Planning for social distancing: How the legacy of historical epidemics shaped COVID-19’s spread in Madrid

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Abstract
This paper combines historical and contemporary sources to examine ‘epidemic urban planning’ from the first decades of the 20th century through to the present day. It considers how infamous early 20th-century epidemics triggered the development of several urban regulations that profoundly shaped the city’s future. To reduce the risk of contagion in bourgeois space, the city began displacing and spatially segregating the urban poor, leading to deprived neighbourhoods in the city’s suburbs. The social and urban structure of these deprived, ‘vulnerable’ neighbourhoods remains to this day. Madrid was also greatly impacted by the COVID-19 crisis, and the initial distribution of COVID geographies seemed to reflect these historical legacies. Epidemic-influenced segregation kept wealthy neighbourhoods relatively safe during the first waves of the COVID-19 pandemic, concentrating the disease in poorer areas.

Keywords
health, path-dependence, planning history, segregation, urban structure, vulnerability, COVID-19

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Introduction

The arrival of COVID-19 in Madrid had a significant impact on peripheral working-class areas, while the crowded middle- and upper-class neighbourhoods of the city centre initially remained relatively safe. This disproportionate impact seemed to correlate with vulnerability and most affected Madrid’s inner suburbs (Gómez Giménez, 2020; Menéndez and Higueras García, 2020; Paisaje Transversal, 2020). Madrid is one of Europe’s most unequal cities (Sorando et al., 2021), with a (2012) Gini index of 33.2 (Leal and Sorando, 2016). Both scholars and the Spanish government have classified a large area of the city’s inner suburbs as ‘vulnerable neighbourhoods’ (Alguacil Gómez et al., 2013).

The relationship between disease and deprived urban space is not a new concept. More than 7500 articles were published between the start of the crisis and the end of 2021 many of them, establishing a solid scientific consensus on the connection between low socio-economic indicators and COVID-19’s impacts (Nathan, 2023). Even in the 19th century, the upper classes identified poverty as a potential threat. This gave rise to urban policies specifically designed to reshape the city and reduce the risk of contagion. Such history makes us question whether we are already living in a ‘post-pandemic city’ (Florida et al., 2023) and how Madrid’s (and perhaps other cities’) COVID-19 geographies may reflect the influence of century-old epidemic planning. Through a qualitative planning history analysis grounded in Madrid, this text reveals a long historical causality between two seemingly unconnected facts: the influence of epidemic fears in early 20th-century urban planning and the present urban structure and spread of COVID-19 in Madrid.

Our findings suggest that the initial spread of COVID-19 waves was influenced by early 20th-century disease fears. In the 1910s, the world was shocked by cholera pandemics and epidemic diseases such as smallpox, typhus, and ‘Spanish’ flu. As a result, Madrid undertook ‘epidemic planning’, largely conceived to distance populations considered prone to disease and manage the risk of contagion through segregation. In the first decades of the 20th century, local public powers undertook a process to create a belt of deprived, publicly unplanned, and un-serviced peripheral neighbourhoods around the city. These substandard areas continue to host the lowest working-class strata of the city to this day. The differential spatial impact of COVID-19 on Madrid partially reflects the consequences of this earlier epidemic planning.

This paper makes several novel contributions. Firstly, while medical and social historians have underscored the importance of
epidemic fears in the early 20th century, the lasting stratification of urban space in large European cities has not been sufficiently debated. Therefore, this paper discusses how ‘epidemic planning’ not only influenced the evolution of Madrid but many metropolitan areas in the first decades of the 20th century. Secondly, this article demonstrates the importance of planning history and broader socio-historical analysis to present-day urban issues and their relevance to the dynamics of the COVID-19 pandemic. This paper proceeds as follows: (i) we briefly review our methodological approach; (ii) we consider the literature on historical links between epidemic fears, urban segregation, and vulnerability; (iii) then, we connect Madrid’s ‘epidemic planning’ and the historical polarisation of its city-growth to the current impact of COVID-19; (iv) finally, we reflect on the historical causality of COVID-19 in Madrid.

