NATURAL INTERESTS

THE CONTEST OVER ENVIRONMENT IN MODERN FRANCE

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The Greening of Paris

One ought to be careful about considering parks and gardens as a somewhat superficial manifestation of great luxury. Quite to the contrary, large areas planned with trees and shrubs in the middle of urban agglomerations are indispensable to public hygiene, just like water and sunlight. A park, on the condition that it is sufficiently large, is a reserve of pure air, and the trees that surround and protect it form a very effective natural filter to eradicate unhealthy dust and purify the ambient atmosphere.

—Eugène Hébrard

During much of the nineteenth century initiatives that were launched to preserve and conserve the natural environment focused on France's forests, rivers, and landscapes in both metropolitan and colonial France. However, as early as the 1820s and 1830s the environmental condition of France's urban spaces began to attract the attention of hygienists, doctors, government officials, and the lay public, who began to think about cities and towns in new ways. Pierre Emmanuel Brunéau (1751-1819), an inspector for the city of Paris and founder of the city's sewer services, wrote at the beginning of the nineteenth century that most of the city's smaller streets had no ventilation or sunlight and that the "filthy ground" filled "the atmosphere with dangerous miasmas," while decaying debris continually piled up and a "quantity of effluvia" arose from "vegetable and animal substances."1

The nineteenth century witnessed the greening of urban spaces, the birth of the urban greenhouse, and the rise of the garden city. Concerns about the urban environment also gradually spearheaded a number of new projects designed to clean up the city and revitalize the suburbs, which led to their gradual "greening" during the course of the nineteenth century. Three of the most ambitious projects were first launched in the 1850s by Napoleon III to rebuild and reorder the capital city of Paris. While Napoleon III's vast scheme to rebuild Paris was in part inspired by the desire to make the city safe from revolution, it also addressed the problems of plumbing, sanitation, and ventilation, and focused its attention on the creation of public parks in the place of insalubrious cesspools to complement the surviving private and royal parks built by the aristocracy and the French monarchy in previous centuries. The second large-scale project was proposed by social reformers in the first decade of the twentieth century, when they sought to create new parks for the city of Paris and to build low-cost housing for the working class, integrating green space into their design. The third consisted of plans to establish a network of garden cities in the suburbs of Paris and in other parts of France. The French were, of course, not alone in reflecting on the place of nature in urban spaces during this period. Like the movement to protect landscapes, urban planning and the garden city movement were international initiatives, and France drew inspiration from Britain, Germany, and the United States.

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Treatises on landscaped and picturesque gardens abounded from the eighteenth century onward, but they were primarily intended for monarchs and aristocratic clientele and had little impact on the discussion of the role of nature in the city.2 However, during the nineteenth century a new garden aesthetic emerged that bore little relationship to the formal gardens of André Le Nôtre at Versailles, Chantilly, or Saint-Germain, although his style never died out and continued to be favored by French society, as the popularity during the early Third Republic of the father-and-son team of landscape artists Henri and Achille Duchêne suggests. They were responsible for a new genre, the "mixed garden," which reconciled the formal garden associated with Le Nôtre and the landscaped English park, and they designed 6,000 gardens in Europe and South America.3 Arthur Margin (1844-1887), a writer of popular books about the natural world, noted in 1867 that "today we understand the landscape garden differently from sixty years ago, and will probably understand it differently in a few years time. . . . As a result of this, the landscape fashion, which leaves the way open to any systematic innovation and the fantasy of individuals, can be said to conform to the liberal spirit of the nineteenth century."4

The new garden aesthetic emerged with the rise of the private middle-class garden. Many nineteenth-century treatises, which were written for a broader public, counseled against excessively formal garden designs and clearly thought in terms of small residential gardens attached to houses or apartment dwellings.5 In this context it is not surprising that a new garden and flower aesthetic came to be articulated for the middle classes, whose gardens were too small to be amenable to formal landscaping. Pierre Boitard (1789-1859), a botanist who wrote popular books on natural history, also
published more practical books on gardening for the bourgeois reader. He introduced his readers to the variety of gardens and suggested how they should be composed, taking note of the emergence of the phenomenon of the picturesque kitchen garden attached to houses that belonged to the middle classes, which had been regarded with disdain by a number of observers and could be found almost exclusively in Paris's suburbs.

In addition to the kitchen garden and the flower garden, floor boxes, window boxes, and huge vases of greenery were introduced into the apartments themselves during the nineteenth century. The greening of the domestic interior led to a new appreciation of horticulture, which middle-class women took up in greater and greater numbers, and Boitard himself early on wrote *La botanique des dames*, in the form of letters to one Eugénie, in which he extolled the importance of botany and the aesthetic beauty of flowers. This was followed by a spate of similar works from the 1820s to the turn of the century, including Hippolyte Hostein's *1840 Flore des dames, ou nouveau langage des fleurs*. This cult of flowers, moreover, contributed directly to the expansion of the Paris flower market, which was established on the Île de la Cité in 1808 under the First Empire and which could not keep up with demand. The number of flower sellers on the streets of Paris—the majority of whom were women—increased considerably, and biweekly markets came to be set up in some parts of the city for the first time. Moreover, the buying of flowers themselves was no longer confined to the middle and upper classes. Even working-class girls, according to M. Dehay, decorated their attic abodes with them. By 1854 Gabriel Viala-Bruant would write that "in no [other] time was the cult of flowers as alive as in our day."

Alongside the cult of flowers, a new interest in botany and natural history emerged among the middle classes during the nineteenth century, which led to their commodification. For example, Jean-Baptiste Deyrolle, a French naturalist turned natural history dealer, opened a shop in Paris in 1832. It sold insects, tools for botanical collections, plant specimens, and equipment for natural history collections. His son, Emile Deyrolle, took over the business in 1866. It became an enormous success when he branched out to include books, pedagogical material, and even taxidermy, becoming a kind of commercial cabinet des curiosités (Figure 13).

