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Introduction

I. No City, No Future?

On September 11, 2001, Bob Dylan released a highly anticipated album. In the song "Bye and Bye," we hear a wistful voice: "Well the future for me is already a thing of the past." That morning, New Yorkers had good reasons to expect just another Tuesday. It was a time of relative peace and stability. As two airplanes crashed into the World Trade Center, the future changed in ways no one could have predicted. Terrorists killed nearly 3,000 people. The US response caused hundreds of thousands of casualties. Dylan's song was not about geopolitics and offered no guidance or consolation. Taken together with the events of that day, it can remind us of a recurring tendency in modern life: our ability to foresee cannot keep up with developments.

In Manhattan's history, as in other booming cities, the future was more often something to be built than a thing of the past. On 9/11, technologies that drove urban transformations collided: the steel beams supporting the towers, the glass enveloping the façades, and the explosive fossil fuels powering flight. Between the activities of office workers and the beliefs of suicidal pilots, we have long-standing forces that shaped the course of urbanization: trade, religion, war. Dylan's verse could be interpreted as either foolish or premonitory. It actually meant to express commitment: the singer's first love would be the last. He was reacting to a world where changes might be taken for granted, when relationships come and go, like airplanes or buildings, dreams or money.

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The Invention of the Future tells a story about how ever-changing modern cities defied predictions and remade the destinies of humanity. It opens with another catastrophe that captured mass media, the 1755 Lisbon earthquake, and the reconstruction that followed. Around then, the expectation that the future would be radically different from the past began to emerge as a defining trait in modern life. Cities became expressions of self-determination and collective aspirations. They promised material improvements in this world rather than redemption in an afterlife. This book recasts urbanization within almost three centuries of competing visions. It traces the shifting perspectives of planners and city dwellers across the Atlantic. Whether they vied for liberating potentials or entrenching hierarchies, salvation or survival, countless people experienced and imagined cities as places of possibilities. Forward-looking habits of mind, institutions, and technological innovations changed how they dressed, worshipped, labored, loved, built, organized, moved around, cared for their health, had fun, made money, created art, and told stories. How did ideas about the future matter in their worlds—and to ours?

Throughout history, human beings mostly assumed that divine forces determined the future. During the eighteenth century, lettered Europeans and Americans began to wonder how they could transform human society and the environment. Urban planning was premised on an understanding of progress as achievable and desirable. Few, however, agreed about what that meant. Dreams for cities of tomorrow contemplated sewage systems, flying vehicles, and anything in between, from egalitarian utopias to exclusive enclaves. Projects multiplied, from zoning ordinances and poetry to transit infrastructures and science fictions. More recently, climate change created another condition: calamity seems inevitable. With curtailed powers, urban planning has become more engaged in adaptation and mitigation than making new worlds. Myriad narratives present the future as something to be prevented rather than built. Meanwhile, we continue to learn about how improved living standards and sustainability can coexist in compact urbanization. When we account for the simultaneous forces colliding and converging over the past several decades, it is hard to discern any single arc. One

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global pattern, however, continues unabated: more and more people moving to cities.

As we look back, this book will move between detailed focus and panoramic scales, revealing connections across continents, sites, and lives. Each chapter homes in on particular cities where modern cultures flourished, during major turning points in urban planning: the rebuilding of Lisbon as a secular imperial capital after the 1755 natural disaster; the gridded Commissioners' Plan of 1811 for Manhattan, catalyzing a radically open-ended relationship to development; the comprehensive reconstruction of Paris from 1853 to 1870, which became a global model; reforms to modernize Rio de Janeiro between 1903 and 1906, in the wake of the abolition of slavery; dueling proposals from the 1920s and 1930s for Buenos Aires by local planners and modernist icon Le Corbusier, with different approaches to emergent transportation modes and growing metropolitan scales; the unprecedented expansion of Lagos since the 1950s. Other major cities reappear throughout or provide counterpoints, including London, Barcelona, Chicago, Algiers, Berlin, Mexico City, and Brasília. As we get closer to our century, urban futures move from the Atlantic world to the Pacific. A book on more contemporary urbanization would have to focus on a very different set of cities, largely in Asia. The epilogue reflects on today's viable futures, on the limits of learning from the past, and on how we can draw wrong lessons or inspiration from history.

