



El problema de la limpieza de Madrid: La municipalización de la limpieza viaria (1860 - 1925)

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Resumen

El objetivo de este trabajo es arrojar luz sobre los comportamientos de los agentes e instituciones de los servicios públicos básicos determinando los elementos que desembocaron en la única municipalización de la limpieza viaria de Madrid y los comportamientos en los primeros años de municipalización (finales S.XIX). Para ello, a través de una intensa búsqueda en archivos históricos, se analiza la evolución del servicio de limpieza de Madrid con respecto a la propiedad de los medios de producción, la toma de decisiones en el servicio de limpieza y los factores político-administrativos y sociales que determinaron la municipalización del servicio observándose si el Ramo de limpieza se institucionaliza antes de municipalizar el servicio y que efectos tiene.

Palabras clave: Historia económica; Institucionalismo; Gobierno local; Limpieza viaria de Madrid.

The problem of cleanliness in Madrid: Municipalization of the Madrid street cleaning service (1860 – 1925)

Abstract

This work sheds light on the behavior of the agents and institutions that determine the elements that led to the only municipalization in the history of the Madrid's street cleaning service (end of the 19th century). Through an intense search in historical archives, the evolution of the cleaning service of Madrid is analyzed with respect to the ownership of the capital goods, the decision making in the cleaning service and the political-administrative and social factors that determined the municipalization of the service, observing whether the habits and customs in the cleaning service were institutionalized before municipalizing the service and what effects it had.

Key words: Economic history; Local Government; Institutional Approach; Madrid clean street service.

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Introduction

Street cleaning in the city of Madrid was a private service until the end of the 19th century. In this paper we study for the first time the only time the cleaning service in Madrid was municipalized and look at the factors explaining this decision. Initially, street cleaning was linked to waste collection. However, it quickly began to be treated as a separate service, considering them to be two different activities, and this approach has continued to the present day: on the one hand we have the collection and transportation of waste (especially from the home) and on the other we have street cleaning in public spaces. This latter service will be the subject of our study.

This paper is divided into three sections. The first sets out the theoretical framework that will allow us to examine the behavior of the agencies involved in the cleaning industry in Madrid. We divide the agencies into four groups: the public administration, those required to perform street cleaning (contractors), the public and workers. These groups will be interrelated. The second section describes the beginning of the street cleaning service in the capital and the essential elements from its creation until the second half of the nineteenth century. The third section will look in more detail at the explanatory factors that lead up to its municipalization, the actions that led to the start of the municipal management of the cleaning department in Madrid and the early years under the new management of the service. Finally, some conclusions are offered that demonstrate the existence of circumstances inherited from earlier periods. These, together with the behavioral patterns characterizing the relationship between the Administration and contractors (also seen in other European capitals), along with elements such as a favorable international environment, led to the institutional expansion of the cleaning sector. Once the service had been municipalized, we can see the actions taken to improve working conditions and the growth of the institution itself.

The analytical framework

There are several elements of the cleaning service in Madrid that make it difficult to classify it within the area of private economic assets. On the one hand, it has a strict geographic restriction (rivalry) although there are spatial, temporal or material restrictions regarding externalities (it constitutes a basic service that can prevent epidemics and improve public health in the present and the future). On the other hand, there is limited ability to restrict its consumption, as is the case for club goods, since it is very difficult, both physically and economically, to restrict the enjoyment of street cleaning. Finally, there is a clear monopolistic tendency due to the need for large capital investment (machinery, work centers, technology, equipment, etc.), the fact that adding new consumers makes very little difference to the service, the decreasing average costs, high barriers to entry and exit, strong advantages for the largest company, the need for public accreditation of performance, etc. Therefore, the treatment of the provision of public services as a natural monopoly is widely accepted (DiLorenzo, 1996; Grosskopf & Yaisawarng, 1990) and Warner & Bel, 2008).

The public goods problem is sometimes studied from the perspective of neo-institutionalist theory, where hierarchy is assumed to be an efficient result of the processes of reducing transaction costs. However, as we will see, to study the evolution of the public street cleaning service it is much more beneficial to use the analytical institutionalist framework that examines the habits, customs and interrelationship between institutions. Bearing this in mind, the agents that will gradually and partially become institutionalized throughout the history of the service, the City Council workers, represent the agencies and institutions of institutionalist economic theory that shape habits and customs. Classical institutionalism emphasizes the decisions of agents or agencies but subject to the social cognitive framework that restricts their actions that

are not therefore necessarily rational or maximizing from the individual point of view, nor do they seek to reduce transaction costs.¹

The theoretical solution to the agency problem is to adopt the necessary measures to align the interests of the agent with those of the principal. The agent-principal problem can be observed partially through the evolution of the measures being adopted by the City Council of Madrid to try to provide the cleaning and improve its execution by contractors, following authors like Rutherford (2001), Toboso (1997) and Thoenig (2003).

The study of municipalization in Spain has also created a large amount of work and we can emphasize the relevant works of Núñez Romero-Balmas (2005), Matés-Barco and Fernández-Paradas (2019) or Magaldi (2012), where important factors in the decision to municipalize are identified. These include an inverse capital demand relationship between the municipalization of the service and the amount of capital necessary to execute the service (this explains the approach to municipalizing services like markets of supplies or slaughterhouses compared to others like public lighting). Other studies have highlighted how urban expansion and population growth have affected the hygiene of living conditions, increasing the need for new services (Otero Carvajal & Rodríguez Martín, 2019; Otero Carvajal & Pallol Trigueros, 2018; and Rueda Laffond, 1996; Villada-Canela, Martínez-Segura, Walter Daesslé, & Mendoza-Espinosa, 2019; Briseño & Sánchez, 2018). However, this paper aims to focus on the specific case of street cleaning in Madrid and on the existence of previous historical relationships that took root in the population of Madrid, in the local administration and in the providers of the cleaning services themselves and that were also relevant when it came to the potential municipalization of the service. The relationships, violations and problems between the administration, users, workers and contractors are well known and present in most cities with urban (Novo López, 2002; 2004) hygiene problems. This paper studies elements that have not usually been considered in the analyses to date, basing the work on institutionalist theory.

There are many institutionalist theories (Arribas and Cárdenas, 2017) with their respective classifications (Seligman, 1967; Gruchy, 1972; Hodgson, 1998; Hodgson, 2000; Rutherford, 2000; Rutherford, 2001; Chavance, 2013). The classical institutionalist theory approach includes the following concepts: institutions, habits, rules, agents and power. The aim of institutionalism is not the construction of general models, but rather the development of these concepts to explain their interrelationships, creating approaches defined by history (Hodgson, 2001). Moreover, classical institutionalism relies on other social sciences such as sociology, psychology and political science to create theoretical frameworks for each specific case.

