

The *Eventrement* of Paris and the configuration of the *Alphand-Davioud-Hittorff* Paradigm on urban design

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Abstract

In the first half of the 19th century and the Industrial Revolution, cities like Paris were faced with health problems brought upon them by the rapid growth of industries and the waves of immigration from rural areas. As a consequence the cities, especially their historic center, suffered from congestion, overpopulation and hygiene that lead to various epidemics. To improve hygiene conditions, measures were taken through major urban developments such as the transformation of Paris under the hands of Baron Haussmann the Prefect of the Seine Department between 1853 and 1870. In accordance with Napoleon III, Haussmann traced Paris's new plan and started with the 'eventrement' of the city's unhealthy neighborhoods by opening large rectilinear and longitudinal streets. In fact, he was continuing the work already proposed by Napoleon I and initiated later by Comte de Rambuteau in 1839 under the same concerns of hygiene. Haussmann's objectives were to embellish and modernize the city, and



foremost, to improve living conditions and public health, and provide all citizens with light, air, water, public parks and gardens.

On one hand, he was able to assemble a distinguished team the likes of Alphand, Barillet-Deschamps, Davioud, and Hittorff who created and built the promenades and squares of Paris. Their designs and urban elements were standardized and systematized becoming an urban model and influencing the cities' urban design. The fact that led Remesar to develop the 'Alphand- Davioud- Hittorff paradigm' where replicas of their style still predominates in shaping the landscape, spaces, and elements of our historic center.

On the other hand, Haussmann received harsh criticism from political opponents that resulted in his dismissal. Due to the 'eventrement', he was criticized for destroying the old parts of the city causing a loss in historic and monumental buildings and neighborhoods. The new wide open streets and spaces made means of communication hard especially for pedestrians. In addition, he was blamed for social disruption, inequality, and displacement caused by the amounts of demolitions and expropriations. Moreover, he was accused of squandering money over this long and costly procedure and over passing the budget.

However, one cannot deny the fact that many defended him for all the promenades, parks, squares, gardens, and sewage system created without forgetting that these kinds of plans and procedures had already started before Haussmann dating back to the time of Napoleon I.

Keywords: Paris, Haussmann, Alphand, Davioud, Hittorff, Eventrement, Promenades, Urban Design

Resum

A la primera meitat del segle XIX i en la Revolució Industrial, ciutats com París es van enfrontar a problemes de salut que els va causar el ràpid creixement de les indústries i les onades d'immigració de les zones rurals. Com a conseqüència, les ciutats, especialment el seu centre històric, van patir de congestió, superpoblació i higiene que van portar a diverses epidèmies. Per millorar les condicions higièniques, es van prendre mesures a través d'importants desenvolupaments urbans com la transformació de París sota les ordres del Baró Haussmann, el Prefecte del Departament del Sena, entre 1853 i 1870. Segons Napoleó III, Haussmann va traçar el nou pla de París i va començar amb el 'Eventrement' dels barris insalubres de la ciutat obrint grans carrers rectilinis i longitudinals. De fet, continuava la feina ja proposat per Napoleó I i iniciat més tard pel comte de Rambuteau en 1839 sota les mateixes preocupacions d'higiene. Els objectius d'Haussmann eren embellir i modernitzar la ciutat i, sobretot, millorar les condicions de vida i la salut pública i proporcionar a tots els ciutadans llum, aire, aigua, parcs públics i jardins.

D'una banda, va ser capaç de reunir un equip distingit com Alphand, Barillet-Deschamps, Davioud i Hittorff que van crear i van construir les passejades i places de París. Els seus dissenys i elements urbans van ser estandarditzats i sistematitzats convertint-se en un model urbà i influenciant el disseny urbà de les ciutats. El fet que va portar a Remesar a desenvolupar el "paradigma Alphand-Davioud-Hittorff", on les rèpliques del seu estil encara predomina en la configuració del paisatge, els espais i elements del nostre centre històric.

D'altra banda, Haussmann va rebre dures crítiques dels opositors polítics que van resultar en el seu acomiadament. Per raó del 'eventrement', va ser criticat per destruir les parts antigues de la ciutat causant una pèrdua en edificis històrics i monumentals i barris. Els nous carrers i espais oberts van fer els mitjans de comunicació difícils especialment per als vianants. A més, se li va atribuir la desorganització social, la desigualtat i el desplaçament causats per les quantitats de demolicions i expropiacions. A més, se l'acusa de gastar diners en aquest llarg i costós procediment i en passar el pressupost.

No obstant això, no es pot negar el fet que molts ho van defensar per tots els passejos, parcs, places, jardins i sistema de clavegueram creat sense oblidar que aquest tipus de plans i procediments ja havien començat abans de Haussmann que es remunta a l'època de Napoleó I.

Paraules clau: Paris, Haussmann, Alphand, Davioud, Hittorff, Eventrement, Promenades, Urban Design

Resumen

En la primera mitad del siglo XIX y en la Revolución Industrial, ciudades como París se enfrentaron a problemas de salud que les causó el rápido crecimiento de las industrias y las olas de inmigración de las zonas rurales. Como consecuencia, las ciudades, especialmente su centro histórico, sufrieron de congestión, superpoblación e higiene que llevaron a diversas epidemias. Para mejorar las condiciones higiénicas, se tomaron medidas a través de importantes desarrollos urbanos como la transformación de París bajo las órdenes del Barón Haussmann, el Prefecto del Departamento del Sena, entre 1853 y 1870. Según Napoleón III, Haussmann trazó el nuevo plan de París y empezó



con el 'Eventrement' de los barrios insalubres de la ciudad abriendo grandes calles rectilíneas y longitudinales. De hecho, continuaba el trabajo ya propuesto por Napoleón I e iniciado más tarde por el conde de Rambuteau en 1839 bajo las mismas preocupaciones de higiene. Los objetivos de Haussmann eran embellecer y modernizar la ciudad y, sobre todo, mejorar las condiciones de vida y la salud pública y proporcionar a todos los ciudadanos luz, aire, agua, parques públicos y jardines.

Por un lado, fue capaz de reunir un equipo distinguido como Alphand, Barillet-Deschamps, Davioud y Hittorff que crearon y construyeron los paseos y plazas de París. Sus diseños y elementos urbanos fueron estandarizados y sistematizados convirtiéndose en un modelo urbano e influenciando el diseño urbano de las ciudades. El hecho que llevó a Remesar a desarrollar el "paradigma Alphand-Davioud-Hittorff", donde las réplicas de su estilo todavía predomina en la configuración del paisaje, los espacios y elementos de nuestro centro histórico.

Por otra parte, Haussmann recibió duras críticas de los opositores políticos que resultaron en su despido. Debido al 'eventrement', fue criticado por destruir las partes antiguas de la ciudad causando una pérdida en edificios históricos y monumentales y barrios. Las nuevas calles y espacios abiertos hicieron los medios de comunicación difíciles especialmente para los peatones. Además, se le atribuyó la desorganización social, la desigualdad y el desplazamiento causados por las cantidades de demoliciones y expropiaciones. Además, se le acusa de gastar dinero en este largo y costoso procedimiento y en pasar el presupuesto.

Sin embargo, no se puede negar el hecho de que muchos lo defendieron por todos los paseos, parques, plazas, jardines y sistema de alcantarillado creado sin olvidar que este tipo de planes y procedimientos ya habían comenzado antes de Haussmann que se remonta a la época de Napoleón I.

Palabras clave: Paris, Haussmann, Alphand, Davioud, Hittorff, Eventrement, Promenades, Urban Design

The main urban reformations and hygiene, in major cities in Europe, were performed during and after the Industrial Revolution in the 19th century. Cities and their urban centers were faced with health problems brought upon them by large waves of immigration in search of work, and rapid growth of industries, factories, heavy transports and mines. This resulted in overcrowded and dense urban centers, poor housing and living conditions, and lack of space. Heavy industries settled in inappropriate spaces for maximum benefits disregarding the city's urban fabric and natural surroundings. Immigrants flooding from rural areas for a better life resided in neighborhoods that lacked infrastructures, equipments, sunlight, fresh water and sanitation. They lived in cheap, congested, unventilated, and unhealthy housings, many of which shared by several families and this caused excessive labor force, hunger, poverty and high mortality rates. As a repercussion they became cities of breeding grounds for the massive spread of disease, and hence the disastrous arrival of the 19th century epidemics.

"Partly, the nineteenth century interest in hygiene and sanitation was an automatic reaction: compensation against the miserably insanitary conditions, the devitalized diet, the constant state of ill-health and enfeeblement, in which the denizens of the nineteenth century towns lived. Advances in the biological sciences, in turn, threw into relief the misdemeanors of the new environment: its lack of sunlight and ultra-violet rays, its frequently infected public water supply, its wholesale materialization of conditions favorable to organic dissipation, physiological maladjustment, and disease. Modern hygiene has established the fact that most of our cities, not least those big ones built mainly during the last fifty years, are biologically speaking life-inimical or life-destructive environments" (Mumford, 1970: 422)

The drastic situation was depicted in many literature works such as Honoré de Balzac's *Scènes de la vie parisienne* in *La Comédie Humaine* (1829-1855), Victor Hugo's *Les Misérables* (1862), Charles Dickens's *Oliver Twist* (1838), and later Jack London's description of London's East End in *The People of the Abyss*

(1903) influenced by Jacob Riis's *How the Other Half Lives* (1890), Charles Booth's *Life and Labour of the People in London* (1892), and Friedrich Engels's *The Condition of the Working Class in England in 1844* (1845). This brings us to another outcome, the situation induced the rise of a new class, the middle class, and thus class struggles and clashes started between the fast-growing working class and the new bourgeoisie that took political and economic power and affected all the sectors including the urban development of cities. The situation was in crisis and threatened by riots and revolutions like in the case of Paris:

"Consider, first, the case of Second Empire Paris. The year 1848 brought one of the first clear, and European-wide, crises of both unemployed surplus capital and surplus labour. It struck Paris particularly hard, and issued in an abortive revolution by unemployed workers and those bourgeois utopians who saw a social republic as the antidote to the greed and inequality that had characterized the July Monarchy. The republican bourgeoisie violently repressed the revolutionaries but failed to resolve the crisis. The result was the ascent to power of Louis-Napoleon Bonaparte, who engineered a coup in 1851 and proclaimed himself Emperor the following year. To survive politically, he resorted to widespread repression of alternative political movements. The economic situation [capital surplus] he dealt with by means of a vast programme of infrastructural investment both at home and abroad" (Harvey, 2008: 25).