The introduction of the greenhouse into urban spaces also led to a new value placed on the vegetal world in urban settings. These greenhouses were diverse in their function and form. They included winter gardens, hothouses for rare plants, and temperate greenhouses, which were the successors of orangeries. While greenhouses were first introduced into France by the state and the aristocracy and were associated with the Museum of Natural History, as they proliferated in the nineteenth century they also became bourgeois spaces. Louis Neumann (1800–1858), who entered the school of botany at the Museum of Natural History in 1815, wrote a book on greenhouses in 1844 after collecting a large number of plants from the island of Réunion and bringing them back to the greenhouses of the museum, where he continued to work. He advocated their construction in wood. Two years later, in 1846, a greenhouse was built with private capital on the Champs-Élysées in Paris and opened to the public. It met with immediate success. Each month 40,000 visitors paid one franc during the week and fifty centimes on Sundays to view its plants and flowers. Almost ten years later, in 1855, *Le Magasin Pittoresque* wrote that the "temperate greenhouse is today the indispensable accessory of every country house" for the well-heeled family, and that ideally it should be an extension of the ground floor salon. The *jardin d'hiver* (winter garden) was in effect a greenhouse where plants were to be displayed rather than cultivated. It functioned as an extension of a sitting room; one would go there to converse, read, play whist, and admire the plants. The *serre* (greenhouse) made an early appearance, for example, in Honoré de Balzac's 1831 novel *Le peau de chagrin*, in which Raphaël de Valentin dines with Pauline in February in a greenhouse, which is described as a sort of sitting room filled with flowers. The greenhouse appeared again in 1842 in Balzac's *La fausse maîtresse*, but it was Eugène Sue's *Le juf errant* that popularized the *serre*, according to the Goncourt brothers.
In some respects the popularity of the greenhouse created the vogue of the houseplant, and more especially the palm, during the nineteenth century. When Georges Duroy, the protagonist in Guy de Maupassant's second novel, *Bel-Ami*, visits his friend Charles Forestier in the salon of his Paris apartment, he has the sensation of entering a greenhouse because of the presence of large palms in the room's four corners, two rubber plants on either side of the fireplace, and two small flowering plants on the piano. Such plants were captured in paintings of actual greenhouses from the period, such as Louise Abbéma’s *1877 Lunch in the Greenhouse* and Edouard Manet’s *In the Greenhouse*, which was exhibited at the 1879 Paris Salon. Manet knew the greenhouse well. Situated on the rue d’Amsterdam near the St. Lazare train station, it belonged to the painter Otto Rosen, and Manet used it as a studio for nine months in 1878–1879.

While early greenhouses were attached to wealthy bourgeois houses or hotels, they gradually came to be integrated, in modified ways, into the architecture of apartment buildings. The first such structure was built at 32 boulevard Malesherbes in 1860, where each apartment in the four-story building had what amounted to a miniature semicircular greenhouse in the form of a tower (Figure 14). Greenhouses also figured prominently in many universal exhibitions that were held in Paris in the nineteenth and twentieth centuries, including those of 1867 and 1889, and they had an impact on the architecture of the restaurant from the 1860s on. These restaurants and brasseries often featured high glass ceilings and an array of palms. In Paris they included the popular Fermette Marboeuf and the restaurant Champeaux at the Place de la Bourse, and in Bordeaux, the hotel of Chapon Fin.

While greenhouses, gardens, and flower markets in the city began to proliferate during the course of the nineteenth century, both the French state and the city of Paris undertook to transform the city in fundamental ways, and the period of the Second Empire was a turning point in this regard. The crusade launched by hygienists to clean up the city and free its population from disease, which began even before the 1850s, formed an integral part of the rebuilding of Paris in what became known as the Haussmannization of the city in the 1850s and 1860s. The project was undertaken by the prefect of the department of the Seine, Baron Georges Haussmann, who oversaw the work. Soon after Haussmann took charge of the city, he put the engineer Adolphe Alphand in charge of public works in the Bois de Boulogne, and in 1857 Alphand became engineer in chief of the Service des promenades. After having played an important role in defending Paris during the Prussian siege of 1870, he was also appointed director of public works for the city after the war, in May 1871, and was a key figure in the organization of the universal exhibitions of 1867, 1878, and 1889. One of his first initiatives was to establish a number of greenhouses throughout the city for the acclimatization of exotic and rare plants, and he was seconded in this task by Jean-Pierre Barillet, the capital’s gardener in chief. Together, they were responsible for the creation of parks in and outside the city, which included new gardens on the Champs-Elysées, the Trocadéro Gardens, the parc Montsouris, the parc Monceau, the Bois de Boulogne, and the Bois de Vincennes. He also had a considerable impact on similar projects in other French cities and on the creation of private gardens.

**Figure 14.** The building at 32 boulevard Malesherbes, Paris, shows the integration of early greenhouses into city architecture. Photograph copyright © Caroline Ford.
Prior to 1850 there were few parks and open spaces. The only municipal parks were the Place des Vosges—a garden of minute size that was built for Henri IV—and the promenade of the Champs-Élysées. Nationally owned gardens were few and far between and had formerly been attached to palaces; they included the Luxembourg Garden on the left bank of the Seine and the Tuileries Garden and the garden of the Palais Royal on the right bank. Most of the trees on streets and boulevards had disappeared between the French Revolution and the Revolution of 1848.22

Public urban playgrounds and parks emerged gradually in Paris from the late eighteenth century onward when private entrepreneurs began to create jardins-spectacles in gardens that had belonged to aristocratic émigrés and those who had been guillotined. These included a property belonging to Simon-Charles Bottin, an émigré who was guillotined in 1794, which was rented by an entrepreneur who converted it into a paying public park, the Tivoli.23

Both Napoleon III and Haussmann believed that parks would improve public health and contribute to the capital's aesthetic beauty. Indeed, while Napoleon III was away at war in Italy, Haussmann took it upon himself to remove the rotting vegetation and decrpet trees on the Champs-Élysées and to replant the cleared space of the oldest public promenade in Paris with trees and shrubs, while covering the area with baskets of flowers. He noted in his memoirs that it was a big surprise for the victorious sovereign to find this unexpected change in the city's landscape fully completed on his return.24

