The Architecture of Disability

Buildings, Cities, and Landscapes beyond Access

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The Architecture of Disability
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## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction: From Accessible Design to an Architecture of Disability</td>
<td>vii</td>
</tr>
<tr>
<td>1. Impaired Monuments: Architecture, History, and the Preservation of Disability</td>
<td>1</td>
</tr>
<tr>
<td>2. Of a Weaker Nature: Wilderness, Urban Landscapes, and Biocapacity</td>
<td>25</td>
</tr>
<tr>
<td>3. The Urbanization of Disability</td>
<td>45</td>
</tr>
<tr>
<td>4. A Form of Impairment: Empathy and Disfigurement in Architectural Aesthetics</td>
<td>73</td>
</tr>
<tr>
<td>5. Disabling Environments: Human Physiology and Its Architectural Conditions</td>
<td>95</td>
</tr>
<tr>
<td>6. The Construction of Disability: Another Architectural Theory of Tectonics</td>
<td>115</td>
</tr>
<tr>
<td>Coda: The Practice of Disability</td>
<td>139</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>143</td>
</tr>
<tr>
<td>Notes</td>
<td>147</td>
</tr>
<tr>
<td>Index</td>
<td>183</td>
</tr>
</tbody>
</table>
In the preceding chapters, I explored various aesthetics and material qualities of the historic past as well as elements and aesthetics of landscapes and nature through the lens of human impairment. In this chapter, I examine how urbanization might be rethought through a similar perspective. In particular, I use this chapter to focus on the infrastructural systems, routes, and spaces that often tie the architecture and public spaces of a city together. Spaces such as streets, plazas, and sidewalks are key to the experience of contemporary cities and often present numerous impediments to the people using and interacting with them. In fact, most histories of disability and architecture within cities have noted that the battles disabled people have fought to access these types of spaces have been key to the formation of disability rights. While acknowledging the importance of this work, and being cognizant of ongoing efforts to make urban spaces and networks more accessible, I want to use this chapter to reimagine many of the underlying concepts and physical ideals instantiated in urban networks and infrastructure and how people have challenged them. I believe it is the particular qualities attributed to modern urbanization that lead to problems with access and isolation that are not endemic or essential to cities and urban space.

Embedded within the streets, sidewalks, water systems, waste management systems, and myriad other infrastructural elements of cities are several key physical concepts that present challenges to people with any number of impairments. One of these is the belief that a city is an immense circulatory apparatus within which
movement must be continuously extended, enhanced, and accelerated. This idea of the city arose in the eighteenth century in Europe, where concerns about promoting the circulation of people, water, and air led to a strong focus on the design of roadways. This focus on physical circulation continued into the nineteenth century via increased attention to urban infrastructure, the management of human health and sanitary reform, and investments of capital in urban space. This city of circulation, both physical and economic, also contained within it another ideal that upheld visual perception as central to the experience of urban space. This optical dimension to urban design theory was projected into the aesthetics of streets and wide boulevards as well as artifacts intended to draw the attention of spectators. This was most clearly represented in the aesthetic quality of urban monumentality and actual objects such as monuments—visible and symbolic aspects of the urbanization process.

As areas of cities were remade and modernized in the nineteenth and twentieth centuries, the changes were often the targets of various critical and countermodernist urban movements. Such counterurbanism has extended from the late nineteenth century to today and has taken many forms, including late nineteenth-century historicists’ attempts to maintain the premodern character of rationalized cities, critiques of modern urbanization inspired by social and Marxist theory, and anti- and postcolonial urban movements and urban criticism. Though politically diverse, all have rejected, reworked, and countered the ideals often projected onto the process of urban rationalization. They have questioned the values of circulation, urban flow, property, and monumentality as the urban ideals around which cities are planned.

I believe an analogous and historic disability critique of modern urbanization does not exist. This statement might strike some readers of this book as wildly inaccurate—after all, numerous critiques of the city exist from a disability perspective. A series of lauded and historically significant protests have challenged many of the barriers experienced by those with mobility or visual impairments, most prominently the inaccessibility of curbs and street networks. Some of the most important written works on disability and architecture demand more disability representation in the design of urban spaces. I acknowledge the significance of these actions and works,
but I believe that such confrontations with urban space often serve to reinforce many of the central concepts built into urban spaces. They are significantly different from the aforementioned critical traditions. I want to open a space for another idea of the city—the urbanization of impairment—where disability perspectives offer a deeper challenge to the city as a space of flows, property accumulation, monumental aesthetics, and narrow concepts of human health.

The Design of the Street

The space of the street that is so often critiqued by disability activists is a relatively recent intervention in the history of cities. The concept of the modern street—as an urban element combining hydrological engineering and traffic engineering, integrated into the surrounding architectural fabric—barely existed in European and American urban contexts before the nineteenth century. If present at all, this idea of the street appeared as an isolated feature of a city rather than as part of a larger infrastructural network that stitched urban space together. Paris, a city many historians of cities laud as embodying early modernization and urban rationalization, did not have integrated streets with piped water, sewers, shaped sidewalks, curbs, and gutters until 1830. In many other eighteenth- and nineteenth-century European cities, streets were simply remnants of the spaces between buildings or vestiges of earlier, ruinous rural roads.

The street, as a work of engineering physically and technically linked into its architectural surroundings, is tied to specific developments in Europe. Yet any number of surviving drawings and other representations of European and U.S. urban areas from the eighteenth and nineteenth centuries demonstrate that the spaces between buildings were often incidental characteristics of urban spaces. Where today streets and sewer systems interconnect the cores of urban spaces, older drawings and paintings often show muddy and rutted roads littered with piles of debris, mounds of earth, and haphazardly placed trees. In many images, people sit in the middle of streets—against trees, carts, or other piles of random matter.

What I am describing as a provisional and incidental space may be familiar to students of architectural history through a series of drawings by the eighteenth-century Italian architect and illustrator Giovanni Battista Piranesi. His views of Rome are revered for
their strong sense of romanticism and their detailed re-creation of ancient and ruinous Roman architectural monuments. Less considered is the way Piranesi represented the spaces between the monuments and buildings—an urban scenography of dirt, dust, and detritus. Within these in-between spaces, he also often drew figures who were sitting or crouching, and sometimes begging. Such images included elderly Romans and, in several cases, amputees—veterans of war—sitting on debris and rubble while pleading with those traversing the spaces depicted. These figures add to the somber and sublime effects within the visual and aesthetic context of crumbling monuments and ruination. Presumably, a viewer of such a drawing by Piranesi identifies with the figures shown traversing the space, admiring and pointing to the architecture around them (the strong focus of the artist's work), while ignoring the occupants of the urban ground.  

