

Transit-Induced Neighborhood-Level Change in Medellin, and its Insights for Toronto

By T.J. Bamonte

Supervised by Dr. Luisa Sotomayor

A Major Paper submitted to the Faculty of Environmental and Urban Change in partial fulfillment of the requirements for the degree of Master in Environmental Studies, York University, Toronto, Ontario, Canada

August 29, 2024

Abstract

For much of recent history, transfers of knowledge between cities largely originated in those of the Global North, which were seen as the only cities whose innovations and policies worthy of imitation. This colonial (and in many ways neo-colonial) line of thought was a defining part of urban planning ideals for decades, but in recent years the cities of the Global South have begun to gain increased traction. Medellin, Colombia sits as a prime example of this phenomenon, as its innovative approach to participatory planning and series of social urbanism initiatives (known as Integrated Urban Projects, or IUPs) has gained it international recognition in urban planning circles. A key aspect of Medellin's urban upgrading has been the creation of an aerial cable car system, specifically designed to connect some of the city's most disadvantaged districts.

It is within this context that this Major Paper is situated, as it aims to connect Medellin's experience of improved connectivity and placemaking via transit planning to potential lessons for new transit infrastructure in Toronto. Through the use of Metrocable Line K as a case study, this Major Paper will examine the ways that the system has impacted the neighborhoods along its route, focusing on how Line K has affected connectivity and mobility, community engagement and placemaking. The last sections of the paper will focus on the ways that insights gained from studying Line K can be used in the context of new transit infrastructure in Toronto. Taking inspiration from Medellin offers the opportunity to reimagine the relationship between transit and public spaces in the city, through the creation of new initiatives surrounding public spaces,

partnerships with other city agencies, and policies designed to lessen or eliminate inequalities in and amongst the city's neighborhoods.



Figure 1. A Metrocable gondola on Line K making its approach to Santo Domingo station. In the background lie the hillside communities it was designed to serve. Photo by T.J. Bamonte

Foreword

The study of neighbourhood-level change, along with the impacts of transit infrastructure on quality of life and of the power of placemaking, have all been aspects of the planning professions that have interested me for many years. As a result, this

paper represents the ideal combination of my research interests with the fulfillment of the MES Major Research paper requirements.

This Major Paper is not just a manifestation of my interests, but is in essence the culminating project of the array of experiences that I have accumulated in the first twenty-eight years of my life, the majority of which have been shaped at least in part by cities and the intricacies of urban life. Of particular importance are the places I've been privileged enough to live in and visit in the seven years since I finished my undergraduate degree. From backpacking around Asia and Australia, to living in Seoul for a year, and the various stints working remotely in locations around the world, all have left impressions that have informed my research. The specificities of the topics covered in this paper would not have entered my currents of thought had I not gone out on a limb to move to Toronto in the spring of 2019, or had not spent time working remotely from Medellin in 2022. As a result, the perspectives that inform my writing are themselves influenced by the innate curiosity and analytical mindset that has taken me all over the world.

Those same traits have also allowed me to take full advantage of the MES program's multidimensional learning experience. Since starting the program in the fall of 2022, I have tailored my Plan of Study to be centered on the theme of the ways in which transit infrastructure can affect planning at the neighbourhood level. In as much as the course topics and assignment parameters would allow, I have used my various term papers as opportunities to explore this topic from a variety of perspectives. At the

same time, these essays (insofar as I was permitted to do so as part of the assignment) also allowed me to examine cities or neighbourhoods as case studies - a strategy that forms the basis of my major research. As a result, this paper not only represents the application of what I have learned in the program, but it is also an opportunity to make a lasting contribution to the planning field in an area that is relevant in contexts beyond the two cities that are discussed.

Acknowledgements

I'd first like to extend my deepest gratitude to my research supervisor, Dr. Luisa Sotomayor. From the creation of my research proposal to the final editing process, their incredible guidance and thoughtful feedback was integral to the successful completion of every phase of my major research project. I am incredibly grateful to have worked with her.

I would also like to express my most heartfelt appreciation to the professors and staff of the Faculty of Environmental and Urban Change, who together created an environment where I felt comfortable and was able to thrive.

A special thanks to Ray Bennett, whose editing skills have been an integral part of my success in writing this paper and in the MES program more generally.

I'm incredibly grateful to the other members of my MES cohort, who have provided so much support and camaraderie over the past two years. I am so proud of what we have achieved together.

To my parents, who inspired and nurtured my interest in planning from a young age, thank you for all the love and support you've showered me with over the years (and throughout all my adventures).

To Judy, who has been by my side throughout the whole writing process, thank you for such an amazing and supportive partner.

To my Toronto friend group, thank you for being such wonderful people to have in my life, and for providing support and/or much-needed distractions from schoolwork whenever they were needed.

Finally, a huge shout out to the staff at Villa Hostel in São Paulo, the Search House Hostel in Florianopolis, Fabrika Hostel in Tbilisi, and Stay@Home Hostel in Cape Town - places where so much of this paper was written and edited.

Table of Contents

Abstract	ii
Foreword	iii
Acknowledgements	v
Introduction	1
Research Methodology and Limitations	12
Relevance of South-North Knowledge Transfers: Contextualizing Medellin's Recognition	19
Definitions of Key Concepts	25
Historical Context of Medellin's Growth	26
Overview of the Medellin Metro	30
An Innovative Transportation Solution	32
Importance of the Northeast IUP	37
Accessibility: Improvements, but not for all	39
Community Engagement and Well-Being: The Value of Symbolism and Neighbourhood Pride	45
Placemaking: The Future of Santo Domingo and Environs	56
Reflections on Toronto	67
Background on Transit Planning in Toronto	69
Service Enhancements and Expansion: Improving Accessibility and Connectivity	72
Community Engagement and Placemaking: A Prime Opportunity for Improvement	77
Conclusions	83
References	86

List of Figures

Figure 1. A Metrocable gondola on Line K making its approach to Santo Domingo station.	iii
Figure 2. A schematic of the Medellin Metro system.	8
Figure 3. The view of the Aburra Valley from Line L on the way to Parque Arvi.	28
Figure 4. A westwards view over the northeastern Aburra Valley from Santo Domingo.	30
Figure 5. A second map of the Metro system, overlaid upon a map of the Aburra Valley.	37
Figure 7. The line to board Line K at Acevedo station	45
Figure 8. A train on the higher-capacity Line A	45
Figure 9. A horizontal billboard along Line K.	47
Figure 10. The Acevedo branch of the Bibliometro library system.	50
Figure 11. A children's festival occurring at Parque Santo Domingo.	52
Figure 12. An afternoon view of the public plaza at Popular station.	52
Figure 13. The vibrant streetscape surrounding Santo Domingo station.	59
Figure 14. The BBVA-backed microfinance centre in Santo Domingo	61
Figure 15. Muralised stairs in Comuna 13.	67
Figure 16. A map of the Ontario Line subway.	74
Figure 17. Milliken station on the Stouffville Line.	77

Introduction

Since the Industrial Revolution, mass transit systems have been a major facilitator of urbanization (Stewart et al., 2018, p. 14). In particular, such systems have been vital to the shaping of what exactly constitutes urban life. A major portion of this role is due to their logistical importance. Given that large urban areas require ways to move lots of people in an efficient manner in order to function, the presence of robust public transit systems are a vital tool for the continued economic growth and social networks of a city. As a result, the fact that transit systems even exist means that they play a major role in the shaping of both the built form of urban environments and the ways that people interact with those environments. Thus, it stands to reason that the presence of new transit infrastructure would produce outcomes in affected neighbourhoods that may not have occurred otherwise. This phenomenon will be discussed in detail later in my paper, as the examination and analysis of such outcomes forms a major component of my study of Medellin and subsequent reflections for Toronto.

Ranging in scale from the neighbourhood level to encompassing entire regions, examples abound of the ways that transit systems have affected urban built environments through these three categories. Such changes can take the form of stimulating growth in areas surrounding urban cores, which can be shown by the ways

in which the expansion of streetcar networks in many North American and European cities allowed for the development of what are commonly referred to as “streetcar suburbs” (Stewart et al., 2018, p. 18). In recent decades, the rise of commuter rail networks have allowed for the continuation of suburban sprawl in numerous regions (with the Greater Toronto Area being one example) through the provision of park-and-ride facilities in far-flung suburban locations (Schwarzbauer et al., 2022, p. 1380). Finally, the use of transit as a tool for the creation of transit-oriented communities has become more prominent. Examples of this phenomenon can be found in locations throughout the world, such as the Rail+Property model employed by the MTR in Hong Kong (He et al., 2018, p. 467) and the TOD projects along the Canada Line in Vancouver (Ruthen, 2011, p. 1). Taken together, these examples demonstrate the transformative power that the presence of transit infrastructure can have on a city, as well as its ability to shape urban living experiences on a large scale.

At a more local level, examples of the use of transit infrastructure as both a placemaking tool and/or as a way to improve the quality of life for the local population can also be found. In terms of the former, the Djerring Trail in Melbourne (a multi-use trail that makes use of a former rail bed, following the elevation of the rail line onto an aerial structure) demonstrates how such infrastructure improvements can incorporate placemaking initiatives that benefit local communities (Beza and Ricardo, 2019, p. 6). As for improvements to quality of life, accessibility stands out as one of the most common effects of such infrastructure improvements: in this case, the building of new

transit lines in order to ease traffic congestion or provide better connectivity for residents of specific neighbourhoods. Examples of this are ubiquitous in cities around the world.

At the same time, a common consequence shared by these varied threads of outcomes is that of displacement. Following the opening of a new transit line, the improved connectivity, better public spaces and new transit-oriented communities that often accompany it have been shown to make areas ripe for the displacement of existing residents (Moore, 2019, p. 2; Doucet, 2021, p. 39), or of the businesses they rely on (a topic that will be explored further in the discussions of Medellin). This often occurs through gentrification, a process through which higher-income residents (who in this context would be attracted to such areas by the presence of improved infrastructure and amenities) push out the existing community of lower-income ones (Doucet, 2021, p. 39). Such an outcome can have wide-ranging effects, from the severing of social and cultural ties (something that is particularly acute when the gentrification of ethnic enclaves occurs), to a complete reshaping of the socioeconomic and cultural character of a neighbourhood (Tuttle, 2022, p. 518). Additionally, this particular case study is situated in the context of rapidly changing norms surrounding the transfers of knowledge between the Global North and the Global South (Harrison, 2015; Montero, 2020; Whitney, 2022), and represents an example of a city in the former category taking inspiration from one in the latter - something that represents the

opposite of what has been the traditional direction of the transference of planning ideas throughout the planning profession's modern history.

At the intersection of these myriad social processes, trends, and outcomes sits the city of Medellin, Colombia. Since the height of its infamous reputation as an epicentre of violence in the 1990s, the city has undergone a significant transformation (Corburn et al., 2020, p. 14). As part of this transformation, a host of initiatives intended to improve the quality of life in Medellin have been undertaken (Bocarejo et al., 2014b, p. 136). At the core of this metamorphosis is a decision in the 1990s by the city's municipal government to institutionalize participatory planning principles and incorporate them into an array of major civic projects (Corburn et al., 2020, p. 15). These projects have in turn been highlighted by increased government intervention in areas where a strong municipal presence was lacking, as such areas were geographically isolated from the rest of the city and suffered from high rates of violence (Corburn et al., 2020, p. 16). The most visible of these projects has been the construction of a state-of-the-art integrated metro system, which has not only improved connectivity both within Medellin itself and throughout the Aburra Valley, but has also helped catalyze a series of economic and social changes throughout the region. Therefore, the study of the city provides the perfect context for the investigation of how transit-induced neighbourhood changes can come about and what their effects can be. In order to examine the role that improved transit infrastructure has played in the city's recent development, this paper focuses on one metro line (Line K of the

Metrocable aerial gondola lift system system) and the neighbourhoods of Santa Cruz and Popular that are served by it. To that end, this section of the paper attempts to determine the ways in which Metrocable Line K has affected connectivity & mobility, community engagement, and placemaking in the neighbourhoods through which it runs.

By contrast, the transformation that Toronto is in the midst of undergoing has been fueled not by movement away from a violent past, but with the intention of creating a future defined by peace and inclusivity. As the city continues to welcome new immigrants from all over the world and build itself into a thriving, diverse metropolis, it must reckon with the fact that much of the city's infrastructure has not been designed with such large amounts of growth in mind (Berridge, 2018, p. 128). Nowhere is this more clear than when looking at the city's transit map, which reveals the large swathes of Toronto that are chronically underserved by public transportation (Toronto Transit Commission, 2024). Yet even as steps are being taken to rectify this pressing issue (primarily through projects such as the Ontario Line and GO Expansion, which will be discussed in detail later on), gaps remain in regards to how these projects can be used to not just improve accessibility and mobility, but also the other ways that they are able to enhance the quality of life for residents of the areas that they serve - something that was an integral part of the planning process for Line K.

For the purposes of this Major Paper, the focus on the three categories of connectivity & mobility, community engagement, and placemaking offer the clearest

ways to connect Medellin and Toronto under the larger banner of transit-induced neighborhood change. Both cities offer lessons on how initiatives regarding connectivity/mobility, community engagement and placemaking can catalyze improvements for residents and their communities, or the issues caused by the lack of such initiatives. While each can be defined in a multitude of ways, specific interpretations of them are most useful in this particular context. Connectivity refers to the ways that new transit infrastructure can enhance physical connectivity between different areas of cities, while mobility focuses on the ways that that improved connectivity can allow residents access to quality-of-life improving opportunities that would have been difficult to reach otherwise. Community engagement examines how residents of the neighborhoods surrounding the transit line and its station, particularly in regards to whether it is used not only for transportation needs, but also designed to provide new public spaces for the community and serve as a landmark that increases neighborhood pride. The view of placemaking used here builds off of the one for community engagement (specifically the creation of landmark spaces and amenities in tandem with the new transit infrastructure), but focuses more on the ways that the reimagination of public spaces can potentially produce outcomes that are detrimental to the most disadvantaged residents of surrounding communities.

The Medellin Metro system has been shaped by both geographical factors and socioeconomic ones. Due to the topography of the Aburra Valley (with steep hills on either side), the north-south metro line known as Line A serves as the primary transit

artery for the region, and runs for much of the valley's length (as shown below in Figure 4). All along its route, Line A offers connections with numerous other metro lines and a host of local bus routes, with nearly all of these being designed solely to ferry passengers from their communities to their nearest major metro station. This trunk-and-feeder network layout allows for passengers living in the higher hillside communities to use Line A for the majority of commutes to destinations throughout Medellin and the rest of the Aburra Valley. As will be discussed further later in the paper, this combination of challenging local geography (and its subsequent effects on both inequality and economic/social mobility) played a key role in the creation of the Metrocable system - and more specifically, the design and construction of Line K.



Figure 2. A schematic of the Medellín Metro system, demonstrating Line A's role as the network's trunk line. Line K is colored in lime green, and is situated in the northeastern section of the city. Map courtesy of Metro de Medellín.

Line K has been chosen for this research for several reasons. Firstly, it has been intended from its conception to be strongly integrated into the fabric of its surrounding neighbourhoods, with the objective that the integration of Line K and its stations into the physical and cultural environments of Santa Cruz and Popular would help catalyze an “urban upgrading” (Brand & Davila, 2011, p. 653). Secondly, while such plans for urban revitalization and improved quality of life have been integral to the planning and

development of the Metrocable system as a whole (Matsuyuki et al., 2020, p. 3265), because Line K is the oldest of the system's lines a greater amount of research and data regarding it is available for analysis. The effects that Line K has had on Santa Cruz and Popular is examined through the lenses of connectivity, community engagement and well-being, and placemaking. In addition, the impacts that the presence of the line has had on displacement of existing residents will also be touched upon.