Hunter-gatherers and medieval Parisians did not walk around imagining that their surroundings would look unrecognizable to the next generation. Our more recent trajectory as a species, building and destroying at a breathtaking pace, defies credulity. Yet futures, of course, existed before. Some psychologists call us *homo prospectus*, primed for "nexting." Even in societies with cyclical cosmologies, there is still a sense of time behind and ahead. Humans lived nomadically for most of our time on earth. Doing so required anticipating seasonal patterns. Agriculture would demand significant planning, including systems for

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irrigation, storage, and recordkeeping. As urban societies developed, it became common to project forward through planning or building with intergenerational horizons. Long before modernity, people designed settlements in anticipation of growth or potential disasters. They planned wide streets to prevent fires from spreading, managed woodlands to ensure water supply, or devised antiseismic structures. Stone temples and marble forums presupposed a relationship to a future beyond a single lifetime, if not eternity. In both ancient and early modern Rome, for example, the monetary value of fines for vandalism or infractions would sometimes be carved into walls or marble plaques, with no apparent consideration of inflation or changing conventions. The future, we could say, was set in stone.

In modernity, clocks, calendars, and other forms of timekeeping became standardized and prevalent, organizing temporality. Expectations of change became a constant, and people increasingly imagined radical departures from known circumstances. Inventions and reinventions took place in growing cities. From the 1750s to the 1950s, they largely concentrated in the Atlantic world. As transformations accelerated, a sentiment voiced in Vienna amid the revolutions of 1848 becomes widespread: "what was scarcely conceivable yesterday is reality today and history tomorrow!"² Originally, this evoked political volatility. In retrospect, it could apply to infrastructural progress and expanded rights, but also to violence and imperialism. Attributing the origins of "the invention of the future" to cities of the North Atlantic is not meant to be a compliment. Nor is it necessarily an indictment. A crucial aim here is to trace how certain ideas and practices that emerged in Europe became rendered as universal, often through imposition. At the same time, working with or against power differentials, throughout the Atlantic people mobilized future-oriented planning with a variety of goals in sight: democracy, dictatorship, colonization, reform, revolution, and so on.

In this book, besides serving as a chronological marker, *modern* suggests a sensibility toward the present and the future that assumes a break with the past. Needless to say, not everyone embraced such mindsets. As the chapters advance, the boundaries of who had a desire and an ability to shape the future (or a city) will widen in many cases, and

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contract in some. Who could even afford to be modern? Who and what would be left behind? How about those that wanted to be left behind? Modernity was never absolute. It was characterized by an ongoing interplay between continuity and rupture, fixity and flux, limits and possibilities. As we address the changing contours of these relationships, variants like *modernism* or *modernization* will gain more precise meanings based on their uses at a given moment and place.

Planning is also to be understood somewhat loosely, and contextually. It will comprise attempts to organize urbanization that predated the consolidation of the planner as a professional. References to *design* encompass a more deliberate and specific concern with the formal or architectural dimensions of planning. And *urbanization* suggests the city, but also how flows of resources, peoples and ideas extended beyond its boundaries. Urban development upended lives and ecosystems in the countryside and hinterlands. Our focus lies on cities but recognizes how their growth intertwined the destinies of landscapes and peoples, often across faraway shores.

During the period covered here, the relative role of transatlantic connections to the global history of urbanization went through a rise and fall. The choices of case studies reflect large-scale demographic patterns. The Atlantic world's share of the twenty largest cities on the planet began to increase dramatically in the eighteenth century, and then dropped even more sharply after the 1940s, as urbanization accelerated across the Pacific region (see figure 0.1).³ A graph of the most populous cities by continent, over a longer span of time, adds some nuances (see figure 0.2). Asian dominance among major cities waned as the European share peaked around the 1850s, followed by the Americas a century later (first North, then South). By the latter decades of the 1900s, the urban boom was mostly in Asia, and then increasingly in Africa in the 2000s. In the twenty-first century, the locations of the world's largest cities once again reflect the distribution of global populations, after a century and a half of exceptional urbanization in the North Atlantic (see figure 0.3).4 This does not, however, represent a return to some kind of historical norm, as cities in China, for example, increasingly become leading high-tech hubs. And urban growth in the so-called Global South