Methodology

This article joins historical and contemporary research, a combination rarely used in urban studies (Harris and Smith, 2011). It draws on a historical sociology perspective to analyse ‘the past of the present’ and ‘the present of the past’ (Pasquali, 2008). We discuss how historical processes influence the present through visible mechanisms and hidden structures (Smith, 1991). This study, based on empirical archival work, explains a phenomenon by comparing different moments and retracing its genesis (Noiriel, 2006) discussing social facts that seem natural, but have forgotten historical origins (Bourdieu, 2012). This epistemology is similar to the increasingly popular evolutionary economic geography perspective, which evaluates the temporal evolution of economic behaviour. However, this paper’s qualitative and contextualisation-centred approach separate it from evolutionary economic geography, which relies on a quantitative analysis of data series over long periods of time (Henning, 2019) – a methodology that has been criticised for lacking statistical rigour (Kelly, 2020).

This research is part of a wider enquiry, undertaken between 2017 and 2021, on the history of planning and substandard housing in Madrid. We conducted archival work in historical libraries and local, regional, and national archives in Madrid and elsewhere in Spain. We also analysed historical press reports (Manzano Gómez, 2022a, 2022b). The contemporary analysis included reviewing COVID-19 and urban research literature and an analysis of online, current epidemiological data. To ascertain historical continuity, we also conducted a thorough analysis of historical and contemporary cartography. The qualitative historical research allowed us to understand Madrid’s planning and the evolution of substandard urban growth in the 20th century. Obtaining comparable quantitative data was not possible, nor was it an objective. Although we attempted to supplement these data with historical epidemiological analyses, a lack of data on the impact of epidemics in the city’s substandard suburbs during the first half of the 20th century made this an impossible task.

On disease fears, segregation and the long persistence of territorial disadvantages

During the first months of the COVID-19 pandemic, the spread of the virus was related to the international connectivity of cities, urban size, public transport, urban density, housing characteristics, overcrowding and the polarisation of the labour market between teleworkers and essential workers (Nathan, 2023). However, much subsequent research, including a special issue of Urban Studies (Duminy, 2023; Kawlra and Sakamoto, 2023; McFarlane, 2023; Preece et al., 2023), has shown that inequality was a major factor in
spreading the pandemic. Thus, the COVID-19 epidemic has been labelled a ‘syndemic’, due to the disease’s devastating impact on pre-existing health and socio-economic vulnerabilities in urban spaces (Ellis et al., 2021).

Although the concept of vulnerability is contemporary, the association between deprived neighbourhoods and health risks is far from historically novel. The prevalence of epidemics in disadvantaged areas has been observed by medical geographers since at least the end of the 18th century (Driver, 1988). However, a lack of knowledge about the precise factors of disease transmission split the 19th-century medical community into either ‘contagionist’ or ‘infectionist’ thinking (Mée, 1998). The two theories had different perceptions about the role of urban space in the spread of the contagion. The former noted that disease was transmitted through physical contact and, therefore, recommended spatial isolation of the infected populations. This gave rise to complex control measures and specific infrastructures to promote confinement, such as asylums and migrant isolation systems in port areas (Miralles Buil, 2020). The latter theory proposed that epidemics were caused by miasmas (infected air that produced ‘bad smells’) which originated in swamps and poor neighbourhoods and later drifted into the rest of the city. Various countries, especially the UK, supported the miasmatic theory to maintain international trade, which would otherwise have been threatened by quarantines (Harrison, 2012).

Slum-clearance became a transnational tool to avoid the influence of ‘miasma’ (Mayne, 2017; Nightingale, 2012), often resulting in familiar consequences: the displacement of ‘dangerous’ populations to spatially distant territories. Spatial segregation was widely used in colonial urban areas to effectively manage tropical diseases considered inherent to local populations (Murunga, 2005). A generalised hypochondria among the European colonial populations encouraged the development of white neighbourhoods and distancing ‘indigenous’ populations from those areas since the end of the 19th century (Galli, 2022; Njoh, 2009). In cities under British, French, and Dutch rule, settlements inhabited by local populations emerged with very little public infrastructure (Bigon, 2016; Putri, 2019).

