ciant to the Mayor of Marseille and to the City Council, 20 December 1846. AMM 31 O 7.

²⁷¹ "*L'ad-ion ne peut pas s'occuper constamment des mêmes demandes. Elle a fait connaître au pétitionnaire les motifs qui l'empêchaient de donner suite à sa demande. Elle ne peut que s'en référerait précédents décisions.*" Letter from F. G. Ciant to the Mayor of Marseille and to the City Council, 20 December 1846. AMM 31 O 7.

But, by the mid 1840s, as the city continued to expand, a new dynamic began to emerge. If the anse de l’Ourse and l’anse de la Joliette had previously been expendable in the eyes of city leaders, if not the residents who lived there, the coastline in the northwestern part of the city was about to become significantly more valuable. Plagued for years by concerns that the port was too small and shallow to accommodate steamships, city leaders had finally agreed to construct a new, modern port complex and, significantly, they had named l’anse de l’Ourse and l’anse de la Joliette as the location of those new facilities.²⁷² The project, which called for the construction of large basins and warehouses modeled on the new docks in London, was constrained, however, by the limited space left available along the coast. Attempting to squeeze the new port complex between the sea and the neighborhoods of the Old Town, it was determined that the best course forward would be to ‘reclaim land from the sea,’ filling the coves with the cheapest possible landfill in order to create new space for the complex.²⁷³ Determined to transform their pollution problem into a cost-saving measure, city leaders turned to soap.

Despite its well-documented harmful effects, between 1844 and 1853, the city recycled virtually all of the soap waste it produced each year re-shaping the coast along the northwestern corner of the city.²⁷⁴ Indeed, the project continued after both the mayor and the prefect had been

²⁷² There had been several years of debate about whether the new complex should be built at the Catalans or at the Joliette and the Joliette was ultimately because of its proximity to the existing port infrastructure and the proposed railway line as well as for its ability to help ‘revitalize’ the districts of the Old Town. This would have significant repercussions, according to Marcel Roncayolo, for the future division of the city into industrial and port sectors in the northern half of the city with residential areas concentrated to the east and south of the port. Marcel Roncayolo, “Port et Ville,” in *L’imaginaire de Marseille: Port, ville, pôle* (Lyon: ENS Éditions, 2014), 105–206. <http://books.openedition.org/enseditions/384>. See also William H. Sewell, *Structure and Mobility*, 35–38.

²⁷³ “...les terrains conquis sur la mer...” Letter from the Prefect to the Mayor, 19 December 1854. AMM 31 O 7. For more on the construction of the new port complex, see Marcel Roncayolo, “Port et Ville,” in *L’imaginaire de Marseille*, 105–206.

²⁷⁴ “...Les fabriques de savon à elles seules produisent chaque année plus de 150,000 mètres cubes de résidus dans un espace de temps assez court, avec une telle puissance de production, elles ont comblé les deux anses de l’Ourse et de la Joliette...” Letter from the Prefect to the Mayor, 19 December 1854. AMM 31 O 7. Daniel Faget has written that virtually all of this 150,000 cubic of meters of annual waste was used as landfill. Daniel Faget, “Une cité sous les cendres.” For more on the discourse surrounding the ‘recycling’ of industrial soap waste, see Sabine Barles, *L’invention des déchets urbains. France: 1790-1970* (Paris: Champs Vallon, 2005), 70–71, 117–123.

warned that the material was not a reliable material for construction. One engineer wrote explicitly that “Soap waste is not an appropriate landfill material for building foundations...one fears that the walls of the constructions that rest on this material will suffer as a result of salts and acids it contains and any gardening will become impossible near the site.”²⁷⁵ One doctor who worked in the neighborhoods near the construction site reported that he witnessed five cases of asphyxiation as a result of fumes which wafted off the waste, adding that residents could no longer store food or metal valuables in their cellars because they were corrupted by fumes and liquid that had seeped into the ground.²⁷⁶ The Marseillais engineer and journalist Louis Simonin condemned the shoddy building practices, calling the site “the saddest construction imaginable.”²⁷⁷

The danger was even more acute for the workers on the construction site itself, particularly because hydrogen sulfide tended to settle and accumulate in low-lying areas—such as pits that were then being excavated for the new quays. When multiple workers died after being exposed to gas that escaped from the soap waste, the committee that had been sent to investigate the incident briefly noted, “Sad events occurred in the open trenches of the site at la Joliette...the cases of asphyxiation which occurred in the trenches were, above all, the result of hydrogen sulfide, this site being formed by soap waste which reaches 8 meters deep at certain points.”²⁷⁸ “It was, therefore, a matter of taking precautions,” they wrote, “that enabled the

²⁷⁵ “...les terres de savonnerie ne donnent pas un remblai convenable pour des fondations d’édifice, qu’il est à craindre que les murs des constructions qui reposeront au dessus n’aient à souffrir de l’action des sels et des acides que contiennent ces matières est que toute établissement de jardin y devient impossible...” Report from the Director of the *Ponts et Chaussées*, addressed to the Mayor, 20 October 1856. AMM 31 O 7.

²⁷⁶ “En 1857...j’ai pu observer à l’Hotel-dieu cinq cas d’asphyxie...les basses offices de ces maisons nouvelles sont encore infectées par ces émanations sulfhydriques, au point que la viande et les dorures ne peuvent y être conservées.” *Sélim-Ernest Maurin, Esquisse de Marseille*, 21.

²⁷⁷ “...la construction...la plus triste qu’on puisse voir.” Quoted in Pierre Guiral, *Histoire de Marseille*, 264.

²⁷⁸ “Des événements malheureux survenus sur les tranchées ouvertes dans les terrains de la Joliette...les cas d’asphyxie dont ces tranchées avaient été le théâtre, dépendaient surtout du gaz acide sulfhydrique, ces terrains étant formés de résidus de savonneries qui atteignent jusqu’à 8 mètres de profondeur dans certains points.” Chaudoin,

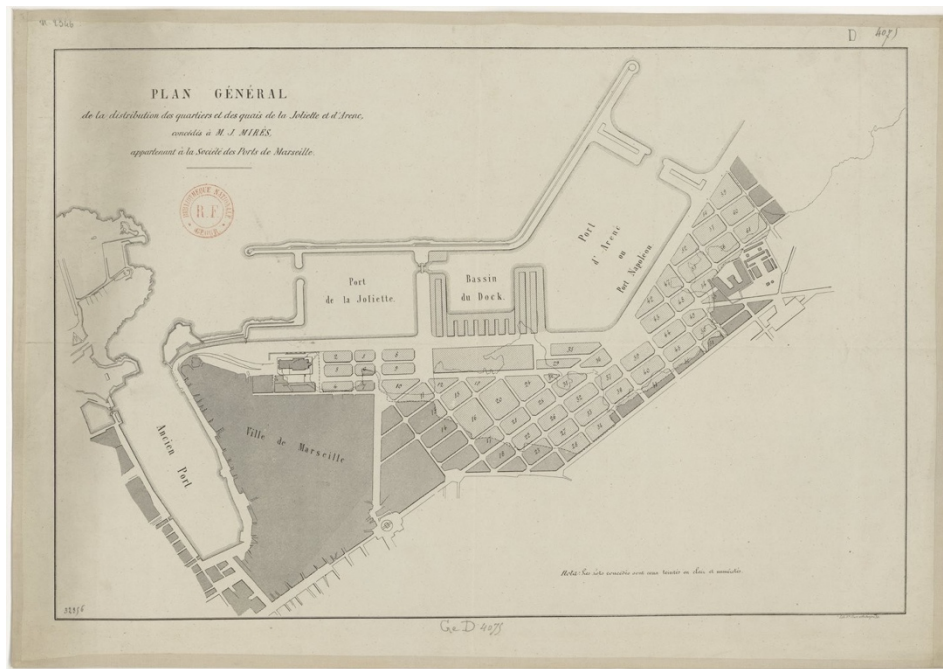
workers to recognize the presence of this gas before they descended into the trenches.”²⁷⁹ They vaguely recommended installing some sort of ventilation system.²⁸⁰ The prefect, meanwhile, pushed to continue using the waste at the construction site despite such accidents, writing that it seemed “appropriate to defer any measure that aimed to throw material in the sea, which might be more usefully employed to fill in” the coves.”²⁸¹

Rapport général des travaux des conseils d'hygiène et de salubrité du département, du 1er août 1855 au 31 août 1859 (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1860), 107. AD BDR Delta 6550.

²⁷⁹ *Il s'agissait, en conséquence, d'avoir recours à des précautions qui missent les ouvriers à même de reconnaître la présence de ce gaz, avant de descendre dans ces tranchées...* Chaudoin, *Rapport Général des Travaux des Conseils d'Hygiène et de Salubrité du 1er août 1855 au 31 août 1859* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1860), 17-18. AD BDR Delta 6550.

²⁸⁰ “...une fois sa présence constatée de l'en faire sortir ou de la neutraliser sur place, et d'y substituer de l'air pur par une ventilation continue et efficace.” Ibid.

²⁸¹ “...il m'a paru qu'il convenait de surseoir à toutes dispositions qui tendrait à rejeter en mer des matières, de nature à être plus utilement employées pour le comblement de l'anse d'Arenc.” Letter from the Prefect of Bouches-du-Rhône to the Mayor of Marseille, 11 April 1855. AMM 31 O 7.



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 15: (above) Map of projected construction project at the Joliette, highlighted to show the area that would be reclaimed with landfill. (below) Map of the newly straightened coastline after the *anses de l’Ourse* and *de la Joliette* had been filled in.²⁸²

²⁸² (above): Map edited by author. Section taken from “Marseille. Lith: Bellue,” 1:11,000, 1846. Bibliothèque nationale de France, département Cartes et plans, GE DL 1846-14-2. 26 January 2015. Accessed 14 August 2020. <https://gallica.bnf.fr/ark:/12148/btv1b530878701/f1.item.r=marseille%201846>. (below): “Marseille. Plan général de la distribution des quartiers et des quais de la Joliette et d’Arenc, concédés à M. Mirès, appartenant à la Société des ports de Marseille,” Scale not given, 1860. Bibliothèque nationale de France, GED-4075. 25 July 2011. Accessed 14 August 2020. <https://gallica.bnf.fr/ark:/12148/btv1b84431755.r=marseille%20joliette?rk=107296;4>.



Figure 16: The newly-constructed *bassin de la Joliette*, built on reclaimed land created with soap factory waste.²⁸³

Conclusion: A Foundation for Future Protest

In the 1820s, municipal leaders in Marseille had begun experimenting with the first series of reforms designed to reign in the burgeoning soap waste problem. Largely ineffective, these reforms would continue over the next twenty years as local officials changed the legally-designated locations for waste disposal to different points up and down the coast when previous locations became saturated. Though the waste was well-known to have lethal effects, it is clear from both their writings and their decision to confine waste disposal to the northwest coast of the Old Town that decision-makers in the municipal administration were primarily motivated by economic concerns rather than anxiety over public health. When reforms were enacted, they were nearly always justified in terms of protecting shipping interests rather than the livelihoods

²⁸³ “Marseille – Vue Générale des bassins de la Joliette,” 1904–1960, AD BDR 6 Fi 552.

of residents and workers who came into contact with soap waste—and almost always with conciliatory gestures to ease the regulatory burden placed the soap manufacturers who were considered central to Marseille’s economy. Nowhere were the economic priorities of local government more clear than in the construction of La Joliette port complex in which soap waste was used to literally re-shape the contours of the city and serve as the foundation—toxic and unstable though it was—for the future development of the city’s industrial infrastructure.

The unfortunate reality was that there was no ‘good’ place for soap waste to go—none that resolved all the logistical and health challenges that it posed while remaining sufficiently inexpensive to appease soap manufacturers.²⁸⁴ As a result, when the construction projects along the city’s northwestern coast gradually came to an end and the demand for ‘recycled’ soap waste dried up, city leaders once again turned to the solution of leaving the waste at sea, a decision which made the majority of soap waste invisible to urban residents, but continued to actively degrade the coastal ecosystem into the late nineteenth century.²⁸⁵

If the beaches and coves along the city’s shoreline saw the most extreme repercussions from this industrial pollution, however, the urban center was far from unscathed. As the city expanded and factories continued to proliferate, they brought health problems to new neighborhoods. Indeed, the problems associated with soap factory waste were reaching crisis proportions just as the city was being faced with a seemingly relentless succession of shocks to

²⁸⁴ The City Council acknowledged this explicitly, writing in 1833, “*Le rivage de la mer, en partant de l’anse des Catalans et tirant vers le sud, n’offrent aucun local favorable pour y déposer les résidus dont il s’agit, et s’il s’en trouvait, leur éloignement donnerait lieu à de trop grands frais de transport.*” Délibérations du Conseil municipal, 29 October 1833, 515. AMM 1 D 58.

²⁸⁵ In 1883, for example, the oceanographer Antoine-Fortuné Marion described the apparently permanent damage which had been done to the ecosystem along La Joliette, writing that “the soap waste formed a relatively hard crust” on the ocean floor, “underneath which one found a greenish silt which gave off an odor of hydrogen sulfide. It was these polysulfides which have accumulated and more or less destroyed everything.” “*Les terres de savonneries forment par place, une croûte assez dure...et au-dessous se trouve un limon verdâtre dégageant une odeur sulfhydrique. Ce sont ces polysulfures qui se sont accumulés et qui ont à peu près tout détruit.*” Antoine-Fortuné Marion, *Esquisse d'une Topographie zoologique du golfe de Marseille* (Marseille : Cayer et cie., 1883), 39.

the public health apparatus, including the reorganization of the waste collection system, the disbanding of the port's quarantine system, a string of droughts and floods, exacerbated by the contamination of city wells by soap factory waste, and, finally, a series of cholera epidemics in the 1830s and 1840s.²⁸⁶

Throughout this tumultuous period, residents made their opinions on urban waste very clear—writing prolifically, as individuals or together with neighbors, in order to describe the state of their neighborhoods for local officials and to demand greater action on the part of the municipal government. These letters emphasized the damage that had been done to other key industries in Marseille's economy, to public health, to property, and to public confidence in the capabilities of local government, and while the most prolific and assertive petitioners were disgruntled property-owners, they were not the only residents making claims. The petitions that arrived in the mayor's office came from a wide swath of the social spectrum, written by residents who made moral arguments in addition to practical demands, including the notion, explicitly phrased, that they had a moral right to live in a healthy urban environment—as taxpayers, but also simply as residents of the city.²⁸⁷ Writing to the mayor to describe the factory and tannery waste that had accumulated in their neighborhood, for example, one group of petitioners noted

²⁸⁶ The wells around Rue Sainte, which contained a large number of soap factories, were known to be completely unusable, for example. For more on the reorganization of the waste collection system, see Pierre Vidal-Naquet, *Les Ruisseaux, le Canal, et la Mer*, 128. For more on the first cholera epidemics and the disbanding of the quarantine system, see R. Barbieri and M. Drancourt, "Two thousand years of epidemics," S4–S9. For more on the confluence of flooding and cholera, see Pierre Vidal-Naquet, *Les Ruisseaux, le Canal, et la Mer*, 75. For more on the contamination of city wells, see Robert Neveu, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches-du-Rhône pour les années 1826-1827* (Marseille: Imprimeur de la préfecture de la ville, 1828). AD BDR Phi 527 1; Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 166–167, 169. AD BDR Delta 6548. Also available at AD BDR Phi 527 4; Chaudoin, *Rapport général des travaux des conseils d'hygiène et de salubrité du département, du 1er août 1855 au 31 août 1859*, 107. AD BDR Delta 6550.

²⁸⁷ Geneviève Massard-Guilbaud has similarly found that complaints against factories and industrial pollution were made by all social classes, not always along predictable lines, either in their own hand or with the help of a notary. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 83–91.

that their streets were not being serviced each day by waste collectors. “If, as they say, the sun shines for everyone, everyone should also breathe the same air, since everyone has an equal right to it,” they wrote.²⁸⁸ “We pay for healthy air, why are we among the very few not to enjoy it?”²⁸⁹

These statements fit very neatly with the concept of environmental justice that Harold Platt has observed in the nineteenth-century Anglo-American world. If the term ‘environmental justice’ did not exist, Platt has argued, it was certainly a concept that held meaning and was regularly invoked throughout the period. The idea that there should be “social equity or fairness in the geographic distribution of both the city’s positive amenities and its negative burdens of pollution and disease” clearly existed for these residents, as did the notion that there were “minimum standards of human decency, which included elements of basic survival such as housing, fuel, clothing, nutrition, and sanitation”—in short, issues of “basic human rights.”²⁹⁰ And yet there was a sense, even at the time, that these rights were being violated. As the Provençal poet Pierre Mazière would write, “For a long time, either because legislators did not wish to exercise their full power, or because they did not wish to harm this national industry by contradicting the interests of those involved, the complaints, which came from all sides, were not taken into consideration, and for a time, all other industries were sacrificed to the freewill of the soap manufacturers.”²⁹¹

²⁸⁸ “...si la lumière, disent-ils, luit pour tout le monde, tout le monde aussi devrait respirer le même air, puisque chacun y a droit égal.” Letter from the Propriétaires du quartier de la Calandre to the Mayor of Marseille. AMM 31 O 2.

²⁸⁹ “...nous payons pour respirer le bon air, pourquoi sommes nous à peu près les seuls à ne point en jouir.” Letter from the Propriétaires du quartier de la Calandre to the Mayor of Marseille. AMM 31 O 2.

²⁹⁰ Harold L. Platt, *Shock Cities*, 18–19.

²⁹¹ “Longtemps, soit que la législation ne voulut point étendre tous ses pouvoirs, soit pour ne pas blesser cette industrie nationale en contrevenant aux intéressés, on ne prit point en considération les plaintes qui partaient de tous côtés, et les autres industries furent un moment sacrifiées au libre arbitre des fabricants de savon.” Pierre Mazière, *L’industrie de la savonnerie à Marseille: étude locale* (Marseille: Typographie Olive, 1876), 33.

According to Geneviève Massard-Guilbaud, the letters and petitions addressed to municipal officials form a body of written records that are all the more noteworthy when one considers that many of the residents would not have been literate and likely would not have spoken fluent French.²⁹² It was quite common, in fact, for residents in Marseille to function on a daily basis in one of the dialects of Provençal that were then spoken in the city.²⁹³ It seems that urban residents, far from disinterested or complacent in the face of industrial pollution, as some have suggested, were in fact making an enormous effort to document and to protest the effects of industrial pollution in their lives, even when it meant expressing themselves forcefully and emotionally in a language that was not their own.²⁹⁴

As this chapter has demonstrated, however, resident complaints were very rarely successful in forcing soap manufacturers to adjust their operational activities—or, as we shall see in later chapters, in forcing a factory to shut down altogether. As a general rule, “only truly massive protests uniting several hundred or thousand petitioners could hope to influence the prefect,” Massard-Guilbaud has argued.²⁹⁵ “In this case, it was no longer simply an industrial

²⁹² Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 89–93.

²⁹³ These dialects were still commonly-spoken and understood, but they were already starting to die out. In 1840, the Provençal poet Victor Gelu expressed his anxiety that the dialects of Marseille were being lost, writing, “The Provençal dialect is dying. The way the century is going, remorselessly sweeping away older mores, usages, character, customs, and language, giving everything and everyone the same uniform and pale hue, in thirty years time this language will be as difficult to understand as the language of hieroglyphics for ninety-nine percent of the population of Marseille.” “*L’idiome provençal se meurt. Au train dont va le siècle, faisant rafle impitoyable des mœurs, des usages, du caractère, des costumes, du langage anciens, et donnant à tout et à tous une teinte régulièrement uniforme et pâle, avant trente ans, cette langue sera aussi difficile à expliquer que la langue des hiéroglyphes pour les quatre-vingt-dix-neuf centièmes de notre population marseillaise.*” Victor Gelu, *Chansons Provençals et Françaises* (Marseille: Imprimerie de Senés, 1840), 5–6.

²⁹⁴ Daniel Faget has noted that there is a remarkable silence in archival sources produced by residents of the city concerning the existence of soap factory waste in Marseille. There is very little record of the waste in the archives of the *la prud’homie des patrons pêcheurs*, for example. This is a result, he argues, of hostility on the part of local fishing communities who saw the waste as a convenient way to rid the city of competition from the Catalan fishermen. He also attributes this silence to the marginality of the most affected locations and to prevalent beliefs about the capacity of ocean environments to absorb harmful materials. Daniel Faget, “Une cité sous les cendres.”

²⁹⁵ “*Seules les protestations réellement massive réunissant plusieurs centaines ou milliers d’opposants pouvaient espérer influencer le préfet.*” Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 307.

problem or a problem of public health that they had to resolve, but a problem of public order which could result in certain concessions—concessions that were political rather than technological or scientific.”²⁹⁶

And yet, these complaints were absolutely essential in the development of early French industrial regulation because, with the rare exception of massive industrial accidents, which sometimes inspired new regulations, resident protest was the *only* mechanisms by which industries could be referred to the prefect for inclusion on the list of ‘classed industries.’²⁹⁷ Without a comprehensive system that allowed for the proactive inspection and regulation of industry—a system that would not begin to fully emerge until national industrial regulation was first overhauled in 1917—the limited regulation that did exist could only be initiated by resident protest.²⁹⁸

In the next chapter, we will examine this process by which factories and waste sites could be added to the list of regulated industries by looking closely at one specific case of such protest in which a group of residents joined together to make a collective complaint against industrial soap waste in their neighborhood. By the early 1850s when this case took place, however, a new institution was beginning to take a more active role in Marseille’s municipal administration and changing the dynamics of resident protest. *Le Conseil de Salubrité*, or local health council, was

²⁹⁶ “*Dans ce cas, ce n’était plus seulement un problème industriel ou de santé publique qu’il devait régler mais un problème d’ordre public qui pouvait appeler certaines concessions, plus politique que techniques ou scientifiques.*” Ibid.

²⁹⁷ According to Sacha Tomic, in many cases, “it was only by the perseverance of certain residents to demand not only damages but the right to safety that legislation evolved...” [“*Ce n’est que par la persévérance de certains riverains à réclamer non pas des indemnités mais le droit à la sécurité que la législation évolue...*”] Ibid, 277; Sacha Tomic, “La gestion du risque chimique en milieu urbain : Les conséquences de l’explosion du magasin Fontaine à Paris en 1869,” in *Risques industriels : Savoirs, régulations, politiques d’assistance, fin xvii^e-début xx^e siècle*, ed. Thomas Le Roux (Rennes : Presses universitaires de Rennes, 2016), <http://books.openedition.org.proxy.uchicago.edu/pur/47426>.

²⁹⁸ Geneviève Massard-Guilbaud, “La régulation des nuisances industrielles urbaines (1800-1940),” *Vingtième Siècle, revue d’histoire* 64 (1999): 53–65.

founded in Marseille in 1825 as an institution specifically designed to encourage and manage the proliferation of industry in the city. If the Council had established an early reputation as a pro-industrialist organization, however, the string of health crises that had shaken the city, combined with a series of key personnel changes, meant that by the early 1850s, residents were about to find a new and unlikely ally in their struggle against industrial soap pollution.

Chapter 3.

The Soap Waste Debates: The Case of Saint-Lambert and the Battle over Urban Soap Pollution on Marseille's *Conseil d'hygiène et de salubrité*

By the late 1840s, Marseille's coastline had been permanently reshaped by industrial soap waste, hundreds of thousands of tons of waste having been dumped along the inlets that marked the city's coast over the course of the previous century. In the final years of the July Monarchy, however, municipal officials arranged for soap waste to be reappropriated and 'recycled,' dumped strategically along Marseille's northwestern coast as cheap landfill to form the foundation of a new, modern port complex at La Joliette. The new port, deeper and wider than the ancient harbor which sat at the city's core, was built to accommodate the needs of large steam ships and, in doing so, to ensure that Marseille would be the premier French port and a dominant hub of Mediterranean commerce for the rest of the nineteenth century.²⁹⁹ If the project was designed to showcase the glory of French engineering and the breadth of its growing commercial empire, however, it also gave rise to a number of detractors who had observed the urban landscape transform before their eyes. Among the most vocal of those critics was the famed Marseillais poet, Victor Gelu.

Gelu, who had made his early career singing in the dockside bars and cafés Marseille's Old Town, emphasized industrial pollution as a central part of the social critique that inspired and informed his poetry. The first printed collection of his songs was censored in 1840 for including insulting references to the prefect and to the mayor in a song called "*L'Agazo*"

²⁹⁹ Marcel Roncayolo, "L'imaginaire conquérant," in *L'imaginaire de Marseille: Port, ville, pôle* (Lyon: ENS Éditions, 2014), 44–158. <https://books.openedition.org/enseditions/370>; William H. Sewell, Jr. *Structure and Mobility*, 15, 35–38, 40.

[provençal for *le gaz*, or gas] in which he decried the pollution that had been brought to the city since the introduction of gas lighting, pollution which he felt was disproportionately affecting the city's working class.³⁰⁰ The song was deeply sympathetic to the plight of fishermen in particular, whose living had been ruined by coastal pollution, and included a refrain in which Gelu angrily led crowds in a chorus of "*Putan d'Agazo!*" [*Putain de gaz!* Fucking gas!]. In keeping with his acerbic reputation, it seems Gelu was pleased to have upset local authorities with the song. "My cuss words resonated joyously in those aristocratic rooms," he wrote.³⁰¹ But the reality of life in the midst of industrial pollution was no laughing matter for Gelu. He was devastated by the changes that had been wrought to the city's coastline. "Oh Marseille of my youth, where are you?" he wrote in his memoir. "Where are the sandy beaches on which I came to frolic under the heat of the sun? Where are the coves, those pools of calm water in which...we came to play for whole days, like a band of merry newts, with a crowd of my little comrades? The beaches, pools and coves are now sunk more than a kilometer beneath the earth that we have used to fill them! On the artificial crust of the embankment which covers them, I see colossal factories, vast warehouses, railroad stations.... but I search in vain for traces of the beloved scenes of my youth!"³⁰²

³⁰⁰ Victor Gelu, *Marseille au XIXe siècle* (Paris: Plon, 1971), 249. See the full song in both the original provençal and translated into French in Victor Gelu and Frédéric Mistral, *Oeuvres complètes de Victor Gelu* (Raphèle-les-Arles: Marcel Petit, 1986), 36–39.

³⁰¹ "*Mes gros mots résonnèrent joyeusement sous ces lambris aristocratiques...*" Victor Gelu, *Marseille au XIXe siècle*, 249.

³⁰² "*O Marseille de mon jeune âge, où es-tu? ...Où sont ces plages sur le sable desquelles je venais cabrioler sous le soleil de la canicule? Où sont ces anses, ces bassins aux eaux tranquilles, dans lesquelles... nous venions nous ébattre des journées entières comme une bande de joyeux tritons, avec la foule de mes petits camarades? Plages, bassins et anses sont à présent enfoncés à plus d'un kilomètre dans l'intérieur des terres dont on les a comblés! Sur la croûte artificielle des chaussées qui les recouvrent, je vois des usines colossales, des entrepôts incommensurables, des gares de voies ferrées...mais j'y cherche en vain la trace des lieux aimés de mon enfance!*" Victor Gelu, *Marseille au XIXe siècle*, 337.

Critiques like those of Gelu made little difference to local policymakers, however. Indeed, the general strategy in Marseille for managing urban industrial waste remained much the same throughout the nineteenth century despite pointed protests, even as collection methods improved and as the regulation of industrial activity became more rigorous. The easiest way to evacuate dangerous or undesirable materials from urban settlement was still to dispose of it in the sea as quickly as possible—a policy of ‘*tout-à-la-mer*.’³⁰³ This practice was driven by the notion, widely believed, though clearly disputed by figures like Gelu, that the ocean had a limitless ability to absorb and neutralize harmful materials and, in some cases, to even act as a purifying agent for waste that had begun to putrefy.³⁰⁴ As a result of such beliefs, and as the previous chapter has shown, industrial soap waste was legally required to be deposited in certain designated sites on the city’s western coast, though the exact locations fluctuated over time as municipal officials responded to evolving pressures from commercial, industrial, and residential interests. The use of soap waste as landfill for the new port was therefore merely the extension of longstanding practices in which industrial waste was left along the coastline—an effort to finally turn a profit on material that was otherwise ‘wasted’ by being haphazardly dropped along the shore.³⁰⁵

³⁰³ Daniel Faget uses this phrase to refer to specifically to the pollution management system that became standard during the late Second Empire in which soap waste was disposed of in the open ocean, but it could also be applied to earlier strategies that revolved around disposing of waste in coastal waters. Daniel Faget, “Une cité sous les cendres.”

³⁰⁴ Faget has pointed to a court case from 1770, for example, in which fishermen were accused of trying to restore seafood that had begun to go bad by rinsing it in ocean water. See AMM FF 379. Daniel Faget, “Une cité sous les cendres.”

³⁰⁵ Another part of an ongoing effort to find a profitable use for these “mountains of waste” which were otherwise “unproductive” was to see if they could be diluted and used in the manufacturing of fertilizer. “*Nous avons au sud et au nord de Marseille, des montagnes de ces résidus qui sont improductifs; il serait très intéressant que des expériences fussent faites pour reconnaître le parti qu’on pourrait en tirer au profit de l’agriculture...*” V. Leroy, “Agriculture des engrais,” *Gazette du Midi*, 26 November 1854, <https://www.retronews.fr/journal/gazette-du-midi/26-novembre-1854/1123/4143731/2>.

Despite the dramatic mutation of the coastline, however, it is clear that the problems associated with industrial soap waste were not limited to coastal areas, but were spread throughout urban space. The diffusion of this pollution was the result of three overlapping problems. First, as discussed in the previous chapter, soap manufacturers regularly ignored restrictions on where soap waste should be left and allowed it to accumulate inside the city and along the paths that led from the city center to the coast. Secondly, soap waste was not always adequately contained within soap factories themselves. Liquid waste, in particular, was known to leak from containers and seep into the groundwater near storage areas with devastating effects for local supplies of fresh water that continued even years after the responsible factory had been closed.

In 1826, for example, the newly-instituted *Conseil de salubrité*, the health council for the department of Bouches-du-Rhône (called the *Conseil d'hygiène et de salubrité* after 1848), reported that a soap factory on Rue Désirée had contaminated the well on that street and, as a result, the well had been abandoned for many years. Four years after the soap factory had been demolished, however, residents tried again to open the well, but when they did so, “the worker who descended into the well was immediately asphyxiated and could not be brought back to life.”³⁰⁶ Upon investigation, it was discovered that fumes of hydrogen sulfide still emanated from the well and that the water contained large quantities of alkaline material.³⁰⁷ The wells around Rue Sainte, a street almost entirely occupied by soap factories, were also widely known to be unusable for residential purposes.³⁰⁸ Even when this waste was properly sealed within factory

³⁰⁶ “L’ouvrier qui descendit dans ce puits fut subitement asphyxié, et l’on ne put le rappeler à la vie.” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 34. AD BDR Phi 527 1.

³⁰⁷ Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 34–35. AD BDR Phi 527 1.

³⁰⁸ See Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches-du-Rhône pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828). AD BDR Phi 527 1; Chaudoin,

premises and delivered to the coast as required, it regularly fell from the delivery carts as they made their way through the city, scattering material through neighborhoods in which there were no soap factories. As the mayor Jean-Baptiste de Montgrand wrote in 1823, this unfortunate reality meant that the inconveniences of living near soap factories were “spread around and shared by the entire city.”³⁰⁹

In addition to these logistical challenges, however, there was a third problem created by a series of legal loopholes in municipal regulations, which managed soap pollution that was dropped in public spaces, but still allowed it to be legally stored on private property.³¹⁰ This was becoming a more significant concern as the material was increasingly being used as landfill for construction projects inside the city, particularly as urban settlement expanded southward into the valley of Saint-Lambert between the 1840s and 1860s.³¹¹ Much like the developers who used soap waste to fill in the coves for the new port complex, individuals who sought to buy and build

Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853 (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 166–167, 169. AD BDR Delta 6548. Also available at AD BDR Phi 527 4; Chaudoin, *Rapport général des travaux des conseils d'hygiène et de salubrité du département, du 1er août 1855 au 31 août 1859* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1860), 107. AD BDR Delta 6550.

³⁰⁹ “... les charrettes chargées de ces matières parsèmeraient inévitablement dans tout leur trajet une partie de ce substance dont l'expérience a démontré les propriétés incommodes et insalubres par le phénomène de la fermentation à laquelle elles sont sujettés. Non seulement ce seront une cause de malpropreté ajouté à celles dont la ville n'a déjà que trop à souffre, mais l'odeur des fabriques et les inconvénients de leurs voisinage seront en quelque sorte étendus et rendus communs à toute la ville et l'on aurait même à en appréhendée les effets dangereux [the word dangerous is crossed out]. Draft letter from the Mayor of Marseille to the Prefect of Bouches-du-Rhône, 13 October 1823. AMM 31 O 7.

³¹⁰ Arrêté du Maire, 17 November 1820. AMM 31 O 7; Arrêté du Maire, 22 January 1821. AMM 31 O 7; Extraits des Registres des Arrêtés de la Préfecture des Bouches-du-Rhône, 15 February 1834. AMM 31 O 7; Rapport des Travaux publics: Résidus des savonneries, AMM 31 O 7; Rapport des Travaux publics: Résidus des savonneries, 13 October 1847; Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 195, 203–206. AD BDR Delta 6548. Also available at AD BDR Phi 527 4

³¹¹ Urban expansion began to pick up steam in the 1830s with early development of the areas south of the *Rive neuve* mostly dedicated bastides, or pleasure homes, outside the city. Between the 1840s and the 1860s, however, the area of Saint-Lambert was populated more rapidly and acquired its lower working-class character when residents of the Old Town were displaced by construction projects, first along the new port complex and later as a result of the demolitions necessary to build a new Haussmann-inspired boulevard, la rue Impériale. See Marcel Roncayolo, “Port et Ville,” in *L'imaginaire de Marseille*, 105–206. See also documents related to the development and leveling of Saint-Lambert in AMM 613 W 398.

property in these new neighborhoods could use soap waste to level the terrain between the hills that dominated that part of the city.

As was the case in the neighborhoods near the *plage des Catalans* and the *anse de la Joliette*, the problems associated with this soap waste came to a head when a number of residents from the valley of Saint-Lambert joined together in the spring of 1852 to make a collective complaint about its negative effects on public health.³¹² Writing to the mayor, they demanded that the use of soap waste as landfill be immediately stopped and prohibited for future projects.³¹³ The mayor forwarded their complaints to the prefect, who in turn asked the *Conseil d'hygiène et de salubrité* to comment on the issue. As was standard practice, the members of the Council delegated the investigation of this issue to a commission of three members—in this case, to a local pharmacist named Marius Roux and two physicians, the Doctors Chaudoin and Bertulus.³¹⁴ The report which came out of their investigation—nearly twenty pages in length—and the deliberations which followed, offer a striking glimpse into the dynamics of municipal efforts to manage urban soap waste during this period.³¹⁵

³¹² For more on this incident, see Sélim-Ernest Maurin, *Esquisse de Marseille*, 17–19.

³¹³ “*Les habitants de cette localité, fatigués par les derniers remblais opérés avec ces matériaux, ont voulu mettre un terme à cet abus en s’en plaignant à l’autorité...une lettre de M. Le Maire de Marseille, en date du 14 mai dernier, adressée à M. le Préfet, informe ce magistrat que de nombreux habitants du quartier St-Lambert lui ont soumis une plainte collective, au sujet d’un dépôt de résidus de savonnerie qu’un particulier fait journellement opérer dans ce quartier. Les plaignants excipent de l’insalubrité de ce dépôt pour en demander l’interdiction.*” Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 194–195. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³¹⁴ Note that investigative committees were generally assigned according to a rotating schedule with the appropriate balance of physicians, pharmacists, or chemists as was determined to be appropriate for the issue at hand. See “Règlement du Conseil de salubrité du département des Bouches-du-Rhône précédé d’une notice sur l’organisation de ce conseil,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 221-230. CCIMP ZC/10570.

³¹⁵ For the full report, “Questions diverses de Prophaxie Publique: Dépôts de Résidus de Savonnerie,” see Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 193–216. AD BDR Delta 6548. Also available at AD BDR Phi 527 4. For the council deliberations related to this report, see AD BDR 5 M 27.

Instead of limiting themselves to the specific construction project at Saint-Lambert, the three commissioners produced a damning denunciation of the unmitigated proliferation of industrial soap waste more broadly, insisting that, by referring the issue to them, the prefect had “implicitly requested an examination of all the questions that surround soap waste.”³¹⁶ They meticulously detailed the medical harm that had been wrought by soap waste and pointed to widespread ecological damage, summarizing current scientific knowledge alongside interviews that they had conducted with residents from the area—noting, even as they delivered their report, that the investigation had become emotional undertaking for them.³¹⁷ The effects of this waste were so devastating for public health, they argued, that it should not only be immediately banned as landfill material, but that the prefect should also initiate formal procedures to have soap waste disposal sites added, as soon as possible, to the ‘first class’ of regulated industries—the highest possible risk classification. Such a categorization would mean that such sites could no longer exist near inhabited areas.³¹⁸

³¹⁶ “*En renvoyant cette lettre au Conseil de salubrité, M. Le Préfet s’est non-seulement conformé au désir exprimé par M. Le Maire, mais il a implicitement soumis à ce Conseil l’examen de toutes les questions qui se rattachent aux résidus de savonnerie.*” Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 195. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³¹⁷ They repeatedly used emotional language to describe their reactions to what they had observed as part of the investigation and in making their recommendations to the full Council. For example, they described themselves as being ‘particularly touched’ [“*notamment touchés*”] by the hardships they observed among workers who were exposed to this waste, that admitted they had taken up the cause of the petitioners “with some passion” [“*a soutenu avec quelque chaleur la cause des opposants*”], and that they deeply regretted the reality that they were bound to report to the Council [“*votre commission ne peut exprimer que des regrets!*”] Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 202, 206, 208. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³¹⁸ Other first-class industries included artificial soda ash manufacturers, factories for the production of sulfuric acid, Prussian blue dye, glue, etc. For a full list see: “Décret impérial du 15 Octobre 1810, n° 6059,” *Bulletin des Lois*, 323, année 1810 (Paris: Imprimerie impériale, 1811), 397–402; “Ordonnance du Roi contenant Règlement sur les Manufactures, Etablissements et Ateliers qui répandent une odeur insalubre ou incommode, n° 668,” *Bulletin des Lois*, 76, année 1815 (Paris: Imprimerie impériale, 1811), 53–59. For more, see the Institut report that formed the basis of the 1810 law: Jean-Antoine Chaptal, Louis-Bernard Guyton de Morveau, Nicolas Deyeux, Antoine-François Fourcroy, Nicolas Vauquelin, “Rapport sur les manufactures de produits chimiques qui peuvent être dangereuses,”

Upon the delivery of their report, however, a pair of fellow Council members—both professors of chemistry at the Collège de Marseille—began to push back on the scientific validity of their conclusions, arguing that the committee members had not sufficiently demonstrated that it was, in fact, soap waste which had caused all the damage detailed in the report, nor that the waste itself produced serious negative health effects. Shocked by this apparent denial of medical fact, the members of the investigative committee sat helplessly as the full Council voted *not* to add soap waste sites to the list of regulated industries. Instead, it recommended simply that the material no longer be allowed on future construction projects.

It is clear, in fact, that very little changed in the municipal administration's management of urban soap pollution after this report, despite the shocking details it contained. Yet this moment of exchange between medical and scientific professionals on the *Conseil d'hygiène et de salubrité* is highly significant: first, as the moment in which certain members of the Council, which had commented many times on the problems associated with soap pollution, first attempted to take real action to address the issue, asserting themselves as an ally of residential interests and of public health rather than industry. This is particularly notable because the valley of Saint-Lambert was an area strongly associated with the lower working class. This was not an example of elite residents lobbying to protect an upper-class neighborhood from industrial encroachment, as was so frequently the case, but a socially marginal community that was attempting to use the public health apparatus available to them in order to demand greater regulation of industrial pollution.³¹⁹

30 octobre 1809, in *Procès-verbaux des séances de l'Académie des sciences, tenues depuis la fondation de l'Institut jusqu'au mois d'août 1835, tome 4* (Hendaye: L'Observatoire d'Abbadia, 1809), 268–273.

³¹⁹ See, for example, the request for a soap factory installation near the Chateau Borély, the owners of which protested against the factory on the grounds that smoke from the factory would damage their extensive art collection. Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er*

Secondly, this exchange reveals the extent to which the formal nomenclature of regulated industries diverged from current medical knowledge, as industries which were roundly condemned by medical authorities continued to remain unregulated.³²⁰ It also points to the clear failure of that system as it related to the regulation of industrial establishments versus that of industrial waste. The operations of soap factories themselves could be regulated because of their inclusion on the list of ‘classed industries,’ but industrial soap waste disposal sites, which were considered much more dangerous by medical authorities, were left off the list altogether. That remained true despite the fact that factories which produced artificial soda ash, the very ingredient which was making soap waste so corrosive, were already included in the first and highest class of regulated industrial practices and therefore prevented from operating near inhabited areas.³²¹ Disposal sites for soap waste simply fell between the cracks of this regulation, which assumed that the problems associated with any given industry would be centrally focused around the factory itself—not dispersed widely as a result of waste management practices. As the physician Sélim-Ernest Maurin argued in 1861, industries that were not considered especially dangerous could become problematic if “smoke escaped, if putrid fumes were released, if water

Juillet 1851 au 31 Août 1853 (Marseille: Barlatier-Feissat et Demonchy, 1853), 165. AD BDR Delta 6548. Also available at AD BDR Phi 527 4. See also 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* 24, no. 2 (2009): 63–64.

³²⁰ Geneviève Massard-Guilbaud has similarly found that across the nineteenth century and beginning particularly in the 1840s, descriptions of pollution were becoming significantly detailed and medical knowledge on the effects of this pollution on human health and on the natural environment was becoming much more elaborate, but solutions for the active regulation that pollution did not evolve at the same pace. The nomenclature always ran behind innovation, and in many cases, they continued to rely on the same technology in the mid-to-late nineteenth century that they had in the early nineteenth century and even those techniques were not rigorously enforced. Geneviève Massard-Guilbaud, “Pollution, dépollutions, qu’en savait-on?” In *Histoire de la pollution industrielle*, 215–260, 290.

³²¹ “Décret impérial du 15 Octobre 1810, n° 6059,” *Bulletin des Lois*, 323, année 1810 (Paris: Imprimerie impériale, 1811), 397–402; “Ordonnance du Roi contenant Règlement sur les Manufactures, Etablissements et Ateliers qui répandent une odeur insalubre ou incommode, n° 668,” *Bulletin des Lois*, 76, année 1815 (Paris: Imprimerie impériale, 1811), 53–59. For more, see the Institut report that formed the basis of the 1810 law: Jean-Antoine Chaptal, Louis-Bernard Guyton de Morveau, Nicolas Deyeux, Antoine-François Fourcroy, Nicolas Vauquelin, “Rapport sur les manufactures de produits chimiques qui peuvent être dangereuses,” 30 octobre 1809, in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 4* (Hendaye: L’Observatoire d’Abbadia, 1809), 268–273.

became stagnant or infiltrated neighboring lands,” but those waste management considerations were not included in contemporary industrial regulation.³²²

This dynamic underscores the extent to which chemists and other scientific authorities, often intimately linked with industry or industrialists themselves, influenced the regulatory process, and points to a growing divide between medical authorities and other scientific experts on these issues.³²³ The power of these figures within the municipal and departmental bureaucracy to block additional regulation meant that this report failed to greatly alter municipal management of soap waste, and in doing so, reveals the great challenge faced by those who sought greater protection from urban industrial pollution: even with the full-throated support of the highest-ranking medical experts in the city, the residents of Saint-Lambert could not overcome a bureaucratic process that had served, from its conception, as a tool for the protection of industry.³²⁴

The Formation and Formalization of the *Conseil de salubrité*

³²² “...telle fabrique qui brûlant ses fumées, désinfectant ses produits, déversant ses eaux au loin par des conduits souterrains bien construits, ne serait qu’un établissement incommode, devient un établissement insalubre ou dangereux si les fumées s’échappent, si les émanations putrides se dégagent, si les eaux croupissent ou s’infiltrent dans les terres voisines...” Sélim-Ernest Maurin, *Esquisse de Marseille*, 112.

³²³ In fact, Daumalin has argued that the prominent presence of physicians in public debates around industrial pollution is perhaps something that sets Marseille apart from cities like Paris, where chemists (who were often industrialists themselves) occupied the most visible roles. Geneviève Massard-Guilbaud has also written on the prominence of chemists in the debates around early industrial regulation, insisting that the role they played in developing new weapons during the French Revolution gave them a particular prestige as scientific experts in the years that followed. See Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage.” See also Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 28–30.

³²⁴ Xavier Daumalin, Thomas Le Roux, and Geneviève Massard-Guilbaud have all argued that the decree of 1810 and its application through the *conseils de salubrité*, while ostensibly a law designed to regulate industry, was in fact a system designed to protect it. It allowed for a great deal of industrial activity to take place within city centers and took the process of regulating industry out of the judiciary, protecting industry from litigation that threatened to put them out of business altogether, and placing their fate in the decidedly more friendly hands of prefects. The historiography of the *conseils de salubrité* in France will be discussed in more detail in the conclusion of this chapter. Xavier Daumalin, “Industrie et environnement en Provence sous l’Empire et la Restauration,” 27–46; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 47, 170–190, 318, 343–348; Thomas Le Roux, “La mise à distance de l’insalubrité,” 59–60; Alain Corbin, *The Foul and the Fragrant*, 155.

The *Conseil de salubrité* for the department of Bouches-du-Rhône was established in 1825 under the prefect Christophe de Villeneuve-Bargemon and modeled on the *Conseil de salubrité* for the city of Paris, founded nearly two decades earlier in 1802. In his inaugural address to the newly-formed Council, Villeneuve clearly laid out the mission of the body to improve public health in the department and to serve as an establishment for the collection of scientific and medical knowledge.³²⁵ The Council, according to his view, should respond to public health crises, such as epidemics, as they arose, but should also work to address chronic issues. For Villeneuve, these chronic issues included the ecological changes that had been wrought by agricultural and residential development, particularly deforestation and irrigation projects. He noted, for example, that “treeless hills and ground covered in stagnant water” cannot be “without influence on the health of men and even that of animal species which are so essential to agriculture.”³²⁶ Their responsibilities also explicitly included public health problems that might be caused by the department’s growing industrial sector—problems, he said, which made the work of the Council more necessary than ever.³²⁷

As a result, the Council was charged with reviewing an application for all new factories or industrial establishments that were included on the list of ‘classed industries’ in the imperial decree of 1810, and the subsequent additions made to that list in 1815. After their review, the Council would then make a recommendation to the prefect, who would formally accept or reject the application. Council members were responsible for gauging the reaction of local residents to the factory in question, for examining the production methods, and for getting a sense, often with

³²⁵ See Christophe de Villeneuve, “Discours prononcé à l’installation du Conseil du salubrité, à Marseille, le 20 Décembre 1825,” in *Collection de discours administratifs et académiques, mémoires, rapports, et autres oeuvres littéraires de M. Le Comte de Villeneuve. Tome Premier* (Marseille: Achard, 1829), 147–150.

³²⁶ “...des collines déboisées et des terrains occupés par des eaux stagnantes ne sauraient être sans influence sur la santé des hommes et même sur celle de ces espèces d’animaux si utiles à nos exploitations agricoles...” Christophe de Villeneuve, “Discours prononcé à l’installation du Conseil du salubrité, à Marseille, le 20 Décembre 1825,” 148.

³²⁷ *Ibid.*

in-person visits to the proposed factory site, of how disruptive or dangerous such an establishment might be for the surrounding area. Active management of industry was an essential task, according to Villeneuve, who insisted that local administrators needed more research on the potential harm caused by these factories.³²⁸ “The first duty of a foresighted administration,” he wrote, “must be to fully comprehend the harms by which one is threatened, in order to assess the ways in which they might be prevented or remedied...”³²⁹

In practice, however, the Council clearly acted in favor of industrial interests with the encouragement or tacit approval of the prefect, despite resident complaints, and despite the insistence of Council members that their mission was to balance the interests of industry with those of public health.³³⁰ In their first annual report to the prefect, for example, the Council noted that “we have given all of our attention to the numerous requests for factory installations that you have done us the honor of submitting for our review, and we have always sought to favor industry. If, in a few cases, our recommendation was to reject these requests, we were forced to do so in order to avoid compromising public health.”³³¹ In 1853, the council secretary would similarly write that “It is the tradition on the *Conseil de salubrité des Bouches-du-Rhône* that it is

³²⁸ “*En même temps, de nombreuses manufactures réunissent une population à qui des conseils sanitaires deviennent d’autant plus convenables que non-seulement la salubrité de ces fabriques a été contesté, mais encore que leur établissement, sous le rapport de la nocuité et de l’incommodité, exige de l’Administration des recherches pour lesquelles elle ne saurait assez s’entourer de lumières.*” Ibid. For more on the evaluation of these potential dangers by the conseils de salubrité, see Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 64–79.