Later in the paper, the insights gained through the analysis of Line K and its adjacent neighbourhoods are reflected upon in the context of transportation and neighbourhood planning in Toronto. For this section, the primary aim is to determine what insights (if any) the Line K case study offers for improving connectivity, community engagement/wellbeing and placemaking in the context of Toronto's transit infrastructure. Both the city itself and the larger Greater Toronto Area are embarking on an era of transit expansion that is arguably unparalleled anywhere else in North America. For this expansion to be successful, the ways that the region's residents (in addition to its transportation planners) both think about and make use of transit must be changed. In addition, the ways that these new and improved transit lines interact with the neighbourhoods and districts through which they pass must also be modified, with the desired result being that their stations are perceived not just as transportation hubs but also integral community spaces. While Toronto and Medellin are situated in vastly different historical, political, economic and social contexts, there remains strong potential for lessons learned from the study of Line K (or even Medellin as a whole) to

be relevant for discussion of Toronto. This is due in large part to the presence of examples in both cities of transit lines having profound effects on the built and social environments of specific neighbourhoods, and the effects on accessibility, community engagement and placemaking that have occurred in each city. For instance, aspects such as placemaking initiatives in and around stations have been integral parts of the design of both Line K and the Metrocable system as a whole, while also being traits that have been lacking as part of similar new transit infrastructure built as part of the Toronto rapid transit and regional rail networks. Such gaps (and how insights from Medellin can potentially be used to help fill them) will form the focal point of the Toronto reflection. Additionally, a discussion of how this particular essay is situated in the context of knowledge flows between the Global North and the Global South will be included, with a focus on how it is representative of how the directions and nature of those flows have changed in recent years. It is within the context of these debates surrounding such policy transfers that this paper is situated, and it offers a prime example of the ways that cities in the Global South have more and more become the originators of innovative ideas rather than the recipients of them.

This paper aims to answer the following general research question: *How has the construction of new transit infrastructure affected planning and development at the neighbourhood level in Medellin, and what insights do changes occurring in that city provide for planning in Toronto?* In terms of connectivity, placemaking and coordination between city institutions, Medellin excels in ways that Toronto currently does not, and

an exploration of how it has implemented a series of connectivity improvements and community initiatives in tandem with major infrastructure projects is something that would be advantageous in the face of the issues surrounding Toronto's continued growth into a major metropolis. Thus, while Medellin will remain the paper's primary center of attention, the sections providing reflections on Toronto are still important due to both the unique challenges facing the city and the distinctive potential for parallels to be found with the form of urbanism adopted in Medellin.

Given that both cities are dynamic urban areas that have begun more and more to find themselves joining the ranks of major global centres, investigation of this topic is vital to understanding the conditions that have helped each of them rise in the ranks of global cities, as well as the necessary steps for them to remain in that elusive category. At the same time, this exploration will also provide greater insights into the larger, changing dynamics at play regarding policy mobilities and knowledge transfers between the Global North and the Global South. Taken together, the combination of these topics into one essay allows this major paper to offer innovative perspectives on two major cities and an ever more relevant urban planning phenomenon, which in turn allows it to make a unique contribution to the literature concerning these respective topics.

With these justifications for study in mind, two research questions with a more specific focus will guide the investigation and analysis of the general guiding question. The first of these questions is the following: *In what ways has the installation of*

Metrocable Line K affected the physical, economic and cultural character of the neighbourhoods that it serves? To properly answer this question, a proper understanding of the local context in which Line K was built is necessary. Thus, the first section of the paper will discuss the historical background and conditions that paved the way for its creation before segueing into the analysis required to answer the question. The second question is the following: *Can placemaking and neighbourhood integration techniques implemented in Medellin be adapted for use in Toronto, and if so how?* The section of the paper that is guided by this question will be centered around a reflection on the transit infrastructure-neighbourhood change relationship in Toronto, and will draw upon insights gained from the analysis of Medellin.

Research Methodology and Limitations

This paper is focused on a review of existing literature, available data and site observations as they relate to the topics in question. Examination of the literature discussing the history of Medellin is essential for establishing the historical context for the conception and development of the Metrocable system, as well as the conditions that led to the growth of the Santa Cruz and Popular areas. This section of the literature review provides the base from which any discussion of the status quo in these areas must be built upon. These two neighbourhoods, along with both the larger Line K and the areas around the stations along it, have been chosen to be used as a case study for a variety of reasons. Firstly, the role that Line K plays in the larger Northeast IUP urban improvement project (specifically in regards to improving connectivity for

residents and its function in the IUP's placemaking initiatives) is most relevant in the context of the issues surrounding transportation and neighbourhood planning in Toronto. Secondly, Popular and Santa Cruz have historically been some of the most disadvantaged communities in Medellin, and examining the ways that programs such as Line K, the Northeast IUP and their associated projects have been designed to improve the quality of life for residents is the best way to analyze how their successes and failures can be used in other locations with high rates of inequality.

The base of this discussion and analysis is a selection of literature that largely has a specific focus on either the Metrocable system or Line K in particular. This will begin with an examination of contemporary trends in Santa Cruz and Popular that have shaped the status quo in these areas. At this stage, the three major categories of discussion (connectivity, community engagement and well-being and place making) continue to guide analysis. Relevant literature is analyzed and discussed in the context of these categories, and augmented by pertinent data and statistics sourced from local government organizations (such as the Aburra Valley's regional planning department).

These sources are supplemented by site observation, which occurred during a weeklong visit to Medellin in March 2024. At the time that these observations occurred, my research had provided me with enough information regarding the status quo in the areas of Popular and Santa Cruz around the stations, as well as the historical and present-day contexts in which my research would be taking place. With this being the case, the primary motivation for the observations was to build upon the information

gathered through the literature review, especially in regards to community engagement and placemaking, where documenting observed interactions with public spaces and the cable car itself were integral to the conclusions reached in this paper. For the purposes of this research, observation is defined as the study of the activities of a specific group of people in order to learn from (or collect data regarding) their routines and cultures (DeWalt & DeWalt, 2010, p. 1, Shin & Miller, 2022, p. 120). DeWalt & DeWalt (2010) and Shin & Miller (2022) further subdivide methods into either participant observation (in which the researcher actively takes part in the activities they are observing) or non-participant observation (during which the researcher observes but does not interact with participants). In both cases, observation constitutes a key component of qualitative research and is highly useful for social analysis, while at the same time being aware of both existing biases and of limits imposed by research questions allows for a more rigorous observation process (DeWalt & DeWalt, 2010, p. 94).

My work in Medellin struck a balance between the two aforementioned types of observation, while the specificity of my research questions allowed for a more focused approach when the observations were conducted. This simultaneously satisfied the needs of my research while still being respectful of the surrounding communities and their inhabitants, with the results being incorporated into the paper in order to provide a current-day perspective on Line K and its surroundings. In addition to visiting Popular and Andalucia stations (which are the line's two intermediate stations, serving

residential areas in Popular and Santa Cruz, respectively), time was also spent in and around Acevedo and Santo Domingo stations. Santo Domingo offers the opportunity for the most visible aspects of the Northeast IUP to be on full display, with a host of community-oriented spaces being present. Situated on the valley floor, Acevedo serves as the main transfer point between Line K and Line A, and both this and other characteristics (such as the presence of a *Bibliometro* library) merited a visit. Below is a table summarizing the observations that occurred in Medellin:

	Monday, March 4th	Tuesday, March 5th	Saturday, March 9th
Locations	Santo Domingo, Popular, Santa Cruz, Acevedo	Popular, Santa Cruz, Acevedo	Santo Domingo, Popular, Santa Cruz, Acevedo
Times of Day	Late Afternoon	Early Afternoon	Early Evening
Areas Visited	Station plazas, <i>Biblioteca España</i> , commercial districts surrounding stations, Parque Santo Domingo	Station plazas, commercial districts surrounding stations	Station plazas, commercial districts, Parque Santo Domingo
Key Observations	• Santo Domingo Bibliometro was not as integrated into the community as it could be • Streets in front of station entrances were lined with vendors (see Figure 13) • Spaces were not particularly busy, but this	• Little activity in the public spaces (see Figure 12) • Many seating areas don't have shade, and were not occupied (Figure 12) • Architecture is not actively hostile, but is also not the	• Long lineups to board Line K were present at Acevedo station, where transfers to the main metro line occur (see Figure 7) • Much more lively atmosphere around stations, likely due to it being a weekend • A festival was

	may have had to do with the time of day • Santo Domingo area was observed right around the time that school let out, and public spaces around the station were starting to fill up with schoolchildren • Observations support literature conclusions regarding increased amounts of tourism in the area • Pride in the system was particularly evident, via the presence of billboards (Figure 9).	most hospitable (Figure 12) • Not as much activity around stations (compared to Santo Domingo), but what is there appears to be more local-oriented • Stairways in and around the Metrocable pathway are well-used • The use of rooftops as advertising spaces makes use of the unique aerial positioning of the cable cars (Figure 9)	taking place in the Parque Santo Domingo (Figure 11) • Cooler and less sunny weather made many of the station plazas more appealing • Commercial presence around Santo Domingo includes more businesses not entirely geared towards locals • Based on a visit to a local restaurant, it is clear that some businesses are catered towards visitors (e.g. prices are more in line with wealthier areas of the city such as Laureles or Poblado) • The presence of this establishment suggests that placemaking initiatives for Santo Domingo have been successful at attracting tourists and other visitors
--	---	---	--

Mediums for recording findings consisted of photography and meticulous note taking, with these being used to record observations that were relevant to both the overall research question and the categories of connectivity, community engagement and placemaking. Photos and field notes were organized based on which stop they were taken at (i.e. Santo Domingo, Popular, Andalucia or Acevedo), as well as the date and approximate time at which they were recorded. While field notes were composed throughout each site visit, they were refined and enhanced post-visit through a review of all the photos taken each day (the most relevant of which were in turn included in this paper). In terms of research best-practices, the fact that these field notes were examined and refined soon after each site visit can be seen as being highly beneficial, as the freshness of the observations allowed for a more thorough analysis of what was observed and recorded (DeWalt & DeWalt, 2010, p. 88, Shin & Miller, 2022, p. 124).

A major limitation on this research was the amount of observations that took place, which were constrained by the amount of time I was able to spend in Medellin. Ideally, site observations would need to take place during an extended period of time to gather the diversity of potential situations that may constrain or enable people's interactions with the space. However, having been to the city twice before, I was already familiar with the areas in which my observations were taking place. This, combined with the stage of my research that I had reached at this point, gave me a strong sense of local dynamics, so my site observations were more focused. As mentioned above, these observations were intended to supplement the information gained from the literature review rather than form the core of my research methodology,

and therefore the information gathered during the three days described in the table satisfied the needs of the paper. This should not diminish their importance to my overall research, especially for their enhancement of the discussions regarding community engagement and placemaking. If time in Medellin had not been a constraint, however, further observations would have taken place during a greater variety of times of day, more time spent in the neighborhoods surrounding stations, and a more in-depth examination of the ways that an increased emphasis on tourism has begun to affect the area (via a search for more businesses not catering to local residents).

Data gathering of site observations for the Toronto reflection follows similar strategies (e.g. the focuses on connectivity, community engagement/well-being and placemaking remain), as well as employing a comparable array of source material types. Instead of focusing solely on one transit line and the neighbourhoods served by it, examples relevant to these categories are drawn from throughout the Greater Toronto Area. Not only are there a preponderance of under-construction and planned transit projects underway in the region, but these have in many ways been conceived as pieces of city-shaping infrastructure, with their creation being fueled by intents and purposes that are not too dissimilar from those that shaped Line K. Thus, insights gained from the Medellin section of this paper have been used to inform the Toronto reflection. At the same time, discussion of these topics as they relate to Toronto allows for the incorporation of local context and knowledge into a series of issues that have implications in cities around the world.

Relevance of South-North Knowledge Transfers: Contextualizing Medellin's Recognition

The policies and best practices implemented in Medellin as part of Metrocable Line K can be useful in the context of transportation and community planning in Toronto. While such transfers of knowledge and ideas between cities have long been quite common, understanding both the context in which they are occurring and the routes through which they are travelling is essential to analyzing their impact (Healey, 2012, p. 208) - something that is especially relevant to the current status quo regarding policy transfers. The Global North and the institutions based in it (such as universities, think tanks, and the municipal governments of cities seen as being “innovative”) have long been viewed as the main sources of policy ideas concerning cities and their development for much of the 20th century, with the impartation of their knowledge to the Global South playing a role in broader geopolitics (Bok, 2020, p. 1236). Additionally, the dominance of these ideas has been reinforced by the preeminence of engineers and planners from Europe and the US (Harrison, 2015, p. 208; Montero, 2020, p. 2265). Yet as Medellin and other cities in the Global South gain more and more recognition for their innovative approaches to urban planning, interest in their ideas has grown from multiple directions (Duque Franco & Ortiz, 2020, p. 1; Montero, 2020, p. 2265). This in turn has caused a notable series of shifts regarding which cities have come to be viewed as sources of innovation and inspiration (and therefore the source of these policy and knowledge transfers).

The first of these shifts regarding policy transfers has been driven by sentiments that are well-described by former Bogota mayor Enrique Penalosa, who stated that

cities in the Global South needed to look to each other for ideas rather than to cities in so-called developed countries, since “*if our reality is different then we also need a different model*” (Montero, 2017, p. 333). This phenomenon has been termed “*South-South urban policy learning*”, with the transfer of knowledge from Bogota to Guadalajara, Mexico being used as a prime example (Montero, 2017, p. 333). While this approach has been shown not to be fully independent of actors in the Global North (Montero, 2017, p. 347), it is nevertheless an important step towards decolonizing the planning profession.

The second of these shifts is a demonstration of the recognition that planning initiatives in the Global South have begun to receive from the rest of the world (Duque Franco & Ortiz, 2020, p. 8), albeit recognition that is more complex than mere adaptation of ideas from one part of the world to another. Particular emphasis has been placed on how transnational collaborations and media exposure have played a role in the diffusion of these ideas in the Global North. In this case, two examples from Latin America stand out as prime case studies for demonstrating the complexities of policy mobilities.

In the late 1980s, the city of Porto Alegre, Brazil began the implementation of a participatory planning initiative that has become known as “participatory budgeting”, with the aim of distributing available municipal resources more equally between neighbourhoods via increased involvement from residents (Healey, 2012, p. 189). Over the following decades, the project inspired much worldwide media attention, with cities in Europe proposing similar programs (Healey, 2012, p. 189). At the same time however, the Porto Alegre case study demonstrates the limitations of direct transfers of

policy and knowledge. The implementation of these programs in Europe was done with little understanding of the local context in which Porto Alegre's participatory budgeting program took place, which demonstrated the limitations on straight policy transfers from place to place (Healey, 2012, p. 190). This idea is supported by Temenos et al. (2019) where they discuss how emulations of policies cannot be static, but are instead always hybrids of their local context and the ideas that they hope to imitate (Temenos et al., 2019, p. 116).

Bogota, Colombia is another popular choice as a case study amongst scholars, with the city's programs being held up to the rest of the world as an example of "best practice" urban planning (Montero & Baoicchi, 2022, p. 19). Yet while its policies and practices have been shown to be influential to cities in the Global South (as shown in Montero (2017)), Bogota's rise as an influential city in global planning circles was not fueled solely by its innovations. Rather, this rise was primarily the result of collaboration between a host of experts and organizations based in both the Global North and the Global South (Montero & Baoicchi, 2022, p. 20). A primary reason for this collaboration is a renewed focus by international development organizations on cities as the locations where solutions to global issues will be found, with an emphasis on ensuring that solutions found in certain cities can be quickly communicated to the rest of the world (Montero, 2020, p. 2265).