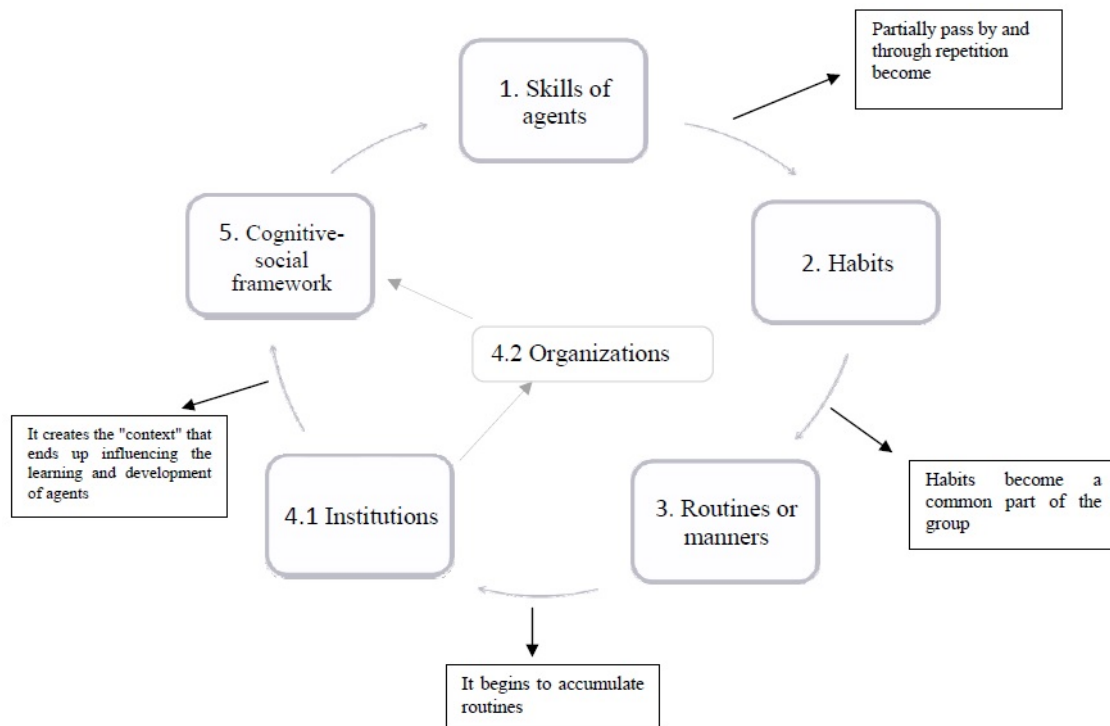
For Veblen (1919), the first American institutionalist, institutions can be defined as “established habits of thought common to the generality of men.” This definition was expanded on by Walton Hamilton (1932) who identified an institution as “a permanent or prevailing form of thought or action, which was inserted into the habits of a group or customs of the people.” According to Hodgson (2001) the characteristics of institutions are (a) an institution entails the interaction of agents and the feedback of information, (b) they survive through beliefs and expectations shared by the agents with the incorporation of values and norms, (c) they reduce uncertainty, (d) they have a tendency to self-survival (e) they have a tendency to self-reinforcement of the institution itself and persistence.

In this context, the *agent* refers to a subject inserted in a social environment. The *agency*, on the other hand, is a group of agents or collective subjects that do not manage to constitute an institution by themselves but have coordinated actions and affect the creation of new institutions, as well as being affected by modifications in the social cognitive framework. *Habit* is a behavior adopted because of the repetition of a pattern of behavior that has been assumed prior to the performance of the act itself. For Hodgson (2003), habits have self-sustaining qualities and although the mechanization of human behavior can be observed, Hodgson points out that the existence of a habit does not deny the existence of choice on the part of the agent, since different habits can give rise, as a whole, to competing preferences. One of the basic features of habits is that agents, through repetition, create self-certainty in their behavior, avoiding the need to make micro decisions at each moment of their lives. Gradually, they

¹ For alternatives to the theory of transaction costs in the provision of goods, see Trincado (2007).

restrict and adapt their preferences as a result of repeated acts. In addition, habits are one of the most powerful connections between institutions and agents. An agent will perform actions (or omit such actions) depending on the institutions and habits adopted around them.

Figure 1



Source: Own elaboration based on Arribas Cámara & Cárdenas del Rey, 2017.

The figure summarizes the processes in the first cycle of institution building. In the first place, it is the skills of the different agents that, through their repetition and selection, come to form a common part of the social group (the group assumes the state of things). These socially assumed habits result in social customs that, in turn, accumulate and constitute institutions. These institutions, through their actions and needs, will try to modify the social cognitive framework that forms the environment of influence where the new agents will move. Therefore, although in the initial cycles the elements are basic, as the institutions become stronger, they will have a greater capacity to influence the new agents through the social cognitive framework. As we shall see, one example of all the above is the process of contractual relationships between the contractor and the municipality or the modification of social behavior related to street cleaning. The analysis of the influences and dynamics between different agents and institutions improves the understanding of the situation that led to the municipalization of street cleaning in the capital.

Emergence of the street cleaning service in Madrid

The “Fuero de Madrid”, which amended the previous Madrid law, was created in 1202 by the Council or municipality of the town of Madrid, represented by a “Corregidor” (representative of the royal jurisdiction over a town) and two “regidores” (members of a council of municipalities) (Huertas Vazquez, 2005). Later, in 1346, the first aldermen of Madrid were appointed. They were made responsible for overseeing the cleaning of the public roads, the sanitary conditions of establishments and the control of works in the hands of the faithful (Gibert Sánchez de la Vega (1949).

Madrid was a small town with enough resources to deal with the incipient problems of urban hygiene. In 1496, it became mandatory for residents to keep the front of their houses clean and they had to bear the financial costs themselves (Rubio Pardo, 1979).² The Catholic Kings reminded the “Corregidores” on several occasions that they should pay attention to the cleanliness of the roads (Albi, 1943).

In 1531, the mayor, Antonio Vázquez de Cepeda, decided to auction off the street sweeping for the first time to different obligated parties - the agents. The municipal government, since 1561, had resided in the Town Hall and in the “Sala de Alcaldes de Casa y Corte” and therefore they were responsible for the cleaning of the public spaces. For all the above reasons, it seems very likely that the creation of the cleaning forces and the start of sweepers (as an occupation) was close to the date mentioned above (Blasco Esquivias, 1998).

However, the event that changed Madrid by drawing a line in its history is the transfer of the Court to Madrid in 1561. Felipe II chose the city as the capital of Castilla, of the kingdom of Spain and of his empire. Madrid became the capital of an empire, and with it came all political, social and economic activity. It became a political center and the needs of the Court gradually determined the activity of the municipality. One of the first consequences was an increase in Madrid’s population, developing the city’s expansion ring around the palace.