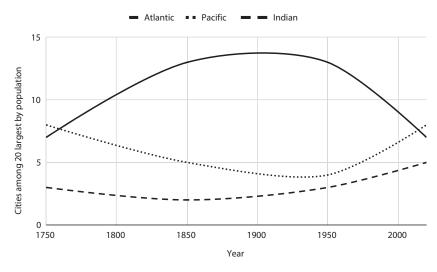


FIGURE 0.1. Estimated number of cities among the 20 largest by population, located near the Atlantic, Pacific, or Indian Ocean, between 1750 and 2020.

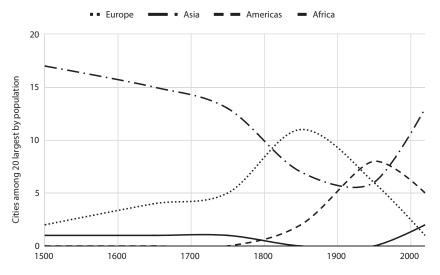


FIGURE 0.2. Estimated number of cities among the 20 largest by population, located in Europe, Asia, the Americas, or Africa, between 1500 and 2020.

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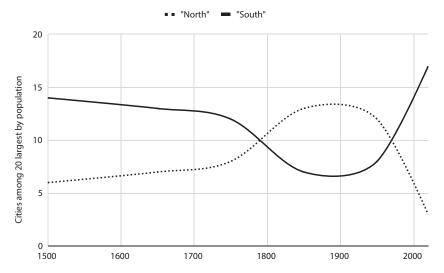


FIGURE 0.3. Estimated number of cities among the 20 largest by population, located in the "Global North" or "Global South," between 1500 and 2020.

has had greater orders of magnitude: the number of people moving to a metropolis like Lagos every month is comparable to the entire population of Manhattan in 1800.

Survey histories of modern architecture and planning used to have a basic diffusionist plot: "first the West, then the rest." More recent scholars unsettle Eurocentric and North Atlantic perspectives. Studies map the circulations of capital and ideas across national boundaries, demonstrating how the marginalized did not merely imitate models and resisted exploitation. They compel us to follow threads connecting cotton plantations in the Americas to textile manufacturing in Europe, and to consider how legacies of the transatlantic slave trade endure. This book builds on transnational scholarly efforts. Yet, while national and regional dynamics loom large, the urban scale remains the key category of analysis here. A comparative framing foregrounding cities rather than fault lines like the West or the South can help us draw out similarities between urban dwellers and lettered elites across the Atlantic. An engineer in Rio de Janeiro could have a lot in common with another in Paris. Factory workers in both cities might also share hardships and yearnings.

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Zooming in will allow us to see revealing differences. Stepping back can evince broad historical patterns. Within the span of a generation, for instance, the razing of Seneca Village to make way for Central Park in Manhattan (1850s), the violent suppression of the Paris Commune (1870s), and a war against a messianic community in Brazil (1890s) all exemplify states asserting themselves against urban experiments in selfgovernance. National governments progressively narrowed the range of possible urban futures. Around the same decades, the movement toward a secular faith that futures could be open-ended and malleable peaked, with a rapid succession of techno-scientific advances. It is only in hindsight, after World War I, that we can draw an arc leading to foreclosed imaginations. No two stories of economic development or transit history are the same. But in the twentieth century, as nation-states further strengthened and cities morphed into unwieldy metropolitan areas, planners became hamstrung by the dominance of cars and suburbanization (whether through high-income single-family houses or poverty-stricken self-built dwellings).