This focus on global issues in turn leads to media organizations playing an outsize role in disseminating information regarding what cities will be held up as role models and why. For example, Montero (2018) discusses how the distribution of a video showing Bogota's *Ciclovía* cycling program played an outsize role in the creation of San

Francisco's Sunday Streets initiative, which was designed to imitate the *Ciclovía*'s temporary closure of city streets to encourage cycling and other forms of active transportation (Montero, 2018, p. 766). Evidence of the power of media distribution is further supported by Whitney (2022), which discusses how English-speaking media outlets such as *Curbed* and *CityLab* have become highly influential in the dissemination of what city-building ideas are considered best practices in urban planning. Whitney (2022) notes that those involved with the creation and operation of the article's case study (the LabCDMX in Mexico City) relied heavily on English-language media outlets to identify these best practices, which in turn demonstrates the continued role that institutions in the Global North play in setting the agenda for cities in the Global South (Whitney, 2022, p. 476). Thus, while cities in the Global South have, as examples of best-practice policies and ideas, begun to play a larger role in setting the trends that have become influential in global planning circles. At the same time, this increased importance has come in a way that is not completely independent of organizations rooted in the Global North. Rather, the prolonged influence of these organizations has continued to influence planning decisions in the cities of the Global South, even if the ideas being disseminated are coming from cities in that same socioeconomic grouping.

Though Bogota continues to draw much attention, Medellin is also an exemplifier of trends similar to the ones described in relation to it regarding the diffusion of planning policies. Firstly, its urban development projects have been significantly influenced by planning policies implemented in the Spanish city of Barcelona, which is a prominent city in the Global North (Sotomayor, 2015a, pp. 377). In this case, Barcelona's strategy towards urban development projects (UDPs) was adjusted to fit Medellin's local context

and became the basis for the city's approach to social urbanism, resulting in the influence of the so-called "Barcelona Model" being present in a multitude of projects (Sotomayor, 2015a, pp. 377-378; Duque Franco, 2020, p. 111). Two main characteristics of the Catalan capital's approach to UDPs were civic engagement and a focus on "iconic public spaces" (Sotomayor, 2015a, p. 377). When examining Line K and its associated improvement projects through this lens, the impact of ideas imported from Barcelona is quite clear. For example, the principles regarding public space can be seen to have influenced projects such as the *Biblioteca España*, which was intended to be a landmark location for both locals and visitors.

At the same time as Medellín draws upon the influence of Barcelona, the success of Line K and the rest of the Metrocable system has served as an inspiration for a host of other cities in Latin America. In recognition of cable car systems' relatively low costs and suitability for geographically hilly cities, technology similar to Medellín has been implemented (albeit with varying levels of success) in locations such as Mexico City, Rio de Janeiro and La Paz (Cardona-Urrea et al., 2023, p. 690). Finally, Medellín has been the subject of much attention from the English-speaking media, with many of the same media outlets (most notably the *New York Times*) that are discussed in Whitney (2022) examining and championing the city's revitalization projects (Duque Franco & Ortiz, 2020; Kimmelman, 2012; Schnuer, 2023). As a result, the presence of such articles demonstrates that Medellín's global reputation as a hub for innovation has been influenced greatly by individuals and institutions in the Global North, and presents yet more evidence that the city has become one of the foremost examples of the "*best practice*" urbanism discussed by Montero (2020).

Indeed, the very genesis of this essay has undoubtedly been affected by those same institutions, and my interest in exploring the ideas expressed here may not have come into being if not for reading the opinions of experts who have championed the city's innovations. The conveyance of ideas to Toronto that is proposed in the preceding section fits a similar pattern to those described by Montero and Anders Whitney – an individual at an influential institution in the Global North, advocating a transfer of knowledge from a city in the Global South that has been deemed worthy of imitation. Yet while this transfer still exists within the post-colonial power structure that emphasizes a Global North-dominated hierarchy of cities, it is nevertheless important that the achievements of cities such as Medellin are recognized – and in this case, used to inspire improvements that will enhance the quality of life for those who are most in need of such boosts. In addition, both Healey (2012) and Temenos et al. (2019) discuss the issues surrounding direct (i.e. without an understanding of the local context in which these ideas first occurred, or without modification of policies to hybridize with the local environment) Global South-Global North transfers of policy ideas. As a result, this Major Paper has been written to both acknowledge the differences between the local contexts of Toronto and Medellin, while also highlighting the ways that the former can take inspiration from the latter. Thus, the overarching role that institutions in the Global North play in determining what planning practices are important to the rest of the world - as well as which cities best represent them - continues to be an issue that deserves greater scrutiny, this is not by itself a reason to cease such transfers of knowledge.

Definitions of Key Concepts

For the purposes of this major paper, the focus on the concepts of connectivity/mobility, community engagement and placemaking offer the clearest ways to connect Medellin and Toronto under the larger banner of transit-induced neighborhood change. Both cities offer lessons on how initiatives regarding connectivity/mobility, community engagement and placemaking can catalyze improvements for residents and their communities, or the issues caused by the lack of such initiatives. While each can be defined in a multitude of ways, specific interpretations of them are most useful in this particular context. Connectivity refers to the ways that new transit infrastructure can enhance physical connectivity between different areas of cities, while mobility focuses on the ways that that improved connectivity can allow residents access to quality-of-life improving opportunities that would have been difficult to reach otherwise. Community engagement examines how residents of the neighborhoods surrounding the transit line and its station, particularly in regards to whether it is used not only for transportation needs, but also designed to provide new public spaces for the community and serve as a landmark that increases neighborhood pride. The view of placemaking used here builds off of the one for community engagement (specifically the creation of landmark spaces and amenities in tandem with the new transit infrastructure), but focuses more on the ways that the reimagination of public spaces can potentially produce outcomes that are detrimental to the most disadvantaged residents of surrounding communities.

Historical Context of Medellin's Growth

The particular contours of the Medellin region's built environment are key to understanding any analysis of the effects of its transit system, and this built environment has in turn been shaped by a host of geographical factors. The city of Medellin anchors what is commonly referred to as the Metropolitan Area of the Aburra Valley. A stunning geographical feature, the valley (carved by the flow of the Medellin River) is lined on either side by rows of imposing hills. As evidenced by the location of Medellin's historic colonial centre (known as La Candelaria), the city's main hubs of commercial activity continue to be situated close to the river banks (Corburn et al., 2020, p. 13). At the same time, many of the Aburra Valley's other major communities (such as Bello, Envigado and Sabaneta) followed similar patterns of urban development, with their main commercial hubs situated on or near the valley floor.

Since the mid-20th century, however, the hillsides of the Aburra Valley have become the locus of urban development in Medellin and its environs (Corburn et al., 2020, p. 14; Brand & Davila, 2011, p. 650). Fleeing the outbreaks of violence that plagued the Colombian countryside in that era, the city has become the destination for a massive wave of rural-to-urban migration (Drummond et al., 2012, p. 147). Due in large part to an increasing lack of space in the older sections of the city (as well as the relative poverty of the new migrants), the sides of the hills began to be home to a growing number of informal settlements, with the result that by 2000 the northeastern section of the city had become its most densely urbanized (Brand & Davila, 2011, p.

650). While several of these communities have in many ways become more “formal” (through factors such as the increased availability of public services and better integration with the rest of the city (Schwab, 2017, p. 239)), the trend of constructing informal hillside settlements has continued - something that is clearly shown when riding Line L of the Metrocable. On its way to Parque Arvi, Line L extends over some of the highest areas of the Aburra Valley, and groups of settlements can be seen below that are much less well-connected to the rest of the city than those further down the hillside. Given that Medellin continues to be a highly unequal city with strong social segregation (Schwab, 2017, p. 237; Hernandez-Garcia, 2013, p. 46), this continuation of literal upward growth is undoubtedly fuelled in part by the city’s widening chasm between low-income and high-income social groups.



Figure 3. Viewed from Line L on the way to Parque Arvi, the continued upward growth of informal hillside settlements in the Aburra Valley is readily evident. Photo by T.J. Bamonte

A strong understanding of the forces that have shaped these hillside communities is vital for any analysis of the ways that transit infrastructure has shaped them. In particular, their geography has proved to be a major impediment to increased integration with the rest of the city (Brand & Davila, 2011, p. 650; Cardona-Urrea et al., 2023, p. 9). This is best illustrated when looking at maps of the Santa Cruz and Popular neighbourhoods, and comparing their street networks with areas such as La Candelaria or Envigado (Google Earth, 2024a; Google Earth, 2024b). The latter two

areas both have street grids that were laid out in patterns that reflect their colonial heritage. By contrast, Santa Cruz and Popular are both hillside neighbourhoods that experienced rapid growth due to the rural-to-urban migration discussed above. As a result, their street network does not have the clearly-defined grid pattern that other, topographically lower areas of the city have (Google Earth, 2024c; Google Earth, 2024d). Thus, these hillside areas that started as informal settlements suffered from poor connectivity for many years - until solutions to remedy them were devised and implemented as part of a renewed focus on lower-income sections of the city (Hernandez-Garcia, 2013, p. 46), which will be discussed later in the paper.



Figure 4. Looking westwards, a view over the northeastern Aburra Valley from Santo Domingo, showing the extent of urban growth on both sides of the valley. Photo by T.J. Bamonte.

Overview of the Medellin Metro

First opened in 1995, the Medellin Metro now comprises two heavy rail lines, a tramway, three bus rapid transit lines and six aerial tramway routes (collectively known as the Metrocable). The two heavy rail lines (known as Lines A and B, respectively) are currently the only ones of their kind in Colombia, and serve as the focal points for the region's transit system (Metro de Medellin, n.d.). While Line B serves as a major axis in

the west-central portion of the city, Line A is a vital transportation corridor that runs the length of much of the Aburra Valley. Additionally, while many of the stations on both lines (such as the stations in La Candelaria on Line A, which are located in the heart of the city's historic centre and primary commercial district (Google Earth, 2024b)) are designed in such a way to be conducive to the generation of walk-in traffic, the majority of stations feature built environments that offer less-than-ideal accessibility for passengers arriving on foot. This is particularly true of Line A, and not just as a result of it serving a large swathe of the Aburra Valley. With the exception of sections in and around La Candelaria, Line A largely parallels the Medellin River. Also paralleling the river at various times are a set of major streets that separate stations from popular neighbourhoods, such as at Industriales and Poblado stations (Metro de Medellin, n.d.). In addition, at stations such as Envigado and Sabaneta, the presence of industrial districts in the areas around stations are beneficial to those who work in these areas, but also create separation from their namesake communities (Google Earth.2024a; Metro de Medellin, n.d.). The various sections of the route along the river are ones that minimize the impact on established neighbourhoods, by virtue of not requiring large-scale demolitions of existing residential neighbourhoods, or not causing the traffic disruptions that would accompany the construction of an underground alignment under city streets. At the same time, they also make the creation of pedestrian-friendly station environments more difficult, via the requirement that to reach most of the line's stations a crossing of either the river, a highway or both is a necessity.

As a result of the particular geographic situation of Lines A and B, an extensive network of feeder transit routes have become necessary in order to build and maintain ridership (Brand & Davila, 2011, p. 650). At the same time, while the Metroplus bus rapid transit system and the sole tramway line are major corridors on their own (by virtue of their routes serving areas far from the two main metro lines, as well as each of these modes of transport boasting a higher capacity than a feeder route would suggest), the Metrocable routes have been designed more in the model of feeder routes (Cardona-Urrea et al., 2023, p. 7).

An Innovative Transportation Solution

As discussed in preceding sections, many of the hillside neighbourhoods of Medellin first came into being as communities of informal settlements (in contrast to older sections of the city, which were laid out in more uniform grid patterns (Google Earth, 2024b)). Because of both this and the difficulty of building roads on steep terrain, the road network in these areas quickly become inadequate for serving the needs of not just existing residents (Brand & Davila, 2011, p. 650; Posada & Garcia-Suarza, 2022, p. 211) - but also accommodating future population growth in these areas. At the same time, the effects of deindustrialization and a series of municipal governments that were woefully unprepared to confront the issues facing these informal communities together exacerbated inequality in the city, which in turn fomented a negative perception of the municipal administration amongst the city's more disadvantaged residents (Doyle, 2019, p. 330; Drummond et al., 2012, p. 148). This combination of

relative geographic isolation and absence of government support hindered integration of these communities with the rest of the city (Drummond et al., 2012, p. 148, Galvin & Massen, 2020, p. 3). Of these factors, the physical separation of neighbourhoods further up hillsides arguably served as the greatest barrier to accessing employment opportunities and amenities available in the rest of the metropolitan area. Even the design and construction of Line A (which represented the first major step towards improving mobility in the region following the beginning of large-scale rural-to-urban migration) did little to serve many of the most disadvantaged communities higher up on the valley hillsides (Drummond et al., 2012, p. 149). For example, a resident of a neighbourhood such as Popular (which, as has been discussed previously, meets the criteria for being one of these hillside communities) who was working in a southern district such as Poblado or Envigado. Even with the presence of Line A making the majority of their trip quicker, getting from a Metro station up into Popular would involve a long and winding bus ride or trek on foot. Because of the difficulty in accessing much of the rest of the Aburra Valley, the informal economy continued to reign supreme in Popular and Santa Cruz (Brand & Davila, 2011, p. 655), as integration with the rest of the city was hindered by a lack of good transportation options.

As this problematic status quo in the city's hillside districts continued, the city's traditional industrialist elite found themselves with a dilemma. The rise of a new gentry class fueled by the growth of the drug economy and the threat of the takeover of their businesses by elites from Bogota led to the formation of a new business conglomerate

known as the Antioquian Business Group (Franz, 2017, p. 58). This conglomerate has been described as the proxy for Medellín's current economic elite, and their interests played a major role in the creation of the city's distinctly neoliberal "good governance" agenda (Franz, 2017, pp. 65-66). Thus, the changing needs of the city's elite played a distinct role in shaping what has come to be termed the "Medellin Miracle", which in turn has led to the city becoming a global media darling (Duque-Franco & Ortiz, 2020, p. 4). As this positive media coverage has continued to occur, however, the city's rates of inequality have remained high (Franz, 2017, p. 66). With it, the disparity between needs of the city's elite and those of its most disadvantaged residents remains a chasm (the effects of which will be discussed further later in the essay).

The analysis of media coverage conducted by Duque Franco & Ortiz (2020) includes news items published between 2004 and 2017. As they themselves note, 2004 is notable due to it being the year in which the Metrocable system opened - a development that catalyzed a shift in global perceptions of Medellín. When the system's first line (Line K), opened, it set a new standard for urban transit systems in topographically hilly cities (Cardona-Urrea et al., 2023, p. 690). While gondola lift systems can be found all over the world, they have historically been reserved for touristic purposes (such as at ski resorts) rather than for public transit purposes (Cardona-Urrea et al., 2023, p. 690). In the case of Medellín, the innovative choice of a gondola lift system is representative of the unique built environment that the system needed to navigate - a situation for which other technologies would not have been as

well-suited (Cardona-Urrea et al., 2023, p. 685). For example, funicular railways are a proven technology that are common in hilly cities around the world. If such a system was implemented in Medellin, however, it would have required the wholesale clearing of many homes and businesses due to the need to lay a track bed on the ground or on a physically intrusive viaduct. As has been demonstrated by other transit lines whose construction has been particularly disruptive, such an outcome would inevitably overshadow any positive outcomes of the system's opening. By comparison, a gondola lift system requires much less land acquisition (primarily only for the support poles and the station sites (Brand & Davila, 2011, p. 652)), and therefore is a much less intrusive design. Thus, Line K became the first application of gondola lift technology as part of a comprehensive public transportation network, and it paved the way for the opening of the five other Metrocable lines in the Aburra Valley (Metro de Medellin, n.d.). The decision to use gondola lift technology in Medellin has proved to be a major turning point for the use of aerial cable cars for transit usage, with hilly cities from Bogota to La Paz to Mexico City building *teleferico* (as they are known in Spanish) lines - or even entire networks, in the case of La Paz - of their own (Cardona-Urrea et al., 2023, p. 690).