In France, particularly Paris, hygiene problems were similarly drastic in terms of insalubrity, overpopulation, and poverty. Victor Considérant one of the influential Saint-Simoniens wrote in *Destinée Sociale Vol.I* that "Paris is an immense workshop of rot": *"Paris c'est un immense atelier de putréfaction, où la misère, la peste et les maladies travaillent de concert, où ne pénètrent guère l'air ni le soleil. Paris, c'est un mauvais lieu où les plantes s'étiolent et périssent, où, sur sept petits enfants, il en meurt quatre dans l'année"* (Considérant, 1837: 462).

And Frégier while describing the neighborhoods of La Cité, des Arcis and Saint-Honoré wrote: *"Ces rues étroites, sales, flanquées de maisons hautes de quatre étages et dont les allées sont presque toutes dépourvues de portiers, ont été abandonnées à la population la plus infime et la plus corrompue de la capital. Le quartier de la Cité, notamment, a un aspect sinistre et qui contraste singulièrement avec les quais et les monuments qui l'entourent et qui l'avoisinent. Il est sillonné de rues larges au plus de 8 pieds et bordées de maisons noircies par le temps. Ces maisons très élevées, comme nous l'avons dit, rendent les rues tristes et humides, et elles son elles-mêmes fort peu éclairées, surtout dans le rez-de-chaussée"* (Frégier, 1840: 135, 136)

For this reason, many cities took measures of hygiene through urban changes and developments such as the case of Paris the century's most significant and consequential urban regeneration. The city and its metropolitan area were radically transformed between 1853 and 1869 under the direction of Baron George-Eugène Haussmann the Prefect of the Seine Department (1853-1870). In fact, Haussmann was continuing a project already started with Claude-Philibert Barthelot, Comte de Rambuteau, prefect of the Seine between 1833 and 1848. Rambuteau established the basis of the Paris's fundamental transformation that Haussmann carried out during the Second Empire. The operations' main purpose was to clean, connect, modernize, 'embellish' and turn Paris into *"la plus belle ville du monde"* (Persigny, 1896)

or as Rambuteau called it “*la métamorphose de Paris*”. He was concerned with hygiene and his motto was “water, air, shade”. In 1839 he started his first ‘percée’ in Paris by opening-up a 13m wide road later named after him and supported the prolongation and completion of Rue de Rivoli –a project proposed by Napoleon Bonaparte and carried out during his reign– until l’Hôtel de Ville and Rue Saint-Antoine (Persigny, 1868; Lequin, 1905).

In his memoirs, Duc de Persigny stated that the Paris’s improvement no longer consisted of reconstructing housings and aligning facades but of opening straight streets and axes crossing through unhealthy quarters and neighborhoods, a procedure that began with Rambuteau under the reign of Louis-Philippe:

“L’idée d’améliorer la viabilité de Paris, non plus par la voie lente du reculement des façades, à mesure de la reconstruction des maisons, mais en ouvrant directement un passage au travers des massifs, par le procédé de l’expropriation publique, cette idée féconde, qui devait si heureusement transformer Paris et nos grandes cités, appartient au règne de Louis-Philippe. M. de Rambuteau, préfet de la Seine, l’avait inaugurée par le percement de la rue qui porte son nom. La population de Paris avait été vivement impressionnée, à la vue de cette voie nouvelle traversant un quartier misérable, malsain, pour y porter l’activité, l’air, la lumière et la santé; et la popularité qui accueillit cette œuvre était de nature à encourager l’imitation. C’est en effet ce qui arriva : à peine le prince Louis-Napoléon parvenait-il à la présidence de la République qu’on lui soumettait le plan d’un percement bien autrement considérable, celui du prolongement de la rue de Rivoli, depuis le Louvre jusqu’à l’Hôtel de ville, au travers de quartiers épouvantables. M. Berger, le nouveau préfet de la Seine, jaloux des lauriers de M. de Rambuteau, avait mis un grand zèle à faire étudier le projet et à en déterminer l’adoption par le gouvernement. Ce grand travail, commencé vers le milieu de l’année 1851, était déjà en pleine exécution à l’époque du coup d’État” (Persigny, 1868: 237, 238).



Fig. 1 and 2 Perspective views of Rue de Rivoli, one of the first ‘percement’, showing its straight and rectilinear crossing through the city (Plaut, 1865) (Paris et ses environs, 1890).

Taking advantage of the perks of Industrial Revolution's technical advances Rambuteau modernized Paris's sewers, developed and generalized the gas lighting jets and placed public urinals along the roads. He embellished the city by placing benches and planting trees in its avenues and public spaces, and installing monumental fountains, and constructing sidewalks.

"Je fis construire tous les ans sept à huit mille mètres d'égouts cimentés qui assainirent doublement le sol, en permettant de remplacer par des chaussées bombées les antiques chaussées en cuvette, fendues d'un ruisseau au milieu. J'essayai tous les genres de pavage, et je pourrais en parler docement, depuis le bon pavé smillé jusqu'au macadam boueux, poussiéreux, dispendieux, mais qui offre l'avantage de rouler sans bruit et que je réservai aux abords des hôpitaux, des tribunaux et des théâtres. En 1833, il existait à peine 16.000 mètres de trottoirs ; en 1848, il y en avait 195.000, rien que pour les rues, car si je compte les places quais, boulevards entièrement aménagés d'égouts, ruisseaux latéraux, trottoirs, tuyaux de descente, 1.400 voies ont été métamorphosées sur une longueur de 260 kilomètres. Encore, malgré tous mes efforts, n'ai-je pu obtenir une mesure législative qui rendît la construction des trottoirs obligatoire aux propriétaires" (Lequin, 1905: 376).

Rambuteau was succeeded by Berger but the latter was dismissed by Napoleon III himself and assigned Haussmann whom Duque Persigny interviewed himself and selected from several other candidates:

"Je fis venir successivement plusieurs des principaux préfets : MM. Le Roy, préfet à Rouen, Beson, à Lille, de Crèvecœur, à Marseille, Tourangin, anciennement à Lyon, Haussmann, à Bordeaux, etc. Outre ce que je savais d'eux et par moi-même et par les traditions de l'administration, je m'attachai à les étudier avec soin pendant leur séjour à Paris, et en dînant presque en tête à tête avec eux [...] Comme me l'avait prédit M. Frémy, alors secrétaire général de mon ministère, c'est M. Haussmann qui me frappa le plus [...] J'avais devant moi un des types les plus extraordinaires de notre temps. Grand, fort, vigoureux, énergique, en même temps que fin, rusé, d'un esprit fertile en ressources, cet homme audacieux ne craignait pas de se montrer ouvertement ce qu'il était [...] Pour lutter, me disais-je, contre les idées, les préjugés de toute une école économique, contre des gens rusés, sceptiques, sortis la plupart des coulisses de la Bourse ou de la Basoche, peu scrupuleux sur les moyens, voici l'homme tout trouvé" (Persigny, 1868: 251-254).

Haussman's extensive work in Paris started with the 'percement' or 'piercing' of large rectilinear streets and boulevards with the same objectives of "aérer, unifier, et embellir" (de Moncan, Heurteux, 2002) Paris especially the dense neighborhoods in the center and along the railroad (Faubourg Saint-Antoine, Marais). Haussmann wrote that the Emperor was haunted by two "generous ideas"; first, the completion of Paris's Transformation not only to create a great Capital and a "Cité Reine du Monde" (Haussmann, 1890) but foremost to provide for its citizens the essential elements of public health: air, light and water, to facilitate communication, create monumental perspectives and open up avenues planted with large-scale promenades, parks and public gardens; and second, to gradually attenuate taxes especially the 'Impôts et Taxes de Consommation' (income and consumption taxes) that weighed heavily on the working class and laborers. Another indirect objective –an issue that was a debate among Haussmann's critics– was for the military security of the state and troops movement in order to avoid and help suppress popular uprisings

and barricades (Maderuelo, 2010; Harvey, 2003, 2008; Mumford, 1961, 1970; Scott, 1998).

"The redesigned city was, above all, to be made safe against popular insurrections. As Haussmann wrote, "The order of this Queen-city is one of the main pre-conditions of general [public] security" [...] Louis Napoleon and Haussmann had seen the revolutions of 1830 and 1848; more recently, the June Days and resistance to Louis Napoleon's coup represented the largest insurrection of the century. [...] A series of new avenues between the inner boulevards and the customs wall was designed to facilitate movement between the barracks on the outskirts of the city and the subversive districts. As Haussmann saw it, his new roads would ensure multiple, direct rail and road links between each district of the city and the military units responsible for order there. [...] The reconstruction of Paris was also a necessary public-health measure. And here the steps that the hygienists said would make Paris more healthful would at the same time make it more efficient economically and more secure militarily" (Scott, 1998: 61, 62).

Mumford, when writing about Paris's medieval narrow streets and culs-de-sac, stated that "it was the best possible protection against assault from within" (Mumford, 1968: 70), and that 'razing' the neighborhoods with wide avenues aesthetically enhanced military power.