While much literature acknowledges the relationship between epidemic fears and urban segregation in ‘southern’ cities, recent work has identified a parallel historical process in ‘northern’ cities (Mayne, 2017; Nightingale, 2012). From the late 19th century, in the US, racial minorities were said to be at higher risk of contagion and disease transmission. This gave rise to slum-clearance policies to ensure social distance between ‘healthy’ populations and those prone to contracting diseases like the bubonic plague, typhoid and tuberculosis (Hanlon, 2011; Kelton Roberts, 2009; Shah, 2001). In Europe, too, slum-clearance operations and sanitary regulations in urban centres instigated processes of displacement of poor populations to the suburbs (Wagenaar, 1992). Substandard housing settlements emerged at the edges of cities like Paris (Granier, 2017), Berlin (Urban, 2013) and Madrid (Vorms, 2012) as concerns about overcrowding arose in dense urban centres (Manzano Gómez, 2022a, 2022b). Such areas became marked as segregated and underprivileged territories (Álvarez Mora, 2005). Could these historical segregation processes continue to influence the development and living conditions of cities over a century later?

Determining the influence of historical disadvantages in present-day inequality is a fundamental part of socio-historical perspectives (Tilly, 1998). Theoretical production and case studies on the effects of socio-spatial segregation have been so extensive as to make a review nearly impossible (Van Kempen and Murie, 2009). Historical research examining how temporally distant
segregation policies influenced the current footprint of territorial inequality is less common, though recent works have shown how territorial inequality is produced by historically distant segregationist policies in the US (Aaronson et al., 2021; Faber, 2021; González-Pérez, 2021; Krysan and Crowder, 2017; Wilson, 2020) and Europe (Boni-Le Goff, 2015; Wagenaar, 1992). In both contexts, replacing substandard housing with social housing may have consolidated the disadvantaged character of historically segregated spaces (Blanc-Chaléard, 2016; Castrillo Romón, 2022; Turner et al., 2009).

Studies on the long-lasting connections between territorial inequality and disease are even scarcer (but see a recent project on the impact of social and spatial disparities in all-cause and cause-specific mortality in Belgium over the last two centuries (INEQKILL, 2022)). Moreover, most of this work explains the historical endurance of territorial inequality through the concept of path dependence (Mahoney et al., 2009; Sorensen, 2015). This denotes historical configurations’ tendency to result in persistent patterns over time due to the existence of ‘positive feedbacks’, which straighten historical processes. Such tendencies may be modified by ‘critical junctures’ – ‘[a] fairly modest change [that] induces a feedback loop, which reinforces the initial direction of change’ (Pierson, 2011: 95). However, pathdependence offers a model, not an explanation of causality, making it difficult to assess whether current phenomena are really rooted in historical dynamics. Rather, we might use the concept of legacy, understood as the analysis of how and under what conditions the past influences the present (Wittenberg, 2013).

Epidemic planning as a historical tool of ‘social distancing’

In the early 20th century, epidemics ravaged European cities. In Madrid, smallpox, typhus, flu, measles and tuberculosis induced a demographic crisis, as the death rate exceeded the birth rate (De Miguel Salanova, 2017; Huertas, 2002; Porras Gallo, 1994, 2018). The city was dubbed (locally and internationally) ‘the city of death’ (Revenga, 1901). In this context, the infamous Dr P Hauser conducted detailed research on Madrid’s epidemics and concluded that contagion spread from the poorest housing areas to the wealthiest ones. Clearly influenced by miasmatic thinking, he urged:

Organise collective forces among the wealthy classes to clean up the pockets of unhealthiness. It is crucial for them to understand that if communism is a utopia from the economic and social point of view, it is a truth, when it comes to the air in the big cities. Because the air contaminated in one or more districts by human mephitis can serve as a vehicle for the transmission of the infectious germs they contain to the rest of the city (Hauser, 1902: 330).

Such warnings had geographical implications. From the second half of the 19th century, Madrid was divided into three administrative areas governed by different regulatory frameworks: the Inner-city (Interior), the city Extension (Ensanche) and the unregulated Outskirts (Extrarradio). While the Inner-city was traditionally a socially-mixed space with working-class areas next to wealthy streets, by the 1860s the urban elites were moving into the more hygienic city Extension to reduce their risk of contagion from deprived populations (among other reasons) (De Miguel Salanova, 2013a, 2013b). Meanwhile, an administrative tolerance of substandard neighbourhood construction and a lack of hygiene regulations in the periphery facilitated the development of poor, single-family housing in the Outskirts. While the historic city and its planned Extension were increasingly urbanised and supplied with sanitary...
infrastructures, the Outskirts remained in legal limbo for decades with very poor conditions of urbanisation and sanitation (Vorms, 2012).