Rather than being designed as a standalone system, the Metrocable has been intended to build upon the hub-and-spoke design of the existing rail system. Given that the heavy-rail component of the Medellin Metro is heavily dependent on feeder bus routes to bring in ridership, the majority of the six Metrocable routes have been

designed to serve a similar purpose. Due to the relatively low capacity of a gondola lift system in comparison to a traditional heavy rail metro (Brand & Davila, 2011, p. 652), building the Metrocable as an integrated whole rather than as a feeder system would have created a transportation network with comparatively lower capacity (rather than allowing the high-capacity trains of Line A to do most of the heavy lifting). The design of the system as a feeder for Line A has allowed for the achievement of a major goal of the system's creation (providing residents of lower-income hillside areas with better transit connectivity to the rest of the Aburra Valley) for comparatively less investment than if it was not planned as a feeder system. The sole exception to this is Line D, which extends from the end of Line K at Santo Domingo station up to Parque Arvi. Line D was conceived and built with different policy aspirations than the other Metrocable lines. Instead of being designed to improve connectivity for underserved residential neighbourhoods, it is instead designed solely to ferry passengers to the entrance to the park (Metro de Medellin, n.d.). While this embodies a different sort of connectivity goal, Line D is also a representation of another of the primary objectives of the Metrocable concept: placemaking. Thus, while the intended ridership bases are different (with a higher fare, Line D is targeted almost entirely at visitors to Parque Arvi). Likewise, the other lines were built for everyday use-though they have begun to attract visitors by virtue of their sheer novelty-and the same basic principles have informed the design and construction of all six lines.

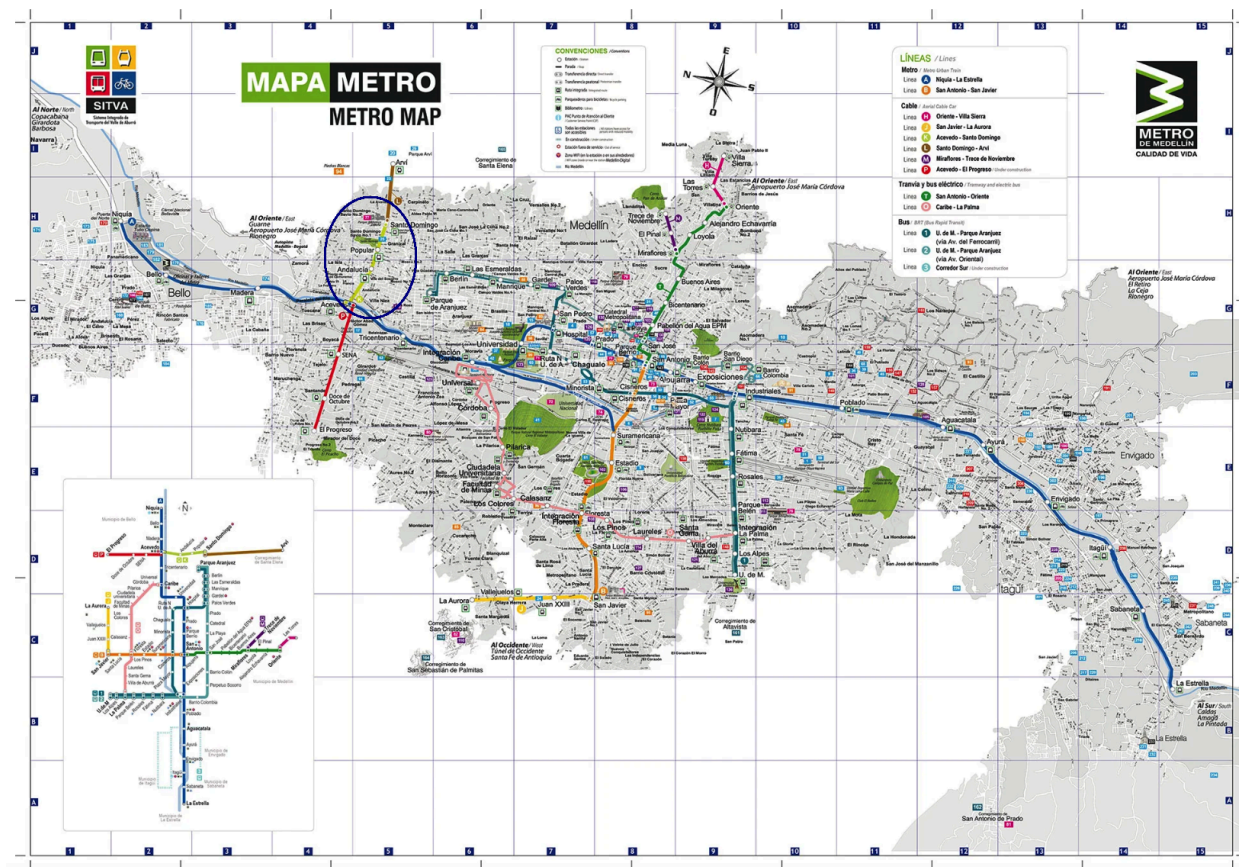


Figure 5. A second map of the Metro system, this time overlaid upon a map of the Aburra Valley. Line K (lime green) and its surroundings are circled. Map courtesy of the Metro de Medellín.

Importance of the Northeast IUP

Extending from Acevedo station on Line A up to Santo Domingo station in Popular, Line K of the Metrocable system cuts an unmistakable physical presence through the city's landscape. The line has become integral to what has been termed the Northeastern Integrated Urban Project, or IUP (Alcaldía de Medellín, 2006, p. 10). IUPs have been designed as large-scale urban development projects that are intended to improve quality of life in specific areas, achieved through a participatory planning approach and the involvement of myriad governmental organizations (Holmes &

Gutierrez, 2014, p. 5; Sotomayor, 2019, p. 4). As described in Sotomayor (2019), the three basic components of IUPs are social intervention, institutional coordination and physical upgrading. At the same time, development of Line K was already underway when the IUP program was first conceived (having been started under the leadership of Medellin mayor Luis Perez (Brand & Davila, 2011, p. 651)), and these circumstances played a role in the site selection (Sotomayor, 2015a, p. 384). Thus, while Line K is most clearly the embodiment of the third of the three components laid out by Sotomayor (2019), it was also intended to serve as the focal point of the overall urban development project (Brand & Davila, 2011, p. 653). This intention is clear when examining the other major investments in the built environment, most notably the new library park in Popular. Known as *Biblioteca España*, it was designed to be one of the flagship projects of the Northeast IUP (Alcaldia de Medellin, 2006, p. 10; Sotomayor, 2019, p. 6), and has become a recognizable feature of the city's landscape — something due in large part to its eye-catching design by well-known Colombian architect Giancarlo Mazzanti (Holmes & Gutierrez, 2014, p. 5). This, combined with its proximity to Santo Domingo station on Line K, makes clear that *Biblioteca España* was designed as not only a space for local residents, but also as a destination for visitors to the area - with the Metrocable serving as their access route. With this in mind, understanding its role in the overall Northeast IUP plan is crucial to any analysis of the effects that Line K has had on its surrounding communities. The literature regarding these effects primarily focuses on the equity aspects of such changes, with examinations of the ways that the line has (or has not) improved equity outcomes for local residents. As laid out in previous sections, discussions of connectivity, community engagement, and placemaking in Popular and

Santa Cruz as they relate to Line K form the core of the Medellín section of the paper.

The following literature review will continue this pattern, with published works relevant to each category being examined together.



Figure 6. The *Biblioteca España* when viewed from lower on the hillside, demonstrating its highly visible presence. Photo by T.J. Bamonte.

Accessibility: Improvements, but not for all

For literature regarding accessibility, the works of Juan Pablo Bocarejo are notable not just for their insights regarding Line K but also for issues surrounding transit and equity in Latin America as a whole — something that provides even greater context regarding the decision-making processes that informed the planning of Line K. His 2012 article co-authored with Daniel Ricardo Oviedo recognizes the accessibility challenges

faced by low-income residents in Latin American cities. This has in turn led to a greater emphasis on fixing accessibility-related equity issues as part of transportation planning, rather than focusing only on speed and a reduction of travel times (Bocarejo & Oviedo, 2012, p. 142). While this article does not specifically focus on Medellin or Line K, it offers a series of insights regarding the relationship between accessibility and social exclusion. The authors define accessibility as “*the ease of reaching desired destinations given a number of available opportunities and intrinsic impedance to the resources used to travel from the origin to the destination*” (Bocarejo & Oviedo, 2012, p. 143). With this definition in mind, they then discuss how (as a result of a lack of accessibility options) limited urban mobility can be the cause of social inequality and exclusion, due to built environments being constructed with strong mobility in mind and the resultant accessibility difficulties that some residents would face (Bocarejo & Oviedo, 2012, p. 144).

This linkage between improving accessibility and mobility in order to decrease the inequality stemming from social exclusion was a major impetus for the construction of Line K. As a result, the line’s effects have been studied through this lens on multiple occasions. Bocarejo et al. confirm in their 2014 article that the presence of Line K has been instrumental in better integrating the areas it serves with the rest of the city, as well as “overcoming the spatial and economic barriers” that the isolation of such areas had previously reinforced (Bocarejo et al., 2014a, p. 61). The work of Matsuyuki et al. (2020) reached a similar conclusion, with the authors noting that the shorter travel time offered by Line K was the biggest benefit for residents of Comuna 1 (which contains Popular). Similar to Bocarejo, this article also noted the economic benefits of such

improvements, with residents in close proximity to Metrocable stations having more freedom to seek higher-paying jobs (Matsuyuki et al., 2020, p. 3281). The writing of Heinrichs and Bernet (2014) discusses the reliability improvements that Line K offers over the area's bus network, which could easily be affected by traffic problems. In addition, they offer additional insight regarding the economic benefits of Line K by noting that the free transfers from the Metrocable to the primary metro system make longer trips throughout the region faster and more affordable (Heinrichs & Bernet, 2014, p. 62).

However, while the improvements to accessibility that have been facilitated by Line K have still had a noticeable impact on the community, these benefits have not been shared equally by all residents living nearby. Brand & Davila's 2011 article is explicitly stated to be an investigation of how the better mobility offered by projects such as the Metrocable can be used to reduce poverty and improve living conditions. Through their investigation of the planning and design of Line K it is clear that both (as well as the larger Northeastern Integrated Project, or IUP) were intended as a method of improving the urban environment of Santa Cruz and Popular by providing better accessibility options for local residents. Yet they also call into question the success of this formula for improving social outcomes. For example, they draw attention to the fact that buses and walking continue to be the predominant modes of transport for residents living in "areas of influence" around Line K stations, with less than 10% of these residents using the cable car and transferring to Line A (Brand & Davila, 2011, p. 652). Okami et al. (2022) and Matsuyuki et al. (2020) reached similar conclusions, with their studies indicating that buses remained the dominant form of transportation despite the

presence of Line K, which was used by only 21% of local residents. These two articles also discuss at length the ways in which Line K has disproportionately benefited some community members more than others. While free transfers are available from the Metrocable lines to the main metro system, Heinrichs and Bernet discuss on page 66 of their 2014 work how the costs to use the system remain a barrier for many residents, especially those whose work is based in the informal economy. This idea is expanded upon further in Okami et al. (2022). The authors of this article conclude that while lower-income residents are the main users of Line K, those in the lowest income group had seen little benefit from the system - something that is attributed to their involvement in the informal economy. While this is largely related to the fact that such jobs tend to be within walking distance of their homes, the transition of not only the local economy but accessibility itself to a more formal nature has affected the availability of transportation options in Santa Cruz and Popular. With its electronic ticketing system and fare gates, Line K and the rest of the Metro system represent a more formalized transit network, and that lack of informality also leads to less flexibility in terms of fare payment (something that is possible with transportation options that can be more informal, such as independent minibuss operators).

Such conclusions are supported by data from the Aburra Valley's origin-destination study, which also provides insights into the travel patterns of an array of demographic groups. Conducted in 2017, the origin-destination study found that the majority of trips starting in Popular or Santa Cruz were to destinations within the same *comuna*, with men making up a slight majority of travelers overall (Valle de Aburra, 2018). While the numbers in this study pointed to slightly lower numbers of Metro users

than Okami et al. (2022) and Matsuyuki et al. (2020) (with 17% of trips in Santa Cruz and 18% in Popular making use of the Metrocable), they both show that roughly a fifth of trips in these areas make use of Line K (Valle de Aburra, 2018). At the same time, areas such as La Candelaria, Laureles and El Poblado were some of the most popular destinations for residents of the two aforementioned areas (Valle de Aburra, 2018).

These three districts are home to many of the city's most prominent concentrations of employment hubs and educational institutes, and are all directly accessible via Line K and one or both of Lines A & B - therefore making them easily accessible for purposes of work or school.

Further examinations of travel patterns to these districts, however, also demonstrates the inequalities along gender lines that remain between in terms of accessing opportunities outside of their communities. When looking at trips taken for work or educational purposes to the districts of La Candelaria, Laureles and Poblado, clear majorities of Metro trips from Popular (62%) and Santa Cruz (59%) are taken by men (Valle de Aburra, 2018). At the same time, the largest percentage of trips taken within Popular and Santa Cruz fell within the category of "housewife", indicating that traditional gender roles continue to play an outsized role in determining both Metrocable usage and travel patterns more generally (Valle de Aburra, 2018). Taken together, these data points provide further evidence that the benefits of the Metrocable have not been shared equally amongst residents of the two affected *comunas*. As the existence of the "housewife" category suggests, the continued existence of a strong patriarchal gender hierarchy limits the opportunities for women to take advantage of the accessibility improvements offered by Line K.

Finally, the Valle de Aburra study shows that the majority of trips (59% in Popular and 84% in Santa Cruz) are undertaken by residents who are in *Estrato 2* under Colombia's *strata* system of defining income classes (Valle de Aburra, 2018), and these numbers are supported by data from the city of Medellín's profiles of each *comuna* (Alcaldia de Medellín, 2023b). When examined in the context of both the available literature and the statistics regarding Line K's ridership, the percentages of trips taken by each *strata* demonstrate the continued disadvantage that exists for residents in *Estrato 1* in regards to taking advantage of the opportunities provided by the improved accessibility and mobility that Line K offers.

When examined in the context of Bocarejo et al.'s 2014 article and its discussion of how Line K helped provide new opportunities for residents, these outcomes clearly demonstrate that a not-insignificant percentage of residents in Popular and Santa Cruz have found educational and employment opportunities that have allowed for increased integration with the region's formal economy (and the benefits that such integration provides). While this is without a doubt a positive outcome of both the completion of Line K and the implementation of the Northeast IUP, it also draws attention to the fact that only a relatively small percentage of residents (with strong divisions along gender lines) have been able to take full advantage of the cable car and the opportunities it offers regarding accessibility and mobility. Thus, not only do the origin-destination study and the available literature serve to highlight the barriers that stand in the way of a more widespread usage of the system (the benefits of lower fares in widening access to the Metrocable to those living in lower *stratas*, or the ways that traditional gender roles limit options for women to seek opportunities outside of their neighborhoods), they also put

on full display the inequalities that remain strongly in place in both Popular and Santa Cruz.



Figure 7. The line to board Line K at Acevedo station, which serves as the transfer station with Line A.

Photo by T.J. Bamonte.

Figure 8. A train on the higher-capacity Line A, which serves as the trunk route for the region's transit system. Photo by T.J. Bamonte.

Community Engagement and Well-Being: The Value of Symbolism and Neighbourhood Pride

When riding the Line K cable car from Acevedo up to Santo Domingo, one of the most eye-catching aspects of the built environment below is the way that many rooftops have been converted into what are essentially horizontal billboards. This is a function of the design of the gondolas themselves, which allow passengers to look down upon the neighbourhoods below. While some examples of this phenomenon serve as

advertisements for local businesses, others display messages of thanks to former Mayor Luis Perez or praise the existence of the Metrocable. The presence of such messages are a demonstration of how the relationship between Line K and the local communities of Santa Cruz and Popular has been shaped over the years, and these horizontal billboards are emblematic of the sense of pride that local residents take in having the cable car in their community. In order for this sense of neighbourhood pride to take root, however, the presence of Line K has had to have played a major role in catalyzing easily discernible changes to the communities through which it runs. In addition to providing better integration with the rest of Medellin and the Aburra Valley (with the line's effects on accessibility and mobility having been discussed in the preceding section), such changes have included bringing about further infrastructure investments in the area and fostering an increased sense of safety amongst marginalized groups. At the same time, other research has indicated that the existence of Line K has also led to an increased presence of institutions of the formal economy in Popular and Santa Cruz, which has the potential to strongly affect the character and demographics of these areas.



