

# Obsessively Writing the Modern City

## The Partial Madness of Urban Planning Culture and the Case of Arturo Soria y Mata in Madrid, Spain

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The article blends disability studies and urban cultural studies in order to explore the geometrical obsessions of modern urban planners. It sets the stage by including the figure of the urban planner in the list of specialists (artists, scientists, writers) at the core of the argument made by Lennard J. Davis in *Obsession: A History* (2008). One planner in particular typifies the way in which obsessive thinking comes to be prized and somewhat normalized during the eighteenth and nineteenth centuries. Arturo Soria y Mata's plan for a Linear City follows the renowned examples of Baron Georges von Haussmann's Paris and Ildefons Cerdà's Barcelona. Soria y Mata's plan for Madrid touts the triumph of conceptual space through bold geometrical vectors that effectively erase the variations of urban life in both symbolic and practical terms. An urban cultural studies framework, grounded in the urban thinking of Henri Lefebvre and others, extends the notion of culture beyond literary approaches and effectively urbanizes global disability studies. It also draws attention to modern urban planning's paradoxical reliance on both ableist ideology and cognitive difference, framed by the concept of "partial madness."

### Introduction

By analyzing the late nineteenth-century urban planning of Arturo Soria y Mata (1844–1920) in Madrid, Spain—a project called the Linear City [La Ciudad Lineal]—this article makes three interdependent but distinguishable contributions to literary and cultural disability studies. The first two of these are thematic and largely implicit. In addressing urban planning, specifically, rather than architecture, and in considering a case from Madrid, rather than a city in the Anglophone world, this article pushes beyond certain established borders of disability studies research. The third intended contribution is somewhat more explicit. Understood in the context of his writings, and in light of the insights contained in Lennard J. Davis's *Obsession: A History* (2008), Soria y Mata exemplifies the archetypal, obsessive figure of the nineteenth-century modern urban planner.

First, this article builds on pioneering work linking disability, architecture, and cities sustained over three decades (1990s, 2000s, 2010s). A whole

scholarly tradition has already applied disability studies method to analyses of the urban built environment. Thus constructions of disability and urbanity are co-constitutive forces that have shaped, and continue to shape, the lived experiences of people with disabilities. Rob Imrie's *Disability and the City: International Perspectives* (1996) is an early landmark text, and Jos Boys's edition of *Disability, Space, Architecture* (2017) collects significant essays in this tradition, mostly from the 2000s and 2010s. Imrie's use of the term "access literature" is an apt descriptor for much of this research (e.g. Gleeson, "Disability and the Open City"; Hamraie; Imrie, "Disability and Discourses," "Disabling Environments"; Titchkosky). Scholars have systematically linked architectural form, concepts, training, and practice (Imrie, "Architects' Conceptions," "Interrelationships") with the "fixation with normality" (Gleeson, "Disability Studies" 179) characteristic of the broader ableist spatial imaginary.

In linking disability with geography, many scholars also turn explicitly toward the works of urban thinkers such as Henri Lefebvre, David Harvey, Lewis Mumford, Jane Jacobs, and Richard Sennett (esp. Imrie, *Disability and the City*; also Dolmage), or else the urban figure of the flâneur (Serlin, "Disabling the Flâneur," "On Walkers and Wheelchairs"). The volume *Mind and Body Spaces: Geographies of Illness, Impairment and Disability* (1999)—edited by Ruth Butler and Hester Parr on the heels of a session delivered at the conference of the Royal Geographical Society-Institute of British Geographers—represents a particularly important contribution to the intersection of disability and geography. Yet while this tradition has looked closely at the ableist nature of discourse surrounding the production of the built environment, I argue that it has tended to focus largely on the scale of individual buildings, of curb cut-outs, of architectural form and its associated ableist ideology, rather than engage the larger scale of urban planning on its own terms. Of course, buildings, architecture, and the access literature that analyzes them in seeking to impact ableist spatial policy are important. Yet I believe that applying disability approaches to the large-scale urban planning that coalesced in the nineteenth century in European cities—for example Haussmann in Paris, Cerdà in Barcelona, Soria in Madrid—is also valuable.