The eastern side of the city Extension became an increasingly homogeneous upper-class neighbourhood (Carballo Barral, 2007); however, at the beginning of the 20th century, self-segregationist tendencies were threatened by deprived urban growth. On one side, impoverished huts sprung up around the city centre. A floating population of around 10,000 people (Chicote, 1914) occupied empty plots in the northern and southern city Extension. On the other side, allotments in the Outskirts eventually hosted more than 50,000 inhabitants without any kind of sanitation and, thus, became a hotbed for transmissible diseases (Chicote, 1914). Ongoing journalistic criticism transformed these peripheral, poor housing areas into a major public issue (Manzano Gómez, 2022a). The authorities, feeling pressure, began carrying out ‘sanitary’ operations to destroy the shantytowns within Madrid’s city limits. These operations – justified by the prevalence of epidemic disease – progressively pushed illness beyond the municipality.

The periphery around the city’s wealthiest areas was a source of sanitary fears. In 1908, the municipal engineer Nuñez Granés denounced how the Outskirts contained:

filthy streets (...), where the waste water ends up emitting pestilential odours (...) with very serious consequences for the health not only of those who live there, but also of those who live in the areas surrounded by these streets. (Nuñez Granés, 1908: 8)

Accordingly, a 1910 plan to address the Outskirts suggested creating ‘a periphery at European level, instead [of] the infectious belt that today poisons and drowns it’ (Nuñez Granés, 1906: 30–31). The plan, which was based on the Haussmanian principles of ‘aeration’, promoted massive demolition of working-class housing areas and the opening of new avenues where ‘fresh air’ could circulate. However, new substandard neighbourhoods without any kind of sanitary infrastructure popped up just beyond the plan’s limits, past the Outskirts of Madrid’s municipality (León Peralta, 1930).

Executing the plan required reconfiguring Madrid’s city limits and including the new areas. Polemics about the future suburbs and the limits of public power proliferated. A Senate drafting bill, discussed on 10 December 1910, proposed public interventions to plan the rising ‘periphery beyond the periphery’ (Aguilera, 1910) and avoid repeating the processes that initially led to the sanitary problems in the Outskirts. However, various senators rejected this initiative, as it would make the municipality responsible for the living conditions of these inhabitants.

In 1911, an internal City Council report about the Senate project concluded that if the municipality was responsible for suburban populations, it would have to ‘meet the demands of pavements and sidewalks, public lighting, sewage, and other services that would be required from the very first moment’ (Junta Consultiva, 1911). Rather than demanding funding to provide such public services in the growing suburbs, the local municipality simply tolerated these areas. The City Council sought to keep the suburbs unregulated and unsupplied; it demanded that the state abandon attempts to integrate the rising substandard areas into Madrid. This contrasted with their interest in the complete urbanisation and renovation of the areas closest to the city. This conflict revealed the attempts to prevent spatial proximity between the upper-class districts and the ‘disease-ridden’ areas.

In 1914, a ‘pragmatic’ drafting bill was discussed in the Spanish Parliament. It
established mechanisms of spatial control at the fringe of the ‘unregulated’ suburbs without requiring city councils to take responsibility for public services. The bill’s preamble observed that ‘where urban action does not reach, because of limitations of the law and of the municipal incomes or by any other cause, filthy and miserable slums accumulate (...)’ weaving an infectious network that oppresses and contaminates the big cities’ (Sanchez Guerra, 1914: 1). To solve this problem, it proposed regulating a zone around major Spanish cities where it would be illegal to build. This ‘ensure[d] that never, without the intervention of the Town Hall, can be established in a nearby place, and therefore with danger to the health of the neighbourhood, unhealthy housing groups, insalubrious industries or, in general, any source of infection’ (Sanchez Guerra, 1914: 1). However, the law was never implemented (Bassols Coma, 1973).