Figure 9. A horizontal billboard thanking former Medellín mayor Luis Perez for his role in getting Line K built. Photo by T.J. Bamonte.

In terms of how the Metrocable has affected crime and safety (which is a major component of measuring community well-being), literature on the topic makes clear that the implementation of Line K is not by itself the cause of a reduced crime rate in the affected neighbourhoods. Rather, the process of an integrated planning solution that brought together a multitude of different stakeholders can be credited for neighbourhood

improvements beyond mobility and accessibility. Matsuyuki et al. (2020) note that the studies conducted revealed no specific linkage between a reduction in crime and the presence of the cable car, a conclusion that is supported by David Colomer Bea (2016). Colomer Bea, however, writes that while Line K is not by itself enough to cause a reduction in crime, it *“has supported the creation of a climate of peaceful co-existence in which there has been a significant decline in crime rates”* (Colomer Bea, 2016, p. 92). A core idea in the relevant literature is how this so-called “climate of peaceful co-existence” could not have come into being solely through the construction of a cable car route by the local government and the Medellin Metro — using what would have been a top-down planning approach with little input from local stakeholders. This idea is supported by Galvin & Maassen, who discuss the importance of “multi-sector partnerships” to the line’s design and completion (Galvin & Maassen, 2020, p. 7). In particular, they highlight how engagement and partnership with such groups allowed the municipal government to gain a greater understanding of the areas Line K would serve, while also providing these communities with more input into the design and planning processes that would shape the future of their neighbourhood. In the view of Bocarejo et al. (2014), the integrated planning approach taken by the Medellin government is worthy of praise. They also note that the cable car could not by itself catalyze such large-scale changes to the physical and social fabric of the neighbourhood (Bocarejo et al., 2014a, p. 60-61), further demonstrating the importance of the Northeast IUP’s comprehensive plans in terms of the Metrocable’s relative success.

In a multitude of ways, Line K has served as the basis and impetus for improvements to the built environments of Santa Cruz and Popular. In addition to

providing an access route to the major landmarks included as part of the Northeast IUP (most notably the *Biblioteca España*), its construction has also resulted in the creation of new public spaces around each of the line's stations (such as the Parque Santo Domingo, which sits between the cable car station and the *Biblioteca España*). In each case, this includes a series of plazas built on the slopes below the station entrances (as a result of their locations on hillsides). Based upon observations conducted in March of 2024, these spaces appear to have been relatively well-integrated into the fabric of the surrounding community. They are particularly well-used by children, teenagers, families and the elderly. At Popular and Andalucía stations, each of these demographic groups appeared to have settled their own spaces around each station, with the upper level (closest to the station entrance) being a communal space for the elderly and the lower one for younger members of the community. At Santo Domingo, the presence of a school directly next to the station has made the station's public spaces particularly well-used after classes are out. Santo Domingo has also become home to one of the Metro system's most creative initiatives: the *Bibliometro*. A series of libraries set up in stations around the Metro system (one is also present at Acevedo), they serve as both lending libraries and points for residents to have access to computers.



Figure 10. The Acevedo branch of the Bibliometro library system. Photo by T.J. Bamonte.

At the same time, these public spaces are not without their flaws. One of the visits to the study area took place on a very sunny day, with the majority of the public spaces at the visited station in the path of direct sunlight. Visiting at this time of day made clear that the weather conditions have implications for the usage of the new public plazas around Popular and Andalusia stations, given that large portions of them

have very little sun protection (and by extension, protection from Medellín's frequent rains). While the low volume of people present in each plaza was most likely related to the visit being conducted during the early afternoon on a weekday, observation of the ways that the elements affect the plazas has implications for their usage on any day of the week — especially at times when the majority of people are not working or at school. In addition, the seating that has been made available in each of the three station plazas is also problematic, with the Metro-branded block seats being less than comfortable. Finally, the previously-mentioned division of space along demographic lines may have been caused in part by the design of the station plazas. In order to access the lower sections of the plazas from the upper level (where, in the case of all three stations, the majority of services are concentrated), one must walk up and down either multiple flights of stairs or follow a winding ramp system. For residents with health issues these pathways would stand as barriers rather than access routes, leading to the congregation of older community members in more easily accessible locations. Thus, the combination of these characteristics has led to the creation of a built environment that is composed of architecture that is not actively hostile in nature, but that nevertheless imposes limitations on its usage by certain groups or causes their use to be weather-dependent.

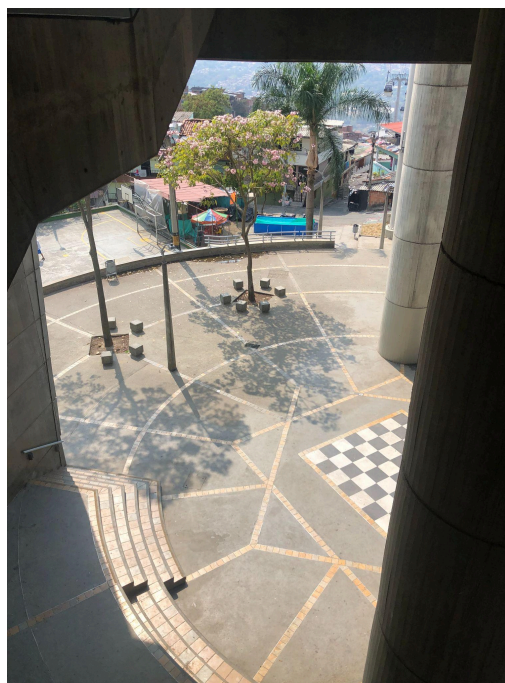


Figure 11. A children's festival occurring at Parque Santo Domingo. The public space it occupies was built as part of the Northeast IUP project. Photo by T.J. Bamonte.

Figure 12. An afternoon view of the public plaza at Popular station, demonstrating its exposure to the elements and lack of inviting architecture. Photo by T.J. Bamonte.

Line K has also supported the development of a number of infrastructure improvements and additions throughout the two affected *comunas*. Whether as a part of the Northeast IUP's plan for the area or as a result of its implementation, these have affected both the built environment and the living experiences of those that inhabit it. In addition to the *Biblioteca España*, the IUP project also led to the creation of a local business support centre (known as *Centros de Desarrollo Empresarial Zonal*, or CEDEZO), improvements to local schools, and a series of daycare centres (Matsuyuki

et al., 2020, p. 3267; Sotomayor, 2015a, p. 383). While these highly visible projects demonstrate the municipal government's commitment to improving the quality of life in the affected areas, they have also been accompanied by a host of other noticeable trends. Of these, the most notable are the ones in relation to the formal economy and the housing market. Given that the hillside communities served by Line K began as informal housing (and the fact that the government took no responsibility for providing services to what it saw as illegal settlements), these areas had limited access to utilities and other vital infrastructure (Sotomayor, 2019, p. 2). This in turn left such municipal and private sector services concentrated in the flatter or more southerly areas of the city, along with the opportunities that these districts offer (Sotomayor, 2019, p. 2).

Thus, while this particular status quo ante helped make Popular and Santa Cruz excellent candidates for the improvement projects of the first IUP, it has also opened the door to changes that could have major effects on the character of these areas. For example, Brand & Davila (2011) state that there has been an increase in formal real estate transactions in the areas included in the Northeast IUP — a major development, given that the vast majority of housing stock in these areas was built as informal housing. While it has also been noted that such increases have been seen throughout the city, and that many of these transactions were government land acquisitions conducted as part of the IUP's implementation (Brand & Davila, 2011, p. 656; Sotomayor, 2019, p. 13), it still stands to reason that the completion of Line K (and the convenience it offers) has played at least a partial role in catalyzing this rise in formal housing transactions. Because of the previously existing conditions that caused Santa Cruz and Popular to exist (both physically and economically) in relative isolation from

the rest of the city, the presence of the Metrocable in these areas allowed for the spread of the city's formal housing market to places it may not have reached otherwise. This conclusion is supported further when looking at page 4 of Galvin & Maasen (2020), which notes that land values around stations on Line K have increased by approximately 50% since the line's opening. This combination of increased land values and greater integration into the formal economy through improved accessibility demonstrates noticeable effects of Line K on its surrounding neighbourhoods. At the same time, in cities around the world, that same combination of improved accessibility and increased land values has been a key component of major socioeconomic changes, such as gentrification. Indeed, Sotomayor (2019) notes that gentrification has been evident in both Popular and Santa Cruz, with the latter's improved metro access and location lower on the hillside making the changes there more pronounced (Sotomayor, 2019, p. 13). When examined in conjunction with maps of the area (Sotomayor, 2015b, p. 161), this statement suggests that the more difficult terrain present in Popular may provide a barrier to a larger scale of gentrification, whereas the relative ease of access to Santa Cruz may serve as a catalyst for some of the less positive aspects of gentrification (e.g. higher housing costs and displacement) to occur more quickly there.

Yet despite the cost barriers, threats of gentrification, and public spaces with flawed architectural designs, the symbolic power of Line K and what it represents cannot be denied. As a result, the sense of pride that the presence of Line K has created amongst local residents has become a recurring theme in the literature. The works of Brand & Davila discuss how the "symbolic value" of the system has allowed

local residents to feel a better sense of connection and inclusion with the rest of the city, as well as how the planning process recognized the specific needs of the community (Brand & Davila, 2011, p. 658). This finding is echoed by Galvin & Maasen, who come to the conclusion that the cable car has led to increased trust in the justice system and a more positive outlook amongst residents related to their place in the wider city (Galvin & Maasen, 2020, p. 5). Given the relative isolation of the areas from the city's formal institutions that existed before Line K, this recognition of needs (and by extension, the greater institutional trust and stronger sense of pride) would not have been possible without the participatory planning approach that characterized the system's design and construction. Matsuyuki et al. (2020) note that not only has there been a sense of increased neighbourhood pride amongst users of the Metrocable, but that this feeling is also found amongst a majority of those who do not use the system (Matsuyuki et al., 2020, p. 3278). This particular statistic is even more important when viewed in the context of how the local communities interact with the system.

In addition to the murals of support for the system, other observations conducted in the areas around Line K stations demonstrate that their integration into the community has been a success. For example, the good weather present during my final visit to the study area (as well as it being a weekend day) displayed how the areas around stations have become focal points for the local community, with food vendors lining the sidewalks outside of stations and people of all ages enjoying the public spaces around them. As has been noted previously, the percentage of residents who use the Metrocable is comparatively low, and personal observations demonstrated that pedestrian traffic to and from the cable car stations themselves was less than to the

spaces and amenities present around them. This suggests that even those who do not ride the Metro on a regular basis still benefit from its presence, by virtue of the streets and public spaces around stations becoming community focal points. Therefore, it is clear that the power of Line K lies with not just being a vital transportation corridor, but also as a symbol of pride for neighbourhoods that suffered greatly under decades of strife and neglect. While it cannot by itself solve some of the systemic issues that the two *comunas* and their residents continue to face (the ongoing gentrification discussed in Sotomayor (2019), for example), symbolism is nonetheless a powerful tool that has undoubtedly had a profound effect on two communities in need of it.

Placemaking: The Future of Santo Domingo and Environs

The northern terminus of Line K is situated in the Santo Domingo area of Popular, and the areas around the station have become the focal point for the most visible effects of the Northeast IUP. CEDEZO, *Biblioteca España* and the improved local school are all within easy walking distance of the station. In addition, the cable car line up to Parque Arvi (known as Line L) also starts from this station, with connections being readily available between Metrocable lines K and L. Line L could not exist without Line K, as access from neighbourhoods lower in the valley would be exceedingly difficult if transport was only via roads. At the same time, Line L was designed to serve a completely different ridership demographic. Because it has no stops along its route, it is of no use to the residents of the settlements above Santo Domingo (which continue to grow, in a reflection of the area's increasing population (Alcaldia de Medellin, 2023a)), and therefore is not designed to be an option for public transportation or a tool for

community improvements. Rather, as Parque Arvi has become one of Medellín's premier attractions for both locals and visitors, it serves as a fast and convenient entrance to the park.

Line L is emblematic of a specific aspect of Medellín's urban development projects, in which placemaking is used as a method of appealing to specific groups (primarily international visitors and the recognition that such appeals bring, but also wealthier local and Colombians). Evidence of this particular approach can be found throughout the framework of the Northeast IUP. Between the presence of the *Biblioteca España*, the connection the Parque Arvi via Line L, and Line K linking them both to the rest of the city, the stage is set for the further transformation of Santo Domingo into a hub for national and international visitors - an end result that has been a core motivation for the IUP at large (Sotomayor, 2015a, p. 394). The outcome of this line of action - specifically whether or not these placemaking initiatives will create an environment that continues to be economically and socially hospitable to longtime residents, mark the beginning of a cycle of gentrification and displacement driven by globalization and neoliberalism, or some combination of the two - remains to be seen. The key to creating and maintaining a balancing act between these two oft-opposing intentions (both of which were present in the IUP's conception and design), however, could potentially lie elsewhere in Medellín. *Comuna* 13, with its paramilitary-dominated history and subsequent transformation into one of the city's most popular destinations, may offer clues for the creation of a future Santo Domingo that offers some symmetry between the needs of local residents and the goal of Medellín's leaders to position their city favorably on the world stage.

The signs of the Northeast IUP's impact on Santo Domingo start to become visible even before disembarkation from the Metrocable. In addition to public spaces around the station (similar to those at Popular and Andalucía), the cable car route passes above the Parque Santo Domingo, which has grown to become a major community amenity that plays host to popular local events and serves as a gathering space for local residents. The park sits between the Metrocable station and the *Biblioteca España*, and the pathway connecting all three locations has been built through a combination of improvements to local roads and the construction of new public plazas and viewpoints (Sotomayor, 2015b, p. 161). The creation of this connection and its new spaces - some of the most conspicuous changes to the built environment that occurred as part of the IUP — demonstrates the importance that was put on providing a good connection to the library (Alcaldía de Medellín, 2006, p. 54), something that would benefit both local residents and visitors to the area. The usage of these areas by local residents is readily apparent, and on the final day of my observations a local fair was taking place at the plaza above the *Biblioteca España*. The streets around the station are packed with a variety of local businesses, and the area appears to be a more vibrant commercial district than those around Popular or Andalucía stations.



Figure 13. The vibrant streetscape surrounding Santo Domingo station. Photo by T.J. Bamonte.

At the same time, upon closer investigation and observation, the signs of change (however subtle) are present throughout the area. Signs of the increased presence of the formal economy are clear when walking through the main commercial streets, with outposts of local and regional chains being present (such as a 24-hour pharmacy, a small casino and a microfinance centre backed by a major international bank). The most

important change, however, may be the existence of businesses that are clearly not catering to the local population. For example, one of the restaurants located adjacent to the station has begun charging prices that are more in line with those found in more affluent neighbourhoods such as Laureles. Between this and the fact that all of the customers encountered when visiting were clearly visitors to the area, it is clear that the local population is not the intended customer market for that particular establishment. While options for local residents can still be found in abundance, the fact that a restaurant catering to a non-local customer base even exists demonstrates the changing dynamics in the area. If this business is charging these sorts of prices, it indicates a recognition of the fact that more and more visitors from more affluent parts of the city are paying visits to Santo Domingo. Given the area's history and the relative lack of landmark attractions present there before the Northeast IUP's implementation, this is a trend that could have easily been considered implausible when the Metrocable was first opened - and virtually unthinkable without the existence of Line K. The increased importance of tourism in the area is further demonstrated in Brand & Davila (2011), where they note on page 655 the growing presence of tour guides, who describe the area's history and the importance of the Metrocable.



Figure 14. Situated along the path between Santo Domingo station and the *Biblioteca España*, the BBVA-backed microfinance centre demonstrates the increased presence of formal institutions in the neighborhood. Photo by T.J. Bamonte.