It takes time and appropriate conditions for ideas to coalesce into plans, and for plans to get built. From the mid-nineteenth century onward, for example, Charles Darwin and Karl Marx greatly impacted debates. Both devised future-oriented interpretations of change, abandoning premises that we are inexorably tied to the past. We can imagine how witnessing fast-paced urbanization might have softened any belief in nature and social classes as fixed like the firmament. Marx directly accounted for industrial cities as engines of wealth accumulation for the rising bourgeoisie and immiseration for wage-earners. It took until the twentieth century, however, for Darwinism and Marxism to wield major influence in planning. They inspired theories of evolution and revolution. The social Darwinist concept of survival of the fittest fueled justifications for urban inequality and segregation. Marx's work left an imprint in left-leaning politics and projects after the Russian Revolution, remaining central for some disciplines concerned with urbanization, like critical geography and social theory.

The role of capitalism in urban developments should not be minimized, but here readers will not find an unbridled defense or condemnation. The

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historian Jonathan Levy describes capital as "a process of valuation, in which assets are expected to yield future pecuniary profits." Capitalism in this definition is structured around prospects, rather than just past accumulation through savings or physical things. Credit and finance often set in motion extractivism and the production of housing, labor markets, infrastructure, etc. But the kinds of pressures that capitalist economies exert on urbanization have varied over time and between places. An investor, for example, might profit from building a new house, or from owning an existing house that appreciates when a city constrains new building.

This book sustains that no totalizing theory of change could resist contact with empirical realities. Today, computational modeling helps us forecast and track trends in climate, traffic, markets, energy, infectious diseases, and more. Planning can stand to benefit from available tools. But urbanization is more than the sum of its parts and cannot be reduced to any single set of variables. Understanding cities requires attention to statistics as well as stories, data as well as deities. Throughout modernity, diviners and futurists overestimated the predictive uses of precedents, and downplayed the political power of predictions. More recently, scholars have researched how expectations can propel capitalist dynamics, shape political participation, influence policy decisions, engender modern forms of subjecthood, and create self-fulfilling prophecies. Fictional futures, one critic argues, widen the range of behaviors "by new wishes, demands, and goals." In urban design, bold proposals can stretch the limits of the thinkable, becoming influential even if unrealized.

When Aymara peoples in the Andes allude to the future, they have a custom of gesturing with the hands toward the back, to evoke what cannot be known. The future is not ours to see. Unlike most other cultures, they then motion forward while referring to the past. What already happened is not behind us. It is what can be seen and shown. That might capture the work of history: we can only predict the past. But life is messier. The experience of time is not always so neatly linear. Aspirations can be bound up with recollections, and the past sometimes can be a thing in the future. There was Bob Dylan's lover on 9/11, validating promises of steady devotion with appeals to what had been. And oblivious to

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his jazzy travails, men with holy certainties hijack advanced tech to renew ancient wars, sending worldly futures up in flames. Articulations of possibilities can shape how we understand records of the past, as well as material developments in the present. The philosopher Walter Benjamin imagined an "angel of history," thrust forward by the storm of progress toward the future, looking back on the wreckage behind.¹⁰

II. Making Plans

How did people in the past make sense of their futures in a changing world? What are the connections between the imagined cities of tomorrow and how cities actually developed? Who and what belongs in any given vision? Who gets to decide? How is it supposed to materialize? What does it look like? Versions of these fundamental questions will resurface when we get to urban plans. It behooves us to keep in mind that sometimes the big stories are in minor details. Originally aired in 1962–1963, *The Jetsons* formed an indelible mental image of futurism for people across generations and in much of the world. As the cartoon characters zipped through familiar dramas in outer space, dreams of flying cars were already a thing of the past. We will return to *The Jetsons* and this historical moment, but for now, the opening scene can help us see what contemporaries overlooked, and we inherit. The show's first sequence frames planet earth, still there. We then see George Jetson dropping off his kids at school and his wife Jane at the shopping mall before arriving for work at Spacely Space Sprockets, Inc.

Where does George park his flying car? It is easy to miss. He hits a button, and the car becomes a suitcase. Sure, this is a joke about gadgets, an afterthought in a feel-good sitcom. Finding parking in outer space should not be hard. Maybe the point was to spare viewers of any reminders of this real-life stressor. *The Jetsons* re-created in Orbit City the car-centric and sprawling land use patterns taking over the United States at the time. It portrays how cars could streamline mobility. But like many of the visionary car-oriented urban plans that promised speed, it neglected storage. Back on earth, private vehicles spend most of their time parked, and they would require a lot of space.