This type of scene, which was represented in a picturesque manner, contrasts powerfully with the architectural concept of the street. The street form that has been globalized typically incorporates impermeable surfaces, sloped profiles, separated sidewalks, curbs, and gutters connected to underground sewers. Where the ground in a Piranesi image such as that in Figure 12 once appeared still, verdant, and murky, today earthmoving, straightening, paving, and increased hydrological engineering have transformed the ground into a tool of propulsion and circulation. The types of lingering figures one sees in these eighteenth-century drawings have little place or role in the ideal of the street integrated into many cities today. The type of space represented by Piranesi remains completely alien to an architectural or designed conception of urban space—a key aspect of his work’s continuing allure. The transformation of in-between areas in cities into “streets” represents the complex entanglements of late eighteenth-century concepts of circulation that connected human physiology to urban health: hydrological management, concepts of urban reform and sanitation, and aesthetics related to the human sensorium of smell and vision. Compared to the urban space described above, an entirely different vision imagines the street as a machine of flows, where water, air, and people are propelled within its spaces.  

Another image, drawn roughly twenty years after Piranesi’s by the French engineer and architect Pierre Patte, represents a
completely opposite conception of interstitial space. Patte created his drawings of a street section in a French national context during the reign of Louis XV. They were part of a series of proposed but never realized urban improvements in Paris. The street view in Figure 13 is a section cut through an imagined wide, paved boulevard bounded by rows of buildings to the left and right. A narrow, three-story building is shown in section to the left, and another, larger building appears in section to the right; both buildings have large openings to the street to allow light and air to enter. In the middle of the street, at a distance, is a monumental, obelisk-shaped fountain, which dispenses water into a basin at its base. Underneath the center of the street runs a large, stone-lined sewer that has small openings to bring in daylight from above and also to provide ventilation. The street itself is divided into steeply sloped sidewalks on either side for pedestrians and a large sloped area in the middle for horses and carriages. The slopes of the sidewalks and street channel water into small pipes that lead to the sewer. And in the house on the left, one sees a primitive bathroom with a piped connection to the central, underground sewer.
Though the particular influence of this drawing on the actual construction of streets remains up for question, various historians have noted that Patte’s work incorporates many of the ideas that would be brought together within street designs during the next 150 years. In this drawing, Patte imagined the city as a collection of physical forces within space—the hydrological movement of water; the atmospheric control of air, smoke, and odor; and the efficient maintenance of competing forms of urban movements of people, animals, and vehicles. Often overlooked in discussions of the drawing is the image of the monument in the distance, which is significant because it represents the importance of vision and seeing to the legibility of urban spaces. Seventy-five years after this drawing was created, the Parisian urban designer Adolphe Alphand mimicked Patte’s concept of the street in his mid-nineteenth-century designs for the “boulevards” and other improvements that would remake Parisian streets and the real estate fronting them. These enormous streets, paving works, landscaping, hydrological projects, lighting schemes for nighttime illumination, and monumental plazas redefined the European aesthetics of urban spaces.
In addition to the disappearance of a more sedentary quality to urban space, the transformation of urban space into a more efficient and circulatory hydrological system had major impacts on the sensorium of the city. The capping of earth with pavement eliminated the odor and dankness of the urban ground, the shaped profile of streets increased the rate of flow of water so that it was less likely to pool and become fetid, and the movement of sewer systems underground transformed the olfactory and climatological variations of urban areas. Such changes were further elaborated when early forms of zoning relocated slaughterhouses, hospitals, and cemeteries to urban peripheries—a common practice throughout the nineteenth century. By the late nineteenth century, ordinances regarding sound and noise further transformed the sensorial topography of many European capitals. Finally, the manner in which people engaged with the city’s social and religious iconography, symbols, and history transformed as well. In

![FIGURE 14. Charles Marville, photograph of Boulevard Arago, Paris, date unknown but possibly 1865-68. The photograph shows a large, empty, paved intersection of boulevards in Paris. The street has a pronounced curved profile. To the right and left are raised sidewalks with high curbs. Rows of planted trees line the space between the pedestrian area of the sidewalks and the street.](image-url)
the eighteenth century, individuals may have touched or even embraced monumental artifacts, both secular and religious, in cities; one hundred years later, new forms of medical management, Enlightenment concepts regarding vision, and an emerging profession of preservation transformed iconographic aspects of the city into entirely visual experiences. Ultimately, in place of a certain perceptual complexity, cities took a decided turn toward ocular and optical aesthetics—one given urban expression in the form of large squares, terminating roadways, and monumental figural structures standing atop enormous classical pedestals.

By the late nineteenth century, an optically based, sanitary, and reformist concept of cities complemented an earlier form of urban rationalization. This is best seen in the less widely known but influential work of German architect Hermann Maertens. Not only did Maertens’s urban theories represent an overt bias toward vision in urban planning, but they also rethought the relationships between buildings and streets through contemporaneous optical scientific discoveries. Maertens’s urban theories were inspired by the science of vision developed by Hermann von Helmholtz. Maertens drew and developed formulas for the ratio of building height to street width as well as the correct distances from which to view monuments, streetscapes, and the decorative features of urban buildings. His concept of urban space was primarily visual and optical, but it was also informed by the latest sanitary urban science: he created a series of diagrams and street sections based on hygienic and sanitary planning in which he represented the sight lines of people within urban streets as interrelated with sidewalks, trees, figural monuments, and roadways. The result was a form of total rationalization that favored vision over all other senses, labeled “visual planning.” Maertens’s work also entangled his visual approach to planning with urban reforms by making further arguments for the clearing and opening of dense premodern and medieval urban spaces. Maertens advocated for a French and German practice of disengagement (in French, dégagement; in German, Freilegung) in which the architecture surrounding historic structures and monuments was demolished. This gave the historic structures increased visibility while opening the surrounding streetscapes to increased circulation of water, light, air, and pedestrians.
The sensibilities of urban space described above—sensibilities emphasizing efficient physical circulation of people, air, and water; visual planning; and ideas in concert with emerging forms of urban monumentality—were implemented throughout the late nineteenth century in European cities and in the Americas, from London to Rome to New York City and Buenos Aires.