This particular outcome highlights the use of Line K as a tool for not just social urbanism, but also as a key part of what is essentially a brand-building exercise for Medellín (Sotomayor, 2015a, p. 394), and this increased recognition would in turn fuel a rise in tourism and investment in what were previously neglected areas of the city. As

discussed above, the combination of Line K, the *Biblioteca España* and the connection to Parque Arvi puts three major amenities all within walking distance of one another. This in turn produces the conditions for the creation of a major tourist attraction for tourists and locals of relative wealth, right in the heart of what have long been some of Medellín's most disadvantaged communities. Thus, the concentration of these three major amenities being in one place opens the door to this particular placemaking approach working too well - a result that would have noticeable consequences for those living in the area around these landmarks. The core of this outcome lies with the library, and its role in the neighbourhood's present and future. In 2015, the facades of the *Biblioteca España* buildings were found to be structurally unsound, and the buildings were closed to the public (Perafán Del Campo, 2023, p. 393). Renovations are ongoing as of March 2024, but the public spaces around the library complex have taken on a less-manicured appearance than what was on display in past years (as is shown on page 6 of Sotomayor (2019)). However, given its importance as both an amenity for the local population and as a symbol of Medellín's status as a hub for urban innovation (Hernandez-Garcia, 2013, p. 48), it stands to reason that the library's reopening would further solidify the Santo Domingo area as a major regional destination and an attraction to locals and visitors alike. As this occurs, more and more businesses would likely begin to target visitors rather than local residents, opening the door for the local market to be underserved. At the same time, the increase in property values observed by Galvin & Maasen (2020) would be set to continue, as the land around the station would become even more desirable. Additionally, while previous increases in land value or economic activity were largely limited to the areas around the stations (Brand & Davila, 2011, p.

655), the presence of the library close to Santo Domingo station opens the door for more widespread changes than would be seen at Popular or Andalućia under normal circumstances.

The implementation of placemaking initiatives based on the principles of neoliberalism is often in conflict with serving the needs of existing communities. In the case of Santo Domingo, Line K sits at the focal point of the community's future regardless of what that future looks like, and has already proven itself to be a major aid to improved mobility and a symbol of neighbourhood pride for local residents. Yet whether the end result is increased gentrification and displacement, the loss of a sense of community amongst residents, or large-scale changes to the physical character of neighbourhoods, examples of placemaking-as-city-branding initiatives can be found all over the world as cities compete with each other for prominence in the globalized economy (Anguelovski & Connolly, 2021, p. 1; Bonakdar & Audirac, 2020). If this path were followed in Medellin, however, Line K would be both the original catalyst for this path of globalization-driven redevelopment, and also an integral component of its continuance. Given the history of both the two *comunas* and of Medellin as a whole, the socioeconomic issues present in Popular and Santa Cruz, and the ongoing efforts made to alleviate them, the realization of this particular future would in many ways undo much of the progress made towards improving the quality of life in these neighbourhoods.

Lessons on how to balance the needs of these two oft-opposing goals can be found locally. On the other side of the Aburra Valley, *Comuna* 13 has become what is arguably Medellin's most well-known neighbourhood. Like Popular and Santa Cruz, *Comuna* 13 is also a hillside community characterized by informal settlements and has

suffered from state neglect for decades, which in turn contributed to it being a hub for violence (Sotomayor, 2015a, p. 385; Naef, 2020, p. 5). This culminated in a large-scale state-led military operation (known as Operation *Orion*) that aimed to expel the militias that at the time controlled the area, but also led to the death or displacement of many residents and left a deep impression on the community's collective memory that remains to this day (Sotomayor, 2015a, p. 385; Ramirez Suarez, 2023, p. 1). With the trauma of *Orion* and the years of state neglect fresh in the minds of local residents, the implementation of an IUP in the area in 2006 was defined by "*attempts of pacification and compensation as difficult state-society relations rendered IUP operations more fragmented*" (Sotomayor, 2015b, p. 164), with notable examples of such issues being a shortened participatory process and disagreements regarding whether the investments made were the best use of available resources (Schwab, 2017, p. 244; Sotomayor, 2015a, pp. 390-392). At the centre of the debate about the proper use of resources are the six outdoor escalators built as part of the project, which (like Line K) were hailed as a groundbreaking solution to issues surrounding mobility and accessibility in a neglected area. However, their success for this stated purpose has been called into question, with Reimerink (2018) detailing a series of planning missteps and a lack of understanding of local residents' mobility needs.

Nevertheless, the escalators (known collectively as Las Escaleras) have become an international symbol of Medellín's supposed innovation and progress (Reimerink, 2018, p. 202), and have become integral to *Comuna 13*'s status as a major tourist attraction (Naef, 2020, p. 12). Much of *Comuna 13*'s appeal to outside groups comes from the vibrant arts or culture scene that has developed in the area (Naef, 2020, p. 12;

Ramirez Suarez, 2023, p. 1), which highlights the way that initiatives spearheaded by local residents can still achieve the placemaking and recognition goals of municipal governments and other outside groups. While what has occurred in Comuna 13 is not without its problems (with a loss of a sense of community, increased commercialization, and the continued activities of criminal groups being highlighted by Naef (2020) and Sotomayor (2015a)), its core concept is one that has potential elsewhere in the city. If tourism in Santo Domingo continues to grow (whether or not as a result of the revitalization of *Biblioteca España*), then steps must be taken to guarantee that local residents are at the forefront of such changes. These steps can be pursued in a variety of ways, such as through cultural initiatives or via local ownership of businesses that cater to tourists (with the presence of the microfinance centre being a positive sign in regards to the latter). Above all, a participatory framework is essential in order to ensure that the missteps that characterized the construction of Las Escaleras are not repeated in any future investments. Finally, research surrounding both Line K and Las Escaleras have shown the difficulties of spreading the economic benefits of mobility improvements beyond the areas immediately around stations (Reimerink, 2018, p. 200; Brand & Davila, 2011, p. 655). In order to ensure economic and social outcomes that benefit the wider area of Santo Domingo, actions must be taken to overcome these difficulties. Regardless, Line K's symbolic and literal purposes for local residents would be ensured, alongside its role ferrying visitors to Santo Domingo and beyond.

The dueling futures that currently exist in Santo Domingo epitomize the contradictions of Line K and its related initiatives. While the benefits it offers to the surrounding communities are undeniable, the cable car line has also become the focal

point for catalyzing changes that emphasize Medellín's position as a hub of urban innovation but can come at the expense of the needs of the local community. If left unchecked, this trend would essentially negate the project's stated purpose of improving the quality of life for the disadvantaged residents of *Comunas* 1 & 2. The lessons offered by the experience of Comuna 13, however, are demonstrative of the importance of ensuring the continued existence of a participatory planning framework in such situations. This framework ensures that all residents will have a voice regarding the future of their neighborhood, and in combination with institutions such as the microfinance bank (the presence of which will make it easier for locals to start their own businesses, rather than them being run by those with little connection to the area), they will be able to better balance their interests with those more focused on city-branding or other neoliberalism-influenced goals. The importance of a true participatory planning framework will be further highlighted as the focus of this paper shifts to Toronto.



Figure 15. Muralised stairs in *Comuna 13*. Photo by T.J. Bamonte

Reflections on Toronto

Both the city of Toronto and its wider metropolitan area provide excellent opportunities for the study of the ways in which new transit infrastructure can have significant impacts at the neighbourhood level. This is due in large part to the region's ongoing expansion of its transit system over the past two decades, which has already

played a major role in the reshaping of multiple communities and is poised to continue to do so for the foreseeable future. As this occurs, however, it emphasizes a set of issues that offer similarities with what has occurred in Medellín. Despite the wide array of differences between these two metropolitan areas and the issues that they face, some similarities can still be found—to the point that insights gained in the previous sections of this essay regarding Medellín have some relevance for Toronto. To that end, this section of the Major Paper will reflect on how knowledge gained from studying Line K and the effects that it has had on the neighbourhoods that it serves (as well as the ways in which those neighbourhoods also shaped the line's design and integration with surrounding communities) can be applied to the context of transit-neighbourhood integration in Toronto. This will start by providing background information regarding transit planning and development practices in Toronto, with an emphasis on transit-oriented development, transit-catalyzed gentrification and efforts surrounding placemaking initiatives around transit stations. This will segue into a discussion regarding how insights from Medellín can be incorporated into planning practices in Toronto, with emphasis on aspects of two major in-the-works transit projects (the Ontario Line subway and the GO Expansion project) that provide the best examples of how those insights could be implemented. Of particular interest are ideas related to accessibility, placemaking and community engagement (categories where the status quo in Canada's largest city leaves ample room for improvement), and the implementation of Medellín-influenced ideas in the context of transportation and neighborhood planning in Toronto will be discussed.

Background on Transit Planning in Toronto

Toronto's growth into a major global city can in many ways be seen as what is essentially an accident. Up until the 1970s, the role of being Canada's premier city was without a doubt filled by Montreal. The combination of Quebecois nationalism (in particular the migration en masse of English-speaking Quebec residents to Ontario and the shift of economic power that followed them) and greatly increased immigration from around the world, put Toronto in a position to usurp Montreal's status (Berridge, 2018, p. 118). Because it had not been designed to fill such a role, however, Toronto's planning framework and built environment have struggled to keep up with the demands of the fast-growing city it has become — a trend that continues to this day (Berridge, 2018, p. 128). This less-than-ideal situation is particularly true in regards to the city's transit system. For example, the current state of the subway system, with its small number of lines and relatively limited coverage (as shown by the large swathes of the city that are served only by buses (Toronto Transit Commission, 2024), is more suitable for a Toronto that had remained a regional city rather than the global hub it currently is. This problematic status quo, combined with an ongoing housing affordability crisis, has left many lower-income residents with long commutes and difficulties accessing vital amenities and services. As a result, while their historical and present-day contexts are quite different, Toronto and Medellin both demonstrate the ways in which challenges surrounding accessibility and mobility serve to highlight systemic economic inequalities in their respective cities.

Although it has done so with less of the explicit social urbanism that accompanied Line K in Medellin, Toronto has also attempted to use new transit lines to

improve the quality of life of residents in specific areas of the city. Interestingly, in a demonstration of the far-reaching influence that Medellin's system now possesses, the idea of bringing Metrocable-style aerial transit to Toronto has previously been discussed (CBC News, 2011). Proposals for aerial transit in Toronto serve to highlight the transit connectivity issues present in certain areas of the city, and adaptation of this technology would offer a new way of rectifying them. Yet despite the potential of aerial cable cars to improve Toronto's transit network they have not gained traction amongst the relevant stakeholders and political groups, with transit expansion in the region being focused on familiar heavy rail transit technology.

However, while the Eglinton Crosstown LRT line was the first major new transit line in the city in decades, it has also been accompanied by significant gentrification and displacement along its route. One needs only to look at the Little Jamaica section of Eglinton West for confirmation of this fact, as scores of locally-owned businesses suffered greatly or even closed while the new line was being built (Mohamed, 2021, p. 35). As a result, not only is the cultural identity that gave the area its name being lost, but with the subway fueling rises to residential and commercial rents and land prices the area is on track to become unaffordable for a large portion of the city's population (Mohamed, 2021, p. 37). While this particular approach of transit-fuelled development has given rise to numerous successful transit-oriented communities that represent a turn away from car-centric urban environments, both Toronto and a host of other North American cities have demonstrated that those with arguably the most to benefit from the opening of a new transit line have found themselves faced with the threat of displacement (Padeiro et al., 2019, p. 735).

At the same time, it is notable that one of the main takeaways from the Medellin section of this Major Paper has been that, despite the flaws in its stations' built environments, consistent usage by only a small percentage of Popular and Santa Cruz residents, and lack of access by marginalized groups, the symbolic power of the Metrocable is quite clear. Even amongst residents who do not ride it regularly (whether for financial reasons, or the fact that their commute does not require it), the presence of both Line K and its related investments have instilled an unmistakable sense of pride in their community. Given the history of violence and underinvestment that has characterized much of the history of Popular and Santa Cruz, this sense of pride is especially notable when situated in their historical context.

By comparison, the current state of Toronto's transit system does not create the sort of environment that would be conducive to such feelings of pride. This is in large part due to the uneven quality of service and the lack of improvements over the years, with riders dealing on a regular basis with overcrowded buses and trains, slow travel times, and a host of service disruptions. The current state of the system has implications not just for the well-being of Toronto residents but also for the city's ability to accommodate further growth, as an overstressed transit system would hamper the economic and social prospects of both long-time inhabitants and new arrivals (Berridge, 2018, p. 129). Yet while current or planned capacity enhancements to the existing subway lines, newer and larger streetcars and the construction of a host of new lines and extensions will do much to alleviate overcrowding on the city's main transit lines, instilling a sense of satisfaction similar to that seen in Medellin would be a more complex undertaking. What has been done there — not just with Line K and the other

Metrocable lines but with the Medellin Metro system as a whole - is a perfect example of the power of symbolism, and the ways that it can be used to inspire pride in one's city and neighbourhood. In the case of Toronto, working to cultivate a similar sense of pride around the city's transit system would have a host of knock-on effects that would permeate the city's social and cultural fabric for the better. As in Medellin, improvements to the subway, regional rail and surface transit networks would represent better access to employment and cultural opportunities for residents who might not be able to benefit from them otherwise. This symbolism is especially important in the context of the city's role as a hub for immigration, and a more reliable and extensive public transportation system would serve as a representation of the possibilities that life in Toronto offers. At the same time, the creation of public spaces in and around transit stations would allow for the creation of a set of new neighbourhood hubs that are specifically designed to address the unique needs of individual communities. Of the possibilities of these spaces, the success and popularity of the Toronto Public Library (TPL) system offers an example of how an institution can serve as both a beneficial public establishment and a symbol of pride. Therefore, a partnership between the TPL and either of the major transit agencies in the region offers one of the most visible paths for placemaking efforts in and around transit stations, efforts which (no matter what physical form they take) would in turn be intended to increase residents' sense of pride in their neighborhoods.

Service Enhancements and Expansion: Improving Accessibility and Connectivity

While some of the potential improvements to accessibility and mobility can be made to the existing system, it is the ongoing major expansion projects that offer the

most promising solutions. With their combination of increased speed and reliability, expansion of higher-order transit coverage, and connections to major residential and employment hubs, the Ontario Line subway and GO Expansion project offer the best opportunities for serious advancements regarding connectivity and mobility.

Formed from the various iterations of plans for what was long known as the Downtown Relief Line, the Ontario Line will stretch from the intersection of Eglinton Avenue East and Don Mills Road, heading south along Don Mills, Pape Avenue and an existing rail corridor, before turning west towards the downtown core (Metrolinx, 2022). At its northern end, it will pass through the neighbourhoods of Flemingdon Park and Thorncliffe Park, with each receiving direct subway access as a result. With landscapes dominated by high-rise apartment buildings, these two districts are some of the city's densest and most diverse. Unfortunately, delays to both the Eglinton Crosstown LRT and what eventually became the Ontario Line have left them dependent on bus service for transit coverage. This, combined with their relative isolation from a large swathe of the rest of the city (as a result of being situated on the edge of the Don Valley), has undoubtedly impacted mobility for local residents. Thus, while Flemingdon Park and Thorncliffe Park have not suffered from exactly the same issues that impacted Popular and Santa Cruz before the construction of Line K and the implementation of the Northeast IUP, the combination of geographic isolation and inadequate transit connectivity offers similarities to the Medellin case study. With this being the case, the Ontario Line has the potential to serve in a role that is equivalent to the one filled by Line K. Upon completion of the new subway line, residents of these two neighbourhoods would benefit from a faster and more direct route to both Downtown

Toronto and the bustling areas to the east and west of it, while also enjoying an easier path to non-downtown destinations. Given the lower-income demographics of both Thorncliffe Park and Flemingdon Park (City of Toronto 2016a; City of Toronto, 2016b), this increased ease of connectivity would achieve the objectives outlined in the previous section regarding expanded access to economic, educational and cultural activities – in essence, providing improved integration with the rest of the city, both physically and psychologically.