Second, this article follows up on the call for global disability studies scholarship launched in the *Journal of Literary and Cultural Disability Studies* by Sharon Snyder, David Mitchell, Clare Barker, and Stuart Murray in 2010. Despite what the subtitle of Imrie's book might suggest to some readers, disability approaches to built environment have long been centered on the

Anglophone world. The “international perspectives” foregrounded by Imrie (1996) are largely concerned with UK and US contexts. Texts like Tanya Titchkosky’s *The Question of Access: Disability, Space, Meaning* (2011), situating its critique in Toronto, Canada, are critical landmarks in their own right. Yet while interest in global disability themes increases, there is still a disconnect between work from the fields of Iberian and Latin American studies, on one hand, and disability studies, on the other. Critics who have written on Iberian culture within a disability framework—such as Susan Antebi, Madeline Conway, Beth Jörgenson, Encarnación Juárez Almendros, Matthew Marr, Raquel Medina, Julie Avril Minich, Ryan Prout, Victoria Rivera Cordero, and so on—broaden the global reach of disability studies as a discipline. Yet more can be done to bring attention to their studies in the wider interdisciplinary field of humanistic approaches to disability.

Third, it reflects on the contradictions inherent in considering Soria y Mata’s project as the expression of a normative spatial imaginary. On one hand, the planner’s obsession with geometrical, Euclidean forms is classically ableist. In Soria y Mata’s thinking (just as in the work of Cerdà, Haussmann, and others), the straight line, the broad avenue, the city linked by a string of monuments—all these reflect a certain conceptual violence done to the human body. Modern urban planning practically negated the human body by producing the city in the interests of capital and consumption—thus a built environment for exchange-value rather than use-value. It also systematically ignored the diversity of human bodies. Yet Soria y Mata is not only producing a modern built environment for Madrid, he is also reproducing a markedly obsessive form of thinking. There are perhaps multiple ways to make sense of *Obsession: A History* (2008), by disability studies pioneer Lennard J. Davis. I prefer to read the text as a specifically urban accounting of modern obsession. There is a tendency to see nineteenth-century urban planners as hegemonic actors complicit with state/capitalistic power—and this they most certainly are. Yet an alternative reading of the creation of the modern city is possible. Soria y Mata’s work is an example of how the fixation on normativity that can be observed in modern urban planning can be potentially reread through the lens of cognitive difference and/or crip/queer thinking. Though I do not fully explore this point, here I suggest its potential for future research.

This article is thus inspired by the aims of urban cultural studies, an interdisciplinary humanities and social sciences field dedicated to exploring cultural representations of cities (see Fraser). Its first brief section (“The Planner as Archetypal Obsessive Figure”) begins with insights from Davis’s

*Obsession*. The second section (“Urban Planning as Obsession: Science, Art, Writing, and Ideology”) delves into contemporary urban theory, asserting the partial madness of planners who obsessively wrote the modern city into existence through the bold geometrical vectors of urban design. In the final section (“Arturo Soria y Mata’s Linear City and Beyond”) I underscore the planner’s urban project in Madrid as a synecdoche for the rational, rectilinear, and geometric obsessions of modern urban planning as a whole. I also devote brief attention to a tangential work authored by Soria y Mata, titled *El origen poliédrico de las especies* [The polyhedral origin of species], itself a clear reference to Darwin’s *On the Origin of Species*.

My broader aim is to draw attention to a central paradox of modern urban planning: that it expresses ableist ideology (a straight linearity that pathologizes difference) while at the same time exhibiting cognitive difference (or “partial madness”) through obsessive thinking. In the end, if we take to heart the idea that obsessive thinking has been, as Davis argues, a prized aspect of (urban) modernity, we may then begin to build a case for the modern city as the contradictory product of both normative ideology and cognitive difference. Affirming the modern city as the product of partial madness potentially destabilizes normative conceptions of urban modernity. This may also serve us in asserting the Lefebvrian narrative that the city belongs to all.