Today, many of the rationalized areas of European and American capital cities, remade in the nineteenth and early twentieth centuries, remain some of the most inaccessible places in their respective urban environments. In some areas, curbs reach over two feet in height (as a result of the grading of the street into sewers), the immensity and exposed quality of the boulevards make walking intimidating, and the angled slopes of streets are difficult to traverse, particularly for people with lower-limb impairments. In some cases, the medieval cores of cities, which lack sidewalks, sloped streets, or immense boulevards, are easier to navigate today. Most significantly, these are not just current-day observations. As cities in Europe were remade according to many of the ideas explored above, a number of critics began to reevaluate the impacts of circulation, mobility, visual monumentality, and “disengagement” on traditional, premodern urban spaces and the people who moved through them. In some instances, these thinkers attempted to recover an earlier urban concept in which flow was not such a valorized aspect of the urban network of street spaces. The Viennese architect and urbanist Camillo Sitte was one of the first urban designers to question urban rationalization; he also incorporated the perspectives of impaired people into his thinking on the subject—an often-overlooked aspect of the work of this important and influential figure in the history of urban design. A follower of Maertens’s ideas of urban vision and optical aesthetics in urban planning, Sitte nonetheless railed against the types of boulevards, circulatory street networks, and practices of disengagement that defined the urban improvements advocated by Maertens and others. Sitte’s critique developed in response to the modernization of Vienna, which included the implementation of circulation routes and the building of plazas and grand vistas along the city’s enormous Ringstrasse. This boulevard replaced a ring of fortifications and open areas two hundred yards wide and several miles long that had surrounded the south, west, and north sides of the medieval core of Vienna.¹⁴
As the name suggests, the Ringstrasse is an enormous ring-shaped boulevard, framed by monumental investment properties, such as apartment houses and villas, and even larger public and governmental buildings and public spaces. Sitte attacked the scale of the Ringstrasse project relative to the traditional, medieval city’s physical textures, aesthetics, and monuments.

Sitte popularized the expression *Platzschau* (agoraphobia) to refer to a malady suffered by residents of Vienna as a result of the psychological impacts of the city’s being opened up into enormous spaces with intensified traffic circulation. He believed that these spaces tested the limits of perceptual comprehension and created a type of anxiety within which the eye, mind, and body felt overexposed and overwhelmed. In his own proposals he sought to recover and rebuild the traditional scale of streets and plazas found in premodern medieval and Romanesque urban plans. He proposed transforming areas of the Ringstrasse by introducing a more medieval and premodern scale into its large plazas and boulevards.

In many ways, Sitte was a historicist who simply wanted to recover the visual sensibilities of the premodern city, like those evident in Piranesi’s etchings; Sitte’s theory was concerned primarily with the visual degradation of urban space that took place as the traditional scale of medieval cities was reworked into monumental spaces and networked road systems. Though critical of the experience of broad and modernized streets, Sitte rarely questioned the structural issues, the reformist and sanitarian ideas, or the property dynamics and capital investments involved in the transformation of urban space. Nevertheless, he argued that modern street systems, with their emphasis on traffic circulation, put unique physical pressures on those traversing the streets. His writings mention the difficulties experienced by elderly and infirm pedestrians as they attempted to navigate the larger modernized boulevards and squares of Vienna. In his own unusual historicism, Sitte ironically argued that the types of spaces found in premodern urban plans, with their quirky and often crooked routes, offered the most adequate physical support structures for vulnerable urban residents. Thus, Sitte actually embraced the reformist idea that cities must offer structures and spaces of physical support for their inhabitants, but he demonstrated that such an idea can avoid being sublimated into a technological, functionalist, and visually modern concept of the city. He believed that
such a support system could be achieved through a return to the character of a premodern and medieval city.\textsuperscript{16}

The Right to the City

The values of circulation, vision, and monumentality built into streets transformed the design and aesthetics of urban space, but they transformed the social and economic relationships embedded within those spaces as well. In the Parisian context, not only did urban improvements destroy an earlier and more physically complex texture of medieval urban space, but they also eliminated much of the populace’s capacity to reside in the city center. Improvements like boulevards were financed by investments into the surrounding residential fabric that fronted these urban arteries. The destruction of smaller medieval plots, their recombination into much larger landholdings, and the subsequent construction of large apartment buildings with shop fronts drastically changed the class and property dynamics of the central city’s neighborhoods. In addition to the demolition of historic neighborhoods that held broad mixes of trades and residents, the new investment properties—mostly apartment houses—that fronted these boulevards were built to maximize investor profits. Thus, the emerging ideas about increasing circulation within urban sectors were also part of new and more modern forms of financial investment that in turn created new forms of financial and demographic precarity and displacement.\textsuperscript{17} For example, as central Paris was remade into a more modernized form, a countercity emerged at the city’s peripheries to hold its former and much poorer population. Such exurban \textit{banlieues} or \textit{bidonvilles}—where poorer Parisians resided—were often the flip side of the visions of Patte and Alphand. The residents lived in shack-like structures without running water; the neighborhoods lacked adequate sewage systems and had no formal sense of public space. The destroyed and remade core and peripheries of the city presented new forms of historical and physical alienation while fomenting urban dissension.\textsuperscript{18}

This intensely rationalized and capitalized city center, with its social and economic implications and effects, became the context for a series of urban protest movements and uprisings that occupy a central place in both the history of this city and the intellectual and critical history of urbanism more generally. The protests included
forms of subtle refusal and disobedience as well as mass revolt that challenged the values of urban rationality and the meanings and uses ascribed to “improved” urban spaces. The famous events of the 1871 Paris Commune loom large in histories of urban modernization, extending from commentary of the period to more recent, postmodern urban theories. During these events, which lasted only a few months, the leaders of the city’s “artisanal” classes organized a mass movement that briefly seized the center of the city and performatively destroyed a series of symbolic spaces and monuments. These events, and others of a much less grand and collective scale, remain significant in the history of urbanism and political critiques of urban design. They spawned not only political urban movements that continue to protest inequities in housing and access to public space in Paris but also an entire critical and radical intellectual tradition that is still highly influential in debates about urban design globally. For example, the writings of Walter Benjamin, Henri Lefebvre, Guy Debord, David Harvey, Kristin Ross, and Nicholas Mirzoeff reflect on the rationalization of Paris, the social costs of these urban transformations, and the various forms of disobedience and radical responses to them. The Parisian revolts, the urban and cultural literature examining them, and the “models” of urban analysis drawn from that literature remain touchstones of urban critique that urbanists still confront.