The study carried out by Beatriz Blasco Esquivias (1998), set out in her book *¡Agua Va!* is very useful for understanding the evolution of public hygiene in Madrid. Following this work, we observe that the problems with cleaning in Madrid were fundamentally due to the following factors:

- (1) Population growth was disorganized and uncontrolled (Bonet Correa, 1986).
- (2) There was real estate speculation and uncontrolled construction activity -with illegal dumping on the streets- as well as unbuilt plots, abandoned buildings, the requirement to provide temporary lodging for royal staff and the existence of enclosures and land owned by the church, all of which had a direct impact on hygiene (Cervera Vera, 1954 and López Carcelén, 2015).
- (3) The waste from the different trades that worked on the streets of the city (blacksmiths, tailors, tanners, shoemakers, butchers, etc.) was dumped on the public roads.
- (4) The population also threw their dirty water from the houses onto the streets through the doors or windows.
- (5) The paving of the streets was non-existent or deficient.
- (6) Illegal landfills or dumps were created within the city.
- (7) There was no sewage system.

The cleaning service was introduced after a public auction by the Madrid City Council. The auction was carried out by barrack (district) and for a determined time period. Over the centuries, the contracts were fine-tuned to include different rules whose main objective was to try to increase control over the service provided by those contracted to do the cleaning (Pinto Crespo, Gili Ruiz, & Velasco Medina, 2015).

Those contracted to do the cleaning participated in a tender process for the cleaning work (it was carried out through public tender or by direct appointment by the municipality). Once the contractor had been awarded the service, it had to pawn its assets to purchase, at its own risk, the equipment needed to carry out the required cleaning. In exchange, these contractors received an amount stipulated in the tender specifications.

The workers' formalisation processes were carried out normally, although there were strong tensions to obtain improvements in working conditions. On the other hand, the processes of regulating the habits of citizens were carried out with strong resistance from economic interests such as livestock farmers or professionals who operated their businesses in the street (as an example of one of the most relevant episodes of economic dependence on waste were the pigs of San Antón who fed on street waste or the pigs of San Antón who fed on street waste). The

² This is detailed in the provisions on paving and cleaning agreed by Madrid Council.

pigs of San Antón that fed on street waste, or the fierce defence of the benefits brought by the corruption of the air caused by the decomposition of abandoned waste generated all kinds of justifications for not taking measures against unhealthiness), “In view of this description, which is no exaggeration, everyone will believe that the thought of cleansing Madrid of this filth was bound to find general support among its inhabitants. But it was not so, for not only did the pigs, who roamed many streets, keep themselves alive with it, but many people, who would not allow themselves to be to be called, took advantage of what was paid for their cleanliness. It followed that, whenever the radical cleansing of Madrid had been attempted, inconveniences of all kinds had prevented it. of all kinds had prevented it. This came to such an extent that, in the time of one of the Felipes, the doctors made a consultation, saying that the air of Madrid was so subtle that if it did not impregnated in that filth, it would cause the greatest havoc". (de Fernán-Núñez, 1898, págs. 151-155). The actual cleaning tasks were carried out by the cleaning workers (sweepers) and the cart drivers (carters) who were organized into teams.

Characteristics and patterns that lead to the municipalization of the street cleaning service in Madrid

From the very beginning, the municipal government tried to adopt measures to tackle the problems mentioned in the previous section. Initially, the main features of the evolution of the cleaning service were an increase in control over the administration of the means of production, decisions about the service and an increase in complaints about the actions of the contractors (Arribas Cámara, 2019). As Pérez Ramírez (2016) states, these traditional administrative schemes encourage clientelism and corruption, but the coordination taking shape was not intended to reduce transaction costs due to complaints or denunciations, as the neo-institutionalists would suggest (for example, Grønhaug & Gilly). The people’s lack of power meant that complaints were filed and power and coordination were configured independently of those transaction costs. The fiscal capacity of the royal treasury was not sufficient to meet the Empire’s war expenses and it was common to try to solve this problem by selling public resources and positions when an increase in tax pressure proved counterproductive. These situations are described as extraordinary and led to the oligarchy obtaining many municipal public posts (González Enciso & Matés Barco, 2013). The cleaning service obtained its resources from the taxes imposed on the residents of Madrid, from the sanctions levied (the amount raised by the sanction was split between the City Council and the cleaning contractor depending on the historical point in time) and from the payments they received for carrying out private services for any residents requiring these. In addition to the above, we must add the resources derived from the sale of any waste collected, since this waste was used for fertilizer and for animal feed.

For all the above reasons, the difficulties in obtaining resources together with the existence of ongoing collusion between the private and public spheres served as a catalyst for the sale of municipal positions to the oligarchy and, in turn, this made it easier for the contractual specifications to be adapted to the demands of the future cleaning contractors.

In the mid-19th century, Madrid experienced a paradigm shift that modified the city and its social composition. On the one hand, it retained the influence of the Court, with the development of the public sector provided by liberalism, and on the other, it attracted masses of day laborers and immigrants seeking jobs in the construction sector to escape the impoverished agricultural sector. Immigrants seeking their fortune in Madrid faced harsh conditions for survival with scarce, poorly paid jobs, begging, an informal economy and a lack of food. This led to a widening gap between some districts and others in terms of health and the appearance of the streets and public spaces (Iglesias, 1973: 121; Bodelón, 2015: 99; López Carcelén, 2015; Madrid C. d., 1983; Otero Carvajal & Pallol Trigueros, 2009).

Madrid’s growth model cannot be assumed to be the same as that of the industrial areas such as the Basque Country or Catalonia and instead corresponds to the evolution of European cities that adopted important administrative functions. This led to an increase in the concentration of important financial companies, making Madrid the center of Spain’s new transportation and communication network and deepening the division between the capital and city economies

(Carballo Barral, 2010). Gradually, Madrid became a city with a permanent inflow of immigrants that spilled out over the city's urban boundaries and it became necessary to implement the "Ensanche" project presented by Carlos M^a de Castro in 1860 to expand the city. However, the initial spirit of this project, to improve public health conditions, was hampered both by municipal policy and by an inadequate financing system that distorted its initial objectives of reducing population overcrowding and increasing sanitary conditions in both new housing and new urban spaces. Not only were these public health objectives not achieved, but the final result was urban segregation, with bourgeois and working-class neighborhoods (Carballo Barral, 2015); Carballo Barral & Pallol, 2008 and Otero Carvajal & Bahamonde Magro, 1989).

This was a very unstable stage, characterized by significant institutional change and a constant attempt to carry out tenders for the cleaning service, all of which failed. The key factors in understanding the lack of interest among contractors in taking part in tender processes lie in a high level of institutional uncertainty due to the ever-increasing control over contractors and the increase in requirements in the contract specifications (Arribas Cámara, 2019). In addition, the initial auction prices were far below the level the contractors were willing to accept and there was a high risk of loss. Between contracts, while the service was not being performed, anyone who could show that they could provide the service could do so by transferring the costs to Madrid City Council. This temporary situation of no public contract was called "tácita reconducción", which translates as tacit renewal.³

Faced with this problem, an increasing number of people argued for the direct provision of the cleaning service by a municipal cleaning force⁴, since they saw a real possibility for municipalization that had begun in France, Belgium and England in the middle of the previous century. In addition, in Spain there was a demand for public services born from municipalist ideas with republican and federalist roots. There was a notable boom in this direction in the final decades of the 19th century, opting for mutualism and popular solidarity rather than the State, which was perceived as the center of the most archaic institutions, observing a more Proudhonian influence with respect to public services (Gabriel Sirvent, 2001 and Proudhon, 2019).