### **The Planner as Archetypal Obsessive Figure**

In *Obsession* there is an understated insight into the obsessive origin of the modern planned city. Davis writes that “[W]e might consider the modernity of the city with its increasingly regularized space, regularized timetables for public transportation, standardization of building practices, and so on as another instance of obsessive attention to detail” (83–84). As a disability reading of the excesses of modern culture, the book as a whole is only indirectly relevant to urban issues. Its main concern is to assert that strong links are forged among obsession, scientific method, and normative culture during the nineteenth century. From that time on, the argument goes, a confluence of burgeoning literary culture and scientific discourse begins to reshape modern society. Obsession and obsessive thinking thus become prized aspects of modernity, as Davis explains: “modernity may be seen as a period in which the normal state of being is defined as allied with being somewhat mad, and particularly with being obsessed. The form of this obsession is a singular attention to a particular thing or things, which in effect is the definition of

specialization—itself an acknowledged feature of modernity” (81). Socially, he asserts, obsession is linked to specialists, of which he gives the examples: “an artist, a writer, a scientist” (78). Yet the book ignores one of the most iconic specialists of this time period—the urban planner.

Significantly, Davis uses an urban metaphor with a deep linguistic history to convey the precise nature of modern obsession:

[I]t is apt that the earliest use of the word “obsession” has to do with war. In Latin, *obsessio* and *possessio* were two aspects of besieging a city. *Possideo*, *-ere* and *obsideo*, *-ere* are two phases in the assault. If you’ve obsessed a city, you’ve surrounded it, but the citadel remains intact; while if you possess the city, the walls have been breached and you’ve conquered the citadel and its citizens. (31)

The broad argument relies consistently on this distinction between obsession and possession. That is, in order for the “normal state of being” in modernity to entail being “somewhat mad,” there must first be a socially accepted understanding of the existence of partial madness. Thus Davis takes care to trace the gradual emergence of definitions of “monomania,” “partial insanity,” as well as partial states of mental distress (67; drawing on Jean-Étienne Esquirol and Philippe Pinel). Acceptance of this concept brought about a sort of democratization of illness, in that “The diagnosis of monomania opened the doors to a wide-ranging application of the idea of insanity to the general population” (68).

Obsession becomes socially visible and intimately knowable in the context of industrialization and the machine age, which depended on and created new forms of repetitive physical and social behaviors. Those who are obsessed—not possessed—by an idea are aware of their obsession at the same time that they engage in it. Thus, Davis writes of “the emergence of obsession as a known category involving doing or thinking one thing too much, being aware of that activity, but being unable to stop it” (32). Those artists, writers, and scientists specializing in a single activity or investigating a single branch of knowledge become the most visible examples of this social wider trend toward obsession. In prizing intellectual and/or passionate devotion to a single idea, Davis writes, the scientific cultures that produced figures such as Darwin and Freud were clearly obsessed (ch. 5). In addition, authors at the end of the eighteenth and through the nineteenth centuries were equally obsessed with writing, and frequently dealt with obsession as a theme through their characters—for example William Godwin (*Caleb Williams*), Samuel Johnson, Mary Shelley (*Frankenstein*), and Honoré de Balzac. Moreover, literary culture was obsessed in a very scientific way—perhaps most notably

revealed in the example of Emile Zola's explicit adherence to a scientific method of composition that became widely associated with a particular strain of naturalism (105–17). The figure of the modern urban planner is equally an example of how literary culture and “science, scientific medicine, and academic specialization” become “aspects of the new problematics of obsession” in modern social life (23).