³²⁹ “...le premier devoir d’une administration prévoyante doit être de s’assurer de la nature des maux dont ont est menacé, pour apprécier les moyens de les prévenir ou pour y porter remède...” Christophe de Villeneuve, “Discours prononcé à l’installation du Conseil de salubrité, à Marseille, le 20 Décembre 1825,” 147.

³³⁰ The council prefaced their 1826 report with the assertion that their challenge was to balance all interests: “...*Il est impossible de se dissimuler qu’à côté des avantages réels que présentent les fabriques, se trouvent des inconvénients quelquefois fort graves et qui peuvent compromettre la santé des habitants. C’est à les prévenir et à les anihiler dans quelques cas, en ménageant, autant que possible, tous les intérêts, qu’est sans cesse occupé le Conseil de Salubrité.*” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826-1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 7-8. AD BDR Phi 527 1.

³³¹ “*Nous avons donné tout notre attention aux nombreuses demandes en établissement de fabriques que vous nous avez fait l’honneur de nous soumettre, et nous avons toujours cherché à favoriser l’industrie. Si, dans quelques cas, notre avis a été contraire à ces demandes, nous y avons été forcés pour ne pas compromettre la salubrité publique.*” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 109. AD BDR Phi 527 1.

only with the greatest repugnance that, when conflicts arise from time to time between the interests of property and those of industry, the council finds itself forced to rule against the latter, and usually only after it has exhausted all regulations that might correct the inconveniences inherent to the industry in question...”³³² As a third-class industry, and one which was absolutely essential to the local and the regional economy, Council members were also particularly lenient on soap factories. Between the Council’s inception in 1825 and the end of the century, the prefect of Bouches-du-Rhone approved 83 percent of new soap factory requests, nearly always on the recommendation of the Council—at least 18 percent of which were approved over the documented objections of nearby residents.³³³

Despite their preference for supporting industry, however, the soap waste report published in 1852 was far from the first time the Council had seen fit to comment on the problems posed by soap factories or by industrial soap waste. In fact, such commentary had appeared in every previous Council report since its foundation. In their first report, published in 1828 and covering the years between 1826 and 1827, the council noted that they were concerned about the hydrogen sulfide which emanated from soap waste that had flowed into the port.³³⁴ They wrote, “When passing by the quays, one easily perceives... a foul and putrid odor, which

³³² “*Il est de tradition dans le Conseil de salubrité des Bouches-du-Rhône que ce n’est qu’avec la plus vive répugnance qu’il se voit quelquefois, dans les conflits qui s’élèvent d’ordinaire entre les droits de la propriété et ceux de l’industrie, dans la nécessité de se prononcer contre cette dernière, et le plus souvent ne le fait-il qu’après avoir épuisé toutes les prescriptions qui peuvent corriger les inconvénients inhérents à la nature de l’industrie qui lui est soumise.*” Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 202. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³³³ Of the 225 factory requests that I found from the years of 1825–1900, 186 were approved by the Prefect. Thirty-three of those provoked documented cases of complaints. It was very rare for the Prefect to override the Council’s decision on a given factory. I have found only six instances of contradictory decisions over the course of the nineteenth century. This data is compiled from the factory requests available in the files from AD BDR Phi 527 1 - Phi 527 38, 5 M 549 - 5 M 252, 5 M 257, 5 M 567, 5 M 671 and CCIMP ZC/04335, CCIMP ZC/10570.

³³⁴ Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 51–52. AD BDR Phi 527 1.

strikes the senses. This odor, in which one notes hydrogen sulfide gas, is very pronounced during the winter, but becomes unbearable in the summer...In certain cases, these fumes kill the fish, and it is not rare to see them floating in the port in a veritable state of asphyxiation.”³³⁵ The Council attributed these problems directly to the growing number of soap factories near the port and to the use of artificial soda ash in soap production.³³⁶ They also observed that wells and nearby vegetation were being damaged by uncontained soap waste and, without an obvious solution, they simply insisted that residents should be prevented from using such wells.³³⁷ “Being unable to predict when these waters might be used again,” they wrote, “the Council believes it necessary to propose that the mayor have these wells filled in, in order to prevent any additional accident.”³³⁸

The Council continued to publish disturbing details about the effects soap waste of on urban space throughout the 1840s and early 1850s. In their 1840 report, for example, they argued that residents who lived near the *anse de la Joliette* had made a justified complaint against soap factories that were disposing of waste in a local stream.³³⁹ In 1848, they reported that municipal authorities responsible for port maintenance could no longer keep up with the waste that was flowing into the water on a daily basis, concluding that “the only rational strategy would be to

³³⁵ “Chacun s’aperçoit facilement qu’en passant sur les quais, et surtout en communiquant des uns aux autres sur des bateaux, une odeur infecte et putride vient frapper l’odorat. Cette odeur où l’on remarque celle du gaz hydrosulfurique est très-marquée en hiver; mais en été elle est insupportable.” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 12–13. AD BDR Phi 527 1.

³³⁶ Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 14. AD BDR Phi 527 1.

³³⁷ Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 34–35, 68–69. AD BDR Phi 527 1.

³³⁸ “Le Conseil ne prévoyant pas l’époque où l’on pourrait faire usage de cette eau, crut qu’il convenait de proposer à M. Le Maire, de faire combler ce puits, pour prévenir tout nouvel accident.” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826–1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 35. AD BDR Phi 527 1.

³³⁹ Robert, *Rapport Général sur les travaux du Conseil de salubrité du département des Bouches-du-Rhône, depuis 1831 jusqu’en août 1840* (Marseille: Hoirs Feissat ainé et Demonchy, 1840), 29–30. CCIMP ZC/04335.

prevent the disposal of soap waste in the port” altogether, though they offered no specific recommendations on how to do accomplish that task.³⁴⁰ In 1851, they put forward a recommendation that soap waste no longer be transported in the middle of the day, but only early in the morning, before the heat of the day became too intense.³⁴¹ They also suggested that waste carts avoid the most densely populated neighborhoods and that they remain only partially filled in order to prevent waste from being dropped in the streets.

The report that finally appeared in 1852 was therefore the culmination of a number of previous studies and recommendations, but it would be the first in which Council members provided specific details about the exact nature of the health problems that had been caused by soap waste, and, the first in which they recommended specific legal changes to the regulation of soap waste disposal. These distinctions appeared to be the result of several key changes that had occurred on the Council by the 1850s. First, the institution had been reorganized in 1839 and again in 1848 to allow for longer term lengths for members and to stipulate a new, standard process for delegating the work of investigative committees.³⁴² Council members began to issue more elaborate decisions in response to new factory requests with specific, conditional

³⁴⁰ “*En résumé, le seul moyen rationnel serait d’empêcher le jet dans le port des résidus des fabriques de savon.*” Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 38. CCIMP ZC/10570.

³⁴¹ Members were chosen by the prefect from a list of candidates prepared by existing members. Marius Roux, *Rapport général des travaux des conseils d’hygiène et de salubrité des trois arrondissements, juillet 1848 à juillet 1851* (Marseille: Barlatier-Feissat et Demonchy, 1851), 41. AD BDR Phi 527 3.

³⁴² See “Règlement du Conseil de salubrité du département des Bouches-du-Rhône précédé d’une notice sur l’organisation de ce conseil,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 221–230. CCIMP ZC/10570; Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 9–15. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

requirements for the operations at those factories.³⁴³ The Council was also now taking up a broader range of health-related concerns beyond factory installation requests and had instituted a formal procedure for special committees to take up new issues as they arose. Finally, and perhaps most importantly, there had been a number of new members added to the council in recent years, including all three members of investigative committee on soap waste, who significantly altered the tenor of conversation in Council deliberations.

One of these new members, the Doctor Chaudoin, first listed as a member of the Council in the 1848 report, had already established himself as an outspoken opponent of local polluting practices. This timing is likely not coincidental. As Matthew Ramsey has written, the months following the Revolution of 1848 saw a cohort of more radical physicians and hygienists assume positions of authority within the political and regulatory apparatus, “when hopes briefly flourished for a truly ‘democratic and social’ republic” and, with it, a “thoroughly democratic program of ‘social medicine.’”³⁴⁴ In December of 1847 Chaudoin authored a report entitled “Some Thoughts on Industrial Establishments in Marseille,” beginning his remarks with a bluntness that was highly atypical of the genteel tone of previous Council deliberations.³⁴⁵ He wrote:

“There are few circumstances in which the tendency of man to sacrifice the general interest is made more clear...than in the application of his activity to industrial production. This tendency is so enduring, that, blinded by this instinct for selfish satisfaction, he does not even know how to discern if this satisfaction can be entirely achieved...without bringing about the disruption of his very

³⁴³ Bouches-du-Rhône being among the first departments to issue such conditional approval decisions. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 311–313. See also Thomas Le Roux, “La mise à distance de l’insalubrité,” 42–46.

³⁴⁴ Matthew Ramsey, “Public Health in France,” 65.

³⁴⁵ “Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d’après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 185–191. CCIMP ZC/10570.

existence. In struggling against this fatal predisposition, we recognize the necessity of legal intervention to regulate and to investigate the operations of industrial establishments in order to safeguard the interests of society concerning the impact of these operations on public health; meanwhile, ignorance, and a host of prejudices, have joined together to compromise it.”³⁴⁶

Chaudoin went on to assert that, according to documents furnished by the municipal administration, the majority of industry in Marseille operated *without* approval from the Council, either because they had been established before 1810, and were therefore not subject to the regulations imposed by the Decree of 1810, or because they had illegally begun their operations without requesting formal approval and had escaped an official investigation. If this was a relatively benign oversight for some types of innocuous manufacturing processes, Chaudoin insisted that such a reality constituted “a crime against humanity itself” [*“un crime de lèse-humanité”*] “if by knowingly avoiding legislative restrictions, one contributes, through dangerous or unhealthy practices, to an attack on the health of fellow citizens, or if...one takes advantage of a so-called statute of limitations in order to make an entire neighborhood miserable.”³⁴⁷ He

³⁴⁶ “Il y a peu de circonstances où l’homme fasse mieux sentir sa tendance à sacrifier à l’intérêt général...que dans l’application de son activité à la production industrielle. Cette tendance est si vivace, qu’aveuglé par cet instinct de satisfaction égoïste, il ne sait même pas discerner si cette satisfaction peut être intégralement réalisable sans amener...une perturbation dans son existence elle-même. Luttant contre cette funeste disposition, nous reconnaissons la nécessité de l’intervention de la loi pour régler et surveiller les opérations des exploitations industrielles, afin de sauvegarder les intérêts de la société, en ce qui concerne l’influence de ces opérations sur la salubrité publique; l’ignorance et une foule de préjugés concourant en même temps à la compromettre.” “Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d’après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 185. CCIMP ZC/10570.

³⁴⁷ “...ce tor devient, selon nous, un crime de lèse-humanité, si, échappant sciemment aux rigeurs législatives, on contribue, par des procédés dangereux ou insalubres, à porter atteinte à la santé des citoyens; ou si...on se prévaut, ...d’une prétendue loi de prescription pour rendre malheureux tout un quartier.” “Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d’après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 186–187. CCIMP ZC/10570.

named soap factories specifically as an industry that had “completely invaded” certain neighborhoods and “transformed them for their own use.”³⁴⁸

In closing his report, Chaudoin demanded a complete list of the factories currently functioning in the city. A proactive, rather than reactive, investigation of industrial establishments was absolutely essential in order to ensure that proper protocols were being followed. He ended his remarks with the same bluntness, noting that municipal authorities had so far been “useless, or practically useless” in their surveillance of industry, since factories that were found to have violated regulations were rarely punished, forced to move, or to shut down operations.³⁴⁹ Striking for its frank tone, Chaudoin’s openly hostile attitude towards what he saw as the negligence of Marseille’s industrial leaders was the exception rather than the rule of most Council publications—and yet, as would become clear, Chaudoin would bring the same vehemence to his investigation of industrial soap waste.

The Report of 1852 and the Case of Saint-Lambert

The Council reports that appeared between the 1820s and late 1840s represented the foundation on which the 1852 report would rest—roughly twenty-five years of investigation and commentary that acknowledged the harm caused by soap waste, but proposed very few specific

³⁴⁸ “*complètement envahis...dans des quartiers qu’elles on trsnformé à leur usage*,” “Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d’après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 187. CCIMP ZC/10570.

³⁴⁹ “*Que la surveillance de l’autorité jusqu’à ce jour sur la marche des exploitations industrielles est nulle ou presque nulle; plusieurs industries manquant aux tableaux des commissaires de police, et quelques-unes de celles qui y sont, fonctionnent en éludant les prescriptions de l’autorisation*.” “Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d’après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 191. CCIMP ZC/10570. See also Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 118–131.

actions. In forwarding the issue of landfill in Saint-Lambert to the Council in 1852, both the mayor and the prefect likely expected more of the same. What they ultimately received, however, was entirely different.

In fact, given this foundation of prior commentary on the dangers posed by soap pollution, it is possible that the investigating committee members were themselves surprised at the skeptical reception their report ultimately received. They began their remarks with what they believed to be a statement of common understanding, insisting that “none among you, *Messieurs*, cast doubt on the harm that such waste deposit sites can cause.”³⁵⁰ To underscore this case, they detailed many of the problems that had arisen as the soap industry grew in Marseille—problems that had been documented by the Council itself—and, in doing so, placed particular blame on the introduction of artificial soda ash as a key ingredient in Marseillais soap production.

For the commission members, the effects of this new production method were obvious and visible to the naked eye. “Everyone knows that this soda ash contains a very large quantity of sulfuric material, which finally makes its way in to the port,” they wrote, “Everyone could see the whitish tint that the port waters began to take on.” They furthermore argued that it was only around 1810, when the use of artificial soda ash became widespread, that there was a noticeable and commonly-acknowledged drop in the availability of healthy seafood.³⁵¹ Citing a previous Council report on the issue, they wrote, “Today one no longer finds mussels or fish in the port, and oysters or other shellfish, which are attached to the hulls of ships that have recently made

³⁵⁰ “*Aucun de vous, Messieurs, ne met en doute les préjudices que de pareils dépôts peuvent occasionner.*” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 195. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁵¹ For more on local anxieties about declining fish populations, see Daniel Faget, “Chapitre V: Un thème qui s’affirme au XVIIIe siècle: le dépeuplement du golfe de Marseille,” in *Marseille et la mer*, 175–200.

long journeys, die as soon as the ship drops anchor in the port... This state of affairs is not one that dates back to the distant past. If one consults the memories of individuals who are interested in such questions, one will find that it was around 1810 that fish began to abandon our port. It was during this period that artificial soda ash was introduced into soap manufacturing in Marseille...³⁵² These poisonous effects were not limited to marine life nor to coastal areas, but had infiltrated the city water supply, as had—again—been acknowledged by the Council in previous years. Wells in neighborhoods with large numbers of soap factories had been contaminated “without exception, even at considerable distance from the factories...to such an extent that residents from those neighborhoods refuse to use them,” they wrote.³⁵³

If such anecdotes were already familiar to the Council members, the commissioners pressed further. “Let us make no mistake,” they wrote, “the effects of these materials on the lives of men and of vegetation is much more dramatic than is commonly understood.”³⁵⁴ The hydrogen sulfide produced by these materials acted as a “most corrosive poison” that “immediately kills any animal which breaths it in,” even in very small quantities.³⁵⁵ They cited

³⁵² “Aujourd’hui, on ne trouve plus dans le port ni moules ni poissons et les huîtres ou autres coquillages qui s’attachent aux flancs des navires qui viennent de faire un voyage de long cours, sont morts dès que le navire a jeté l’ancre dans notre port...Cet état de choses ne remonte pas très-loin en arrière. Si on consulte les souvenirs des personnes intéressées à ces questions, on trouvera que c’est à partir de 1810 environ que les poissons ont commencé à abandonner notre port. C’est à cette époque que les soutes factices ont été introduites dans la fabrication du savon à Marseille...” Ibid, 197-198. See the original report from which the commissioners are quoting at “Assainissement du port de Marseille,” in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 34–38. CCIMP ZC/10570. Note that Marius Roux was part of the investigative committee on this report and on the 1852 report concerning soap waste.

³⁵³ “Les eaux de ces puits, sans exception, ont été pénétrées, même à une distance assez considérable, par des liquides saturés de principes sulfureux, et ont acquis un degré d’altération qui a contraint les habitants de ces quartiers à en repousser l’usage.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 199. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁵⁴ “Et qu’on ne s’y trompe pas, l’action de ces matières sur la vie des hommes et des végétaux, est plus énergique qu’on ne le pense communément.” Ibid, 200.

³⁵⁵ “Les sulfures ou hydro-sulfates alcalins...agissent comme des poisons corrosifs des plus énergiques...il empoisonne et tue subitement les animaux qui le respirent, même quand il est mêlé avec beaucoup d’air.” Ibid, 200.

experiments, which had been published as early as 1812, that showed how heavily-diluted doses of hydrogen sulfide had been shown to kill birds and dogs, as well as to sicken workers who were exposed to them, particularly those who worked in or near waste pits, with a fit of rapid asphyxiation commonly referred to as ‘*Plomb*.’³⁵⁶ While there had been fewer examples of research conducted on the effects of soap waste on plant life, the investigators believed that they were much the same on all complex life forms, noting, for example, that it was common practice in the region around Marseille for gardeners to sprinkle a thin layer of soap waste on pathways to keep them clear of vegetation and to kill weeds, though this technique was also known to threaten nearby trees and shrubs.³⁵⁷

Having presented what they believed to be a succession of damning scientific research on the subject, the investigative committee then went in person to visit the construction site in the valley of Saint-Lambert with the aim of interviewing residents about their experiences with the waste. The neighborhood, which fell just outside city walls, was bordered on the west by the *plage des Catalans*, a long-time dumping site for soap factories in the southern half of the city—though it had been closed as a legal waste disposal site for nearly two decades when this report was published. This area also contained the cart path by which waste carts had driven soap waste from the city center to the coast, a pathway that was so notoriously littered with soap waste that, already in the mid-eighteenth century, the Chamber of Commerce, which vocally defended soap

³⁵⁶ Ibid, 200. See also M. Dupuytren “Rapport sur une espèce de méphitisme des fosses d’aisance, produite par le gas azote,” *Journal de Medecine* (1806): 187–213; Louis-Jacques Thénard, “Mémoire sur le soufre hydrogéné ou l’hydrure de soufre,” *Annales de Chimie et de Physique* 48 (1831): 79–87; Louis-Jacques Thénard, “Observations sur les Hydro-sulfures,” *Annales de Chimie* 83 (1812): 132–138; Louis-Jacques Thénard, *Traité de chimie élémentaire, théorique et pratique, cinquième édition en cinq volumes, revue, corrigée et augmentée. Tome quatrième* (Paris: Crochard, 1827), 575.

³⁵⁷ Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 200–201. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

manufacturing interests, had been forced to admit that the area had become unnavigable.³⁵⁸ Wind-beaten and agriculturally poor, the surrounding area was now filled with a variety of factories and isolated dwellings, mostly cabins and “small houses...perched on the rocks.”³⁵⁹ It was also a neighborhood increasingly associated with the lower working-class as formerly affordable neighborhoods in the Old Town were demolished to make room for the new port complex and displaced residents re-located to the south side of the port. In 1860, a municipal commission proposing to develop the neighborhood expressed a widely-held opinion among local officials, writing “The village of Saint-Lambert is an ugly thing...The sole advantage of this neighborhood is to provide affordable housing.”³⁶⁰ The City Council would similarly lament that “the working-class population increases there every day” and that new dwellings were being built “with no order or direction.”³⁶¹

³⁵⁸ Réclamations des fabricants de savon sur le mauvais état du chemin par lequel ils transportent les terres de leurs usines aux Infirmeries vieilles, 14 February 1767. AD BDR C 2481.

³⁵⁹ “...pour la plupart couvertes des constructions isolées...de bastides ou cabanons...petites maisons...perchées sur les rochers...” Plan général des quartiers de St. Lambert, des Catalans et d’Endoume: Résultats de l’enquête ouverte sur le projet d’alignement de la Rive neuve. 28 September 1860. AMM 613 W 398; “le sol très peut fertile n’a pu être appliqué à l’agriculture...” Rapport à Monsieur le Préfet des Bouches-du-Rhône sur le projet de renouvellement des quartiers des Catalans & de St. Lambert. AMM 613 W 398.

³⁶⁰ “Le village de St. Lambert est une affreuse chose...Le seul avantage que présente ce quartier, c’est de fournir des logements bon marché.” Plan général des quartiers des Catalans, St. Lambert, et d’Endoume: Observations sur le rapport de M. M. les Membres de la Commission consultative des bâtiments civils. 3 December 1860. AMM 613 W 398.

³⁶¹ “...la population ouvrière augmente toutes les jours...où des nouvelles maisons établies sans ordre et sans direction...” Extrait des registres des délibérations du Conseil municipal de la ville de Marseille. 29 June 1860. AMM 613 W 398.



Figure 17: Topographical map of Marseille, 1830. Highlighted portions show the valley of Saint-Lambert. See greater detail in Figures 18 and 19 below.³⁶²

³⁶² Detail of: Philippe Matheron, *Plan topographique de la ville de Marseille 1830 / Dessiné par P. Matheron, J. J. B. du B. direct Lutetiae, 1833*. 1: 8,000, 1830. Bibliothèque nationale de France, GED-6844 (VII). 2 August 2011. Accessed 21 September 2020. <https://gallica.bnf.fr/ark:/12148/btv1b8445749c/fl.item>.



Figure 18: Detail of topographical map of Marseille, 1830. The highlighted portion shows the valley of Saint-Lambert, which fell just outside city walls, between the decommissioned *Fort Saint-Nicolas*, the *plage des Catalans*, and the peak of the *colline de la Garde*. The solid line shows the cart path by which soap waste had been taken to the *plage des Catalans* from the early eighteenth century until the mid-nineteenth century.³⁶³

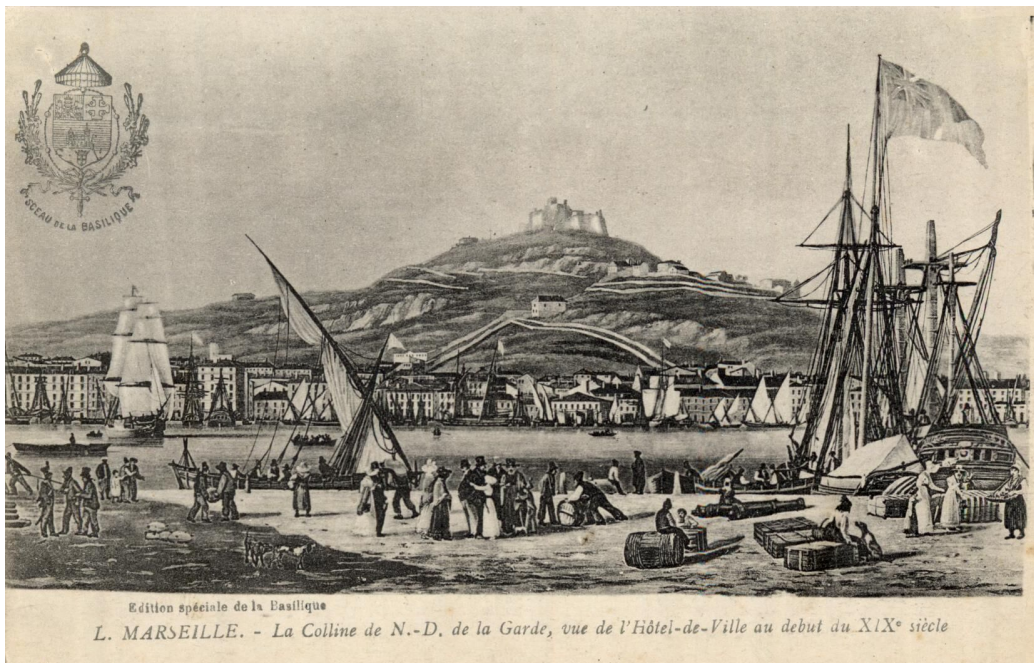


Figure 19: View from the docks on the north side of the port, facing south. This image shows the hills, still largely undeveloped, on the south side of the port leading up the *colline de la Garde*. The descending slope on the far-right side of the image is the valley of Saint-Lambert.³⁶⁴

³⁶³ Detail of: Philippe Matheron, *Plan topographique de la ville de Marseille 1830 / Dessiné par P. Matheron, J. J. B. du B. direct Luetiae*, 1833. 1: 8,000, 1830. Bibliothèque nationale de France, GED-6844 (VII). 2 August 2011. Accessed 21 September 2020. <https://gallica.bnf.fr/ark:/12148/btv1b8445749c/fl.item>.

³⁶⁴ “Marseille. - La Colline de N.-D. De la Garde, vue de l’Hôtel-de-Ville au début du XIXe siècle.” Reproduction of an engraving. AD BDR 6 Fi 3347

When the investigating committee travelled to this neighborhood in the spring of 1852, they were dumbfounded by what they found. “Having arrived at the location,” they wrote, “your commission did not have any great trouble finding the waste disposal site in question. If its astonishing proportions did not render it visible from far away, the foul and penetrating order that emanated from it and which spread over a great distance would have been sufficient to reveal its presence and to serve as a guide if needed.”³⁶⁵ The valley had been so covered in soap waste that it “no longer exists in anything but name,” they reported. “It has been replaced by a vast plain—pale and sorrowful...”³⁶⁶ In some places, the layer of soap waste was so thick, that it reached an estimated eight meters in depth.³⁶⁷ As had been the case on the coastal dumping sites, the top layer of this waste began to spontaneously combust and “small volcanic fires appeared,” dotting the plain into the distance and lighting the neighborhood at night.³⁶⁸ Once the top layer of material burnt itself out, it formed a sooty crust which protected the combustible layers underneath from catching fire, but this extinguished layer was no less dangerous. “Raised by the winds in swells of dust,” they wrote, “this waste irritates the eyes and inflames the respiratory tract as a result of the corrosive properties that it retains.”³⁶⁹ This dust, they concluded, served to exacerbate the high rate of chest infections that they observed throughout the city. No buildings

³⁶⁵ “...arrivée sur les lieux, votre Commission n’a pas eu grand peine à trouver le dépôt signalé. Si les proportions formidables qu’il revêt, ne le rendaient pas déjà visible à distance, l’odeur pénétrante et désagréable que ces matières entassées exhalent et répandent au loin, suffiraient pour déceler leur présence et servir de guide au besoin.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 201. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁶⁶ “La vallée St.-Lambert n’existe, aujourd’hui que de nom; elle a été remplacé par une vaste plaine qui accuse, par son aspect blafard et attristé, l’expédition malencontreux auquel elle doit son origine.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 207. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁶⁷ Ibid.

³⁶⁸ “Ils ont été remarquables pendant les premières années qui ont suivi leur création, par de petits feux volcaniques qu’on voyait la nuit, apparaître ça et là sur leur surface aride.” Ibid.

³⁶⁹ “Soulevées par les vents, en flots de poussière, ces terres peuvent déterminer pas [sic] suite de l’action caustique qu’elles ont conservée, des ophthalmie et l’inflammation des voies respiratoires.” Ibid.

could be safely built on this material, nor could any plant life grow. Any wells dug in the vicinity would be immediately poisoned, nor would residents benefit from new water which was being brought to the city by the newly-constructed canal de Marseille. Pipes made of clay or cast iron, they reasoned, would not be sufficient to protect the water supply. Wherever they went, the facts remained the same: “It appeared to be beyond any doubt that the waste or dregs of soap manufacturing, accumulated in this fashion, and renewed by the additional material which is brought there every minute of the day...were a permanent cause of unhealthiness...”³⁷⁰

The commissioners also expressed concerns about the effects of the soap waste on the economic viability of the neighborhood and the implications for local workers. They noted that the fumes from the waste negatively impacted businesses in the area, with specific reference to one nearby foundry, as a result of the corrosive effects of soap waste on metal objects.

“The members of your commission were particularly touched by the grievances that were collected at the nearby smelting works of M. Benet,” they wrote, “which are a short distance from the waste site in question. You will note that the factory employs three hundred workers who are exposed to the harmful effects of this waste. In recognizing the effect of sulfuric material on metal, and on polished metal in particular, you will also recognize the troubles and the disappointments of these poor workers, forced to dedicate themselves to a task which recalls that of Penelope’s shroud—that is, the task of re-doing each day the work which had been done the day before. In this state, such surroundings harm both their health and their material interests at once.”³⁷¹

³⁷⁰ “Quels qu’aient été les points de cette localité où votre Commission ait cru devoir se transporter, elle a toujours été poursuivie par la même sensation. Il lui a paru hors de doute que ces résidus ou marcs de savonnerie, ainsi entassés, ravivés par de nouvelles quantités qui y sont, à chaque instant du jour, ajoutées...étaient une cause permanente d’insalubrité...” Ibid, 201.

³⁷¹ “Les membres de votre Commission ont été notamment touchés des doléances qu’elle a recueillies dans la fonderie de M. Benet, établie à petite distance du dépôt dont il s’agit. Vous remarquerez que cette usine emploie trois cents ouvriers qui sont ainsi placés sous l’influence délétère de ces résidus. En tenant compte de l’action des sulfures sur les métaux, et surtout sur les métaux polis, vous aurez de plus à vous rendre raison des ennuis et des déceptions de ces pauvres ouvriers, obligés de s’imposer une tâche qui rappelle l’histoire de la toile de Pénélope, c’est-à-dire dans la nécessité de refaire, le lendemain leurs travaux de la veille. Dans cette conjoncture, un pareil voisinage préjudicé à la fois à leur santé et à leurs intérêts matériels.” Ibid, 202.

In citing their medical and economic concerns, and in recounting the experiences of the workers and residents of Saint-Lambert, the commissioners apparently felt compelled to preemptively defend the accuracy of their report and the sincerity of the petitions who had made complaints. They paused to comment explicitly on the tone of the residents in question, noting that they were unanimous in their belief that the material presented a public health risk, but none of the complaints were made in the tone of false passion that, in their view, often served to disguise complaints which had been made in bad faith or had been organized by rival business interests in an effort to shut down a competing business—a perennial concern for the Council.³⁷²

Indeed, the commissioners implied that relating the observations of their investigation amounted to matter of conscience for them, one which apparently conflicted with the usual inclination of the Council to favor industry. “You have likely noticed,” they conceded, “that your commission has enthusiastically taken up the cause of the petitioners; it owes you an explanation of the motivations that have compelled it to act in such a manner. On the occasion of the visit that we made to the quartier of Saint-Lambert, we were able to observe, with great sadness, how the interests of public health, so precious, had already, in that part of the city, been the subject of profound and irreversible damage.”³⁷³ They retained the view, they said, that industry should only be discouraged when there was no other alternative and that it was sometimes necessary for

³⁷² Jean-Antoine Chaptal and Louis-Bernard Guyton de Morveau, “Rapport demandé à la classe de Sciences Physiques et Mathématiques de l’Institut sur la question de savoir si les manufactures qui exhalent une odeur désagréable peuvent être nuisibles à la santé, séance du lundi 26 frimaire An 13 (17 décembre 1804),” in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 3* (Hendaye, L’Observatoire d’Abbadia, 1913), 165. See also Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 25, 67, 94-99, 132–151.

³⁷³ “Vous avez probablement remarqué que votre commission a soutenu avec quelque chaleur la cause des opposants; elle vous doit des explications sur les motifs qui l’ont poussée à en agir ainsi. A l’occasion de la visite qu’elle a faite au quartier de St.-Lambert, elle a été à même de constater avec douleur que les intérêts si chers de l’hygiène publique avaient reçu déjà, dans cette partie de la ville, par le fait des dépôts de résidus de savonnerie, des atteintes profondes et irrémédiables.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 206. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

individuals to make personal sacrifices for industry that would benefit all of society—but, they argued, this was not such a case. The only individual who stood to benefit from the use of this industrial material as landfill was the owner of the property in question while the harmful effects of the waste were spread around to all of the surrounding area. It was absolutely essential, therefore, that both the mayor and the prefect act to put a stop to this and all similar projects.

The first step in this process, they argued, should be a pronouncement from the prefect which would add industrial soap waste depots to the ‘first class’ of regulated industries—the highest category of perceived risk, on par with factories which produced artificial soda ash, and two categories above soap factories themselves, which were only a considered a ‘third class’ industry. The prefect had a clear authority to do this according to the royal ordinance of 1815 “*contenant Règlement sur les Manufactures, Etablissements et Ateliers qui répandent une odeur insalubre ou incommode,*” and the recently-passed 1852 decree on decentralization, which, gave prefects the right to temporarily suspend industrial activities that were not included in the official nomenclature as ‘first class’ industries, “but were of a nature” that meant they *should* be subject to those regulations.³⁷⁴

In the meantime, the mayor, according to the most recent municipal legislation concerning soap waste disposal, had the authority to forcibly halt the construction project in

³⁷⁴ Article 1 section 5 of the 1815 ordinance reads “*Les préfets sont autorisés à faire suspendre la formation ou l’exercice des établissements nouveaux qui, n’ayant pu être compris dans la nomenclature précitée, seraient cependant de nature à y être placés.*” This ordinance gave the prefect to act on his own authority for industries which he thought should be in the second or third classes. The 1852 supplement to that law extended his authority over first-class industries as well. “Décret impérial du 15 Octobre 1810, n° 6059,” *Bulletin des Lois*, 323, année 1810 (Paris: Imprimerie impériale, 1811), 397–402; “Ordonnance du Roi contenant Règlement sur les Manufactures, Etablissements et Ateliers qui répandent une odeur insalubre ou incommode, n° 668,” *Bulletin des Lois*, 76, année 1815 (Paris: Imprimerie impériale, 1811), 53–59; “Décret sur la Décentralisation administrative du 25 mars 1852, n°3855,” *Bulletin des Lois*, 508, année 1852 (Paris: Imprimerie nationale, 1862), 821–828. For more, see the Institut report that formed the basis of the 1810 law: Jean-Antoine Chaptal, Louis-Bernard Guyton de Morveau, Nicolas Deyeux, Antoine-François Fourcroy, Nicolas Vauquelin, “Rapport sur les manufactures de produits chimiques qui peuvent être dangereuses,” 30 octobre 1809, in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 4* (Hendaye: L’Observatoire d’Abbadia, 1809), 268–273.

question, even though the project was taking place on private property. The law, enacted in 1834, designated the public spaces in which soap waste was to be dumped, but had so far been interpreted to mean that such regulations *only* applied to waste dumped in public spaces. According to the commissioners, however, the law stipulated a list of legal dumping locations and included the critical phrase—“*et non ailleurs*”—“and nowhere else.” Such an interpretation meant that the storage of this material could *only* occur on one of the listed locations and its use on private property was, in fact, illegal and subject to regulation by municipal authorities. All waste, they insisted, must be brought to the coast and disposed of in the ocean. If such actions seemed dramatic to the councilors, who by their own admission, were loath to place additional restrictions on industry, they remained the only viable path forward, according to the investigative committee. “Disposal sites for the waste or dregs of soap are unhealthy and problematic,” they wrote—“that is fact. Common knowledge, in accordance with men of science, proclaim it to be true. If the local administration does not contest that, it must act urgently to class these sites and to submit them to the formalities prescribed by the decree of 15 October 1810.”³⁷⁵

The Council Responds

It was the pharmacist, Marius Roux, who read the report before the full Council on behalf of his colleagues on the 22nd of June, 1852. His remarks, delivered “methodically and timidly,” were apparently received nonetheless with “the utmost attention, due to the invaluable and curious

³⁷⁵ “*Les dépôts des résidus ou marcs de savonnerie sont insalubres et incommodes; ce fait est acquis; la notoriété publique, d’accord avec les hommes de la science, le proclame. Si l’administration ne la conteste pas, elle doit se hâter de classer par assimilation, ces dépôts, et les soumettre aux formalités prescrites par le décret du 15 octobre.*” Ibid, 205.

information pertaining to the soap industry” that they contained.³⁷⁶ It is clear that the report provoked immediate and sustained debate, which carried over into multiple Council meetings.³⁷⁷ In fact, in a relatively rare gesture, the published version of this report included a full summary of the discussion which took place in the Council following the reading of the report. In general, reports submitted by investigative committees were simply adopted and then reproduced in their entirety in the published summary of Council business. In this case, the inclusion of subsequent discussion emphasized that there had, in fact, been significant disagreement among Council members. The minutes of the Council meetings during which these issues were discussed provide more specific insight on the source of this disagreement and of the personalities involved.

As Council members began to respond to the information included in the report, the discussion broke down into two fundamental questions: the first concerned whether soap really posed a danger to human health or to vegetation, as the commissioners maintained, and the second revolved around their call to add this soap waste to the list of classed industries. It was M. Mermet, a professor of chemistry at the Collège de Marseille, who first stood to contest the scientific conclusions of the commission’s report. Denying the urgency of the investigative committee, and, indeed, the notion that the waste posed a medical danger at all, Mermet insisted that “this waste is less dangerous than is commonly thought” and, as a result, he was forced to “reject the conclusions of this report on all counts.”³⁷⁸ He denied that the fumes which wafted off

³⁷⁶ “*Ce travail...présenté avec méthode et timidité, a été écouté avec l’attention la plus soutenue, à cause des renseignements précieux en même temps que curieux sur l’industrie savonnaire...*” Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 22 juin 1852. AD BDR 5 M 27.

³⁷⁷ These discussions continued from the June 22 meeting, to July 6, and appeared again in the minutes of the July 20 meeting.

³⁷⁸ “*Mr. Mermet...soutient que ces résidus sont moins dangereux qu’on ne le pense généralement, et par conséquent repousse les conclusions du rapport en tous points.*” Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 6 juillet 1852. AD BDR 5 M 27.

the soap waste were the result of hydrogen sulfide, despite its characteristic rotten-egg smell, since it was chemically “impossible” to explain the presence of this gas in soap waste.³⁷⁹ Furthermore, any chemical reaction that did take place upon the waste material would occur almost immediately and then cease, so there was no reason to fear that such material would affect future wells.³⁸⁰ Finally, far from harming plant life, he argued that the material had been shown to serve as an effective fertilizer and could be usefully employed in the countryside around the city.³⁸¹ As a result, he concluded, “these depots should not be harmful to men nor to vegetation” and recommended that landowners make better use of this “wasted fertilizer.”³⁸² Another member of the Council, Jules Rivière de la Souchère, also a professor of chemistry, corroborated Mermet’s claims about the material’s beneficial properties for plant life.³⁸³ This argument appears to have been a willful mischaracterization of recent experiments that had

³⁷⁹ “...car on n’admettait pas que leur odeur, si difficile à caractériser, fût due au gaz hydrogène sulfuré dont il était impossible d’expliquer la formation dans les conditions actuelles de ces résidus.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 213. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁸⁰ “...cette transformation en sulfates et en silicates a lieu sur place et immédiatement, tant elle est rapide; ce qui doit écarter en outre toute crainte pour l’avenir des puits...” Ibid, 214.

³⁸¹ There was an enduring discourse across the nineteenth century about the need to make use of waste, including industrial waste, that was being produced by the city to fertilize the agricultural land in the countryside. Part of this interest, according to Sabine Barles, was certainly to make a profit on material that was otherwise ‘wasted,’ but there was also a genuine interest in evacuating harmful materials from the city in order to protect health and hygiene. One of the problems with such plans, however, was that the city produced far more waste than nearby agricultural areas actually needed. As a result, significant portions of Marseille’s urban waste was dumped at sea, even after it had been offered to agricultural producers. Ibid. See also Sabine Barles, *L’invention des déchets urbains*, 70–71, 117–123, 180–182.

³⁸² “En conséquence on concluait que ces dépôts ne devaient être nuisibles ni à l’homme ni à la végétation...” Quoting a previous council report, he noted that “ces masses d’engrais ainsi perdues pourraient être utilisées sur les lieux mêmes, par les propriétaires des pineraies si nombreuses aux alentours de Marseille; elles pourraient aussi être utilisées pour la culture des prairies.” Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 213. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁸³ Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 20 juillet 1852. AD BDR 5 M 27; Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 214. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

shown trace amounts of waste from artificial soda ash factories to have some effect as a fertilizer when mixed with compost material.³⁸⁴ It would certainly not have been true of the massive amount of solid waste being dumped at Saint-Lambert.

The Commission's spokesperson, Marius Roux, pushed back on these claims, saying that it was frankly "difficult for him to adopt this point of view" and defending the medical realities detailed in the report as facts "beyond doubt."³⁸⁵ He said he was "loath, in fact, to call these disposal sites harmless...or to believe that wells were protected from infiltration by sulfuric material."³⁸⁶ In examining the oldest and deepest layers of soap waste that had been dumped in this neighborhood, it would quickly become clear that their chemical reactivity had not, in fact, been eliminated.

M. Rousset, a physician but also a professor of chemistry—and later the author of a decidedly apologetic history of the soap industry in Marseille—wondered, meanwhile, if it might be possible to profitably extract the elements of soda ash which remained in the soap waste, a question which pointed to the close relationship between the Council's chemists and their allies in industry.³⁸⁷ Doctor Chaudoin, the Council's most outspoken advocate for greater industrial regulation, forcefully responded for the investigative committee that such a question had nothing

³⁸⁴ V. Leroy, "Agriculture des engrais," *Gazette du Midi*, 26 November 1854, <https://www.retronews.fr/journal/gazette-du-midi/26-novembre-1854/1123/4143731/2>.

³⁸⁵ "Mr. Roux avoue qu'il lui est difficile d'adopter cette manière de voir..." Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 6 juillet. AD BDR 5 M 27; "admis sans conteste" Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 215.

³⁸⁶ "Il répugnait en effet de considérer ces dépôts comme inoffensifs...et de croire les puits à l'abri de l'infection de leurs eaux par les sulfures..." Ibid.

³⁸⁷ This fits neatly with Geneviève Massard-Guilbaud's assertion that industrialists, in the limited number of cases where they did demonstrate an interest in reducing pollution, usually did so in an effort to recoup some of the money that they saw as being lost due to wasted by-products of their operations. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 242–243.

at all to do with questions of health, which were the subject of the report—rejecting the notion that industrial profit should be the concern of the Council.³⁸⁸

Trying another tactic, Rousset cast doubt on the anecdote from the report about the effects of soap waste on the smelting works of M. Benet, saying that the tarnished metal could simply be a result of the factory’s proximity to the sea.³⁸⁹ He also appeared to use the rhetoric of social and environmental concerns *against* the investigative committee in an apparent move to justify keeping the waste on land. He noted, for example, his hesitation to dump the waste at sea, given the harm such a practice would pose for coastal fish populations—concerns the committee members had themselves voiced—and ignored the fact that, in acknowledging such problems, they also clearly believed the immediate human health of those who were exposed to the waste on land to be the more urgent concern.³⁹⁰

Ultimately, the Council minutes note, these deliberations failed to convince the majority of Council members that the soap waste was innocuous—most maintained the belief, underscored by the investigative committee—that it posed serious health risks.³⁹¹ What they could not agree to, however, was the classification of soap waste depot sites as ‘first class’ industrial establishments. Despite the repeated urgings of the investigative committee, it appears that some Council members, even among those convinced of the toxic effect of soap waste, still

³⁸⁸ See this exchange in Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849-1853, séance du 22 juin 1852. AD BDR 5 M 27. See Rousset’s brief history of soap, co-authored with Professeur Mermet and J.-A. Marquis, a soap manufacturer: “De la Savonnerie marseillaise” in *Répertoire des travaux de la Société de statistique de Marseille, publié sous la direction du docteur Sélim-Ernest Maurin, tome trente-deuxième* (Marseille: Cayer et Ce, 1871), 7–32, <https://gallica.bnf.fr/ark:/12148/bpt6k5855117g/f9.item>.

³⁸⁹ Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 6 juillet 1852. AD BDR 5 M 27.

³⁹⁰ “Mr. Rousset répond que ces résidus, jetés à la mer, ont été considérés comme une des causes qui éloignent le poisson de nos côtes, qui mérite d’être aussi pris en considération pour en renvoyer la discussion à une prochain séance.” Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 22 juin 1852. AD BDR 5 M 27.

³⁹¹ Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849–1853, séance du 6 juillet 1852. AD BDR 5 M 27.

insisted that the site remain un-classed. This was not, apparently, due to any reticence they might have had about regulating industry, however. If, these Council members argued, a classification was requested and denied by the prefect, or if he agreed to a classification but decided to place them in the lower-risk second or third class categories, then the material would then be legally allowed to remain near inhabited areas.³⁹² Municipal authorities would therefore have more control over the situation if they did their best to handle it at the local level without adding the depot sites to an official list that would be subject to prefect approval. Others took a more narrow view, arguing that to recommend such a classification went well beyond the scope of the investigation that had been requested by the prefect, who had simply asked the Council to examine the health effects of waste that was dumped outside legally mandated locations along the coast.³⁹³ In the end, the Council adopted this strict interpretation of the prefect's brief and made no move to officially class and regulate industrial soap waste. Instead, they simply recommended that municipal authorities forbid its use in future construction projects.³⁹⁴

Conclusion: The Path Not Taken

The spring of 1852 represented the first moment in which the health council responsible for monitoring Marseille's industrial sector conducted a comprehensive investigation and explicit deliberation on the subject of soap factory waste. Despite the fact that the Council had produced an extensive body of literature acknowledging the dangers of soap waste in its previous twenty-

³⁹² See this argument made by the physician Docteur Seux in Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849-1853, séance du 6 juillet 1852. AD BDR 5 M 27. See also Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 215. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

³⁹³ Procès-verbaux des séances du Conseil de salubrité du 1er arrondissement des Bouches-du-Rhône, 1849-1853, séance du 6 juillet 1852. AD BDR 5 M 27.

³⁹⁴ Chaudoin, *Rapport du Conseil central à Monsieur le préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène du département des Bouches-du-Rhône, de 1er juillet 1851 au 31 août 1853* (Marseille: Typ et Lith Barlatier-Feissat et Demonchy, 1853), 216. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

seven years of its existence, several members of the Council took the opportunity during these meetings to deny the negative health implications of this material in an apparent attempt to protect the industry from further regulation and to protect the rights of property-holders to continue using soap waste as landfill. These dissenters aside, however, most of the Council agreed that the waste was, in fact, harmful, but still refused to engage in a more active regulatory approach, either because they felt that it went beyond their authority or because they felt that departmental bureaucracy might do more harm than good in terms of actually controlling the proliferation of soap waste.

The reluctance of local authorities to actively regulate industry reflects, according to Massard-Guilbaud, a belief that would persist into the twentieth century that it was improper for public officials to intervene in the activities of business, even when they had the legal right to do so. She writes, “The contrast between repeated suggested inclinations [towards regulation] on the one hand and the inability to apply the law on the other, can only ultimately be explained by the enduring power of the idea that it was unnatural to intervene in affairs concerning the property of others. Prefects and mayors had the law and, if necessary, the power of law enforcement on their side, but they apparently did not recognize the legitimacy of their use. By all evidence, they would have preferred to persuade [industrialists], but that method did not match the urgency of the wrongs being committed. Industrialists took advantage of that leniency to act as they saw fit.”³⁹⁵ With a critical mass of Council members driven by such a philosophy, the *Conseil*

³⁹⁵ “Ce contraste entre vellétés répétées d’un côté et incapacité à faire appliquer la loi de l’autre me paraît, en fin de compte, ne pouvoir être expliqué que par la puissance que conservait l’idée qu’il n’était pas naturel d’intervenir dans les affaires concernant la propriété d’autrui. Les préfets, les maires, avaient le droit et, si nécessaire, la force publique pour eux, mais il ne se reconnaissaient apparemment pas la légitimité d’en user. Ils auraient, de toute évidence, préféré persuader, mais ce moyen n’était pas à la hauteur de la gravité du mal. Les industriels tiraient parti de ce laxisme en se comportant comme ils l’entendaient.” Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 338–339.

d'hygiène et de salubrité in Bouches-du-Rhône failed to act or use the power that it did have in order to demand greater protection for residents of the city from soap waste on a long-term basis.