The city ultimately created twenty-two enclosed squares whose size varied from a quarter of an acre to six and a half acres, and when all of the parks were completed, the number of new green spaces expanded considerably in a mere span of twenty years.25 The administration's first project, which was overseen by Alphand, was the Bois de Boulogne, at the western, wealthiest end of the city. Soon after he focused its efforts on the eastern end by transforming the forest of Vincennes into a park. However, some of the most ambitious projects were undertaken in the center of the city itself, where three large parks were created. They included the park of Buttes-Chaumont, which had been the site of the municipality's open-air sewage dump, the gibbet of Montfaucon, and a number of quarries. Alphand used sixty-two acres to create a landscaped park that possessed a waterfall more than 100 feet high (using water from the Canal de l'Oise), a lake, and a grotto carved out of a former quarry, as well as numerous footpaths. At the eastern end of the city, the park was to serve the industrial quarters of La Villette and Belleville.

To the west, Alphand transformed twenty-one acres of a property that had belonged to the Orléans family, and which was purchased by the city, into the municipal park of Monceau. In contrast to the park of Buttes-Chaumont, it served a well-heeled clientele at the city's western end, and Alphand gave the park a similar waterfall, a lake, and a grotto. It was landscaped in such a way as to provide new lawns, a profusion of flower beds, trees, and shrubs.

The municipality did not turn its attention to the left bank of the Seine until the end of the Second Empire, when it bought thirty-nine acres of land on the hill of Montsouris in 1867. The Franco-Prussian War interrupted work on the project, and it is probably for this reason that it did not come to possess a waterfall or a grotto when work was resumed. It was finally completed in 1878. By the beginning of the Third Republic, Paris had 4,500 acres of municipal parks, whereas in 1850 the city had a scant 50 acres.

The proliferation of gardens, greenhouses, parks, and green spaces clearly transformed the city in positive ways, but the effects of Haussmannization, which included the clearing of slums and pushing the working class out of the city, were severely criticized by progressive architects, social reformers, and some philanthropists, as no new housing for the working poor was provided to replace what was pulled down. Haussmannization created a city divided along class lines, and even the new green spaces were intended to cater to particular social groups. Haussmann wrote that the peripheral parks, the Bois de Boulogne and the Bois de Vincennes, which were dear to the heart of Napoleon III, were the domain of the wealthy, and more particularly those who spent much of their leisure time displaying that wealth.26 The intra-muros gardens that were open to the public welcomed a more popular clientele, but they existed alongside private gardens or squares that were enclosed by gates and iron fences.

**Social reformers** and politicians began to reconsider how nature might be reintroduced in the city and domesticated, while improving the housing conditions of a working class that had been all but ignored in the plans of Napoleon III and Haussmann. To this end a series of organizations began to conduct studies related to public health, hygiene, and housing. They included the Société française d'hygiène and the Société de médecine publique et d'hygiène professionnelle, both founded in 1877. Similar organizations came into being in Bordeaux and Le Havre in 1881, and a Société des habitation à bon marché was created in the 1890s.27 These
organizations were part of a larger movement of social reform and were linked to similar organizations abroad, and some later came to be associated with the Society for the Protection of the Landscapes of France.28

In 1902 the engineer and hygienist Edouard Fuster, who was a member of the Musée social, a private foundation established in 1894 by a group of social reformers, called for the creation of a federation devoted to problems of public hygiene, which led to the establishment the Alliance d’hygiène sociale in 1904. One of its purposes was to help eradicate insanitary housing and the public health problems associated with it. The entrepreneur and politician Jules Siegfried (1837–1922), who was also a member of the Musée social, pressed for the creation of the Société des habitations à bon marché and the Société d’art populaire, which would be committed, like the Alliance d’hygiène sociale, to the creation of great expanses of greenery that would provide cities with air and light in the vicinity of new social housing, which would be built in conformity with the principles of public hygiene.29

Just as the Musée social was at the heart of one of the first international congresses devoted to the protection of landscapes, it played a central role in arguing for new social housing and the creation and preservation of green spaces in Paris in the wake of a decision taken in 1881 to claim and develop the zone of military fortifications surrounding Paris.30 This was followed by a thirty-year tug-of-war between the French state and the city of Paris, but it first became the subject of fierce debate in the Chamber of Deputies.31

The Musée social early on developed a proposal for the development of the enceinte fortifiée (fortified zone), which was part of its larger vision for the extension of Paris and for urban renewal. In 1907 the Musée social decided to create its own Section d’hygiène urbaine et rurale, and Siegfried, who had been the chief architect of the so-called 10 November 1894 loi (Law), facilitated the creation of social housing (habitations à bon marché or HBM), was its first president. Landscape preservationists were members of the section, and Fernand Cros-Mayrevieille and Charles Beauquier of the SPPF joined due to their interest in environmental preservation and the promotion of national heritage (patrimoine).

Siegfried suggested that the Musée social, in alliance with the Alliance d’hygiène, the Société des habitations à bon marché, and the Société d’art populaire, influence public opinion regarding the preservation of open and green spaces in the capital, and indeed for all cities in France. He also wished to promote extending the boundaries of the city, an idea put forward by Jean-Claude Nicolas Forestier, a conservateur of Eaux et Forêts and director of parks and promenades for the city of Paris.32

One member of the section was an architect employed by the city of Paris, Eugène Hénard (1849–1923), who worked for the municipal bureau of public works. He proved influential in devising a plan for extending the boundaries of the city and for the transformation and development of Paris’s fortifications.33 He began his career designing schools before working on the universal expositions of 1889 and 1900. He then turned his attention to urban planning. Hénard was responsible for the founding of the Société française des architectes-urbanistes in 1912, which became the Société française d’urbanisme in 1919.34 Hénard had the support of a group of young architects/urbanists, including Henri Prost, Jean-Claude Nicolas Forestier, Donat-Alfred Agache, Marcel Poète, who also promoted the greening of the city.