"In view of the importance of the army to the ruling classes, it is no wonder that military traffic was the determining factor in the new city plan, from the first mutation in Alberti to the final survival in the laying down of Haussmann's boulevards in Paris. The esthetic effect of the regular ranks and the straight line of soldiers is increased by the regularity of the avenue: the unswerving line of march greatly contributes to the display of power, and a regiment moving thus gives the impression that it would break through a solid wall without losing a beat" (Mumford 1970: 96).

In his memoir Haussmann did not directly deny this fact and wrote that

"C'était l'événement du Vieux Paris, du quartier des émeutes, des barricades, par une large voie centrale, perçant, de part en part, ce dédale presque impraticable, accostée de communications transversales, dont la continuation devait compléter l'œuvre ainsi commencée. [...] Assurément, l'Empereur, en traçant le Boulevard de Strasbourg et son prolongement jusqu'à la Seine et au delà, n'avait pas plus en vue l'utilité stratégique de ce prolongement, que de tant d'autres grandes voies, comme la Rue de Rivoli, par exemple, dont l'alignement droit ne se prêtait pas à la tactique habituelle des insurrections locales. Mais, s'il n'a pas cherché, par-dessus tout, ce résultat, comme l'Opposition de lui reprochait, on ne peut nier que ce fut la très heureuse conséquence de tous les grands percements conçus par Sa Majesté pour améliorer et pour assainir l'ancienne ville. Ce résultat servit, concurremment avec nombre d'autres bonnes raisons, à justifier, vis-à-vis de la France, que la tranquillité de Paris intéresse au premier chef, la participation de l'Etat dans les frais de ces onéreuses entreprises. Quant à moi, qui suis le promoteur des additions faites au projet initial, je déclare n'avoir pas songé le moins du monde, en les combinant, à leur plus ou moins d'importance stratégique" (Haussmann, 1893: 54, 55)

Paris's plan consisted of three phases each corresponding to a network, 'réseau', of precise routes. Fo-

Following the Emperor's direction and approval, Haussmann started with the first phase known as the 'Grande Croisée' of Paris (1852-1859), the pivot of Paris's urban transformation, continuing a project initiated in 1801 under Napoleon I and projected by architects Charles Percier and Pierre-Francois-Leonard Fontaine. It consisted of the prolongation of Rue de Rivoli and Rue Saint-Antoine (East-West axis) (1853-1855) intersecting with Boulevards of Strasbourg and Sébastopol (North-South axis) (1855-1859) creating in the process several squares like Place du Carrousel and Place de Saint-Germain-l'Auxerrois among others. The plan consisted of two other phases –'deuxième réseau' (1859-1867) and 'troisième réseau' (1869-1925) – where many other new networks of streets and boulevards were created, widened or prolonged on both sides of the Seine. Between 1852 and 1870, around more than 200 km of roads were carried out totally rearranging the circulation and displacement within the city. Moreover, a complex drainage and sewage system was created underneath the streets and boulevards; gas street lamps, trees, street furniture, and fountains with potable water were placed in the city's public spaces; new monuments were restored and built as well as parks and squares (de Moncan, Heurteux, 2002). As a matter of fact, Paris was one of the advanced cities in incorporating urban services that passed through several stages of extension. The first was in 1805 where a thorough inventory of the existing network was developed. In the second stage, a sanitation project was executed in the capital's northeastern neighborhoods. And in later stages the network evolved in length passing from 37 kilometers in 1824 to 80 kilometers in 1850. Actual work on the sewage network started in 1865 under the direction of Belgrand and by 1871 it reached 560 kilometers (Dupuy, Knaebel, 1982).

Haussmann assembled a distinguished municipal body, and technical offices consisting of a great team of administrators, technicians and professionals, the likes of architect Eugène Deschamps the manager or 'conservateur' of Paris's plan; engineer Jean-Charles Adolph Alphand head of the new Service of Promenades and Plantations responsible for designing Bois de Boulogne, Bois de Vincennes, Parc des Buttes Chaumont, Parc Montsouris; Jean-Pierre Barillet-Deschamps chief gardener in charge of planting the great parks and gardens; Eugene Belgrand water, drainage and sewers engineer responsible for building over 300km of aqueducts carried out between 1864 and 1893; architect Gabriel Davioud known for designing street furniture, grillwork, fountains like Fontaine Saint-Michel, and several monuments like Théâtre du Châtelet and Théâtre de la Ville; architect Jacques Ignace Hittorff responsible for redesigning the Place de la Concorde and the Champs-Élysées and other monumental projects; Victor Baltard known for reconstructing Les Halles.

Following the Emperor's instructions, the parks were designed inspired by his memories of London's parks (Haussmann, 1893), especially Hyde Park, but on a much larger scale such as Bois de Boulogne and Bois de Vincennes. Capel stated that during the Napoleon and Restoration Period the classical formal garden was momentarily brought back before the English park style took over France again. And throughout the 19th century these parks and gardens were designed in a more diverse eclectic style that not only affected urban spaces but also architecture.

"Desde los años 1840 –tras la época napoleónica y la nueva expansión del jardín clásico francés durante la Restauración– se consolida y difunde de nuevo en Francia la moda del parque inglés, que desde ese país se extenderá a toda Europa. [...] De todas maneras, a lo largo del XIX el hecho más destacado es el carácter ecléctico del diseño de estos espacios. Un eclecticismo difundido

sobre todo por revistas y tratados y que supone una aceptación de diversos estilos tanto en arquitectura como en jardinería” (Capel, 2002: 300, 309).

Promenades and Squares

The opening up of avenues and boulevards resulted in a network of new squares in their proximity or between buildings. It was important for Haussmann and the Emperor to create squares in all of Paris's arrondissements, just like in London, designated to be used by rich and poor alike. They are spaces that had positive effect on public health and hygiene by providing light and air, such as, Square Saint-Jacques, Square Bergson, Square du Temple, Square Louvois, Square des Innocents, Square de Montholon, Square Jean XXIII, Squares des Invalides, and Square Emile-Chautemps formerly known as Square des Arts-et-Métiers, among others.

“Aussi, [l’empereur] me prescrivit-i de ne manquer aucune occasion de ménager, dans tous les arrondissements de Paris, l’emplacement du plus grand nombre possible de squares, afin de pouvoir offrir avec largesse chez nous, comme on le faisait à Londres, des lieux de délassement et récréation a toutes les familles, à tous les enfants, riches ou pauvres. [...] Suivant les indications de l’Empereur, mon administration a doté Paris de squares libéralement répartis entre tous ses arrondissements anciens et nouveaux. Il en fut créé 24, de 1853 à 1869 ; savoir : 17, dans la Vieille Ville ; 7, dans la Zone Suburbaine annexée” (Haussmann, 1893 : 240).

Concerning the squares Haussmann added that :

“Le nom de square signifie, en anglais : carré. Nous désignons ainsi, a l’instar de nos voisins d’outre-mer, les jardins presque toujours clos de grilles, entourant ou côtoyant certains de nos édifices, occupant le milieu de la plupart de nos Places, ou bien utilisant des espace laissés libres par le trace de nos vois publiques nouvelles et par le plan de lotissement des parcelles de terrain demeurées en dehors des alignements de ces voies et livrées a la reconstruction. La forme de ces enclos verdoyants et fleuris dans la belle saison, pleins d’air et de lumière, en tout temps, ne justifie point cette qualification, je le confesse, en bien des cas” (Haussmann, 1893 : 239).