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Life in outer space was probably a more reasonable prediction than what ended up happening: vast swathes of cities razed for highways and surface lots. Eventually, there would be more square footage "dedicated to parking each car than to housing each person" in the United States. ¹¹ The Space Age might have stalled, but *The Jetsons* proved prescient in oblique ways. Only a hefty dosage of magical thinking (or denial) could make parking seem so smooth. Orbit City had no streets. In the actual future materializing as the show aired, nonflying cars turned streets from places where kids played into thoroughfares or parking. A strange metaphor is attributed to then—Senate Majority Leader Lyndon B. Johnson, foretelling Cold War threats: "Soon, the Russians will be dropping bombs on us from space like kids dropping rocks onto cars from freeway overpasses." ¹² No bombs dropped, but you would not know that from before and after images of US downtowns. Meanwhile, car drivers became the leading cause of death among children.

What happens is often not part of the plan, for good or for bad. When cars arrived in cities, drivers started parking wherever they could, because it was usually free and convenient. This started as an innocuous story. Once more cars hit the streets, that intractable expectation was harder to match, and snowballed. By the time Jane Jetson went to the shopping mall, the whole sprawling arrangement benefited from tax codes, racial politics, and much more, with cars on their way to becoming one of the biggest stories in the production of urban futures, emissions, and environmental degradation. Today, plans to replace surface parking with housing or with dedicated lanes for buses and bikes suffer the wrath of grassroots revolts, especially in the United States. An overarching moral here is that if for every problem there is a solution, for every solution there is a problem. Exciting innovations like cars or wellmeaning correctives like community participation in planning often result in unintended consequences. Sometimes yesterday's solutions are today's problems.

We should not conclude, however, that it is better to forego attempts to improve urban conditions. The best plans proved adaptable to changing technologies and demands, whether intentionally or not. In fact, sometimes yesterday's problems are today's solutions. Dense

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neighborhoods in nineteenth-century industrial cities exposed people to overcrowding, disease, and pollution. They can now house them in energy-efficient, transit-rich, and healthier environments. Changes can surpass expectations in desirable directions too. The earliest starry-eyed seers imagining fantastic inventions like time machines or spacecrafts would be stunned by news of modern antibiotics and women's rights. *The Jetsons* did not foresee changing norms in gender relations: George went to the office, while Jane spent his money at the mall. Urban history does not provide a consistent verdict about who gets the future right. The stakes are not the same, but from fictional creations to technical reports, any number of approaches can be prescient, lost in the clouds, or even a bit of both.

Reasonable expectations underestimate the range of potential outcomes. Though that usually only becomes apparent in retrospect, drawing on this insight can make us more alert. Understanding how urban transformations have eluded predictions helps to loosen up perceptions of any given prospect as inexorable. Histories of cities might even reinvigorate our capacity to envision and pursue large-scale transformations, rather than succumbing to doom or techno-boosterism. In the least, they serve as humbling reminders for us to accept the limits of what can be known and controlled about the future. The framing of a *climate crisis*, for example, can imply that our current environmental predicaments are only temporary, or a stage in a sequence of events with a resolution in sight. Things worsen or improve, there are endings and beginnings, but history cautions against fantasies of finality, closure, salvation, or permanent solutions.

Since at least the 1750s, inventions of futures in urban planning evolved out of a turn away from religion. Practical concerns overrode divine orders. Many secular planners and designers, however, maintained linear or teleological premises familiar to Judeo-Christian-Islamic traditions. Le Corbusier, for example, envisioned transformations with an end point. His plans would fix problems once and for all, saving the city for posterity. Godless manifestations of faith-based structures of feeling and dogmatic thought can be found in pursuits of silver bullets, economic miracles, or master plans. The anthropologist Fernando Coronil,

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focusing on Venezuela, wrote about "the magical state" creating "the illusion that instantaneous modernization lay at hand, that torrents of oil money would change the flow of history and launch the country into the future."¹³ There is also "magical capitalism," showcasing assets while concealing social or ecological costs, asking us to suspend disbelief like a magical realism novel. ¹⁴ And we can think of the designer Norman Bel Geddes, who published a paean to modern car infrastructures called *Magic Motorways* (1940).