A “Parisian from Paris,” who “loved” his “native city profoundly,” Hénard was deeply concerned about improving and increasing the number of espaces libres (open green spaces) in the city.35 He undertook a number of studies, published as Études sur les transformations de Paris between 1903 and 1909, and then, in 1906, wrote Rapport sur l’avenir des grandes villes. As part of his study of the transformation of Paris, he compared espaces libres in the cities of Paris and London in 1903. He found that between 1789 and 1900 park space had declined 64 percent, while the population of the city had tripled, and that Paris was in a “state of flagrant inferiority in relation to a good number of foreign cities” as a result of the lack of foresight on the part of governments that allowed for the destruction of green spaces and trees. He made, however, an exception for the fifteen years of Haussmann’s administration in this regard. He saw Haussmann as the “only man who frankly contributed to increasing” green space in the city in a “notable way” and to “improving the great promenades of Paris,” even if he had been criticized in other ways.36 Hénard noted that in 1789 green spaces in the form of private and royal gardens as well as public promenades constituted 391 hectares, but that by 1900 two-thirds of the city’s gardens had disappeared. What remained was 137 hectares of green space (Figure 14). Large tracts of land around Saint Lazare, which could have been developed into a park, were absorbed by the Gare du Nord. All of the avenues that formed a circular crown around the city’s old perimeter in the eighteenth century had been carved up and developed. While their gardens were not accessible to the public, Hénard argued that they had nonetheless contributed to a cleaner environment and that they could have easily been developed into public gardens or parks.37

Hénard observed that the density of Paris was greatest at its center and in the north and decreased as one moved toward and into its suburbs, necessitating green spaces, but that existing parks were badly distributed and
that the denser areas of the cities were deprived of them. He noted that there was unanimous agreement about the need to create green spaces but considerable debate about how to do so. One proposal would be to create large apartment blocks with interior green courtyards, or to let developers construct buildings as they wished, but to then create well-spaced public parks throughout the city. He noted that both initiatives had been taken in Germany and in Britain, where the garden city was favored. He reiterated, however, many times that this would be impossible due to Paris's population density. Therefore, given the capital city as it was, Hénard believed that every measure should be taken to increase the number of public green spaces. Property owners could be given financial incentives to create small collective gardens, and the municipal council could introduce restrictions and requirements when the city sold municipal property for development. His solution for replacing Paris's fortifications envisioned an extensive new urban belt (grande ceinture) that would encircle the city, nine new peripheral parks and thirteen playing fields at the city's periphery, as well as apartment buildings that would be constructed in such a way as to allow for sunlight and for the planting of trees. Indeed, he wrote of Paris's wide boulevards that "the introduction of vegetation gives these streets a character of incontestable gaiety. Trees in cities not only serve to provide a little shade, their role is larger and more important; they evoke the memory of nature, reminding us of the season, the invitation to rest. The tree, through its foliage, above all serves as a contrast to the coldness and immobility of stone edifices."

While Hénard is remembered most for his plan for creating nine new parks on the city's former fortifications, which was adopted by the Musée Social, he had larger ambitions. In the third chapter of *Études sur les transformations de Paris*, entitled "Les grands espaces libres: Les parcs et jardins de Paris et de Londres," he proposed creating nine new parks within the city itself as well eight small green squares that would not be less than one hectare. The interior parks included four south of the Seine (parc de Grenelle, parc de Maine, parc de la Maison Blanche, and parc de Croulebarbe) and five north of the Seine (parc de Saint-Antoine, parc Voltaire, parc de Meudon, parc Saint-Denis, and parc de Montmartre). The biggest of the nine parks, the parc Saint-Denis and the parc Voltaire, were in his mind the ones that needed to be created with the greatest urgency to relieve the congestion in these areas (Figure 16). Finally, while the population at the eastern and western ends of the city had access to two large parks *extra-muros*, the Bois de Vincennes and the Bois de Boulogne, Hénard saw the need to create two parks of a similar size outside of the city at its northern and southern ends. With his system of parks in place, no Parisian—man,
woman, or child—would be more than one kilometer away from one of the large parks or 500 meters from a garden or square. He argued that it was unnecessary to create luxurious gardens similar to those of the parc Monceau. It was simply enough to have a large expanse of sheltered green space planted with flowers and trees and smaller areas suitable for open-air sports.  

He realized that his proposal would be costly, especially the creation of parks in the city’s center, but he believed that the rent that would come from the spaces reserved for sports would bring money to the municipal coffers, and he argued that it was vital for every inhabitant to be able to go on foot, at no extra cost, without exertion, and without losing time, to find “a piece of nature with sunlight, purified atmosphere and trees.” He noted that in the previous thirty years 300 million francs had been spent to “give Paris clean water,” so it would not be exaggerated to spend half of that to give it air.  

Hénard recognized that the property owner or developer would always attempt to extract a maximum profit from his real estate and would sacrifice a green space to do so. As the denser districts of Paris could not be rebuilt without expropriating property, which would be impossible, it would be necessary to create parks that could be easily accessed by their inhabitants, and one could not count on the private sector to protect the environment. This was, in his view, the task of the public sector.  

For Hénard a park should offer the city’s “inhabitants and visitors a refuge from the noise of the city and the dangers that characterized overcrowded places.” These included human waste of all kinds and dust that was constantly stirred up by cars and passersby. For a park to provide effective protection, it had to be large and bounded by thickets of trees with dense foliage that would block out the sides of the surrounding buildings and serve as a filter for the city’s clouds of dust: “It must offer vast, sun-filled lawns, where children can play and run.” Finally, according to Hénard, vehicles of any kind should be prohibited. In his estimation, such a park had to be at the very least ten hectares in size.  

Hénard envisioned the creation of three new peripheral parks south of the Seine, where currently there was only one, the parc de Montsouris. The new parks would be the parc d’Issy, parc de Vaugirard, and parc d’Ivry. To the north of the Seine, which was the most dense area of the city, he envisioned six, including the parc de Chaillot, parc du près St. Gervais, parc de la Villette, parc de Clignancourt, parc de Batignolles, and parc de Levallois. Each park was to be between nine and twelve hectares in size, the size of the only existing peripheral park created under Haussmann, the parc de Montsouris.  