Obsessed by the idea of the city as a pure geometrical form, modern planners indulged in the excesses of metaphorical thinking. Only partially mad, they were able to see their obsession to enough of a degree so as to comment on it and fashion it as a branch of specialized knowledge. Davis demonstrates not only that normative values and popular behavior in the nineteenth century are socially constructed, but simultaneously that this normative social construction fashions itself from (and obscures) forms of cognitive difference whose medicalization has continued and perhaps even accelerated into the twenty-first century. The participation of late nineteenth-century planners in the construction of what Lefebvre has called a “triumphant and triumphalist” (*Introduction* 3) urban modernity was based on excessively rationalized, rectilinear, and geometrical forms. The modern obsession with geometry thus belies, if not merely a practical erasure of, then an absolute disdain for, urban difference—a quality that in contemporary critical urban theory has come to be synonymous with the city itself (Harvey, “The New Urbanism”; Jacobs; Young). Yet paradoxically, cognitive difference is simultaneously implicit in the modern city's creation via an obsessive form of urban thinking.

### **Urban Planning as Obsession: Science, Art, Writing, and Ideology**

Alternately celebrated and maligned in historical accounts, the figure of the urban planner is deeply entrenched in the discourse of modernity. Famously, in France there was Baron Georges von Haussmann (1809–91), who, as urban geographer David Harvey writes, “bludgeoned the city [of Paris] into modernity” (*Paris* 3). Haussmann's plan pushed working-class populations out of the central city and razed buildings in order to fashion the broad urban boulevards that still today are synonymous with the cosmopolitan European city. The linear geometry of modern urban design was in this sense as much a destructive force as a creative one. The newly reimagined city's bold geometrical vectors were either underwritten by oppressive power structures or easily co-opted by such, sometimes despite their authors' better intentions

(Choay 15). In Catalonia, Spain, there was also Ildefons Cerdà (1815–76), his documented concern for the conditions of Barcelona’s working class notwithstanding (see Soria y Puig 362; Miles and Miles 79). Cerdà’s expansion (the Eixample) of the central medieval core of the Catalan capital was a project consisting of broad Haussmannian boulevards, equidistant blocks, rectilinear streets, and geometrical flourishes like the *xamfrà* (truncated corner) for which he is internationally known (Resina 22). Though arguably motivated by different aims, both planners contributed to what Henri Lefebvre calls the bourgeois science of modern urban planning.<sup>1</sup>

One of the twentieth century’s most prolific and important urban thinkers, Lefebvre (1901–91) wrote over 60 books and influenced subsequent generations of theorists.<sup>2</sup> Across two of his most pertinent and widely read works, *The Right to the City* and *The Urban Revolution*, he argues that even though “the complexity of the urban phenomenon is not that of an ‘object,’” the bourgeois science of urban planning nonetheless imagined the city as a series of objects, external to one another and situated in a static space, instead as an ensemble of relations (Lefebvre, *The Urban* 56; “Right” 94). The fact that this reifying vision, one that saw things instead of relations, was so pervasive in nineteenth-century urban design was not unrelated, as Lefebvre himself explored extensively, to wider discourses that fragmented modern knowledge into areas of “specialization and compartmentalization” (*Sociology* 22–23, 59–88; *The Urban* 92). The conceptual space of the planner was thus entirely separated, in principle, from the lived space of the city as a use value (*The Production* 33). Decontextualized and instrumentalized to suit the needs of “capitalist speculators, builders and technicians,” urban space instead became an exchange value (“Right” 168). The modern bourgeois city was then made up of a fragmented, spatialized set of objects that could be decomposed and recomposed on a whim by a specialist planning class (“Right” 94–99; *The Urban* 49). For Lefebvre and those he influenced, the urban planner engaging in this activity ultimately failed to create “an urban reality for users” and instead famously assisted capitalism throughout the twentieth century in sustaining itself “by producing space, by occupying a space” (“Right” 168; *Survival* 21).