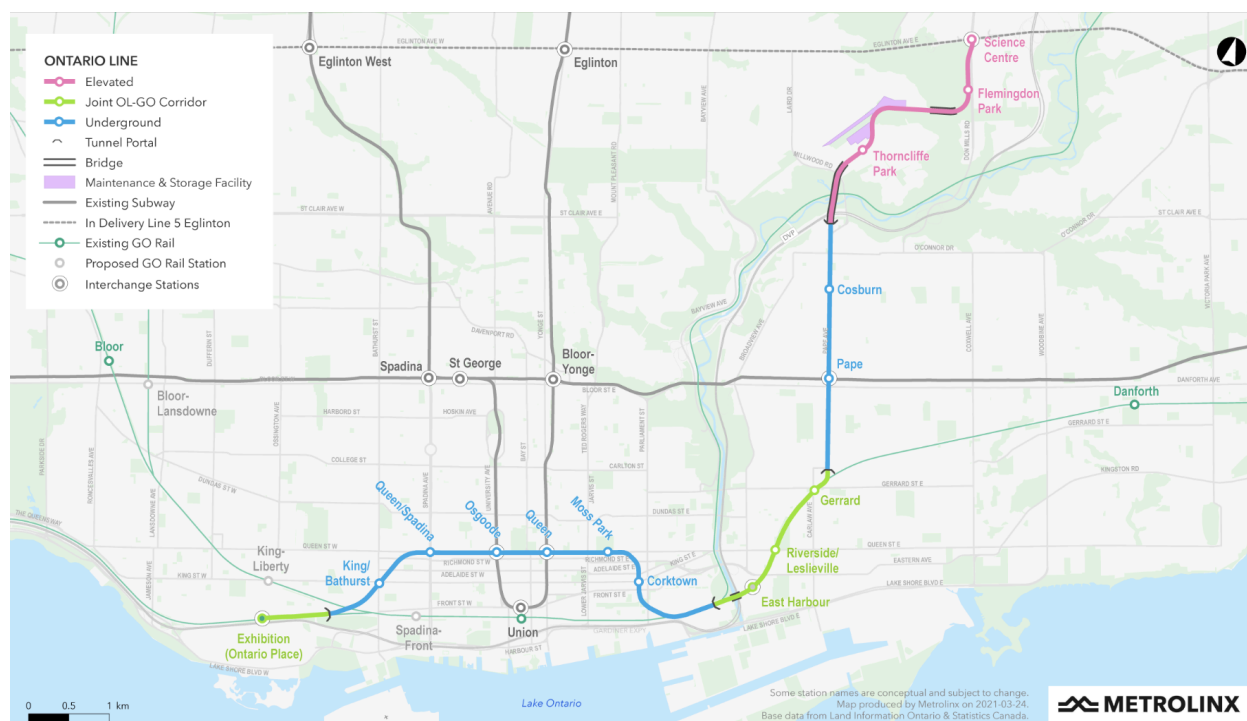


Figure 16. A map of the Ontario Line subway. Map courtesy of Metrolinx.

At the same time, the reshaping of much of the GO Transit rail system into something resembling a surface subway system also presents the opportunity for major accessibility and mobility improvements. Since its inception, the GO system has been focused largely on meeting the needs of weekday commuters traveling into the

downtown core in the mornings and back to the suburbs in the evenings. As a result, the infrastructure of much of the system was not designed to accommodate service beyond this level, due to the predominance of single-track lines that limited the capacity for train service beyond one direction during rush hours. Since the project's initial inception (and throughout its various iterations), the GO Expansion project has been intended to provide the infrastructure upgrades that would allow for massive service expansions across the network (Metrolinx, 2021a). While the project involves many components and covers a wide geographic area, for the purposes of this essay the most relevant aspect is the Stouffville rail line and its northernmost section within the Toronto city limits. The Stouffville line is at the core of the GO Expansion project, and as a result is undergoing a number of infrastructure upgrades in order to accommodate vastly increased service levels (Metrolinx, 2021b), with station renovations and expansions being a key part of these upgrades. Three stations (Agincourt GO, Milliken GO and Finch-Kennedy GO) are most relevant to the focus of this essay, with the first two having recently undergone extensive renovations and the third planned to be built as part of the separate SmartTrack project (Metrolinx, 2018). All three stations are located in the formerly independent municipality of Scarborough, now a part of the amalgamated city of Toronto. While the southern section of the district boasts a subway line (and had two, until the recent closure of the Scarborough RT) and is served the Lakeshore East GO line (which for decades has seen higher rates of service than the rest of the system), areas in the north are reliant on bus connections for the majority of their transit needs. Similar to the situations in Flemington Park and Thorncliffe Park, this has left residents facing longer travel times and increased difficulties accessing

employment, educational and cultural amenities. What sets the Stouffville line case apart, however, is its reliance on policy changes in addition to infrastructure upgrades. For most of its history, the GO system has operated with a fare structure that is completely separate from the TTC. This has forced riders transferring between the two to pay two fares - a scenario that, if kept in place, would essentially keep the improved Stouffville line as a premium service rather than one accessible to the larger ridership base. This in turn would limit the benefits of improved service, as potential riders would be deterred by the higher costs. While the current One Fare program does much to alleviate this issue by deducting the cost of the TTC fare (Metrolinx, 2024), it does not change the fact that GO fares from Agincourt, Milliken and (in the future) Finch-Kennedy are still noticeably higher than the slower bus-to-subway trip on one fare. Thus, it is clear that any efforts to unlock the full accessibility and mobility benefits of the Stouffville line upgrade - and by extension, the GO expansion project as a whole - must include both policy changes and infrastructure upgrades. This combination highlights the needs for making these new services more accessible to everyone and the benefits that this improved mobility would provide. Similar to the Ontario Line, this approach also shows similarities to the ways that Medellin was able to use the physical presence of new transit infrastructure, in order to improve access to opportunities for local residents through conveniences such as reduced travel times. At the same time, however, the prospect of enhanced fare integration demonstrates a policy approach that in many ways goes a step further than what has been seen in Medellin, via the use of policy changes designed to better reach the most marginalized of residents (which, as

discussed in previous sections, continues to be an issue with Line K and its relatively high fares).



Figure 17. Milliken station on the Stouffville Line. Photo by T.J. Bamonte.

Community Engagement and Placemaking: A Prime Opportunity for Improvement

Based on both a review of the literature and observations of the system and its surroundings, the ways in which Line K has been designed to be not just a

transportation system but also a community asset is commendable. The design of the stations themselves and the surroundings demonstrate that these locations were intended to be more than just locations where passengers enter and exit the cable car system. Rather, amenities such as the Bibliometro libraries and the myriad public plazas around stations were intended to be spaces to be used by all members of the community, regardless of whether or not they were riders of the Metrocable. By contrast, the vast majority of rapid transit stations in Toronto do not make such accommodations, with the prevailing designs suggesting a mindset that such stations are nothing more than locations for helping move people as efficiently as possible. This is a missed opportunity, and one that can be rectified through a new placemaking strategy that prioritizes community integration and the creation of spaces that are focal points of the neighbourhoods of which they are a part. Such a project would not just take inspiration from Medellin, but would also provide a blueprint for potentially expanding upon the design and planning principles used for Line K. In addition, through the transformation of stations into spaces that serve other community needs, the pursuance of this particular placemaking scheme would help to rebuild trust in key government organizations (especially amongst the communities affected by the Ontario Line) and stoke the growth of a sense of neighbourhood pride amongst residents.

While the exact form of this placemaking scheme can take myriad forms, for the purposes of this essay the station improvements discussed here will take cues from what has been implemented as part of Line K. This is because some of the most visible aspects of that line's community integration are ones that are most readily transferable to Toronto, and focusing on them would allow for a greater discussion of how what has

happened in Medellin can influence transit planning in that city. The core improvements would be based on the Bibliometro library system (which has involved the placement of small library branches in two of the Line K stations - something that Toronto is especially well-suited to imitate) and the ways that public spaces around Line K stations have become popular neighbourhood hubs. While the latter approach would largely consist of ensuring that the new public spaces are tailored to meet the specific wants and needs of their respective communities, the former is arguably a more complex undertaking whose implementation would involve another of Toronto's most visible institutions. The Toronto Public Library system is one of the busiest and most successful in the world, with just under a million registered members as of 2022 (Garcia-Guillen & Tomic, 2011, p. 82; Toronto Public Library, 2022, p. 30). As a result, the library system plays an integral role in the lives of many of Toronto's residents, and is especially important for the city's growing immigrant population. Under the prevailing idea that "*Libraries are natural places for newcomers to visit upon their arrival*", services geared towards those that have newly arrived in Canada are emphasized (Garcia-Guillen & Tomic, 2011, p. 82). This customization of services (whether for new immigrants or established locals) is a key to reaching a wide array of demographic groups, and together with increased emphasis on both wireless access and in-person technology stations it has become a key component on the library system's success (Berridge, 2018, p. 125; Toronto Public Library, 2022, p. 23). Just as importantly in this case, that same flexible institutional mindset is the perfect starting point for the creation of a series of Bibliometro-style spaces for major transit stations in Toronto. By combining the library system's institutional knowledge and experience reaching a diverse array of community groups

with the pre-existing visibility and neighbourhood centrality of major transit stations, these new spaces would be primed to fulfill their designated role as landmark community spaces.

Whether the intended outcome is the creation of a new public plaza designed to serve as a point of convergence for the surrounding district, space for retail outlets run by members of the community, or a Toronto Public Library facility incorporated into the station, the form that these spaces take would need to be determined by the needs of their intended neighbourhoods. For example, if as part of the Stouffville Line's Finch-Kennedy GO station it is determined that a new parkette and a set of retail spaces would best fit the needs of the surrounding area, then the development of the station would be designed to be both accustomed to these needs and flexible enough to allow for the accommodation of uses that may arise in the future. At the same time, if a new or existing station is planned to be home to one of the new TPL facilities, then the amenities it will have on offer would be tailored to meet the needs of that specific area (e.g. if a low percentage of local households have computers, then the space would emphasize technology stations). These needs would be determined through a revamped community consultation process that is more attuned to the needs of neighbourhoods with a diversity of ethnic groups and incomes, as well as increasing the involvement of local residents and community in the planning processes — aspects that have been shown to be lacking in Toronto's current public engagement practices (Mohamud, 2023, p. 53).

In order for it to achieve results that reflect its importance as a placemaking tool, the implementation of this program would be a complex undertaking. At the very least,

revisions to the current public engagement processes would need to be made (something that is especially true if Metrolinx is to be involved in any of the projects). In addition, a host of data would need to be collected in order to determine the most optimal stations sites for implementation. Finally, major transit organizations in the Greater Toronto Area have long struggled with inter-agency coordination, with these issues being seen as a barrier to better regional transit service (Siemiatycki & Fagan, 2019, pp. 5-6). Given both this systemic lack of cooperation between agencies and the importance of working closely with the TPL organization as part of this placemaking initiative, working to improve communications between disparate transit agencies (in this case, the TTC and Metrolinx) and other relevant city and regional organizations would have benefits that extend beyond the implementation of this particular policy initiative.

With these complexities in mind, this Major Paper is not the correct venue for a detailed exploration of the intricacies of this placemaking program. Rather, it is a demonstration of how some of the most successful placemaking ideas and practices that were implemented as part of Line K (with the measures of that success being based on discussions earlier in this essay) can be transferred to the context of transit planning and community engagement in Toronto, as well as how the most effective aspects of community engagement in Medellin can be used to achieve similar results further north. In essence, this section of the essay is designed to provide an overview of a new policy initiative and discuss the ways in which it could catalyze a revamped approach to placemaking and community engagement as part of new transit projects.

The core of this new approach would be a style of community engagement that prioritizes reaching those who would benefit most from these new facilities. Given that participatory engagement has been an integral part of the urban upgrading projects associated with Line K (Brand & Davila, 2011, p. 656), it is clear that any new project based on said development should (at the very least) be influenced by examination of that success. In Toronto's case, however, recent major transit projects (most notably the Ontario Line) have been sorely lacking on the public engagement front, with Metrolinx leaving a trail of dissatisfied communities in their wake (Kaddoura, 2023). If implemented in a manner that reflects a renewed commitment to a participatory planning approach, the adaptation of this new public spaces program would demonstrate the agency's commitment to engaging with and meeting the needs of neighbourhoods. Ideally, these new spaces would become neighbourhood focal points that are both well-used by locals and reflect the unique identity of whichever neighbourhood they are a part of (e.g. an outcome similar to each of the plazas around Line K's stations). This in turn would contribute to an increase in a sense of neighbourhood pride similar to what has occurred in the areas served by Line K. While this feeling is undoubtedly already strong in many areas (as Toronto's identity as a "city of neighbourhoods" would suggest), the presence of community spaces that are both tailored to their specific needs and reflect their local identities would set the stage for this feeling to grow. In addition, a more participatory and citizen-led approach to community engagement would also do much to lessen the spectre of displacement that could be catalyzed not just by the presence of a new transit line, but also the availability of the new public amenities around them. A lack of citizen participation in development

processes has been shown to play a major role in both paving the way for gentrification and deepening existing inequalities, and providing providing a greater space for voices that best represent these communities is seen as integral to solving this issue (Mohamud, 2023, pp. 53-55). Thus, a revamping of the public engagement process for the purposes of this placemaking initiative would have further-reaching effects than the creation of a series of unique public spaces, and would demonstrate a renewed commitment to equity in planning.

In Medellin, the development of the Metrocable lines following Line K has involved much less participatory community engagement than the system's first (Brand & Davila, 2011, p. 656). Therefore, given the importance of participatory engagement's to the successful aspects of Line K's development, it is clear that any new project based on said development should (at the very least) be influenced by examination of that success. Given the issues that Toronto has faced in recent years regarding public engagement (or lack thereof), any analysis of Line K is particularly relevant for the lessons it can provide regarding the implementation of successful policies surrounding accessibility and placemaking.

Conclusions

By framing it in the context of the changing dynamics regarding Global North-Global South knowledge transfers, this Major Paper aims to analyze the ways that Medellin Metrocable Line K has catalyzed improvements to the communities of Popular and Santa Cruz that lie along its route. These improvements have been measured in terms of how the presence of the line has had measurable effects on

connectivity and mobility, community engagement (in the form of use of the public spaces created as part of both the cable car itself and the related Northeast IUP project), and placemaking. Through examination of existing literature, available data and statistics and a series of personal observations conducted in March 2024, it has become clear that while Line K has contributed (either directly or indirectly) to a multitude of positive changes in the *comunas* that it serves, it should not by itself be viewed as the only reason that those changes have occurred. Rather, while the role of Line K should be viewed as an integral part of the enhancements that have taken place, it is arguably the single most important of these elements. Without it, the improved social and economic mobility offered by enhanced connectivity with the rest of Medellín and its environs would be difficult to replicate, local residents' perceptions of both their neighborhood and the local government would have been less likely to improve, and without better connectivity with the rest of the region the numerous public works project that have occurred in the vicinity of Line K would not have occurred.

At the same time, the presence of the line has also highlighted the continued inequalities that exist in Popular and Santa Cruz (especially in regards to opportunities for women, the areas' most economically disadvantaged residents and other marginalized groups to take advantage of the connectivity benefits), while also opening the door to displacement as the result of projects and trends intended to further Medellín's place as an innovation hub for global urbanism. Thus, based on these outcomes the main takeaway from this major paper's Medellín section is that while Line K should not be seen as the cure for all of the issues facing the communities it serves (and has even raised the spectre of new ones that would be much less likely to occur if

the cable car was not present) the presence of Line K has nevertheless led to a number of beneficial results for the communities it serves. These positive outcomes have extended from both regular users of the system—who can take full advantage of its connectivity benefits—to those who are not regular riders, but whose quality of life and sense of neighborhood pride have been improved.