It is unclear, in fact, even if this particular construction project in Saint-Lambert was actually brought to a close as a result of the Council's recommendation. The Council remained a consultative body, relying on the prefect to enforce their decisions, and the prefect was apparently hesitant to forbid outright the use of soap waste for landfill. He continued to allow the material to be used as landfill on the construction sites of the new port complex into the late-1850s, by which time the active section of the construction site had drifted so far northwards along the coast, that transportation costs from the south side of the port made soap waste far less profitable as landfill material.³⁹⁶ After that time, soap manufacturers returned to a practice, first proposed in the early 1820s, of dropping the waste in the open ocean. The Council, meanwhile, continued to publish information on the harmful effects of soap waste throughout this period, declaring flatly in 1873 that “the soap industry is old enough in Marseille for one to know what to expect when it comes to its safety. It poses serious inconveniences, it's true, and they are well-known.”³⁹⁷ And yet, soap waste depot sites remained legal and unregulated within urban space—they were never added to the list of classed industries, nor were they ever again the subject of extended debate on the Council.

The dynamics on display in this particular case also point to larger conversations about the role of *conseils de salubrité* more broadly. Alain Corbin, for example, who examined primarily Parisian archives, has argued that the councils were largely ineffectual, existing mostly

³⁹⁶ Daniel Faget, “Une cité sous les cendres,”

³⁹⁷ “*l'industrie savonnaire est assez vieille à Marseille pour qu'on sache à quoi s'en tenir sur son innocuité. Elle a des inconvénients graves, c'est vrai, et bien connus.*” Louis Rampal, *Compte-rendu des travaux présenté à M. le Préfet au nom du Conseil Central par M. le Dr Rampal, Louis* (Marseille: Cayer et Ce, 1876), 352–353. AD BDR Phi 527 6.

to reassure citizens that there was an institutional body responsible for public health issues even if it was not proactively addressing them.³⁹⁸ Thomas Le Roux has pointed to cases in which the councils were, in fact, openly corrupt, giving certain industries a risk classification lower than what they should have received in an effort to encourage that industry in a particular location.³⁹⁹ Geneviève Massard-Guilbaud, on the other hand, has argued that by including a wide variety of departmental archives, it becomes clear that the councils were in fact more of a mixed bag. Ineffective and corrupt councils certainly existed, as did councils composed of middle and upper-class individuals who clearly expressed class solidarity with local elites at the expense of other segments of society, but there were also some councils which took their role seriously and seemed to genuinely engage in good faith efforts to protect public health from the effects of runaway industrial development in their respective departments.⁴⁰⁰ As was the case in Marseille, council members donated their time and expertise, unpaid for their labor and often forced to travel at their own expense to complete their investigations, many years before 1848, when it became legally required at the national level for departments to have *conseils de salubrité*.⁴⁰¹ Furthermore, as president of the Council, the prefect was responsible for setting the schedule by which the Council convened as a group—if he did not regularly call the Council to session, there was little to be done, even for the most conscientious members.

There were therefore serious structural problems that weakened the ability of the Council to effectively conduct the business of actively regulating industry, but they were also highly dependent on the individual political preferences and personalities of the prefect and the

³⁹⁸ Alain Corbin, *The Foul and the Fragrant*, 155.

³⁹⁹ Thomas Le Roux, “La mise à distance de l’insalubrité,” 59–60.

⁴⁰⁰ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 47, 170–190, 318, 343–348.

⁴⁰¹ In the spring of 1854, Chaudoin would begin a long-term process of trying to acquire a bigger budget for the Council and to have Council members reimbursed their work, particularly the work of compiling the yearly report. Theirs task was growing larger every day, he wrote, as the industrial sector of the city continued to develop. Letter from Chaudoin to the Prefect of Bouches-du-Rhône, 22 April 1854. AD BDR 5 M 16.

members themselves. Even the most honest and dedicated members of the Council found themselves thwarted by fellow members who actively disputed their conclusions or simply conceived of the Council's mission in more restricted terms.⁴⁰² Nor did being a scrupulous or actively-engaged member of the Council necessarily mean that one imagined their role to be an opponent of industry. In this way, the push and pull between the members on the Council of Bouches-du-Rhône in 1852 seemed to represent a microcosm of the forces affecting *conseils de salubrité* more generally.

Despite its inability or unwillingness to make real change for the residents of Saint-Lambert, however, this episode on the *Conseil d'hygiène et de salubrité* points to the ongoing role of physicians in calling attention to the dangers posed by industrial pollution.⁴⁰³ If, as Xavier Daumalin has argued, physicians could serve as legitimizing figures for industry—giving them cover to continue polluting practices by endorsing various methods of mitigating their worst effects—it is also true that, by this time, the doctors on the *Conseil d'hygiène et de salubrité* in Bouches-du-Rhône in particular appeared to be taking their role as defenders of public health more seriously.⁴⁰⁴ Chemists, on the other hand, were more deeply implicated in industry, often industrialists themselves or personally invested in industrial establishments with a particularly close relationship to artificial soda ash manufacturers, and were disinclined to admit when

⁴⁰² In 1858, for example, the Doctor Chaudoin was included on a list, circulated by the Minister of Agriculture and Commerce, of council members from around the country whose work had been particularly distinguished. In the same circular, the Minister publicly reprimanded the rest of the Council of Bouches-du-Rhône for the sending only irregular reports of their work to the Minister's office. Circulaire n.14 du Ministère de l'Agriculture, du Commerce et des Travaux Publics, 26 April 1858. AD BDR 5 M 16.

⁴⁰³ Sabine Barles has similarly argued that the hygienist movement in France was primarily led by engineers, particularly by the end of the nineteenth century, as doctors were phased out as major leaders of urban health and hygiene. Doctors, according to her analysis, were key in voicing early denunciations of the dangers posed to public health in cities, but engineers would be charged by the state with actually solving those problems with technological solutions. See Sabine Barles, *La Ville Délétaire: Médecins et Ingénieurs dans l'Espace Urbain, XVIIIe–XIXe siècle* (Seyssel: Champ Vallon, 1999), 7, 330.

⁴⁰⁴ Xavier Daumalin, "Le conflit environnemental entre instrumentalisation et arbitrage."

chemical processes or products were harmful to workers or nearby residents.⁴⁰⁵ As a result, when it came to regulating the operations of industry, and of chemical industries in particular, chemists it seemed were both “judge and jury.”⁴⁰⁶

Chemists working in the public sphere also tended to see themselves as advocates of ‘scientific progress’ more broadly and believed that virtually all industrial practices, even the most polluting, could be perfected with scientific advances.⁴⁰⁷ They adopted an apparently widespread attitude that men of science and their partners in industry were, in fact, the ‘real’ victims, under constant attack from “prejudice, ignorance, or jealousy” and “struggling courageously... against countless obstacles that opposed their development.”⁴⁰⁸ Protecting industrialists from criticism or from financial loss was therefore necessary, they believed, in the face of the fears that accompanied new scientific discoveries (including the discovery of the chemical process that allowed for the production of artificial soda ash)—fears that they believed to be naive and backwards. Despite the growing inclinations of medical experts on the Council, it seems chemists were able to sow doubt among their fellow Council members about the dangers of various industrial practices and, in doing so, contribute to a pattern of behavior in which the *Conseil d’hygiène et de salubrité* continued to function as little more than a rubber stamp for

⁴⁰⁵ For these pro-industrialist advocates, pollution and even industrial accidents were “the necessary sacrifice for the advancement of civilization.” [“*le sacrifice nécessaire qui fait advenir la civilisation.*”] See Sacha Tomic, “La gestion du risque chimique en milieu urbain : Les conséquences de l’explosion du magasin Fontaine à Paris en 1869,” in *Risques industriels : Savoirs, régulations, politiques d’assistance, fin xvii^e-début xx^e siècle*, ed. Thomas Le Roux (Rennes : Presses universitaires de Rennes, 2016), <http://books.openedition.org.proxy.uchicago.edu/pur/47426>; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 28–30, 36–37, 50.

⁴⁰⁶ “*l’expression ‘la chimie, juge et partie’ n’est pas exagérée.*” Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 36.

⁴⁰⁷ Thomas Le Roux, “La mise à distance de l’insalubrité,” 31–70.

⁴⁰⁸ “*...par les préjugés, l’ignorance ou la jalousie, continuent à lutter...contre courageusement contre les obstacles sans nombre qu’on opposait à leur développement.*” Jean-Antoine Chaptal and Louis-Bernard Guyton de Morveau, “Rapport demandé à la classe de Sciences Physiques et Mathématiques de l’Institut sur la question de savoir si les manufactures qui exhalent une odeur désagréable peuvent être nuisibles à la santé, séance du lundi 26 frimaire An 13 (17 décembre 1804),” in *Procès-verbaux des séances de l’Académie des sciences, tenues depuis la fondation de l’Institut jusqu’au mois d’août 1835, tome 3* (Hendaye, L’Observatoire d’Abbadia, 1913), 165.

industrial development in the city.⁴⁰⁹ This would remain the case until the proactive investigation and surveillance of industry became standard practice with the introduction of inspectors, a development which would not take place until 1894 in Marseille and 1917 at the national level, when industrial regulation legislation was finally overhauled—taking shape in the early twentieth century along much the same lines that the Doctor Chaudoin had first demanded from the Council in 1847.⁴¹⁰

It is clear, finally, that the conditions of public health and hygiene continued to deteriorate in the neighborhood of Saint-Lambert over the next several decades. Demolition projects in the Old Town gained steam in the late 1850s and early 1860s in order to make room for the city's first and only Haussmann-inspired boulevard, the rue Impériale (now rue de la République). Displaced people, largely working-class residents who had lived in the crowded districts of the Old Town and whose work demanded that they stay close to the port, continued to relocate to Saint-Lambert.⁴¹¹ Projects to level the terrain in Saint-Lambert also continued, though rubble from the demolished sectors of the Old Town began to serve as source of landfill that

⁴⁰⁹ For more on the long-term trend by which scientific authorities worked to exculpate industrialists, see Sacha Tomic, "La gestion du risque chimique en milieu urbain."

⁴¹⁰ Inspectors first appeared in a handful of departments in the 1850s, growing in number in the final decades of the nineteenth century before they were mandated at the national level in 1917. Members of the *Conseil d'hygiène et de salubrité* in Bouches-du-Rhône had long been requested funding for a team of inspectors, which was only granted in 1894. See Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 334–335; J.-S. Roux de Brignoles and Albert Domergue, *Compte-rendu des travaux, tome XXV* (Marseille: G. Loret, 1895), 5–6. AD BDR Phi 527 15.

⁴¹¹ "En effet, le projet de renouvellement des vieux quartiers doit avoir pour principal résultat de déplacer une immense population, au milieu de laquelle il se produira une perturbation qui ne peut être provoquée étourdiment; il faudra avant tout songer à loger cette population. Où la loger? Elle vit du travail des ports; elles se compose surtout de porte-faix, de marins, de calfats, d'acconiers, etc. Cette population ne peut être renvoyée aux Boulevards Baille et Mereutier. Elle ne peut pas davantage se loger dans les quartiers Mirès, le prix des terrains y étant trop élevé. Il n'y a guère que le quartier des Catalans et de St. Lambert qui puisse faire face à ce besoin." Rapport à Monsieur le Préfet des Bouches-du-Rhône sur le projet de renouvellement des quartiers des Catalans & de St. Lambert. AMM 613 W 398; Despite the fact that Saint-Lambert represented a distinct working-class enclave on the south side of the port, the number of residents there remained relatively small compared to the districts in and around the Old Town in which the vast majority of working-class residents were still concentrated. See Marcel Roncayolo, "Marseille, ville populaire," in *L'imaginaire de Marseille*, 211–225.

gradually replaced soap waste. As one engineer recounted: “all the debris of the city is brought there and piled up pell-mell.”⁴¹²

Despite being included within the boundary of the *octroi*—and thus subject to the municipal taxes of Marseille—the neighborhood also continued to receive very little infrastructural support from the city and was later described in a letter to the prefect as having been “left, since time immemorial, in a state of complete abandon” by municipal authorities.⁴¹³ Construction projects in combination with the uneven terrain also created chronic drainage and flooding problems with water and waste collecting in the streets—conditions that were unhygienic in the best of times and which became icy and treacherous during the winter months.⁴¹⁴ Residents regularly complained that they were not able to rely upon regular local services such as waste and trash collection and petitioned the mayor’s office well into the 1890s, asking that municipal authorities do more to ensure the health and safety of the neighborhood.⁴¹⁵ It was in this part of the city, in fact, that Siméon Flaissières, the first socialist mayor of Marseille and, indeed, the first socialist mayor of any major French city, began his career as a doctor to the impoverished communities along Marseille’s coast.⁴¹⁶ In 1891, just months before he would be elected mayor, Flaissières hammered the City Council for their lack of attention to the neighborhood and addressed the mayor directly, angrily declaring “the overall conditions are pitiful. That’s the truth.”⁴¹⁷ The disregard with which municipal authorities treated the residents

⁴¹² “... *les décombres de la ville sont venus s’y entasser pêle-mêle...*” Rapport à Monsieur le Préfet des Bouches-du-Rhône sur le projet de renouvellement des quartiers des Catalans & de St. Lambert. AMM 613 W 398.

⁴¹³ “*ces terrains ont été laissés de tout temps dans le plus complet abandon...*” Rapport à Monsieur le Préfet des Bouches-du-Rhône sur le projet de renouvellement des quartiers des Catalans & de St. Lambert. AMM 613 W 398.

⁴¹⁴ Letter to the Mayor of Marseille from “les habitants de la colline St. Lambert,” 5 April 1893. AMM 613 W 398.

⁴¹⁵ See AMM 613 W 398.

⁴¹⁶ “Flaissières Siméon,” [senat.fr](https://www.senat.fr/senateur-3eme-republique/flaissieres_simeon0329r3.html), accessed September 23, 2020, https://www.senat.fr/senateur-3eme-republique/flaissieres_simeon0329r3.html; Bernard Morel, “Marseille, aux tournants du siècle,” *Libération*, February 15, 1995, https://www.liberation.fr/france/1995/02/15/marseille-aux-tournants-du-siecle_123315.

⁴¹⁷ “*L’état général était lamentable. Voilà la vérité.*” Extrait de la séance du 28 juillet 1891 du conseil municipal, session extraordinaire. AMM 613 W 398.

of Saint-Lambert therefore continued in much the same fashion, even as soap manufacturers ceased to actively deliver industrial waste to the neighborhood. The soap waste which had been left there over the preceding decades was ever actively cleared out or removed.

The transformation of Saint-Lambert was therefore particularly dramatic and, left to its fate by local officials, it continued to suffer the consequences of this particular type of industrial pollution, settling into its reputation as a home for the lower working-class. But Saint-Lambert was not the only neighborhood in Marseille being re-shaped by soap waste, nor was its experience of neglect a universal one. The prefect and *Conseil d'hygiène et de salubrité* could engage in more active regulation of soap industry when and where they sought fit and used soap waste disposal as an early form of urban zoning in order to control the socio-economic characteristics of neighborhoods they wanted to protect from environmental damage and, in their view, social decline. In the next chapter, we will examine where those neighborhoods existed, how they were actively preserved by the public health infrastructure in the city, and what rhetoric and rationale could be used to by residents in order to lobby successfully for the protection of their neighborhoods.

Chapter 4.

The Urban Geography of Soap in Marseille, 1810–1917

“It is to be hoped that our peasants will not behave as those from Septèmes did, who, under the pretext that soap factories repelled the clouds and prevented rain, rebelled in 1815 and 1816 to such an extent that it became necessary to station soldiers in Septèmes for some time, in order to prevent the almost certain destruction of the factories situated in that area.” —Pierre Mazière⁴¹⁸

In 1876, the Provençal poet Pierre Mazière published a short book on the history of the soap industry in his native Marseille. A string of similar books and articles had been published over the previous several decades, designed to emphasize the role of Marseille’s soap industry in the French national economy and to celebrate its success at international exhibitions.⁴¹⁹ Unlike those laudatory texts, dedicated to Marseille’s place in the ‘Pantheon of Industry,’ however, Mazière’s “*étude locale*” included extensive descriptions of the pollution produced by the industry. Though he acknowledged that soap was one of the objects which rendered man’s existence “superior to that of animals,” Mazière also unsparingly detailed the real effects of soap factories, both inside and outside the city.⁴²⁰

⁴¹⁸ “...car il faut bien espérer que nos paysans du terroir ne feront pas comme ceux de Septèmes qui, sous prétexte que la fumée des fabriques de savon repoussait les nuages et empêchait la pluie, se soulevèrent en 1815 et en 1816, si bien que l’on fut obligé de faire cantonner des troupes pendant quelques temps à Septèmes, pour préserver d’une destruction presque certaine les usines situées dans cette localité.” Pierre Mazière, *L’industrie de la savonnerie à Marseille*, 88–89.

⁴¹⁹ See, for example, L. Brisse, *Album de L’Exposition Universelle*; Louis Figuier, *Les Merveilles de L’Industrie*; Louis Reybaud, *L’Industrie en Europe* (Paris : Michel Lévy Frères, 1856); Julien François Turgan, *Les Grandes Usines en France et à L’Etranger, vol. II* (Paris : Michel Lévy Frères, 1862). Popular interest in the subject would persist into the final decades of the nineteenth century. See G., “Causerie : La Savonnerie Continentale,” *La Panthéon de l’Industrie*, December 27, 1885. <http://gallica.bnf.fr/ark:/12148/bpt6k96567925/f2.image.r=pantheon%20de%20l'industrie%20savonnerie%20continentale?rk=21459;2>; “La Fabrication du Savon à Marseille,” *Le Panthéon de l’Industrie*, 1884, <http://gallica.bnf.fr/ark:/12148/bpt6k9663082q/fl.image.r=savonnerie>; “La Savonnerie Marseillaise: Les Savons Blancs Non-Liquidés,” *Le Panthéon de l’Industrie*, February 24, 1884, <http://gallica.bnf.fr/ark:/12148/bpt6k9663080w/f4.image.r=savonnerie?rk=21459;2>.

⁴²⁰ “...des objets propres à rendre leur existence supérieure à celle des animaux.” Pierre Mazière, *L’industrie de la savonnerie à Marseille*, 3.

In his account, Mazière alluded to protests that had erupted in Septèmes, a rural community outside Marseille, in the early nineteenth century. In fact, the unrest that Mazière described was provoked by the introduction of artificial soda ash factories, which supplied Marseille's soap factories, and not the soap factories themselves.⁴²¹ These factories, which relied on the chemical treatment of salt with sulfuric acid, pumped a steady stream of hydrochloric acid into the air, gas which spread for miles around, devastating the agricultural areas surrounding Marseille and causing, according to complaints made against the factory, a sudden spike in infant mortality. With no way to explain the nature of this pollution, which appeared to mysteriously bleach and kill any nearby vegetation, rumors spread throughout the countryside that the smoke from these factories repelled rainclouds. Between 1815 and 1818, local communities attacked the soda ash factories, gathering in crowds of up to two hundred and threatening to burn them to the ground—unrest which prompted the Minister of the Interior to write to the Prefect in Bouches-du-Rhône, urging him to put the protests down with force. Six farmers were ultimately arrested and imprisoned for their involvement in the protests, despite the vocal opposition of the community. By including such episodes in his study, and by linking the violence against soda ash factories with the larger soap industry, Mazière emphasized a piece of the soap industry's history that often went untold in popular journalism and science writing on the subject. He pushed back on accounts that glorified the economic might of Marseille's soap industry, insisting

⁴²¹ Xavier Daumalin has argued that, while the pollution caused by soda ash factories was certainly a very real problem, it is also likely that soap manufacturers actively stoked outrage among the nearby farming communities through petition campaigns in an attempt to turn public opinion against policies from the Napoleonic regime that forced soap manufacturers to buy domestic soda ash from these factories rather than importing it more cheaply from abroad. Xavier Daumalin, "Industrie et environnement en Provence sous l'Empire et la Restauration," *Rives nord-méditerranéennes* 23 (2006): 27–46. For more on the protests in Septèmes, see Christophe de Villeneuve, *Statistique du département des Bouches-du-Rhône avec atlas*, tome 4 (Marseille: Ricard, 1829), 786–788.

that “the black processes of this great manipulation more closely resemble the forges of Vulcan than the presence of any peaceful deity who presides over this industry.”⁴²²

A key feature of these soda ash factories was that they were, in fact, rural establishments and the protests against them were organized and led by rural communities. The pollution produced by those factories was so dramatic, so visible, and so clearly attributable to them, that they were forced relatively quickly to areas outside urban space and officially categorized in the ‘first class’ of regulated industries in 1810, a classification which required them to operate in isolated areas. As soda ash factories were opened in greater numbers throughout the countryside, in abandoned coves, or on coastal islands, the environmental impact of the soap industry extended to encompass a greater swath of territory.⁴²³ “On all sides,” Mazière wrote, “one no longer sees anything but tall chimneys which project columns of dark smoke, announcing either the production of materials necessary for the soap industry or the production of the soap itself, so renowned in France and abroad.”⁴²⁴

And yet, as we shall see, soap factories themselves remained distinctly urban. For Mazière, soap factories were just as problematic as the soda ash factories which supplied them—perhaps even more so—since they were heavily concentrated in narrow corridors at the city center. “They are located at the very heart of the city,” he wrote, “and yet the smoke which escapes day and night from their chimneys mixes with the unhealthy emanations of the Old Port and renders this neighborhood almost uninhabitable.”⁴²⁵ The area remained, “however, a highly

⁴²² “...les noirs apprêts de cette grande manipulation décèlent plutôt les forges du Vulcain que la présence de la divinité paisible qui préside à cette industrie.” Pierre Mazière, *L’industrie de la savonnerie à Marseille*, 32–33.

⁴²³ Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage.”

⁴²⁴ “De tous côtés, on ne distingue plus que de hautes cheminées qui conduisent vers l’espace des colonnes de fumées noirâtres, et annoncent soit la composition des matériaux nécessaires à l’industrie du savonnier, soit la fabrication même de ce savon si réputé dans toute la France et ailleurs.” Pierre Mazière, *L’industrie de la savonnerie à Marseille*, 32.

⁴²⁵ “...elles sont placées au sein même de la ville; or la fumée qui s’échappe jour et nuit de leurs cheminées, se mêlant aux émanations insalubres du vieux port, rend ce quartier presque inhabitable.” *Ibid.*, 88.

frequented place...”⁴²⁶ As Maziere noted, in fact, the soap industry remained one of the few industries which were centralized inside urban space, even as other industries spread throughout and beyond the city, stretching farther away from their “ancient centralization” in the urban core.⁴²⁷ There was no street named for soap factories, he noted, though it was common practice in many cities to designate streets for the industries that predominated there, but their location in the city was no less conspicuous. “We know that in our city, most soap factories are concentrated in the square the begins at the quai Rive-neuve and ends at Saint-Victor, encompassing all the alleys, more or less narrow, which lead to the Cours Pierre Puget or the Boulevard de la Corderie.”⁴²⁸ The unhealthiness of these dank and twisted streets could be vastly improved, Mazière argued, if the factories were moved to isolated areas as the soda ash factories had been. “Our *banlieue* is sufficiently vast and favorable,” he wrote.⁴²⁹ “Already a certain number of industrialists have established their factories there; it would be desirable if others followed their example.”⁴³⁰

For Mazière, this was above all a question of public health. The city center needed wide, clean streets with access to fresh air. For the journalist Julien Turgan, however, there was also an economic reason to transfer soap factories outside the city. The practice of keeping soap factories at the center of the city reflected a negligence and backwardness on the part of soap manufacturers, he argued. “We are not speaking here only from the perspective of the health of the city of Marseille, which is crossed by revolting streams containing decaying organic matter

⁴²⁶ “C’est pourtant un endroit très fréquenté...” Ibid.

⁴²⁷ “antique centralisation” Ibid., 82.

⁴²⁸ “Nous sommes étonné qu’à Marseille il n’y ait pas une rue pourtant le nom de la Savonnerie, on sait pourtant qu’en notre ville la plupart des fabriques de savons sont concentrées dans ce carré qui, commençant au quai de Rive-Neuve, finit à Saint-Victor, embrassant toutes ces ruelles plus ou moins étroites dirigées vers le cours Pierre Puget ou la boulevard de la Corderie.” Ibid., 82.

⁴²⁹ “...notre banlieue est assez vaste et assez propice.” Ibid., 88.

⁴³⁰ “Déjà un certain nombre d’industriels y ont établi leurs; il serait à désirer que les autres suivissent leur exemple...” Ibid., 88-89.

and alkaline waste, which is too far spent to be of use and which will increase the fetid nature of the Old Port. We are speaking from a point of view that is purely economic.”⁴³¹ In order for Marseille’s soap manufacturers to stay competitive on the international market, he insisted, they needed to lower their prices to the greatest extent possible without altering the quality of their product—a feat that would not be possible if they continued to operate on expensive central real estate, and in a location which meant that they were required to pay municipal taxes on all the raw materials that they brought into the city. The most beneficial arrangement for the soap manufacturers themselves would be to relocate to an area outside the tax boundary of the *octroi*, but as close as possible to the rail line.

The persistence with which Marseille’s soap manufacturers kept their factories in and near the city center, a sharp departure from the urban industrial geography of other French cities, was inexplicable to Turgan.⁴³² The soap factories in Marseille were “found in a location which, in Paris, would be in the space between L’Opéra and the Tuileries, which is to say la rue Richelieu, la rue de la Paix et la rue Neuve-Saint-Augustin, etc. This is an anomaly which is too strange and which cannot endure for very long...”⁴³³ Though soap factories had existed in the same neighborhood for more than a century, Turgan insisted that this dynamic would soon be remedied as soap manufacturers acted according to their own economic interests. Mazière also took it for granted that the factories would soon be moved elsewhere. “There is no obstacle to

⁴³¹ “*Nous ne parlons pas seulement ici au point de vue de la salubrité de la ville de Marseille, traversée par des ruisseaux infects renfermant, des matières organiques en décomposition, des résidus d’alcalis trop altérés pour pouvoir servir, et qui vont augmenter la fétidité du vieux port, nous nous placerons au point de vue purement économique.*” Julien Turgan, *Les Grandes Usines en France*, 126.

⁴³² John M. Merriman, *The Margins of City Life: Explorations on the French Urban Frontier, 1815–1851* (New York: Oxford University Press, 1991).

⁴³³ “*Les savonneries se trouvent donc à Marseille dans une situation qui serait, à Paris, l’espace comprise entre l’Opéra et les Tuileries, c’est-à-dire la rue Richelieu, la rue de la Paix et la rue Neuve-Saint-Augustin, etc. Il y a là une anomalie trop forte et qui ne pourra subsister longtemps.*” Julien Turgan, *Les Grandes Usines en France*, 126.

moving the factories outside the city boundaries,” he wrote.⁴³⁴ “It would only take a moment of good will from the municipal government to totally change the neighborhood around Rue Sainte, rendering it more accessible for commerce and healthier for the people who live there. It is simply a question of time and money, but we are persuaded that we will one day see this goal accomplished.”⁴³⁵

The reality was, however, that soap factories remained closely tied to urban space. They were never forced to move by the municipal government, nor did many apparently choose to move very far outside the city center on their own accord. They remained densely concentrated in a handful of neighborhoods where they left an enduring footprint, existing, in some cases, in the same quarters and along the same streets from the Middle Ages well into the early twentieth century. The oldest factories were anchored to the space immediately around the Old Port and, in the mid-nineteenth century, new pockets emerged in the neighborhoods near the city’s train stations: in the industrial quarters of Saint-Mauront and Belle-de-Mai, conveniently located between the modern port complex and the train station at Saint-Charles, and in Le Rouet, the neighborhood next to the Gare du sud, the train station which served the southern half of the city. As urban development began to radiate out from the port at the city’s center, soap factories were absorbed and incorporated, creating a concentration of manufacturing in the city center with significant environmental and social implications for the neighborhoods in which they existed. The writings of both Mazière and Turgan point to deeper questions about why and how this facet of Marseille’s urban geography emerged and why it proved to be so enduring. Why, despite all

⁴³⁴ “...il n’y a donc aucun inconvénient à établir des usines hors des barrières...” Pierre Mazière, *L’industrie de la savonnerie à Marseille*, 89.

⁴³⁵ “...il suffirait d’un moment de bon vouloir de la municipalité pour changer totalement le quartier de la rue Sainte, en le rendant plus accessible pour le commerce et plus salubre pour ceux qui l’habitent. Ce n’est qu’une affaire de temps et d’argent, mais nous sommes persuadé qu’un jour nous verrons l’accomplissement du désir que nous venons d’exprimer.” Ibid.

the health problems that were clearly associated with soap factory pollution, despite prominent calls for the removal of those factories, and indeed, the fact that, in some cases, it may have been cheaper for them to operate elsewhere, did soap factories retain their place in and near the city center?

There was obviously an economic logic to the locations in which most soap factories were established. Proximity to the infrastructural hubs of the port and the railways allowed soap manufacturers easy access to the imported raw materials that they needed, for example. In some cases, it was also useful to set up shop in the vicinity of other industries, such as oil presses or crate-makers which also congregated in urban industrial neighborhoods. Perhaps most important, however, was the municipal tax system in Marseille, which played a central role in shaping the contours of industrial development in the city. In the first half of the nineteenth century, for example, some soap manufacturers, apparently following Turgan's logic, chose to establish their factories on the edge of urban space, immediately outside the tax boundary of the *octroi*, which allowed them to escape municipal taxes on the imported materials brought into the city. The farther these factories drifted outside the center of urban space, however, the higher transportation costs became for imported materials and for bringing finished products back to sites of distribution and export. As a result, soap manufacturers were effectively tethered to the city, unable to migrate too far away from urban space along the coast, which formed the central node of the wider economic networks on which they depended. Balancing the benefits of proximity to the port with the costs of local taxes, soap manufacturers were further stymied by municipal authorities, who repeatedly extended the boundary of the *octroi* over the course of the nineteenth century in order to absorb industries which had recently established themselves on the

outer zones of urban space.⁴³⁶ Unwilling or unable to invest the massive overhead costs associated with building new factories elsewhere, manufacturers were effectively locked into the neighborhoods that had offered the best combination of cost-cutting possibilities, even when those neighborhoods had become fully absorbed by both the physical space and legal tax boundaries of the city.

⁴³⁶ For a description of the various iterations of the *octroi* boundary over time, see Émile Camau, *Marseille au XXème siècle: tableau historique et statistique de sa population, son commerce, sa marine, son industrie suivi d'indications et de notes relatives à des projets d'améliorations et de réformes* (Paris: Guillaumin, 1905), 123–126.



Figure 20: *Octroi* boundary expansion, 1864 (above) versus 1875 (below).⁴³⁷

⁴³⁷ (above): Maps edited by author to highlight the *octroi* boundary. Mittenhoff, "Plan du territoire de Marseille d'après les documents obtenus des diverses administrations," 1: 30,000, Marseille: Chiesa, 1864. AM 78 Fi 139.

This particular dynamic of urban geography was not an inevitable one, however. Soap factories were not the only industrial establishments that would have benefited from easy access to the port, for example, and yet they effectively dominated the entire southern bank of the old port for two centuries, from the end of the seventeenth century into the early decades of the twentieth century. In fact, many soap factories stayed in those neighborhoods even as the bulk of port traffic drifted to the other end of the city, attracted by the modern port facilities which had been built along the city's northwest coast. Nor were soap manufacturers unique in their efforts to game the *octroi* tax system. The particular pattern of urban density that characterized soap factories in Marseille cannot, therefore, be entirely explained by any kind of economic or geographic determinism. Policy decisions also played a central role.

As previous chapters have shown, soap manufacturers and their allies in national government had managed to spare soap factories from the more rigorous restrictions that would have come from being listed in the 'first' or 'second-class' category of regulated industries. Their 'third-class' status meant that soap factories were perfectly legal within urban space and that departmental authorities had full discretion to manage the place of new soap factories within the city. The 1810-imperial decree, which formed the basis of these regulations, also carved out a clear loophole for factories which had already existed in 1810, meaning there was an incentive for soap manufacturers to remain in old factories, which were exempt from subsequent regulation. As a result, soap manufacturers often appear to have been driven by a kind of inertia—attracted to the same neighborhoods over time, where they could inherit factories that had already been built and where residents, who were accustomed to the pollution and, in many

(below): Louis Lan, "Plan général de Marseille et d'une grande partie de son territoire avec notamment le périmètre de l'octroi. 2e tirage," 1: 10,000. AD BDR 1 Fi 546.

cases, dependent on soap factories for employment, were unlikely to lodge complaints with local government.

The placement of these soap factories must also be viewed through the lens of local political concerns, however. Both municipal and departmental officials had their own ideological motivations as they sought to control the spread of soap production in the city. They hotly debated the issue of whether industrial activity should be allowed to exist inside the city at all, as well as how best to manage the pollution created by those urban industries.⁴³⁸ During this period, prefects, mayors, and members of the *Conseil de salubrité* differed in their preferred policy, some arguing that pollution should be isolated to certain zones, thus sparing the rest of the city from its worst effects. Others insisted that they should spare the communities who were already living in heavily polluted industrial landscapes by denying industrialists the right to add yet another factory to those areas.⁴³⁹ Residents too manipulated these arguments to suit their own interests, arguing for either the concentration or dispersion of pollution in order to protect the health of their neighborhoods from industrial pollution or, in some cases, to protect factories that offered important sources of employment.

The ultimate outcome of these debates was a clear preference for a policy of concentrating soap production in and near urban space, a policy that was never really shaken despite disagreements at various levels of government. In fact, despite the best efforts of certain officials and Council members, the urban geography of soap production in Marseille remained

⁴³⁸ Geneviève Massard-Guilbaud has written that pollution was almost by definition an urban problem during this period, since pollution was only legally recognized once it had generated complaint. That was far more likely to occur in urban space, though, as the introduction makes clear, not unheard of in rural communities. She writes: “*À vrai dire, parler de pollution industrielle urbaine revient, pour le XIXe siècle, à commettre un pléonasme. En effet, la législation de 1810 qui réglementait le problème ne considérait les rejets industriels comme des nuisances qu’à partir du moment où ils gênaient les voisins. Une pollution rurale, ou du moins une pollution isolée, était donc dans la pensée du XIXe siècle, chose quasiment impensable. C’est pollution n’en existait pas moins...*” Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 11.

⁴³⁹ For more on these debates, see Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 99, 322.

incredibly stable. Once it had established a pattern of concentration in three main areas of the city—a pattern which began to emerge in the late 1830s and pick up steam in the late 1850s—that pattern endured for nearly a century, ensuring that soap manufacturers were, and would remain, one of the most distinct and highly visible features of Marseille’s urban landscape.

By examining the applications for new factory installations that were submitted to the *Conseil de salubrité* over the course of the nineteenth century, we can track where factories existed over time and trace the competing strategies that were at work as political and health officials sought to direct the proliferation of this industry—strategies that were challenged or appropriated in different contexts by residents themselves.⁴⁴⁰ Doing so allows us to capture a sense of the physical place of soap production in the city that is key to understanding Marseille’s urban development during this period. As has been discussed in previous chapters, managing the expansion of soap factories, along with the disposal of the toxic pollution they produced, was one of the most significant logistical challenges to the functioning of the city and its port. The sheer size of the soap industry in Marseille—its virtual monopoly over French production and its dominance of the global soap industry—meant that no other city on the planet was facing soap pollution on the scale that Marseille did in the nineteenth century.⁴⁴¹ It was a problem unique to that port city and to the residents of its central neighborhoods. Indeed, unlike the pollution of

⁴⁴⁰ See the factory application requests collected in AD BDR Phi 527 1 - Phi 527 38, 5 M 549 - 5 M 252, 5 M 257, 5 M 567, 5 M 671 and CCIMP ZC/04335, CCIMP ZC/10570.

⁴⁴¹ Marseille had a virtual monopoly over large-scale soap production in France from the late seventeenth century until about 1830. From that point, its portion of the French soap industry remained dominant but shrunk over time to a little more than half of French production by the mid-nineteenth century, which it maintained until the early twentieth century. Marseille alone produced more soap than most European countries during the nineteenth century. In 1857, for example, Marseille produced 60.5 million kilograms of soap while Spain produced only 8 million kilograms and Austria produced only 4 million. The United Kingdom, which was France’s next closest competitor, produced 90 million kilograms (versus 120 million kilograms in France), meaning that the city of Marseille produced roughly two thirds the amount of the entire United Kingdom. Xavier Daumalin, *Du savon à la puce*, 32, 64, 172; L. Brisse, *Album de L’Exposition Universelle*, 279–280; Louis Figuier, *Les Merveilles de L’Industrie*, 411–413.

soda ash factories, or any of the other industries which were quickly pushed outside populated centers, the daily experience of exposure to soap pollution would have been a uniquely urban experience. And yet, the economic importance of the industry, due in no small part to production methods that relied on a massive inflow of (taxed) imported raw materials, meant that local political officials were eager to keep factories inside the city, despite the many challenges they posed for urban infrastructure and for quality of life. As a result, managing the physical location of soap factories was an essential challenge, and in some cases, opportunity, for the creation and control of a pattern of urban geography that local authorities found desirable.

As we shall see, local health officials accomplished that task by developing a policy designed to isolate the worst effect of this pollution to certain neighborhoods in what has been described as an early example of proto-zoning regulation.⁴⁴² By corralling soap manufactures into established industrial enclaves, local authorities could protect a key industry from protest and litigation, spare socially elite neighborhoods from the effects of soap pollution, and ensure that the industry remained an important source of municipal tax revenue. This was true even of the very institutions that were charged with regulating soap producers, and even when there was clear evidence that those manufacturers had engaged in illegal activity. In doing so, local officials created an industrial and manufacturing sector in what would become the very heart of urban space, which clearly diverged from the ‘ideal’ pattern of urban development then being solidified in Haussmann’s Paris.⁴⁴³ Indeed, it was a policy that actively contributed to a socio-economic division of the city, described by Marcel Roncayolo, in which the center and northern

⁴⁴² Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 157–162.

⁴⁴³ See Alexia M. Yates, *Selling Paris: Property and Commercial Culture in the Fin-de-siècle Capital* (Cambridge, Massachusetts: Harvard University Press, 2015); John M. Merriman, *The Margins of City Life*. For more on the ‘failure’ of Haussmannization in Marseille, see Marcel Roncayolo, *Les grammaires d'une ville: essai sur la genèse des structures urbaines à Marseille* (Paris: Editions de l'Ecole des hautes études en sciences sociales, 1996).

quarters of Marseille were gradually abandoned to industry as affluent populations fled for new residential neighborhoods to the south and east—a socio-economic division which persists to this day.⁴⁴⁴ The result was an enduring pattern of urban industrial geography, which suited the interests of both government and industry, but ultimately sacrificed large portions of the city to the polluting practices of one of its dirtiest industries and, in doing so, solidified Marseille’s dual reputation as the soap capital of the world and one of the filthiest cities in France.

La Grande Dame of Marseille’s Industry

The nineteenth century saw an unprecedented surge in the production of *savon de Marseille*, but by the mid-eighteenth century, Marseille’s soap factories had already begun to demonstrate the principal traits that would separate them from other industries in the city and, as they continued to proliferate, distinguish Marseille from other industrializing cities in France. The defining feature of soap manufacturing in Marseille was its absolute centrality to the local economy. In 1765, soap production alone represented thirty-six percent of the industrial and manufacturing economy in Marseille—the single largest economic sector by the value of its production.⁴⁴⁵ Two decades later, by 1789, there were, by some estimates, thirty-three factories producing 700,000 quintaux of soap annually (roughly 34,000 metric tons) at a value of 30 million livres, which represented more than half of the industrial economy.⁴⁴⁶ By this period, soap manufacturing had

⁴⁴⁴ Marcel Roncayolo, *Les grammaires d'une ville*; Marcel Roncayolo and Éric Verdeil, *L'imaginaire de Marseille*; Marcel Roncayolo, *La Ville Et ses territoires* (Paris: Gallimard, 1997). See also Pierre Guiral, *Histoire de Marseille*, 223.

⁴⁴⁵ Tanneries and sugar refineries were a distant second and third, representing 20.5 percent and 12.4 percent respectively. Xavier Daumalin, *Du savon à la puce*, 64.

⁴⁴⁶ The quintal of the Ancien Régime was a measurement equivalent to 100 *livres anciens* or 48.95 kilograms. It was redefined in 1800 to measure 100 kilograms. Others cited even higher numbers for this period. The chemist and industrialist Jean-Antoine Chaptal, who would served as Minister of the Interior under Napoleon, wrote that there were sixty-five soap factories operating in 1789 with an annual production capacity of one million quintaux (48,950 metic tons). *Ibid.*, 64–67.

therefore already established itself as the “doyenne” of Marseille’s industry, according to Patrick Boulanger and Gérard Buti, but it also supported a host of crucial secondary industries and trading relationships, particularly around the cultivation and importation of olive oil and the production of soda ash, which were the two main ingredients in soap production. In the 1870s, the French chemist Louis Figuier estimated that soap factories in the city annually imported 36 million kilograms of oil and 50 million kilograms of soda ash—nearly all of which was taxed by the city (to the perpetual chagrin of soap manufacturers).⁴⁴⁷ Soap manufacturing also greatly increased demand in smaller sectors, such as the production of boxes and chalk, which workers used in the factories—Figuier estimated that soap factories annually spent 920,000 francs on crates and packing material alone—and created a steady stream of work for dockworkers in the port.⁴⁴⁸ As a result, by the mid-nineteenth century, a significant portion of the regional agricultural, artisanal, and industrial economies—not to mention the financial health of the municipal government—were entirely dependent on a prospering soap industry.⁴⁴⁹

The shock of Revolution, followed by a succession of Napoleonic wars and the British blockade of the port, devastated both shipping and industry in Marseille. Indeed, there was perhaps no more damning sign for the economic situation in Marseille than that the city was actually forced to *import* more than a thousand tons of soap in 1794.⁴⁵⁰ According to Paul Masson, by 1813 Marseille’s industry produced less than a quarter of what it had before the

⁴⁴⁷ Louis Figuier, *Les Merveilles de L’Industrie*, 413. For more on efforts of soap manufacturers to lobby for the reduction of duties paid at the *octroi*, see La Commission des Finances du Conseil Municipale, *L’industrie savonnaire à Marseille en 1865 et les droits d’octroi* (Marseille: Barlatier-Feissat et Demonchy, 1866). AD BDR Delta 1834.

⁴⁴⁸ Xavier Daumalin, *Du savon à la puce*, 28. See also Louis Figuier, *Les Merveilles de L’Industrie*, 412. Here Figuier is citing a report from the Great Exhibition in London, 1855.

⁴⁴⁹ Here, industrial refers to all activities that specialized in turning raw materials into finished manufactured products, with a particular emphasis on establishments that required large overhead capital investments. For more discussion on the term “industrial” in this context see Xavier Daumalin, *Du savon à la puce*, 20–21.

⁴⁵⁰ Patrick Boulanger, *Le savon de Marseille*, 27; Xavier Daumalin, *Du savon à la puce*, 100.

Revolution.⁴⁵¹ And yet, even during these ‘somber years’ as Xavier Daumalin has called them, the chemical industries, dominated by soap manufacturers, but also including supporting industries such as sulfuric acid and artificial soda ash production, represented nineteen percent of the local economy by the number of factories and *eighty* percent by the value of their production.⁴⁵²

Unsurprisingly then, soap factories represented a pronounced feature of Marseille’s urban landscape, ranging from between several dozen operational factories in the final decades of the eighteenth century to one hundred factories at the dawn of the twentieth century. The multi-story factory buildings loomed over the southern bank of the port and were often connected to other buildings to form small industrial complexes. The physical place of these soap factories in Marseille was also already well-established in the late seventeenth and early eighteenth centuries. Early maps of the city showed large portions of the Rive neuve taken over by soap factories as early as 1694.⁴⁵³ The southern bank of the port, which had been incorporated into the city in the 1660s, offered a particularly attractive position for soap manufacturers.⁴⁵⁴ It was this space, still relatively empty in the late seventeenth century, across the port from the residential areas of the Old Town but immediately next to the docks, which allowed them to easily import

⁴⁵¹ Quoted in Daumalin, *Du savon à puce*, 102.

⁴⁵² Daumalin, *Du savon à puce*, 103, 107.

⁴⁵³ See the map reproduced at Xavier Daumalin, *Du savon à la puce*, 30.

⁴⁵⁴ For more on this process, see Junko Thérèse Takeda, *Between Crown and Commerce*, 24–31.

raw materials, export finished products, and, as has been discussed in previous chapters, easily access the coast where they could dispose of their waste product.

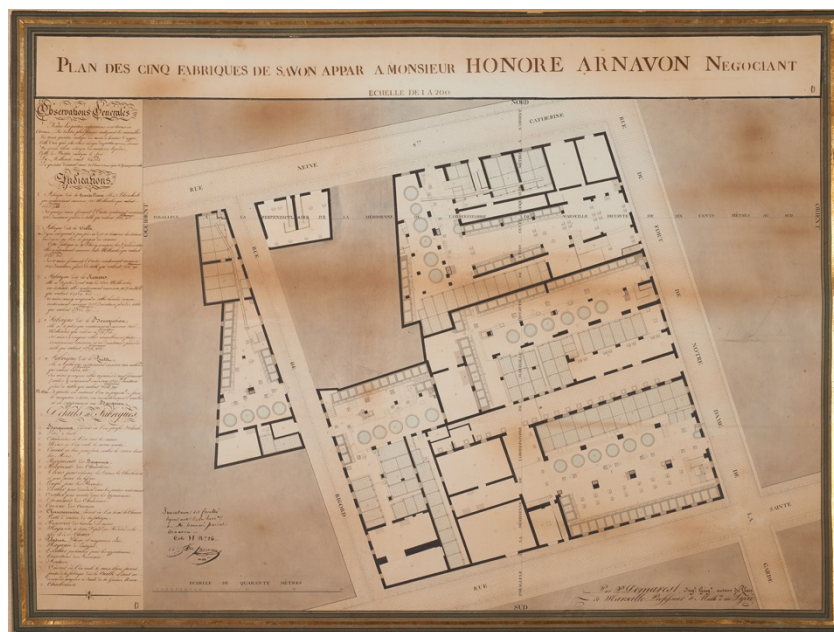


Figure 21: Soap factory complex including five individual *fabriques* in Saint-Victor.⁴⁵⁵

A city-wide survey of ‘classed’ industries in 1811 confirms both the relative size of the soap industry and its early concentration on the south side of the port (See Figure 22 below). The report cited forty-three soap factories operation in Marseille—by far and away the largest single sector of the economy.⁴⁵⁶ Thirty-six of those forty-three factories were in the quartier of Saint-Victor, the neighborhood which included the Rive-neuve.⁴⁵⁷ As this survey makes clear, however, not only were the vast majority of the city’s soap factories established in Saint-Victor, but there was virtually nothing else there. Soap factories represented ninety percent of all the industry listed in Saint-Victor (thirty-six out of the forty listed industrial or manufacturing

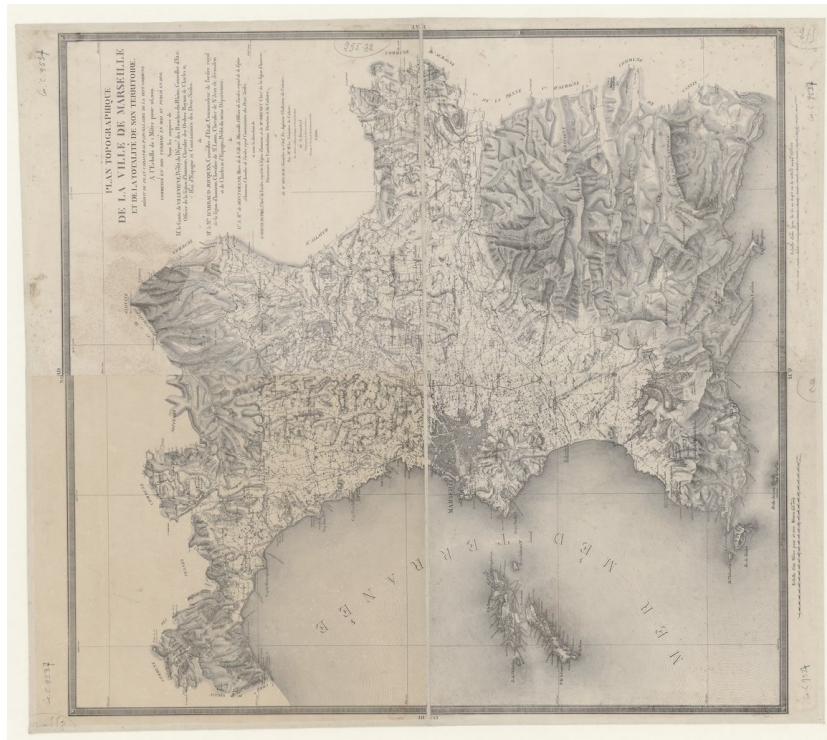
⁴⁵⁵ Pierre Demarest, *Marseille (Bouches-du-Rhône) : plan des fabriques de savon de Honoré Arnavon, grand-oncle de Jules-Charles Roux, situées entre les rues Sainte, Rigord, Neuve-Sainte-Catherine et Fort-Notre-Dame. Légende*, 1:200, First quarter of the nineteenth century. AM 6 Fi 24.