However, in comparative terms the execution of the service in a municipal manner did not always mean the municipalization of the service. During the 1880s, because of the American industrial revolution, street cleaning (not urban solid waste collection) was provided in 140 of the 199 cities in the United States and was considered a municipal task since its main objective was not public health but to make it easier for passers-by to move around the streets without difficulty (Melosi, 2004). This created a very elementary service without institutional roots that involved moving waste that proved annoying for the public from the most conflictual points to other parts of the city or directly to the rivers. This was criticized for being more of a response to political interests than an attempt to improve the quality of life of the citizens (Melosi, 2004 and 2008). This problem is much more studied in a basic resource for life such as water (including sewage treatment) (Hamrita & Rejeb, 2019; Bernabé-Crespo & Loáiciga, 2019; Molina-Giménez, 2016).

In contrast, in Madrid it was not complaints that led to a change of system, but rather an institutional change was necessary to achieve this.⁵ In 1869, a regulation was published by the Urban Police and its obligations regarding cleaning in Madrid, highlighting the sweeping shifts and the responsibility of the neighbors for the containment of the urban filth. It is during this stage that workers begin to see their institutionalization, which began a period of tolerance towards the workers' movement due to several factors including (a) the creation of the International Workingmen's Association (IWA) (also known as First International) in 1864, (b) the maturity of the workers' movement in Spain, (c) the workers' revolution of 1868, and (d) the new Republican government. All the above led to the legalization of the rights of association and assembly that were enshrined in the 1869 Constitution. However, this did not fully advance

³ Historical Library of Madrid, F 7236.

⁴ Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 5-98-39.

⁵ This is in line with William Fogel & L. Engerman (1974), who show that slavery was an efficient institution, and that without political will and the American Civil War it would not have disappeared.

these rights since there was a reaction, through legal elements such as the Penal Code, that impeded “de facto” the freedom of association for workers, leaving it to judicial interpretation in each case (Alarcón Caracuel, 1975). This would be of great importance regarding the demands of the street cleaning workers of Madrid and the approach that the public administration took once the service was municipalized.

The great social upheaval resulting from the disaster of 1898 (the loss of Cuba, the Philippines, Guam and Puerto Rico) (Preston, 2019), the establishment of the First International in Spain (dissolved in 1874 by the Decree of January 10) (Alarcón Caracuel, 1975), the implications of the successive creation of the socialist, communist and anarchist parties, and a strong workers’ movement channeled through unions like the CNT and the UGT, are noteworthy.

The First Socialist International, which since 1868 had been supporting the rights of workers in Spain, demanded an increase in the number of workers, higher salaries and uniforms for the street cleaning service in the capital.⁶ It was a stage that swung between repression and the recognition of the workers’ movement. For example, in 1876 the right of association was constitutionally declared and in 1881 the bill of associations was presented. Despite this, in 1883 this whole process of recognition was paused and a new stage of repression of the workers’ movement began which lasted until 1887, when the Law of Association was passed, which protected the existence of the trade union movement (Alarcón Caracuel, 1975; Comín, 2003). The development of the workers’ movement in Madrid from this date would affect the Madrid cleaning service, where a highly unionized and mobilized workforce would take root (Arribas Camera, 2019: 162).

This was a period of social instability, which would grow in later stages. The per capita distribution of GDP in Figure 1 shows a trend for growth but with elements of instability. This, in turn, was transmitted to the municipal budgets and the investment and maneuvering capacity of Madrid City Council.

Figure 2



Source: Own elaboration with Maddison-project data and change of average 2010-2016 with World Bank data.

⁶ The First International began in Spain with the arrival in 1868 of Giuseppe Fanelli (Bakunist) and the creation of the first two sections of the International Workers Association (IWA) in Madrid and Barcelona. The different views of anarchists and Marxist socialists led to confrontations at the international level and ended with the expulsion of the Marxist socialists in 1871. All the above resulted in the creation of the Spanish Socialist Workers’ Party in 1879 and later of the trade unions Unión General de Trabajadores in 1888 and the Confederación Nacional del Trabajo in 1910.

In this period, the population of the province and the city of Madrid continued to rise, with a subsequent increase in the *floating* and *transient* population. Migration from some areas of the interior tripled from 1860 onwards (Carballo Barral & Vicente Albarrán, 2017). By 1897, the municipality of Madrid had 512,150 inhabitants.⁷ The continuous settlement of new people and unplanned growth meant that a large part of society was living in extremely precarious conditions. Some psycho-sociological studies developed at the time indicate that the *slums* of Madrid were not only given their name because topologically they were at a low level with respect to the average ground level, but also because of their lack of basic infrastructures such as lighting, paving and cleaning (Díaz Simón, 2016); Otero Carvajal & Rodríguez Martín, 2019). These places were home to about two fifths of the population of Madrid who lived in houses in an advanced state of decomposition and faced very serious problems such as behavioral issues and disease (Bernaldo de Quirós & Llanas Aguinaledo, 1901: 127-128). The following map shows the expansion of Madrid from 1770 to 1860, an expansion that would increase until the 1930s.

Figure 3: Madrid 1771



Source: Andrews (1771)

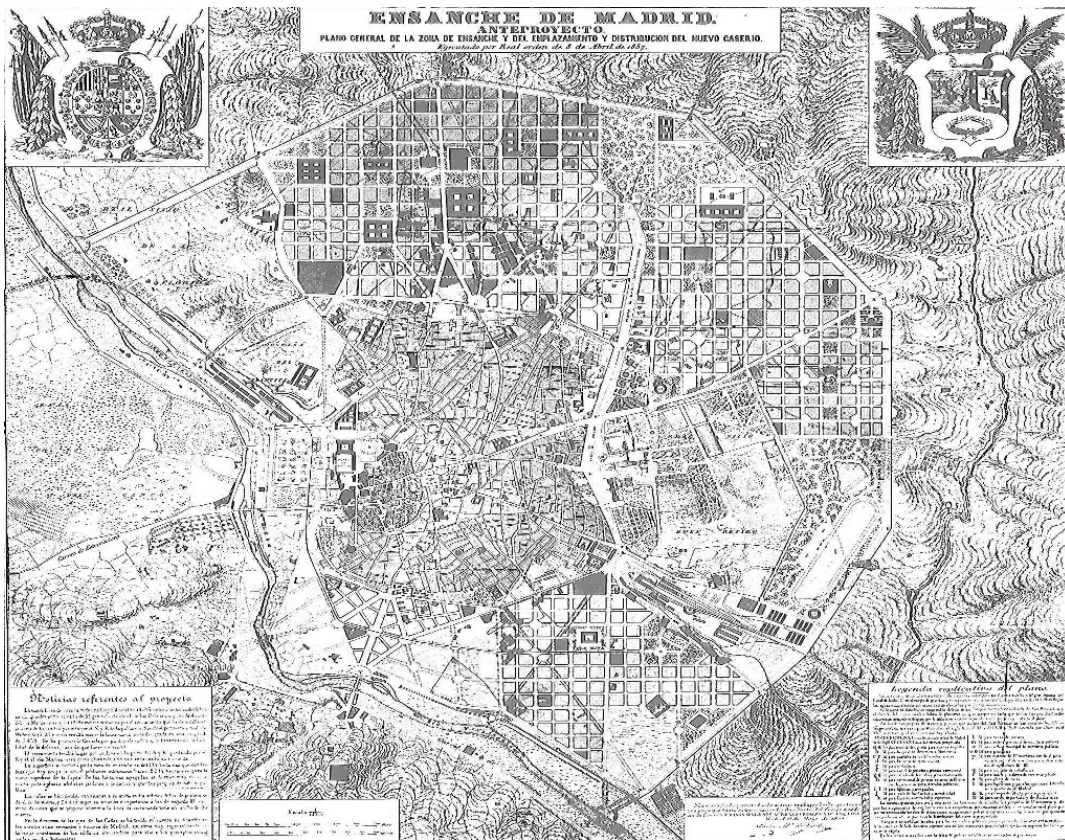
⁷ Documentary fund National Institute of Statistics XIX century Population census.