Beginning in the late 1920s, the German cultural theorist Walter Benjamin wrote extensively on the transformation of Paris into what he termed the “capital of the nineteenth century.” He examined the construction of the new urban network, the alienation and new forms of consumption and subjectivity it created, and the revolts that attacked its physical, economic, and aesthetic character. These forms of nineteenth-century urban radicalism and critique inspired a range of additional critical concepts and political theory examining the experience of an urban environment remade in such a complete manner. As the processes of urban rationalization from the nineteenth century were rehearsed again—in new urban improvements and housing construction in postwar Paris—an entire intellectual critique of urbanism was inspired. Such work, developed by Paris-based “Lettrists” and “Situationists”—drew on the history of the Commune while responding to the new era of remodernization after World War II. During the famous protests of May
1968, the ideas of the Commune seemed reborn, as young Parisians took over the center of the city, ripped up the pavement of the boulevards, and erected barricades. In contemporary writing, urbanists such as Nicholas Mirzooff and Léopold Lambert relate events of 150 years ago to the economic and social problems facing cities today.

As a totality, this critical work (all too briefly summarized here) on the impacts of modernization on urban subjectivity, with its strong Marxist bias, is extensive and often romanticized. As mentioned, it represents an intellectual critique of modern urbanism that is still elaborated and contested. In recent years, it has inspired scholars to expand the critique of urbanization beyond a focus on class and into broader discussions of the challenges created by urban rationalization relative to gender, race, and disability. As with race and gender, the integration of a disability perspective reveals key problems with the original premises of this critical tradition. As I have explored above, disabled people are marginalized by the physical qualities valorized within urban rationalism and design theory, but they are also further alienated by this intellectual tradition that tends to romanticize the physical reactions to it by young, able-bodied European men.

One of the central themes and experiences in this critical thinking on cities, which extends from the nineteenth well into the late twentieth century, is how one might respond to the alienation created by urban rationalization at an individual, physical level. The instrumentalization of space through the creation of new and destructive street networks, the physical construction of inequities and control in a constantly transforming city, and the intensity of capital investments in urban space create a sense of alienation and precarity for many. In addition to experiencing displacement, individuals might become overwhelmed and overburdened by the physical and mental demands of their surrounding environment and the intensity of a city that is continuously unmade. In response, they might actually embrace this alienated condition and detach from a direct engagement with the uses of urban space purposely designed to move them along or exclude them. This unusual subject position—labeled the “flaneur” by Walter Benjamin and the dériviste in mid- and late twentieth-century Situationist writing—refuses to participate in urban space as it is designed and in the role assigned. Instead, the flaneur or dériviste engages in a type of wandering,
transgressive aimlessness and occupation of urban space. The flaneur or dériviste refuses to completely sublimate their movements and activities within a city designed to rationalize or exclude them. Within the context of Paris in the mid-nineteenth century, the flaneur was envisioned as someone who not only disobeys the disciplinary sense of circulation within the urban street network but also refuses to participate directly in forms of consumption made freely available in such a space. These ideas of the flaneur, transmitted first through the writing of Charles Baudelaire, were further developed by Walter Benjamin. Benjamin recovered this figure’s aimlessness as critical to subtle forms of modern consciousness and disobedience. The flaneur experiences the city as a series of disconnected visual images that emerge from reclaiming one’s own agency while ambulating through urban spaces.

The Situationist concept of the dérive (drift) extends this earlier idea but endows this figure with greater athleticism and perceptual intensity. The dérive involves completely abandoning any purposefulness in movement and giving one’s physicality over to both random and transgressive experiences within the urban environment. In an early essay in which they developed the concept, Guy Debord and Jacques Fillon called for urban citizens to rise above the boulevard and climb to the rooftops of Paris to enjoy the unique views afforded from these heights. Here, the dérive becomes a form of trespass that negates the intense separation between private property and the public urban spaces that people use for movement. Like the idea of flaneurie, the dérive entails transgressive movement but also a highly visual sense of experience in urban space. In both concepts, the movements and perceptions of a person traversing the city act against the assigned meanings, economies, and activities prescribed for spaces by planning and organization—from forms of consumption to the iconography of cities represented in monumentality and heritage. This belief that one can challenge urbanization by freely wandering urban spaces is a central theme in the literature discussed above. But this wandering is obviously of limited utility as an inherently critical act: through the lens of race and policing (especially in French and U.S. contexts) as well as disability and age, only certain people can simply wander within a city in such a dramatic fashion to engage in this critical act of disobedience (which may not really be that critical at all).
The contemporary scholars of disability David Serlin and Steve Graby have focused on how these historical concepts of wandering and drift leave little room for the experiences of disability. Yet they also argue that these critical urban concepts can be enriched by their entanglement with the perspective of impairment. Serlin, who first explored these issues, examines the often-narrow physical range around which urban flaneurie was conceptualized—again, primarily as an activity of young, able-bodied European men. In his research he explores a series of historical episodes, from the experiences of Parisian wounded war veterans to those of famed disabled tourists to the city, like Helen Keller. These figures enable a reconceptualization of flaneurie through the experiences of blindness and gender. In a complementary exploration, Graby examines the ways that “wandering behavior”—a recently identified...
and derogatorily characterized feature of autism—might be de-
pathologized when seen through the Situationist concept of drift. He inadver
tently reveals the way that certain actions, such as me-
andering and aimless walking, are celebrated within outré urban
literature but seen as aberrant and odd in the context of disability. Both
authors also reveal another tension: the ways in which dis-
abled people struggle to be incorporated within intellectual and
critical reflections on urban space.