While not strictly a literary form in the conventional sense, modern urban planning drew from all of the overlapping cultural pools (scientific, artistic, writerly) that are so important to the through-line of *Obsession*. It might be

1. On both Haussmann’s Paris and Cerdà’s Barcelona see chapters in Hall.

2. For a primer on Lefebvrian thinking, see Elden; Merrifield. His influence on David Harvey and Edward Soja is particularly notable, and Barcelona-based theorist Manuel Delgado Ruiz has explicitly and repeatedly acknowledged his debt to Lefebvre in his work.

most obvious to readers that city planning was a scientific culture, due to the perceived quantitative nature of the work. That is, even if one has not seen their visual designs, it is easy to accept that Cerdà and Soria y Mata sketched out plans for Barcelona and Madrid annotated with specific dimensions and distances. Neither should it come as a surprise that Cerdà, for example, was characterized as having a mathematical and algebraic disposition (Soria y Puig 23–25). There was a repetitive and mechanical logic at work in the cultural imaginary of planning. Lewis Mumford, a renowned scholar of the modern city, its historical legacy and its geographical variations, notes that the repetitive, mechanistic logic of industrialization had been carried over to the process of building cities, generally speaking (Mumford ix, 149–50). It is here that scientific culture begins to overlap with artistic or literary culture. The obsessions of planning culture alternated between scientific, writerly, and even artistic forms.

I continue for a moment with the example of Cerdà, but with the understanding that he is perhaps the most prominent representation of the broader trends of nineteenth-century European planning culture's obsessions.<sup>3</sup> Planners could also be specialist writers, displaying a singular passion and an obsessive devotion to their subject areas. Among Cerdà's significant and expansive texts one finds a two-volume theoretical treatise taking up over 1500 pages titled *Teoría general de la Urbanización* [General Theory of Urbanization] (1867).<sup>4</sup> In this labyrinthine and pathbreaking work, the Catalan thinker puts forth a novel theoretical understanding of the city as evolving through stages that were dependent on the form of locomotion prioritized in each. As discussed below, Arturo Soria y Mata relies heavily on that most linear mode of transportation in his own urban design—the railway. Most important, however, Cerdà's text is composed in language that is scientific but also highly metaphorical and corporeal. *Teoría general de la urbanización* makes clear that its author conceived the city as an organism and the planner as a surgeon (Cerdà I:13). Only once the planner has distinguished sick areas of the city from healthy areas can he proceed with "a true anatomical dissection of [cities] and of each of their constituent parts" (Cerdà I:12). Hardly particular to the work of Cerdà, this underlying organic metaphor for the city is a fundamental part of both the historical activity of urban design and, somewhat paradoxically,

3. Significantly, it is Cerdà who is often credited with coining the word *urbanización* [urbanization].

4. Some of these other texts include *Ensanche de la ciudad de Barcelona* (1855), *Teoría de la construcción de las ciudades aplicada al proyecto de reforma y ensanche de Barcelona* (1859), *Pensamiento económico* (1860), *Teoría de la viabilidad urbana y reforma de la de Madrid* (1861), and the aforementioned statistical monograph from 1856.

also the work of writers and activists who have reappropriated it in order to denounce the excess and community destruction of contemporary urbanism.<sup>5</sup> The organic or corporeal metaphor for the city is simultaneously of interest to a disability studies perspective, in that urbanism repeats and thus reinforces normative understandings of illness, projecting them on urban space in much the same way that they have been projected on individual bodies. In short, the city is metaphorically medicalized.

Remembering the Lefebvrian perspective on how urban space was conceived by planners, there is an underlying ideological aspect to this seemingly superficial metaphor of the organic city. While the urban is a social relationship for Lefebvre, it is nevertheless reduced to an object or a concrete set of individual buildings and avenues through the ideology of urbanism. Here there is a parallel with disability studies. That is, while disability is a social relationship, it nevertheless becomes identified with individual bodies and minds through the normative ideology of ableism. While they are certainly distinct, both the urban critique of Lefebvre and the ableist critique of disability studies methodologically unmask a form of reification that essentializes social process. Moreover, it could be argued that the social form of disability and the social form of the city are both subjected, historically speaking, to normative ideology that constructs and marks difference. It is in this sense that Lefebvre's famous question (who has the "right to the city"?) attempts to unmask the co-optation of the modern city as a construction of bourgeois specialist science and capitalist interests.