From the available 800 hectares that comprised the fortification zone, Hénard proposed using between 81 and 308 hectares for the creation of new parks, which represented 10 to 15 percent of the land and which would have increased the espaces libres from 60 to 80 percent. The remaining land would become a new type of ring road, the boulevard à réduits (stepped boulevard), which would be lined with buildings that would be recessed at intervals to provide for green space, and they would connect the peripheral parks. He would do this by reducing the space of interior courtyards, and he proposed the creation of open courtyards and small parks along boulevards.

Hénard’s plan was ardently embraced by a number of organizations, and he was supported by Jean-Claude Forestier. One organization that took up Hénard’s proposal was the Société du Nouveau Paris, which was founded in 1902, and one of whose purposes was to lead the movement for green spaces. Hénard himself was a member of the organization and provided it with a blueprint for its campaign. In 1903 he was honored for his work by the organization and awarded the society’s gold medal. The Société pour
la conservation des espaces libres à Paris was also formed, along with a Comité pour la conservation et la création des espaces libres, whose meetings were held at the Musée social, where Jules Siegfried presided. Many of those who were part of the landscape preservation movement were associated with these organizations, including Henri Cazalis and Charles Beauquier.48

The creation of green spaces in the city became an issue that the Musée social directly introduced into the electoral arena during the municipal elections of 1908, and it adopted Hénard’s plan. Drawings of the proposed parks, which were based on Hénard’s plan, and extracts of the proposed legislation were incorporated into electoral posters—12,150 of them—signed by the Musée social, the Association des cités-jardins, the SPPE, and the Touring Club during the municipal elections.49 The urban section of the Musée social also distributed a manifesto in advance of the elections to encourage voters to support candidates who favored the creation of espaces libres. It was entitled “Air, Parks, Sports! Let us save our green open spaces, let us save our fortifications”:

Why?
Because you cannot live in prisons of stone.
Because for your children it is necessary to have something other than the street.
Because we must all have light, space and sporting fields.
Because for half a century Paris has grown tremendously as its gardens have disappeared.
Because London, Berlin, Vienna, all the capitals have more green and open spaces than Paris.50

The Musée social paid groups of young militants to put the posters up, and Eugène Hénard explained how they should intervene in public electoral meetings.51 The Musée social, following Hénard’s lead, argued that the population of the capital had tripled since 1855 and that the government had done little or nothing to create additional green spaces in the city, in contrast to London and Berlin.

The Musée social did not endorse specific candidates; it instead attempted to rally public support and opposed any proposal that would put the fortified zone in the hands of private real estate speculators. Socialists were still a force in municipal politics, and they made their support of preserving green spaces in the city clear. The socialist Albert Thomas (1878–1932) even contended that he and his compatriots refused to leave the question of the development of the fortified zone and the creation and preservation of green spaces to “an association of intellectuals, artists, philanthropists, some association for the protection of landscapes, some league against alcoholism, and some gentlemen from the Musée social.”52 Indeed, Thomas wrote a series of articles on the issue in L’Humanité in which he argued that a “revolutionary proletariat will not be formed within infected dwellings and cities lacking air,” and he concluded that “we want the country to become more city-like and the city a little more country-like.”53 A cleaner and greener environment had clearly become a working-class cause as well.

The Musée social then held a large public meeting at the Sorbonne on the subject of “green open spaces in Paris,” which was organized on 5 June 1908 before an audience of fifteen hundred and attended by government ministers. With the support of the Société des amis des arbres, the lawyer Henri Robert argued that trees across the city needed to be protected and preserved, and that the plan to preserve open spaces in developing the zone of fortifications at the perimeter of the city should be supported in the interest of the people, the working classes. The campaign was endorsed by fifteen local and national newspapers, including Le Temps, Le Débat, Le Journal, Le Figaro, L’Eclair, Le Soir, Le Petit Parisien, Le Matin, and Le Petit Journal.

In April 1909 Hénard’s plan for the development of the fortifications was republished in Le Musée Social: Bulletin Mensuel along with a suggested law authored by Jules Siegfried that would provide for the creation of a series of large parks, public squares, and a circular boulevard around the perimeter of the city. Both Hénard’s plan and Siegfried’s proposed law were then presented to the Chamber of Deputies and the Paris Municipal Council. As the Municipal Council moved to the right during the “nationalist revival” preceding World War I, the proposed legislation stalled. The council ended up voting for an alternative proposal for the development of the fortifications drawn up by one of its own members, Louis Daussat, in December 1908. It called for the city’s purchase from the state of the fortified zone, which would be sold in its entirety in lots for development, leaving, in effect, little or nothing in the form of unsold land available for the creation of parks.54 The state signed off on the legislation in 1912, and it was finally ratified by parliament in 1919, at which point the fortifications began to be demolished. Even though Eugène Hénard opposed it, the Musée social eventually rallied to the plan, as the Daussat Law in principle provided for the creation of parks, even if much of the land could be rented to businesses.

In 1911 the city of Paris created a commission for the extension of Paris composed of architects/urban planners, and municipal officials. It was
headed by Louis Bonnier (1856-1946), a member of the Musée social's Section d'hygiène urbaine et rurale and an architect who was employed by the city of Paris. Although the commission issued a report in 1913, its recommendations were never implemented; however, it too advocated the creation of parks and squares. Its importance lay in the fact that it was the first attempt to consider the development of Paris and its suburbs together.

Following World War I, the Chamber of Deputies passed the so-called Cornudet Law, which was named after the deputy who proposed it (Honoré Cornudet), requiring all communes with a population greater than 10,000 and all cities that had been damaged during the war to formulate an urban plan for their extension, development, and beautification. The law was then strengthened in 1924 by the creation of the Commission supérieure d'aménagement et d'extension des villes, which was attached to the Ministry of the Interior.