Finally, among the qualities of urban radicalism celebrated
within this critical literature are more direct acts of urban subver-
sion and iconoclasm. Benjamin and the Situationists embraced the
manner in which the Commune famously destroyed the imperial
iconography built into the boulevard systems of Paris. In May 1871,
in a spectacular statement against symbols of war and militarism
in public space, the Commune demolished the imperial column
dedicated to Napoléon in the Place Vendôme. Again, this event was
famous in its own time, recounted in the press internationally, and
was recuperated within popular and academic literature on urban
revolt. The Situationists, in defining their own concept of urban
critique, also valorized this act and celebrated contemporaneous
destructive uprisings. They further examined how the historical
and religious iconography of Parisian public spaces, as well as the
functions of urban networks, could be similarly taken apart. In their
mocking “Plan for Rational Improvements to the City of Paris,” they
suggested subverting the boulevard system by dimming its gas-
lights, blocking its viaducts, and toppling its monuments. Some
of the goals put forward in these satirical statements were realized
during the mass protests of the summer of 1968, in which young
Parisians erected barricades and tore up the paving of the city’s
boulevards. The attack on the physical structure of the city’s street
became a notorious aspect of these events and inspired vanguard
architectural and urban theory critical of urban rationalization. In
total, the provocative writing on urban iconoclasm and the latter
radical events, in which streets were literally torn up, reimagined
streets beyond their official symbolic and economic functions.

Outside the Parisian context, and within the disability activism of
the United States in the 1970s and 1980s, acts of iconoclasm against
streets also became a central feature of several U.S. protests. In 1978
and 1980, wheelchair-using disability activists in Denver, Colorado,
publicly smashed the concrete curbs of the city’s street corners with sledgehammers. They did this because the municipal government had discontinued a program to rebuild urban sidewalks with “curb cuts,” which make them more suitable for wheelchair users. In response, these young wheelchair users smashed curbs as a symbolic act of iconoclasm and as a spectacular event to draw attention to their needs. These actions and the smashed bits of curb from them have become legendary events and relics of disability history. A piece of the curb from the 1978 action is held in the Smithsonian Institution’s National Museum of American History, and the actions of the Denver protesters occupy an important place in “radical histories” of disability in the United States.25

This last example also reveals some of the tensions in associating the experiences and actions of disabled people with themes central to critical and radical urbanism. The idea of wheelchair iconoclasts, blind flaneurs, and autistic dérivistes enables disabled people (and those who write about them) to understand their experiences and actions as critical contributions to urban space. They demonstrate how the experiences of disabled people are often excluded from histories of urban criticism, protest, and subversion. But the agenda of much postwar U.S. and European disability activism was fundamentally different from the intellectual urban critiques noted above: as striking as smashing curbs with sledgehammers remains, the activists in Denver wanted to utilize the modern city as it was conceived—as a site of circulation and mobility. Their actions differed from the ultimate goals of other radical urbanists who sought to reimagine the inherent physical properties and economic function of modernized cities more fully.26 What would be a more thorough disability critique of the city? The answer to this question certainly involves continued efforts to improve the accessibility of urban space, but it also involves connecting disability critiques with those urbanists who have reimagined and continue to reimagine the inherent physical and economic features of modern urbanization as well.

The Urbanization of Impairment

The urban geographer of disability Rob Imrie provocatively argues that the rejection of the modern city has never been adequately undertaken. This is because both modernist urbanism and the various
architectural and theoretical approaches that critiqued it embraced a narrow concept of humanness—one that disabled people found largely unrelatable. Imrie asserts that the pursuit of the “accessible city” would mark a more authentic passage from modernism to “postmodernism” by integrating the needs of disabled people into the urban spaces that constitute cities. An accessible city would be unlike earlier visions of urban design and space because it would be more open to impaired people.\(^27\) As mentioned above, I believe the pursuit of access—as that idea is currently defined in an urban context—often revives many of the narrow and modernist urban ideals that Imrie critiques. Access, mentioned at the beginning of this chapter, enables disabled people to use the circulation infrastructure of cities; to put this in the language of geographers and urban sociologists, it enables disabled people to flow in the city of flows.\(^28\) In this section, I want to examine a different possibility for how disabled people consider their bodies and minds relative to the infrastructure of urban space—the “urbanization of impairment,” which complements historic forms of disability activism. This term refers to a city that is disentangled from instantiating a narrow concept of physical functioning, health, and physiology. As a complement to an accessible city, the urbanization of impairment suggests additional critical ways in which architects and urbanists might question what types of bodies are instantiated within urban space, urban change, development, and urban form. Rather than the metaphor of connection through mobility, circulation, exchange, and/or vision, embracing qualities associated with impairment—frailty, weakness, immobility—provides another idea of how people and spaces entangle in cities.

To imagine the urbanization of impairment, I want to take critiques of urban space much more deeply into the space of the modern city—and I mean that literally. For example, the idea of circulation and flow is endemic to the idea of healthful cities, and as much as it is contested in the experience of streets and plazas, it is more forcefully instantiated in the infrastructural networks of water and waste that lie beneath them. Such hydrological systems and the idea of urban management that they represent are central to the physical sensibility of cities and often escape critical analysis in discussions of disability in cities. As central as such infrastructural networks are to ideas of urban health and modern urban
improvement, various contemporary theorists of cities have begun questioning them in provocative ways.

Through the lens of the writings of Matthew Gandy, Elizabeth Povinelli, Nikhil Anand, Malini Ranganathan, and Kian Goh, urban water infrastructure is far more complex and contested than something that simply solves self-evident functional problems of water supply, drainage, and healthfulness. For example, the types of systems built in the capitals and major metropoles of Europe and the United States in the nineteenth century were also constructed in urban centers in India, North Africa, South America, and East Asia. In those locations they supplanted, and in many cases eradicated, endemic forms of urban hydrological management. Equally significant, in several cases the material, labor, and wealth that went into such urban infrastructure were extracted from these colonial sites. As Matthew Gandy recounts, the transition in Indian cities from precolonial to colonial networked and modernized water management systems actually resulted in more epidemics than had been seen in the years immediately prior to the introduction of these systems. Today, colonial-era water systems are blamed for increased risks of flooding in Bangalore and Jakarta, where flooding has become more frequent as intensive forms of urban development have encroached on areas of the cities that once relied on their original hydrological maintenance systems.