⁴⁵⁶ État des fabriques et manufactures de Marseille répandant une odeur insalubre ou incommode, 21 February, 1811. AD BDR 5 M 257.

⁴⁵⁷ *Ibid.*

establishments). The survey also underscored the age of the soap industry in the city and testified to the enduring place of soap manufacturing in the space that would become the city's core. In 1811, the average industrial establishment in Marseille was twenty years old, meaning it had first opened its doors in 1791. By contrast, the average soap factory was fifty-seven years old (founded in 1754) with more than twenty-three factories have started operations in 1750 or earlier, the two oldest dating to 1700.⁴⁵⁸

⁴⁵⁸ État des fabriques et manufactures de Marseille répandant une odeur insalubre ou incommode, 21 February, 1811. AD BDR 5 M 257.



Source gallica.bnf.fr / Bibliothèque nationale de France



Figure 22: (Left): Map of the Territory of Marseille, 1832. Urban space is denoted by the shaded grey area in the center of the map. (Right) Map showing the soap factories in Marseille in 1811. Grey areas indicate quarters in which there were no soap factories.⁴⁵⁹

⁴⁵⁹ Please note: interactive versions of these maps available at <https://public.flourish.studio/story/693598/>. For all maps created by the author, addresses given for each factory were mapped on to a corresponding *quartier* based on the current administrative division of quarters, established in 1947. Factories for which there was no reliable address, or for which no corresponding *quartier* could be found, were not included in the mapped data. (Left): Royet-Duprè, Dieuset, and Delavau, “Plan topographique de la ville de Marseille et de la totalité de son territoire,”

Over the course of the nineteenth century, the concentration of soap production in Saint-Victor stayed consistent, but factories also began to appear in new neighborhoods. When another city-wide survey was conducted nearly eighty years later in 1888, Saint-Victor still boasted the largest number of factories, but there were also pockets of concentration in the central neighborhood of Les Grands-Carmes, just north of the port, in the industrial neighborhoods of Belle-de-Mai and Saint-Mauront, on the north side of the city, and in the quartier of Le Rouet, to the southeast of the port.⁴⁶⁰ Residential and commercial quarters were being carved out along the southern side of the city's central boulevard, *La Canebière*, and along the southern coast from the Vieux Port to the Plage du Prado.

The soap factories in operation at the end of the nineteenth century were still slightly older than other contemporary factories. The average date of authorization (the date at which the prefect had granted them permission to begin production) for soap factories was 1869, five years older than the city-wide average of 1874, meaning that they were at least thirty years old when the survey was conducted—though many likely started operations before they had been given official sanction from the city.⁴⁶¹ At least six factories that predated the 1811 survey were still in operation in 1888, the oldest dating to 1748. The number of factories had continued to grow the course of the century, reaching a peak of one hundred factories in the late 1870s, before settling to just over sixty by 1888. The value of their product also continued to rise, reaching an estimated 50 million francs annually in the late 1860s. By this time, soap production therefore still represented the largest single sector of the industrial economy, but other industries were

1: 25,000, Paris: A. Desmadryl. Bibliothèque nationale de France, département Cartes et plans, GE C-9537. July 6, 2015. <https://gallica.bnf.fr/ark:/12148/btv1b530996920/>. (Right) Map created by the author. Data taken from “Etat des fabriques et manufactures de Marseille répandant une odeur insalubre ou incommode,” 21 February 1811. AD BDR 5 M 257.

⁴⁶⁰ *Relevé par arrondissement de police des établissements, classés ou non qui peuvent jouer un rôle dans la salubrité de la Commune de Marseille* (Marseille: Cayer, 1889). AD BDR 5 M 257.

⁴⁶¹ *Ibid.*

beginning to play a much bigger role. Oil presses and sugar refineries were beginning to match the economic heft of the soap industry in terms of the value of its production. And, even as the number of soap factories continued to rise or stay steady, other industries proliferated to such an extent that by 1888, soap factories represented only nine percent of the total number of factories in Marseille.⁴⁶²

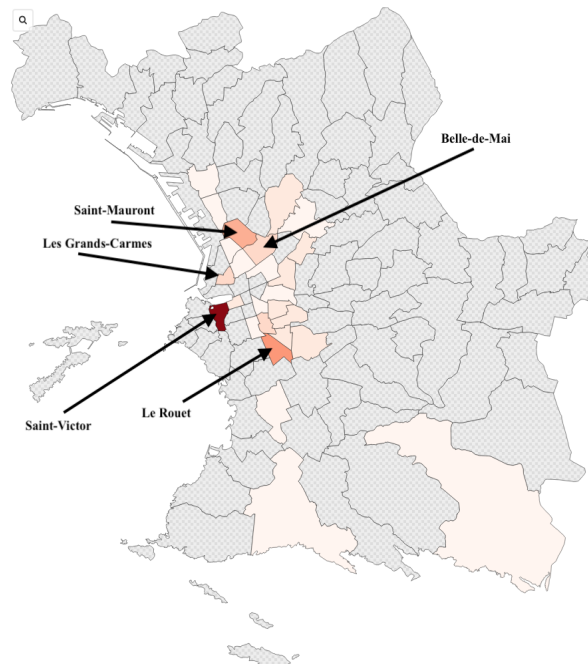
⁴⁶² There were 63 soap factories out of 669 industrial establishments listed in the survey (a figure which excludes the high number *vacheries* and *porcheries*, which were predominantly located in more rural parts of the commune, but were also technically listed as classed industrial establishments when they included a certain number of animals) If one includes the *vacheries* and *porcheries*, soap factories represent an even smaller portion of the industrial economy—63 of 1799 listed industrial and agricultural establishments in the commune of Marseille. (3.5%). Ibid.



Source gallica.bnf.fr / Bibliothèque nationale de France

All Soap Factories in 1888

1 15



*This data excludes one soap factory for which no reliable address could be found.

Figure 23: (Above) Map of the territory of Marseille, 1852. Edited by the author to show the Saint-Charles train station in Belle-de-Mai. A second railway line would soon be built to the south of the port in the quartier of Le Rouet. (below) Soap factory concentration in 1888. Grey areas indicate quartiers in which there were no soap factories.⁴⁶³

⁴⁶³ (above): Mittenhoff, “Plan du territoire de Marseille,” 1: 30,000, Marseille: Chiesa, 1852. Bibliothèque nationale de France, département Cartes et plans, GE C-1601. October 25 2012. <https://gallica.bnf.fr/ark:/12148/btv1b53027923t.r=plan%20du%20territoire%20de%20marseille?rk=42918;4>.

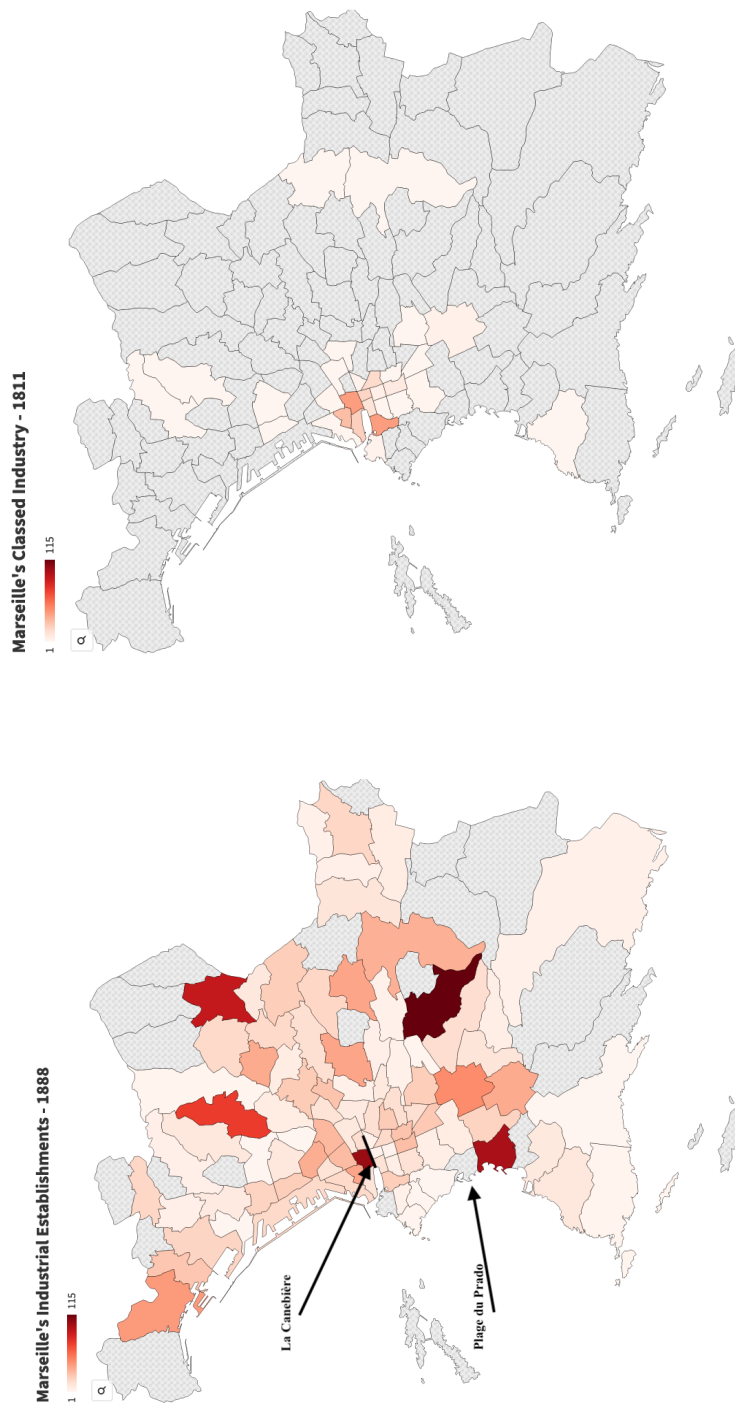


Figure 24: The proliferation of industry between 1811-1888.⁴⁶⁴

(Below): Map created by the author. Data from *Relevé par arrondissement de police des établissements, classés ou non qui peuvent jouer un rôle dans la salubrité de la Commune de Marseille* (Marseille: Cayer, 1889). AD BDR 5 M 257.

⁴⁶⁴ The data included in these maps are not perfectly comparable. The 1811 dataset included only industries that were classed according to the 1810 imperial decree. The 1888 map includes all the industries that had since been added to the list of classed industries in the intervening eight decades *and* several types of factories or establishments that were not classed, but still considered to have an effect on public health. Those caveats aside, the difference between the two maps indicates a dramatic surge in industrialization across a wider geographic area and a

As an industrial survey from 1926 shows, however, despite the industrial surge in Marseille over the course of the nineteenth century, the patterns of physical concentration demonstrated by the soap industry stayed remarkably steady (see Figure 25 below). In fact, the geography of soap factories looks much the same as it did in the mid-nineteenth century with clusters in Saint-Victor, along the new port complex, and in Le Rouet. Soap factories critically retained their place in and near the city center even as a tide of urban development washed over and surrounded these neighborhoods. And, as the map makes clear, soap production still existed as one of the city's most important industries—one of the very few sectors that still existed from the pre-Revolutionary period.

greater recognition of the kinds of production and manufacturing that might affect public health. Maps created by the author. Data for the 1811 map taken from “État des fabriques et manufactures de Marseille répandant une odeur insalubre ou incommode,” 21 February, 1811. AD BDR 5 M 257. Data for the 1888 map taken from *Relevé par arrondissement de police des établissements, classés ou non qui peuvent jouer un rôle dans la salubrité de la Commune de Marseille* (Marseille: Cayer, 1889). AD BDR 5 M 257.

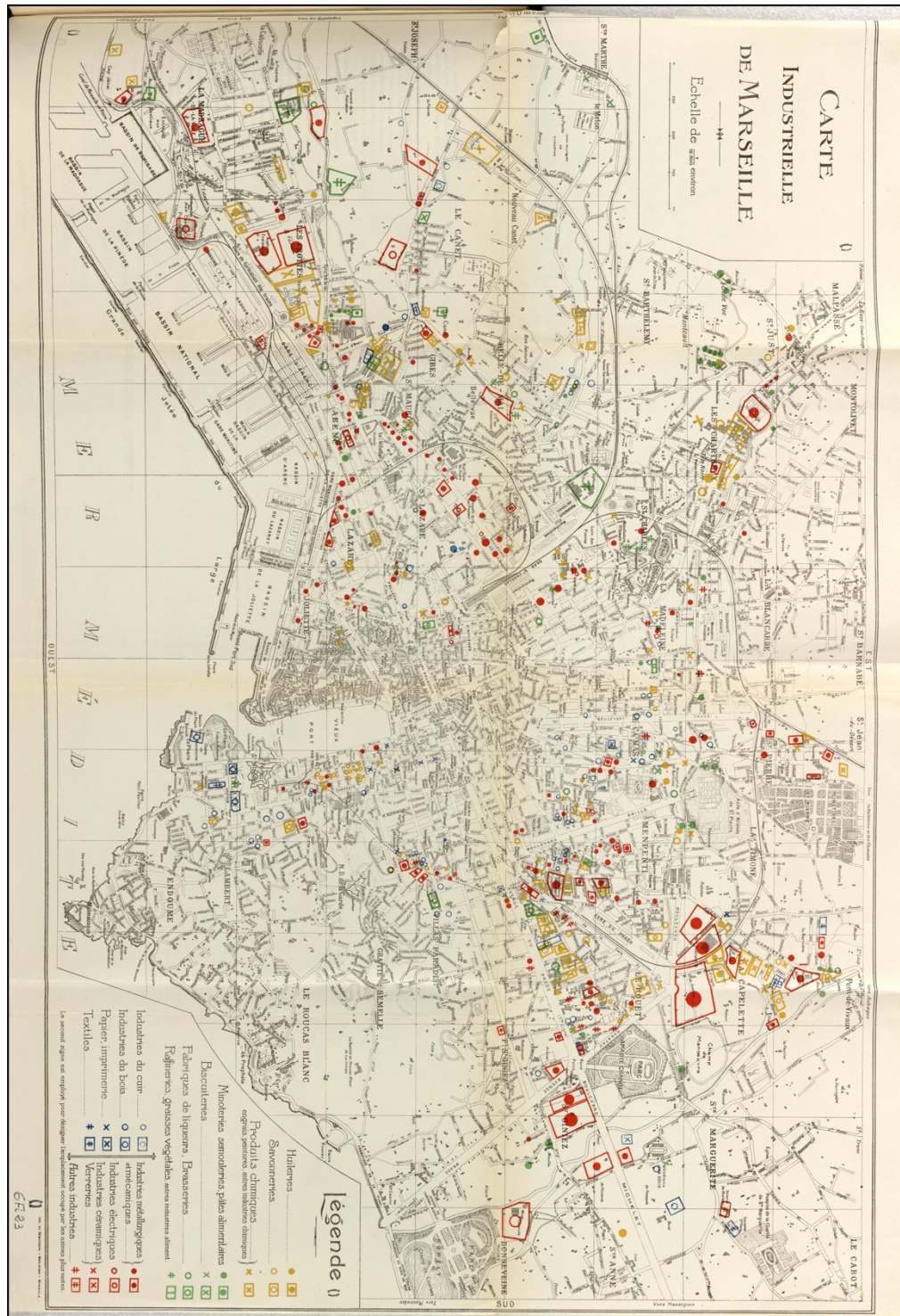


Figure 25: Industrial map of Marseille, 1926. This map has been rotated to show a north-south orientation. Hollow yellow circles denote soap factories. They remain concentrated in three main areas they did in the mid-nineteenth century: Saint-Victor, between Saint-Charles and the new port complex, and in Le Rouet. There are still more than a dozen soap factories in Saint-Victor and they are among the very few industries to have retained their place at the very center of the city, south of the port.⁴⁶⁵

⁴⁶⁵ Anonyme, "Carte industrielle de Marseille," 1: 12,500, Marseille: Imprimeur du Sémaphore, Barlatier, 1926. AM 6 Fi 23.

A Philosophy of Concentration: Proto-zoning policies on the *Conseil de salubrité*

What factors, then, kept Marseille's soap factories entrenched in these specific neighborhoods across the nineteenth century? The institution with the most power to determine the placement of soap factories in the city was the *Conseil de salubrité*, which, theoretically, examined the site for every soap factory before it began its operations and made a positive or negative recommendation to the prefect, who would grant or deny the final authorization. It is clear, however, that many factories operated illegally without official sanction from either the Council or the prefect. In the late 1840s, the Council estimated that the majority of all classed factories in Marseille had no authorization, either because they had failed to fulfill their legal obligation to submit their establishment for review, or because their operation predated the 1810 imperial decree that regulated classed industries and they were effectively 'grandfathered in,' allowed to continue production exempt from normal regulations.⁴⁶⁶ In 1888, for example, more than sixty percent of soap factories (39 out of the 63 factories in Marseille) were operating without an official authorization.⁴⁶⁷

Despite these limitations on his ability to effectively control the real-time proliferation of industry, the prefect reviewed more than 250 applications for new soap factories between the beginning of the nineteenth century and 1917, when industrial regulation was overhauled on the national level.⁴⁶⁸ From these files, it is possible to capture a sense of the philosophy driving the

⁴⁶⁶ "Quelques considérations sur les établissements industriels de Marseille, présentées par le docteur Chaudoin au Conseil de salubrité, d'après les documents fournis par les commissions formées dans son sein, et chargées de la visite de ces ateliers," in Marius Roux, *Compte-Rendu des travaux présenté au Citoyen Préfet de la République Française, dans le département des Bouches-du-Rhône, août 1840 à juin 1848* (Marseille: Barlatier-Feissat et Demonchy, 1848), 186. CCIMP ZC/10570.

⁴⁶⁷ This appears to have been roughly on par with the rest of industry in the city. At least 62% of other classed industries were operating without an authorization. *Relevé par arrondissement de police des établissements, classés ou non qui peuvent jouer un rôle dans la salubrité de la Commune de Marseille* (Marseille: Cayer, 1889). AD BDR 5 M 257.

⁴⁶⁸ See the factory application requests collected in AD BDR Phi 527 1 - Phi 527 38, 5 M 549 - 5 M 252, 5 M 257, 5 M 567, 5 M 671 and CCIMP ZC/04335, CCIMP ZC/10570.

acceptance or rejection of applications both by the Council and the prefect. Early in the history of the Council, members expressed a certain hesitation to allow the soap industry to expand beyond the confines in which had previously existed. This was true even after the city had adopted a relatively reliable collection method for the solid soap factory waste that ensured the majority was removed from the city and discarded in the open ocean. Factories remained a source of concern, despite these improvements, because of the regularity with which liquid waste leaked from factories, contaminating local wells and corroding sewer pipes. Council members seemed particularly loath to let soap factories progress too far along the city's southeastern shore, which had remained largely residential and rural in contrast with the clear industrial corridor that was beginning to develop along the new port complex. This was especially true of elite neighborhoods to the south. On the other hand, both Council members and the prefect regularly approved factories in and on the very edge of the most populated parts of the Old Town, in the quartiers of Les Grands-Carmes and Saint-Lazare.

These trends are borne out in Figure 26 below, which shows the geographic dispersion of soap factory requests across the nineteenth and early twenties centuries. Beyond a clear preference for the concentration of soap factories in certain neighborhoods, a number of broad tendencies stand out. First, the vast majority of authorization requests for new soap factories were approved by the prefect (nearly 80%). As a result, the map showing the number of soap factory authorization requests in any given neighborhood is nearly identical to the map showing where those factories were ultimately approved. This data also shows that most authorization requests were submitted for neighborhoods that were clearly developing an industrial in character, where they likelihood of authorization was high. Most soap factory owners did not attempt to establish factories in rural or socially elite residential areas. When they did, their rate

of success was very low. Lastly, as has been argued by other scholars of French industry, the geographic dispersion of factory authorization requests cannot be taken as a perfectly reliable proxy for the real geographic dispersion of that industry.⁴⁶⁹ Despite the fact that Saint-Victor remained the neighborhood with the greatest concentration of soap factories, for example, that concentration does not appear in the maps below. In fact, the number of new factory requests for that neighborhood are far fewer than requests made in the new industrial quarters of Les Grandes-Carmes, Saint-Mauront, Belle-de-Mai, and Le Rouet. This blind spot in the data is a reflection of the fact many factories in that neighborhood predated the 1810 requirement to submit an authorization request and therefore do not show up in archive files related to the authorization process. New factories in the neighborhood would also likely have been able to blend in relatively easily in the heavily industrial quarter, meaning that they could operate under the radar of local authorities without an official authorization, and neither the *Conseil de salubrité* nor the prefect appear to have been overly concerned with proactively enforcing regulation in that neighborhood.⁴⁷⁰ As a result, the data taken from authorization requests, while enlightening as to general trends, is, at best, a loose approximation of *new* industrial activity in neighborhoods which had not been heavily developed before the nineteenth century—particularly in neighborhoods where a new factory would be too conspicuous to operate for long without official authorization or provoking neighborhood complaints.

⁴⁶⁹ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 118–131.

⁴⁷⁰ There was virtually no enforcement or proactive regulation of any industry in Marseille until an inspection service was created in 1894—and implemented at the national level in 1917. The lack of enforcement made it easy for residents and soap factory-owners alike to argue that factories in industrial neighborhoods formed conglomerations that made it impossible to ascertain the origins of pollution as a way to justify keeping them open. One resident wrote to the mayor in 1895 to defend a soap factory in her neighborhood, for example, writing “it would be difficult to specify whether certain insignificant odors...are coming from the soap factory or elsewhere.” Letter from Veuve Petez to the Mayor of Marseille, 17 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567. See also, J.-S. Roux de Brignoles and Albert Domergue, *Compte-rendu des travaux, tome XXV* (Marseille: G. Loret, 1895), 5–6. AD BDR Phi 527 15.

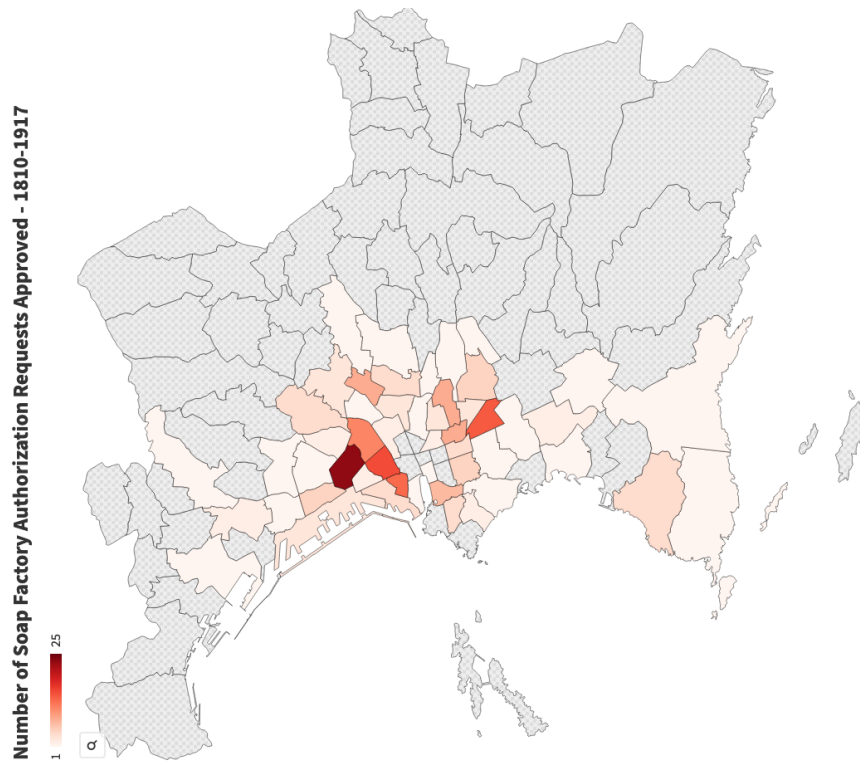
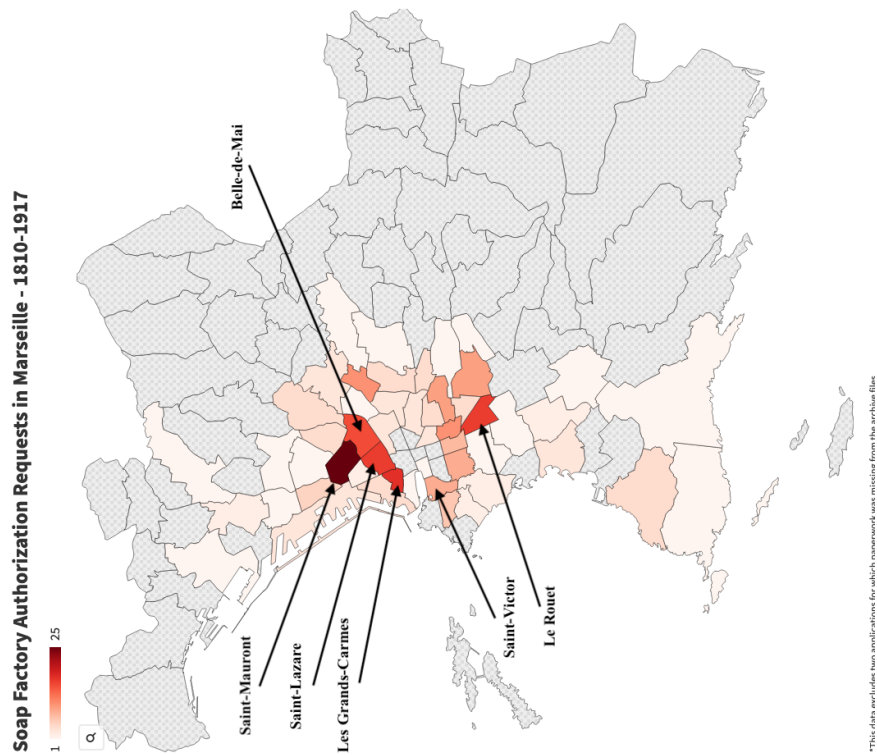


Figure 26: Soap Factory Authorization Requests and Approvals⁴⁷¹

⁴⁷¹ All data from AD BDR Phi 527 1–Phi 527 38, 5 M 549 - 5 M 252, 5 M 257, 5 M 567, 5 M 671 and CCIMP ZC/04335, CCIMP ZC/10570.

The statistical picture offered by these factory authorization requests can be complemented by the annual reports published by the *Conseil de salubrité*—reports which detailed debates among the Council members, included letters of support or opposition from the mayor, which he submitted when he felt strongly about a particular request, and, critically, contained letters from the residents who lived in the neighborhood of proposed factories. This qualitative data reveals the personalities and the political and economic motivations that resulted in a consistent preference over time for keeping soap factories close to the city center and isolated to a limited number of neighborhoods that local officials were willing to sacrifice to industry.

We can see an early indication of these tendencies in the 1851-1853 report of the *Conseil d'hygiène et de salubrité* in which the Council members examined two applications for new soap factories—one in Les Crottes, a neighborhood roughly two miles north of the Vieux-Port, and the other in Bonneveine, roughly three miles to the south of the port. Both were outside of the areas in which soap factories had traditionally existed and both were well outside the city center, beyond the boundary of the octroi. And yet, the Council ultimately recommended the approval of only *one* of these factories—that in les Crottes, to the north of the city's Old Town.



Figure 27: Quartiers of Les Crottes, to the north, and Bonneveine, to the south of the Vieux-Port.⁴⁷²

In their report for the factory application in Les Crottes, the Council described the local of the proposed factory as being wedged into a relatively developed space. They noted that the factory was projected to be no more than a dozen meters from the nearest houses and that the liquid waste from the factory would have to flow into the sea via a street which was “well-frequented by a large number of people, especially during good weather.”⁴⁷³ Despite these

⁴⁷² Map edited by the author to show the quartiers of Les Crottes and Bonneveine. Mittenhoff, “Plan du territoire de Marseille d’après les documents obtenus des diverses administrations,” 1: 30,000, Marseille: Chiesa, 1864. AM 78 Fi 139.

⁴⁷³ “*Que cette fabrique est située hors la ville, sur la littoral de la mer et à une dizaine de mètres des maisons voisines...mais, considérant aussi que, dans leurs parcours, les eaux provenant du lessivage, passent dans un chemin de ronde douanier et fréquenté, pendant la belle saison surtout, par un grand nombre de personnes...*” Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d’hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 163. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

realities, and with little deliberation, they quickly concluded that the factory would not pose any serious inconvenience. They recommended a number of minor restrictions on the factory operations, including, for example, the requirement that the chimney be raised to twenty meters above the street below, but even these small stipulations were ultimately left out of the prefect's final authorization for the factory.⁴⁷⁴

Meanwhile, the request for the factory in Bonneveine, to the south of port, was rejected, though it was significantly farther from developed urban space and the risk that its waste would infiltrate the surrounding area would affect a smaller number of people. Residents from this neighborhood, which was home to a number of rural residences and *bastides*, or country estates of the city's social elite, produced a series of vocal complaints against the proposed factory.⁴⁷⁵ They expressed particular vehemence around the fear that the factory would poison their wells as had notoriously been the case in Saint-Victor. The Marquis Gaston de Panisse, who owned the nearby Chateau Borély, added his voice to the chorus of protests, arguing that the fumes and smoke from the factory would damage his extensive art collection and destroy, he insisted, one of the reasons travelers came to visit Marseille in the first place.⁴⁷⁶

Apparently included to agree, the Council ultimately accepted these arguments writing that "the pernicious influence of the soap industry on the wells of Saint-Victor has always preoccupied the Council and led it to refuse a favorable opinion any time it feared the infiltration of the ground water [by the factory waste]," though they neglected to articulate why such fears

⁴⁷⁴ Ibid. See also "Mouren 1852" folder in AD BDR 5 M 567.

⁴⁷⁵ Chaudoin, *Rapport du Conseil Central à Monsieur le Préfet des Bouches-du-Rhône sur les travaux des conseils d'hygiène et de salubrité du département, par le Docteur Chaudoin, Membre Secrétaire du Conseil, du 1er Juillet 1851 au 31 Août 1853* (Marseille: Barlatier-Feissat et Demonchy, 1853), 164. AD BDR Delta 6548. Also available at AD BDR Phi 527 4.

⁴⁷⁶ "Le château Borrelly est visité par tous les étrangers amis des arts, de passage à Marseille; si une fabrique à savon est construite sur le chemin qui y conduit, de laquelle s'échapperont des vapeurs de charbon de pierre et viendront envelopper le château, ses terres et les voyageurs; n'est-il pas évident, dit-il que les objets d'art renfermés dans le château en souffriront et que les voyageurs par l'un ou l'autre motif s'en éloigneront?" Ibid., 165.

were valid in the case of Bonneveine and not in the case of Les Crottes.⁴⁷⁷ “It is for this reason,” they continued, “that [the Council] has refused the factory in Bonneveine...despite all the precautions that the petitioner has indicated, the commission is not yet convinced of the safety of this factory...”⁴⁷⁸ Shedding some light on what were perhaps their true motivations in rejecting the factory, they continued, “if now, to all of these considerations, we add the fear of seeing one of the *beaux quartiers* of Marseille invaded by factories, a quartier which remains void of any industrial establishment...we have sufficient reason for proposing the rejection of this request...although the factory is small compared to those which exist inside the city, and though the construction seems solid, the danger for the surrounding area exists no less.”⁴⁷⁹ Repeating themselves, they underscored, “it would be deplorable if one of the *beaux quartiers* that surround Marseille was invaded by factories, when there are still so many locations for them to exist in which they would pose no danger.”⁴⁸⁰

In this case it was clear that the Council was not necessarily interested in isolating the pollution of soap factories to uninhabited areas or pushing factories farther outside urban space. Indeed, this pair of rulings demonstrated an inclination to keep soap factories closer to the city center if it meant keeping them in neighborhoods that already had or were clearly developing an industrial character. The Council received public praise for this policy from other health

⁴⁷⁷ “L’influence pernicieuse exercée sur les puits du quartier de Saint-Victor, par l’industrie savonnaire, a toujours préoccupé le Conseil pour lui refuser un avis favorable toutes les fois qu’il craignait les infiltrations dans les terres des eaux de l’épine.” Ibid., 162.

⁴⁷⁸ “C’est à cette considération qu’est dû son refus pour la fabrique de Bonneveine...malgré toutes les précautions que le pétitionnaire indique, la commission n’est pas encore rassurée sur l’innocuité de cette usine...” Ibid., 162–167.

⁴⁷⁹ “Si maintenant nous ajoutons à toutes ces considérations, la crainte de voir envahir par les usines un des beaux quartiers de Marseille, vierge encore de fabriques...nous avons un motif suffisant pour vous proposer le rejet de la demande...malgré que cette usine soit de peu d’importance relativement à celles qui existent dans l’intérieur de Marseille et que sa construction paraisse bonne, le danger pour le voisinage n’en subsiste pas moins...” Ibid., 168.

⁴⁸⁰ “Il serait déplorable qu’un des beaux quartiers des environs de Marseille, se trouvât envahi par les usines, tandis qu’il y a encore tant d’emplacements où il n’y aurait aucun danger à les établir...” Ibid.

officials, including Sélim-Ernest Maurin, a physician at the Hôtel-Dieu in Marseille, who wrote that “one sees with pleasure that the *Conseil d’hygiène* in Bouches-du-Rhône gives an unfavorable opinion each time there is a question of creating a new soap factory on land free of this industry.”⁴⁸¹ In fact, the Council had, at times, expressed a clear policy preference for protecting the *rural* areas immediately outside the city for recreational purposes rather than the city itself. Bastide culture, the practice of leaving the city, usually on Sundays, to spend time in nearby rural areas or in country homes, was famously widespread in Marseillais society—and not unique to the upper classes, though it was particularly pronounced among the social elite.⁴⁸² In discussing the authorization of a new fertilizer depot on the outskirts of town, for example, one Council member wrote, “The pleasure of the countryside is one which our population loves the most. Our surroundings are so populated that, at a certain distance, one might mistake the countryside for the suburbs. If we tolerate these establishments, our countryside will no longer be habitable. Legitimate complaints will arise from all sides.”⁴⁸³ Far from any sense of urgency to push soap factories outside urban space, therefore, Council members apparently felt a greater

⁴⁸¹ “*Pour ces diverses causes, on voit avec plaisir le Conseil d’hygiène des Bouches-du-Rhône émettre un avis défavorable toutes les fois qu’il s’agit de créer une savonnerie dans une terre vierge de cette industrie.*” Sélim-Ernest Maurin, *Esquisse de Marseille au point de vue de l’hygiène* (Montpellier: Boehm & Fils, 1861), 100.

⁴⁸² Stendhal was highly amused by bastide culture when he visited in Marseille in the late 1830s. He wrote that there were “five or six thousands” bastides in the areas surrounding Marseille—rural homes that ranged from the most humble hunting cabins to stately country homes of the city’s wealthiest families. “On all sides, one sees these little dazzling white houses standing against the pale green of olive trees.” “Note that there are hardly four green trees at these bastides,” he added, “The most stunted, unhappy three from the boulevard would be the subject of admiration at these bastides.” And yet, a true merchant of Marseille would never miss a Sunday at his bastide. “Come Sunday,” he wrote, “he would not sacrifice his bastide for anything in the world.”/“*Quant au dimanche, pour rien au monde vous ne lui feriez sacrifier sa bastide... Notez que dans cette bastide, il n’y a sûrement pas quatre arbres verts. L’arbre le plus rabougri et le plus malheureux des boulevards ferait l’admiration publique dans ces bastides. Il y en a bien cinq à six milles dans les environs de Marseille. De tous côtés on voit ces petites maisons d’une blancheur éclatante se détachant sur la verdure pâle des oliviers.*” Stendhal, *Voyage dans le midi de la France*, 196–201. See also, Gabriel Constant, “Les Bastides Marseillaises,” *Marseille*, no 13. (1951): 59–66; Pierre Guiral and Paul Amargier, *Histoire de Marseille* (Paris: Mazarine, 1983), 223.

⁴⁸³ “*Le plaisir de la campagne est celui que notre population aime le plus. Nos environs sont tellement habités, que jusqu’à une certaine distance, on prendrait le terroir pour les faubourgs. Si l’on tolère ces établissements, bientôt nos campagnes ne seront plus habitables. De justes plaintes s’élèveront de tous côtés.*” Letter from the *Conseil de Salubrité* to the Prefect of Bouches-de-Rhône, 15 March 1834. AM 31 O 7.

compulsion to protect the nearby rural spaces untouched by industry, particularly near the socially elite estates to the south of the city.⁴⁸⁴

Several years later, the Council would again give voice to fears that soap factories would be allowed to contaminate new parts of the city, but this time, at least one member of the Council pushed back on prevailing policy, expressing a desire to see these factories isolated in areas where their pollution would affect fewer people. The Council's secretary, Doctor Chaudoin, began his report on soap factories, noting that they continued to present serious problems regarding the pollution they created, particularly in areas where their physical location of the factory made it difficult to ensure the proper disposal of its waste. "In this way, soap manufacturing has often been a source of great difficulty for the Council and, as a result, the Council has found it necessary to take certain precautions for factories being established in quartiers that are otherwise void of this industry."⁴⁸⁵ Marius Roux, Chaudoin's colleague on the Council, agreed that extra precautions should be taken, but went a step further by arguing that soap factories should be treated with greater caution than their third class status typically required and should therefore be encouraged to choose isolated locations for new factory establishments. He wrote, "although the production of soap is included, by law, in the third class of unhealthy or inconvenient industries, factories destined for this type of manufacturing should not enjoy the favors which legislation affords them and should not be authorized unless they possess certain characteristics which prevent the inherent inconveniences of this industry..."⁴⁸⁶

⁴⁸⁴ For more on efforts to protect rural recreation and holiday areas, see the authorization of the Hesse soap factory in 1891. J.-S. Roux de Brignoles and Albert Domergue, *Compte-rendu des travaux, tome XXII* (Marseille: J. Cayer, 1892), 38-39. AD BDR Phi 527 12. See also, "Hesse fils" folder in AD BDR 5 M 567.

⁴⁸⁵ "*Sous ce rapport la savonnerie a été souvent pour le Conseil un grand embarras, et par conséquent obligée, pour s'installer dans les quartiers vierges de cette industrie, de prendre certaines précautions...*" Chaudoin, *Rapport Général des travaux des conseil d'hygiène et de salubrité, 1ere juillet 1853 au 31 août 1855* (Marseille: Barlatier-Feissat et Demonchy, 1855), 123. AD BDR Phi 527 5. Can also be found at AD BDR Delta 6549.

⁴⁸⁶ "...*bien que la fabrication du savon soit rangée, par la loi, dans la troisième classe des industriels insalubres et incommodes, les établissements destinés à cette fabrication ne doivent jouir des faveurs que la législation leur*

He recommended giving soap factories conditional and temporary authorizations that would need to be re-approved after a certain number of years, making sure that factories were far from inhabited areas and posed no danger of letting soap waste flow into local waterways or nearby lands. Small operations rather than large factories should be favored, and construction requirements needed to be followed, as did proper storage techniques for waste that would prevent it from being washed away by rain before it had been collected for disposal.

Roux's philosophy of isolating new soap factories, driven, above all, by public health concerns, was still clearly at odds with the prevailing policy preference on the Council, however. In the very next Council report, Council members again examined a pair of new factory applications, both of which were relatively close to the urban core—one in the quartier of Baille and the other in Belle-de-Mai.⁴⁸⁷ In a relatively rare move, the mayor had opposed both applications, arguing that the liquid waste run-off from these factories posed a risk of degrading sewer pipes in the area. Doctor Louis Rampal, the Council's new vice-president disagreed, saying the two locations were perfectly suited for soap production. He acknowledged that "The great question of transferring all our industries outside the city has long been a topic of discussion" and that the mayor was probably motivated by this great "*préoccupation du jour*."⁴⁸⁸ He rejects these concerns, however, concluding that this policy of "ostracism" was "radical" and much "too severe" for two small soap factories.⁴⁸⁹ He recommended the approval of both

accord, et n'être autorisés que tout autant qu'ils réunissent des conditions de nature à empêcher les inconvénients inhérents à cette industrie..." Ibid.

⁴⁸⁷ See full report in Louis Rampal, *Compte-Rendu des travaux, tome IX* (Marseille: Cayet et Ce, 1876), 345–350. AD BDR Phi 527 6.

⁴⁸⁸ "...la grande question de la translation de toutes nos industries hors la ville est-elle à l'ordre du jour depuis longtemps...L'avis défavorable de M. le Maire se serait-il ressenti de cette grande préoccupation du jour? — C'est probable." Ibid., 349.

⁴⁸⁹ "Mais ne pensez-vous pas que jusqu'au moment où une détermination radicale aura converti en mesure générale cet ostracisme, il y aurait peut-être trop de sévérité à repousser deux petites savonneries, qui doivent s'installer dans des locaux acceptés par M. le Maire et reconnus convenables par votre Commission." Ibid.

applications, ignoring the mayor's wishes, decisions which were both ultimately accepted by the prefect.⁴⁹⁰



Figure 28: Quartiers of Belle-de-Mai and Baille⁴⁹¹

In explaining his decision, Dr. Rampal demonstrated motivations that went well beyond any concern for public health. He took the time, first, to push back on the notion that had been expressed by the mayor, as well as numerous engineers in the department, that soap factory waste posed a serious danger in urban environments because of its corrosive effects on nearby structures, writing that if such statements were true, there would be no building left standing in Saint-Victor and clearly there were some very old factories still in operation there.⁴⁹² Beyond

⁴⁹⁰ The legal structure of the decree of 1810 ensured that decisions regarding the placement of new classed industries were left up to the prefect. Mayors could offer their opinions to the prefect, but they had effectively lost any authority over the placement of industry in their cities. See Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 43, 117, 151–162.

⁴⁹¹ Map edited by the author to show the quartiers of Belle-de-Mai and Baille. Mittenhoff, “Plan du territoire de Marseille d’après les documents obtenus des diverses administrations,” 1: 30,000, Marseille: Chiesa, 1864. AM 78 Fi 139.

⁴⁹² *Ibid.*

this particular dispute, however, Rampal also expressed a reluctance to place any limits on the growth of the soap industry whatsoever. He wrote, “let us not forget that Marseille’s soap industry has long been, and continues to be, one of the most beautiful flowers in the commercial crown of our city.”⁴⁹³

Rampal also explicitly articulated a financial incentive to keep soap factories inside city boundaries. By importing large quantities of raw materials and supplies into the city, the soap industry was directly responsible for significant tax revenue when those materials passed through the city’s customs boundary.⁴⁹⁴ Any effort to encourage soap factories to move farther away from the city center would hurt municipal tax revenue. “I am not responsible for the defense of municipal interests,” he acknowledged, “but I am not indifferent to them...and is it not evident that if one forced this industry into more distant areas, that it would seek to compensate for those inconveniences with other advantages, by relocating to an area outside the line of the octroi?”⁴⁹⁵ Though he sat on the department’s health council, Rampal was apparently more concerned about the financial implications of these two factories than the mayor himself, and argued that soap factories should be allowed and *encouraged* to stay close to the city—not for health reasons, but despite them. The tax revenue they generated outweighed, in his mind, any dangers they might pose for urban infrastructure.

Even within the confines of the *octroi*, however, Council members were often compelled to choose which neighborhoods were best suited to soap production, or, at the very least, which were most easily expendable to the effects of soap pollution. In making these decisions, the

⁴⁹³ “...ne l’oublions pas, la savonnerie marseillaise a été longtemps et est encore un des plus beaux fleurons de la couronne commerciale de notre cité.” Ibid., 346.

⁴⁹⁴ Ibid., 346–347.

⁴⁹⁵ “Je ne suis cette pas chargé de la défense des intérêts municipaux mais, je n’y suis pas indifférent... et n’est-il pas évident que si l’on veut forcer cette industrie à s’éloigner, elle cherchera à compenser les inconvénients de l’éloignement par d’autres avantages, en se plaçant en dehors du rayon de l’octroi.” Ibid.

Council actively shaped the social geography of the city by continuing to direct soap factories away from the neighborhoods they wanted to protect from industry. In 1873, for example, the Council rejected a soap factory in a bourgeois neighborhood near the Palais Longchamp, a park which included a new art museum as well as a natural history museum.⁴⁹⁶ The decision was necessary, they said, in the interest of “science and art” and to protect the facade of the building from smoke damage.⁴⁹⁷ Curiously, the conservationist at the art museum had told the mayor that he was not concerned about the proposed factory, believing that it was sufficiently distant to prevent it from damaging the art collection.⁴⁹⁸ Ignoring this apparent openness to a soap factory in the neighborhood, in 1880, the Council would go one step further and adopt an official rule that no new factories would be approved near the Palais Longchamp. “The neighbors in this quartier, today peaceful and bourgeois, would have too much to suffer from the tremor and noise...” of industrial activity.⁴⁹⁹

The policy of preventing soap factories from getting too close to wealthy neighborhoods would persist over the next several decades, and seemed to apply not only to elite neighborhoods which already existed, but also to areas that were being developed for wealthy occupants in the future. As would become clear, however, elite social status was not a perfect guarantee against the encroachment of soap factories. In examining the application for a new factory in the neighborhood of Castellane, for example, the Council’s commission admitted that they were

⁴⁹⁶ See “Durbec 1873” folder in AD BDR 5 M 671. See also correspondence referring to this factory at AM 57 R 63.

⁴⁹⁷ “*Considérant en outre, et surtout, que dans l’intérêt de la science et des arts, la proximité de cette usine serait un danger pour le palais de Longchamp, des tableaux qui y sont enfermés et ensuite pour la façade de cet édifice...*” Arrêté du Préfet des Bouches-du-Rhône, 6 January 1872. See “Durbec 1873” folder in AD BDR 5 M 671.

⁴⁹⁸ “...le conservateur du musée, consulté à ce sujet, a déclaré que l’action des dites émanations ne peut se faire sentir qu’à une très faible distance; il n’y a aurait donc aucun inconvénient à craindre sous ce rapport.” Letter from the Mayor of Marseille to the Prefect of Bouches-de-Rhône, November 1872. See “Durbec 1873” folder in AD BDR 5 M 671.

⁴⁹⁹ “...les voisins dans ce quartier, aujourd’hui paisible et bourgeois, auraient en réalité trop à souffrir de la trépidation et du bruit...” Louis Rampal, *Compte-Rendu des travaux, tome XI* (Marseille: Cayer et Ce, 1881), 35. AD BDR Phi 527 7.

inclined to reject this factory on the grounds that it faced several public streets, that the water table in that area was very close to the surface and therefore at risk of infiltration, and because the quartier was ‘up and coming’ [*en voie d’embellissement*].⁵⁰⁰ There were also concerns that the waste from this factory could compromise the trees which had been recently planted along the “*belle promenade*” of the Avenue du Prado.⁵⁰¹

Despite these concerns, however, the Council decided that this factory must be allowed to open, because there were several other soap factories and other types of industries already in the area. The Council would be inconsistent, they argued, in rejecting this application and applying unfair disadvantages to this particular business.⁵⁰² Any additional requirements or conditions placed upon the manufacturers operations to ensure the proper disposal of his waste would also be inappropriate since they were heavier burdens than those which were placed on his neighboring competitors. “The factory will not change the pre-existing circumstances,” they wrote, “aggravating them to the extent that would be necessary to justify opposing this factory.”⁵⁰³ Therefore, though they generally abided by an unofficial rule by which they forbid any new factories in ‘up and coming’ neighborhoods, they approved this factory request with minimal conditional requirements placed on its activity.⁵⁰⁴

Together, these application decisions highlight the key themes of Council policy preferences that stretched across the nineteenth century. The apparent priorities were to keep soap factories inside official city tax boundaries, to keep them from infiltrating too many new

⁵⁰⁰ Louis Rampal, *Compte-rendu des travaux, tome IX* (Marseille: Cayet et Ce, 1876), 351. AD BDR Phi 527 6.

⁵⁰¹ Ibid.

⁵⁰² Ibid., 352.

⁵⁰³ “*L’usine de M. Baron ne pourra changer les conditions préexistantes en les aggravant à un point tel qu’il faille quand même s’opposer à son établissement.*” Ibid.