What interests us here is the fact that the obsessions of modern planning were just as artistic as they were scientific. Unquestioningly, planners saw the city as a work of art. Jane Jacobs takes planners to task for this, writing that "a city cannot be a work of art" (372; cf. Olsen). They envisioned urban space as a blank canvas, or as an empty container that they could fill with so many streets and buildings. Urban thinker Richard Sennett describes the conceptual approach of modern planners in terms of "neutrality" and "detachment," and he insists that "a visual technology of power alienated them, too, from their own work" (Sennett 62, 61). Jane Jacobs similarly reaffirms this conceptual distance of the planner in *The Death and Life of Great American Cities*, a work that had international resonance. Significantly, given the aims of the present study, she does this by mixing the discourse of science and art: "The pseudoscience of city planning and its companion, the art of city design, have not yet broken with the specious

5. See also Choay 27 on biological metaphors in planning. It is in this latter sense that the notion of the organic city has been used in North America by Jane Jacobs in the 1960s, and more recently in Madrid by the Observatorio Metropolitano in the 2000s.

comfort of wishes, familiar superstitions, oversimplifications, and symbols, and have not yet embarked upon the adventure of probing the real world” (Jacobs 13). Whether they are understood as scientific or artistic thinkers, as both at once, or as writers of prose or inscribers of the city, there can be no doubt that modern urban planners were specialists in the obsessive manner described by Davis. Spanish planner Arturo Soria y Mata is a case in point.

### **Arturo Soria y Mata’s Linear City and Beyond**

It may not be possible in an article-length treatment to provide a proper account of an extremely innovative urban project that was only partially implemented, much less to do so in an article whose main point is somewhat ancillary to historical interest in the project itself. This is, after all, a major urban project of the late nineteenth and early twentieth centuries that has itself been the object of substantial, and one could say also, obsessive academic interest (e.g. Collins and Flores; De Terán, *Antecedente*). Neither is it possible to properly contextualize the linear city within Madrid’s urban cultural history before and since (see Baker and Compitello; Larson; Ramos). Instead, I strive to present a concise introduction to the planner’s project and its resonance, before highlighting those dimensions of his work and thought that prove to be obsessive, in line with the argument established by Davis and reframed in an urban key in the previous section.

Arturo Soria y Mata first introduces his project for a linear city in a brief essay published in *El Progreso* in 1882 (Collins and Flores 38; De Terán, *Antecedente* 5).<sup>6</sup> Therein he puts forth a theoretical proposition and suggests it can be universally applied, with considerations made for local conditions (De Terán, *Historia* 107). Though the specific plan is situated 7 km from the center of Madrid, by indefinite extension, other linear cities might be constructed “from Cadiz to St. Petersburg, from Peking to Brussels” (Chueca Goitia 205; Collins and Flores 38). He republishes ideas from 1882–83 in appendix A of *Ferrocarril-tranvía de circunvalación* (1892) as his plan takes on a horseshoe shape on the periphery of the Spanish capital. The completed project was to be 500 m wide and 52 km in length.<sup>7</sup> Unlike Cerdà, who had been in Barcelona,

6. Numerous other writings on the subject followed, including the foundation of the publication dedicated to the theme, in 1896 or 1897, titled *La Ciudad Lineal* and recognized as “la primera revista de urbanismo del mundo” [the first magazine dedicated to urbanism in the world] (Navascués 52; De Terán, *Historia* 110–11).

7. This comes from Compañía Madrileña de Urbanización 19; henceforth abbreviated as CMU.

Soria y Mata was arguably more intent on preserving the status quo of urban class relationships (Velez 131–32). But in the tradition outlined in Cerdà's general theory of urbanization, he did explicitly tie urban development to the most modern form of transportation. The linear city was constructed along both sides of a central railway.<sup>8</sup> Soria y Mata forms the Compañía Madrileña de Urbanización [Urbanization Company of Madrid] (CMU) on 5 March 1894 “to promote linear development near Madrid upon the basis of his plan of 1892, and to construct and operate the associated tramways” (Boileau 232). The first section of the linear city is mostly developed by 1931—the first year of the Second Spanish Republic and the year in which the CMU put out a guide to the area—but the project languishes under the dictatorship of Francisco Franco for reasons that are themselves worthy of extended consideration (Boileau 237; Collins and Flores 47; CMU).