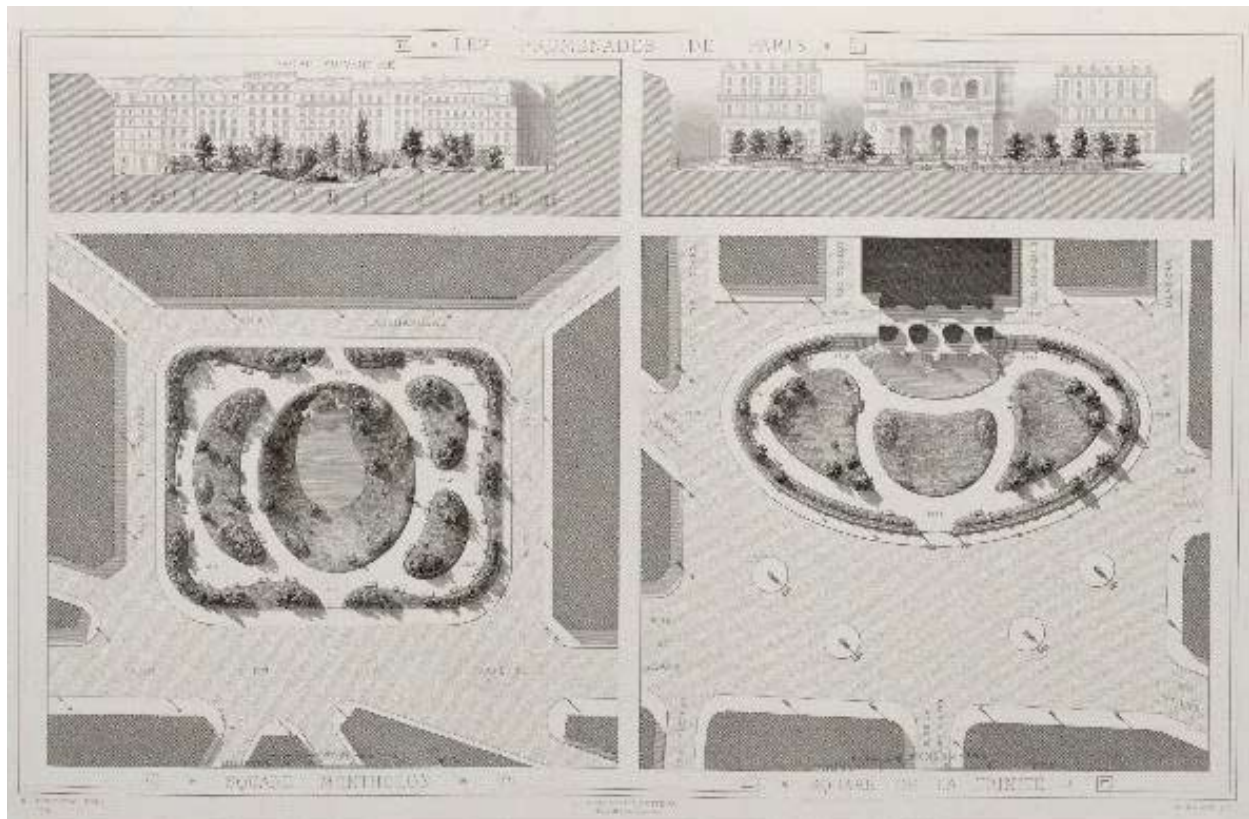
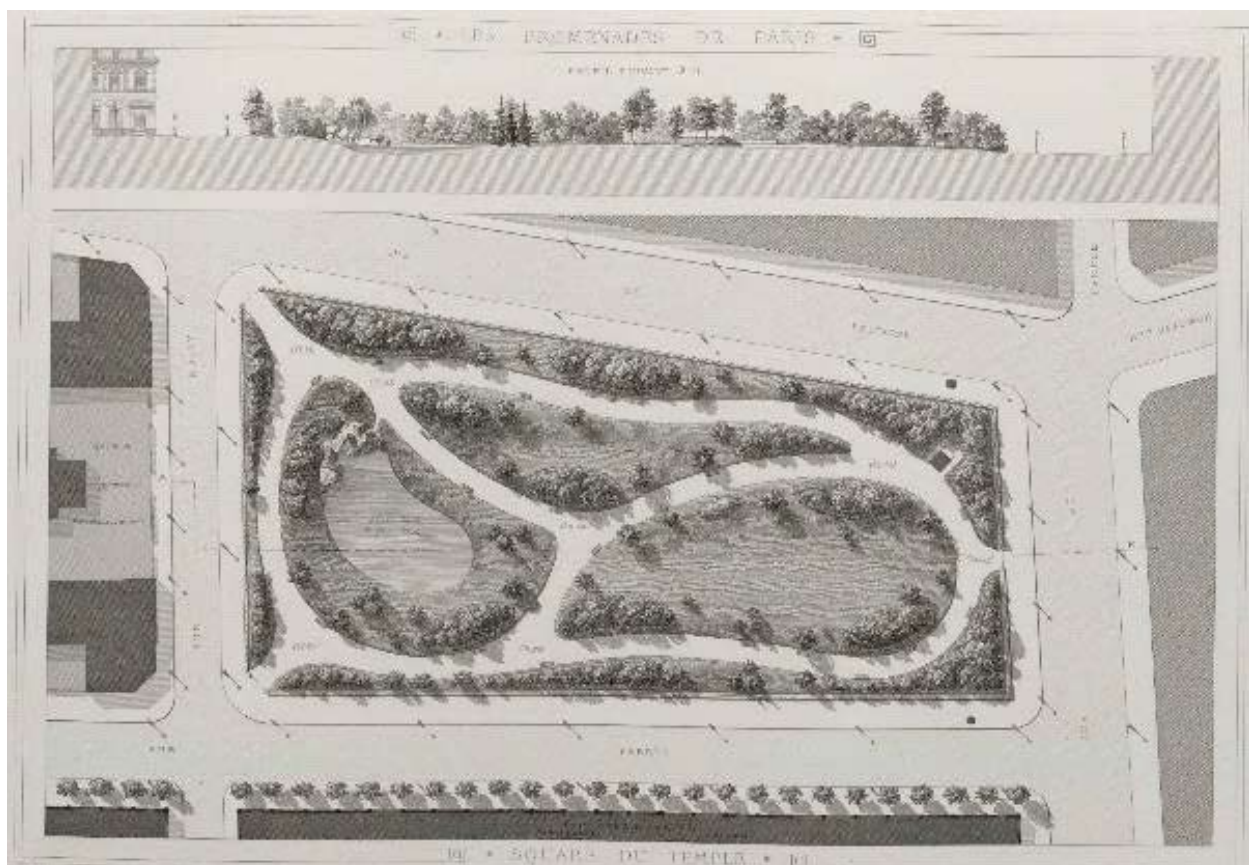


Fig. 3 Elevation and plan of Squares Montholon and De La Trinite (Alphonse de La Roche, 1867-1873)



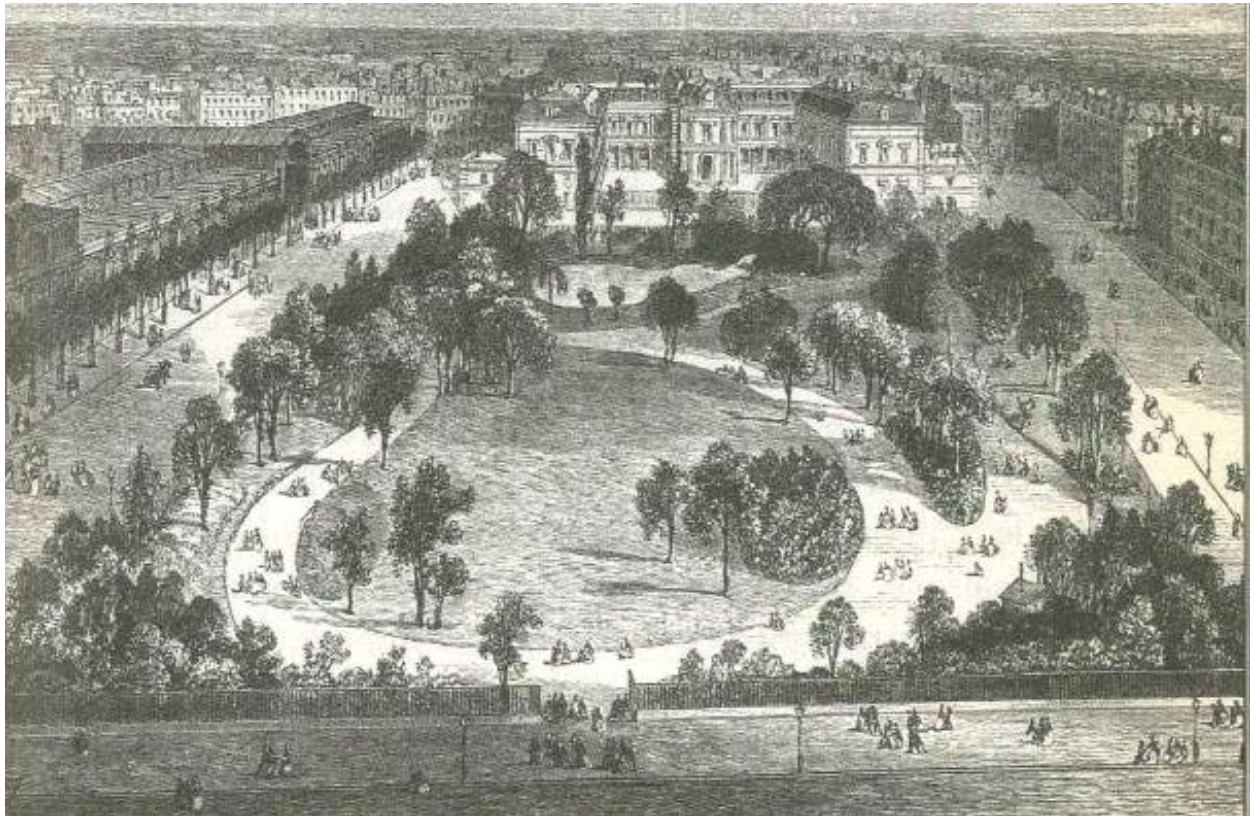


Fig. 4 Elevation, plan, and perspective of Square du Temple (Alphand, 1867-1873. De Moncan, Heurteux, 2002)

When Alphand, published the two volumes book *Les Promenades de Paris* (1867-1873), within the framework of Haussmann's plan, he showed the implementation and designs of the city's parks, squares, gardens, and landscape planning. The technical offices disseminated and conveyed their projects taking them a step further by organizing, normalizing and arranging streets, parks, promenades, gardens and squares. They showed great details and thorough designs and drawings emphasizing on elements of street furniture, vegetation, pavement, and infrastructure. This standardization and systematization had such importance and influence that it became an urban model throughout Europe (Remesar, 2005; 2007).

"O impacto da obra de Alphand, "Les Promenades de Paris", foi enorme em toda Europa, mas não podemos entendê-lo sem ter em conta que por trás desta normalização, falamos de todo um sector industrial metalúrgico, particularmente em Inglaterra e França, que vai ter no novo modelo urbano a oportunidade do seu desenvolvimento e expansão nos mercados internacionais, sobretudo devido ao fenómeno das Exposições Universais" (Remesar, 2005: 33).

The influence on urban design even continued until our present days, the fact that led Remesar to develop the 'Alphand- Davioud- Hittorff paradigm of urban furniture in historic centers', where replicas of their style still predominates in shaping the landscape, spaces, and elements of our historic center.

"Se as grandes operações de Haussmann, na Paris do segundo império, tiveram como um dos seus resultados, a criação de uma nova indústria, a da "fonte d'art", a existência desta indústria associada à publicidade está a produzir "réplicas" de centros históricos à escala planetária. Por outro

lado, os jardins dos nossos centros pretendem manter viva a imagem do "jardim-square" romântico que caracterizou o urbanismo higienista do século XIX" (Remesar, 2007: VIII).