⁵⁰⁴ Ibid., 352–353. Interestingly, however, this was one of the few cases where the prefect ultimately overruled the Council and rejected this authorization, likely as a result of one of the many complicating factors the Council report mentions. See AD BDR 5 M 251. See similar debates about factories near the Avenue du Prado in the case of the Bernabo frères soap factory. See “Bernabo frères 1874” folder in AD BDR 5 M 567.

neighborhoods, particularly neighborhoods which had not already developed an industrial character, and generally to keep them out of socially elite neighborhoods—or indeed, any neighborhood that was highly frequented by socially-elite communities, particularly those with prominent landmarks, where, Council members assumed, factories were likely to provoke vocal opposition. They made minimal efforts to keep decisions consistent—to avoid placing significantly more restriction on one factory versus another—even, as in the case above, when the particular circumstances of a given factory seemed to demand it. But, as we shall see, residents often intervened in the authorization process, complicating the environment in which the Council was forced to make its decisions.⁵⁰⁵

Residents and Workers: Working-Class Solidarity and Its Limits

Neither the prefect nor the Council made decisions about new factories in a vacuum. Residents regularly submitted letters or testimonials during the review process for new industrial establishments and the Council kept careful track of the complaints that came in, forwarding a packet of letters to the prefect with their decisions. The petitioners came from across the socio-economic spectrum, though it is clear that voices like those of the Marquis Gaston de Panisse received special attention. In these letters, we see residents expressing and re-working arguments about urban geography to fit their own interests.

In 1891, for example, a Monsieur Goncet proposed the construction of a new soap factory on the rue Abbé de l'épée in the quartier of Camas. The neighborhood was not one in which soap factories predominated, but there was at least one soap factory already in operation as well as a

⁵⁰⁵ In the 250 cases of soap factory authorizations that I have found for Marseille from 1810-1917, residents came forward to make complaints at least 47 times. Of those cases, they were successful in having the authorization rejected or withdrawn twelve times (25.5%).

distillery and “4 or 5” other unnamed factories.⁵⁰⁶ Given the increasingly industrial condition of Camas, the factory owner did not, apparently, anticipate any significant problem in having his application approved. Within two months of submitting his request, however, the mayor had received numerous complaints from nearby residents, including an opposition letter with twenty-five signatories from the neighborhood.⁵⁰⁷

In opposing the factory, the residents did not use the same rhetorical strategies that had already been used to preserve elite neighborhoods from the ravages of industrial development. Instead, they accused the soap manufacturer in question of exacerbating the terrible conditions in which they already lived. They wrote, “This street, from the rue de Camas to the Boulevard Sébastopol, is in a deplorable state. Almost impracticable and without a sewer, its numerous inhabitants are forced to leave their rain-water runoff as well as their household waste in the public street and this stagnant water stays in the street indefinitely. There is no stream with the necessary slope for it to flow away. In times of rain, this part of the rue Abée de l’épée is a veritable swamp. And yet, it is on this street, with these conditions, that one seeks to add yet another pestilential site of the most active kind.”⁵⁰⁸ If, they said, they were not able to prevent the construction of this factory through administrative means, then they would take their case to court, since, it seems, many had apparently purchased parcels of land in this neighborhood after

⁵⁰⁶ “*J’ose croire, Monsieur le Préfet, que vous voudrez bien donner à ma demande une réponse satisfaisante car il existe déjà dans le quartier 4 ou 5 usines aussi qu’une distillerie et même il vient de se construire tout récemment une savonnerie près du terrain sur lequel je sollicite de vous une autorisation.*” Letter from M. U. Goncet to the Prefect of Bouches-du-Rhône, 10 March 1891. See “Goncet 1891” folder in AD BDR 5 M 567. The Council deliberations on this application can also be found in AD BDR Phi 527 12.

⁵⁰⁷ See collected letters and petitions in “Goncet 1891” folder in AD BDR 5 M 567.

⁵⁰⁸ “*Cette rue, depuis la rue du Camas jusqu’au Boulevard Sébastopol, est dans un état déplorable. Presqu’impracticable et sans égout, elle est un véritable cloaque. Ses nombreux habitants sont obligés de déverser sur la voie publique leurs eaux pluviales ou ménagères, et ces eaux croupissantes demeurent indéfiniment dans la rue, aucun ruisseau avec la pente voulue n’existant pour leur écoulement. En temps de pluie cette partie de la rue de l’Abbé de l’Epée, est un vrai marécage. Et cependant, c’est dans une rue qui se trouve dans de pareilles conditions que l’on cherche à établir une nouveau foyer pestilentiel des plus actifs.*” Letter from the residents of Petit Camas to the Mayor of Marseille, 8 May 1891. See “Goncet 1891” folder in AD BDR 5 M 567.

having been explicitly told that there would be no factories built on the adjoining plots.⁵⁰⁹ Both the Council and the prefect conceded to these demands and rejected the factory on the grounds that it would “pose serious inconveniences for the health of the neighborhood.”⁵¹⁰

In the same year, however, residents from just a few streets down the road from the factory on Rue Abée de l’épée opposed another soap factory using a rhetoric diametrically opposed to that of their neighbors. They rejected the factory that had been proposed (and indeed, already partially constructed) at 82 rue Sébastopol, writing “until this day, the quarter Sébastopol has been reputed to be one of the most healthy in the city and it would be truly disastrous if such an industry were authorized to establish itself here.”⁵¹¹ Very quickly, they feared, waste from the factory would “infiltrate the soil...and all our wells would be poisoned.”⁵¹² The neighborhood would become “uninhabitable.”⁵¹³

It is unclear whether there really was a significant difference in the sanitary conditions between the two streets, separated by so small a distance, or whether residents were merely mobilizing the rhetoric they thought would be most effective, and in fact *had* been effective in upper-class neighborhoods. What is clear, however, is that when told of the complaints that had been made against his factory, the manufacturer responded incredulously. “I am extremely

⁵⁰⁹ Ibid.

⁵¹⁰ “*Considérant que la savonnerie projetée serait une cause de graves inconvénients pour la salubrité du quartier, la demande du Sieur Goncet est rejetée.*” Arrêté du Préfet des Bouches-du-Rhône, 17 July 1891. See “Goncet 1891” folder in AD BDR 5 M 567.

⁵¹¹ “*Jusqu’à ce jour le quartier Sébastopol a été reporté comme un des plus sains de la ville et il serait véritablement désastreux qu’une pareille industrie fut autorisée à s’y établir.*” Letter from the residents of Place Sébastopol, Rue Sébastopol and Rue Granoux to the Prefect of Bouches-du-Rhône, 15 January 1891. See “Talavera 1891” folder in AD BDR 567. The Council deliberations on this application can also be found in AD BDR Phi 527 12.

⁵¹² “*En outre ces matières dissolutes s’infiltrent dans le sol et dans très peu de temps tous nos puits seront empoisonnés par ces filtrations.*” Letter from Property-holders and Occupants of Place Sébastopol, Rue Sébastopol, Rue Granoux and other Surrounding Streets to the Prefect of Bouches-du-Rhône, 25 April 1891. See “Talavera 1891” folder in AD BDR 567.

⁵¹³ “*Le quartier Sébastopol très sain jusqu’à ce jour deviendrait inhabitable.*” Ibid.

surprised,” he wrote, “given that I am establishing myself in an entirely industrial center.”⁵¹⁴

Describing the site of the proposed factory, he added, “to the front [of my factory] is the soap factory of MM. Vreux et ce. as well as a factory which produces screens for oil presses. To the left there is the distillery of M. Durand de Piccard, to the right, a mechanical sawmill. It is therefore entirely natural that if my industry is prejudicial to the neighbors, then the other industries which surround it are as well. Therefore it can only be malice that would compel a neighbor to make complaints against my factory.”⁵¹⁵

For the residents who opposed this factory, the idea that any additional classed industry would come to the neighborhood was unconscionable, particularly given the recent cholera epidemic which had struck the city. That soap was only a third-class industry or that there were other factories already operating in the vicinity mattered very little. They emphasized that “a factory of this type, which is classed by law among the list of unhealthy establishments, would be very harmful to the neighborhood in terms of hygiene, which the administration is so deeply concerned about at the moment, with good reason.”⁵¹⁶ They closed their letter, asking not that the factory be shut down, but that the manufacturer be asked to “take his business elsewhere.”⁵¹⁷

⁵¹⁴ “*J’en suis extrêmement étonné attendu que je m’établis dans un centre complètement industriel.*” Letter from M. Talavera to the Prefect of Bouches-du-Rhône, 30 January 1891. See “Talavera 1891” folder in AD BDR 567.

⁵¹⁵ “*Je suis en effet borné comme suit: en face savonnerie de MM. Vreux & ce, et fabrique de scourtins, à gauche, distillerie de Mr. Durand de Piccard, à droite, scierie mécanique. Il est donc tout naturel que si mon industrie pouvait être préjudiciable aux voisins, les autres industries qui l’environnent le seraient également. Il ne peut donc y avoir que la malveillance qui pourrait pousser un voisin à faire des réclamations contre mon usine.*” Ibid.

⁵¹⁶ “*Une fabrique de ce genre qui est classé par la loi au nombre des établissements insalubres, serait très préjudiciable à ce quartier au point de vue de l’hygiène dont l’administration se préoccupe si vivement et avec raison à cette heure.*” Letter from the residents of Place Sébastopol, Rue Sébastopol and Rue Granoux to the Prefect of Bouches-du-Rhône, 15 January 1891. See “Talavera 1891” folder in AD BDR 567.

⁵¹⁷ “*Les exposants prient Monsieur le Préfet de ne pas autoriser le sieur Talavera à continuer son industrie, et à la porter ailleurs.*” Letter from Property-holders and Occupants of Place Sébastopol, Rue Sébastopol, Rue Granoux and other Surrounding Streets to the Prefect of Bouches-du-Rhône, 25 April 1891. See “Talavera 1891” folder in AD BDR 567.

Both the Council and the prefect apparently found their complaints unconvincing, however, and approved the factory on the proposed site.⁵¹⁸

As these cases demonstrate, there could be jarring inconsistency between the establishments that were approved or denied by the Council, leaving historians to read between the lines in order to understand why one factory was considered acceptable when another was not. In this particular situation, it is possible that a credible threat of legal action on the part of residents was enough to justify the rejection of an authorization request. It also seems that the Council found it incredibly difficult to reject factories in areas that already had other industrial establishments, even when factories has been found to have violated regulations or even provoked widespread complaints from the surrounding community. In examining the Lions soap factory in 1894, for example, a factory which had received “unanimous” opposition from local residents—residents who were nearly all workers in nearby factories—Council members explained their decision to authorize the factory anyway.⁵¹⁹ The Council had not found it “necessary,” they wrote, “to forbid [a soap factory] in a neighborhood which is home to factories that continually produce odors which are more troublesome and more unpleasant than those which are produced by soap factories.”⁵²⁰ Indeed, it seems they felt duty-bound to *protect* factories in those neighborhoods, writing that they “had to safeguard the rights of an industrialist” who has established himself in an area in which other factories also emitted

⁵¹⁸ Arrêté du Préfet des Bouches-du-Rhône, 10 August, 1891; Letter from the Conseil d’Hygiène du 1er arrondissement des Bouches-du-Rhône to the Prefect of Bouches-du-Rhône, 29 June 1891. See “Talavera 1891” folder in AD BDR 567.

⁵¹⁹ “*Les habitants de la rue Auphan et du chemin de Saint-Joseph sont unanimes pour se plaindre d’une odeur très désagréable et qu’ils ne peuvent pas définir...M. Lions assure qu’il ne dégage rien. Devant cette dénégation, nous avons l’unanimité du quartier. Quartier peuplé d’ouvriers qui travaillent pour les usines.*” J.-S. Roux de Brignoles and Albert Domergue, *Compte-rendu des travaux, tome XXV* (Marseille: G. Loret, 1895), 98–99. AD BDR Phi 527 15.

⁵²⁰ “*Le Conseil ne crut pas devoir interdire une pareille industrie dans un quartier consacré à des usines qui dégagent continuellement des odeurs plus pénibles et plus désagréables que celles produites par une savonnerie.*”

unfortunate pollution.⁵²¹ Council members were similarly hesitant to shutdown factories where the factory owner had already invested heavily in the business or had already begun construction. This was a pattern which sheds some light on why manufacturers may have been incentivized to begin production before they had received official authorization to do so: they could effectively present their operation as a *fait accompli* and have it approved after the fact, a violation for which there was no legal consequence. As a result, Council policy actually condoned and encouraged illegal industrial development.⁵²²

If, however, residents used the factory approval process to push back on industrial encroachment—and the inevitable pollution that came with it—they could also use it to protect the factories on which they depended for employment. In fact, the desire to *keep* factories in certain neighborhoods could give rise, at times, to vocal displays of working-class solidarity, and, in other moments, could pit workers from different factories against one another. In 1895, for example, the soap manufacturer Gouin et Cie. sought an authorization for a glycerin extraction facility that they had attached to their soap factory in the quartier of Lodi.⁵²³ Glycerin extraction was an industrial activity, developed relatively recently, that was becoming a common addition to the city's soap factories. The Gouin et Cie. soap factory itself appears to have been operating illegally since 1860 and the owners had been extracting glycerin for at least a dozen years without ever having requested or received a new authorization to add glycerin extraction to their operations.⁵²⁴ When they attempted to regularize their legal status, however, the mayor

⁵²¹ “D’un autre côté, ils doivent sauvegarder les droits d’un industriel établi dans un quartier où sont établies des amidonneries, une tannerie, une stéarinerie et d’autres industries qui, elles aussi, dégagent des odeurs.” Ibid., 100.

⁵²² For more, see Massard-Guilbaud, *Histoire de la pollution industrielle: France, 1789–1914* (Paris: Éditions de l’École des Hautes Études en Sciences Sociales, 2010), 118–131.

⁵²³ See brief summary of the Council report on this factory in J.-S. Roux de Brignoles and Albert Domergue, *Compte-Rendu des travaux*, tome XXVI (Marseille: Imprimerie du journal de Marseille, 1896), 14. AD BDR Phi 527 16.

⁵²⁴ Letter from Gouin et Cie to the Prefect of Bouches-du-Rhône, 17 December 1894. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

opened an investigation into the factory operations on behalf of the *Conseil d'hygiène et de salubrité* and a surge of residents came forward to make complaints—complaints, it turned out, both against the factory *and* against fellow residents who were trying to have the factory shut down.



Figure 29: Quartier of Lodi, c. 1896.⁵²⁵

Among these petitioners, twenty-six residents and property-holders from the neighborhood came together to protest the authorization for the factory, writing, “This project cannot be executed without causing the greatest damage to the health and the interests of the surrounding population of workers and small property-holders, especially those who live on the

⁵²⁵ Map edited by the author to show the quartier of Lodi. H. Serval, “Carte de la commune de Marseille pour l’Indicateur marseillais,” 1 : 40,000, Marseille: Imprimerie marseillaise, 1896. AM 102 F 2.

rue d'Espérance" (underline in the original).⁵²⁶ The fumes which came from the factory "are so strong and so acidic," they wrote, "that it has become absolutely impossible for the neighbors to open their doors or windows to air out their apartments. Even when keeping them closed, the neighboring residents live in a continual stench...It has reached a point where the majority of renters are threatening to leave if the situation continues. Most of these renters are day laborers who cannot afford to lose a half-day's work to submit a statement to the mayor's office [for this investigation]..."⁵²⁷ If the factory was allowed to continue operations, they wrote, it would be "ruin for the nearby property-owners and certain illness for the workers who reside in this neighborhood."⁵²⁸ A petition containing 144 signatures arrived from the workers of the nearby *Forges et Chantiers de la Méditerranée*, who similarly wrote that "The insupportable odor that emanates from this factory, as well as the slow but steady poisoning which will be the result, obligate us to protest against the establishment...which must not be tolerated except outside inhabited areas."⁵²⁹

In sharp contrast, aware that the factory was under investigation, the workers from the Gouin et Cie. soap factory came forward to make their own statement, asking that the mayor "not

⁵²⁶ "Les soussignés viennent protester de la façon la plus formelle contre le projet soumis à l'enquête... Ce projet ne saurait être mis à l'exécution sans porter la plus grand dommage à la santé et aux intérêts de la population ouvrière environnante et des petits propriétaires, notamment ceux qui habitent le rue de l'Espérance." Letter from Residents of Rue de l'Espérance and others to the Mayor of Marseille. See "Gouin et Cie, 1895" folder in AD BDR 5 M 567.

⁵²⁷ "Les émanations qui se dégagent de cette fabrication nouvelle sont tellement fortes et acides qu'il est absolument impossible aux voisins d'ouvrir leurs portes et fenêtres pour aérer leurs appartements. Même en tenant leurs issues fermées, les habitants voisine vivent dans une puanteur continuelle...C'est à un tel point que la plus part de locataires menacent de s'en aller si cette situation continue. La plus part sont des journaliers qui ne peuvent perdre une demi-journée pour aller consigner à la mairie leurs avis sur le 'commodo et l'incommodo'..." Ibid.

⁵²⁸ "C'est la ruine pour les propriétaires voisin et la maladie sûre pour la population ouvrière qui habite ce quartier." Ibid.

⁵²⁹ "Les odeurs insupportables qui se dégagent de cette fabrication ainsi que l'empoisonnement lent mais sûr qui en résulte, nous font un devoir de protester contre l'établissement sus-indiqué que ne doit être toléré que hors des endroits habités." Letter from the workers of the Forges et Chantiers de le Méditerranée to the Mayor of Marseille, 15 January 1895. See "Gouin et Cie, 1895" folder in AD BDR 5 M 567.

refuse the authorization of their employers.”⁵³⁰ Doing so “would deprive a great number of fathers, who work in this factory and live in this neighborhood, of their work.”⁵³¹ “We can assure you,” they wrote, “that if there are odors, they are not harmful, and no worse than those which are produced by other soap factories, where nearly everyone produces glycerin, as many of us who have worked elsewhere can attest. Since [the previous owner] installed the glycerin extraction operation, none of us have been indisposed in any way by the smell.”⁵³² Several other letters arrived at the mayor’s office in support of the soap workers. A group of residents who said that they had lived in the neighborhood for twenty years insisted that they had never been bothered by the smell of the factory.⁵³³ Another letter insisted that “the smell was absolutely insignificant and even less strong than that which invades, from time to time, Rue Sainte and other industrial neighborhoods.”⁵³⁴ “The closure [of this factory] would be a disaster for a great number of workers,” they added, “the majority of which are fathers with families.”⁵³⁵ Workers from the nearby machine shop, Ateliers Mallet, explicitly invoked a sense of solidarity with the soap-workers, writing that they felt compelled “to protest vigorously against this measure which

⁵³⁰ “*Les soussignés ouvriers travaillant à la fabrique de savon et de glycerine de Monsieur Gouin & Cie ont l’honneur de venir recourir à votre enquête pour examiner la requête qu’ils vous présentent tendant à ne pas refuser l’autorisation à leurs patrons.*” Letter from the workers of the Gouin & Cie. Soap factory to the Mayor of Marseille, 18 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

⁵³¹ “*La conséquence serait de priver de leur travail un grand nombre de pères de famille qui travaillent dans cette usine et qui habitent le quartier.*” Ibid.

⁵³² “*Nous pouvons vous assurer que s’il y a des odeurs elles ne sont pas nuisibles et pas plus mauvaises que celles des autres savonneries ou on fabrique presque partout de la glycerine, ainsi que beaucoup d’entre nous qui ont travaillé ailleurs ont pu s’en rendre compte. Depuis que M. Jounet avait installé la glycérine jamais personne de nous n’a été en quoique ce soit indisposé par l’odeur.*” Ibid.

⁵³³ “*Les soussignés qui depuis une vingtaine d’années habitent le Gd chemin de Toulon à proximité de l’usine susnommé déclarent et affirment qu’ils n’ont jamais été incommodés par les soi disant exhalations qui émanaient de la dite usine.*” Letter from the residents of Grand Chemin de Toulon to the Mayor of Marseille, 18 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

⁵³⁴ “*...nous déclarons que cette odeur est absolument insignifiante et même moins forte que celle qui envahit à de certaines heures la rue Sainte et les autres quartiers industriels...*” Letter from the workers of the Maison Grasset to the Mayor of Marseille, 18 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

⁵³⁵ “*...cette maison, dont la fermeture serait un désastre pour un grand nombre d’ouvriers la plupart père de famille.*” Ibid.

would put a large number of our comrades in misery.”⁵³⁶ Though many workers had also signed petitions against the factory, one man who identified himself as a baker from the same street as the proposed factory wrote, “many people who signed [petitions against the factory] would not have signed, had they considered the interests of the working class.”⁵³⁷

Ultimately, both the prefect and the Council agreed to authorize the soap factory and the additional glycerin extraction facility, suggesting, again, that they were unwilling to shut down a factory already in operation—even at the very center of urban space and even when that factory had violated industrial regulations for nearly forty years—despite vehement protests from the community. It is impossible to say what impact, if any, the worker and resident calls to protect the factory had on the decision-making process of the Council or prefect. Given the rate at which they approved other soap factories, it is highly likely that they would have authorized this factory even without those letters. But, the statements submitted to the mayor underscore an important complexity to the process by which Marseille’s residents sought to shape ongoing development of the city’s urban geography.⁵³⁸ While some certainly sought to push industry away from their

⁵³⁶ “Les ouvriers des ateliers de Monsieur Mallet... protestent vivement auprès de vous contre cette mesure qui mettrait un grand nombre de nos camarades dans la misère.” Letter from the workers of the Ateliers Mallet to the Mayor of Marseille, 18 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

⁵³⁷ “... beaucoup de personnes qu’on a fait signer, n’auraient pas signé s’ils avaient considéré les intérêts de la classe ouvrière.” Letter from the Baker, 99 Gr. Ch. de Toulon, to the Mayor of Marseille, 17 January 1895. See “Gouin et Cie, 1895” folder in AD BDR 5 M 567.

⁵³⁸ These letters also raise questions about organized campaigns to petition against certain factories. As both Geneviève Massard-Guilbaud and Xavier Daumalin have argued, we should not assume any kind of naïveté on the part of petitioners—protests against pollution could be instrumentalized by both residents and fellow business interests for their own ends. While residents could certainly did protests against very real pollution problems, petitions could also be used to put a rival factory out of business for example, or in an effort to speculate on the land near the factory. Petitions could be circulated by an interested party, such as a factory owner, among his own workers. This may very well have been the case in this instance, as both the owner and the workers of the Forges et Chantiers de la Méditerranée wrote letters to the mayor within one day of one another. Judging the veracity of resident claims can be incredibly difficult, but Massard-Guilbaud has pointed to a number of characteristics that lend suspicion to resident letters: a sudden influx of petitions long after a particular factory has been in operation, for example, or petitions which clearly feature repeat signatures. See Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 132–151; Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage.”

neighborhoods (or at least the particular pollution problems posed by soap factories), others attempted to keep it inside the city—and some, even those who were not employed at the factory in question—saw the fight to keep industry in urban space as part of a mission to support fellow workers.

Conclusion: The Urban Specificity of Soap-Production in Marseille

The debate over where to best establish new soap factories would continue through the end of the century with both business leaders and local authorities becoming increasingly explicit in their arguments that there was, in fact, a ‘proper’ place for the industry. In 1895, when the Council denied the authorization of a soap manufacturer named Gustave Magnan, for example, Magnan responded by writing an extended defense of his proposed operation with specific emphasis in its place within the city. He insisted that his plot of land was “situated precisely in the intermediary zone between the suburbs and the countryside, where, in every city in the world, one seeks to establish industry, just as we are doing in Marseille nearly everywhere one looks...”⁵³⁹ “In the south,” he continued, “off the Gare du Prado, the Grand Chemin de Toulon, are they not covered with factories of all sorts: oil presses, soap factories, foundries, machine shops, etc., etc.? If one goes to the Chartreux or St. Just, are there not factories at every step?”⁵⁴⁰ Rural villas, he argued, could always be pushed farther away from the city, but industry needed to stay close, he insisted. That industry would take over space near the city was “destined and

⁵³⁹ “*Ce terrain est en outre situé précisément dans cette zone intermédiaire entre les faubourgs et la campagne, où, dans toute les villes du monde, on cherche à établir les industries et c’est ce que l’on fiat également à Marseille de quelque côté que l’on se trouve.*” Letter from Gustave Magnan to the Prefect of Bouches-du-Rhône, 13 August 1895. “See Magnan 1895” folder in AD BDR 5 M 567. See also J.-S. Roux de Brignoles and Albert Domergue, *Compte-Rendu des travaux*, tome XXVI (Marseille: Imprimerie du journal de Marseille, 1896). AD BDR Phi 527 16.

⁵⁴⁰ “*Au sud, les abords de la gare du Prado, le grand chemin de Toulon, ne sont-ils pas couverts d’usines de toute sorte: huileries, savonneries, fonderies, ateliers de construction, etc., etc.? Si l’on se transporte du côté des Chartreux et de St. Just, n’y a-t’il pas des usines à tous les pas?*” Letter from Gustave Magnan to the Prefect of Bouches-du-Rhône, 13 August 1895. “See Magnan 1895” folder in AD BDR 5 M 567.

inevitable,” according to Magnan, since “industry must necessarily be close to the city, ports and train stations.”⁵⁴¹ The *Conseil de l’hygiène et de salubrité* conceded some of these points, writing that “with the continual growth of the population, there will be hygienic interest in pushing the majority of industry away from the populated center of the city,” but that, after a certain distance, transportation costs would make it too onerous for these businesses to succeed.⁵⁴² With that in mind, both the Council and the prefect ultimately approved Magnan's authorization upon appeal.⁵⁴³

As urban space continued to expand in all directions from the port and soap factories continued to proliferate in spaces that were increasingly populated, there were lone voices that called for a re-evaluation of Council policy. Apparently rare moments of disagreement among Council members appear in their reports. In 1898, when the Council approved a soap factory in the quartier of Vauban, just south of the Old Port, their report noted the solitary opposition of one member. “M. Domergue regrets that he does not share the opinion of [his colleagues],” the Council minutes noted.⁵⁴⁴ “He does not believe that one should authorize the establishment of a soap factory in a neighborhood destined to become a significant and desirable population center... There is reason to, in his opinion, push new factories as far as possible from the interior

⁵⁴¹ “Ainsi donc des quartiers vers lesquels la villégiature s’est portée bien plus encore que vers celui qui nous occupe ont été forcément atteints par l’industrie et le seront encore; c’est fatal et inévitable. La villégiature se déplacera et se transportera plus loin, elle peut le faire; mais les industries doivent nécessairement être près de la ville, des ports et des gares.” Ibid.

⁵⁴² “Avec l’accroissement continuel de la population, il y a intérêt hygiénique à éloigner la plupart des industries des centres populeux de la ville: au delà d’une certaine distance le fonctionnement de ces usines deviendrait trop onéreux à cause des transports...” J.-S. Roux de Brignoles and Albert Domergue, *Compte-Rendu des travaux*, tome XXVI (Marseille: Imprimerie du journal de Marseille, 1896), 51. AD BDR Phi 527 16.

⁵⁴³ Interestingly, in his second authorization request, he made a subtle change by repeatedly referring to his factory in the heavily industrialized quartier of Belle-de-Mai, rather than the more rural nearby quartier of Saint-Barthélemy, where he had originally identified it, perhaps seeking to underscore his argument that his factory already existed in an industrial area and the Council could, therefore, have no justification for denying his request. “See Magnan 1895” folder in AD BDR 5 M 567.

⁵⁴⁴ “M. Domergue regrette de ne pas être de l’avis du rapporteur...” A. Queirel and Albert Domergue, *Compte-rendu des travaux*, tome XXIX (Marseille: Imprimerie du journal de Marseille, 1899), 14. AD BDR Phi 527 19.

of the city.”⁵⁴⁵ As the Council minutes show, however, the authorization was immediately approved over these objections.

The ultimate result of these deliberations, examined over the century between the imperial decree of 1810 and the first major overhaul of industrial regulation in 1917, was a collection of concentrated sectors of soap production in the city or in spaces that, by the turn of the twentieth century, would be well within the confines of developed urban space. Carved out between the pockets of industrial development, were bourgeois neighborhoods, Haussmann-inspired boulevards, and landmarks, particularly in the southern and eastern parts of the city, that were protected from industrial encroachment by the prefect and by the members of the *Conseil de salubrité*. Meanwhile, large swaths of the city center and northern quarters were sacrificed to the inevitable infiltration of soap factory pollution—infiltration that was only slowly improved by the introduction of an expanded sewer system and fresh water distribution network of the *canal de Marseille*.⁵⁴⁶

⁵⁴⁵ “...il ne croit pas que l’on doive autoriser l’installation d’une savonnerie dans un quartier appelé à devenir un centre de population important et recherché à cause de sa position hygiénique. Il y a lieu, à son avis, d’éloigner le plus possible les nouvelles usines de l’intérieur de la ville.” Ibid.

⁵⁴⁶ See Pierre Vidal-Naquet, *Les ruisseaux, le canal et la mer*.”



Figure 30: Expansion of urban space, c. 1909⁵⁴⁷

Judged in terms of the long-term preservation of this pattern of social geography, the policies of the *Conseil de salubrité* were an unequivocal success. As William H. Sewell has written, one of the most distinctive characteristics of Marseille’s urban geography across the nineteenth century is its continuity and, indeed, stunning resistance to change in the face of numerous regime changes, explosive demographic growth, rapid industrialization, and massive urban development projects. “The remarkable thing,” Sewell writes, “is that changes in the character of Marseille’s neighborhoods were so slight. In spite of massive growth of population and built-up areas all along the periphery of the city, and in spite of huge construction projects that reoriented the city’s commercial axis and destroyed large numbers of dwellings, Marseille’s neighborhoods still retained the same social character in 1869 that they had in the early 1820s, before the city’s rapid growth began. In spite of some minor shifts in the proportions of some

⁵⁴⁷ Pierre Raoul, "Carte de la commune de Marseille et de ses environs pour l'Indicateur marseillais," 1 : 50,000, Marseille: Imprimerie marseillaise, 1909. AMM 102 Fi 4.

occupations, the portraits of Marseille’s neighborhoods drawn from the census of 1851 can stand without significant retouching for the entire half-century from 1820 to 1870.”⁵⁴⁸ The physical extension of the city over this period largely followed the contours of social demography that had already been drawn for the city center. “Extensive new developments were built all around the city’s periphery to accommodate its rapidly growth population, and these changed the shape and the physical aspect of the city fundamentally,” Sewell explains.⁵⁴⁹ “But, the social characteristics of the newly constructed neighborhoods so closely resembled those of the contiguous older neighborhoods that the social and occupational map of the city was scarcely altered by new construction.”⁵⁵⁰

Viewed in retrospective, the socio-economic division of the city seems to have been, in many ways, solidified rather than remade by this period of intense industrialization, though, as Sewell reminds us, the experience of living through these changes would likely have felt more tumultuous than long-term patterns suggest.⁵⁵¹ A bird’s-eye view of the statistical and geographic reality of these trends is, however, incredibly useful for identifying important points of divergence between Marseille and Paris, the city that was beginning to exert increasingly heavy-handed influence over urban development in the city. As Sewell writes, “Up to 1850, the commanding heights of the local economy were still occupied by Marseillais — a large number of wealthy merchants, some of whom doubled as bankers, and a growing number of industrialists...But during the 1850s and 1860s, the local capitalist elite was eclipsed by a whole series of joint-stock companies centered in Paris. These companies launched the great ventures

⁵⁴⁸ William H. Sewell, *Structure and Mobility*, 139.

⁵⁴⁹ *Ibid.*, 143–144.

⁵⁵⁰ *Ibid.*, 144.

⁵⁵¹ *Ibid.*

that transformed the city's economic life during the Second Empire: the railroad, the steamship companies, the joint-stock banks, the new port facilities, the rue Impériale, and the construction of the commercial quarters near the new port."⁵⁵²

If Marseille was being increasingly influenced by outsiders, however, it clear that Parisian capital was not enough to re-shape the city along Parisian lines with a Haussmann-inspired city-center devoted to '*beaux quartiers*' and industrial zones pushed to the periphery. In fact, the most prominent Haussmannian project in Marseille—the construction of the rue Impériale (now rue de la République), designed explicitly to bring middle and upper-class populations back to the city center, ended in financial disaster and the ruin of Jules Mirès, the infamous financier who had backed the project. This so-called 'failed Haussmannization' of Marseille, despite significant interest and investment from Parisian companies, has been the subject of extensive study and debate among historians and urban planners in the twentieth century.⁵⁵³ And yet, the economic importance and particular needs of the soap industry have so far been under-appreciated in these debates. Evidence gleaned from the reports of the *Conseil de salubrité* demonstrates that the combined interests of local government, soap manufacturers, and, in some cases, the residents who depended on these factories, kept soap factories close to the center of the city and, in doing so, helped to produce the urban geography for which Marseille would be known across the nineteenth century.

The place of soap manufacturing in Marseille also points to urban-specific elements of Marseille's industrialization. Focusing on soda ash factories, Xavier Daumalin has argued persuasively that historians need a wider territorial lens to accurately capture the full

⁵⁵² Ibid., 313.

⁵⁵³ Marcel Roncayolo, *Les grammaires d'une ville*. See also debates among urban planners as detailed in Sheila Crane, *Mediterranean Crossroads: Marseille and Modern Architecture* (Minneapolis: University of Minnesota Press, 2011).

environmental impact of industrial development in Marseille. “Far from being curled around the port,” he writes, Marseille’s industry was “at the center of a network of productive systems scattered throughout the regional space. That means, and this is an important methodological point, that if we want to grasp the nature of industrial pollution in all its dimensions, we must all look to the countryside, to the coasts, and not simply to urban space in the strictest sense.”⁵⁵⁴ Daumalin is right, of course, that the environmental impact of the industry in Marseille did not stop at the city walls. One would need a global perspective to fully incorporate the extended environmental ramifications of the city’s soap industry—one which stretched far beyond the countryside and across the ocean to include the effects of palm, peanut, and coconut oil on the West African coast, or sesame oil from Asia and the Middle East, all of which funneled into the soap factories of Marseille.⁵⁵⁵ It is impossible to fully grasp the global environmental effects of this industry by looking at any one piece of this network in isolation.

However, in Marseille, in the city at the very center of this global network, the concentration of soap factories that were all producing and disposing of toxic soap pollution on an unprecedented scale in densely-populated urban space means that we see the effects of that production at their most extreme. The consistent policies of local authorities ensured that chronic exposure to these factories and to the pollution they produced was an experience unique to Marseille’s city-dwellers, and to its working-class residents in particular. There is perhaps no greater symbol of the contradictions inherent to the pursuit of a cleaner, more hygienic society, than the image of Marseille’s inhabitants suffocating beneath the weight of the toxic waste,

⁵⁵⁴ Xavier Daumalin, “Le conflit environnemental entre instrumentalisation et arbitrage,” 60–61.

⁵⁵⁵ See, for example, Donna J. E. Maier, “Precolonial Palm Oil Production and Gender Division of Labor in Nineteenth-Century Gold Coast and Togoland,” *African Economic History* 37 (2009): 1–32; Xavier Daumalin, “Commercial Presence, Colonial Penetration: Marseille traders in West Africa in the Nineteenth-century”; Xavier Daumalin, *Marseille et l’Ouest africain, L’outre-mer des industriels (1841–1956) Histoire du commerce et de l’industrie de Marseille XIXe-XXe siècles, tome VIII* (Marseille: Chambre de Commerce et d’industrie de Marseille, 1992).

produced by the very soap industry that would make them ‘clean.’ In the next chapter, we turn to those affected most acutely by those contradictions—the soap-workers themselves.

Chapter 5.

Producing Cleanliness: Labor in the Soap Factories of Marseille

Over the course of the nineteenth century, Marseille's soap industry produced a prolific documentary record. It was the subject of official correspondence and government reports, of parliamentary debates and exhibition catalogs. The wealth created by this industry supported the city through economic depression, dominated the interests of local government, steered the development of local public health policy, and permanently reshaped the contours of the city itself. And yet, virtually hidden from view—between the pages of the account ledgers and shipment receipts, behind the glossy advertisements which papered street corners across the country—were the laborers who filled the factories themselves. This workforce, which powered Marseille's most important economic engine, left virtually no record of its own experience.

If, as previous chapters have shown, the effects of soap waste on urban space were the source of profound and enduring anxiety for Marseille's residents, the effects of that waste on the workers who were actually employed in the factories received substantially less attention. Many commentators, even medical experts, expressed their most urgent concerns when soap factory waste *left* the factory and became a problem for urban life and for economic growth, obstructing commerce in the port, threatening the health of coastal fish populations, or becoming a source of unavoidable unpleasantness, particularly in elite neighborhoods. As Geneviève Massard-Guilbaud has shown, the entire structure of French industrial regulation in the nineteenth century, based on the foundation of the imperial decree of 1810, was ostensibly designed to protect the health and property of people who lived near industrial establishments, but it did not

extend to the safety of workers themselves.⁵⁵⁶ As a result, the workers who were exposed to factory chemicals and to industrial waste in their most concentrated form were largely left out of the political and legal discourse altogether until the final years of the nineteenth century with new regulations and the advent of regular workplace inspections.

Who were the individuals who made Marseille's soap industry possible? Where did the generations of soap workers, left mostly unnamed in the historical record, come from? What was daily experience of living at the center of a city dominated by soap? Labor historians have long recounted the difficulties of accurately capturing the lived experience of individuals who did not leave records in their own words or who do not appear in the sources that have been so helpful in detailing the lives of other social classes. Despite these challenges, however, the working class of nineteenth-century Marseille has, in fact, been the subject of extensive quantitative analysis. William H. Sewell painstakingly documented much of what we know about Marseille's working class during the nineteenth century by looking at marriage registers and court records.⁵⁵⁷ These sources "could be used to determine not only the proportion of immigrants in different trades, but patterns of residence, occupational recruitment, literacy, intermarriage, friendship, and

⁵⁵⁶ Though many polluting factories were also dangerous or unhealthy places to work, the two problems (pollution and working safety) were treated as legally distinct until 1893 legislation that sought to more strictly regulate workplace safety in classed industries (the inclusion of workplace safety was further incorporated into industrial regulation in the 1917 overhaul of the 1810 decree). According to Vincent Viet, the legal separation of dangers inside and outside the factory was the result of the widely-held belief that to regulate workplace conditions would be to interfere in the liberty of industrialists to conduct the internal affairs of their business as they saw fit. But, by the late nineteenth century, that belief was compounded by the notion that adult male workers (who were left out of previous legislation that specifically protected child and women workers) were already protected by unions and by their right to vote. They, ostensibly, had the ability to negotiate better workplace conditions and, as such, additional regulation was considered by legislators to be burdensome and unnecessary. Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 263–265; Vincent Viet, "Hygiène intérieure et salubrité extérieure: un point aveugle de l'action publique?" *Travail et Emploi* 148 (2016): 81–101.

⁵⁵⁷ William H. Sewell, Jr., *Structure and Mobility*. See also William H. Sewell, Jr., "La classe ouvrière de Marseille sous la Seconde République: structure sociale et comportement politique," *Le Mouvement social*, no. 76 (1971): 27–65; William H. Sewell, "Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille," *Past & Present*, no. 65 (1974): 75–109.

occupational mobility for every category of the population,” Sewell wrote.⁵⁵⁸ The evidence gleaned from such records was “staggering; it far surpassed what was available in contemporary censuses or other quantifiable sources.”⁵⁵⁹ And, indeed, the social portrait that emerges from the examination of these sources is vast—rich, detailed, and sweeping in its scope. Such work is essential for placing Marseille’s soap workers accurately within the context of the social structure and professional milieu of their time, and yet, Sewell was primarily interested in producing a study of Marseille’s working class as a whole. As such, individuals and professional groups are sorted into the categories that make it easier to capture key quantitative statistics about the population overall, including, for example, immigrant versus native residents or ‘skilled’ versus ‘unskilled’ workers. The daily experience of working in specific professions is not visible in such sources—nor was such an account the objective of Sewell’s study.

By turning to an additional set of sources, however, it is possible to complement Sewell’s quantitative narrative and focus specifically on the soap workers themselves, bringing the lived reality of these workers back to the fore. First, medical reports from across the nineteenth century detailed the ailments that plagued industrial workers in different sectors. From these documents, it is possible to capture a tangible sense of how the industrial production of soap affected the physical health of factory laborers and deformed their bodies over time. Local newspapers also regularly reported on workplace accidents, long before workplace incident reports became standard practice in the final decades of the nineteenth century. Such sources underscore the grim and dangerous reality of soap factory labor during this period—a reality that was widely publicized and understood. These sources also illuminate key details about the lives

⁵⁵⁸ William H. Sewell, Jr., *Structure and mobility*, xiii.

⁵⁵⁹ *Ibid.*

of soap workers outside the factory, including where they came from, where they lived, how they were incorporated into or excluded from the urban society around them.

Early social science research, pioneered by Pierre-Guillaume-Frédéric Le Play and his protégé Adolphe Focillon, also offers key insight into the lives of soap workers during this period. Focillon, who came to Marseille to study the conditions of urban workers, focused his investigation on the life and family of one soap worker from a factory on the Rive-neuve.⁵⁶⁰ His research provides fine-grained details about the personal finances of families who were dependent on soap factory work, about their housing and diet, about the relationship between soap workers and soap factory owners, about workplace organization, and about the political predilections of this labor force.

As will become clear, however, these sources challenge one another and ultimately offer contradictory conclusions about the nature of soap labor in Marseille during this period. The bulk of available evidence presents a bleak image, portraying a workforce that existed in the midst of upheaval, in a city that was exploding demographically, geographically, and economically, but was subject to extreme boom and bust cycles with little protection for those at the bottom of the socio-economic spectrum. They describe laborers who were migratory, often illiterate, ‘unskilled’, and therefore largely unorganized—unprotected even by the limited regulation that did exist to ensure safe workplace practices or to restrict pollution in the neighborhoods in which they lived. As a result, soap workers were largely left up to the whims of factory owners who had little incentive to improve working conditions or even to retain workers in a city that was flush with individuals desperate for work. Living in a state of legal and economic precarity, they were

⁵⁶⁰ A. Focillon, “Paysan et Savonnier de la Basse Provence,” *Ouvriers des deux mondes: études sur les travaux, la vie domestique et la condition morale des populations ouvrières des diverses contrées et sur les rapports qui les unissent aux autres classes, tome III* (Paris: Firmin-Didot et Cie, 1861), 67–144.

subject to violence both inside and outside the workplace, the result of both unsafe conditions and intense competition for work. And, crammed into the over-crowded and polluted neighborhoods of Marseille's Old Port, these workers were surrounded by soap, but lived in filth—their bodies bearing the physical scars of a life devoted to the production of cleanliness for other people.

Adolphe Focillon came to an entirely different conclusion, however. His study, based on observations of a single worker, described a workforce that was content, well-cared for by their managers, and one which might in fact offer a potential model for industrial workplace relations. But, Focillon's unnamed research subject diverged in important ways from the picture of soap factory workers that emerges both from contemporary newspaper coverage as well as from Sewell's quantitative research, discrepancies that cast doubt on the generalizability of his conclusions. His glowing descriptions of soap factory labor also bear little resemblance to contemporary artistic descriptions of soap workers, which tended to depict soap work in a much darker light. The popular songs of Victor Gelu, for example, featured soap workers as the epitome of an oppressed workforce, ripe for violent revolution.

The contradictory portraits offered by these sources point, first, to some diversity within the soap factory labor force itself, but also open the door to larger questions about how the *image* of soap factory workers could become politically and culturally important. Indeed, both Focillon and Gelu used the soap worker as a stand-in for Marseille's industrial workforce as a whole, and their contrasting depictions demonstrate how the conditions of soap workers could be mobilized towards radically different political agendas. If Marseille's soap workers themselves have largely remained silent in the historical record, it seems their voices were replaced by those who constructed an idealized archetype of the soap worker, a symbol of Marseille's working class

that could serve as a powerful rhetorical tool in the justification of particular policies towards the industrial labor force more broadly.

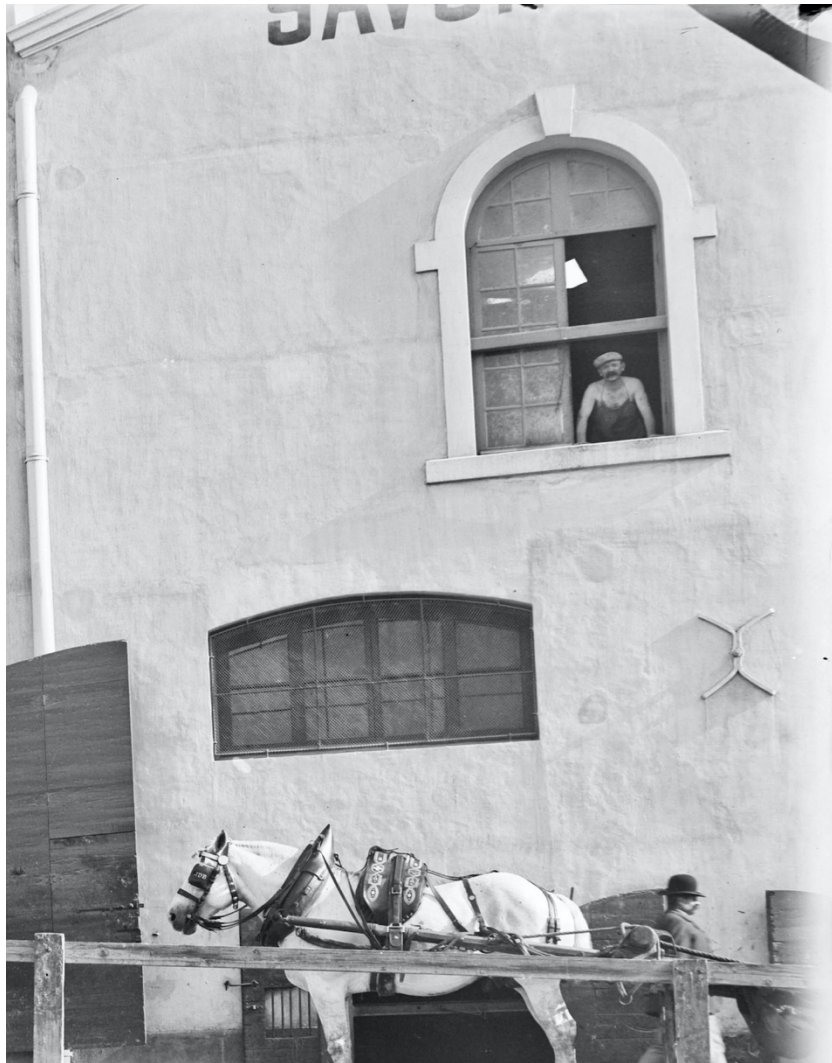


Figure 31: Soap worker at the Savonnerie J. D. Bellon, late-nineteenth–early-twentieth century.⁵⁶¹

A Portrait of the Workforce

During the seventeenth and eighteenth centuries, the soap factories of Marseille depended heavily on the enslaved labor of galley rowers. Convicts, prisoners of war, religious dissenters, and captured Barbary pirates were all regularly condemned to servitude on the galley ships of the

⁵⁶¹ Adapted from “Aménagement des terrains déclassés du cimetière Saint-Charles,” AMM 16 Fi 417. See also AMM 16 Fi 419.

French fleet in Marseille, a practice that reached its peak during the 1690s, when the fleet in Marseille numbered around forty ships.⁵⁶² But during the winter, when the ships were in port, *galériens* could be contracted out to local businesses and were sent in large numbers to the soap factories on the Rue Sainte or sugar refineries on the place aux huiles, adjacent to the arsenal on the Rive neuve. This cheap labor was essential to the city's economy and strict rules regulated its use. In 1702, the guilds and corporations of the city negotiated an arrangement with the officers of the galleys stipulating the rights and wages of *galériens* with virtually all of the city's artisanal and manufacturing trades participating in the use of convict labor.⁵⁶³ As the naval role of the galley ships declined in the eighteenth century, this on-shore work of galley laborers became more and more important and began to take up a larger portion of their time to the extent that "the rive Neuve of the Arsenal, where the convicts produced goods as artisans and operated small dockside shops and stalls constituted a thriving and cosmopolitan market area."⁵⁶⁴

Early soap factory labor was therefore performed by the those on the lowest rungs of society in Marseille and was seen as fitting punishment for those who had come into conflict with the French state in a variety of ways. The lives of the earliest soap workers in Marseille are difficult to sketch in individual detail, but, as we shall see, came to define a number of characteristic traits of soap labor that would continue, even as the galley slave, once a ubiquitous figure on the streets of Marseille, disappeared by the late eighteenth century. Soap factory in the

⁵⁶² See "The galley slaves of Marseille," Rodama: a blog of 18th century & Revolutionary French trivia, June 9, 2015, <http://rodama1789.blogspot.com/2015/06/the-galley-slaves-of-marseille.html>; André Zysberg, *Les galériens du roi: vies et destins de 60 000 forcats sur les galeres de France : 1680–1748* (Paris: Éditions du Seuil, 1987); Richard Mowery Andrews, *Law, magistracy and crime in Old Regime Paris: 1735–1789* (Cambridge: Cambridge University Press., 1994), 316–330.