I see these observations as important to the urbanization of impairment for several reasons. In the short term, they recover forms of urban hydrology outside a modern assemblage of sloped streets, sewers, and curbs, which are the ongoing targets of access strategies. Additionally, these critiques question the automatic association of modern infrastructural systems and their health-giving properties with inherent ethical attributes. More forcefully, the thinkers who have reexamined precolonial and hybrid postcolonial hydrological systems have suggested that these systems represent potential alternatives to European urban management—replete with an alternative set of urban metaphors. For example, in contrast to a city of flows, the type of water management system used in Mumbai, described by Nikhil Anand, is one of “pulses” and “leaks,” managed through a system of “stoppages.” While such a system may appear “informal,” it is continuously mapped and elaborated by its engineers and managers. According to Malini Ranganathan,
the precolonial water system of Bangalore was managed through
a system of lakes and catchments organized topographically that
enabled monsoonal rains to disperse into pools arranged through-
out the city. Here, the urban water system might be described as a
system of “waves” and “breaks.” Kian Goh uses the terms “soaking”
and “seeping” to articulate an unrealized spatial and hydrologi-
cal politics that can address climate change, land subsidence, and
neighborhood activism in Jakarta. These terms and the systems
they represent can be compared to those of many other cities—
where maintaining constant pressure, movement, and distribution
of water are benchmarks of a healthy urban circulatory system. 
This in turn becomes an analogy for the entire urban system and its
function—one tied analogically to the circulation within a human
body, which defines its health as well.

While all of the authors cited above note the inequities of the
water systems they have studied (which are far more unevenly dis-
tributed than those in many U.S. cities), they nonetheless believe
that these systems suggest another possibility of urban hydrology
outside that instantiated in nineteenth-century European models.
Their hypotheses are mirrored in the work of contemporary ecol-
gists who have reexamined the roles of precolonial systems and
the topography of cities in managing water as cities confront the
challenges of aging infrastructure and climate change. This latter
work, undertaken in cities like Bangalore, Mexico City, Mumbai,
and Quito, among many others, seeks to understand the existing
traces of precolonial water systems within cities in Asia, Africa,
and the Americas and how they might inform future hydrological
planning. In much of this work, the modern street, with its hy-
drological and “hard” architecture and its sealed pipes below, is
contrasted with another vision of the city—one that is far more per-
meable and leaky in the manner described by Anand and Goh. A
question remains how this concept of urban spaces, which is out-
side nineteenth-century European infrastructural visions, might
confront the more postapocalyptic and dystopian concept of the
city whose infrastructure is unmade.

Such critical histories, geographies, and alternatives to the infra-
structural ideals of the past upend many of the myths that attribute
essential, and often politically liberal and liberatory, qualities to
modern infrastructure. In addition to upending any automatic
sense that European methods of water and waste management are central to the infrastructural democracy of cities, the tenor of these critiques can be projected into other aspects of urban infrastructural space. For example, in the United States the idea of the roadway as an inherently liberatory and democratic space that ties neighborhoods, cities, regions, and nation together is entrenched and reiterated in cultural forms from architecture to literature. The roadway has long been a symbol of mobility, which is likely why it was such an intense site of disability activism in the 1960s, 1970s, and 1980s. But this particular concept of streets and roads must seem questionable, if not absurd, in the face of more recent historical and aesthetic practices that emphasize the highly racialized character of U.S. infrastructural spaces. In the United States, this latter character extends from the particular ways roadways into regions and cities have been (and continue to be) planned to the ways they have been (and still are) managed and racially policed. The association between roads and boundless circulation and flow is contingent and provisional, at best.

A disability critique of the city must also address other forms of circulation and exchange, particularly the dynamics of property and real estate, which are interrelated with the processes discussed above. As mentioned in the Viennese and Parisian examples above, the reconstructions of these cities in the nineteenth and twentieth centuries intensified flows of capital by expanding private property. The transformation of urban space through infrastructural systems and urban capital is an integrated process and a focus of important critical analyses and responses—including Situationist critiques and the work of current scholars like David Harvey explored earlier. The disability liberation activists of Berkeley, California (whose work I have briefly described in the Introduction), incorporated ideas about disability communalism at their Center for Independent Living while demanding inclusion within the streets and public transportation networks of the city. Yet a disability critique of property has not been adequately conceptualized as part of a total rethinking of urban space and design—either in the example in Berkeley or in subsequent disability design work.

A disability critique of urban property dynamics could join other efforts to rethink the inherent structure and zoning of urban and suburban space. For example, today, in Berkeley and in neighboring
Oakland, California, city officials are dismantling single-family zoning laws that overdetermine the racial demographics of the cities’ neighborhoods. In addition, housing advocates such as Noni Session, who leads the East Bay Permanent Real Estate Cooperative, are exploring ways to remove housing from the speculative markets of Berkeley and Oakland, and thus transform the cities into new sites of community property. By encouraging the building of multifamily dwellings as well as additional dwelling units on single-family-zoned properties, these governments and housing advocates aim to improve housing affordability and promote alternative forms of housing ownership. In addition to challenging the racial dynamics of single-family zoning, disability perspectives can challenge the inherent isolation built into such zoning as well as the automatic “right” of individual property holders to determine how people may or may not move through their property. The way people move through urban spaces is often predetermined by the distribution of property ownership as much as by a city’s street structure. Ultimately, a disability critique of property would lean on concepts of communalism, such as the creation of easements to encourage physical contact and communication between owners of separate parcels, and would advance ways of holding property in common as well as other forms of ownership aside from individual control. Such an approach would both ease the physical isolation of urban settlement patterns and reimagine forms of “drift”—imagined at the center of an earlier generation’s radical urban concepts—through cities.