Figure 4: Madrid 1825



Source: Tardieu (1825).

Figure 5: Madrid 1860



Source: María de Castro (1861).

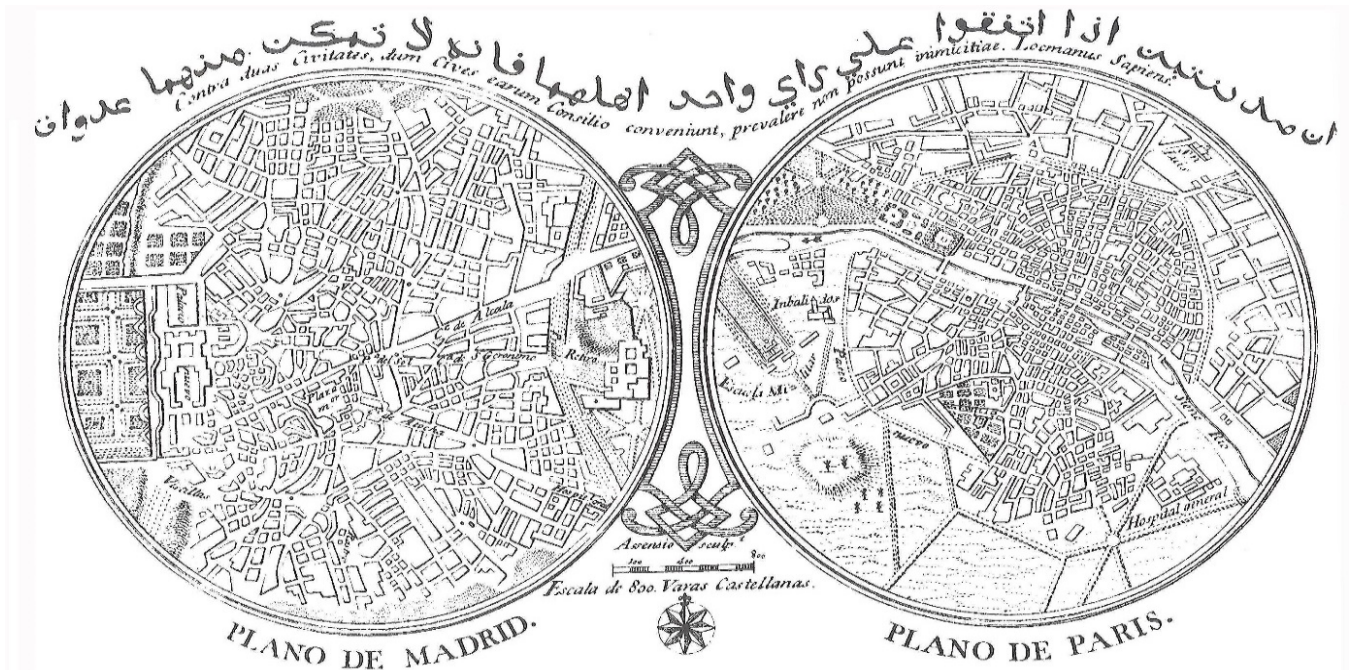
Figure 6: Madrid 1906



Source: Mora Palazón (1992)

In comparative terms, it can be seen in the following illustration that the growth and urban distribution of Madrid was disorderly and made the effects of disorganised building construction, waste management and cleaning service enforcement very difficult.

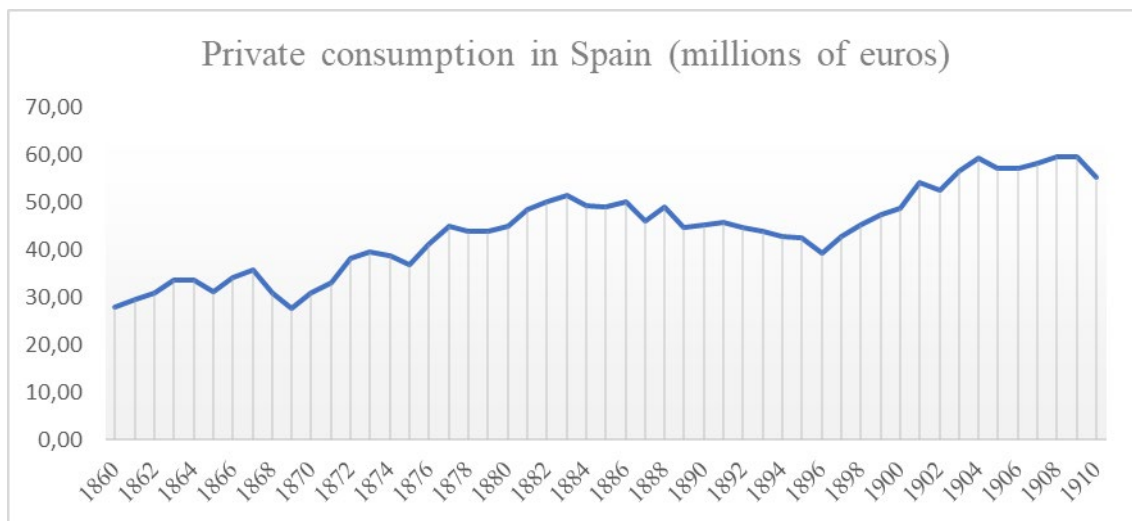
Figure 7: Madrid and Paris 1808



Source: Sculp (1808).

In addition, it should be added that this period was preceded by a marked increase in consumption (Figure 8), an element that strongly affected the cleaning service since greater consumption is normally linked to a greater amount of waste. This had been taking place since the end of the revolutionary stage in 1868, with a later trend towards a slowdown in consumption that began in 1883 (Otero Carvajal & Bahamonde Magro, 1989).