Even though they cannot compete with the contemporary designs nor are they compatible with sustainability requisites, like in the case of street lights, this 'Alphand- Davioud- Hittorff style' of urban furniture is being modified and placed all over the historic centers –especially in parks and squares that characterized the 19th century urban hygiene– to create a specific authentic mood and atmosphere.

"As empresas produtoras de mobiliário urbano reproduzem até ao enjoo o que podemos chamar de 'estilo Alphand-Hittorff', um estilo de antiquário cuja única missão é recriar um ambiente que nunca existiu. A maior parte das luminárias que são instaladas nos centros históricos são inimigas do meio ambiente pela sua baixa eficiência energética. Contudo, mantêm-se, alteram-se e colocam-se em todo o centro urbano que se preze, inclusivamente voltando a utilizar o gás como energia. Criam ambiente, funcionam cenograficamente ainda que, quando os seus antepassados foram colocados pela primeira vez, implicassem uma inovação técnica e estética de grande magnitude. [...] É óbvio que as réplicas actuais dos elementos de mobiliário do século XIX não podem competir com os desenhos contemporâneos, nem em funcionalidade, nem em ecologia, nem em ergonomia. No entanto, o 'estilo Alphand-Hittorff' predomina na configuração da paisagem urbana dos nossos centros históricos" (Remesar, 2007: VIII).



1.- For a detailed study of the impact of Parisian postulates on other cities, see Remesar, de Lecea, and Grandas, 2010; Aguas, 2009; Barradas, 2015; Esparza, 2014; Hernández Sánchez, 2009; Valente Pereira, 2013; Alves, 2010