⁵⁶³ "The galley slaves of Marseille," Rodama: a blog of 18th century & Revolutionary French trivia, June 9, 2015, <http://rodama1789.blogspot.com/2015/06/the-galley-slaves-of-marseille.html>.

⁵⁶⁴ Ibid.

nineteenth century would remain poorly paid, poorly respected, seasonal, and largely anonymous, performed by a diverse and itinerant Mediterranean population.

However, an abundance of recent scholarship on industrialization in Marseille, as well as a series of contemporary surveys concerning Marseille's industrial and commercial sectors, make it possible to capture more detail about the lives of soap factory laborers in the nineteenth century and to sketch a brief portrait of the soap factory workforce as a whole. The first notable characteristic is that, perhaps surprisingly for an industry that was so economically vital to the city, the soap industry actually employed a relatively modest number workers. The number of laborers employed in an individual factory hovered around fifteen and, as the number of factories in the city fluctuated, the total number of workers directly employed by the soap industry oscillated between about six hundred and one thousand over the course of the nineteenth century.⁵⁶⁵ Industries such as tanneries, sugar refineries, and tobacco factories all employed significantly more workers—at certain points nearly twice as many.⁵⁶⁶

These figures present a distorted image of the importance of soap production for employment in the city, however, since it does not account for the thousands of workers who were dependent on or employed indirectly by the soap industry. These included soda ash factory workers; oil press workers; box and crate manufacturers; the dockworkers who unloaded raw materials and loaded the boxes of finished soap for export; and the cultivators of olive, palm, coconut, and sesame plants, stretching across the Mediterranean and into Africa and Asia. These supporting industries were far from negligible. In 1854, for example, the French economist Armand Audiganne estimated that imported oil alone brought between four and five hundred

⁵⁶⁵ William H. Sewell, Jr., *Structure and Mobility*, 25-26; Xavier Daumalin, "Le conflit environnemental entre instrumentalisation et arbitrage."

⁵⁶⁶ In 1866, for example, soap factories employed about 950 people, while tobacco factories employed 1,650. William H. Sewell, Jr., *Structure and Mobility*, 25.

ships into the port of Marseille each year—crucial work for the city’s dockers.⁵⁶⁷ By 1900, sixty percent of jobs in Marseille were connected in some way to the soap industry.⁵⁶⁸

The yearly calendar of soap production also structured soap factory labor in important ways. For much of the eighteenth century, soap factories were legally required to shut down during the months of June, July, and August, when extreme heat made it difficult for soap to cool to the right consistency. This was a regulation designed, at least ostensibly, to protect the quality, and therefore the reputation, of Marseille’s soap, though enforcement had been gradually phased out by the time of the Revolution.⁵⁶⁹ As a result, until the late eighteenth century, soap factory work was seasonal and many workers would migrate to the city to take up soap factory work when it was available and leave or find other work in the city during the summer months. Well into the late-nineteenth century, however, and long after soap factories began operating year round, workers continued to migrate seasonally to the city in order to take up soap work and return to agricultural labor in the spring, arriving in the city in September or October and staying until June.⁵⁷⁰ In some cases, these migrant workers came from the rural areas immediately surrounding Marseille, but they also travelled from more distant shores of the Mediterranean.⁵⁷¹ The halls of Marseille’s factories would therefore have echoed with the sounds of mixed French,

⁵⁶⁷ Armand Audiganne, *Les populations ouvrières et les industries de la France dans le mouvement social du XIXe Siècle*, vol. 2 (Paris: Capelle, 1854), 129.

⁵⁶⁸ Alexis Steinman, “Raising the Bar: A Comeback for Marseille’s Olive Oil-based Heritage Soap,” CulinaryBackstreets.com, May 11, 2020, <https://culinarybackstreets.com/cities-category/marseille/2020/savon-de-marseille/>.

⁵⁶⁹ Dominique-François Baudoin, *Traité théorique de l’art du savonnier déduit des Procédés pratiques de la Fabrication de Marseille* (Marseille: Imprimerie de Bertrand père et fils, 1808).

⁵⁷⁰ Georges Liens, “Les ‘Vêpres marseillaises’ (juin 1881), ou la crise franco-italienne au lendemain du traité du Bardo,” *Revue d’histoire moderne et contemporaine* 14, no. 1 (1967): 6.

⁵⁷¹ Armand Audiganne, *Les populations ouvrières*, 128.

Spanish, Italian, Greek, and Arabic dialects, though Italians made up a particularly large part of the migrant workforce.⁵⁷²

The Italians who filled Marseille's factories were hardly a monolithic bloc, however. In the early and middle decades of the nineteenth century, most Italian migrants to Marseille were Piedmontese or Genoese, coming from the Northern Italian states closest to Marseille, but increasingly in the second half of the nineteenth century, migrants also began to come in greater numbers from central and southern Italy.⁵⁷³ Different segments of the Italian community tended to settle in different neighborhoods according to their geographic origins. Neapolitans, for example, many of whom were skilled fishermen, settled in the Vieux-Quartiers or in the neighborhoods immediately to the south of the port.⁵⁷⁴ Piedmontese and Tuscans communities were disproportionately represented in heavy industry and congregated in the industrial neighborhoods to the north and east of the Vieux-Quartiers, though a series of newly-built soap factories also attracted them farther south to Menpenti and La Capelette.⁵⁷⁵

Already in the 1820s, according to Xavier Daumalin, there is evidence to suggest that Italians made up a significant number of industrial laborers in Marseille, if not the majority in some factories.⁵⁷⁶ After the so-called 'Italian invasion' of the 1880s, those numbers surged. In 1881, there were 57,900 Italians in Marseille—16% of the total population, which represented

⁵⁷² As William H. Sewell notes, the particular dialect of Provençal spoken in Marseille would also have been strange even for other Provençal speakers, much less French-speakers or other foreigners. William H. Sewell, "Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille," 94–95. See also Patrick Boulanger, *Le savon de Marseille*, 11. For on the role of Italian migration in Marseille's industrialization, see Xavier Daumalin, "Industrie marseillaise et immigration italienne en Méditerranée: nouveaux regards (XIXe siècle–années 1930)," *Cahiers d'histoire. Revue d'histoire critique* 132 (2016): 45–65. Accessed 26 July 2021. <https://journals.openedition.org/chrhc/5320>.

⁵⁷³ Céline Regnard-Druout, *Marseille la violente. Criminalité, industrialisation et société (1851-1914)* (Rennes: Universitaires de Rennes, 2009), 24.

⁵⁷⁴ Georges Liens, "Les 'Vêpres marseillaises,'" 4.

⁵⁷⁵ *Ibid.*, 4–6.

⁵⁷⁶ Xavier Daumalin, "Industries marseillaise et immigration italienne," 45–65.

one fourth of the entire Italian colony in France.⁵⁷⁷ At the same time, Italian workers (both men and women) constituted three fourths of the workforce in heavy industry in the city.⁵⁷⁸

Unsurprisingly, then, Italian laborers were well-represented in soap factories as well as all the auxiliary industries that supported it.⁵⁷⁹ A survey of industrial labor in 1912 found that Italian workers made up thirty-seven percent of soap factory workers in Marseille, forty-seven percent of workers in chemical industries (which included the soda ash industry), and eighty-six percent of oil press workers.⁵⁸⁰ In addition to their industrial labor, there were also a handful of Italian immigrants to the city who became prominent industrialists or shipping magnates in their own right, including, for example, Guido Allatini, who owned the Vieille Chapelle soap brand.⁵⁸¹ The importance of Italian labor for Marseille's industrial workforce was likely even greater than these numbers suggest, however. As Céline Regnard-Druout has noted, statistical surveys tend to understate, rather than overstate, the true size of the Italian community in Marseille, since they do not include temporary migrants, naturalized French citizens, or individuals who had been born in France to Italian parents.⁵⁸²

Marseille's migrant workforce was disproportionately young, male, and single, or, if married, they tended to live apart from their partners and families, who had not migrated with them. This was a population that perfectly matched the needs of the city's soap industry. In soap factories, labor related to the chemical production of soap itself was performed almost exclusively by men (with a small number of children employed as well), though women were

⁵⁷⁷ Georges Liens, "Les 'Vêpres marseillaises,'" 2.

⁵⁷⁸ Ibid., 3. See footnote 3.

⁵⁷⁹ Emile Témime and Renée Lopez, *Migrance. Histoire des migrations à Marseille. Vol 2. L'expansion marseillaise et "l'invasion italienne" (1830-1918)* (Édisud: Aix-en-Provence, 1990).

⁵⁸⁰ Xavier Daumalin, "Industries marseillaise et immigration italienne."

⁵⁸¹ Georges Liens, "Les 'Vêpres marseillaises,'" 3.

⁵⁸² Céline Regnard-Druout, *Marseille la violente*, 178.

employed in packing and delivery jobs by the 1860s.⁵⁸³ One soap production manual suggests that soap factories also occasionally employed women in a limited capacity when production demanded additional labor.⁵⁸⁴ By and large, however, soap factories were places of predominately male labor and sociability. Until the mid-nineteenth century, soap factory workers lived and slept together in the factories, eating and cooking their meals communally on the fires which heated the soap vats, though in the later part of the century, it became increasingly common for workers to find their own housing where they could live with their partners and families.⁵⁸⁵

When they did find their own housing, most soap workers would have lived in the hyper-crowded neighborhoods immediately around the port, or in developing industrial neighborhoods near the train stations (in quartiers like Belle-de-Mai). In the mid-nineteenth century, working-class families in Marseille could rent a two or three-bedroom apartment for between 16 and 20 francs per month, which, constituted between 20 and 25 percent of their monthly income.⁵⁸⁶ Single men could rent a small room (big enough for a bed) for between 10 and 12 francs per month, or, as Xavier Daumalin has documented, they could rent a shared bed in a room of six men for 5 to 6 francs per month.⁵⁸⁷ The dilapidated state of many of Marseille's central neighborhoods, combined with the high cost of housing, inspired many proposals throughout the

⁵⁸³ Patrick Boulanger, *Le savon de Marseille*, 11. In the data collected by Paul Masson, wage data for child labor in Marseille's soap factories first appears in 1845, while data for female labor appears in 1861. See "Appendice I: Salaires industriels" in Paul Masson, *Les Bouches-du-Rhône: Encyclopédie Départementale. Tome VIII: Le mouvement économique: l'industrie*. (Marseille: Archives départementales des Bouches-du-Rhône, 1913.)

⁵⁸⁴ Martin Marius-Alexandre, *Manuel moderne du savonnier* (Marseille: Marius Olive, 1861), 73.

⁵⁸⁵ Armand Audiganne, *Les populations ouvrières*, 127–128.

⁵⁸⁶ Xavier Daumalin, "Patronage et paternalisme industriels en Provence au XIXe siècle : nouvelles perspectives," *Industries en Provence* 12 (2005): 7. Accessed 6 July 2021. <http://archives-provence.centraliens.net/files/MIP%20Provence%20-%20Lettre%2012.pdf>.

⁵⁸⁷ *Ibid.*

nineteenth century to build low-cost housing for workers in the city.⁵⁸⁸ Few of those projects actually came to fruition, however, and the ones that did never housed very many people.⁵⁸⁹ The housing complexes tended to be on the outskirts of town (where they needed to be in order to keep costs low), which was inconvenient for people who worked near the port, and they had strict rules about alcohol, curfews, and visitors of the opposite sex, which, for many, hardly seemed like an improvement on living in the factory itself.⁵⁹⁰ As a result, it seems, most continued to live in the hustle and bustle of the busy streets near the docks.

Pay in soap factories varied greatly depending on one's gender and position within the factory hierarchy and, as William Sewell has described, division of labor in soap factories "was fairly advanced" even though factories tended to have small workforces.⁵⁹¹ Experienced master soap-makers and overseers could be comparatively well-paid and even sought-after. Their expertise in the soap-making process was necessary, particularly in the period before precise chemical tests were possible, and they developed personalized techniques to perfect their process. Master soap-makers famously tasted the nearly-finished soap, for example, to check that it had cooked long enough, since soap which had not burned off all the alkaline material would burn their tongue.⁵⁹² For workers, the expertise and leadership of the master soap makers could take on an almost "divine" quality, according to Bernard Legendarme, given the dangers of working near the cauldrons, risks that were "ritualized" by the presence of a shrine to the Virgin Mary, which overlooked the work hall.⁵⁹³

⁵⁸⁸ See, for example, "Les logements sociaux," in *Jules Charles-Roux : Le Grand Marseillais de Paris*, ed. Isabelle Aillaud (Rennes : Marines Editions, 2004), 27–30.

⁵⁸⁹ Xavier Daumalin, "Patronage et paternalisme industriels en Provence au XIXe siècle," 132–133.

⁵⁹⁰ *Ibid.*

⁵⁹¹ William H. Sewell, *Structure and Mobility*, 26.

⁵⁹² Patrick Boulanger, *Le Savon de Marseille*, 14.

⁵⁹³ "Véritable modèle opératoire du 'maître du feu' dont la pratique s'appuie aussi sur la théorie substantialiste, entretenue par des risques exothermiques jusqu'au XXe siècle, cette pratique du maître-savonnier, voisine du savoir-faire divin d'Athéna et Héphaïstos, modèles des forgerons, était ritualisée par la présence d'une vierge à l'un

These master soap makers were also essential since most soap factory owners were absentee landlords with virtually no knowledge of the soap-making process itself.⁵⁹⁴ They owned or rented factory space, but did not intervene in the day-to-day operations of the factory and were “blindly” dependent on their hired management or, as one factory-owner wrote, on “illiterate, mercenary” soap-makers.⁵⁹⁵ A notable exception to that rule was the prominent industrialist Jules Charles-Roux, who studied chemistry both at the faculté des sciences in Marseille and in Paris under Michel-Eugène Chevreul before taking over his father's soap business.⁵⁹⁶ Instead, it seems many soap factory owners were first and foremost merchants; they earned their fortunes first in shipping and, having invested in soap production, contributed to the business by locating and importing the lowest cost raw materials and finding profitable markets in which to sell their finished products.⁵⁹⁷

However lucrative soap production was for factory owners, day laborers in soap factories were not particularly well-paid and their daily wage seems to have been roughly on par with other industrial laborers in the city across the nineteenth century, with women and children paid significantly less than their male counterparts.⁵⁹⁸ For example, according to data collected by Paul Masson, in 1890 soap factory foremen were paid between 6 and 7 francs per day, supervisors (below foremen in the factory hierarchy) were paid 5 francs per day, ordinary soap

des pôles de l'axe principal.” Bernard Legendarme, “La Cité des Savons,” in *Marseille, la passion des contrastes*, eds. Maurice Culot and Daniel Drocourt (Liège: Mardaga, 1991), 328.

⁵⁹⁴ Xavier Daumalin, , *Du savon à la puce*, 67–68.

⁵⁹⁵ “...fabricants qui, n'ayant jamais cherché à connaître les principes d'une fabrication qu'ils ne dirigent point eux-mêmes, en confient aveuglément la direction à des mercenaire, le plus souvent illettrés...” Cited in Xavier Daumalin, *Du savon à la puce*, 68. See also Dominique-François Baudoin, *Traité théorique de l'art du savonnier*, 257.

⁵⁹⁶ Isabelle Aillaud, ed., *Jules Charles-Roux : Le Grand Marseillais de Paris* (Rennes : Marines Éditions, 2004), 14–15, 18.

⁵⁹⁷ Xavier Daumalin, *Du savon à la puce*, 67–69.

⁵⁹⁸ See “Appendice I: Salaires industriels” in Paul Masson, *Les Bouches-du-Rhône: Encyclopédie Départementale. Tome X: Le mouvement social* (Marseille: Archives départementales des Bouches-du-Rhône, 1913), 765-789.

workers were paid between 4 and 5 francs per day, while cart drivers were paid between 4 and 4.5 francs per day.⁵⁹⁹ Women who worked in the factory were paid between 1.5 and 2 francs per day.⁶⁰⁰ During this period, the average daily wage for ordinary male workers in Marseille collected as part of this study ranged between 3.75 and 4.75 francs per day, which meant that male soap workers were paid at or just slightly better than average.⁶⁰¹ Wages for women in Marseille ranged from about 1.6 francs per day to 2.2 francs per day, which meant female soap factory laborers were paid just at or slightly below the norm.⁶⁰²

Data for daily wages does not tell the whole story, however. As Céline Regnard-Druout has written, wages stagnated in Marseille across the second half of the nineteenth century. The average wage for an industrial worker in 1890 remained virtually unchanged from twenty years prior when it was 4.34 francs per day.⁶⁰³ In fact, though they had been among the best paid workers in France at the beginning of the Second empire, workers in Marseille had among the lowest wages of any region in France by 1890, while the cost of food, clothing, and housing all remained relatively high.⁶⁰⁴ As a result, living conditions for Marseille's soap workers were declining precipitously in the final decades of the nineteenth century.⁶⁰⁵

Given these conditions, one of the most striking features of Marseille's soap factory labor during this period is the near total absence of workplace agitation or participation in early labor activism. William Sewell found no evidence of any union activity or strike action among soap

⁵⁹⁹ See "Tableau 8. – Salaires ouvriers en 1890" in "Appendice I: Salaires industriels" in Paul Masson, *Les Bouches-du-Rhône: Encyclopédie Départementale. Tome X: Le mouvement social* (Marseille: Archives départementales des Bouches-du-Rhône, 1913), 777-780.

⁶⁰⁰ Ibid.

⁶⁰¹ Ibid. Average taken from minimum and from the maximum wages listed for 'ouvriers' of the listed professions.

⁶⁰² Ibid. Average taken from minimum and from the maximum wages listed for women in the listed professions.

⁶⁰³ Céline Regnard-Druout, *Marseille la violente*, 153.

⁶⁰⁴ Ibid., 19, 153.

⁶⁰⁵ William H. Sewell found a similar level of wage stagnation and decreased purchasing power for Marseille's working class in the 1830s and 1840s. See. William H. Sewell, "Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille," 87.

factory workers before 1850.⁶⁰⁶ He further notes that only 0.1 percent of the city’s soap-workers were involved in militant labor organization, a category which, by his definition, includes both labor leaders and occasional participants in labor actions.⁶⁰⁷ The soap workers union was not founded until 1894 and never included more than about 300 members.⁶⁰⁸ The first newspaper coverage of soap factory strikes does not appear until the 1870s, though data collected by Paul Masson suggests that soap factory workers went relatively quiet again during the 1880s, with no strike recorded between 1881 and 1889—that despite a series of economic crashes and bankruptcies during the same period.⁶⁰⁹

Sewell explains the lack of labor organization in industries like soap production by pointing to the inconsistent and ‘unskilled’ nature of the work. Marseille’s industrial proletariat was mostly illiterate and often nomadic, which meant that they were without family ties or stable networks, and often did not speak the same language as many of their co-workers. They came to and left the factories as they needed or could find the work. In 1848, nearly a third were without fixed residence in Marseille. In “soap-making, oil pressing, flour milling, sugar refining and heavy chemicals,” he wrote, “. . . little skill was required, wages were well below those of

⁶⁰⁶ William H. Sewell, Jr., “Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille,” 79–81; William H. Sewell, “La class ouvrière de Marseille sous la Seconde République: structure sociale et comportement politique,” *Le Mouvement social*, no 76 (1971): 43.

⁶⁰⁷ William H. Sewell Jr., “La class ouvrière de Marseille sous la Seconde République,” 43.

⁶⁰⁸ “Mouvement ouvrier: ouvriers savonniers de Marseille,” *Le Petit Provençal*, June 19, 1894, <https://www.retronews.fr/journal/le-petit-provençal/19-juin-1894/677/2886193/3>; “Ouvriers savonniers,” *Le Petit Provençal*, 22 July 1894, <https://www.retronews.fr/journal/le-petit-provençal/22-juillet-1894/677/2886281/3>; “Mouvement ouvrier: ouvriers savonniers,” *Le Petit Provençal*, 21 October 1894. Accessed 2 August 2021. <https://tinyurl.com/cbv25vp>; *Les associations professionnelles ouvrières, tome I* (Paris: Imprimerie nationale, 1899), 552–553.

⁶⁰⁹ “Dépêches télégraphiques,” *Le Temps*, March 13, 1871. <https://www.retronews.fr/journal/le-temps/13-mars-1871/123/763131/2>; “Chronique locale,” *Le Petit Marseillais*, March 7, 1871. <https://www.retronews.fr/journal/le-petit-marseillais/7-mars-1871/437/2655155/3>; Céline Regnard-Druout, *Marseille la violente*, 127, 181; See Appendice III. – Statistique des grèves (période 1881-1889) in in Paul Masson, *Les Bouches-du-Rhône: Encyclopédie Départementale. Tome VIII: Le mouvement économique: l’industrie*. (Marseille: Archives départementales des Bouches-du-Rhône, 1913.)

craftsmen, insecurity was endemic and morale was low.”⁶¹⁰ They were “impoverished, oppressed and economically insecure.”⁶¹¹ As a result, he argues, those in skilled artisanal trades were over-represented among labor protest and revolt, while factory workers were under-represented—a phenomenon which was true of most the major labor movements in England in France through the mid-nineteenth century.⁶¹² “It appears that serious involvement in working-class politics required a level of information, organizational experience and commitment, and a freedom from the most pressing material wants, that was simply beyond most proletarians.”⁶¹³

Xavier Daumalin has argued that worker housing also played an important role in limiting labor agitation among urban workers like soap factory workers.⁶¹⁴ Rural industrial workers (like soda ash workers) tended to live, work, and socialize together in isolated industrial complexes with workers’ housing that had been built to specially to accommodate large workforces where there was little or no local infrastructure to support them. This forced a lifestyle on workers, according to Daumalin, that encouraged ‘proletarian thinking’ and facilitated social cohesion and labor organization. On the other hand, soap workers who were no longer forced to live together in the factories likely dispersed to different neighborhoods in the city—their interests, activities, and social circles all far more diffuse than their rural counterparts. Despite their poor and deteriorating conditions, extreme economic insecurity alongside a fragmented and constantly changing workforce combined to ensure that soap workers were never

⁶¹⁰ William H. Sewell, “Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille,” 79.

⁶¹¹ *Ibid.*

⁶¹² *Ibid.*, 82–83.

⁶¹³ *Ibid.*, 82.

⁶¹⁴ Xavier Daumalin, “Patronage et paternalisme industriels en Provence au XIXe siècle,” 123–144.

leaders and rarely even participants in the cataclysmic labor struggles that rocked Marseille in the late nineteenth and early twentieth centuries.⁶¹⁵

Chronic Conditions of Soap Work

But what of the experience of soap workers themselves? What did it mean to labor in a soap factory? What did that work look and feel like? What demands were placed on the bodies of those who actually made soap? Strikingly, where soap workers do appear in public discourse from this period, there seems to have been a fairly widespread romantic notion that soap factories were perfectly safe places to work—that the primary danger from soap factories was waste and specifically waste which had spread beyond the confines of the factory. Soap workers rarely appeared in *Conseil de salubrité* reports, though the Council did briefly comment on some of the safety concerns that existed within soap factories. They were clearly aware, for example, of grim workplace accidents.⁶¹⁶ Despite a brief acknowledgement of such risks, the Council repeatedly reiterated that their priority when it came to soap factories was the improper disposal of factory waste and the implications for the socio-economic character of the neighborhoods in which it existed. “This manufacturing process concerns public health from the point of view of its flowing liquid waste and the removal of its solid waste,” the Council reporter wrote in 1828, “especially in neighborhoods where there is some difficulty in removing the former from the factory and avoiding their stagnation on public streets, or their contamination of adjacent lands.”⁶¹⁷

⁶¹⁵ See Emile Temime, *Histoire de Marseille de la Révolution à nos jours* (Paris: Perrin, 1999), 175–179. For more on the strikes of the early twentieth century, see the private letters of Jules Charles-Roux: Jules Charles-Roux, Xavier Daumalin, and Eliane Richard, *Lettres d'un père à son fils: 1905–1918* (Marseille: J. Laffitte, 2007).

⁶¹⁶ Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826-1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 38-40. AD BDR Phi 527 1.

⁶¹⁷ “*Les projets concernant cette fabrication intéressent l'hygiène publique au point de vue de l'écoulement des résidus liquides, et de l'enlèvement des résidus solides, surtout dans les quartiers où il y a de la difficulté à ce que les premiers puissent sortir de la fabrique, en évitant leur stagnation sur la voie publique, ou leur infiltration dans les*

Even some medical observers insisted that the factory labor itself posed very little risk for the workers. For example, Sélim-Ernest Maurin, a physician at the Hôtel-Dieu in Marseille, who wrote otherwise scathing accounts about the effects of soap waste on public health, insisted that “Soap factories, of which there are a considerable number in Marseille, are not unhealthy in and of themselves, but their placement in the midst of populous neighborhoods should not be authorized, because liquid waste contaminates the surrounding land for great distances.”⁶¹⁸ The epidemiologist Adrien Proust (father of the novelist Marcel Proust) similarly wrote that “despite the advanced state of putrefaction of the oil that is used in the manufacturing process, the soap workers enjoy perfect health; they are not subject to any fever of epidemic illnesses.”⁶¹⁹

Some of these accounts seem to have been glowing to the point of parody. Urbain Guérin, a collaborator of Frédéric Le Play and the author of several works on the conditions of French workers, wrote that soap workers were so well taken care of by factory owners that “the hospital was for them unknown and unnecessary.”⁶²⁰ Antoine de Saporta, the aristocrat-turned-science writer, similarly described the conditions in soap factories writing that the large work floors were clean and swept by currents of fresh air, with no disagreeable smells.⁶²¹ In fact, he wrote, “the oil which mixes with the alkaline solution creates an aroma which is pleasant rather

terrains contigus.” Chaudoin, Rapport Général des Travaux des Conseils d’Hygiène et de salubrité du département présenté à M. De Crévecœur, Préfet, au nom du conseil central par M. Le Docteur Chaudoin 1 juillet 1853 au 31 août 1855. (Marseille: Barlatier-Feissat et Demonchy, 1855), 123. AD BDR Delta 6549.

⁶¹⁸ “*Les savonneries, dont le nombre est considérable à Marseille, ne sont pas insalubres par elles-mêmes, mais leur situation au milieu des quartiers populeux ne devrait pas être autorisée, car les résidus liquides produisent au loin des infiltrations qui vicient les terrains à de grandes distances.*” Sélim-Ernest Maurin, *Esquisse de Marseille*, 100.

⁶¹⁹ “*Les savonniers, malgré l’état de putréfaction avancée dans lequel se trouve la graisse dont ils se servent, jouissent d’une santé parfaite, et ne sont sujets ni aux fièvres, ni aux affections épidémiques...*” A. Proust, *Traité d’hygiène, deuxième édition* (Paris: G. Masson, 1881), 316.

⁶²⁰ “*...l’hôpital leur était inconnu et inutile...les ouvriers étaient placés dans cette heureuse situation, parce que leurs maîtres, dignes du nom de patrons, s’imposaient le devoir de les garder longtemps, souvent même de père en fils.*” Urbain Guérin, *Quelques mots sur la méthode d’observation dans la science sociale : les monographies - les voyages* (Paris: Bureau de la Réforme Sociale, 1882), 10.

⁶²¹ Antoine de Saporta, “À Marseille: Savons et Bougies,” *Revue des Deux Mondes* 31, no. 3 (1906): 697.

than foul and, overall, the industry in question is relatively clean.”⁶²² The use of Leblanc soda ash was particularly beneficial for the workers, he argued, since the material contained sodium sulfide, “much like the waters of Eaux-Bonnes or the springs of Cauterets. For the workers, it offered protection from epidemics and time in the factory was the equivalent of a trip to the thermal baths of the Pyrenees.”⁶²³ He looked back fondly on the first half of the nineteenth century, when the use of Leblanc soda ash was more widespread. Alluding to historical regulations that prohibited production in the summer, he imagined that soap workers took the summer off instead of finding work elsewhere, writing, “During that time, there was also no overwork and, since the factory closed or at least reduced its activity during the summertime, the artisan soap maker, paid to do nothing, tranquilly went fishing, the favorite sport of the Marseillais people.”⁶²⁴

Given such descriptions, it is not surprising that there was a certain amount of skepticism, even hostility, among Marseille’s working class for medical professionals. Victor Gelu expressed deep distrust for the doctors who treated Marseille’s working class and who largely ignored deplorable factory conditions. In his 1843 song, *Lei Medecin* [*Les Médecins / Doctors*], Gelu lamented the plight of a tannery worker who was treated like a beast of burden by the physicians who came to see him. “Don’t you see that [he] is rotting, working in the tanneries,” Gelu sang.⁶²⁵

⁶²² “...l’huile s’empâte avec l’alkali s’exhale un parfum plutôt agréable que nauséabond, et en somme, l’industrie en question est assez salubre.” Ibid., 695.

⁶²³ “...parce que ce produit renfermait toujours du sulfure de sodium comme les Eaux-Bonnes ou les sources de Cauterets. Pour les ouvriers, c’était garantie contre les épidémies, et le séjour dans l’atelier équivalait à un voyage aux thermes des Pyrénées.” Antoine de Saporta, “À Marseille: Savons et Bougies,” 695.

⁶²⁴ “Il n’y avait pas non plus, en ce temps-là, de surmenage; et, lorsque la fabrique se fermait ou seulement restreignait son activité pendant l’été, l’artisan savonnier, payé pour rien faire, allait tranquillement se livrer à la pêche, le sport favori du peuple marseillais.” Ibid.

⁶²⁵ “Via pa que Fèli si mouzisse/ En travaian ei tanarié?” / “Ne voyez-vous pas que Félix se moisit/ En travaillant aux tanneries ?” Victor Gelu, Frédéric Mistral, Auguste Cabrol, and Fernand Desmoulin, *Oeuvres complètes de Victor Gelu*. Tome 1 (Paris: G. Charpentier, 1886).

https://archive.org/stream/uvrescompltesde01gelugoog/uvrescompltesde01gelugoog_djvu.txt.

“The humidity soaks him, his flesh becomes rotten. . . . At forty, he’ll have gout. He’ll be bloated, pale, and dull. . . . His skill will look like a sieve!”⁶²⁶ But instead of treating workers, according to Gelu, doctors acted like “thieves” and “murderers,” serving a “merciless class of employers” whose only interest was getting laborers back to work as soon as possible.⁶²⁷ He ended each verse with a bitter reminder: if workers wanted real care, they had to “keep away from doctors” [*Garde-toi des médecins!*].⁶²⁸

Despite such suspicions, it is clear that other medical observers were taking careful note of conditions within Marseille’s factories and worked to detail the ailments that they observed among soap factory workers, particularly as they related to specific steps in the soap-making process. In 1813, François-Emmanuel Fodéré, another physician at the Hôtel-Dieu in Marseille, wrote that during the process by which the soap was brought to a boil, “the heat, evaporating a part of the oil which has just been added, gives off an extremely unpleasant smell which spreads to the entire surrounding area and is sufficiently acrid to make one cough and to irritate delicate chests.”⁶²⁹ Furthermore, he wrote, the use of ingredients which contain sulfur “results, during the entire cooking process, in the release of hydrogen sulfide gas, which further contributes to the other disagreeable and harmful vapors. It’s much worse still when one uses artificial soda ash, which contains so much sulfur that the inclusion of any additional sulfur is not necessary to

⁶²⁶ “*Aquito l'imou l'espoumpisse/ Sa viando deven pourridié. . . . A quaranto an ooura lei gouto; Sera bouffi, blême, moullias. . . . sa peou/ Ooura Ter d'un creveou !*” / “*Là l'humidité le détrempe/ Sa chair y devient pourriture. . . . A quarante ans il aura la goutte/ Il sera bouffi, blême, molasse. . . . sa peau/ Aura l'aïr d'un crible !*” Ibid.

⁶²⁷ “*Les médecins aussi sont des voleurs, voire des meurtriers puqisue, tout au service d'un patronat impitoyable. . . et se contentent de lui administrer un remède de cheval pour qu'il y puisse vite retourner.*” Lucien Gaillard,

“*L'Accession des ouvriers à la capacité politique à travers l'oeuvre de Victor Gelu,*” in

Actes du colloque. Victor Gelu: Marseille au 19e siècle (Aix-en-Provence: Université de Provence, 1986).

⁶²⁸ Victor Gelu, Frédéric Mistral, Auguste Cabrol, and Fernand Desmoulin, *Oeuvres complètes de Victor Gelu*. Tome 1.

⁶²⁹ “*Dans le temps de la cuisson, la chaleur, volatilissant une partie de l'huile qu'on a ajoutée ensuite, communique à toute l'atmosphère environnante une odeur très-ingrate, et assez âcre pour faire tousser et pour incommoder les poitrines délicates.*” François-Emmanuel Fodéré, *Traité de médecine légale et d'hygiène, publique ou de police de santé, tome VI* (Paris; Bourg: Janinet, 1813), 310.

create the marbling effect [of traditional savon de Marseille]. The mixture of all these gasses, smells, and the smoke from the coal which is used as fuel, produces a thick vapor of the most unpleasant kind when dominant winds push it towards habitations or public streets.”⁶³⁰ Fodéré noted that the effects of this process were distributed unequally. “The owners of these factories suffer little or not at all as a result of the exhalations, because they are so little exposed; but the workers, who are always there, have a pallid complexion and are subject to blockages [in the stomach]; even their children are unable to enjoy good health,” he wrote, “and they are prone to rickets and to scrofula. The vicinity of these factories is deadly for those who suffer from consumption.”⁶³¹

Alexandre Layet, a professor of hygiene at the University of Bordeaux and later Directeur des services d’hygiène for the city of Bordeaux, gave more detailed descriptions of the risks associated with each stage of the soap manufacturing process. “During the first series of operations in particular...the soap-workers are subjected to the caustic action of the alcalis and alkaline solutions. In the process of smashing blocks (the form in which the artificial soda ash is delivered to the soap workers), a veritable cloud of saline particles is created. Prolonged exposure of the skin to this material is not without inconveniences.”⁶³² These skin conditions

⁶³⁰ “...il en résulte pendant tout le temps de la cuisson le dégagement du gaz hydrogène sulfuré, qui ajoute encore à ce que les autres vapeurs ont de désagréable et de malfaisant. C’est bien pire lorsqu’on se sert de soude factice, qui toutes contiennent toujours plus ou moins de sulfures, de manière que pour la marbrure on n’a plus besoin de l’addition du soufre. Le mélange de tous ces gaz, de toutes ces odeurs et de la fumée du charbon de pierre qui sert de combustible, produit une vapeur épaisse des plus incommodes lorsque le vent dominant la pousse du côté des habitations ou des promenades publiques.” Ibid.

⁶³¹ “Les entrepreneurs de ces fabriques souffrent peu ou pas du tout de ces exhalations, parce qu’ils y restent fort peu exposés; mais les ouvriers, qui sont en permanence, ont le teint blême et sont fort sujets aux obstructions; leurs enfans même ne jouissent pas d’une bonne santé, et ils sont exposés au rachitisme et aux écrouelles. Le voisinage de ces fabriques est funeste aux poitrinaires.” Ibid., 311.

⁶³² “Dans la première série des opérations que nous venons de passer en revue, les ouvriers savonniers sont particulièrement soumis à l’action caustique des alcalis et des lessives alcalines. Pendant le concassage des blocs (forme sous laquelle la soude artificielle est livrée aux savonniers), il se forme une véritable dissémination de particules salines, dont le contact prolongé avec la peau n’est point sans inconvénients.” Alexandre Layet, “Savonnier ou Savonier” in *Dictionnaire encyclopédique des sciences médicales, tome septième*, ed. A. Dechambre (Paris: P. Asselin; G. Masson, 1879), 131.

were a source of particular concern for Layet. “The continuous manipulation of the alkaline solutions,” a process which was done by hand, he wrote, “...over time produces a certain deformity on the epidermal layer of the skin on the fingers, recalling the ‘*pigeonneau*’ effect which is observed on the hands of tannery workers [a condition of painful lesions on the hands]; the papillary layer of the skin is often irritated and gives rise to the formation of numerous blisters; in other cases, one observes the numbing of the hands, the inability to feel touch and stiffness in the movement of the fingers, accompanied in some cases by pain and swelling.”⁶³³ Other observers similarly noted that soap workers, who often worked barefoot and were exposed to alkaline material which had spilled on to the floor, sometimes lost the skin on the bottoms of their feet.⁶³⁴

In addition to effects on the skin, both Layet and Fodéré also referred to a series of medical ailments caused by exposure to and ingestion of fumes during the saponification process. Eye-irritation was common, as were lung and gastrointestinal problems.⁶³⁵ Layet reported that workers experienced bouts of nausea and that they showed “signs of marked shortness of breath, often accompanied by attacks of suffocation, symptoms of acute asthma.”⁶³⁶ The majority suffered from anemia, he wrote, and had a pallid complexion, reporting irritation of the stomach and the intestines.⁶³⁷

⁶³³ “*Le maniement continue des lessives...s’opère le plus souvent à bras d’homme...provoque à la longue une altération particulière de la couche épidermique de la peau des doigts, rappelant assez le ‘pigeonneau’ des ouvriers tanneurs; la couche papillaire du derme est souvent irritée et donne lieu à la formation des nombreuses vésicules; d’autres fois, on rencontre de l’engourdissement des mains, de l’insensibilité au tact et de la raideur des articulations des doigts, accompagnée chez quelques-uns de douleur et d’empâtement.*” Ibid.

⁶³⁴ “*Comme ils marchent nus pieds, ces partis s’excorient, ainsi que toutes celles que touche leur lessive.*”

Bernardino Ramazzini, *Traité des maladies des artisans* (Paris: Adolphe Delahays, 1855), 164.

⁶³⁵ Ibid., 131-132; François-Emmanuel Fodéré, *Traité de médecine légale et d’hygiène, publique ou de police de santé, tome VI*, 309-310.

⁶³⁶ “*Quelques-uns de ces ouvriers présentent une anhélation marquée, souvent accompagnée d’access d’oppression, véritables symptômes de l’asthme essentiel.*” Alexandre Layet, “Savonnier ou Savonier” in *Dictionnaire encyclopédique des sciences médicales, tome septième*, ed. A. Dechambre (Paris: P. Asselin; G. Masson, 1879), 131.

⁶³⁷ Ibid., 132.

Soap factory owners were in fact well-aware that exposure to Leblanc soda ash was dangerous, having witnessed the effects of the material on soda ash factory workers, and bore little resemblance to the ‘thermal baths of the Pyrenees.’ They explicitly discussed such concerns with the Chamber of Commerce, concluding that they should “avoid making this inconvenience too public” for fear of scaring workers away from “such dangerous work.”⁶³⁸ As one soda ash factory owner had described, his workers’ “clothes, which are constantly exposed, fall to shreds” and they suffered maladies of the chest as a result of the “deleterious gasses.”⁶³⁹ Regulations that pushed soda ash factories farther outside the city did little to help either the soda ash workers or soap factory workers, who continued to receive massive shipments of soda ash blocks to be broken up and incorporated during the saponification process.

Beyond the specific risks associated with alkaline materials, burns were also widespread among soap factory workers, caused both by steam and by the liquid soap. As Layet described, “We must mention the burns to which these soap workers are exposed during the period in which the soap is cooked. As the soap becomes increasingly solid, the steam resulting from the evaporation of the alkaline solution is released from the solidified paste and creates scalding projections of soap and alkaline solution around the vat.”⁶⁴⁰

⁶³⁸ “*Les savonniers employant la soude Leblanc le confirment : lors des opérations de production celle-ci dégage des vapeurs si nuisibles pour la santé qu’ils évitent de ‘rendre cet inconvénient trop public’ de peur que leurs ouvriers ne ‘se dégoûtassent d’un travail si dangereux.’*” Xavier Daumalin, “Industrie et environnement en Provence sous l’Empire et la Restauration,” *Rives nord-méditerranéennes* 23 (2006): 27-46. Accessed 6 July 2021. <http://journals.openedition.org/rives/522>. See also Xavier Daumalin, *Du sel au pétrole: l’industrie chimique de Marseille-Berre au XIXe siècle* (Marseille: Tacussel, 2003), 51. Daumalin cites CCIMP, Lettre des savonniers de Marseille à la Chambre de commerce, 20 juillet 1810.

⁶³⁹ “*On ne doit pas se dissimuler que les gaz, provenant de la décomposition du sel marin lorsqu’on prépare le sulfate, entraînent la mort de tous les végétaux qui en sont touchés, qu’ils attaquent, avec une grande facilité, les métaux et les oxydent très promptement. Les ouvriers eux-mêmes sont incommodés par la présence continuelle de ces vapeurs dans les ateliers ; leurs vêtements, qui en éprouvent sans cesse le contact, tombent en lambeaux, enfin, leurs poitrines ne peuvent éprouver qu’un mauvais effet de la part de ces gaz délétères.*” Blaise Rougier, *Mémoire sur la fabrication de soude artificielle*, tome X (Marseille: Académie de Marseille, 1812), 103–104. Cited in Xavier Daumalin, “Industrie et environnement en Provence.”

⁶⁴⁰ “*Nous devons mentionner les brûleurs auxquelles les savonniers sont exposés pendant la cuite du savon: à mesure que le savon augmente de solidité, la vapeur d’eau résultant de l’évaporation de la lessive se fait jour à*

Multiple observers also underscored the general condition of overwork to which soap workers were exposed. “There is a cause of illness that we must mention aside from the morbid predispositions that this professional workplace produces: it is the excessive work to which the soap workers are most often subjected,” exhaustion which led to “frequent maladies of the heart.”⁶⁴¹ This only confirmed the comments of earlier observers. The work of Bernardino Ramazzini, the so-called ‘father of occupational medicine’ had been calling attention to the dangers associated with overwork among soap workers for more than a century. This overwork was particularly dangerous given the high temperature of factory floors with vats of cooking and cooling soap. First describing the conditions of soap workers in 1700, he wrote, “The excessive temperatures to which [workers] are exposed day and night” forced them “from time to time, to leave the burning workshops in order to breath fresh air.”⁶⁴² Because of conditions inside the factory, they were “constantly dressed for summer, even in the middle of winter” and “exposed themselves to the cold air, which instantly stopped their sweating, and caused them to develop acute fevers and maladies of the chest...”⁶⁴³ Ramazzini also gave voice to moralizing impulses, blaming the ill health of soap workers, at least in part, on their own bad behavior by alluding to widespread alcoholism—accusations which may nonetheless shed some light on the

travers la pâte solidifiée, et détermine des projections brûlantes de savon et de lessive à l’entour de la chaudière.” Alexandre Layet, “Savonnier ou Savonier” in *Dictionnaire encyclopédique des sciences médicales, tome septième*, ed. A. Dechambre (Paris: P. Asselin; G. Masson, 1879), 132.

⁶⁴¹ “*Il est une cause de maladie qu’il nous faut signaler, à côté des prédispositions morbides que soulève l’action du milieu professionnel: c’est le travail excessif auquel les savonnières sont le plus souvent soumis...Shann attribue aux mouvements continuels des bras que nécessitent les diverses opérations professionnelles, entre autres...la fréquence des maladies de coeur qu’il a constaté chez les savonniers anglais.*” Ibid.

⁶⁴² “*...la chaleur trop vive à laquelle ils sont exposés jour et nuit, et la nécessité où, ils sont de sortir de temps en temps de leurs ateliers brûlants, pour respirer un air frais.*” Bernardino Ramazzini, *Traité des maladies des artisans* (Paris: Adolphe Delahays, 1855), 164. This work was first published in Latin in 1700.

⁶⁴³ “*Ces ouvriers continuellement en habits d’été, même au milieu de l’hiver, s’exposent à l’air froid qui supprime à l’instant même leur transpiration, et les jette dans les fièvres aiguës et des maladies de la poitrine...*” Ibid.

psychological condition of soap-workers. “Burnt and withered by the fires of their workshops,” he wrote, “they go to the cabarets, where they drown themselves in wine.”⁶⁴⁴

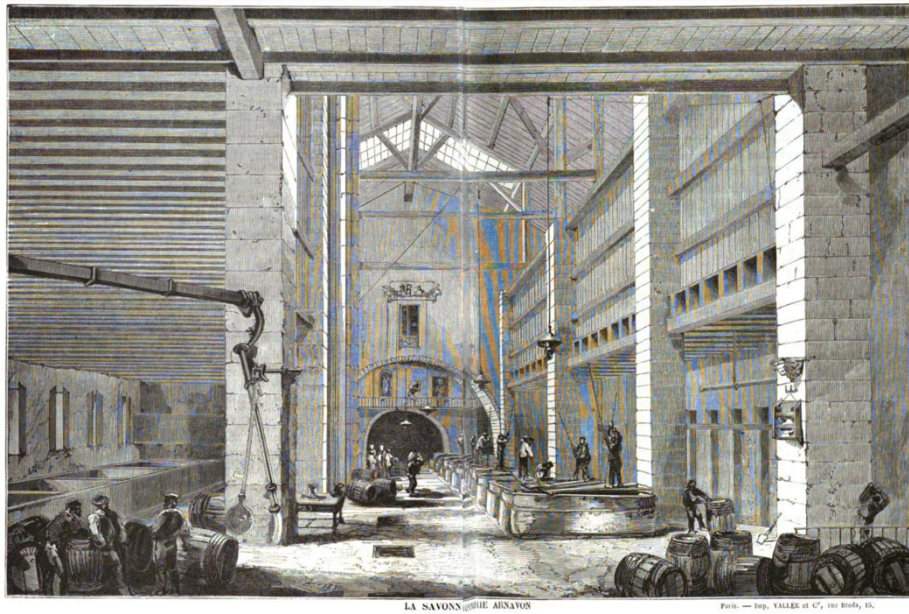


Figure 32: *Salle des chaudières* at the Arnavon Soap Factory in Marseille.⁶⁴⁵

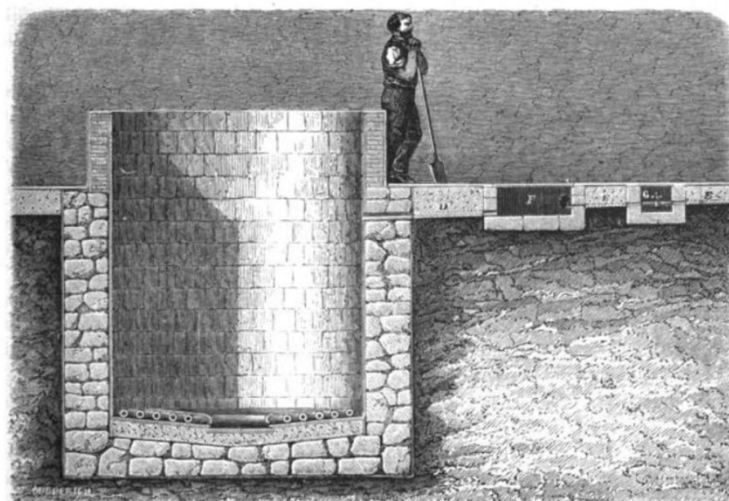


Fig. 283. — Coupe de la chaudière en maçonnerie chauffée par la vapeur, qui est en usage dans les fabriques de Marseille, pour l'empâtage et la coction du savon.

Figure 33: Soap vat (*chaudière*) and soap worker.⁶⁴⁶

⁶⁴⁴ “Brûlés et desséchés par le feu de leurs ateliers, ils vont dans des cabarets où ils se noient dans le vin.” Ibid.

⁶⁴⁵ Image reproduced from Julien Turgan, *Les grandes usines*, 104-105.

⁶⁴⁶ Image reproduced from Louis Figuier, *Les Merveilles de L'Industrie*, 421.