In 1916, a new Act worried that the absence of regulation in the suburbs could push poor housing areas to ‘group together without any order or agreement, and therefore not obey...the most elementary principles of hygiene, forming unhealthy settlements, where misery and death nestle’ (Ruiz Jimenez, 1916: 1). Although the norm facilitated the expropriation and urban renewal of the Outskirts, it tolerated the development of insalubrious working-class neighbourhoods beyond their boundaries. Though the 1910 plan and the 1911, 1914, 1916 and 1918 bills were never fully implemented (Bassols Coma, 1973), a calculated absence of planning resulted in the development of a new belt of insalubrious, under-equipped, and segregated housing areas beyond the city limits, as authorities predicted. Sanitary fears were only part of the motivation to facilitate substandard neighbourhoods. Some years later, Madrid technicians explained that the lack of regulation and public services in the suburbs kept the land prices low and, thus, helped the working-classes build self-help houses to alleviate their housing problem (Lopez Baeza, 1932).

In summary, during the 1910s, the Madrid authorities eradicated the poorest areas of the city, attempted to build a ‘cor-don sanitaire’, and tolerated the development of insalubrious working-class neighbourhoods beyond their boundaries. Though the 1910 plan and the 1911, 1914, 1916 and 1918 bills were never fully implemented (Bassols Coma, 1973), a calculated absence of planning resulted in the development of a new belt of insalubrious, under-equipped, and segregated housing areas beyond the city limits, as authorities predicted. Sanitary fears were only part of the motivation to facilitate substandard neighbourhoods. Some years later, Madrid technicians explained that the lack of regulation and public services in the suburbs kept the land prices low and, thus, helped the working-classes build self-help houses to alleviate their housing problem (Lopez Baeza, 1932).
Álvarez, 2018). However, suburban municipalities were unable to control the urbanisation process, despite a Municipal Charter (Estatuto Municipal) that made urban planning and sanitary housing standards compulsory in towns. The suburbs were clearly constructed as an exclusionary space – growing populations and rising
metropolitan in-migration in these deprived areas garnered little help from privileged neighbourhoods’ resources. However, as socialist City Councillor Julian Besteiro opined in 1920:

bad housing is a focus of disease that later spreads to the entire population. (…) The upper classes should not hesitate to expend money to solve the problem of housing, because these costs, although high, should be considered as an insurance against the two dangers that threaten them: the danger of disease and the danger of revolution. (Besteiro, 1920: 5)

Besteiro’s ‘double threats’ were eventually addressed, though not through wealth redistribution. The sanitary problem was solved by segregating Madrid’s most risky areas, while the revolutionary risk was stamped out by the rise of Francisco Franco’s fascist government. Within this context, however, Madrid’s peripheries continued growing.

The development of vulnerable inner suburbs and the impact of COVID-19

Over the subsequent decades, the city’s peripheral growth remained nearly unregulated, giving rise to an increase of substandard neighbourhoods traditionally considered the result of ‘spontaneous’ dynamics (De Terán, 1983). In 1946, Madrid’s suburbs began to be integrated into the city and the first urban planning was implemented in the area through the so-called ‘plan Bidagor’. However, the belt of very poor housing areas had consolidated. The dictatorship officially recognised between 10,000 and 20,000 inhabitants in self-constructed houses without any kind of urbanisation or public services (Gran Madrid, 1948: 25). However, the actual population was probably larger; internal 1945 Madrid Urban Planning Commissariat documents estimated that ‘150,000 people live in peripheral slums in inadmissible conditions’ (Comisaría de Urbanismo, 1945). These conditions led to the development of severe smallpox, typhus and diphtheria epidemic crises in the suburban areas of the suburbs (Chamorro Rebollo et al., 2016). The deprived living conditions were even marked in inhabitants’ stature- individuals here were shorter than in the privileged urban centres (Varea et al., 2019).

Though the 1946 ‘plan Bidagor’ outlawed housing construction around pre-existing substandard settlements, and a 1955 law explicitly prohibited shacks and ordered their demolition, migrants continued to arrive, self-build new precarious houses, and create neighbourhoods known for their poverty (Canosa and Rodriguez, 1985). To control this phenomenon, the dictatorship initiated major rehousing operations (Figure 2). The so-called Social Emergency Plan (Plan de Emergencia Social) and the Shantytown Absorption Plan (Plan de Absorción del Chabolismo) (López Díaz, 2002; Sambricio, 1999) developed nearly 70,000 low-quality social housing units with deficient infrastructure on cheap peripheral urban lands. Land was expropriated at almost no cost, due to illegal residential use (Vorms, 2013), resulting in the construction of social housing on them or in cheap surrounding areas (Moya et al., 1983). This reinforced the previous segregation and fixed the cheap property values for the private sector (Roch Peña, 1999).