In developing the concept of the urbanization of impairment, I want to conclude this chapter by turning attention toward aspects of urban space that may appear comparatively less important. In particular, I want to consider the symbolic iconography of cities in the form of public works of art and commemoration. This “monumental” character of cities is also imagined as an intrinsic quality of urban spaces, particularly those with grand infrastructural works, boulevards, and plazas. Many critics of inaccessibility advocate for making specific urban aesthetic artifacts, such as figural monuments and public artworks, more accessible to disabled beholders through the installation of ramps and elevators or the translation of inscriptions into braille or audio. In tandem with these approaches, I want to imagine how disabled perspectives
might ally with movements seeking to rethink the inherent monumental character of cities. Such an idea brings a de facto challenge to the symbolic iconography of cities and how it projects meaning into urban space.\(^3^5\)

Recall that the idea of an optical urbanism, theorized by Maertens, is built around the visual experience of monumental moments in urban space. By using the term “monumental,” I refer to how urban space impresses the eye with an anthropomorphic and classical sensibility—one often linked to visibility and grandeur.\(^3^6\) But “monumental” also describes the actual physical monuments that lace urban space with figural and textual meaning. In many diagrams, Maertens and his followers note that an optical urbanism involves a strong focus on monuments as important representative moments of urban visualization. Here, a monument is generally a figural sculpture or marker, sitting on a large classical pedestal, and with text inscriptions. In recent years, scholars such as Nicholas Mirzoeff have called for the possibility of a postmonumental and postmonument city—a city in which monumentality becomes questioned as a value, and where many honorary and commemorative monuments are decommissioned and removed from public space.\(^3^7\) The latter critique of monuments emerges from recent debates in the United States, Europe, and South America. In the United States, such antimonument arguments were intensified by the intersecting politics of the Black Lives Matter movement, the enormous and uneven death toll from the Covid-19 virus experienced by Black Americans, and right-wing efforts in support of keeping in place the many prominent urban monuments valorizing the Southern Confederacy. Within this particular case, monumental representations of militant power in urban spaces became touchstones that also represented the disparities and racism surrounding urban health and the controls on physical mobility in “modern” cities. The actual destruction of these monuments during protests in the United States extended to a series of simultaneous and global actions during which monuments to European imperial kings, colonial soldiers, and colonial governors were defaced or demolished. Such critiques of Confederate and colonial monuments are certainly not new, but in the past, historians and preservationists argued for a more liberal and compensatory approach to addressing them. This strategy “reframes” the powerful iconography of
these monuments by providing interpretive information or by adding complementary monuments representing the histories of those left out of the original works. The demands by disabled people to make monuments accessible are part of this more liberal and compensatory strategy: monuments may offend, but one imagines how they can be made less offensive and changed to represent a more diverse range of viewpoints and interpretations. When historians demonstrate how monuments were deliberately used in urban planning—to telegraph racist meanings to those in their immediate surroundings, to celebrate militancy as part of (not despite) the modern development of urban space, or to transform the meaning of public spaces based on narrow concepts of history—these compensatory strategies appear inadequate and, in many cases, offensive. The ability to reframe, recontextualize, or rethink these monuments is suspect, because their very form often diminishes their capacity to represent a complex and heterogeneous concept of history. The lack of “tactility” or accessibility (in general) of commemorative monuments is often the least of their offenses.

A city in which monuments disappear, in which urban infrastructure takes on a murkier character, where networks of mobility become less prominent aspects of urban space, and where trespass is encouraged and property exchange slows down . . . taken together, these ideas might appear as the end of the city. While startling in some ways, these qualities, actions, processes, and effects are embraced by many contemporary critics of urban modernization because they open up another idea of urban space—unrealized in most cities. “Flow,” “mobility,” “property,” and “monumentality” are not automatic qualities of a democratic city. In fact, those urbanists, geographers, and urban movements that critique these concepts introduce another, and potentially far more heterogeneous, political and just concept of urban space, because they find these qualities suspect. The above critical ideas, often emerging from the perspective of postcolonial and racial histories, also provide an opening to imagine a more forceful and heterogeneous physiological concept within urbanization. They potentially introduce another idea of urban space that is far more complex and open to weakness, frailty, and impaired citizenry. By contrast, many theorists and architects of the modern city attempted to vanquish impairment as a meaningful physical aspect of urban space. In its
place, a vision of healthfulness was represented—metaphorically, in the concept of physical circulation; directly, through the reconstruction of urban spaces and networks to metabolize matter and bodies; and aesthetically, in the form of vistas, open spaces, and monumental works and acts. But this physiological ideal and its physical representation in urban spaces was far from universal and universally liberatory. In contrast to a city that banishes impairment as a meaningful aspect of urban thinking, the urbanization of impairment seeks to find a meaningful and modern way to recover an impaired figure within the city. Such an idea intersects with the above critical and political reevaluation of urban space because it seeks to rethink given urban elements and the subjects valorized within urban spaces.

Theoretically, the urbanization of impairment entangles the various critical responses to modern urbanization examined in this chapter—those preserving the urban fabric because it offers a familiar, physical support structure; those embracing wandering, drift, and trespass; those embracing less mobilized metaphors, such as pulses, leaks, and waves; those reimagining movement in the city beyond a simple valorization of mobility; and those seeking a way out of the idea of a monumental city and its flattened, often militant histories. The urbanization of impairment might involve the creation of a parallel set of metaphors and processes around which to reimagine urban space and ideas about impairment. Among the many possibilities, a concept such as “occlusion” offers an evocative, metaphoric contrast to the nineteenth-century concept of “disengagement” (examined above) or the concept of “circulation.” The term “occlusion” typically refers to a malady—a blockage in the circulatory system that leads to a loss of vision. Thus, my use of the term might appear brazen and strident. But occlusion might be a way to consider another urban fabric and a way to think about what the urbanization of impairment might be at the most conceptual level. An occluded city still contains spaces through which people travel, it does not harm the physiology of the people living within it, and it allows history to find a place within it. An occluded city might be one where less property enters the dynamics of private exchange and ownership and real estate dynamics are slowed and altered. It might be a place that one traverses in ways that make aspects of flow and circulation less central qualities. Whatever the particular
FIGURE 16. V. Mitch McEwen with Kristina Kay Robinson, model view of R:R, installed at the Museum of Modern Art, New York, 2020. The photograph shows a model of the woven bamboo buildings and amphibious bayou landscape of “Republica.” This critical, alternative vision of New Orleans, Louisiana, is imagined by its architect as one created by the protagonists and ancestors of the (now successful) 1811 Mississippi Uprising. The project proposes a rejection of nineteenth-century European conceptions of property, urban hydrology, and material extraction in the creation of urban space in this landscape.
metaphor, the urbanization of impairment offers something beyond circulatory dynamics in both material and economic forms; something beyond the idea of mobility, which is often imagined as a quality automatically attributed to the urban street and roadway; and finally something beyond the idea of monumental forms of visibility often projected into urban space. By lessening the dominance of these ideas in urban thinking, a city can provide a place for impairment as a positive contribution to the conceptual, physical, and economic structures that construct urban space.
3. This is an example of a “narrative prosthesis,” in which disabled figures occupy unstated roles of disidentification that reaffirm the aesthetic experiences telegraphed within a work. On this idea, see David T. Mitchell and Sharon L. Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse* (Ann Arbor: University of Michigan Press, 2014).