Even given its limited execution, the Linear City plan had a wide impact on twentieth-century planning cultures, serving as a precursor for other projects, and stimulating multiple reflections and subsequent re-elaborations (De Terán, *Historia* 105). Susan Larson writes that Arturo Soria's Ciudad Lineal is a “notable exception” to the fact that “the most influential concepts of urban planning in the first part of the century are undeniably Anglo-Saxon” (Larson 41; see also Mercer 179; Ramos 184). C. A. Doxiadis, the Greek architect and planner of Pakistan's modern capital Islamabad, lists other ideas that were “[i]nspired probably by Soria” such as Tony Garnier's Cité Industrielle and N. A. Milyutin's Stalingrad plan (Doxiadis 35; see also Collins and Flores 38; Sambricio 21–23). Though the Linear City is not explored in any of the numerous contributions to *The City Reader*, it is curious that it nonetheless appears as an illustration (plate 34) with a pair of sentences touting Soria y Mata's fame in the brief introduction to section five (LeGates and Stout 408–09). Given the brevity of the *Reader's* reference to the Madrilenian planner, it would hardly seem necessary to have included a plate or any information on the subject at all. Yet this seeming contradiction may speak more to the lack of sustained interest in Spain by contemporary urban scholars than to the historical legacy and enduring influence of Soria y Mata's project itself.

Unsurprisingly, the planner's extensive writings on the Linear City project obsessively praise the straight line, mixing geometric with economic, moral,

8. The plan's reliance on the railway recalls Lewis Mumford's remarks on the paleotechnic city, which had essentially been an outgrowth of mining towns made possible by the railroad's material links with the mine itself (Mumford 150, 159).

and democratic nuance (Collins and Flores 40).<sup>9</sup> Soria y Mata's rhetoric exalts the linear city as a seed idea for positive change in elemental terms.<sup>10</sup> The line has a generative and (re)productive power: "Geometry offers also in this case its valuable cooperation. The point engenders the line; and this, the plane" (Soria y Mata, *Ferrocarril* 49, my translation). "The straight line is the most characteristic element of the physiognomy of modern cities" (Soria y Mata, *Ferrocarril* 57, my translation). Even in this basic principle there is an explicit connection with the organic metaphor of the city that pervaded modern urban planning culture—George Collins writes that Soria saw the linear city as a vertebrate animal, a fact confirmed in the planner's statement that the principal organs of some animals are linear (Collins and Flores 40; Soria y Mata, *Ferrocarril* 49). While Le Corbusier and others had reimagined the city on a concentrated vertical axis exemplified by the skyscraper, Soria y Mata instead conquers space along an indefinite horizontal extension (see Soria y Mata, *Ferrocarril* 61).

While the planner's clear obsession with the straight line can be seen from the vantage point of urban planning as an ordering and regularizing force, a disability studies perspective might simultaneously see it in terms of a normative ideology and reproductive biology. Published at a time when Soria y Mata's Linear City project was taking off and the CMU had just been formed, *El origen poliédrico de las especies* (1894) gives voice to a most curious desire of the planner: "I am impatient to leave my obscure corner and be something in the world; and complete and perfect the work of Darwin, and see the unity and sexuality of regular polyhedrons" (Soria y Mata, *El origen* 5, my translation). Whether he is or is not obsessed, in either the modern usage of the term or that particular to the nineteenth-century sphere explored by Davis, it is sufficient to note that Soria y Mata carves out a discursive position from within the discourse of scientific obsession: "During my entire life I have had the constant longing to dedicate myself solely and exclusively to the study of the exact and natural sciences" (Soria y Mata, *El origen* 6, my translation). This scientific obsession can be seen throughout his work, in which Soria y Mata blends "indisputable elemental principles of Arithmetic and Geometry" with ideas of biological evolution. He argues that "Darwin has not had the good fortune

9. The moral aspects of the design are also explicitly highlighted in the guide published by CMU (3–8). As a side note, the article connects Soria y Mata's use of the notions 'ruralize the urban' and 'urbanize the rural' with English garden-planning traditions instead of connecting it with Cerdà's own work in Spain. See Cerdà; Resina.