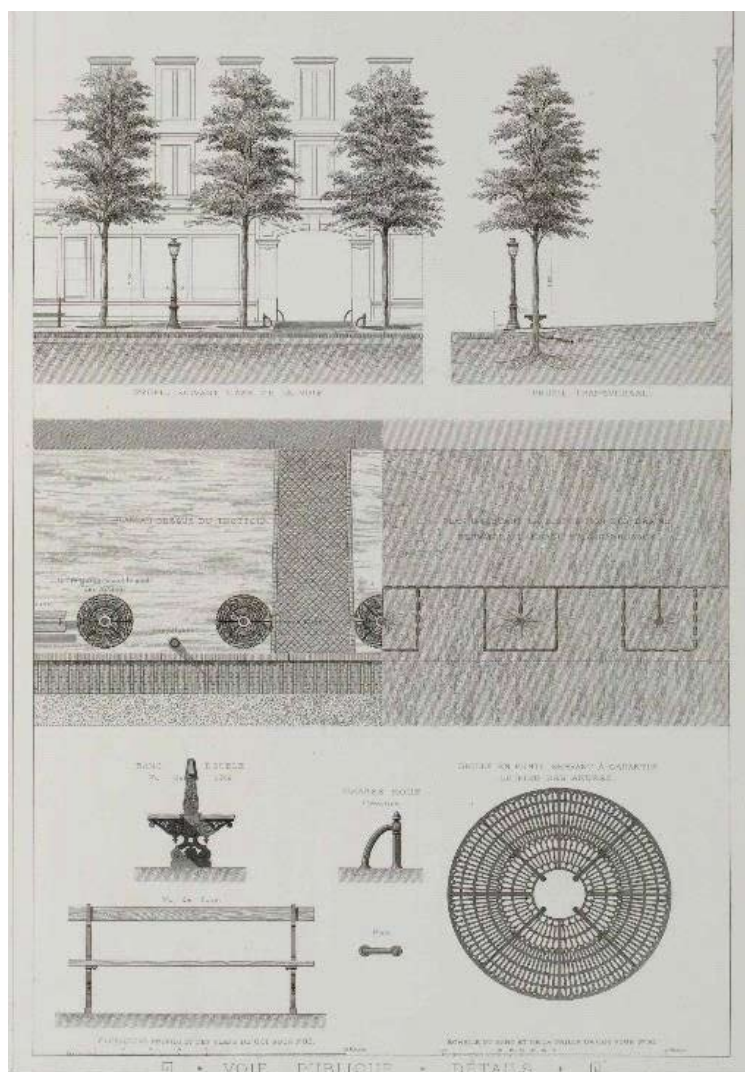
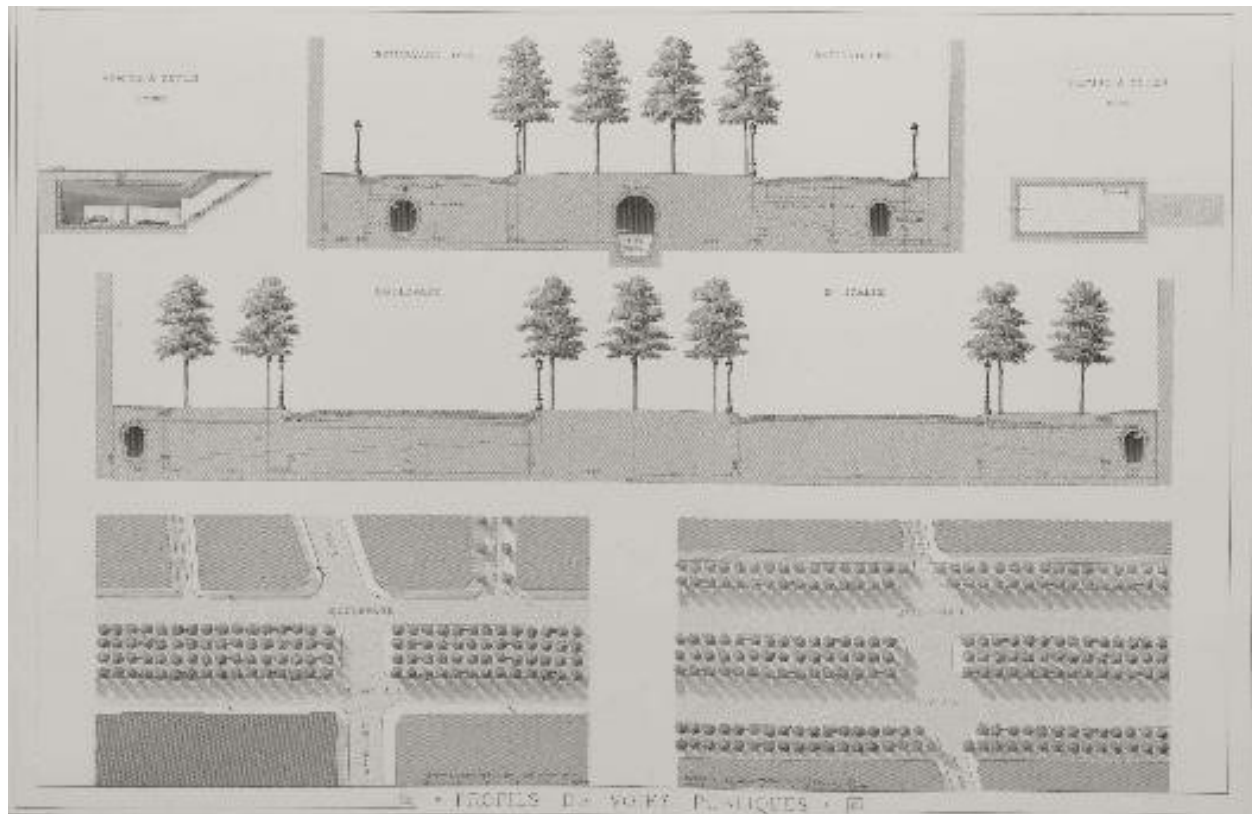
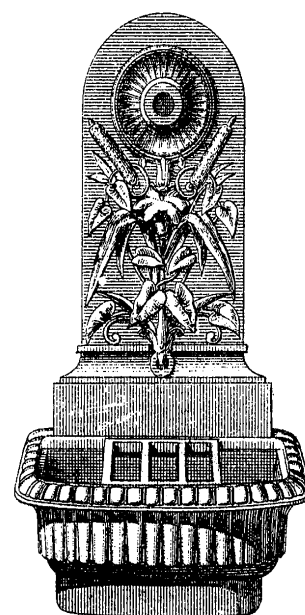
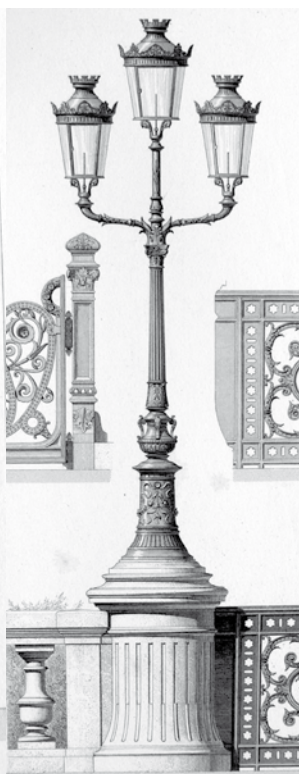
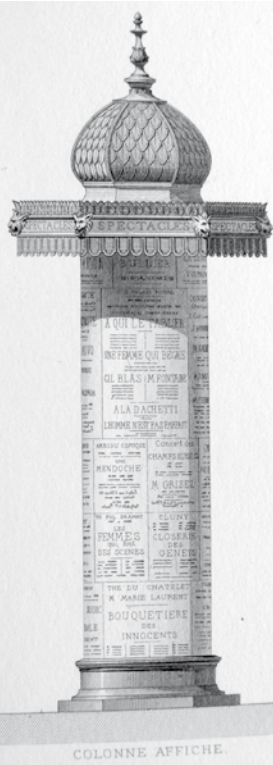
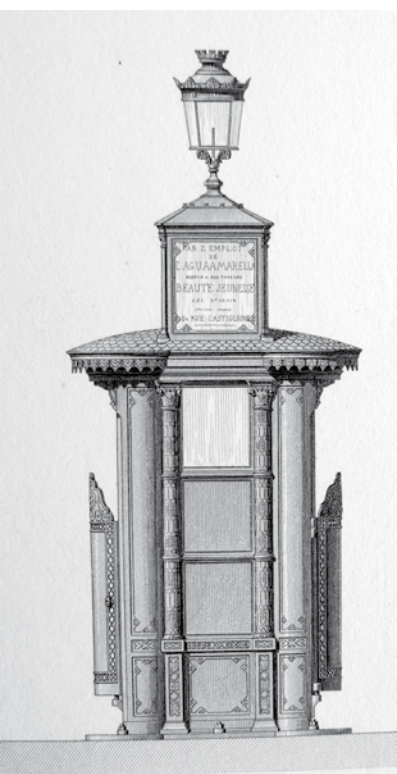
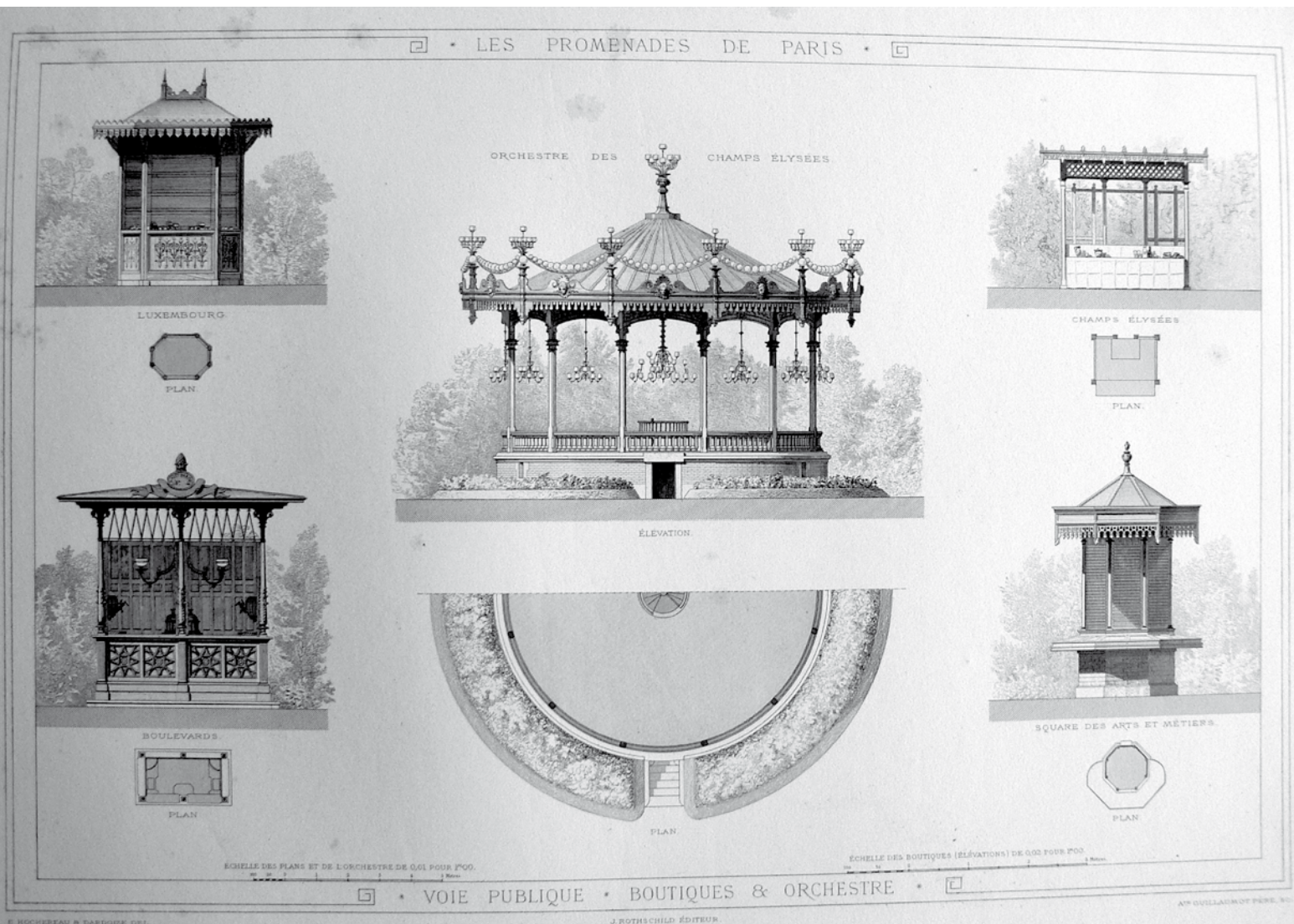
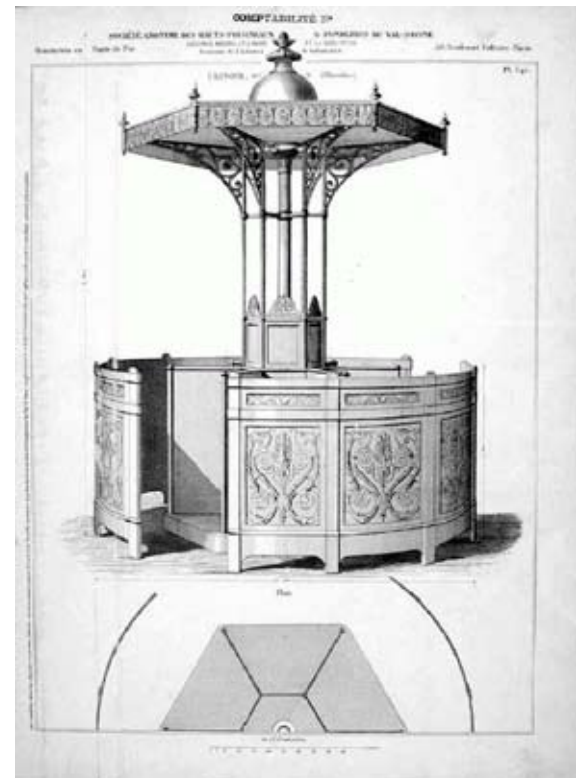
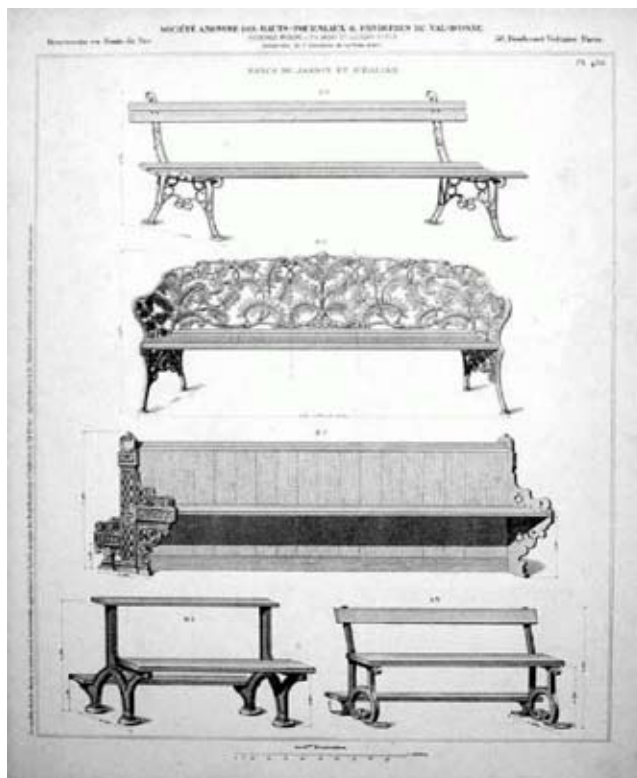
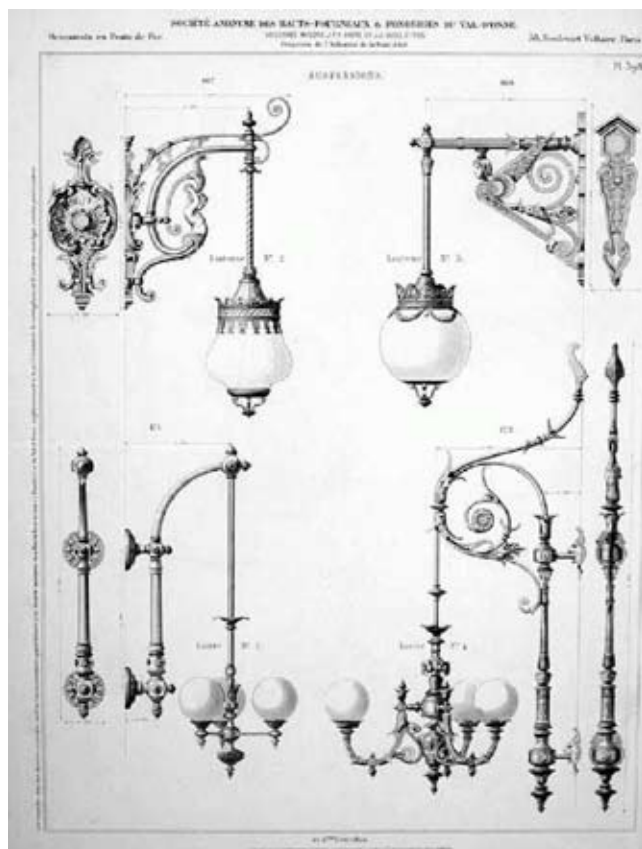
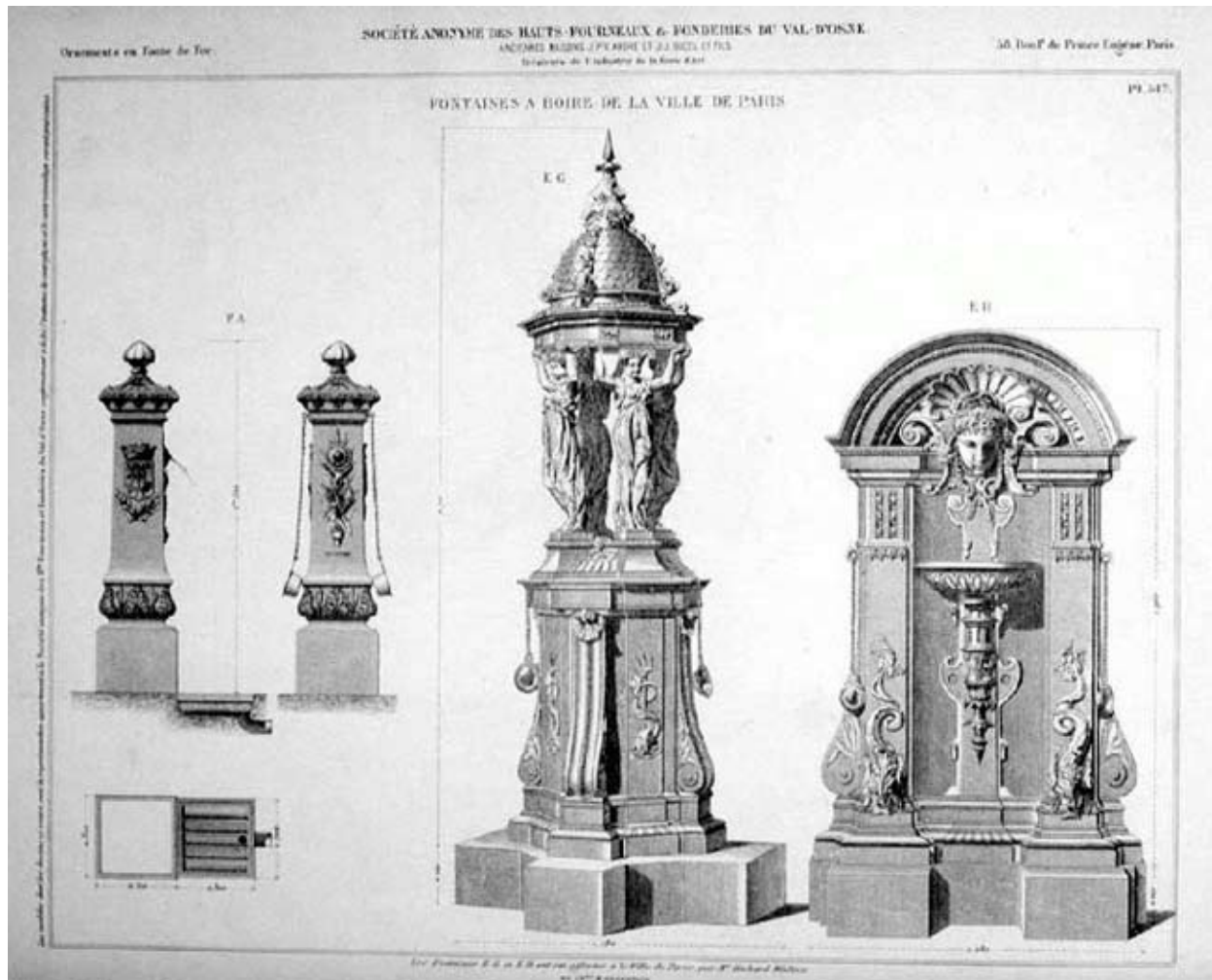