4. Of course, such figures are likely more of a feature of many cities that have gone through modernization processes. As mentioned in chapter 2, the instantiation of “boulevards” in the U.S. context came with regulations regarding how streets could be used that interconnected ideas of physical beauty and urban utility. Today, stillness is often criminalized in areas given over to circulation—from street spaces and sidewalks to the types of passages found in public transit hubs.


10. An Tairan, “Touching, Disease, and the Sacred Artifact,” *e-flux*, November 2020, https://www.e-flux.com. The literature on the elevation of the “optical” (visual sense) over the “tactile” (touch) is significant, but a good place to begin is with one of the key figures who established this distinction: Alois Riegl, *Late Roman Art Industry*, trans. Rolf Winckes (Rome: George Bretschneider, 1985).


12. Maertens’s influence was significant. For example, his illustrations were redrawn several times in European and U.S. architecture manuals. Students of architecture in the United States were introduced to Maertens’s ideas in Werner Hegemann and E. Peets, *The American Vitruvius: An Architects’ Handbook of Civic Art* (New York: Architectural Publishing Company, 1922), 42. This book also republished many of Camillo Sitte’s diagrams of European plazas.


15. Sitte writes: “There can be observed a modern nervous sickness, the fear of squares. Many people suffer from it. They become ill in crossing a wide square. Even great men moulded in bronze or sculptured in stone have been struck by this disease on their monumental pedestals. They prefer, as we have seen, to remain in the old small squares rather than venture into vast deserted spaces.” Regarding wide streets and intersections, he notes: “These points of convergence are especially dangerous for pedestrians. In some places attempts have been made to overcome a few defects of this type of intersection by
locating, here and there, little islands of pedestrian refuge from which rise impressive, slender lamp posts, like beacons in the midst of swelling waves of traffic. These isolated segments of sidewalk constitute, perhaps, the most important and original innovations of modern art in city building! Despite all precautionary measures, only the agile can safely cope with them. The aged and infirm avoid them by wide detours.” Camillo Sitte, *The Birth of Modern City Planning*, trans. George R. Collins (New York: Dover, 1986), 28, 62.

16. Sitte’s work was influential in the late nineteenth century, and more than a hundred years later it is still considered relevant by those seeking a way out of the particular technological conception of the city embedded in modernized street and infrastructural networks.


27. Imrie, *Disability and the City*.


29, no. 2 (1997): 311–32. On precolonial water systems in the Americas more generally, see Mann, 1491.


33. I explored these ideas with a team of colleagues in the project “Block Party: From Independent Living to Disability Communalism,” presented at the exhibition Reset: Towards a New Commons, Center for Architecture, AIA New York, April 14–September 3, 2022.

34. See Gotkin, “Stair Worship”; Kleege, More Than Meets the Eye.

35. My use of the term “monumental” relates to the disability critique of monuments in chapter 1. In this context I use “monumental” to describe the visual grandeur that is part of the typical experience of the commemorative monuments (versus the historical and art historical monuments of chapter 1) found in many urban spaces.

36. I feel it is important to mention that I have an ambivalent attitude toward bringing disability into this classical, monumental vocabulary. For example, numerous authors (most prominently, Tobin Siebers) interpret Marc Quinn’s sculpture Alison Lapper Pregnant as a significant and positive expansion of disability representation in public space. This sculpture was commissioned as part of the Fourth Plinth Project and was displayed in Trafalgar Square in London from September 2005 to October 2007. Quinn represents Lapper, a British artist who has various disfigurements of her arms and legs, in white Carrara marble, with her head turned slightly, invoking a classical sculptural gesture. As sited atop a prominent neo-Greek classical pedestal, the sculpture classicizes disability into a language of monumentality. For the key exploration of this statue and its relationship to disability, see Tobin Siebers, Disability Aesthetics (Ann Arbor: University of Michigan Press, 2008).


38. The concept of urban occlusion is related to Édouard Glissant’s argument for “opacity.” Glissant suggests that opacity should be opposed

**FOUR A Form of Impairment**


4. For overviews of the concept of form in architecture, see Harry Francis Mallgrave and Eleftherios Ikonomou, “Introduction,” in *Empathy, Form, and Space: Problems in German Aesthetics, 1873–1893*, ed. Harry Francis Mallgrave and Eleftherios Ikonomou (Los Angeles: Getty Center for the History of Art and the Humanities, 1994), 1–88; Adrian Forty, “Form,” in *Words and Buildings*, 149–72. The canonical statement by the Italian architect Leon Battista Alberti, that beauty in architectural design is a moment where nothing can be added or taken away except for the worse, was rooted in an understanding of the beauty of the human body, its limbs, and its symmetry.


7. Wölfflin discounted earlier aesthetics as limited to a “reckoning by the eye” and argued that aesthetic sensibilities involve a total psychological and physiological form of perception related to people’s senses of their own bodies. Interestingly, he also used the example of blindness to elaborate on his point. Wölfflin, “Prolegomena,” 155.

8. Wölfflin, “Prolegomena,” 159–60. The writing on Wölfflin’s concepts of form, empathy, and style is vast. A good entry point on the emergence of these ideas within Wölfflin’s thinking (and one that explains why I have chosen to illustrate them with the Pergamon Altar) are Alina Payne, “Portable Ruins: The Pergamon Altar, Heinrich Wölfflin, and German Art History at the Fin de Siècle,” *RES: Anthropology and Aesthetics* 53, no. 1 (2008): 168–89; Alina Payne, “Wölfflin, Architecture