Although the demolition of the fortifications of Paris began in 1919, it was not completed until 1934, and the plans that had been so avidly discussed in the pre-World War I period had been put aside with respect to the outer periphery. The land was by and large sold off to private developers in parcels, and the sites on which the fortifications stood were turned into a circular peripheral highway, the périphérique, after World War II.

While Hénard's ambitious plan for the creation of nine new parks and the development of the fortifications was never realized, not all of the hopes of Hénard, Siegfried, and the broader public were entirely dashed, as some historians have suggested. Much of the city's periphery was to undergo extensive rebuilding in the 1920s and 1930s under the auspices of the Office public des habitations à bon marché, which did in fact incorporate enlightened design concepts that responded to many of the concerns of those who debated the fate of the fortified zone over the previous twenty-year period.

The Cornudet Law laid the groundwork for the construction of what came to be called the "ceinture rose" or the "ceinture des Marechaux," a quarter of which was to be reserved for residential housing and three-quarters for green spaces. HBMs and HLMs (habitations à loyer modéré, or moderate-rent housing) were given priority in the residential zones. The Office public d'habitations de la ville de Paris, instead of private developers, was responsible for much of the construction around the ceinture des Marechaux—a set of circular boulevards that bear the name of the marshals of the Napoleonic empire—that was constructed near the "rue militaire," bordering the military zone established in 1840. Georges Risler, president of the Musée social and a member of the permanent committee of the Conseil supérieur des HBM, was the principal promoter of the de-

development of the area in the interwar period. He took up the themes that he himself promoted before the Great War, including parks, squares, and playing fields. Most of the buildings were constructed between 1928 and 1935. The project reconciled several seemingly contradictory goals: to build the greatest number of buildings while respecting the principles of public hygiene; to reconcile the new buildings' architecture with the city's older structures; and to integrate green spaces in the overall project. The buildings themselves were often constructed around large inner open-air courtyards that were filled with greenery. By 1936, 12,106 HBMs, 9,836 HLMs, and 2,937 larger-sized HBMs had been constructed. As urban renewal and plans for the extension of cities took root during this period, the concept of the garden city became increasingly important among social reformers, politicians, and architects in France. The garden city movement, a method of urban planning launched by the British activist Ebenezer Howard in 1898, envisioned new urban communities that included parks or extensive green spaces. The movement found an enthusiastic following in France at the beginning of the twentieth century and shaped subsequent city planning initiatives well into the interwar period and beyond.

The cité-jardins movement was both a culmination of and a reaction to earlier initiatives that were launched to "naturalize" cities for both aesthetic and hygienic reasons. One of the earliest proponents of the garden city in France was Georges Benoit-Lévy (1880-1970), who at the age of twenty-three and having recently been awarded his law degree, received a grant from the Musée social to travel to England to study the industrial villages of Port Sunlight and Bournville as well as the building site of England's first garden city, Letchworth, which was modeled on Ebenezer Howard's concept of the garden city. He returned to France a garden city convert and founded the Association des cités-jardins de France in 1903 with the support of the social reformers Charles Gide and Emile Chéysson, one of the founding members of the Musée social. Howard's concept of the garden city bore some resemblance to Charles Fourier's phalanstery, a planned community containing a balance of residential housing, industry, agriculture, and green spaces, which would be surrounded by green belts. Howard's ideal was a city of 32,000 people, planned on a concentric pattern with radial boulevards. Benoit-Lévy enthusiastically embraced Howard's concept.

The Association des cités-jardins was dedicated to the creation of new cities, following the English example. Charles Gide saw the creation of garden cities as a means for workers to lose their taste for "base pleasures of cities and crowds," and the café-concert. There was in a sense a moral purpose that was absent from arguments that were made about the creation
of public green spaces in the city. Indeed, Benoît-Lévy and Cheysson called on employers and factory owners to finance the new garden cities: "It is for industrialists to create the new cities, it is for them to make them healthy and beautiful," and it is from them that "we must wait for social improvements." He paid only lip service to the idea of urban renewal and to the expansion of existing cities—causes to which the Musée social and a number of younger architects of the period were so committed—in stating that the association also devoted itself to the "conservation and extension of open spaces in big cities." Throughout his association with the garden city movement he insisted on the role of employers in the creation of new cities, which ultimately put him at odds with other supporters of the movement who came to reinterpret how the garden city would be implemented in France. The Musée social, for example, distanced itself from his conception of the garden city as primarily an industrial city, and he distanced himself from the Musée social. In 1908, for example, when Jules Siegfried used the occasion of a conference given by Benoît-Lévy at the Musée social to launch the new Section d'hygiène urbaine et rurale, he asked Benoît-Lévy to be its secretary. Benoît-Lévy declined and did not participate in the work of the section again.

Some advocates of green open spaces thought that the idea of the garden city as espoused by Benoît-Lévy went too far. Eugène Hénard is a case in point. The idea of a city in which half of the total surface would consist of gardens, with an immense park at its center, was, to him, extreme: "In the very praiseworthy intention to improve cities, it is necessary to be careful about destroying all [their] advantages. A big city is a place of intense activity, it is not a place of rest." He believed that at the core of a great city was commercial and intellectual activity, and that the green spaces should be distributed outward, so he ridiculed the idea of re-creating the country in the city: "To give every inhabitant a square of land to cultivate his vegetables and raise his chickens, that is to return to rustic life [la vie champêtrée]: it suffices, to obtain this result, to return to the village." Hénard argued that it would be more reasonable to create a large number of well-distributed public parks. For him, the cité-jardin was, in fact, best suited to manufacturing and industrial centers where the worker, after leaving the factory, would go home to his own house, a place of rest and relaxation. He argued that one could not do this in cities inhabited by millions of people and where intellectual, artistic, scientific, industrial, commercial, and financial elites were concentrated. One could, in his view, find a means of making the city less compact and environmentally noxious: "One has tried to obtain this result in Paris, notably in certain boulevards by bringing back the alignment of buildings and imposing on property owners the constraint of leaving a little garden of a few meters, planted with trees, shrubs, and flowers." In Hénard's view, the result, while pleasing to the eye, was not successful, as this discouraged commercial activity, and he cited the commune of Nesililly, in the northwest of Paris, with its charming villas, where "activity is almost non-existent." His plan for Paris, which integrated green spaces through the distribution of public parks and the careful design of apartment buildings on boulevards à râdans, addressed, in his view, the environmental challenges of modern life without sacrificing the culture of the city.