Figure 34: Workers pour oil into the *chaudière*.⁶⁴⁷

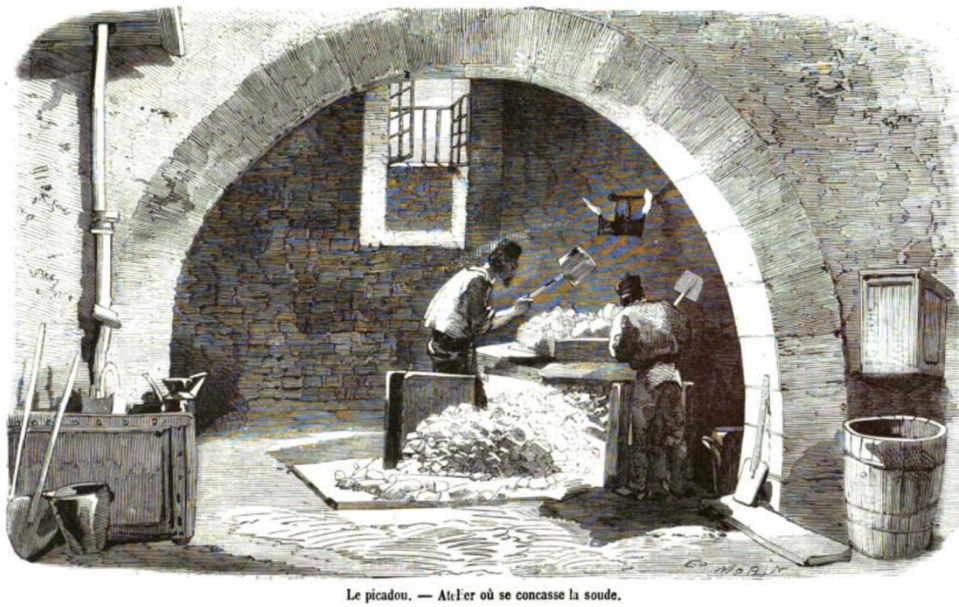


Figure 35: Workers break blocks of artificial soda ash.⁶⁴⁸

⁶⁴⁷ Image reproduced from Julien Turgan, *Les grandes usines*, 93.

⁶⁴⁸ *Ibid.*, 89.



Ouvriers en'evant d'un barquieu les terres de soude épuisées.

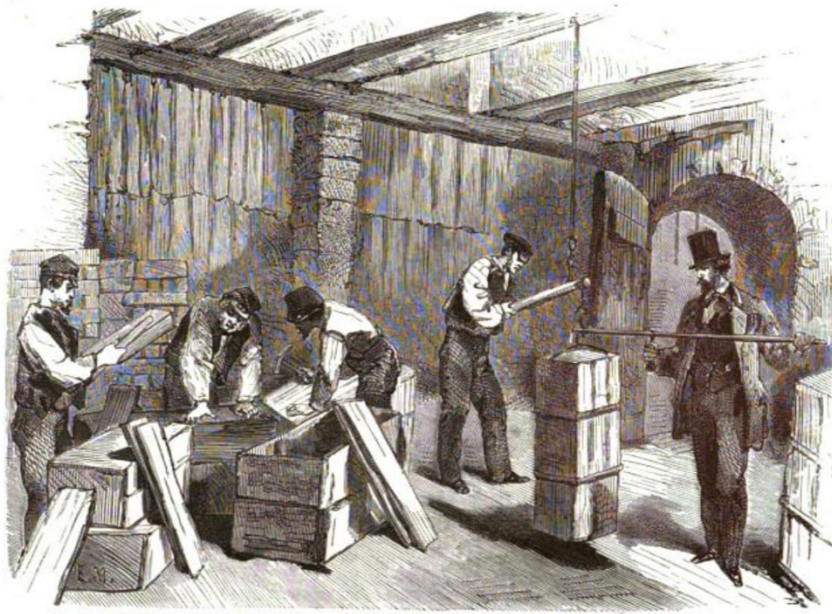
Figure 36: Workers remove spent soda ash.⁶⁴⁹



Ouvriers montant des pains de savon blanc.

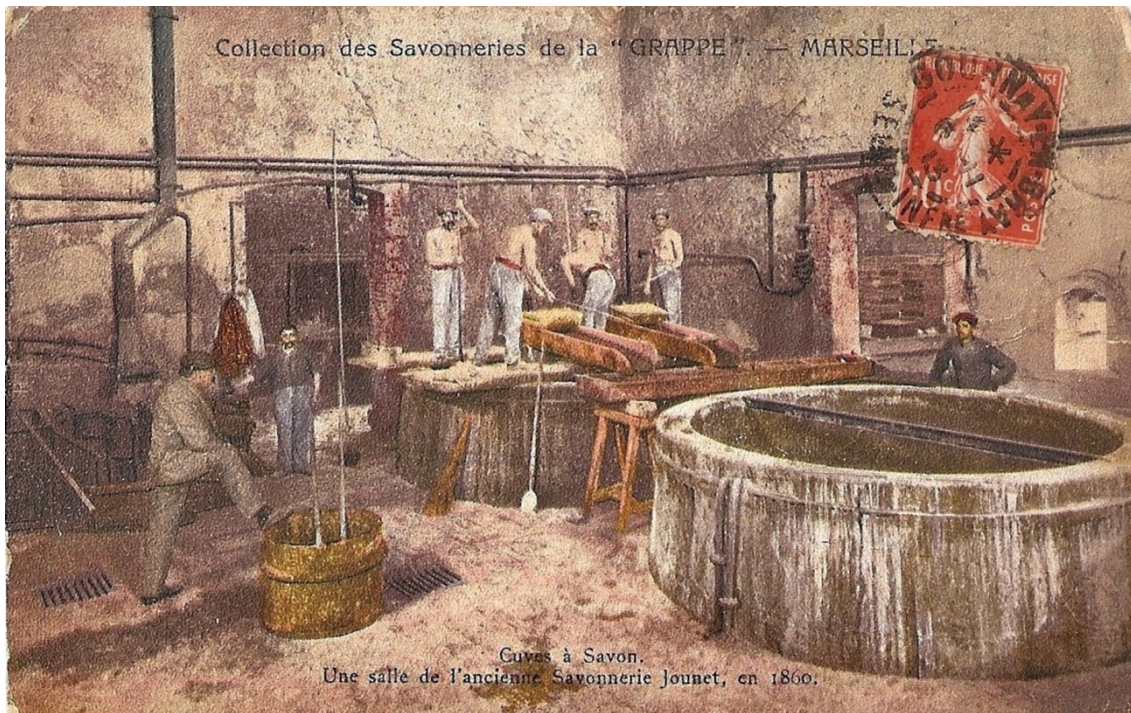
Figure 37: Worker lifting bricks of soap, shown wearing protective gloves.⁶⁵⁰

⁶⁴⁹ Ibid., 88.
⁶⁵⁰ Ibid, 120.



LES SUGANS. — Magasins d'emballage et de pesage.

Figure 38: Packing and Weighing Shop.⁶⁵¹



Collection des Savonneries de la "GRAPPE". — MARSEILLE.

Cuves à Savon.
Une salle de l'ancienne Savonnerie Jounet, en 1860.

Figure 39: Chaudières at the Savonnerie Jounet, 1860.⁶⁵²

⁶⁵¹ Ibid., 121.

⁶⁵² Reproduced with permission from the owner. "Cuves à savon: une salle de l'ancienne Savonnerie Jounet, en 1860," Collection des Savonneries de la "Grappe" – Marseille. [geneanet.com](https://www.geneanet.com). Accessed 28 June 2021. <https://www.geneanet.org/cartes-postales/view/47699#0>.

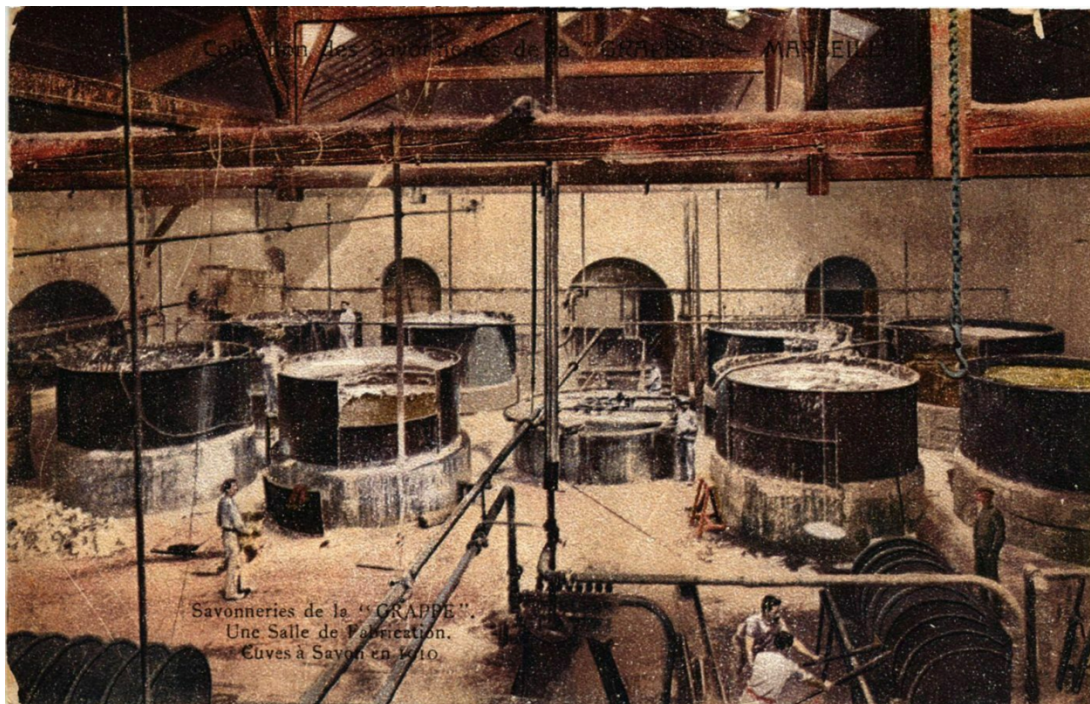


Figure 40: *Salle des chaudières*, 1910.⁶⁵³

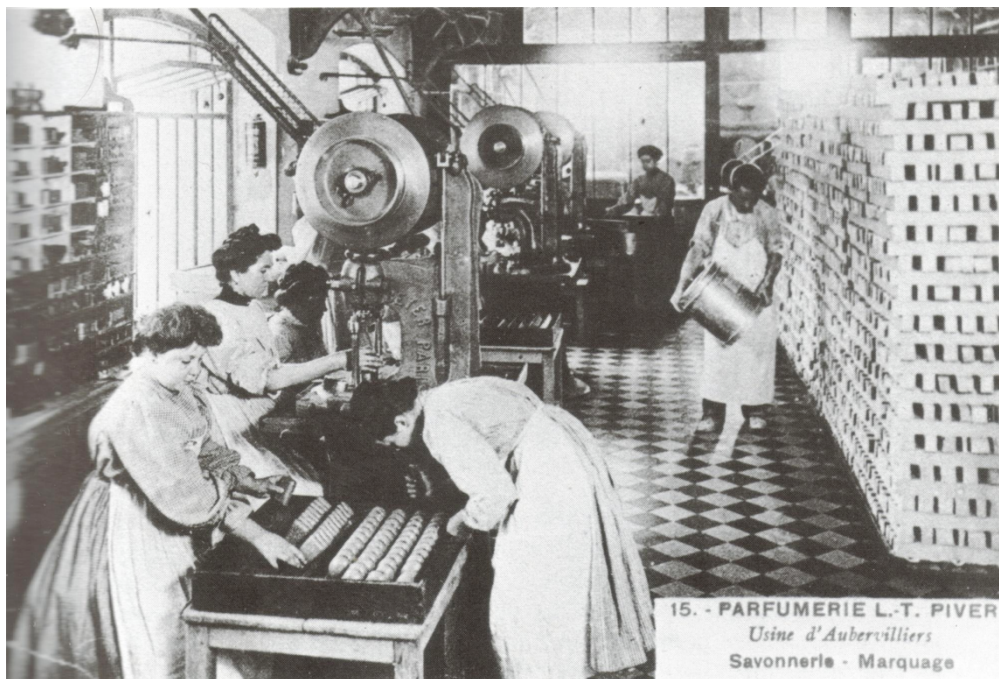


Figure 41: Women working in a soap factory packing and storage shop, c. early twentieth-century.⁶⁵⁴

⁶⁵³ Reproduced with permission from the owner. “Savonnerie de la ‘Grappe.’ Une Salle de Fabrication, Cuves à Savon, en 1910.” cartorum.com. 6 June 2021. Accessed 28 June 2021. <https://cartorum.fr/marseille-marseille-savonneries-grappe-une-salle-fabrication-190364.html>.

⁶⁵⁴ “Aubervilliers - Parfumerie L.T. Piver - savonnerie – marquage,” Wikimedia Commons, September 4, 2010. https://commons.wikimedia.org/wiki/File:Aubervilliers_-_Parfumerie_L.T._Piver6.jpg?uselang=fr.

Workplace Accidents

If the chronic conditions of soap factories were a permanent source of unhealthiness for workers, sudden and violent workplace accidents were also an ever-present danger. In 1828, for example, Council members reported on the disturbing regularity with which workers fell into containers of molten soap. According to standard production methods, they explained, workers would place planks of wood across large vats of boiling soap in order to stand on the plank and periodically stir the mixture during the saponification process. Both the plank and tools became notoriously slick with condensation, and workers developed a practice of covering their hands and tools in chalk in an attempt to make their materials less slippery. Despite such precautions, according to the Council report, “It is not rare that workers fall into the vats containing a mixture of boiling alkaline lye and oil. These accidents, which are usually the result of carelessness, are generally fatal.”⁶⁵⁵ They recommended that the mayor require soap workers to wear safety harnesses, which would suspend them from the ceiling in case of a fall, though this precaution does not seem to have been widespread.

These accidents sometimes appeared in travel literature as an apparent source of macabre fascination for visitors to the city. Amable Tastu commented on these belts in 1846, for example, suggesting that they went unworn because workers were careless with their own lives. “One thing that frightens you when you visit a soap factory is the condition of the worker... Would you believe that the owner is forced to issue very severe penalties in order to force the worker to work with this belt? Such is the extent to which man is disposed to imprudence and accustomed

⁶⁵⁵ “...il n’est pas rare que les ouvriers tombent dans les chaudières contenant la lessive alcaline et l’huile dans l’état d’ébullition. Ces accidens, arrivés le plus souvent par imprudence, sont ordinairement mortels.” Robert, *Rapport Général sur les travaux du conseil de salubrité du département des Bouches du Rhone pour les années 1826-1827* (Marseille: Imprimeur de la préfecture de la ville, 1828), 38-40. AD BDR Phi 527 1.

to the danger that is ever present.”⁶⁵⁶ There is little to suggest, however, that these belts were regularly made available to workers. In his own study of soap factory conditions, Sélime-Ernest Maurin, simply wrote that the belt “is not used in Marseille.”⁶⁵⁷

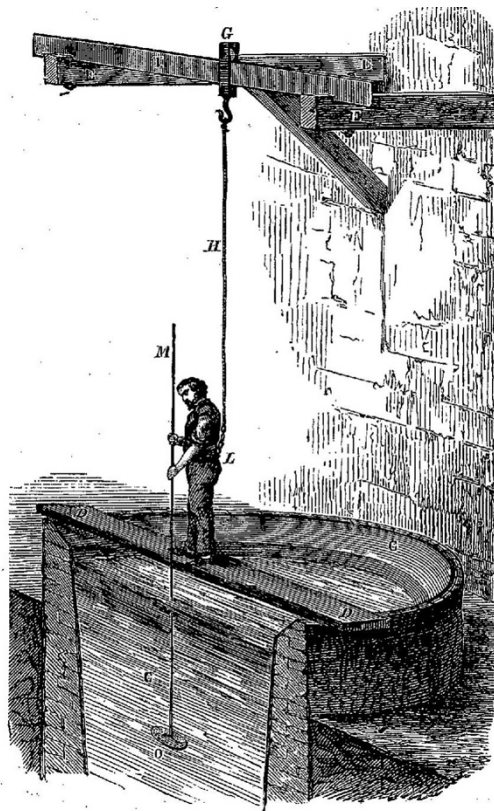


Fig. 298. — Ouvrier savonnier revêtu de la ceinture Darcet.

Figure 42: Diagram of a proposed design for a safety harness for soap factory workers.⁶⁵⁸

Falls were not the only danger, however. Local newspapers regularly reported on the gruesome accidents that befell the city’s soap workers, some of which even reached national newspapers. In 1843, for example, the *Gazette nationale ou le Moniteur universel*, reported “A

⁶⁵⁶ “Une chose qui effraie quand on visite une savonnerie, c’est la situation de l’ouvrier... Croiriez-vous qu’il faut de la part du fabricant des injonctions très-sévères pour forcer l’ouvrier de travailler avec cette ceinture? Tant l’homme est disposé à l’imprudence et se familiarise avec le danger qui se représente à tous les instants!” Amable Tastu, *Voyage en France* (Tours: A. Mame, 1846), 137.

⁶⁵⁷ “...on fait propose par Darcet un appareil de suspension ingénieux; il n’est pas employé à Marseille.” Sélime-Ernest Maurin, *Esquisse de Marseille*, 100.

⁶⁵⁸ Louis Figuier, *Les Merveilles de L’Industrie*, 439.

dreadful tragedy came to the quartier of the Rive neuve yesterday morning. Two soap workers were charged with cleaning the oil vats, which had been long been empty; the younger descended into the first vat without having taken any hygienic precaution to decontaminate the vat of the noxious gasses which it could contain. After a long moment during which he was no longer heard to move or speak, the father of this unfortunate went down after him, but was struck by a fit of asphyxiation just as his son had been. Unfortunately, help was not prompt; no one dared risk descending into the vats and when, after an excessive delay, one was able to retrieve the two workers, the younger no longer gave any sign of life; the older still gives some hope,” they concluded.⁶⁵⁹ Newspaper coverage also confirmed the medical reports that burns from scalding material or from the caustic soda ash were frequent, as a result of accidental spills or when equipment broke, as was the case when the bottom fell out of a transport vessel and scalded the entire body of a twenty-nine-year-old soap worker in 1874.⁶⁶⁰

Other industrial accidents, not necessarily specific to soap work, were also common. As *Le Petit Marseillais* reported in 1889, for example, “During the afternoon the day before yesterday, a Mister Jean Beaujardin, soap-worker, aged 22 years, was working in a factory on the Rue Borde, in the quartier of Menpenti, greasing a gear when, having turned his head for a moment, the index finger on his right hand was taken and two knuckles were crushed.

⁶⁵⁹“ *Un affreux malheur est venu consterner le quartier de Rive-Neuve, dans la matinée hier. Deux ouvriers savonniers avaient été chargés de nettoyer des piles à huile qui depuis longtemps étaient vides; le plus jeune est descendu le premier sans qu’aucune précaution hygiénique eût été prise pour assainir la pile des gaz méphitiques qu’elle pouvait contenir. Après un assez long moment, ne l’entendant ni bouger ni parler, le père de ce malheureux est également descendu, mais il a été frappé d’asphyxie comme son fils venait de l’être lui-même. Malheureusement, les secours n’ont pas été prompts; personne n’osait se hasarder à descendre dans la pile, et lorsque après un trop long délai, on est parvenu à retirer les deux ouvriers, le plus jeune ne donnait plus aucun signe de vie; le plus âgé laissait encore quelque espoir.*” “Faits divers,” *Gazette nationale ou le Moniteur universel*, July 17, 1843. <https://www.retronews.fr/journal/gazette-nationale-ou-le-moniteur-universel/17-juillet-1843/149/1427893/1>.

⁶⁶⁰ “Chronique locale,” *Le Petit Marseillais*, 20 October 1874. <https://www.retronews.fr/journal/le-petit-marseillais/20-octobre-1874/437/1610289/2>. See also “Environs de Paris,” *La Lanterne*, June 19, 1899. <https://www.retronews.fr/journal/la-lanterne-1877-1928/19-juin-1899/62/1056117/3>.

Transported as soon as possible to the Hôtel-Dieu, the poor boy suffered the amputation of the finger.”⁶⁶¹ When the city began collecting workplace accident reports in 1880, inspectors found much the same thing: falls, burns, and injured limbs littered the reports from soap factories, often accompanied by a brief note, which listed “carelessness of the victim” under the cause of the accident.⁶⁶²

Life Outside the Factory

Beyond the labor conditions to which soap workers were exposed, contemporary newspaper coverage also sheds some light on the reality of their lives outside the factories, a reality that was plagued by violence of a different kind and structured by the urban geography of the city itself. Stories of street fighting among workers litter the pages of local newspapers. Knife fights, and occasional shootings, especially among Italian soap workers, seem to have been a particular source of horror and fascination. Street violence in Marseille was so widespread, in fact, that the early years of the Third Republic constituted a veritable “era of the blade,” [*l’ère de la lame*] according to Céline Regnard-Druout, as the knife became the quintessential symbol of working-class street violence and Italian criminality in particular.⁶⁶³ The proliferation of these stories was fueled by middle-class stereotypes about the ‘violent nature’ of working-class behavior as well

⁶⁶¹“*Avant-hier après midi, le sieur Jean Beaujardin, ouvrier savonnier, âgé de 22 ans, travaillait dans une fabrique de la rue Borde, à Menpenti, à graisser un engrenage lorsqu’ayant tourné la tête un moment il a eu l’index de la main droite pris et deux phalanges broyées. Transporté aussitôt à l’Hôtel-Dieu, le pauvre garçon y a subi l’amputation du doigt.*” “Les Accidents,” *Le Petit Marseillais*, July 10, 1889. <https://www.retronews.fr/journal/le-petit-marseillais/10-juillet-1889/437/1591333/2>.

⁶⁶²“*L’imprudence de la victime.*” “Etat des accidents survenus dans les établissements industriels et agricoles, 2ème trimestre 1893” AD BDR 10 M 33. See full series of these reports from 1880-1893 at AD BDR 10 M 33.

⁶⁶³ Céline Regnard-Druout, *Marseille la violente*, 187-189.

as by rising anti-Italian prejudice in Marseille, but the cumulative portrait of such coverage depicts a workforce that was subject to extreme violence both inside and outside the factories.⁶⁶⁴

In 1869, *Le Petit Marseillais* published a particularly sensational report of one of these violent encounters.⁶⁶⁵ “Yet another crime to add to the list committed in the last few months, already so full of killings,” the report began.⁶⁶⁶

“Sunday, around 9:30 in the evening, on the rue des Olives...two young people, two friends, two comrades, we are assured, had a violent argument for a most trivial reason. Was it the influence of drink that armed the assassin with exceptional ferocity? We do not know. But after having exchanged the coarsest possible words, the most outrageous, Micheletti, one of the men, a soap worker originally from Italy, suddenly took a knife from his pocket, which he opened with a swift movement, and before the unfortunate Fabre could defend himself, stabbed him three times in the chest and fled, seeing his victim fall in a pool of his own blood. The injured, whose gaping wounds were horrible to see, was transported to the Hôtel-Dieu and his condition is so serious that we have little hope he will be saved. The police, who were soon notified, immediately went after the murderers. Yesterday morning, near dawn, two agents of the security brigade, whose conduct in this circumstance is above reproach, managed to discover Micheletti carefully hidden in a lower room of a soap factory in the square of Notre-Dame-du-Mont... Tomorrow we will give new details on the still-unknown motive of this unheard-of ferocity.”⁶⁶⁷

⁶⁶⁴ For more on anti-Italian xenophobia in Marseille, see Emile Temime and Renée Lopez, *Histoire des migrations à Marseille, Tome 2, L'Expansion marseillaise et l'invasion italienne* (Aix-en-Provence: Edisud, 1990); Xavier Daumalin, “Industrie marseillaise et immigration italienne,” 45–65.

⁶⁶⁵ *Le Petit Marseillais* was the second largest provincial newspaper in France by the late nineteenth century. It was a liberal republican outlet that specialized in financial and business news, but also made a name for itself publishing stories on sensational crime and court cases. “Le Petit Marseillais,” [Retronews.fr](https://www.retronews.fr). Accessed 28 June 2021. <https://www.retronews.fr/titre-de-presse/petit-marseillais>.

⁶⁶⁶ “Encore un crime à ajouter à la nomenclature déjà si remplie des assassinats commis depuis ces derniers mois.” J.-L., “Assistant de la Rue des Olives,” *Le Petit Marseillais*, August 31, 1869. <https://www.retronews.fr/journal/le-petit-marseillais/31-aout-1869/437/1608025/2>

⁶⁶⁷ “Dimanche, vers neuf heures et demie, di soir, dans la rue des Olives, presque en face la maison où venait de s’accomplir vingt-quatre heures avant, l’horrible drame de rue de la Prison, deux jeunes gens, deux amis, deux camarades, nous assure-t-on, avaient une violente discussion pour un motif des plus futiles. Est-ce l’influence de la boisson, où la nature exceptionnellement farouche de l’un d’eux qui a armé le bras de l’assassin? Nous ne savons. Mais après avoir échangé les propos les plus grossiers, les plus outrageants, Micheletti un d’eux, ouvrier savonnier, originaire d’Italie, sort brusquement de la poche un couteau qu’il ouvre par un mouvement rapide et, avant que l’infortuné Fabre ait pu se mettre sur la défensive, il le lui plongé par trois fois dans la poitrine et d’enfuit en voyant sa victime tomber au milieu d’une mare de sang. Le blessé, dont les plaies béantes faisaient mal à voir, a été transporté à l’Hôtel-Dieu et son état est si grave qu’on désespère de le sauver. La police bientôt prévenue s’est immédiatement mise à la poursuite des meurtriers. Hier matin, vers l’aube, deux agents de la brigade de sûreté, dont la conduite dans cette circonstance est au-dessus de tant éloge, parvenaient à découvrir Micheletti caché avec soin dans une salle basse d’une savonnerie de la place de Notre-Dame-du-Mont. Il a été aussitôt mis à la disposition

In this case, the victim is identified only by the surname Fabre, a French name of Occitan origin, suggesting that this incident inspired particular outrage because violence had been perpetuated by an immigrant on a native-born Frenchman and very possibly a native of the region. Indeed, Céline Regnard-Druout has shown that Italian defendants in Marseille during this period were sentenced much more harshly when the victim in question was French.⁶⁶⁸ But local newspapers regularly published similar stories when the victims were other Italian workers or when the victim's origins were unknown, leaving readers to draw their own conclusions.⁶⁶⁹ The story is also notable for a brief statement of praise for the police, increasingly rare in middle-class newspapers, which routinely insisted that police were not doing enough to keep order on the streets, invoking the specter of workers and immigrant communities that were becoming increasingly unmanageable.⁶⁷⁰

The shocking prevalence of street violence was not merely a fabrication of sensationalist media or middle-class panic, however, though local newspapers certainly seemed to delight in publishing the gory details of such incidents. As Céline Regnard-Druout has argued, Marseille's historical reputation for violent crime has been exaggerated and heavily distorted by xenophobia and racism towards the immigrant groups that have settled in Marseille over the course of the nineteenth and twentieth centuries, xenophobia which certainly colored disproportionate newspaper coverage of Italian criminal activity. But, that reputation still had some basis in the

de M. Le Procureur impérial. Nous donnerons demain de nouveaux détails sur le mobile encore ignoré de cet acte de férocité inouïe." Ibid.

⁶⁶⁸ Céline Regnard-Druout, *Marseille la violente*, 184.

⁶⁶⁹ See "Chronique Locale," *Le Petit Marseillais*, 26 June 1876. Accessed 5 January 2021.

<https://www.retronews.fr/journal/le-petit-marseillais/26-juin-1876/437/1516885/2>; N., "Tentative d'Assassinat au boulevard Chave: sept coups de couteau," *Le Petit Marseillais*, July 6, 1886. <https://www.retronews.fr/journal/le-petit-marseillais/6-juillet-1886/437/2222657/2>; "Marseille la Nuit," *Le Petit Provençal*, January 15, 1888. <https://www.retronews.fr/journal/le-petit-provençal/15-janvier-1888/677/3100801/3>.

⁶⁷⁰ Céline Regnard-Druout, *Marseille la violente*, 138.

statistical reality: Marseille had exceptionally high crime rates in the second half of the nineteenth century.⁶⁷¹ In the years between 1851 to 1872, the number of crimes committed against individuals (a category which includes a range of offenses from public insults to murder) went from twice to three times the national average.⁶⁷² That crime was particularly violent in nature with staggeringly high rates of homicide and murder, even when compared to other major urban areas in Europe.⁶⁷³ This, as Regnard-Druout argues, is a level of crime that cannot be explained by a growing number of police officers or by adjustments to the legal code. Marseille's police force was much smaller than comparable major cities in France (roughly half the size of the police force in Lyon with a similar population) and grew slowly, while the legal code concerning acts of violence remained roughly stable during this period.⁶⁷⁴

Marseille's working classes were disproportionately represented in criminal proceedings as both perpetrators and victims, with day laborers and sailors being the two most commonly involved professional groups.⁶⁷⁵ As Regnard-Drouot notes, these were two of the most economically precarious groups in the city and two socio-economic categories that were also made up almost entirely of young men, an age and gender disparity which is reflected in violent crime statistics in Marseille from this period overall.⁶⁷⁶ Unsurprisingly, then, arrests for violent crime were also highly concentrated in working-class, industrial neighborhoods, and in the

⁶⁷¹ Ibid., 299, 307.

⁶⁷² Ibid., 50–51.

⁶⁷³ Individuals accused of murder were three times more prevalent in Marseille than the national average across the same period and individuals accused of involuntary homicide peaked at roughly four times the national average in 1856. Ibid., 51, 56.

⁶⁷⁴ Ibid., 47–49, 126.

⁶⁷⁵ William H. Sewell similarly found that the crime rate for Marseille's proletarians (by which he referred to 'unskilled' factory laborers) was three times as high as it was for artisans (which included skilled factory positions, small scale industrial workers, and the *portefaix*). See William H. Sewell, "Social Change and the Rise of Working-Class Politics in Nineteenth-Century Marseille," 81.

⁶⁷⁶ Regnard-Druout, *Marseille la violente*, 96–97.

neighborhoods immediately around the port, where sailors and workers congregated, and which were most heavily policed—the very same neighborhoods where most soap workers lived.⁶⁷⁷

Céline Regnard-Drouot attributes this high level of violence among Marseille's working class first and foremost to economic factors. The economic situation for Marseille's workers was dire, particularly in the early part of the Third Republic. Wages stagnated while the cost of living increased. The numbers of immigrants coming the city increased rapidly, causing greater competition for work, while economic crises and bankruptcies, especially common during the 1880s and 1890s, led to growing unemployment.⁶⁷⁸ If the national economy had largely recovered from the worst of those economic crises by the early years of the twentieth century, it became clear that Marseille's working-class was not sharing in the benefits of that growth.⁶⁷⁹ Court records from the period show that violence often broke out over competition for work, particularly during the daily selection for work at the docks, over rent payments or debts, or when workplace resentment spilled into the streets.⁶⁸⁰ This violence often seemed to take a sudden deadly turn especially in and near the workplace, according to Regnard-Drouot, because of the ubiquity of tools and implements, from pocket knives to docker's hooks, that working men needed to carry with them and which could easily be used as weapons.⁶⁸¹ It also clear that there was a high level of domestic violence in the overcrowded port neighborhoods: violence broke out between partners and families, but also between neighbors.⁶⁸² As the economic situation continued to deteriorate in the final years of the nineteenth century, young people from hard-hit families increasingly chose (or were forced) to leave their families to support themselves at an

⁶⁷⁷ Ibid., 114–122, 151–152.

⁶⁷⁸ Ibid., 18–21, 127, 145–147.

⁶⁷⁹ Ibid., 20.

⁶⁸⁰ Ibid., 158–172.

⁶⁸¹ Ibid., 95, 189.

⁶⁸² Ibid., 73, 102, 166–167.

earlier age than had been common in previous decades.⁶⁸³ As real wages fell precipitously, for many boys and young men in particular, criminal activity began to look like a more viable way to do that than industrial labor.⁶⁸⁴

In addition to this harsh economic reality, however, Regnard-Drouot also argues that there were cultural factors that contributed to the unique level of violence in Marseille, namely, a pronounced ‘culture of honor’ common to Marseille’s working class, but, she says, particularly important in Italian communities.⁶⁸⁵ The streets near the city’s port and industrial neighborhoods had become routine and normalized theaters of violence—theaters in the sense that they were the stage on which one performed one’s status, reputation, and honor in public.⁶⁸⁶ It was therefore no coincidence that newspapers covered street violence with such special attention. Violent assertions of strength or revenge for perceived grievances *needed* to occur in the street, she writes, where there would be witnesses to the act.⁶⁸⁷

The notion of an honor culture has proven to be immensely controversial for scholars of the Mediterranean. Some scholars have insisted that there has been a combination of historical cultural beliefs common to the regions that surround the Mediterranean which places enormous emphasis on pride and shame, and on reputation, especially related to one’s family or certain standards of female chastity.⁶⁸⁸ Others have argued that such beliefs are hardly unique to the Mediterranean and manifest themselves in highly varied and localized ways throughout the

⁶⁸³ Ibid., 224.

⁶⁸⁴ Ibid., 219, 224, 239.

⁶⁸⁵ Ibid., 207.

⁶⁸⁶ Ibid., 104, 234.

⁶⁸⁷ Ibid.

⁶⁸⁸ For a concise summary of this debate, see Michael Herzfeld, “Honour and Shame: Problems in the Comparative Analysis of Moral Systems,” *Man* 15, no. 2 (1980): 339–351; Michael Herzfeld, “Practical Mediterraneanism: Excuses for Everything, from Epistemology to Eating,” in *Rethinking the Mediterranean*, ed. W. V. Harris (Oxford: Oxford University Press, 2005), 45–63; João de Pina-Cabral, “The Mediterranean as a Category of Regional Comparison: A Critical View,” *Current Anthropology* 30, no. 3 (1989): 399–406.

region such that they cannot be collapsed into one monolithic ‘culture of honor.’ Both Michael Herzfeld and João de Pina-Cabral have gone further to argue that scholarly discourse around the notion of a Mediterranean honor culture both reflects and contributes to stereotypes about the Mediterranean that serve to characterize its inhabitants as hot-headed, violent, excessively ‘macho,’ irresponsible, and thus more ‘primitive’ than their counterparts in Northern Europe. In doing so, they serve as a justification, intentionally or not, for the unequal power dynamic that exists between northern and southern European states. Céline Regnard-Drouot does not engage in this debate and does seem to slip into what Herzfeld has termed ‘mediterraneanism,’ a concept borrowed from Edward Said’s orientalism, by attributing particularly intense notions of honor to southern Italians, thereby suggesting the most violent (‘primitive’) characteristics belonged to the most southern regions of Europe.

But there need not have been a unique or regionally-specific ‘culture of honor’ present in Marseille or among the working communities of Marseille’s central port neighborhoods for there to have been patterns to the violence that was reported. Testimony from the court cases that followed incidents of street violence clearly demonstrate that violence could break out when certain standards of behavioral conduct were violated. In their own words, defendants describe how incidents of physical, even lethal violence, were often associated with xenophobic conflict (ethnic slurs or insults, usually directed at Italians), with perceived injury or insult to the sexual propriety of female relatives, or with geographic transgressions (the intrusion of unwelcome individuals into a particular neighborhood or bar as defined by national or socio-economic categories).⁶⁸⁹

⁶⁸⁹ Regnard-Drouot, *Marseille la violente*, 190–199.

In this respect, bars were particularly common venues for violence with clientele that were disproportionately young, male and tended to travel together in groups.⁶⁹⁰ Bars were also highly segregated by national origin, industry, and neighborhood and the regular patrons, often fueled by alcohol, actively policed entrance into and behavior in those spaces.⁶⁹¹ Court testimony indicates that a ‘wrong look’ or improper body language in these places could be enough to spark an incident of lethal conflict, conflict that was often exacerbated by the presence of police.⁶⁹² Such fraught spaces were proliferating across the late nineteenth century. Between 1865-1878, the number of bars or establishments serving alcohol in Marseille more than quadrupled from two hundred to nine hundred.⁶⁹³ As a result, it seems, the streets around the port could contain a minefield of different threats to the physical safety of the people who lived there. For the soap workers who congregated in these neighborhoods, sudden and spectacular violence at home, at work, on the streets where they lived, and even in the places where they sought relaxation, was increasingly becoming a fact of everyday life.

It must be noted, however, that in addition to the violence that was a common experience of the city’s working-class communities, Italian workers were subject to a unique level of xenophobic brutality, which often played out in the streets surrounding the city’s soap factories. The most infamous incident of such violence was a xenophobic riot, which occurred between the 17th and the 20th of June, 1881 in an event that has become known as “the Italian hunt” [*La chasse aux italiens*].⁶⁹⁴ The conflict was sparked when French troops returning from the invasion

⁶⁹⁰ Ibid., 107–113.

⁶⁹¹ For more on the importance and identity of the *quartier*, see Ibid., 235.

⁶⁹² Ibid., 109–113, 235.

⁶⁹³ Ibid, 109.

⁶⁹⁴ This account is based on that of Georges Liens, which relies on a combination of police records and newspaper reports from the five main newspapers in Marseille during this period: *Le Petit Marseillais* (moderate republican in its leaning), *Le Petit Provençal* (socialist), *Le Sémaphore* (business journal), *Le Radical de Marseille* (the official publication of the municipality), and *La Gazette du Midi* (royalist). See Georges Liens, “Les ‘Vêpres marseillaises’

of Tunisia (a region in which Italy also had substantial geopolitical interests) disembarked near La Joliette and marched down Rue de la République towards La Canebière and the Saint-Charles train station. An estimated crowd of ten thousand people had gathered to greet the troops and lined the streets along their parade route. During the parade, whistles, perceived as an insult to the soldiers, were allegedly heard to be coming from the balcony of the nearby *Club nazionale italiano*, a gathering place of Italian businessmen, though later evidence would suggest that the whistles had come from the crowd itself and not from the club.⁶⁹⁵ A flag hanging from the building displayed the insignia of the club and the crowd turned on the individuals who were standing on the balcony, demanding that they lower the flag. As tensions escalated, the club's patrons were forced to barricade themselves inside while individuals from the crowd tried to scale the building and rip the flag from its staff. After nearly two hours under siege, members of the club were persuaded to remove the flag and the satisfied crowd began to disperse, though several hundred gathered threateningly outside the Italian consulate.

The next day, in an attempt to 'avenge' the perceived insult of the previous day, a group of young Frenchmen (described in newspapers as unemployed 'nervis', or low-level street criminals) gathered along the Cours Belsunce at dawn.⁶⁹⁶ The street connected the Vieux-

(juin 1881), ou la crise franco-italienne au lendemain du traité du Bardo," *Revue d'histoire moderne et contemporaine* 14, no. 1 (1967): 1–30.

⁶⁹⁵ *Ibid.*, 8–9.

⁶⁹⁶ The term *nervi* first appeared in the 1840s. It was first used to describe unruly workers, often unemployed, or members of the working-class who 'disturbed' bourgeois society by pickpocketing, making loud noises in public, or displaying rude manners or a crude sense of humor. In the late nineteenth century, however, it was increasingly associated with criminal behavior and, by the interwar period, with organized crime, drug trafficking, and prostitution. If the *nervi* of the mid-nineteenth century could be dismissed, or even romanticized, as an example of 'local color' on the streets of Marseille, the twentieth-century iteration was perceived as being much more dangerous. The later *nervis* of the late-nineteenth and early twentieth centuries was also more closely associated with a certain dandyism. They were, according to contemporary newspaper descriptions, proudly well-dressed, but dangerous and disorderly young men. For more see Céline Regnard-Druout, *Marseille la violente*, 227 (see footnote 44); Marina Bellot, "Les nervis, ces voyous devenus « maîtres de Marseille »,," *RetroNews.fr*. May 2, 2018. <https://www.retronews.fr/societe/echo-de-presse/2018/05/02/les-nervis-ces-voyous-devenus-maitres-de-marseille>; Laurence Montel, "Deuxième partie : le temps des Nervis (années 1880 – années 1900)," in "Marseille capitale du crime. Histoire croisée de l'imaginaire de Marseille et de la criminalité organisée (1820-1940)" Phd diss. (Université

Quartiers and the Old Port with the industrial neighborhoods of Belle-de-Mai and, as workers left their homes in the direction of the docks or the factories, the group of men began attacking anyone they suspected of being Italian. Throwing punches and stones, the group scattered temporarily after being forcibly dispersed by police officers and bystanders, but regrouped and continued their attacks into the afternoon. They moved to the Cours Puget on the south side of the port, the main thoroughfare behind the soap factories of the Saint-Victor quartier until they were again dispersed by police. Newspapers reported that the situation had calmed by nightfall, but the Vieux-Quartiers and all the major streets of the city center were under “military occupation” by police, gendarmes, and a calvary regiment that had been called in by the prefect.⁶⁹⁷

The next morning, Italian workers gathered between the soap factories on the Rue Neuve Sainte-Catherine, armed with knives and revolvers, and sought to again avenge the events of the previous day. They moved towards the quai on the south side of the port, attacking Frenchmen they met in the street and traveling up the Cours Belsunce before barricading themselves in a lodging house. As a crowd gathered outside the apartment building, the group of Italian workers moved to the roof where they could throw stones at the crowd below. The crowd in turn began attacking Italians who they encountered on the street, at least one of whom was killed after his skull was fractured with a baton. The violence continued on the 20th of June, before finally tapering off, but not before three people had been killed and twenty-one hospitalized, fifteen of whom were Italian workers.

de Paris X Nanterre, 2008), CriminoCorpus, 2 September 2009. Accessed 25 July 2021.
<https://criminocorpus.hypotheses.org/1054>.

⁶⁹⁷ “*les principaux secteurs de la ville, surtout les ‘Vieux Quartiers,’ sont occupés militairement.*” Georges Liens, “Les ‘Vêpres marseillaises,’ 10.



Figure 43: Policemen on the Cours Belsunce, c. December 1903.⁶⁹⁸

⁶⁹⁸ F. G., photographer. “[2072 – Marseille – Le Cours Belsunce],” Photograph. Marseille: F. G., c. 1903. From Collection Galanti, cartes postales sur Marseille. AMM 88 Fi 23.
<http://marius.marseille.fr/marius/jsp/site/Portal.jsp?page=imagespatrimoine&action=detail&uid=bbef51c1-3f94-4f67-abf4-d4381e3b7a8b>.

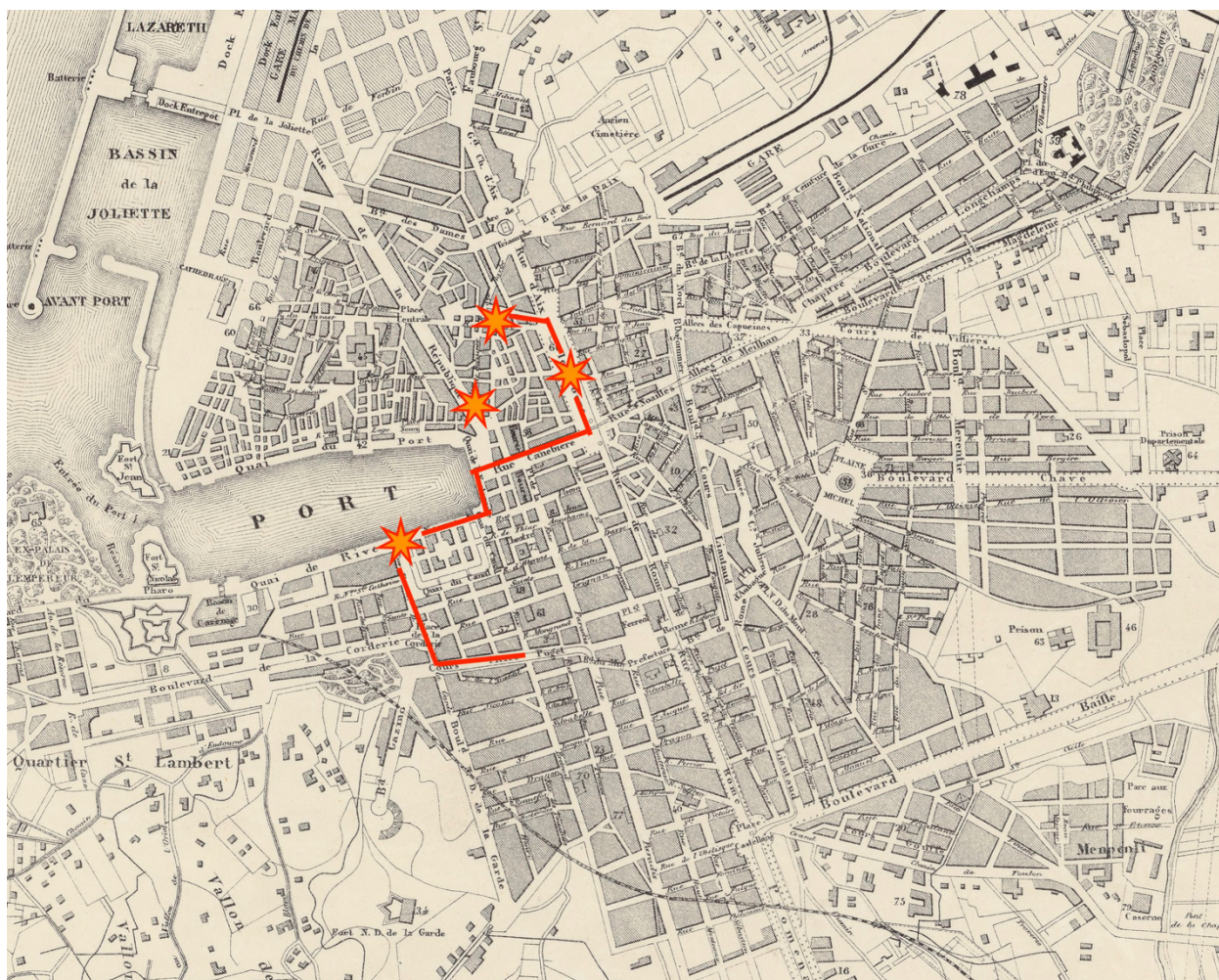


Figure 44: Sites of movement and major altercations during the “*chasse aux italiens*,” according to the account of Georges Liens. The Rive neuve, Rue de la République (site of the *Club nazionale italiano*), Cours Belunce, and the Rue de la Couronne (now rue Colbert, site of the boarding house in which Italian workers barricade themselves) were all sites of conflict.⁶⁹⁹

Though political leaders in both countries called for calm, the events exploded in the French and Italian press, both sides blaming the other for instigating the violence and insulting the other in nationalistic and sometimes racialized language. Socialist and union leaders were among the very few voices also calling for peace between the two factions. The *Union fédérative des travailleurs socialistes français* released a statement accusing Marseille’s business leaders of

⁶⁹⁹ Map editor by the author to show the sites of conflict. Map adapted from Garnier frères, “Plan général de Marseille, indiquant les travaux en voie d’exécution, ainsi que les travaux projetés,” scale not given, 1883. Gallica.bnf.fr. May 21, 2012. <https://gallica.bnf.fr/ark:/12148/btv1b530208805>.

stoking discord among French and Italian workers in order to suppress wages. The city's industrialists "speculate on the hunger of foreign workers to increase their profits," they wrote. But the workers of France "do not see and will never see the proletariat of other countries as anything other than victims of the same capitalist exploitation, brothers in misery destined to be brothers in the struggle of revolution..." Despite such statements, the events in Marseille sparked violence between French and Italian communities in Paris, Lyon, Nancy, and launched protests throughout Italy, though none of these conflicts ever reached the deadly crescendo that they had in Marseille.⁷⁰⁰

The riots of 1881 were among the darkest and most shocking incidents of openly xenophobic violence in Marseille's history, but, in their trajectory and geographic specificity, they were also reflective of the social milieu in which Marseille's soap workers lived. Soap workers were part of a complex community of multinational, young, precarious, male workers, concentrated in the streets of the city center. It was no coincidence that Italian workers gathered their forces among the soap factories of the Rive neuve, for example, or that French assailants knew to wait for them on the Cours Belsunce. These streets structured the urban geography of their experience—they were the places where this community of workers lived, labored, and encountered one another. The '*chasse aux italiens*' was further proof that if Marseille's soap industry served as a proud symbol of the city, as a reminder of its important role as an economic powerhouse, the workers who filled those factories were never celebrated in the same way. They lived on the socio-economic and cultural margins of the city and were often reminded, sometimes violently, of their unstable place in Marseille's urban life.

⁷⁰⁰ Xavier Daumalin has argued that the general experience of Italian and French workers was one of collaboration and solidarity and that incidents of extreme xenophobic brutality should be understood as the exception rather than the rule of daily life. See Xavier Daumalin, "Industrie marseillaise et immigration italienne."

The Image of the Soap Worker

The grisly portrait offered by such events presents a striking contrast, however, with the work of early social scientists who began working with Marseille's urban workers during the same period. Adolphe Focillon, an acolyte and collaborator of the sociologist Frédéric Le Play, travelled to Marseille in the winter of 1859 in order to conduct a study of the relations between soap factory workers and their employers for the *Ouvriers des deux mondes*.⁷⁰¹ Like the other studies contained within the monograph, Focillon chose to focus his investigation on one particular worker, unnamed in the piece, as a case study of the conditions soap workers more broadly, and of urban industrial workers who migrated to and from the countryside for work.