Figure 8



Source: Own elaboration with data extracted from (Prados de la Escosura, 2017).

During this period, continuous concerns about the execution of the cleaning service stand out. There were various sanctions and contractors were investigated for breach of contract.⁸ There was also a trend of cost increases in the cleaning services, a growing staff and⁹ contractors being forced to increase the material resources available for the provision of the service.¹⁰

There had been almost no investment in technology since the beginning of the cleaning service. The waste was still transported by mule carts or even by laborers and the cleaning continued to be done with very basic tools or directly by hand.¹¹ In 1884, the first sweeping machines were purchased.¹² These were owned by the City Council as part of the start of a final attempt to revitalize the cleaning service managed through private contracts.

The “R.D. 4/January/1883” on the contracting of provincial and municipal public services, however, contained the same defects as its predecessor and continued to establish the lowest price as the sole criterion for selecting offers. At the same time, it continued to allow, through various clauses, the assignment of the service, and its obligations imposed on the contractor, to a third party.¹³

On June 7, 1885, a new cleanup crew was established,¹⁴ which would be partly repeated with another crew on November 29, 1887.¹⁵ One of the most notable new features on both sides was the existence of special concern for public and social hygiene as well as possible moral corruption. In addition, obligations were again established for citizens concerning the active

⁸ Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-72-39. Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 6-73-66. Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-443-94. Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-443-72. Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-443-96.

⁹ Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 6-72-58.

¹⁰ Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 6-73-82.

¹¹ Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-163-49.

¹² Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-443-54. Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-411-42.

¹³ Historical Library of Madrid, F 3732.

¹⁴ Villa de Madrid Archive. Section Secretariat of the Archive of Villa de Madrid 6-215-18.

¹⁵ Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 7-58-28.

cleaning of the public thoroughfare in special weather, with the obligation to maintain the sidewalks of their respective houses or stores in optimal conditions.

As we mentioned before, after several attempts to create tenders for the cleaning service, and the complete failure to do so, in 1894 optional conditions were published that had to be established in a contract for the cleaning services in the whole of Madrid, its extension and suburbs.¹⁶

Apparently, this tender was awarded to a contractor who, upon receiving the award, and in application of the clause that foresees the possibility of subcontracting the service, proceeded to subcontract the service to “the Sanitation Society”. As detailed in the various resolutions and reports on the resolution of the case about the awarding of the cleaning service,¹⁷ instead of approving or denying the subcontracting of the service, no response was given to this request, generating an unforeseen legal-administrative situation. This is because no legal action could be taken against the contractor since the subcontracting was foreseen in the contract and was carried out in due time and proper form without obtaining a response from the administration. In addition, the contract could not be terminated for non-compliance because such compliance did not fall on the contractor or the subcontractor since the subcontracting had not been formally carried out (even though 2 years had passed). Finally, the contract could not be terminated without the obligation of the Town Hall to indemnify the contractor or to make an order of interim responsibility since nobody had formally assumed the direct provision of the service.¹⁸

Given this situation, and in anticipation of not a few corrupt practices between contractors and the public administration, an oral hearing was opened in the “Audiencia de Madrid” against 18 councilors. Due to the declaration¹⁹ by one of the councilors (Luis Felipe Aguilera) on July 20, 1897, under questioning by the prosecutor’s office, for the first and only time in the history of the street cleaning service in Madrid, it passed from private management to public management. It is important to discuss the declaration since corruption and public-administrative relationships with cleaning contractors, the abandonment of the service, and the public response to these facts first came to light.

In the declaration presented, the relationship between Vaden-Eyden, the Belgian Consul in Spain, and various Madrid City Council councilors was established. Vaden-Eyden took an interest in the urban sanitation of Madrid and for this purpose met with various councilors. He proposed a sanitation project to overcome the major shortcomings of the service since for more than eight years the contracts offered by the City of Madrid had failed to be awarded. This event was quite common at the time as foreign direct investment had become the main element of economic development in Spain (Álvaro-Moya & Puig, 2015). During this period of failed tender processes, the service was provided through the legal formula known as “la tácita reconducción” through which Madrid City Council proceeded to pay the people who performed the service on a voluntary basis or were forced to do so by the consistory. This performance of the service without a contract was very lucrative for the contractor, since during “la tácita” many of the obligations provided for in the new contractual specifications did not exist. Mr. Chacón, who had been the private manager of cleaning in Madrid until then, sent a letter to the City Council requesting the cessation of the cleaning activity since it would automatically be “tacit” and therefore he could continue to provide the service but without contractual obligations and administrative inspections. Public contracts for the cleaning service begin to be declared void, with eleven tender processes failing to attract bids, while Mr. Chacón continued to provide the service through “la tácita”. During those years, several government inspectors complained about the unfortunate state of street cleaning in Madrid and advised that there should be public management of the service.

Based on the relationship with Mr. Vaden and the pressure to municipalize the service, the sub-commission of the Cleaning Department of Madrid City Council decided to approve the Vaden project and grant the contract directly, after drafting the specifications in which the obligations and rights of the contractor were established. The development of the specifications was carried

¹⁶ Historical Library of Madrid FM2687. Historical Library of Madrid FM1264.

¹⁷ Historical Library of Madrid F 3249.

¹⁸ Villa de Madrid Archive. Villa de Madrid Archive Secretariat Section 10-97-4.

¹⁹ Historical Library of Madrid F 7236.

out in a hurry by copying the specifications from previous tenders and incorporating some new conditions at the suggestion of Mr. Vaden, for example with the clauses about the subcontracting of the service by the contractor. The Mayor, “Conde de Romanones”, accepted the direct awarding of the service but on two conditions: firstly, that there was an increase in the contractual amount payable per year (reaching 20,000 *duros* per year) and, secondly, that the contracting of the entire cleaning service in Madrid be carried out for a period of 30 years (the longest duration in the history of the cleaning service in Madrid).²⁰ These constant interactions between economic and political powers in relation to the cleaning service of Madrid are not unusual in the history of Spain (Rubio-Mondéjar, Garrues, & Chiroso, 2018 and Rubio-Mondéjar & Garrués-Irurzun, 2016).

On February 8, 1895, a contract was drawn up that represented an unquestionable improvement in the cleaning service and it was awarded to Mr. Vaden, who almost immediately handed over the contract (under the 5th condition) to a limited company founded in Brussels under the name of “Sociedad General de Saneamiento” (Chicote, 1906; Rodríguez-Martín, 2020). The Municipal Corporation seized the service and material on December 11, 1897.

In 1906, the technical director of the service was called upon to issue a report on the status of the service and its reorganization. In this it was established that in comparative terms the change in the management of the service was not at all strange and it was stated that “with slight variations” this had taken place in other large foreign capitals. In fact, it highlighted that this option was so widely accepted and so unanimous that the International Committee of L'Hygiène des Rues concluded in the XIII International Congress of Hygiene and Demography in September 1903 that the management of the cleaning service should be public due to the multitude of problems and complaints generated by private management and the need to guarantee adequate public health in the cities to avoid the epidemics that were already occurring in London, Brussels, Paris ... (Chicote, 1906: 7). This referred to a gradual process and logical evolution from the private management of the service to the public one provided that there were the staff, knowledge, resources, etc. This highlights the institutional (Hamilton, 1932) embedding of the cleaning department within Madrid City Council and the gradual expansion of its control of the service in all its aspects, meaning that a move from private to public management only required “slight variations”.