Social reformers associated with the Musée social and architects also shied away from the English model of the garden city, which Benoît-Lévy espoused, but they embraced its focus on ventilation, light, and green spaces, which were central to urban renewal, and incorporated it into the "Pari-
sian urban debate." Emile Cheysson and Jules Siegfried, who, in addition to being members of the Musée social, sat on the Fondation Rothschild's board of directors as "experts" on HBM's, had these considerations in mind in judging architectural projects that were put before the foundation.

The Fondation Rothschild, which was founded in 1904, was an organization whose goal was to improve the living conditions of the working class, particularly in Paris. One of the principal means of achieving this was to build HBM's in working-class districts. Its first undertaking was a large apartment dwelling that came to embody some of the principles of the garden city movement, without adopting the English model. The government and city of Paris enthusiastically welcomed Alphonse, Edmond, and Gustave de Rothschild's proposal to invest 10 million gold francs in the housing project and to purchase a triangular city block bounded by the rue de Prague, the rue Charles Baudelaire, and the rue Théophile Roussel in the twelfth arrondissement, which was in the working-class faubourg Saint Antoine, to construct a building that would ultimately house 344 apartments. Following an architectural competition, the foundation selected a proposal entitled "For the People," submitted by the architect Augustin Rey, as the winning entry in 1905. The architect proposed constructing thebuildings around three large open-air courtyards (closed courtyards were the rule in Parisian urban dwellings); perforated walls were part of the design to improve ventilation and let in light. As no corridors were part of the plan, all apartments opened onto staircase landings. Particular attention was given to the building's eighteen staircases, which were also open and light-filled. The building itself was covered with white stucco, and the exterior walls were punctuated by large windows that opened onto balconies that had large window boxes. When the building was inaugurated, the press called it "the Louvre of social housing" (Figure 17).
While the English model of the garden city, with its individual cottages and gardens, never made significant inroads into the urban spaces of Paris, as the projects pursued by the Rothschild Foundation suggest, it did have an impact on its suburbs, the banlieues, in the interwar period. The debates surrounding the demolition and development of the city's fortifications led social reformers, nascent urbanists, architects, and politicians to consider the impact of urban growth on Paris's larger metropolitan areas, ultimately resulting in projects that reshaped the suburban landscape.

The suburbs, in Eugène Hénard's words, formed “a belt of housing areas connected to each other” and could be viewed as a direct extension of the city. While the surface area of Paris intra-muros was 7,802 hectares in 1910, the surface area of its suburbs was 8,694 hectares. The suburbs comprised a series of municipalities. The best-known were Neuilly, Levallois, Asnières, Clichy, Aubervilliers, Pantin, Vincennes, Saint-Mandé, Charenton, Montrouge, and Vanves, and they had been separated from the city by an uninhabited fortified and military zone that was not wider than 375 meters. Hénard predicted that the villages and small cities beyond Paris and its suburbs, which made up the department of the Seine, would soon be linked with the city and in need of development (aménagement), as would its suburbs. However, Hénard, himself a Parisian, did not turn his attention to this question, and he never showed any real interest in the garden city, which would soon be the model for urban planning in suburban Paris.

It was a building cooperative that launched the first French garden city in the Parisian suburb of Draveil. The newspaper L'Humanité announced in 1929 that pères de familles, influenced by socialism, decided to form a cooperative to build housing for their families in the countryside surrounding Paris. The cité-jardin was formed from forty-two hectares of land bought from a neighboring eighteenth-century château. It was not completed until 1928.

The concept of the cité-jardin was taken up by a number of different politicians and social reformers, but none was more ardent than a socialist politician whose name was intimately bound up with construction of social housing within Paris and beyond as an administrator and then as president of the Office départemental des habitations à bon marché de la Seine (OHBM). Henri Sellier (1883–1943), who was born into the working-class aristocracy—his father was a foreman at the arsenal—was able to receive a degree in law from the faculty in Paris, and he pursued a degree at the Ecole des hautes études commerciales. He joined Jean Allemande's Parti socialiste révolutionnaire at the age of fifteen and in 1910 was elected conseiller général of the Plateaux, a commune in the western suburbs of Paris; but his career really began in 1914, when he became administrator of the

**Figure 17.** Dubbed “the Louvre of social housing,” 8 rue de Prague, Paris, was designed by Augustin Rey to provide light and air to city dwellers. Photograph copyright © Caroline Ford.
The Greening of Paris

OHBM, which was dedicated to the creation of affordable housing for the popular classes.27 After the war, Seller was elected mayor of Suresnes and remained so until he was removed from office during the German occupation in 1942, two years before his death. Suresnes was another commune in the western suburbs of Paris, adjoining the Bois de Boulogne. Seller always had an interest in urban planning, and with the urbanist and historian of Paris, Marcel Poite, founded the École des hautes études urbaines et d’administration municipale in 1919, which became the Institut d’urbanisme de l’Université de Paris in 1924, and in 1935 he was elected senator of the department of the Seine.