It may not always look that way in a well-preserved neighborhood with historic architecture, but like all else in the cosmos, cities are in constant flux. At the same time, the experience of change within modernity was always embedded in specific circumstances. As a part of larger processes, urban design evolved within a push-and-pull between agency and contingencies, possibilities and limits. Planning treated cities as key sites for imagining nations and state building. If the nation-state becomes the channel through which imagined futures flow, capital cities in particular could serve as a map for what is achievable through modernization. Often, major urban plans and projects sought to circumscribe or prescribe boundaries of belonging based on status, along lines of class, gender, age, race, ethnicity, citizenship, religion, language, and so on. As we will see, the locations of grandiose opera houses or highways cutting through neighborhoods reflected assumptions about which lives mattered most. Monuments showed off who held power. Neoclassical aesthetics and rectilinear layouts showcased supposedly universal standards of beauty, progress, and civilization.

And yet, the history of urban planning is full of stories about the unplanned, and people making their own plans. Urban-based groups and individuals appealed to ideas of universal values to expand rights. They worked to abolish slavery, extend the voting franchise to women, or enact welfare policies serving the poor. Sometimes, the forms associated with certain values morph: over centuries, an obsession with straight-lined grids as harbingers of order and modernity gave way to

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sinuous layouts. Other times, design showed and tried to tell, but could not control the message. Skyscrapers functioned as symbols of prosperity or dystopia. The transparency of glass implied openness or surveillance. Dispossessed urbanites appropriated newly built modern boulevards meant for the wealthy. Amid everyday struggles and striving, often taking chances against the odds, myriad people did not accept assigned roles and sought to refashion themselves. To the Brazilian author Clarice Lispector, that defined her condition as a human being: "necessity makes me create a future." ¹⁵

The future could be a project, a destination, a foreign place, even a burden. A range of unenthusiastic reactions to urban modernity unfolded: quiet resignation, capitulation, insurgence, refusal, lament. As transformations rendered familiar cities unrecognizable, nostalgia began to refer less to a place and more to bygone times. The French photographer and journalist Félix Nadar wrote in 1867: "It is no longer Paris, my Paris that I know, where I was born [...] I no longer know how to find myself in that which surrounds me." 16 That futuristic modern Paris has become traditional. Meanings and uses of spaces continuously evolve, often in unintended and surprising ways. Planners are not always captive to top-down elitist perspectives, and progressive voices sometimes miss the trees for the forest. Still in 1867 Paris, Émile Zola claimed that "the future belongs to gardeners." He meant that negatively. The writer railed against what he saw as mere "scraps of meadow" and artificial "microscopic parks" recalling modern shop windows, sullied by the loud and crowded city. 17 Landscape architects designing these spaces had aimed to enable "the crowds" to enjoy "the murmur of the birds" and to give their strolls "a magical air." Today, few issues generate more of a consensus than the desirability of tree-lined streets, pocket parks, and green spaces in the urban fabric.

Histories of planning and architecture almost necessarily dwell on designs that never came to fruition, frustrated intentions, and unforeseen outcomes. More broadly, engagements with modern urbanization tend to have some orientation toward the future, even if latent. This book therefore relies on vast amounts of materials. It is indebted to scholarship across fields and languages. If one set of debates asks

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whether ideological or material forces drive history, we can think of design as where they meet and become inextricably linked. Therefore, though this is not a survey, many canonical references in planning, architecture, and urban studies will be found here.

To parse through shifting experiences from a variety of vantage points, analyses turn to an array of archival sources and media. Plans, diaries, testimonies, memoirs, letters, speeches, reports, laws, newspapers, postcards, magazines, advertisements, drawings, film, music, and literature can all reveal resonances and tensions between planning elites and people on the ground, or between technologies, economics, and cultural narratives. There are fictions in archives, and archives in fiction. Literary texts, for example, will help us grasp transitions in what could be imaginable at a given moment, and its bearings on social life. In each chapter, the choices of highlighted voices to a significant extent reflect the availability of sources. As we get closer to the present, they diversify.