Once the service had been municipalized, various studies and reports were carried out on the state of the service and the modifications needed to improve urban sanitation in the capital. In 1910, a preliminary project on the reorganization of the cleaning service and the incineration of waste for electricity was submitted to the city council by Dr. J. Trasserra.²¹ From this preliminary project we can highlight two important issues that were not implemented because of this specific project, but rather as a solution to conflicts raised in later decades. Firstly, the elimination of rag pickers was required to prevent waste being spread throughout the city as this would remove the option of generating electricity through waste incineration.

However, since it was a publicly owned and managed service, the proposal was to integrate these people (provided that they were of the right age and healthy and without distinguishing between men and women) into the municipal street cleaning or waste collection service, thus increasing the number of staff dedicated to this activity. In addition, it was proposed to create hermetically-sealed bins that could be installed in the communal areas of each building, where the inhabitants of the different properties could deposit their waste at certain times, avoiding waste being piled up in the streets or in the houses and making it easier for the municipal services to remove the waste once all the residents had deposited it in the installed bins. This draft, although it proposed solutions, was not approved by the corporation because it would require the expansion of the municipal budget to cover an initial investment that would force the City Council to issue bonds to cover the cost of the new facilities and machinery, as well as the wage increase and expansion of the workforce.

²⁰ Declaration given before the Audience of Madrid in the oral hearing held as part of the proceedings against eighteen City Council councilors for the awarding of the cleaning service (1897):40-43. Municipal Historical Library, F-7236.

²¹ Historical Library of Madrid F 623 (Preliminary Project 146 Madrid City Council).

If we look at the report on the management of the City of Madrid from July 1909 to September 1911,²² referring to the state of the service inherited from private management, we can highlight a breakdown of the workforce performing the street cleaning of Madrid which stood at 984 people (including head of service, workshop staff, various professions such as teachers, etc.), as well as 24 carts of various sizes, 500 brooms, 162 mules and donkeys, 130 iron shovels, and 238 carts or hand carts. It should be noted that the above-mentioned workforce was not sufficient to provide the service across the 5 million square meters of public roads. Each of the sweepers covered an area of 14,000 square meters and therefore the service was not performed daily in each area, but instead was effectively provided in most of the areas only once every 8 to 15 days.

Later, in 1914, there was a large investment in the street cleaning service with a comprehensive reorganization of this service and the construction of work centers in Madrid (these centers continue to provide the service to this very day). This reorganization, together with subsequent modifications to the municipal cleaning regulations, would give the cleaning service the working model that would last until the end of the 1970s.

Antonio Arenas Ramos, chief engineer of the cleaning service, issued a report on the²³ improvements achieved from 1914 to 1918. It is worth highlighting different elements of this report. First of all, it is important to point out that a total of 169 cleaning workers were assigned to each area of Madrid, 24 of whom were on weekly rotational rest days, 5% of whom were on sick leave and 2.40% of whom were absent without justification, with the corresponding deductions from their salaries. Secondly, there was criticism of the lack of personnel, both cleaning workers and wardens or supervisors, with the result that there were so few of the latter that the positions throughout Madrid had to be filled by rotating between them and therefore no attention was paid to the management of the different groups of workers. Finally, in addition to drawing attention to the completely deficient uniform worn by the personnel, he cited the existence of workers under 16 years of age (key holders) who, due to their age, the harshness of their work and the wages they received, did not perform any “useful work”. With respect to the animals used for the service, it again showed their scarcity and poor quality, with almost 50% of the transport carts and animals not being available due to injury or disease.

As mentioned above, the 1914 budgets included a large budget item for the cleaning service (1 million pesetas distributed from 1914 to 1917) which was used to expand the workforce (55 more workers, 34 more managers or supervisors and 138 more assistants). The intention was also to replace the cattle with mechanical traction vehicles.

However, the layout of the streets in Madrid and the poor design of transport carts meant that it was difficult for them to maneuver through the narrow streets. Moreover, due to the world war, the tools, spare parts and implements used in the street cleaning service were hard to find. Instead, using their great expertise, various engineers and service managers devised different types of vehicles that were adapted to the needs and layout of the streets. With respect to the work centers, the use by the cleaning service of the premises located in Santa Engracia Street (Parque Norte) was requested and the construction of the general work center “centro de trabajo general” (in Plaza de la Cebada) began.

Taking advantage of this wave of reforms to the municipal service, in 1917 Madrid City Council published a modification of the municipal regulations on the street cleaning service (Ayuntamiento de Madrid, 1917) where the creation, classification and codification of the different professional categories was set out, for both the execution of the service and its administration. It established the obligation for all staff performing the service to wear the municipal uniform. It identified the responsibilities of each of the professional categories, including a chapter exclusively dedicated to “misconduct and its correction” which distinguished between serious and minor misconduct. Article 58 establishes for the first time the charge of misconduct for a lack of decorum, as well as for a lack of uniform and poor personal hygiene. It also began to consider drunkenness (habitual in the service) or abandoning the service as serious misconduct.

²² Historical Library of Madrid MA 00738 (Mayor President H.E. Mr. José Francos Rodríguez) Ch. XIII.

²³ Historical Library of Madrid 104 (271).

Finally, for the first time, a regulation was established for promotion by two means, by seniority or at the choice of the individual’s superiors due to merit. The service was divided into 2 shifts with checkpoints available 24 hours a day. It is also very remarkable that it established the training of the staff as mandatory, including at least 2 teachers on the workforce who could teach basic level classes that had to be attended in working hours (for example, on how to read or write).