Fig. 5 Details of street lights, tree alignments, streets, sidewalks, underground section, sewers, and street furniture (Alphand, 1867-1873. Source: Habitat Urbà. Ajuntament de Barcelona)









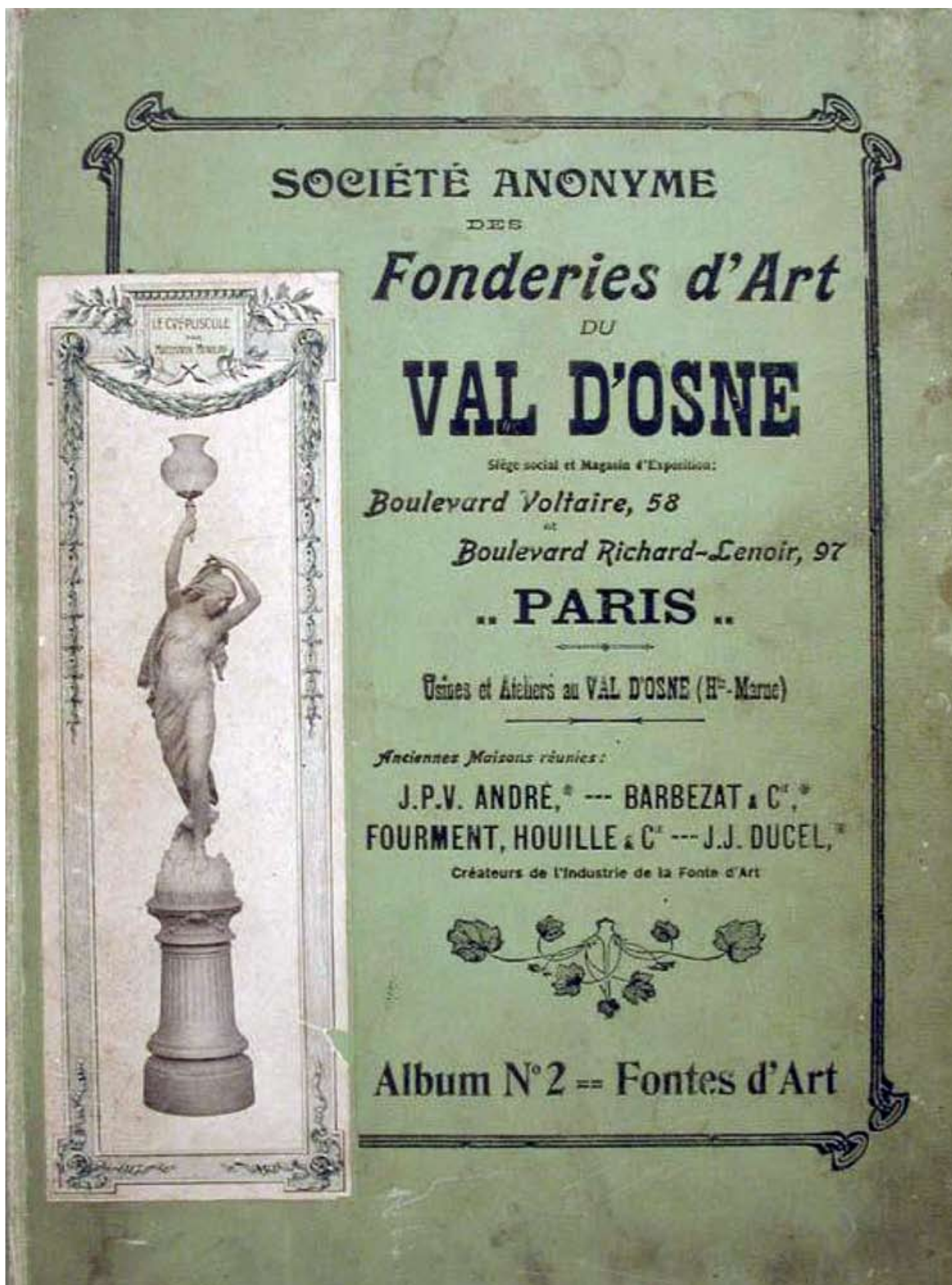




Fig. 6. Book cover of Alphose Alphand "Les Promenades de Paris". Original edition in the archive of Habitat Urbà. Ajuntament de Barcelona

Criticism of Haussmann

Haussmann's plans for Paris coincided with a time of intense popular political agitation and starting 1868 it faced much criticism on several levels; on the urban, social, and financial level, the fact that led Napoleon III in 1870 –after standing by him for many years– to relieve him from his duties as prefect to the Seine leaving Alphand as a successor. He was especially criticized by the Emperor's political opponents like the newly assigned Prime Minister Emile Ollivier, statesmen Adolphe Thiers, Jules Ferry and Jules Simon, among others.

Many archeologists, historians, writers, and impressionist artists lamented the disappearance of medieval Paris, the Paris of Balzac and Voltaire, and was clearly reflected in their work like the historian Léon Halévy, Victor Hugo, Emile Zola's *La Curée*, Charles Baudelaire's *Le Cygne* and *Tableaux Parisiens* from *Les Fleurs du mal*, to name a few.

He was accused of destroying the old and historic parts of the city by all the 'percée' that he was executing. Many historic and monumental residences were destroyed due to his determination to keep the rectilinear streets and many areas were left with wide open spaces and large means of communication which made it difficult for pedestrians to go from one place to another.

This procedure of 'percement' was long and costly that took everything that stood in its way and was widely used during the mid 19th and early 20th century. In the name of hygiene, modernization, and circulation, it was believed that the old town should be opened up with large rectilinear and longitudinal streets in order to improve its poor conditions, and embellish it. This procedure was also officially known as 'eventrement' in French and 'sventramiento' in Italian which literally means 'disembowelment' or 'gutting' of the city (Florensa, 1957). Haussmann himself wrote that it was a conquest of old Paris, the 'eventrement' and undertaking of the unhealthy neighborhoods:

"C'était l'éventrement du Vieux Paris, du quartier des émeutes, des barricades, par une large voie centrale, perçant, de part en part, ce dédale presque impraticable, accostée de communications transversales, dont la continuation devait compléter l'œuvre ainsi commencée" (Haussmann, 1893: 54).