Seller's lifelong interest in urban renewal and social housing, which was reflected in his Crise du logement et l’intervention en matière d’habitation populaire dans l’agglomération parisienne, was translated into direct action after World War I.28 He embraced the concept of the cité-jardin, but preferred to use the term banlieue-jardin, as it was in the suburbs that he set out to implement his aim of creating a green paradise for the working class.29 Seller launched an initiative to form a Commission d'extension de Paris, which was duly created in 1911, and it was reinforced by the establishment of a Commission des habitations ouvrières et du plan d'extension in 1913. In 1911 the Comité départemental des HBM et de la prévoyance sociale de la Seine established an architectural competition for the design of cités-jardins. Recognizing that it was impossible to construct a new city in a department as populated as the Seine along the lines of Ebenezer Howard's garden cities, Emile Cachoux, one of the commission's members, argued that it was nonetheless possible to create HBM with plenty of air and an abundance of light. The cooperative society Campagne à Paris, which was founded in 1906, shared first prize with the cité-jardin of Epinay. The latter conformed best to what Cachoux had in mind. The Comité départemental des HBM et de la prévoyance social de la Seine also gave awards to the cité-jardin ofivy-sur-Seine, which was under construction, and the projects for garden cities in Roissy-sur-Bois, Châtenay-Malabry, Choisy, and Châtillon.82 Other entries included the cité-jardin of Petit-Grosly in the commune of Blanc-Mesnil in the department of Seine-et-Oise, which was both a fifty-hectare housing estate and a park. Begun in 1910, the project employed the internationally renowned architect and landscape designer Edouard Redont (1862-1942), who created a radial design, setting his buildings around a central man-made lake. He dotted the garden city with squares and playing fields and planted thousands of trees.83

During the interwar period the building of cités-jardins was at its height. Between 1922 and 1939, fifteen were constructed in the suburbs of Paris, which resulted in 10,704 collective units and 2,549 houses in Dugny, Drancy, Nanterre, Cachan, Arcueil, Les Lilas, Gennevilliers, Bagnolet, Stains, Le Pré Saint-Gervais, Champagneux, Le Plessis Robinson, Suresnes, and Drancy-la-Muette. The individual houses adopted the model of cottages in English garden cities, and careful attention was paid to their gardens and landscaping. In order to have the maximum number of old-growth trees, communes sought out property that had once been barns attached to châteaux—Stains, Châtenay-Malabry, and Plessis-Robinson being cases in point. Alongside oaks, chestnuts, poplars, and maples, lawns were planted and encircled by regular hedges. Collective housing was favored in most locales, as a greater number of people could be housed, so the model of urban social housing design in the form of apartment buildings became prevalent in many places, with the same attention paid to gardens and landscaping.84 While the cité-jardin assumed different forms and architectural styles ranging from the picturesque, which employed regionalist idioms, to the modern, architects sought to make the housing, whether collective or individual, and the nature into which it was placed a coherent whole.

While most of the garden cities built during the interwar period were undertaken by the OHBM, some were the result of private initiatives. The garden city of Orgeval in the department of Seine-et-Oise is a case in point. It was located on a plateau overlooking the Seine, four and a half miles from Paris. The first cornerstone was laid in 1919 by Louis Loucheur, who was minister of labor, and in 1930 its first inhabitants took possession of the housing. The buildings occupied 10 percent of the total area, which covered ninety acres. Apartment buildings were grouped around a park and five squares, and "everywhere there were fruit trees, the remains of the former fields in which the city was built."85

In the public sector one of Seller's crowning achievements was the cité-jardin built in Suresnes, the city of which he was mayor for over twenty years. It was built to house 8,000-10,000 inhabitants and represented an attempt by its architects, Alexandre Maistresse, to integrate the cité-jardin into the preexisting urban space.86 Of course, the plan evolved over time, and other architects joined the project. Ultimately, the cité-jardin had two principal axes (east-west and north-south) planted with trees. Nature was introduced into the project in different ways. Tree-filled green spaces were at the center of the main blocks. Square Léon Bourgeois, with its 10,300 square meters of open space, was a good example of this. Streets and paths were bordered by lawns, and flowering plants placed at strategic intervals were shaded by trees. Some of the individual houses also had their own gardens.

There was a clear attempt to use the cité-jardin of Suresnes and those built in other suburbs of Paris as a means of improving the lived
environment through the creation of green spaces, but it is misleading to understand the garden city idea "solely or even mainly in terms of the environmental impact." For some bourgeois social reformers the cité-jardin had a moral purpose and could be used as an instrument of social control and a means of transforming a "red belt" into a less threatening "green belt." Urbanists saw parallels between the banlieues and France's colonies. Both could and did serve as laboratories of social control and experimentation. Nonetheless, some workers and socialist politicians embraced social housing, green initiatives, and cités-jardins. Indeed, in 1908 Albert Thomas reproached fellow socialists in Cahiers du Socialiste for not taking more of an interest in social questions such as the creation of more green spaces in the city of Paris. For him, not doing so merely left the door open to the paternalist initiatives of employers: "But it is no less appalling to see the work, so important for the future of the working class, of healthy low cost housing, abandoned to the timid initiatives of philanthropists or conservatives like Georges Picot, or the demand for open green spaces and playing fields formulated only by esthetes and artists from the 'Society for the Protection of Landscapes' or sportsmen from the 'Touring Club.'" Yet in many respects it was in the battle to save the "lungs of Paris" that the interests of part of the Left, the working class, and bourgeois reformers converged. It was here that the hygienic considerations of some socialists and members of the Section d'hygiène urbaine and rurale came to be joined with the aesthetic considerations of the SPPF and the Touring Club, though they often regarded each other with suspicion. Indeed, Jean Labor (pseudonym for Dr. Henri Cazalis), one of the founders of the SPPF, argued that everything—art, hygiene, even medicine and morality—was only an aesthetic. While the motivations behind initiatives to bring nature to the city during the course of the nineteenth century were diverse, what these initiatives revealed was an ever-growing awareness of the effect of the environment on the health and welfare of the city's inhabitants. Roger Marx, a proponent of l'art social who promoted art for the people, which was embraced by many of the architects associated with the campaign for green spaces and the suburban cités-jardins in the interwar period, summed up the nature of this environmental consciousness well in his influential manifesto, L'art social. There he recalled Pierre-Joseph Proudhon's injunction to transform France into a vast garden composed of woods of all kinds, old-growth trees, springs, and streams. He made specific reference to the campaign to develop the fortifications of Paris into green spaces, noting that "nature is not only the source of all inspiration," but it is also vital to progress: "The mutilations that we inflict on it only serve to show better the price of its benefits; the