10. Using the expression grano de trigo [grain of wheat] "El grano es la ciudad lineal, formulada de una sola calle" (Soria y Mata, *Ferrocarril* 49).

to see with clarity that the origin of species stems from the origin of forms; which is the regular tetrahedron, derived from the sphere; and that the laws of production and of propagation of forms are applicable to the entire universe” (Soria y Mata, *El origen* 9, my translation).<sup>11</sup>

Given the comments made by Davis in *Obsession*, it is also quite pertinent to the present argument that *El origen poliédrico de las especies* contains a section on “Genius and Madness” (Soria y Mata, *El origen* 81–82). In line with modern notions of partial madness prevalent at the time, Soria y Mata insists explicitly that “My theory makes it possible to establish a perfectly clear dividing line between genius and madness” (Soria y Mata, *El origen* 81, my translation). In line with the way that modern notions of obsession democratized madness to the wider population, he insists on the relative banality of madness, writing that “Madness is nothing other than an illness like any other” (Soria y Mata, *El origen* 81, my translation). A folding insert revealing an obsessive chart is a testament to Soria y Mata’s partial madness. A distilled visual reflection of the arguments he makes in the book, the chart depicts polyhedral forms such as the closed duo decahedron along the x-axis, while the y-axis matches each form with mathematical equations, colours, musical notes, and a strict male or female sex typology classification. More important, in ideological terms, Soria y Mata tends to reproduce the same sort of normative biological arguments that have historically been used to marginalize disability and perform violence on the disabled body. The planner writes that “All that is imperfect dies and dies soon because it is born already condemned to infecundity and to death due to the incontrovertible judgments of Arithmetic and Geometry” (Soria y Mata, *El origen* 42–43, my translation).<sup>12</sup> It is not out of line to say that—for the casual contemporary reader—*The Polyhedral Origin of Species* is an obsessive fever dream written by a partially mad specialist. This book in particular provides a compelling counterpoint to the planner’s more widely known work on the Linear City and as such prompts some closing reflections on connections between disability studies and urban studies.

The discourse of modern urban obsession in particular, and the example of Soria y Mata, provides a potentially crip-queer form of urban thinking. It reveals both “the fixation with normality” and the notion of normality itself as a sociocultural construction subject to temporal context. As crip studies forges intersectional linkages with queer studies and seeks greater global coverage (Kafer; McRuer, *Crip Theory*, “Disability Nationalism”; McRuer and Mollow;

11. On biological evolution in Soria y Mata, see De Terán, *Historia*, 106.

12. This appears on an illustration between numbered pages.

Puar), forays into urban cultural studies thus need to be seen as deeply relevant to the disability studies project. As this article has argued, normative ideology is present not merely in the material experience of urban life, not merely in the very structure of the built environment, but moreover in the legacy of large-scale planning trends that emerged in the nineteenth century. The planner's obsessions with straight linearity and the transcendent aims of its pathologization of difference resonate with ableist ideology. Yet paradoxically, the "partial madness" of the planner's obsessions implicate cognitive difference in the construction of the modern city.

Soria y Mata's legacy thus expresses a more general paradox of modern urban planning, one that is deserving of further cultural, metaphorical, and even literary investigation by disability studies scholars. Seeing the modern city as the product of obsessive thinking simultaneously brings greater visibility to the role played by cognition in the construction of urban social worlds. Henri Lefebvre's "right to the city," then, is not just a matter of advocating for social inclusion and confronting ableism in architectural form and policy. In addition, we must understand the city itself as a shifting product, one constructed from those contradictory social relationships whose complexity is hidden by normative discourse.

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