Cities are as diverse as the futures they can nurture. And the futures they can nurture are as diverse as the people that live in them. Heavy-handed ideas about what counts as universal have frequently been used to legitimize inherited hierarchies, subjugation, and exclusion. At the same time, through much of the twentieth century and in our own, urbanization has coincided with a fragmentation of plans and dreams. Utopias lost appeal. To be in an urban world has always meant living among strangers. In the twenty-first century, digital technologies have facilitated connectivity, and the role of space-based common denominators dwindled. It became untenable (and unfashionable) to still believe in universal futures. Yet, we are haunted by planetary ones.

III. Under a Warmer Sky

To understand relationships between ice ages and atmospheric carbon dioxide, the Swedish scientist Svante Arrhenius created a climate model in the 1890s. He estimated that doubling the concentration of CO_2 might lead to increases of up to seven degrees Fahrenheit. Although the calculations were rudimentary by later standards, the results were not far off. Arrhenius thought that people in the future would welcome

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living "under a warmer sky." ¹⁹ He predicted, however, that it was going to take another three thousand years for humans to generate enough emissions. Arrhenius lived amid an urban boom that began in Europe, spread to the Americas, and became global. The growth of cities unfolded along with rising fossil fuel emissions, as well as the transformation of vast territories to sustain industrial and agricultural production. Arrhenius underestimated how rapidly we would alter the composition of the air and reshape our planet. The scientist and his peers could envision climate change. What they failed to imagine was the speed and scale of urban change.

Even in the 1890s, a warmer sky would not have been as welcome in the tropics as in Sweden. Arrhenius was aware of growing emissions in the North Atlantic, but overlooked how "the advances of industry" often relied on exploitation and violence.²⁰ In 1933, another European, Walter Benjamin, meditated on the experiences of contemporaries: "A generation that had gone to school on a horse-drawn streetcar now stood under the open sky in a countryside in which nothing remained unchanged but the clouds, and beneath these clouds, in a field of force of destructive torrents and explosions, was the tiny, fragile human body." Benjamin was referring to the traumas of the Great War, the ongoing Great Depression, and presciently, "the shadow of the approaching war."21 He brought to mind landscapes crisscrossed by railroads, perforated by mining, and ravaged by modern warfare. Every generation since, across the planet, has experienced dramatic transformations. We now know that, with greenhouse gases, even the clouds and the open skies are no longer unchanged.

In the North Atlantic, the modern history of environmental futures was marked by "a single-minded expectation of endless growth on a finite planet." That too has changed. Today, dire visions abound in fiction and scientific reports, and they do not spare any corner of earth. Several writers note an exhaustion in the imagination of futures in response to ecological devastation, but not exclusively. Though disputes over memory are nothing new, a focus on the past appears to have intensified in the twenty-first century. Online platforms provide constant fodder for well-grounded and fantasy-fueled takes on history. In the

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2010s, the theorist Franco Berardi described the period since the 1970s as "after the future," to denote a void in any collective imagination. Anthropologist Eduardo Viveiros de Castro and philosopher Déborah Danowski published *The Ends of the World*. The title in Portuguese asks: *Is There a World to Come?* Anna Tsing reflected on our contemporary inability to discern the direction or shape of human history in *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*.

The term *Anthropocene* has become increasingly used to denote our geological age. We often think of climate change in planetary terms, but humans seldom experience the planet as a whole. We experience places. Scholars reflect on the mismatch between the spectacle-driven nature of modern media and the "slow violences" of climate change: thawing icebergs, the higher acidity of oceans, the composition of the atmosphere, etc.²³ There are also spatial mismatches. In a city we usually do not see where our energy comes from or where our trash goes. Yet, urbanization is inseparable from ecosystems. It is how creatures and matter convert to the commodities and inputs undergirding modern lives. It is how cows in a field become beef in the market and steak on a plate, or how iron ore mined underground transforms into steel frames for a skyscraper or highway.

