

## THE LOST SUBWAYS OF NORTH AMERICA: A CARTOGRAPHIC GUIDE TO THE PAST, PRESENT, AND WHAT MIGHT HAVE BEEN

Written and Illustrated by Jake Berman

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Review by: Matthew Buchanan

The Lost Subways of North America is a well researched exploration of subway, light rail, and elevated metro systems in selected cities in North America. Delving into the evolution of urban rail transit on this continent, it offers the reader an engaging and succinct narrative of the mass transit related aspirations, challenges, successes, and lost opportunities that shaped the history and the present realities of the systems as we know them today.

The author showcases twenty cities in the United States, and three in Canada, to discuss some of the problems, and a few of the successes, of rail rapid transit. Each of the twenty-three chapters is devoted to a single city, and every chapter opens with a full-page index map showing the geographic extent of that city's rail transit system at different periods in its history. These maps, though, simply set the stage for the story of the birth and evolution of each city's transit system throughout the decades. Each chapter is supported by between one and six colour maps that chart the course of public transit in that place—from the earliest horse drawn tramways of the late 1800s to the present day, including various proposals that were never constructed, or were dramatically scaled back.

Without a doubt, it is these system maps that are the standout feature of this book. Composed by the author, Jake Berman, all are original and done in styles and colour schemes inspired, where possible, by the official maps. This variation makes them even more compelling and interesting to study. Making legible transit maps is a balancing act between simplicity and complexity, as well as between the desire for a clean diagram and geographical accuracy. Berman has done an excellent job finding the right balance.

The maps are mostly drawn in the diagrammatic style we have come to expect of transit maps, though some are quite geographically accurate and even include scale bars. Some include proposed and "under construction" lines, and others include the higher orders of bus lines like busways or bus rapid transit (BRT) when such modes are an integral part of the system.

Most of the profiled cities have faced some combination of challenges with their transit system, and each chapter highlights a different problem. For example, the first chapter is about the city of Atlanta. From the late 1890s until about World War Two, Atlanta-in common with many North American cities-had an extensive streetcar network. Streetcars, however-again, like in most North American cities-fell out of fashion after the war due to rise of affordable automobiles and of generous government subsidies for highway construction. It wasn't long, though, before those highways were clogged, and alternatives were needed. In the 1950s and 1960s Atlanta's ambitions of growth led civic leaders to propose a comprehensive, rail-based, rapid transit system much like the contemporary systems planned for Washington, DC and the San Francisco Bay area. Unfortunately, issues of race and funding, along with bouts of urban-suburban squabbling,

© ip the author(s). This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/4.0/. meant that the system of today is not nearly as successful as it might have otherwise been.

Other chapters of the book highlight different issues that similarly led to less than optimal outcomes. The Lost Subways of North America meticulously outlines a series of critical missteps in the development of each urban transit system-missteps ranging from the shortsighted dismantling of thriving streetcar lines to enduring political stalemates hindering system expansions. The book scrutinizes the consequences of building stations in inconvenient locations, failing to construct comprehensive networks, and neglecting fare adjustments to match inflation rates. Moreover, it delves into the adverse effects of prohibiting urban density around transit hubs, and highlights the detrimental impact of prioritizing long suburban rail extensions over vital destination-dense corridors within cities, exacerbated by legal impediments like zoning laws and parking restrictions that obstruct the construction of high-density buildings near transit infrastructure. Additionally, the book critiques the flawed assumption that commuters will predominantly drive to stations, leading to the construction of sprawling parking lots or garages rather than promotion of walkability and accessibility.

Various impractical flash-in-the-pan transit trends are discussed, including monorail projects in Seattle, Los Angeles, Las Vegas, Montréal, and New Orleans. Berman also discusses the trend for automated "people movers," with proposals ranging from Pittsburgh's fully-automated, 19,800 passengers-per-hour Skybus to less-ambitious examples in Detroit and Jacksonville. Only Miami's can be considered a success. The more recent trend of building downtown streetcars is also discussed in the chapters about Detroit and New Orleans.

Using, among others, Los Angeles and Minneapolis–St. Paul as examples, the author briefly addresses, and largely debunks, the many conspiracy theories involving automobile manufacturers buying up streetcar lines just to shut them down and replace them with busses. The only instance of this he can find is in Minneapolis–St. Paul, and even in that place there is no shortage of other villains.