"Je me sentis, des lors, fermement en selle, pour aller à la conquête du vieux Paris, avec une armée que se prenait de confiance pour son nouveau Chef, et dont le concours, de plus en plus assuré, me permettrait d'entreprendre l'éventrement des quartiers de ce centre de ville aux rues enchevêtrées, presque impraticables à la circulation des voitures : aux habitations resserrées, sordides, malsaines, que étaient, pour la plupart, autant de foyers de misère et de maladie, et de sujets de honte pour un grand pays comme la France" (Haussmann, 1890: 257).



Fig. 6 The 'eventrement' of Avenue de l'Opéra. Construction sites of Butte du Moulin and Rue d'Argenteuil above, and Rue Saint-Roch below showing the amount of destruction and expropriation (Marville, 1862)

Haussmann was blamed for an increase in rents and social disruption caused by the demolitions where many Parisians and low-income families had to be displaced to more affordable areas like the margins of the city. This enhanced the inequality between the working class and the bourgeoisie that controlled all political and economic power and affected every sector including the urban development of cities.

Moreover, he was charged with all kinds of improprieties and accused of recklessly squandering money and over passing the budget or as Harvey put it the “*official disavowal of Haussmann’s slippery financing in the face of fiscally conservative bourgeois critics*” (Harvey, 2003:297). This led statesman Jules Ferry to write the pamphlet ‘*Les Comptes fantastiques d’Haussmann*’ published in 1868 –which was a play-on-words from Jacques Offenbach’s opera fantastique ‘*Les Contes d’Hoffmann*’– which by ‘comptes’ he meant accounts.



Fig. 7 Daumier’s Nouveau Paris 1862 capturing the intense traffic brought with Haussmannization. “Comme c’est heureux pour les gens pressés qu’on ait élargi les voies des communication!” (Daumier, 1862. Fine Arts Museum of San Francisco).



Fig. 8 Haussmann’s fall was accompanied by negative campaigns to discredit him. In Mailly’s cartoon he is shown as a thief due to all the destructions (in Harvey, 2003).

On the other hand, one cannot deny that he had also supporters who defended him for all the promenades, parks, squares, gardens, and sewage system created. In addition, these kinds of plans had already started before Haussmann. Before him Paris was not in a “period of inaction” (Harvey, 2003: 80). As Harvey put it:

“[Haussmann] *did not begin from scratch, and owed an immense debt to these pioneering ways of thought (he surely read Daly’s Revue). The problem for him was that these ideas arose out of political presuppositions and utopian dreams that were in many respects anathema to Bonapartism.*”

Hence the myth that Haussmann propagated of a radical break. That much of what he did was already present in embryo in the 1830s and 1840s does not, however, detract from the fact that modernity, as argued in the introduction, entered a new and distinctive phase after 1848 and that Haussmann contributed immensely to how this new form of modernity was articulated” (Harvey, 2003: 82, 83)

Persigny justified that the Emperor had already planned these projects with Berger, and during Haussmann’s time he was aware of all these matters, and yet issues of budget and costs did not matter to him; all that mattered was the transformation of Paris.

“J'avais plusieurs fois expliqué à l'Empereur le système financier proposé par moi pour les travaux de la capitale, je ne crois pas, toutefois, qu'il y eût fait grande attention ; car, en général, et comme si son esprit répugnait à s'y appliquer, il prenait peu d'intérêt aux questions de finances. Ce qu'il voyait de plus clair dans tout ceci, c'est qu'il s'agissait de faire de grands travaux dans Paris, d'améliorer les conditions des classes populaires, de détruire les quartiers malsains, de faire de la capitale la plus belle ville du monde, toutes choses qu'il désirait ardemment et qu'il ne cessait de nous recommander. Toujours passionné pour les améliorations, pour les grandes choses, il avait étudié depuis longtemps, sur les lieux mêmes, les divers projets à exécuter dans Paris” (Pesigny, 1896: 256)

Despite the fact that the projects had already started before Haussmann, and every step was approved by the Emperor it was him who faced all the criticism.

*“M. Haussmann a donc admirablement justifié le choix qui avait été fait de lui. Pour être juste, il faut dire cependant que ce n'est pas lui qui a donné l'impulsion aux grands travaux de Paris, car cette impulsion avait été donnée par l'Empereur lui-même, sous M. Berger.
[...] Dans le cours de cette guerre à outrance, guerre d'embûches, d'embuscades, où il a été vingt fois sur le point de succomber, où il est presque étonnant qu'il ait survécu, il a dû m'adresser mentalement bien des actions de grâces pour le conseil que je lui avais donné et qu'il a scrupuleusement suivi, à savoir de ne rien entreprendre, de ne rien commencer sans avoir fait tracer le projet sur la carte de Paris, par la main de l'Empereur, sans avoir rattaché la personne même du souverain par le lien le plus intime à chacun des actes de son administration” (Pesigny, 1896 : 259, 260).*

Bibliography:

- ÁGUAS, Sofia. Design de candeeiros de iluminação pública para a a sustentabilidade do espaço público. Barcelona, 2009. <http://hdl.handle.net/10803/1546>
- ALPHAND, Jean-Charles Adolph. Les Promenades de Paris. Paris : J. Rothschild, Editeur, 1867-1873. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k6276852z>. Original consulted at the Habitat Archive Archive. Ajuntament de Barcelona
- ALVES, José Fancisco. Fontes d'Art no Rio Grande do Sul. Porto Alegre. 2010
- BARRADAS, Sílvia. A produção de mobiliário urbano de fundição em Portugal: 1850 a 1920. Barcelona, 2015. <http://hdl.handle.net/10803/316775>
- CAPEL, Horacio. La Morfología de las Ciudades (Vol I.): Sociedad, cultura y paisaje urbano. Barcelona: Ediciones del Serbal, 2002
- CONSIDERANT, Victor. Destinée Sociale Vol.I. Paris: Libraires du Palais-Royal, 1837
- DE MONCAN, Patrice. HEURTEUX, Claude. Le Paris d'Hausmann. Paris : Les Editions du Mécène, 2002
- DE MONCAN, Patrice. Paris Les Jardins d'Hausmann. Paris: Les Editions de Mécène, 2009
- DUPUY, Gabriel. KNAEBEL, Georges. Assainir la ville, hier et aujourd'hui. Paris: Ed. Dunod, 1982
- ESPARZA LOZANO, Danae. El diseño del suelo: el papel del pavimento en la creación de la imagen de la ciudad. Barcelona, 2014. <http://hdl.handle.net/10803/146248>
- FLORENSA, Adolf. El barrio de Ribera y su ordenación. Barcelona: Ajuntament de Barcelona, 1957
- FRÉGIER, H.A. Des classes dangereuses de la population dans les grandes villes, et des moyens de les rendre meilleures. Paris: Librairie de l'Academie Royale de Medecine, 1840
- GIOVANNONI, Gustavo. L'Urbanisme face aux villes anciennes. Paris: Editions du Seuil, 1998
- HARVEY, David. Paris, Capital of Modernity. New York, London : Routledge, 2003
- HARVEY, David. "The Right to the City". New Left Review. no.53, September, October, 2008
- HAUSSMANN, Georges Eugène. Mémoires du Baron Haussmann. Avant l'Hotel de Ville. Vol.I. Paris: Victor-Havard Editeur, 1890a. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k2205284>.
- HAUSSMANN, Georges Eugène. Mémoires du Baron Haussmann. Prefecture de la Seine. Vol.II. Paris: Victor-Havard Editeur, 1890b. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k220529h>.
- HAUSSMANN, Georges Eugène. Mémoires du Baron Haussman. Grands Travaux de Paris. Vol.III. Paris: Victor-Havard Editeur, 1893. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k220530f>.
- HERNÁNDEZ SÁNCHEZ, Adriana. Espacio público en el centro histórico de Puebla-México. Barcelona, 2009. <http://hdl.handle.net/10803/1547>
- LEQUIN, L.Georges. Mémoires du Comte de Rambuteau publiés par son petit-fils. Paris: Calmann-Lévy, 1905. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k64641702>
- MADERUELO, Javier. "El paisaje urbano. The urban landscape". Estudios Geograficos. Vol.LXXI, no.269, 2010, p.575-600. Estudios Geograficos, <http://estudiosgeograficos.revistas.csic.es/index.php/estudiosgeograficos/article/view/322/322>
- MUMFORD, Lewis. The City in History: its origins, its transformations, and its prospects. New York: Harcourt, Brace & World, 1961
- MUMFORD, Lewis. The Culture of cities. University of California: Harcourt Brace ,1970



- PERSIGNY, Duc de. Mémoires du Duc de Persigny. Paris: Librairie Plon, 1896. Gallica, <http://gallica.bnf.fr/ark:/12148/bpt6k5758369k>.
- REMESAR, Antoni (coord.). Do projecto ao objecto. Manual de Boas Practicas de Mobiliario Urbano em Centros Históricos. Lisboa: Centro Português de Design, 2005
- REMESAR, Antoni. "O "estilo Alphand-Hittorff- Davioud" de mobiliário urbano nos centros históricos". Lisboa, Arquitecturas, O jornal dos Negócios do mercado das cidades, sept. 2007, nº 28, suplemento Mobiliario urbano, 2007, p. VIII-IX
- REMESAR, A., DE LECEA, I., GRANDAS, M. C. (2010); . La fuente de las tres gracias en Barcelona. Recuperado a partir de <http://www.raco.cat/index.php/Waterfront/article/view/214756>
- SCOTT, James C. Seeing like a State. How Certain Schemes to Improve the Human Condition Have Failed. New Haven, London : Yale University Press, 1998
- VALENTE PEREIRA, Cristóvão de Faria Martins. Processos produtivos e usos do mobiliário urbano. Desafios para a Sustentabilidade do Espaço Público. Barcelona, 2013. <http://hdl.handle.net/10803/98473>

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