The current issues surrounding connectivity and mobility, community engagement and neighborhood pride, and placemaking that are faced by Toronto and its transit system provide a multitude of parallels with those of Medellín. As the city continues to grow, the current connectivity limitations of the existing transportation network will only grow more stark, while the placemaking qualities of stations leave much to be desired. Yet as the Greater Toronto Area undergoes an unprecedented amount of rapid transit expansion, the experiences of Line K offer a road map for using this expansion as a way to improve connectivity and placemaking in Toronto. Such improvements are predicated on the occurrence of structural changes (most notably increased inter-agency cooperation and a revamped public engagement process), which would provide a beneficial outcome for a wider range of communities and organizations throughout the city.

By framing this transfer of policy knowledge from Toronto to Medellín in the context of shifting relations between cities in the Global North and Global South, this major paper exists as an example of how these dynamics have and can be shifted. With cities in the Global North no longer being the sole originators of innovative or influential policy ideas and knowledge, this (combined with the power of global media) allows for a

wider range of perspectives regarding urbanism, transportation planning and community planning initiatives.

References

2022 Public Service Statistics, Trends & Comparisons. (2022). Toronto Public Library.

Alcaldía de Medellín. (October 2023). *Proyecciones Poblacion Viviendas y Hogares*.

Alcaldía de Medellín.

<https://www.medellin.gov.co/es/centro-documental/proyecciones-poblacion-viviendas-y-hogares/>

Alcaldía de Medellín. (October 2023). *Cifras y Estadísticas por Comuna y*

Corregimiento. Departamento Administrativo de Planeación.

<https://www.medellin.gov.co/es/centro-documental/cifras-y-estadisticas-por-comuna-y-corregimiento/>

Alcaldía de Medellín. (October 2023). *Estadísticas de Pobreza y Desigualdad*.

<https://www.medellin.gov.co/es/centro-documental/estadisticas-de-pobreza-y-desigualdad/>

Alcaldía de Medellín. (October 2023). *Estrato Socioeconómico*.

Alcaldía de Medellín. (October 2023). *Principales Indicadores: Unidad de Producción de Información Estratégica*. Departamento Administrativo de Planeación.

<https://www.medellin.gov.co/es/departamento-administrativo-de-planeacion/indicadores-y-estadisticas/>

Alcaldía de Medellín. (2006). *Proyecto Urbano Integral en La Zona Nororiental de Medellín*.

Anguelovski, & Connolly, J. J. T. (2021). *The Green City and Social Injustice: 21 Tales from North America and Europe*. Taylor and Francis.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe. (2020). Province of Ontario.

- Area Metropolitana Valle de Aburra. (2018). Encuesta Origen-Destino Area Metropolitana Valle de Aburra.
<https://www.metropol.gov.co/observatorio/Paginas/encuestaorigendestino.aspx>
- Bea, D. C. (2016). Transport Engineering and Reduction in Crime: The Medellín Case. *Transportation Research Procedia (Online)*, 18, 88–92.
- Berridge, Joe. *Perfect City: An Urban Fixer's Global Search for Magic in the Modern Metropolis*. Sutherland House. Toronto, 2018.
- Beza, B., & Ricardo, R. R. (2019). Beneath the rail line : the public realm benefits of an elevated rail line were the subject of much commentary in the lead up to the recent removal of nine level crossings in Melbourne's south-east. Here, Landscape Architecture Australia presents two perspectives on the built outcome of the much-anticipated Caulfield to Dandenong Level Crossing Removal Project. [Aspect Studios.]. In *Landscape architecture Australia* (Issue 163, pp. 26–33).
- Bocarejo S, J. P., & Oviedo H, D. R. (2012). Transport accessibility and social inequities: a tool for identification of mobility needs and evaluation of transport investments. *Journal of Transport Geography*, 24, 142–154.
- Bocarejo, Portilla, I. J., Velásquez, J. M., Cruz, M. N., Peña, A., & Oviedo, D. R. (2014). An innovative transit system and its impact on low income users: the case of the Metrocable in Medellín. *Journal of Transport Geography*, 39, 49–61.
- Bocarejo, Velásquez, J. M., & Galarza, D. C. (2014). Challenges of Implementing à la Mode Transport Projects: Case Studies of Bus Rapid Transit and Cable Cars in Colombia. *Transportation Research Record*, 2451(1), 131–138.
- Bok, R. (2020). The relational co-production of “success” and “failure,” or the politics of anxiety of exporting urban “models” elsewhere. *Urban Geography*, 41(9), 1218–1239.
- Bonakdar, A., & Audirac, I. (2020). City Branding and the Link to Urban Planning: Theories, Practices, and Challenges. *Journal of Planning Literature*, 35(2), 147–160.
- Brand, & Dávila, J. D. (2011). Mobility innovation at the urban margins: Medellín's Metrocables. *City (London, England)*, 15(6), 647–661.

Cardona-Urrea, S., Soza-Parra, J., & Ettema, D. (2023). Aerial cable cars as a transit mode: a review of technological advances, service area characteristics, and societal impacts in Latin America and the Caribbean. *Transport Reviews*, 1–25.

CBC News. (2011, October 12th). Canadian Broadcasting Corporation.
<https://www.cbc.ca/news/canada/toronto/gondola-transit-suggested-for-toronto-1.1035088>

Clarke, N. (2012). Actually Existing Comparative Urbanism: Imitation and Cosmopolitanism in North-south Interurban Partnerships. *Urban Geography*, 33(6), 796–815.

Bea, D. C. (2016). Transport Engineering and Reduction in Crime: The Medellín Case. *Transportation Research Procedia (Online)*, 18, 88–92.

Corburn, J., Asari, M. R., Pérez Jamarillo, J., & Gaviria, A. (2020). The transformation of Medellín into a “City for Life:” insights for healthy cities. *Cities & Health*, 4(1), 13–24.

(DeWalt), K. M., & DeWalt, B. R. (2010). *Participant Observation: A Guide for Fieldworkers* (2nd ed., pp. xi–xi). AltaMira Press.

Doucet. (2021). The “hidden” sides of transit-induced gentrification and displacement along Waterloo Region’s LRT corridor. *Geoforum*, 125, 37–46.

Doyle, C. (2019). Social urbanism: public policy and place brand. *Journal of Place Management and Development*, 12(3), 326–337.

Drummond, H., Dizgun, J., & Keeling, D. J. (2012). Medellín: a city reborn? *The American Geographical Society’s Focus on Geography*, 55(4), 146–.

Duque Franco, I. (2020). Medellín-Barcelona: Redefining the Ways of Cooperation and Urban Policy Circulation (1995-2017). *Iberoamericana (Madrid, Spain)*, 20(74), 101–124.

Duque Franco, I., & Ortiz, C. (2020). Medellín in the headlines: The role of the media in the dissemination of urban models. *Cities*, 96, 102431–.

Franz, T. (2017). Urban Governance and Economic Development in Medellín: An “Urban Miracle”? *Latin American Perspectives*, 44(2), 52–70.

Galvin, & Maassen, A. (2020). Connecting formal and informal spaces: a long-term and multi-level view of Medellín’s Metrocable. *Urban Transformations*, 2(1), 1–9.

- Garcia-Guillen, E., & Tomic, S. (2011). A Public Service for a Diverse Readership: Reaching out to Immigrant Readers at the Toronto Public Library and Queens Library. *Bulletin des bibliothèques de France*, 56(5), 81–86.
- Google. (2024-a). [Google Earth aerial satellite view of Envigado]. Retrieved February 15, 2024, from <https://shorturl.at/aglNX>
- Google. (2024-b). [Google Earth aerial satellite view of La Candelaria]. Retrieved February 15, 2024, from <https://shorturl.at/bgkMN>
- Google. (2024-c). [Google Earth aerial satellite view of Popular]. Retrieved February 15, 2024, from <https://shorturl.at/beull>
- Google. (2024-d). [Google Earth aerial satellite view of Santa Cruz]. Retrieved February 15, 2024, from <https://shorturl.at/kwQT8>
- GO Rail Network Electrification Final Environmental Project Report Addendum – Executive Summary. (2021). Metrolinx.
- Harrison, P. (2015). South–south relationships and the transfer of ‘best practice’: the case of Johannesburg, South Africa. *International Development Planning Review*, 37(2), 205–223.
- Healey, P. (2012). The universal and the contingent: Some reflections on the transnational flow of planning ideas and practices. *Planning Theory (London, England)*, 11(2), 188–207.
- He, S. Y., Tao, S., Hou, Y., & Jiang, W. (2018). Mass Transit Railway, transit-oriented development and spatial justice: the competition for prime residential locations in Hong Kong since the 1980s. *Town Planning Review*, 89(5), 467–493.
- Heinrichs, & Bernet, J. S. (2014). Public Transport and Accessibility in Informal Settlements: Aerial Cable Cars in Medellín, Colombia. *Transportation Research Procedia*, 4, 55–67.
- Hernandez-Garcia, J. (2013). Slum tourism, city branding and social urbanism: the case of Medellín, Colombia. *Journal of Place Management and Development*, 6(1), 43–.
- Jennifer S. Holmes, & Sheila Amin Gutiérrez de Piñeres. (2014). Medellín’s Biblioteca España: Progress in Unlikely Places. *Stability (Norfolk, VA)*, 3(1), 2–.

- Kaddoura, Z. (2023). Queen Street West Retailers in Toronto Anxious about Metrolinx Ontario Line Construction [Interviews]. *Retail Insider*.
- Kimmelman, M. (2012, 18 May). A City Rises, Along With Its Hopes. *The New York Times*.
<https://www.nytimes.com/2012/05/20/arts/design/fighting-crime-with-architecture-in-medellin-colombia.html>
- Manolchev, C., & Foley, S. R. (2021). *Participant observation : a practical field guide for students and lecturers*. SAGE Publications Ltd.
- Matsuyuki, Okami, S., Nakamura, F., & Sarmiento-Ordosgoitia, I. (2020). Impact of aerial cable car in low-income area in Medellín, Colombia. *Transportation Research Procedia*, 48, 3264–3282.
- Metro de Medellín. (n.d.). [City map of Medellín with metro lines shown]. Retrieved February 15, 2024, from
<https://www.metrodemedellin.gov.co/usuarios/sistema-integrado/#mapas>
- Metro de Medellín. (2021). [Schematic map of the metro system]. Retrieved July 23, 2024.
- Metrolinx. (2024, February 5th). *Ontario's One Fare Program launching February 26* [Press release].
<https://www.metrolinx.com/en/news/ontario-s-one-fare-program-launching-february-26>
- Mohamed, J. (2021). *The Impact of Transit Development on Racialized Neighbourhoods in Toronto: A Case Study of Little Jamaica*.
- Mohamud, A. (2023). *Investigating the Eglinton LRT Crosstown: Understanding the Impact of Transit Oriented Development on Racialized Communities in Flemington Park*.
- Montero, S. (2017). Study tours and inter-city policy learning: Mobilizing Bogotá's transportation policies in Guadalajara. *Environment and Planning. A*, 49(2), 332–350.
- Montero, S. (2018). San Francisco Through Bogotá's Eyes: Leveraging Urban Policy Change through the Circulation of Media Objects. *International Journal of Urban and Regional Research*, 42(5), 751–768.

- Montero, S. (2020). Leveraging Bogotá: Sustainable development, global philanthropy and the rise of urban solutionism. *Urban Studies (Edinburgh, Scotland)*, 57(11), 2263–2281.
- Montero, S., & Baiocchi, G. (2022). A posteriori comparisons, repeated instances and urban policy mobilities: What ‘best practices’ leave behind. *Urban Studies (Edinburgh, Scotland)*, 59(8), 1536–1555.
- Moore, R. D. (2019). Condominium Development and Gentrification in Bangkok, Thailand: A Study of Housing Pathways. ProQuest Dissertations Publishing.
- Naef, P. (2020). Resilience as a City Brand: The Cases of the Comuna 13 and Moravia in Medellin, Colombia. *Sustainability (Basel, Switzerland)*, 12(20), 8469-.
- Neighbourhood Profile Data: Flemingdon Park. (2016). City of Toronto
- Neighbourhood Profile Data: Thorncliffe Park. (2016). City of Toronto
- New SmartTrack Stations – Environmental Project Report. (2018). Metrolinx & City of Toronto.
- Okami, Matsuyuki, M., Sarmiento-Ordosgoitia, I., & Nakamura, F. (2022). Residents’ travel behavior in a low-income settlement with aerial cable cars in Medellin, Colombia. *Case Studies on Transport Policy*, 10(2), 1332–1342.
- Ontario Line Environmental Impact Assessment. (2022). Metrolinx.
- Ontario Line Route Map. (2024). Metrolinx
- Padeiro, M., Louro, A., & da Costa, N. M. (2019). Transit-oriented development and gentrification: a systematic review. *Transport Reviews*, 39(6), 733–754.
- Perafán Del Campo, E.A. (2023). The Aesthetics of the Social Rule of Law: The Case of Parque Biblioteca España in the City of Medellín. *Novum Jus*, 17. 377-402.
- Posada, & García-Suaza, A. (2022). Transit infrastructure and informal housing: Assessing an expansion of Medellín’s Metrocable system. *Transport Policy*, 128, 209–228.
- Ramirez Suarez, Y. C. (2023). Divergent citizenships: Social urbanism and hip hop collectives in Comuna 13 (Medellin - Colombia). *Environment and Planning. C, Politics and Space*.

- Reimerink, L. (2018). Planners and the Pride Factor: The Case of the Electric Escalator in Medellín. *Bulletin of Latin American Research*, 37(2), 191–205.
- Ruthen, S. (2011). MAKING TRACKS. *The Canadian Architect*, 56(3), 16-.
- Schnuer, J. (2023, 16 March). 6 Cities on 5 Continents That Are Reimagining Urban Life. *The New York Times*.
<https://www.nytimes.com/2023/03/16/world/cities-urban-development-lisbon-paris-sydney-singapore-durban-medellin.html>
- Schwab, E. (2017). Equity and Empowerment in Medellín's Informal Settlements. *Built Environment (London. 1978)*, 43(2), 236–255.
- Schwarzbauer, W., Koch, P., & Wolf, M. (2022). Park & Ride facilities and suburban sprawl. *European Planning Studies*, 30(7), 1378–1398.
- Shin, S., & Miller, S. (2022). A Review of the Participant Observation Method in Journalism: Designing and Reporting. *Review of Communication Research*, 10.
- Siemiatycki, M., & Fagan, D. (2019). Transit in the Greater Toronto Area: How to Get Back on the Rails. *IDEAS Working Paper Series from RePEc*.
- Sotomayor. (2015). Equitable planning through territories of exception: the contours of Medellín's urban development projects. *International Development Planning Review*, 37(4), 373–397.
- Sotomayor. (2015). *Planning through Spaces of Exception: Socio-Spatial Inequality, Violence and the Emergence of Social Urbanism in Medellín (2004-2011)*. ProQuest Dissertations Publishing.
- Sotomayor. (2019). Medellín's Integrated Urban Projects: A Planning Tool to Reduce Socio-Spatial Inequality. In *Policy File*. Lincoln Institute of Land Policy.
- Stewart, B., Jan, P., Tim, R., & Gareth, S. (2018). The 'long mobile century': From streetcar suburbs to auto-mobility. In *Geographies of Transport and Mobility* (1st ed., pp. 13–35). Routledge.
- Stouffville Rail Corridor Grade Separations Project: Revised Final Environmental Project Report. (2021). Metrolinx.
- Temenos, C., Baker, T., & Cook, I. R. (2019). Inside mobile urbanism: Cities and policy mobilities. In *Handbook of urban geography* (pp. 103-118). Edward Elgar Publishing.

Toronto Transit Commission. (2024). TTC System Map [digital map]. Retrieved from <https://www.ttc.ca/routes-and-schedules>

Tuttle, S. (2022). Place Attachment and Alienation from Place: Cultural Displacement in Gentrifying Ethnic Enclaves. *Critical Sociology*, 48(3), 517–531.

Whitney, R. A. (2022). FROM HERE, THERE, AND EVERYWHERE: English-language Media Outlets and Urban Planning Best Practices in the Global South. *International Journal of Urban and Regional Research*, 46(3), 466–479.