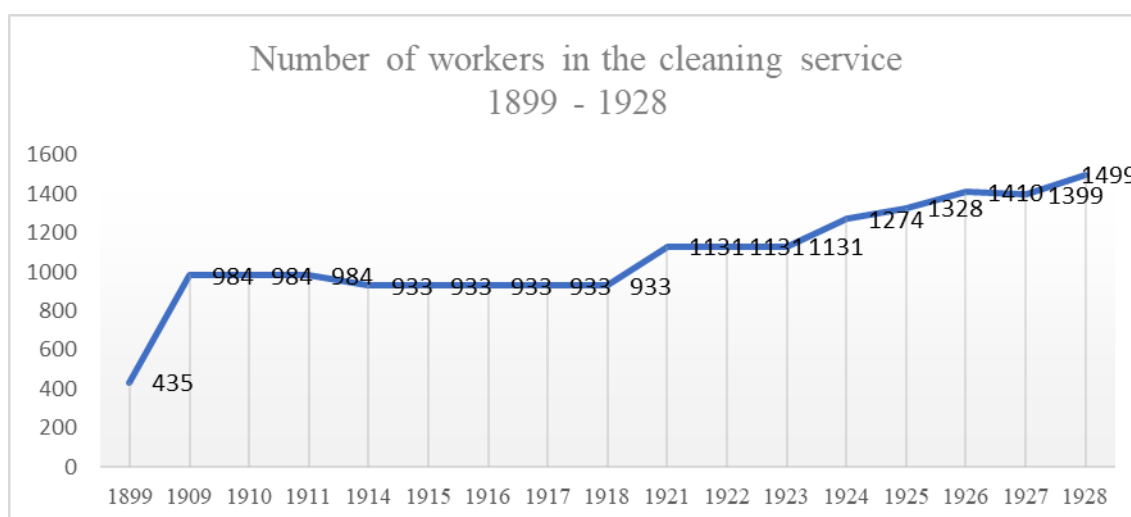
Following the above, the Madrid labor statistics for the years 1921 to 1928²⁴ have been analyzed. There is an exception with the statistics since it was reported in 1921 that for the years 1919 and 1920 the data collected from the total number of workers in Madrid was insufficient due to deficiencies in the census system based on individual declarations. From the analysis performed, we can first observe the high incidence of deaths due to occupational diseases derived from providing the cleaning service, with an incidence of up to 15% due to pulmonary tuberculosis. The constant growth in the number of workers in the Madrid cleaning service is also very remarkable.

The cleaning service became more important, not only because it was directly managed by Madrid City Council, but also because of its responsibility in preventing the spread of diseases such as the typhus epidemic of 1885 (Pinto Crespo, 1998) and the attempt to adapt the city and its services to the strong population growth taking place.

A proclamation was published on June 14, 1921,²⁵ which mentioned the impossibility of keeping the city clean if the people of Madrid did not stop dirtying it. It insisted on the awareness of the population to try to keep the city clean and reiterated the prohibitions established previous political powers. In other words, the aim was to change the habits of the citizens in order to make the service less expensive for the municipality.

Finally, in 1925 a new modification to the cleaning service regulations was published, which included a much more extensive list of professional categories. It is interesting to highlight the inclusion of personnel such as barbers, veterinary nurses and security guards and the regulation of professions that were only mentioned in the previous regulation, such as teachers. It is expressly established that the mission is to eliminate illiteracy from the workforce in order to try to inculcate in the workers a “love of culture” and it even details (Madrid A. d., 1925:397-398) the frequency with which each worker must cut their hair or shave.

Figure 9



Source: Own elaboration with data from the labor statistics of Madrid years 1919 - 1931, INE, service memories years 1899, 1909-1911 and 1914-1918.

²⁴ Biblioteca Histórica de Madrid No. 318; 377; 381; 442; 501; 524; also available from INE.

²⁵ Sides of the Mayor President, Count of Limpías (June 14, 1921).

The modifications from this moment on were oriented in the same direction as those described until the outbreak of the civil war with its effects on both on the cleaning industry and the whole city of Madrid.

Conclusions

The originality and relevance of this paper lies in the fact that applying classical institutionalism to the municipalization of the Madrid cleaning service allows us to highlight elements not present in the analyses previously made, which were based on the theory of natural monopolies, helping to bring to light new elements such as the previous institutionalization of the capital's cleaning department.

From our observation of the elements that existed in Madrid prior to the municipalization of the street cleaning service, we can conclude that there was a previous institutionalization of the cleaning service in Madrid that, together with other circumstances, allowed for its municipalization and marked the movement towards its reinforcement in the early years of the municipal service. In other words, the institutionalization of the Madrid cleaning sector facilitated the municipalization of the service. This institutionalization explains the municipalization of Madrid's street cleaning service but, at the same time, it does not diminish the importance of other elements that have been studied for a long time in the analysis of natural monopolies. There have been very varied motivations driving the municipalization processes in the different public services in Madrid. The classical institutionalist perspective relies on various disciplines to provide a new vision oriented to the analysis of institutions and agencies.

The circumstances and patterns seen before the municipalization of the Madrid cleaning service Madrid can be classified as a non-exhaustive list of elements that had been occurring in the capital previously. Many of these circumstances had also been experienced previously in other European capitals, (a) a growing tension between concessionaires and users of the service, (b) an unsuccessful attempt to regulate and supervise the services, and (c) epidemics due to lack of public sanitation. These factors, of different importance in each city, are not unique to Madrid. In addition, the idiosyncrasy of the city of Madrid meant that patterns of behavior by the agents were created which, over time, became institutionalized and the Madrid City Council acquired more and more responsibility for the management, decision-making and control of the street cleaning service.

The institutionalization of the Cleaning Department in the capital follows a historical process. Gradually, the public administration developed the necessary mechanisms to be able to execute the service on its own account and at its own risk. At first it gave the contractor freedom but later it went on to absorb the knowledge, personnel and enough material to run the service. This was not done as part of the current "subcontracting" clauses but as an evolutionary process where initially the Cleaning Department of Madrid was contained within the Police force for the capital but ended up being an independent municipal department fully integrated into the administrative structure as well as Madrid society.

Following classical institutionalism, institutions emerge as a repetition of patterns considering, among other elements, the power relationships. Over the decades, there has been greater control by the public administration over the behavior of those who are contracted to clean up, as well as greater ownership of the means of production and an increase in complaints about the performance of contractors.

For all the above reasons, in the stage prior to the municipalization of the service we see an increase in the power of the Cleaning Department in its relationship with the contractor. At the same time, there was open conflict about the very survival of the institution of the cleaning industry contract with a boycott of public contracts. With respect to the habits that had not been constituted as an institution but that, without a doubt, came from a previous modification of the social cognitive framework, the residents of Madrid repeatedly failed to comply with the cleaning ordinances, while habitual arrangements outside the law between Madrid City Council and cleaning contractors were common. The municipalization of the cleaning service of Madrid took place "de facto" due to administrative circumstances arising from illegal agreements with

the contractor, foreign interests and a lack of administrative provision. In addition, the decision to municipalize took place in a favorable international framework.

Once the municipalization had taken place, the main changes that can be observed are an increase in investment to mechanize the processes, trying to replace animals with mechanical traction and an increase in material resources and ownership of the means of production, creating an extensive network of work centers to provide the service to the areas of Madrid that had poor public sanitation, strengthening the sources of power over the property and increasing the institutional influence of the capital's cleaning department. These actions were guided by a vision of the service rooted in Spanish sanitation values that equated essential development in a suitable environment with the moral correctness of the working class. This implied a need for an improvement in working conditions and a special focus on sanitation for workers and their cultural development.

Everyone directly or indirectly related to waste management was included within the workforce, bringing to the surface that part of the population that carried out their activity outside the law and as a form of subsistence, giving a great boost to improving the workforce and their living conditions (education, hygiene, training, etc.) beyond their working conditions.

Finally, for the first time, municipal actions were oriented not only towards the sanctioning of banned behavior, but also towards the re-education of the public to eliminate habits and customs deeply rooted in the Madrid population.

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