From the 1960s, Neighbourhood Associations (Asociaciones de Vecinos) were created to demand and achieve local improvements (Ofer, 2017). However, they could not fully reverse these areas’ disadvantaged position, nor avoid the territorial stigmatisation. In the early 1980s, nearly 125,000 people were rehoused ‘in place’ (near their previous homes) through large social housing operations (Ortiz Nuñez, 2013). Although some
economic programmes were developed to improve the socio-economic situation of underprivileged neighbourhoods, particularly the inner suburbs of the city, most investments consisted of public facilities and subsidies for real estate operations. These operations did not reverse these spaces’ stigmatised position within the city or the vulnerability of their populations (Uceda Navas, 2016).

The city’s growth continued producing new peripheries, mainly inhabited by middle-class populations while the inner suburbs, despite their growing socio-spatial integration into Madrid, continued to suffer from the worst socio-economic conditions in the metropolitan area. (Domínguez et al., 2012). The social housing areas developed between the 1950s and 1980s overlapped with the socio-economically disadvantaged geographies of the Madrid metropolitan area in the early 2000s (Tamayo Palacios, 2011). Their structural position was further aggravated in the first two decades of the new millennium (Leal and Sorando, 2016; Sorando et al., 2021; Uceda Navas, 2016).

Academic and institutional initiatives mapping vulnerability repeatedly identified the inner suburbs (hosting self-built areas and, later, social housing) as having the lowest living standards in the metropolitan area (Alguacil Gómez et al., 2013; Matesanz Perelada, 2016; Rodríguez-Suárez et al., 2021; Temes, 2014). This vulnerability was typified by a significantly lower life expectancy – up to a 7-year difference – between values in inner suburbs (with its lowest rate in Amposta neighbourhood, 78.4 years average) and values in the current Extension areas (with the highest rate in Estrella neighbourhood, 85.4 years) (Departamento de Salud Ambiental, 2016).

Vulnerability was a major factor in the first waves of the COVID-19 pandemic (Almagro and Orane-Hutchinson, 2022; Nathan, 2023). In Madrid, the inner suburbs saw more pandemic cases (Glodeanu et al., 2021; Gómez Giménez, 2020; Mari-Dell’Olmo et al., 2021; Menéndez and Higueras García, 2020). Different justifications have rationalised this geographical pattern of COVID-19 impact. Characteristics of

Figure 2. One of the phases of relocation of shack populations in social housing, as part of the Shantytown Absorption Plan. From Comisaría General Para la Ordenación Urbana de Madrid (1961).
the built environment, including a scarcity of green areas (Menéndez and Higueras García, 2020) and small dwelling size (Gómez Giménez, 2020), partially explained the impact of the pandemic in vulnerable neighbourhoods. As in other contexts (McFarlane, 2023), density was not a key factor. The densest area of Madrid, the historic city centre, was less affected by disease than the inner suburbs (Menéndez and Higueras García, 2020). However, socio-economic factors like overcrowding (Gómez Giménez, 2020), and a large proportion of ‘essential workers’ who reported to their workplaces even during the lockdown, could have facilitated the spread of the virus (Glodeanu et al., 2021), as was observed in other cities (Trasberg and Cheshire, 2023).

During the first and second waves, Madrid’s inner suburbs incidence rate frequently doubled that of the city centre (Figure 3). They became the preferred target of ‘selective containment’ perimeters developed in 2020 to prevent the mobility from areas particularly impacted by the city’s epidemic and, therefore, suspected of transmitting it (Carpio-Pinedo et al., 2021). The pandemic’s impact subsequently levelled throughout the metropolitan area, in terms of an accumulated contagion rate, without a clear geographical pattern (Ayuntamiento de Madrid, 2021). However, recent research confirms that mortality in the inner suburbs was much higher than in the wealthier areas of the city (Díaz-Olalla et al., 2022).