However tiny our bodies might be, we know that our ecological footprints accelerated sharply since Arrhenius and Benjamin. We also know that our impact greatly depends on the quality of our built environments. Compact settlements integrated into mass transit systems do not require as many resources and generate far fewer emissions per capita than car-reliant sprawl. By concentrating buildings, infrastructures, and the circulation of people and goods, they are more energy-efficient and cost-effective, besides freeing land for ecosystems to thrive. Twenty-first century urban conditions range from appalling to idyllic, but we know people can thrive in compact settings too. Some environmentalists react to urban growth with concerns about overpopulation. Massive per capita disparities and the ecological advantages of cities should serve as starting points for any such discussion. After all, the average resident of an apartment building leads a more sustainable lifestyle than someone in a leafy suburb built for driving. The differences are even

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more stark when we compare the Global South with car havens in the United States, the Middle East, or Australia.²⁵ From an environmental perspective, populations matter less than oversized trucks, freeways, and paved parking.

Urbanization will continue to confound our ability to foretell. All over the world, migrants arrive in cities searching for better lives, sometimes escaping deadly conflicts or environmental pressures. How we make room for newcomers will go a long way toward determining our fate under a warmer sky. Planning helped create inequalities and climate change but remains key to our ability to tackle them. It is crucial for metropolitan areas to accommodate new populations without fostering displacement and sprawl; to expand or upgrade transit, energy, sewage, and water infrastructures; and to add or maintain multifamily housing stocks in mixed-use settings, where residents with a range of incomes, conditions, and aspirations can access jobs, greenery, and social spaces. There are cities pursuing those pathways, especially in Europe and Asia. We will return to some of these questions in the epilogue, though the full complexities of current urban challenges and trade-offs are beyond the scope of this (or any) book. From the outset, we can recognize that meeting the desire for walkable and mixed-use neighborhoods is one of the lowest-hanging fruits if we want to balance high living standards with the preservation of nature.

Urban developments can be attacked as threats to tradition, belonging, or authenticity. Changing cities invite derision from across the political spectrum. Nativists and xenophobes fear them as suspiciously cosmopolitan or foreign. New constructions might be perceived as signs of ugly aesthetics, gentrification, or rapacious capitalism. Environmentalists, particularly in anglophone contexts, tend to view cities as sites of crises and sources of problems. More broadly, skepticism with the possibilities of progress has generated degrowth, anticapitalist, and climate movements that could be understood as forms of "austerity ecology." They often focus on curbing supply rather than built-in demand. Yet, fossil fuel production does not just result from corporate greed. Land use policies mandating sprawl underpin it. When we do not allow vertical buildings, we incentivize horizontal expansion. And if people's

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best option is to drive, and they can afford it, they likely will. Some green activists miss the forest for the trees, or microplastics from EV tires for plastic bags from grocers. Unwittingly, opposition to urban developments can exacerbate housing scarcity and stimulate oil use and pollution. There are, however, emerging efforts to enable more abundant multifamily homes and multimodal mobility. Environmental and urban politics do not need to be at odds.

Looking forward, large-scale changes might seem too daunting. Unimaginable transformations, however, have happened throughout the history of cities. The future was always at a crossroads. Urbanization helped cause climate change. Now, responding to climate change requires urban change. Growing cities can help. Carbon emissions and biodiversity losses are material realities no matter how humans think or talk about them. But narratives matter. Critics stress how terms like Anthropocene obscure the immensely greater contributions to climate change from higher-income countries, and how those at the peripheries of modernization suffer disproportionately from impacts. We can be even more precise and productive by foregrounding metropolitan scales. As climate conversations heat up, leading voices in academia, activism, business, tech, politics, and the arts have paid surprisingly short shrift to how our planet's future largely depends on which pathways urbanization takes. Our counterparts in the past seldom foresaw major transformations around the corner. They could still have a more fertile sense of urban possibilities than we do. How might futures in the past enrich the stories we tell ourselves about the days to come? In the history of urbanization, we find the roots of our present predicaments, but we might also search for seedlings, flowers, and fruits.²⁸

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