Chapters are also devoted to the smaller cities of Richmond, Virginia; Rochester, New York; and Cincinnati, Ohio—none of which have a rail transit system today but all of which have had extensive streetcar systems in the past. Cincinnati started building a subway in the 1920s but abandoned the construction due to high costs. Rochester has the distinction of being the only city in North America to first build a subway, and then to abandon it. Today, Richmond has only a busway.

Success stories are few and far between in this book, although a few cities can be considered successful in some regards. The city of Houston, despite its car dependency and vast sprawl, built a well functioning light rail system that focuses on its inner-city areas. The Houston system carries twice as many riders per mile of track as does the one in Dallas, a city with a similar metro population. The Montréal Metro system is a notable success story, too, unlike many other large municipal projects there. Pittsburgh's decision to focus on a good bus system in conjunction with its few light rail lines is shown to be a success. In British Colombia, Vancouver built an automated, mostly elevated, rail transit system that is well liked and is well used. In this, Vancouver contrasts with other cities that rejected elevated tracks in favour of more expensive underground systems, such as Washington, DC, which built a good system in its core city.

Despite the *North America* in the title, the book includes only United States and Canadian cities. The author acknowledges the absence of chapters about Mexican urban rail systems, explaining that the history of urban transit in Mexico follows a different trajectory. While this limitation may disappoint some readers expecting a continental scope, it allows for a more in-depth exploration of the unique challenges and successes experienced by American and Canadian cities in the realm of urban transportation.

While most of the maps that Berman created are excellent, there are instances where certain maps suffer from very small font sizes, especially the maps of historic streetcar and elevated lines in New York, Philadelphia, Detroit, and Montréal. Many of these maps appear to have been originally designed for use at a larger size: for example, on his **website** Berman sells prints of the Montréal map at 12×18 and 24×36 inches, but that map was reduced to approximately 9×11 in order to fit the page size constraints of the book, leading to cramped labeling and poor readability. A larger book format would have been preferable to accommodate these maps more comfortably and enhance their legibility, ensuring that readers can fully appreciate the wealth of information they convey. Additionally, maps that feature black backgrounds pose readability challenges due to the small font size used for labels. Fortunately, such maps are relatively few within the book, mitigating the impact of this issue.

While the maps serve as a defining feature of the book, their relationship with the accompanying text could be strengthened. A more cohesive link between textual descriptions and visual representations would enrich the reader's understanding, allowing for seamless navigation between narrative explanations and map illustrations. This integration would enhance the overall reading experience, facilitating a deeper engagement with the complex evolution of urban transit systems across different cities.

The historical map of Vancouver is missing some crucial details. The interurban line to Richmond and the lines in the eastern suburbs are not shown. These omissions detract from the map's comprehensiveness and may leave readers with incomplete insights into the city's transit history. There are other missing pieces, too. While some of the maps show the most recent situation of the city, including under-construction lines (Los Angeles, New York, Seattle and Toronto), others do not (Minneapolis, Vancouver, and San Francisco). It would have been good to include these in all cases.

The author explains why North American cities ended up with car dependency, sprawl, and bad transit. Dysfunctional politics, auto-oriented development patterns, racial tensions, and the law of unintended consequences all contributed to the complex web of challenges faced by urban transit planners and policymakers. By elucidating these root causes, the reader is offered a deeper appreciation of the systemic issues underlying the development and management of urban transportation infrastructure.

The selection of cities featured in this book is purposeful, aiming to spotlight specific aspects—whether positive or negative—of their transit histories. While notable cities like Edmonton, Calgary, Denver, and others with midsized light rail systems are not included, this deliberate omission doesn't detract from the book's focus. Rather, it allows for a more in-depth examination of a diverse array of urban transit experiences, balancing large metropolises like New York and Chicago with smaller cities that may lack transit systems altogether. Indeed, the book wasn't intended to serve as a comprehensive atlas of every city but rather as a nuanced exploration of select case studies.

The *Lost Subways of North America* is a compelling read for transportation enthusiasts, urban planners, and cartographers. By offering both a critical analysis of past mistakes, and a hopeful outlook for the future, this book serves as a valuable resource for envisioning more sustainable and efficient urban transportation solutions. The conclusion has a hopeful tone, but it acknowledges that it will also be long and difficult job to make transit better.