**Conclusion**

This paper has considered the potential long-durée influence of previous pandemics on the unequal geographical impact of COVID-19 in Madrid. At the beginning of the 20th century, the fear of disease motivated urban regulations explicitly designed to physically distance the populations considered most prone to disease, both in southern and northern contexts. In Madrid, a displacement of the lowest strata of the population to the suburbs was facilitated to reduce the risk of contagion. It led to the emergence of shack areas in what would become the inner suburbs of the city. This

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**Figure 3.** Overlap between historical substandard areas, vulnerable neighbourhoods and second wave COVID-19 rates. Map by the author from: Montes Mieza et al. (1976: 160).

*Medium, high and severe urban vulnerability from the ‘Atlas de la Vulnerabilidad Urbana. Ministerio de Transportes, Movilidad y Agenda Urbana, Gobierno de España (2011)’.

**Geoportal (2020) Madrid.**
‘epidemic planning’ contradicts traditional views that assume the emergence of such spaces was a ‘spontaneous’ metropolitan dynamic, independent of public powers’ actions. It remains unclear whether parallel processes occurred in other cities. Yet, numerous pandemics had a synchronic impact on both northern and southern cities in the early 20th century. The epidemic-triggered segregation of poor populations could have been a global historical process intimately related to the international emergence of unequipped, self-constructed neighbourhoods between the 1900s and 1930s. Investigating this hypothesis would require further historical and comparative research.

This paper’s second question considered the possible influence of these historical episodes on the contemporary city and COVID-19. In Madrid, ‘epidemic planning’ from the 1910s to the 1930s gave rise to segregated and underdeveloped neighbourhoods in what are now called the inner suburbs. From the 1940s onwards, public authorities prohibited self-construction; however, these areas’ underprivileged character became consolidated both by endogenous dynamics and public institutions’ actions, which took advantage of low property values to develop social housing. While some redistributive policies affected these areas, they were insufficient to reverse the territorial inequality that had conditioned them. Structural characteristics, in terms of morphology and socio-economics, directly led to the pandemic’s deeper effects in these areas.

Although these processes seem to amount to a historical path-dependence, some particularities diverge from this model. On the one hand, ‘critical junctures’ that would allow deviation from the marked pattern were not sufficiently decisive to reverse the initial conditions of the inner suburbs. The origin of path-dependence was a tool for the analysis of the significant influence of casual historical episodes (Pflieger et al., 2009), which is not the case of the present analysis. According to Wacquant (2016), we must recognise the institutional mechanisms that produce, reproduce, and transform vulnerable groups’ positions. As we have shown, the disadvantaged character of the inner suburbs was institutionally constructed and reinforced for decades. This was not a casual origin or a historical path unaffected by external influence; rather, it was a territorial pattern emerging from and reinforced by persistent class-based political strategies.

A third central question remains: are the current developments of COVID-19 definitively marked by the epidemics of the past? For Wittenberg (2013), the following characteristics determine whether one event is a legacy of another: (i) there exists a temporal period between them; (ii) the subsequent phenomena show stability and continuity in some of their key features; and (iii) the phenomena have been carried over from the past, not simply repeated.

A historical analysis of the first Outskirts of Madrid reveals an element of continuity: its disadvantaged character. The relationship between the relegation of populations considered prone to epidemics and the emergence of COVID-19 is not a fortuitous correlation. Rather, it is a visible manifestation of a vulnerability that has persisted for more than a century and has influenced the present by bringing about a greater epidemic risk. Further research connecting urban history, public health and urban studies can shed light on historical planning’s influence on the development of this latest health crisis in other cities.

The maxim (often attributed to Mark Twain) that ‘history does not repeat itself, but it does rhyme’ is fruitful. The historical rhyme provoked by the COVID-19 crisis in Madrid was not a consequence of fate but of historical (and thus modifiable) power relationships. This analysis of Madrid’s inner
suburbs reveals the importance of considering the health risks of socially-exclusionary processes, both past and present.

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Notes
1. All italic terms have been translated from Spanish by the author to improve readability.
2. The Act applied to any city of more than 100,000 inhabitants.
3. Estatuto Municipal.

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