Focillon's depiction of the soap worker and his family is quaint, even idyllic. The worker, believed to have been employed at the factory owned by Jules-Charles Roux on the Rive-neuve, had labored in the same factory and for the same family since the age of eleven, following his father and uncle who had also been a lifelong employees at the factory.⁷⁰² Focillon's subject had slowly worked his way up the hierarchy of positions at the factory until, in his 50s, he was the *meneur de barquieux*, a position equivalent to the under-foreman, which consisted mostly of supervising and distributing work to other employees.⁷⁰³ He was able to support a family of nine on his wages with the help of his wife and children, who cultivated a small farm in the nearby village of Peynier, and was even able to save for a comfortable retirement, during which time he planned to leave Marseille and move to Peynier full-time.⁷⁰⁴

⁷⁰¹ A. Focillon, "Paysan et Savonnier de la Basse Provence," *Ouvriers des deux mondes: études sur les travaux, la vie domestique et la condition morale des populations ouvrières des diverses contrées et sur les rapports qui les unissent aux autres classes, tome III* (Paris: Firmin-Didot et Cie, 1861), 67–144.

⁷⁰² Antoine Savoye, "Adolphe Focillon (1823-1890): le maître le plus autorisé de l'enseignement social," *Les Études sociales* II, no. 138 (2003): 115-116; A. Focillon, "Paysan et Savonnier de la Basse Provence," 72, 74.

⁷⁰³ A. Focillon, "Paysan et Savonnier de la Basse Provence," 77, 80, 90.

⁷⁰⁴ A. Focillon, "Paysan et Savonnier de la Basse Provence," 71, 83.

Focillon's account provides incredible detail about the daily life of the worker's family, including a precise annual budget and descriptions of their diet, which included wine, bread, fish or cheese, fruits and vegetables, and meat on special occasions or religious holidays. Any depictions of violence or danger inside or outside the factory are totally absent. The worker is described as being perfectly healthy, with a "vigorous constitution" and slight "paunchiness," the sole allusion to ill-health being an admission on the part of the worker that his father had seemed to age prematurely, though he does not connect such decline explicitly with his factory labor.⁷⁰⁵

Far from being a place of danger or tension, working in the soap factory, and for his employer in particular, were sources of enormous pride for Focillon's subject, whose professional relationship with the soap factory owner had lasted forty years at the time of his interview. He described the factory as a focal point for both labor and family, where male children were expected to follow their fathers, their place in the factory "marked" since birth.⁷⁰⁶ The workers spend "their entire existence under the roof of the employer," Focillon wrote, "born in the factory, they succeed their fathers and their sons will succeed them" and, indeed, in this case, the worker's eldest son and nephew now worked alongside him in the factory and two of his brothers worked in a factory nearby, where one served as foreman.⁷⁰⁷ The familial dynamic, Focillon wrote, meant that the worker regarded his employer and his employer's family with "devoted affection," while the employer cited long-standing relationships with his worker's families as a source of great "honor."⁷⁰⁸

⁷⁰⁵ Focillon does note that the worker does not seem to be particularly muscular, however. He is "*d'un embonpoint ordinaire, d'une constitution saine et vigoureuse sans un développement très-apparent de force musculaire.*" A. Focillon, "Paysan et Savonnier de la Basse Provence," 76.

⁷⁰⁶ "*marquée*" A. Focillon, "Paysan et Savonnier de la Basse Provence," 110.

⁷⁰⁷ "...*l'existence entière s'est passée sous le toit du patron; nés dans la fabrique, ils y ont succédé à leur pères, et leurs fils vont leur succéder.*" A. Focillon, "Paysan et Savonnier de la Basse Provence," 72, 90, 110.

⁷⁰⁸ "*affection dévouée,*" "*Les patrons se font gloire de ces longs rapports et les citent comme un titre d'honneur pour leurs familles...*" A. Focillon, "Paysan et Savonnier de la Basse Provence," 74, 100.

By this account, the soap worker in Marseille’s urban society was above all peaceful, stable, and conservative, though largely uninvolved and uninterested in politics. The subject of his study had, according to Focillon, an unflinching respect for his employer and for all his ‘social superiors’ which existed alongside a devout, though not fanatic, Catholicism.⁷⁰⁹ The two most respected figures of authority in his life were the factory owner and the *curé* of his village and the worker insisted that he only associated with other workers in the factory who were also devoutly Catholic—the Genoese and the Piedmontese, he said, distancing himself from Southern Italian workers, who fell near the very bottom of Marseille’s social hierarchy.⁷¹⁰ “The worker,” Focillon wrote, “is deeply Christian, though without any particular zealotry. No skepticism has penetrated his mind and his naive faith engenders a profound deference towards the elevated classes of society, an honorable submission to the authority of his employer...a keen love for accomplishing his duty, a veritable devotion to work...”⁷¹¹ He was also decidedly apolitical. “The simple and upstanding soul of the worker has furthermore remained unconcerned by political emotions, by the hot-headed passions that social tension has produced in other parts of Provence. He still says *Monsieur de P**** [*Monsieur de Peynier*] and *for the lord’s sake* [*le bien du seigneur*] with as much benevolent respect as though egalitarian doctrines had never attacked these ancient denominations.”⁷¹²

⁷⁰⁹ A. Focillon, “Paysan et Savonnier de la Basse Provence,” 72-74.

⁷¹⁰ Northern Italians like the Genoese and Piedmontese were the oldest and most integrated communities of Italian immigrants in Marseille and held a social status that was superior to immigrants from the Mezzogiorno. A. Focillon, “Paysan et Savonnier de la Basse Provence,” 72-74; Céline Regnard-Drouot, *Marseille la violente*, 24.

⁷¹¹ “L’ouvrier, sans être d’une ferveur religieuse qui le fasse remarquer, est profondément chrétien. Aucune atteinte de scepticisme n’a pénétré jusqu’à son esprit, et sa foi naïve a pour une déférence profonde envers les classes élevées de la société, une soumission honorable à l’autorité du patron et à toute autre aussi légitime, un vif amour de devoir accompli, un culte véritable pour le travail...” A. Focillon, “Paysan et Savonnier de la Basse Provence,” 73

⁷¹² “L’âme simple et droite de l’ouvrier est d’ailleurs restée étrangère aux émotions politiques, aux passions fougueuses que l’antagonisme sociale a développées dans d’autres parties de la Provence. Il dit encore *Monsieur le P**** et *le bien du seigneur*, avec autant de respect bienveillant que si les doctrines égalitaires n’avaient jamais attaqué ces antiques dénominations.” A. Focillon, “Paysan et Savonnier de la Basse Provence,” 75.

Perhaps unsurprisingly then, the worker was also completely uninterested in workplace organization. His wages were such that he did not need the support of mutual aid societies, which were prevalent in Marseille, and the foremen in the factory were vigilant against any agitation among workers in the factory.⁷¹³ “No turbulent worker or any worker who is capable of exercising a negative influence on his comrades is tolerated by the foreman, who is responsible to the employer for monitoring the spirit which animates the workers in the factory; the leaders of this industry seek above all continuous relationships with those they employ, and, towards this goal, they aim to exclusively retain workers who are calm and orderly in the factory... The foremen, fellow countrymen for the most part, and sometimes even relatives of the provençal peasants whom they supervise, strengthen the bonds of patronage.”⁷¹⁴

The worker lived and slept in the factory, cooked his meals with other workers on the factory furnaces, and was left in charge to keep an eye on the building on Sundays and religious holidays when the factory was closed.⁷¹⁵ He had only two days off every two months, during which time he travelled back to visit his family in Peynier.⁷¹⁶ He never visited the cabarets, he said, but sometimes played cards with his fellow workers in the evenings and played *boules* on Sunday.⁷¹⁷ He was, by all measures deeply content with his condition, Focillon wrote, but the worker’s wife was “even happier” than he was, and managed, he said, the farm and her seven children with no difficulty.⁷¹⁸

⁷¹³ A. Focillon, “Paysan et Savonnier de la Basse Provence,” 73, 90, 93.

⁷¹⁴ “Aucun ouvrier turbulent ou capable d’exercer une mauvaise influence sur ces camarades, n’est toléré par le contre-maître, responsable envers le patron de l’esprit qui anime les ouvriers de la fabrique; les chefs de cette industrie recherche avant tout la permanence des rapports avec ceux qu’ils emploient, et, dans ce but, ils tiennent à conserver exclusivement dans les fabriques des ouvriers tranquilles et rangés... Les contres-maîtres, compatriotes pour la plupart, et même quelque peu parents de ces paysans provençaux qu’ils dirigent, resserrent par leur entremise les liens du patronage.” Ibid., 73.

⁷¹⁵ Ibid., 77, 80-85.

⁷¹⁶ Ibid., 81.

⁷¹⁷ Ibid., 89.

⁷¹⁸ “La femme est animée des mêmes sentiments; plus gaie et plus vive que l’ouvrier...” Ibid., 75.

Focillon's description is therefore one of a model worker and working-class family, and while there is significant reason to doubt the veracity of the worker's descriptions of his own conditions (one might question his insistence that he never visited the cabarets, for instance), there are also suggestions throughout the account that this worker is far from typical in his experience. The worker's wages, which are listed as 5f50 per day, were exceptionally high for soap workers at the time, which Focillon himself admits.⁷¹⁹ The worker also occupied a management position and seems to have had the particular trust of the employer, who left him to manage the factory on holidays. Indeed, he lived in the factory, maintaining a traditional living arrangement with his employer at a time when it was becoming more common for workers to rent their own housing in the city, where they could live with their partners and families.⁷²⁰ Furthermore, in addition to the normal benefits that were distributed to soap workers, including for example, production bonuses and rations of soap, Focillon describes a special arrangement that this worker had with his employer in which he was allowed to sell wine produced on his farm to the other factory workers, a side job which more than doubled his salary and netted an extra 5,563f per year.⁷²¹ This worker is also clearly identified as being provençal when it is clear that a large number of workers in the factory were Italian or of Italian origin and it is likely not a coincidence that he was able to move up the hierarchical ladder at the factory and was eventually trusted with a management position. If his experience with the owner of this factory has been particularly positive, it is likely therefore that his conditions were better than that of the average worker.

⁷¹⁹ Ibid., 81.

⁷²⁰ Ibid., 80.

⁷²¹ According to traditional custom, each worker received 50kg of soap annually, which was sufficient for family's consumption. The worker reported an income of 5,295f from the factory with wages and bonuses. Ibid., 80–82.

Sewell's quantitative analysis also suggests that this worker was an anomaly among the larger population of soap workers. According to the marriage and census records that Sewell consults, only 23 percent of soap workers had a father who also worked in a soap factory.⁷²² Most soap workers had actually not inherited the work from their fathers, nor was it the case that most soap workers were managed on a day-to-day basis by members of their own family, as Focillon describes. That arrangement was likely a privilege of provençal workers. Furthermore, we know that by the period of the Second Republic, most soap workers (sixty-two percent), regardless of their family origins, were born in Marseille.⁷²³ They were city dwellers first and foremost and may or may not have owned land nearby that helped to support their families. On the other hand, the total lack of workplace action depicted by Focillon does match Sewell's portrait of soap factory labor, as well as contemporary newspaper coverage and surveys of Marseille's industrial sector.

Beyond the details of this account itself, however, the intellectual and political motivation of the study suggest that its conclusions should also be viewed with some skepticism. Focillon's work was conducted under the direction and supervision of Frédéric Le Play, with the explicit support of Napoleon III, and with a specific political mission in mind: to demonstrate that paternalistic relationships were key to peaceful industrial labor conditions.⁷²⁴ Le Play's social theories emphasized the worker and the worker's family in particular as the fundamental basis of society and the prosperity of the worker as the sole guarantor of peaceful and orderly social conditions.⁷²⁵ To that end, however, Le Play espoused a number of fairly traditionalist proposals,

⁷²² William H. Sewell Jr., "La class ouvrière de Marseille sous la Seconde République," 43.

⁷²³ Ibid.

⁷²⁴ Antoine Savoye, "Adolphe Focillon," 97–123.

⁷²⁵ Renzo Gubert and Luigi Tomasi, eds., *Le catholicisme social de Pierre Guillaume Frédéric Le Play* (Milan: FrancoAngeli, 1994).

including, most importantly, the maintenance of strong, continuous, and paternalistic relationships between employers and their employees. He was not optimistic about the potential for unions or labor organizations to ensure the long-term wellbeing of workers, nor was he particularly enthusiastic about the role of the state in intervening to protect workers through legislation. Instead, he supported laws that would enable business leaders to act freely in their own ‘self-interest,’ which, he believed would mean that they would treat their workers well in an effort to create a stable and contented workforce.

The studies contained in *Ouvriers des deux mondes* were conducted in that light. They were not merely academic ethnographies, but were designed to be used in the creation of general social theories and to push for policies that they believed could solve ‘the major problems of the day.’⁷²⁶ As such, neither Focillon nor Le Play was particularly interested in the lives of soap workers themselves, but they were deeply invested in finding examples of successful employer-employee relationships that thrived in ‘traditional’ paternalistic circumstances even if, as appears to be the case here, they were not representative case studies. Soap workers, at least the relatively privileged workers of the provençal region, were a convenient piece of evidence in the promotion of conservative and paternalistic policies towards the industrial workforce more broadly.

If Focillon and Le Play were able to mobilize the image of Marseille’s soap workers as a model for contented, peaceful urban workers, it is clear that such views were not shared by all. Victor Gelu saw soap workers in an entirely different light. He cast a soap worker as the central protagonist in his song *Lou Tremblamen* [*Le Tremblement*, ‘The Tremor’ or ‘The Quake’]. The

⁷²⁶ Antoine Savoye, “Adolphe Focillon,” 97–123.

song described an ill-fated republican rebellion that took place in Marseille in March 1841.⁷²⁷ Part of a series of uprisings that took place in that year, during a period that has become collectively known as ‘the red summer,’ the episode involved a gathering of three hundred republican workers, members of secret societies inspired by the Italian *carbonari*, who met at a tavern on the northern edge of Marseille and planned to launch a rebellion that would allow them to take control of the city.⁷²⁸ From their outpost on the outskirts of Marseille, the conspirators imagined that they would be joined by a column of workers who would march to meet them from the nearby construction site of the canal de Marseille and from the surrounding countryside of Vaucluse. Once successful, they hoped, they would inspire similar republican uprisings in cities across the country.⁷²⁹

Denounced before their planned uprising, however, the workers were instead met by police north of the Old Town, where they settled into a tense, hours-long standoff. As the workers eventually decided to retreat, they shot at police as they fled and injured a gendarme, which prompted the prefect to deploy soldiers who had been stationed at the garrison in Marseille to pursue the conspirators, though it seems most were able to disappear into the industrial quarters of the Old Town. Seventeen people were arrested on the night of March 23, the night of the initial stand-off, though sixty-two people would ultimately be charged for their participation in the uprising.⁷³⁰

⁷²⁷ René Merle, “Victor Gelu, ‘Lou Tramblamen’ (Le Tremblement), 1841,” RenéMerle.com. 13 June 2019. <https://renemerle.com/spip.php?article585>.

⁷²⁸ Jean-Claude Caron, *L’été rouge, chronique de la révolte populaire en France (1841)* (Paris: Editions Aubier, 2002).

⁷²⁹ This account of events is based on that of René Merle and Jean-Noël Tardy. See René Merle, “L’insurrection marseillaise avortée de 1841,” RenéMerle.com. 11 June 2019. Accessed 23 March 2021.

<https://renemerle.com/spip.php?article580>; Jean-Noël Tardy, “Les mystères de Marseille: secret et sociétés secrètes à Marseille et dans le Vaucluse en 1841,” *Revue d’histoire du XIXe siècle* 35 (2007): 91–105.

⁷³⁰ Jean-Noël Tardy, “Les mystères de Marseille,” 94, 96.

In the records from the court proceedings that followed, *none* of the conspirators were identified as soap workers.⁷³¹ Most were involved in construction trades (bricklayers or painters, for example), though some may have taken up casual work in the soap factories. In the version of events depicted in *Lou Tremblamen*, however, Gelu invents Mourou, a fictional soap worker, as the narrator and protagonist of the uprising, inserting soap workers into an historical event in which there is no evidence that they actually played a part. From the perspective of this central character, Gelu depicts the rebellion as the doomed, violent revenge of an oppressed class interested in toppling the existing social hierarchy. In the chorus, his workers sing, “Back! Fat butchers of our hides! Back! It’s the beast’s turn to take the whip!”⁷³² But in addition to the depiction of generalized working-class anger, the specific exploitation of soap workers is cited as an example of working-class oppression and the motivation for Mourou’s involvement in the uprising. Far from the peaceful, contented worker described by Focillon, Gelu’s soap worker gives voice to rage at the extreme social inequality that existed between soap workers and factory owners and at the poor pay for backbreaking labor in the city’s soap factories. He sang, “The masters of your soap factories/ give you thirty sous when you unload the [soda ash]/ those whose vats are full of gold.”⁷³³ But “a soap worker is worth more than a Count,” he continued, “much more than a Count!”⁷³⁴

Gelu therefore deployed the image of the soap worker as a quintessential symbol of Marseille’s downtrodden and nascent industrial labor force—the type of worker who might find

⁷³¹ René Merle, “L’insurrection marseillaise avortée de 1841.”

⁷³² “*Fouero ! bouchié , gras dé nouesto coudeno ! Fouero ! à soun tour lou bestiaou pren lou fouei !*” Translated by Victor Gelu himself as “*Arrière ! bouchers gras de notre couenne ! - Arrière ! à son tour le bétail prend le fouet !*” See both versions of the text at René Merle, “Victor Gelu, ‘Lou Trambamen’ (Le Tremblement), 1841.”

⁷³³ “*ti dounoun trento soou, Quan vas debarqua dé matiero, Lei mestre dé ta sabouniero, Qué t’an dé louei lei plen peiroou.*” / “*ils te donnent trente sous, - Quand tu vas débarquer de la matière (soude), - Les maîtres de ta savonnière - Qui t’ont des louis leurs pleins chaudrons.*” Ibid.

⁷³⁴ “*Un sabounié voou mai qu’un Conte !... Ben mai qu’un Conte !*” / “*Un savonnier vaut plus qu’un Comte ! - Bien plus qu’un Comte !*” Ibid.

themselves swept up in political radicalism and labor organization from the period. In doing so, he endowed them with a revolutionary potential that they never actually fulfilled, since they were neither major players in the 1841 rebellion nor the labor activism that would reach a crescendo in the latter half of the nineteenth century. And yet, it is clear that the image of the soap worker served as a political and cultural touchstone for Gelu and, like Focillon, he was eager to manipulate the image of the soap worker for his own political ends. Where Focillon insisted that the soap worker and his relationship to the factory owner might serve as a model for stable and satisfying paternalistic relationships between industrial laborers and their managers, Gelu, a self-proclaimed socialist, saw them as a symbol of a long-simmering discontent with potentially explosive consequences—a convenient rhetorical device to attack the industrialists who bore the brunt of his political rage.⁷³⁵ But neither image was entirely accurate. Soap workers were not stable and contented and very few had long-term relationships with their employers, but neither were they vocal leaders in the revolutionary movements of their day. Instead, it seems, most were simply doing their best to get by, drifting in and out of soap factories and cobbling together an existence wherever there was work to be had, with little time or energy left for major political mobilization.

Conclusion

This chapter has been an attempt to move from a city-wide scale of analysis to the level of the individual: to peer into the soap factories themselves and capture a sense of the lived experiences of Marseille's soap labor force. From the evidence collected here, it is clear that the workers who

⁷³⁵ For more on the nuanced way that Gelu used the word socialist, see Lucien Gaillard, "L'Accession des ouvriers à la capacité politique à travers l'oeuvre de Victor Gelu," in *Victor Gelu, Marseille au 19e siècle : actes du colloque, Marseille, 25-27 octobre 1985* (Aix-en-Provence: Université de Provence, 1986), 196–197. See also, Victor Gelu, *Marseille au XIXe siècle*, 15–16.

were exposed to the city's soap pollution in its most concentrated forms, either in their workplaces or in the nearby neighborhoods in which they lived, were not protected by the local, regional, or national institutions that otherwise monitored and regulated issues of public health, nor did they directly benefit in any large measure from nascent labor organization. As a result, they suffered from economic precarity, from workplace injuries and illnesses, and from the many dangers they encountered on the streets of a city that was experiencing a profound series of demographic and economic crises.

If, however, soap workers were of fairly limited interest to the politicians and bureaucrats who expressed such anxiety over the state of Marseille's soap industry, the *image* of the soap worker could still be politically useful as an archetypal symbol of the industrial working class in one of France's most important commercial and industrial cities. Figures on both the right and left of the political spectrum were eager to lay claim to soap workers as a key justification for their conclusions about the conditions and the working class and about the future of social conditions in France more broadly, even if those depictions differed in significant ways from the reality of their daily experience.

These sources point to the growing gulf between the way soap was discussed and imagined in public discourse and the toxic reality of its production. They highlight the bodies that were sacrificed so that other bodies could be cleaner and healthier. As we shall see in the next chapter, the reality of those sacrifices has been successfully wiped from the history of this industry as it has been enshrined in local history museums. In these institutions, soap manufacturing retains its proud place at the center of Marseille's urban history, but its pollution, and the workers that were most affected by it, do not appear in the story that Marseille's remaining soap producers are telling about themselves. In this way, the experiences of

Marseille's soap workers are still being erased, replaced with the quaint and nostalgic images of local history curated by tourist gift shops, as the history of soap production in the city has been effectively sanitized by soap producers, tourism offices, and local boosters.

Conclusion: The Sanitization of Soap

“I propose to speak about soap as a fellow countryman: we shared the same cradle, and it is sweet to occupy one’s self with the things with which one grew up and which one knows well.”
—Louis Reybaud, 1856⁷³⁶

Today there are three producers of savon de Marseille left in the city that gave the soap its name, and one in the nearby town of Salon-de-Provence. These are the last survivors of an industry that has largely disappeared, with factories either shuttered or bought up by the four international conglomerates that currently dominate the global soap market: Colgate-Palmolive, Henkel, Procter & Gamble, and Unilever. Even soap brands that explicitly tout their connection to the Marseillais tradition of soapmaking, like “Le Petit Marseillais,” one of the most ubiquitous soap brands in France, have virtually no connection at all to soap as was historically produced in Marseille. The company, which now manufactures liquid soaps, shower gels, and a range of haircare products, was established in Avignon in 1981 and acquired by the Dijon-based Group Vendôme SA cosmetics company before being bought by Johnson & Johnson in 2006.⁷³⁷ The lack of historical depth to the company’s roots in Marseille have not hindered its success. In 1997, Le Petit Marseillais was named ‘the brand of the century’ by one national poll, with brand recognition exceeding 95 percent of the French population.⁷³⁸ When asked in 2014 about the

⁷³⁶ *“Je me propose de parler du savon comme d’un compatriote: nous avons eu le même berceau, et il est doux de s’occuper des choses au milieu desquelles on a grandi et qu’on a bien connues.”* Louis Reybaud, *L’Industrie en Europe*, 277.

⁷³⁷ “Saga de marque : Le Petit Marseillais lave le monde entier,” *Voici*, December 4, 2014, accessed February 23, 2022, <https://www.voici.fr/beaute/news-beaute/saga-de-marque-le-petit-marseillais-lave-le-monde-entier-548145>; “Le Petit Marseillais: le savon dijonnais,” *Acquisitions-entreprises.com*, 2005, accessed February 23, 2022, <https://web.archive.org/web/20140718221133/http://www.acquisitions-entreprises.com/pme/22/le-petit-marseillais-le-savon-de-dijon.aspx>.

⁷³⁸ *Ibid.*

future of the brand, one company executive responded that their mission was simply “to remain the number one brand in the hearts of the French people!”⁷³⁹

In the face of such stiff and, in their minds, fraudulent competition, the remaining producers of savon de Marseille have banded together to form the Union des Professionnels du Savon de Marseille and lobby for an official appellation that would more strictly define which soaps can be called ‘savon de Marseille.’ This protection has so far not been granted since the current legal structure for such designations applies to agricultural products and foodstuffs produced in certain regions, but not to manufactured products.⁷⁴⁰ In 2013, an adjustment to that policy was approved by the National Assembly, but rejected by the Senate. Despite the ubiquity of soap brands making claims to historical roots in Marseille, sociologist Emmanuelle Dutertre has claimed that one of the weaknesses of Marseille’s traditional soapmakers in their fight for further legislative protections has been a failure to underscore the importance of soap to local history.⁷⁴¹ She points to other local products, which are regularly celebrated with festivals or commemorative ceremonies, with their producers bound together in local or regional fraternities. But such has never been part of local tradition in Marseille.

In some respects, members of the Union des Professionnels du Savon de Marseille have been inclined to agree with Dutertre. Over the last thirty years, several of the remaining soap producers have engaged in a campaign designed to more intimately connect soap production with the local community and foster the kind of emotional connection espoused by the Marseillais writer Louis Reybaud, who insisted that he had ‘shared his cradle’ with soap. To do

⁷³⁹ “*Rester la marque N°1 dans le cœur des Français !*” “Saga de marque : Le Petit Marseillais lave le monde entier,” *Voici*, December 4, 2014, accessed February 23, 2022, <https://www.voici.fr/beaute/news-beaute/saga-de-marque-le-petit-marseillais-lave-le-monde-entier-548145>.

⁷⁴⁰ Manuel Roche, “Pourquoi le savon de Marseille n’est-il pas forcément marseillais ?” *Village de la Justice*, July 16, 2022, accessed February 23, 2022, <https://www.village-justice.com/articles/Pourquoi-Savon-Marseille-forcement,14880.html>.

⁷⁴¹ Emmanuelle Dutertre, “Le « savon de Marseille » réinventé,” 154.

so, they have partnered with local tourism offices to offer guided tours of their factories, available in multiple languages, for both visitors and local school groups.⁷⁴² They have erected gift shops and museum spaces attached to the factories where visitors can see historical factory equipment, posters and advertisements, and other artifacts of historical soapmaking in the region. In 2018, a museum dedicated specifically to savon de Marseille opened in the city center.⁷⁴³ The Museum de Savon de Marseille (MuSaMa) is directed by the Conservatoire National du Savon de Marseille and bankrolled by Crédit Agricole.⁷⁴⁴ There visitors, helped by a museum attendant, can even walk through the process of making their own individual-sized soap cubes, and are allowed to choose a stamp that they can hammer into the soap themselves.

⁷⁴² See, for example, “Musée du Savon de Marseille,” La-corvette.com, accessed February 26, 2022, <https://www.la-corvette.com/le-musee/>; “Visit of the Marius Fabre soap factory,” Marius-fabre.com, accessed February 26, 2022, <https://www.marius-fabre.com/en/content/17-visit-of-the-marius-fabre-soap-factory>.

⁷⁴³ Since writing this dissertation, it seems MuSaMa has since shutdown, at least temporarily, during the COVID-19 pandemic.

⁷⁴⁴ “MuSaMa Savon de Marseille Preserving Provençal History,” PerfectlyProvence.co, accessed February 26, 2022, <https://perfectlyprovence.co/musama-preserving-savon-de-marseille/>.



Figure 45: Soapmaking demonstration at MuSaMa.⁷⁴⁵

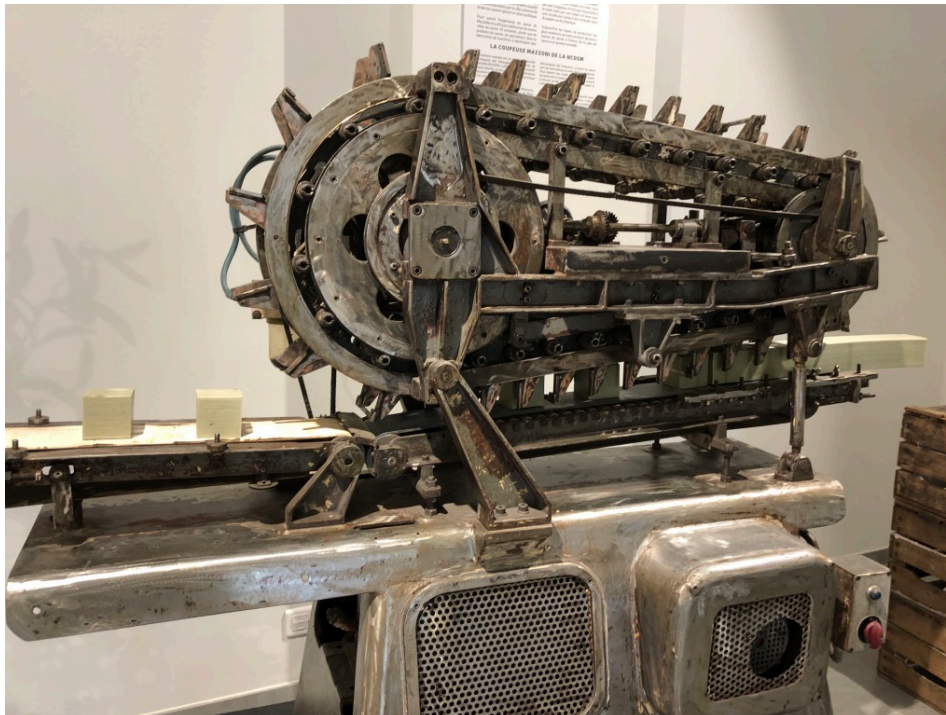


Figure 46: Cutting equipment at MuSaMa.⁷⁴⁶

⁷⁴⁵ Author's photograph.

⁷⁴⁶ Author's photograph.



Figure 47: Stamping station at MuSaMa.⁷⁴⁷

Across the port, at another soap museum owned by La Licorne soap company, visitors can also engage with interactive exhibits. They are encouraged to sniff wooden boxes and guess the local ingredient that is hidden within—jasmine, rose, lavender, orange blossom, anise—all regional plants that are used to scent soaps today, but were not traditionally used in the industrial production of savon de Marseille. Bunches of dried lavender are decoratively placed throughout

⁷⁴⁷ Author's photograph.

The gift shops and museum floors are filled with furniture made of natural wood. Mannequins are posed in ‘picturesque,’ rural Mediterranean scenes. Soap is arranged on wooden racks and displayed at various stages of the aging process in a manner reminiscent of a wine cellar.

This is no coincidence, according to Emmanuelle Dutertre. Everything about the arrangement of these spaces is designed to “reaffirm the local belonging of soap” as “a product of the *terroir*, inseparable from its original environment.”⁷⁴⁹ It reminds visitors of “the relationship between the products of the past and those of today; it offers the consumer a guarantee of ancient expertise that has been passed down.”⁷⁵⁰ The connection between soap production and the region’s agricultural products is perhaps also a strategic choice given efforts to lobby for an expansion of protections beyond those which already apply to local produce and food stuffs—the implication being that *savon de Marseille* might be a manufactured good, but it is directly dependent on local agriculture. This is a suggestion which conveniently glosses over the fact that much of the oil used in *savon de Marseille* has come from regions outside France, and even outside the Mediterranean, since the mid-nineteenth century.

⁷⁴⁹ “L’« inscription spatiale » réaffirme l’appartenance locale du savon, il est un produit du *terroir*, indissociable de son environnement d’origine.” Emmanuelle Dutertre, “Le « savon de Marseille » réinventé,” 156.

⁷⁵⁰ “Cette présentation sous forme muséographique rappelle la filiation entre les produits du passé et ceux d’aujourd’hui ; elle offre à l’acheteur la garantie d’un savoir-faire ancien reçu en héritage.” Ibid.



Figure 49: Mannequins and Oil Press at Musée du Savon de Marseille La Licorne.⁷⁵¹



Figure 50: Soap display in the Marius Fabre factory gift shop.⁷⁵²

⁷⁵¹ Author's photograph.

⁷⁵² Author's photograph.



Figure 51: Bunches of lavender placed among the equipment displays at Musée du Savon de Marseille La Licorne.⁷⁵³

Taken together, the effect of these design choices could easily leave visitors with the impression that savon de Marseille was produced in a rural environment rather than at the very heart of the city. Marseille's soap is 'quaint,' 'traditional,' and 'old-fashioned'—a notion underscored by the staged historical kitchen displays, complete with copper pots, candlesticks, and stacked cubes of savon de Marseille. There is little allusion to the claim of nineteenth-century industrialists that soap production represented an advanced chemical science. Here there is only one display devoted to the chemistry of soap production, and even that case is filled mostly with historical science books, evoking the sensation of a quaint and dusty library rather than a modern chemical laboratory (See Figure 52).

⁷⁵³ Author's photograph.

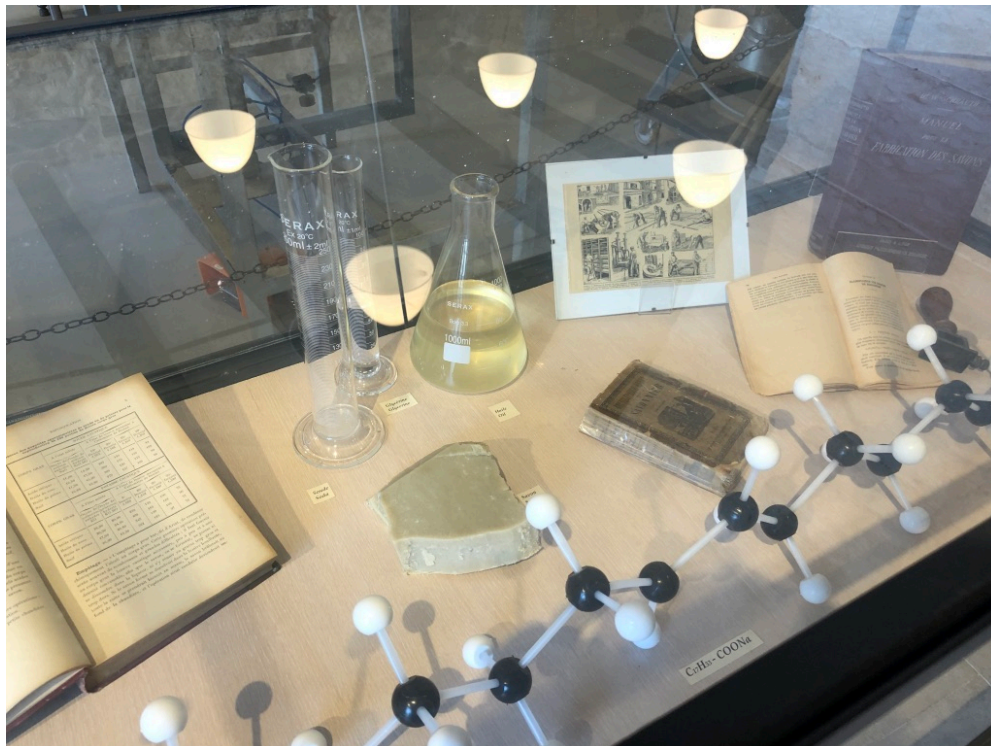


Figure 52: Display at Musée du Savon de Marseille La Licorne.⁷⁵⁴

⁷⁵⁴ Author's photograph.



Figure 53: Aged soap display at Musée du Savon de Marseille La Licorne. Savon de Marseille turns a darker brown color as it ages, but is still usable and, as museum attendants remind visitors, more economical since it disintegrates much more slowly than fresh soap.⁷⁵⁵

⁷⁵⁵ Author's photograph.



Figure 54: Staged kitchen display at MuSaMa.⁷⁵⁶

These decisions are all deliberate. In a world dominated by industrialized and synthetic soap production, emphasizing the small-scale, artisanal nature of Marseille’s soap production, alongside idealized images of a provençal past, give the remaining producers of savon de Marseille an angle by which to market themselves and stay alive.⁷⁵⁷ These themes coincide nicely with the claims made throughout the factory tour that savon de Marseille is made from “100% natural ingredients,” “organic,” and that it is so gentle that doctors recommend its use for washing baby clothes.⁷⁵⁸ The marketing materials of modern producers lean heavily on their environmental bona fides. For its 120th anniversary, for example, the Marius Fabre soap company announced that they would no longer be using palm oil in any of their products in an

⁷⁵⁶ Author’s photograph.

⁷⁵⁷ Emmanuelle Dutertre, “Le « savon de Marseille » réinventé.”

⁷⁵⁸ Bernard Duplessy and Franck Rozet, *Les Savons de Marseille*, 123; “Olive oil Marseille soap,” Marius-fabre.com, accessed February 26, 2022, <https://www.marius-fabre.com/en/37-olive-oil-marseille-soap>.

effort to “reduce [their] ecological footprint.”⁷⁵⁹ They have also participated in the ‘Make Friday Green Again’ campaign, which encourages sustainable consumer practices by avoiding unnecessary purchases on Black Friday, emphasizing that the American ‘holiday’ does not match with their traditions or values.⁷⁶⁰ They insist that their product is biodegradable (and therefore does not produce the harmful water runoff of synthetic detergents, for example) and that their packaging is recyclable.⁷⁶¹

It is striking to observe, therefore, the total absence of any discussion of soap waste disposal, which formed such a serious problem for much of the industry’s history in Marseille, in either the museum space or in the information made available by current producers. Current production, vastly reduced in scale from its peak around the turn of the twentieth century, produces significantly less waste, but that waste still poses an environmental challenge. Waste water is treated at local facilities, which prevents it from seeping into the ground water, but still requires energy consumption, and even that is a relatively recent development.⁷⁶² Until 1987, Marseille remained one of the only coastal cities in France with no waste water treatment facility, meaning that industrial waste water was ejected directly into the ocean in the area that now forms the *Parc national des calanques*.⁷⁶³ Solid waste is now incinerated, which again,

⁷⁵⁹ “réduire notre empreinte écologique.” “Chez Marius Fabre, tous les savons sont désormais sans huile de palme !,” Marius-fabre.com, accessed February 26, 2022, <https://www.marius-fabre.com/fr/blog/savon-de-marseille-sans-huile-de-palme-n176>.

⁷⁶⁰ Laura Foster, “Black Friday: Brands opt out for environment reasons,” BBC News, November 15, 2019, accessed February 26, 2022, <https://www.bbc.com/news/science-environment-50359603>; “Marius Fabre rejoint le collectif MAKE FRIDAY GREEN AGAIN !,” Marius-fabre.com, accessed February 26, 2022, <https://www.marius-fabre.com/fr/blog/make-friday-green-again--n178>.

⁷⁶¹ “Sustainable development - That's us !,” Marius-fabre.com, accessed February 28, 2022, <https://www.marius-fabre.com/en/content/20-sustainable-development-and-us>; Christian Razel, “Marius Fabre Fait Rayonner Le Véritable Savon De Marseille A l’International,” Forbes.fr, February 22, 2020. <https://www.forbes.fr/business/marius-fabre-fait-rayonner-le-veritable-savon-de-marseille-a-l-international/>.

⁷⁶² “Notre engagement environnemental,” Savon-atlantique.com, accessed February 28, 2022, http://www.savon-atlantique.com/sda_web/FR/certifications_engagements/ENGAGEMENT-ENVIRONNEMENTAL.awp.

⁷⁶³ “Calanque de Cortiou,” naturaMarseille.com, accessed February 28, 2022, <http://www.naturamarseille.com/fr/poi/Calanque%20de%20Cortiou.php>; Daniel Faget, “Une cité sous les cendres.”

prevents it from actively accumulating along the coast, but creates its own air pollution.⁷⁶⁴ When surviving companies tout their environmental credentials, they emphasize the consumer side of the soap use: the biodegradable nature of the finished product and the recyclable packaging, but not the waste created by its production. New waste treatment methods, combined with the greatly reduced scale of waste produced, mean that the environmental cost of this industry is much more effectively hidden than it has been in the past and, it seems, has gradually faded from memory. This is convenient for contemporary producers. In museum and marketing materials, pollution simply does not come up, nor do the effects of soap production on the bodies of workers or residents who lived near the factories. As the industry has downsized, it was no longer useful to emphasize their industrial might, nor could they convincingly maintain the pretensions of an economic giant, but they could harken back to a nostalgic past—a strategy that has been effective for the last remaining producers, but one that is detached from the reality of its history. In these museum displays, the history of *savon de Marseille* has been totally sanitized—cleansed of any association with urban waste, environmental degradation, or ill health—a side of the story that has been effectively hidden by decorative bunches of lavender.

But the environmental and social effects of soap production on Marseille’s urban space during the years of its peak production tell a story that is highly illuminating about this chapter of the city’s history, about the tensions between industrial production and citizen protest, and about the constructed notion of cleanliness itself. By observing Marseille’s soap industry from this angle, we get a sense of the ways French industrial regulation functioned—the ways it worked and the ways it didn’t for citizens, industrialists, and political leaders. It becomes very clear, for example, that French industrial regulation was highly decentralized, largely non-interventionist,

⁷⁶⁴ “Notre engagement environnemental,” Savon-atlantique.com.

and laissez-faire in its approach towards industrial practices and waste disposal techniques. In fact, as Geneviève Massard-Guilbaud has argued, the nineteenth century seemed to represent a parenthetical step backwards in terms of the state's willingness to intervene and stipulate requirements for industrial manufacturing processes.⁷⁶⁵

Given these attitudes, we also get a clear sense of the limited but essential way that citizens were able to use the bureaucratic regulatory structure that existed to fight for improvements to the ways they lived their daily lives in urban space. In doing so, we see how different people, united or split across various interest groups, imagined their relationship to the state, and, how the state imagined their relationship to the populace in terms of its responsibility to ensure a safe and healthy living environment. This underscores the argument made by scholars like Harold Platt, Caroline Ford, and Geneviève Massard-Guilbaud that there was indeed some sense of environmental consciousness present in the nineteenth century and, in this context, one that was highly (though not entirely) anthropocentric.⁷⁶⁶ While there was some concern about environmental damage itself, this was prompted in most cases by a concern for the preservation of key resources necessary for sustaining human life in the region. Declining fish populations and rapidly dwindling fresh water supplies were sources of enormous anxiety, for example, and residents proved very willing to make demands on the state to address those problems. We see that resident protest revolved around a rhetoric of fairness in a way that is highly reminiscent of the twentieth-century idea of environmental justice, or the notion that there should be an equitable distribution of all the “benefits and burdens” of industrial production.⁷⁶⁷

⁷⁶⁵ Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*, 23.

⁷⁶⁶ Harold L. Platt, *Shock Cities*; Caroline C. Ford, *Natural Interests*; Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle*.

⁷⁶⁷ David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford: Oxford University Press, 2007), 56.

The letters and petitions that residents of Marseille submitted to the mayor, to the prefect, and to the *conseil de salubrité* concerning the effects of soap production on their lives form an exceptionally rich body of sources, not only for capturing something about the political and social life of Marseille during this period, but also about the way that this industry shaped the physical environment of the city itself. The coastline of the city was literally remade by soap waste, and in particular areas because they were the most convenient locations for soap producers, which were ensconced in the specific pockets of the city that offered the best combination of tax benefits, access to resources, and regulatory loopholes. But gaps in the legislation that regulated soap waste disposal meant that this was not a problem limited to the coast. Soap waste was spread around the city, both unintentionally, as it fell from the fleet of carts which transported it away from urban space, and intentionally, when it was used as landfill material for construction projects around the city. In this way, Marseille was built both literally and figuratively on soap. No one could fully escape the unpleasant side effects of that reality, but the dangers associated with that waste were never shared evenly. As we have seen, the political partnership between the prefect and the conseil de salubrité functioned to protect elite neighborhoods, particularly those on the southern periphery of the city, from industrial encroachment, funneling soap factories into particular areas in a form of proto-zoning that created a pattern of social geography that persists to this day. Meanwhile, the workers who actually manufactured soap were never included in legal protections at all until the very end of the nineteenth century.

Finally, the toxic nature of soap production itself points to the contradictions at the heart of public health and of modern notions of cleanliness itself. Producing clean cities was a mission that, in Marseille, came into conflict with the production of clean bodies. Soap that would

ultimately be used to wash clothes, domestic space, and eventually bare skin, actively degraded the health of those who came into contact with the loci of its production in the city. Given the scale and the centrality of soap production in Marseille's urban space, the extent to which the populace of Marseille was sacrificed in order to produce cleanliness for the rest of France, and indeed much of Europe, comes into focus. This dynamic must, I argue, be seen in the context of a much longer history in which Marseille played an outsized role in the management of French public health, even as the priorities, strategies, and scientific basis of that management changed overtime. If Marseille's role at the head of the French quarantine administration demonstrated its importance for epidemic control, and the policing of unclean bodies from abroad, its position as the premier producer of soap in the modern period points to a transition in which, henceforth, it would be the maintenance of clean bodies within the domestic sphere that would constitute the greatest priority for medical authorities and state officials. It was Marseille's place as the largest city and busiest French port on the Mediterranean that allowed for both of these functions. The same role as a shipping hub, which made the city a logical choice for major quarantine facilities, also meant that it had access to all of the resources of the Mediterranean that allowed it to flourish as a soap producer. In this way, the city which carried an infamous reputation as the dirtiest city in Europe might, ironically, deserve fresh appreciation as a city that has long protected Europe from disease.

The story of Marseille's role as an epidemiological safeguard seems to have entered a new chapter in the wake of the COVID-19 epidemic. As soap sales soared, Marseille's remaining producers saw new life with consumers attracted, it seemed, to the comforting, nostalgic associations of savon de Marseille in a moment of crisis.⁷⁶⁸ The members of the Union des

⁷⁶⁸ "Coronavirus : les ventes de savon explosent," FranceInfo.fr, March 26, 2020, https://www.francetvinfo.fr/sante/maladie/coronavirus/coronavirus-les-ventes-de-savon-explosent_3886023.html.

Professionnels du Savon de Marseille capitalized on the moment by ensuring that customers could continue to make orders online even when they were forced to shutter their brick-and-mortar stores, but Marseille's soap companies have also made significant donations to local first responders, nursing homes, and hospitals.⁷⁶⁹ In May 2020, Raphaël Seghin, president of the Savonnerie Fer à Cheval, told an interviewer "It is our civic duty to help."⁷⁷⁰ In a separate interview a week later he said, "We are here, we are staying the course. We will do everything we can to supply as many people as possible."⁷⁷¹ While the period has undoubtedly been good business for the company, which faced bankruptcy as recently as 2013, such statements marked a sharp departure from historical rhetoric of the city's soap industrialists.⁷⁷² If the industry has been defined for much its history by the pollution of urban space and exploitation of the city's most vulnerable populations, Seghin's insistence on civic responsibility suggests that there is a new, if belated, mentality among the city's next generation of soap producers that they also have an obligation to the city that they call home, and which has made their very existence possible.

⁷⁶⁹ Paul Louis, Coronavirus: comment les fabricants de savon de Marseille s'adaptent à l'augmentation de la demande," BFM Business, March 18, 2020, https://www.bfmtv.com/economie/entreprises/coronavirus-comment-les-fabricants-de-savon-de-marseille-s-adaptent-a-l-augmentation-de-la-demande_AN-202003180086.html.

⁷⁷⁰ Alexis Steinman, "Raising the Bar: A Comeback for Marseille's Olive Oil-based Heritage Soap," Culinarybackstreets.com, May 11, 2020, <https://culinarybackstreets.com/cities-category/marseille/2020/savon-de-marseille/>.

⁷⁷¹ "On est là, on tient le coup. On fera le maximum pour fournir le plus de personnes possible," Paul Louis, Coronavirus: comment les fabricants de savon de Marseille s'adaptent à l'augmentation de la demande," BFM Business, March 18, 2020, https://www.bfmtv.com/economie/entreprises/coronavirus-comment-les-fabricants-de-savon-de-marseille-s-adaptent-a-l-augmentation-de-la-demande_AN-202003180086.html.

⁷⁷² Alexis Steinman, "Raising the Bar: A Comeback for Marseille's Olive Oil-based Heritage Soap," Culinarybackstreets.com, May 11, 2020, <https://culinarybackstreets.com/cities-category/marseille/2020/savon-de-marseille/>.

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Séries FF – Justice et Police

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Sous-séries 80 II – Fonds Charles-Roux (famille)

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Sous-séries 31 O – Nettoyement

Sous-séries 62 O – Anciennes eaux : aqueduc, béals, canaux, conduites, fontaines, sources, rivières, puits, ruisseaux

Sous-séries 64 O – Ports et phares

Sous-séries 65 O – Docks

Séries R – Instruction publique, Sciences, Lettres et Arts

BNF, Bibliothèque nationale de France, Paris, France

CCIMP, Chambre de commerce et d'industrie, Marseille Provence, Marseille, France

Séries H – Savon

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