Undoing White Settler Designed Cities: The Agency of Mapping with Racialized Immigrant and Refugee Women in Canada

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Keywords: Urban equity, participatory mapping, immigration and displacement, first-hand experience, diasporic agency.

Although urban populations are becoming increasingly diverse, most cities are not designed to provide equitable access to urban amenities and infrastructure. Twentiethcentury Western urban design standards were rooted in Eurocentric ideals, primarily addressing the needs of White, economically secure, able-bodied, neurotypical, cis-gender, heterosexual males. As a result, one key aspect of designing equitable cities is understanding the different embodied experiences of marginalized populations. However, at present, city planners rely on quantitative and abstract urban studies that continue to render other social groups invisible. This issue is particularly relevant in countries such as the settler state of Canada, where projections estimate that by 2041, one in three people will be a current or former immigrant. In addition, two in five people and one-third of the total female population will belong to racialized populations. This study focuses on Ottawa-Gatineau, two neighboring cities that mirror national demographic trends. I combine two mapping methods to document the distinct urban experiences of diasporic communities. The first method involves using Geographic Information System (GIS) to map census data, creating demographic maps of Ottawa-Gatineau. The goal is to select neighborhoods with a high density of economically insecure and racialized immigrant and refugee women, where the study of urban equity is more relevant. The second method involves a participatory mapping workshop to document the first-hand urban experiences of community members. The goal is to assess the adequacy and accessibility of urban infrastructure in their neighborhoods. Participants overwrite a map with their comments as an empowering technique that emphasizes their capacity to lead changes. The assessment, driven by the interests of participants, addresses topics such as transportation, amenities, services, and housing. The study reveals that beyond mere physical presence and proximity, questions about cultural, religious, and linguistic diversity, gender and age inclusivity, safety, affordability, schedule flexibility, maintenance, transit reliability, and social diversity and connectivity were crucial in assessing the adequacy and accessibility of urban infrastructure.

INTRODUCTION

Although urban populations are becoming increasingly diverse, most cities are not designed to ensure equitable access to urban amenities and infrastructure for all social groups. Twentieth-century Western urban design standards were rooted in Eurocentric ideals, primarily addressing the needs of White,¹ economically secure, able-bodied, neurotypical, cis-gender, heterosexual males.² However, at present, political and economic instability, the ongoing health crisis, and the climate crisis are radically changing the global demographic distribution, making cities even more unsuitable for an increasingly diverse and diasporic urban population.³

This issue is particularly relevant in countries such as the settler state of Canada. Statistics Canada estimates that by 2041, about one in three people will be a current or former landed immigrant,⁴ and approximately two in five people will belong to racialized populations.⁵ These statistics exclude the 36.6% of immigrants who since 2016 entered Canada temporarily on work or study permits or seeking asylum before transitioning to permanent residency.⁶ The percentage of immigrant women, especially racialized women, is also on the rise, and expected to comprise about one-third of the total female population in Canada.⁷

Those of us who left our home countries due to different crises encounter specific challenges when it comes to securing permanent housing, finding employment, accessing essential urban services like healthcare and childcare, navigating mortgages and subsidies, and accessing reliable transportation, among other critical aspects of urban life. For newcomers without Canadian credentials, language proficiency, or established family ties in Canada, these challenges can translate into a heightened risk of social and urban exclusion. This risk becomes even more pronounced for racialized refugee populations, who currently make up the majority of displaced individuals worldwide.⁸

This study focuses on Ottawa-Gatineau, two neighboring cities with a growing immigrant population (around 25% at present), set to include a majority of women immigrants by 2031.⁹ The increasing demographic diversity of Ottawa-Gatineau represents the trend that other Census Metropolitan Areas (CMA) in Canada

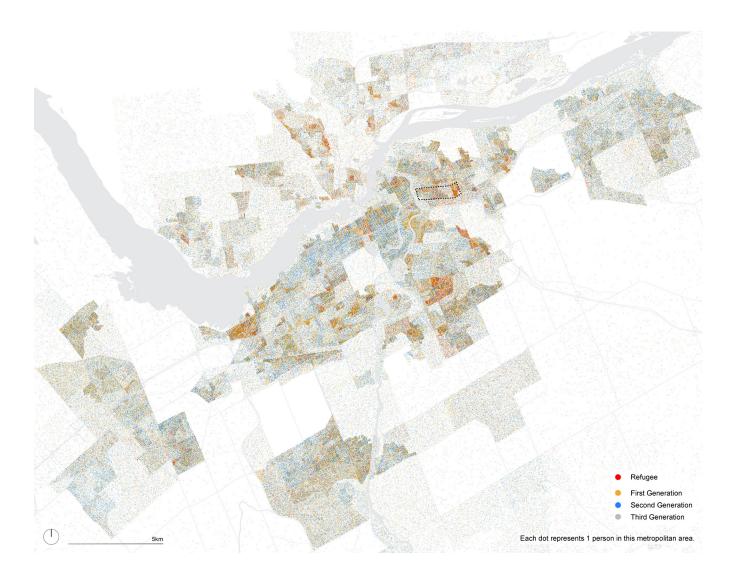


Figure 1. Demographic map showing populations' immigrant and refugee status in Ottawa-Gatineau. The data are based on the Canadian Census. Credits: The map was developed by Natalia Escobar Castrillon in collaboration with Región Austral, and discussed with architect Carolina Sepúlveda and anthropologist Sofía Ugarte.

are following such as Calgary, and Halifax, compared to other cities that already have a highly diverse urban population.

The study combines two mapping methods to visualize and document the distinct urban experiences of diasporic communities. The study reclaims the agency of these experiences to shape equitable urban futures.

The first method involves using Geographic Information Systems (GIS) to map census data, creating demographic maps of Ottawa-Gatineau. The goal is to identify urban areas hosting the highest percentage of the population at risk of urban exclusion. Based on the demographic maps and on previous relationships with communities in Ottawa-Gatineau, I selected Overbrook and Cyrville, two neighborhoods with a high density of economically insecure and racialized immigrant and refugee women where the study of urban equity is more relevant (fig. 1), (fig. 2).

The second method involves inviting community members living in this urban area to join a participatory mapping workshop. In the workshop, participants overwrite a map of the neighborhoods with comments on their experiences of urban amenities and infrastructure. This is an empowering technique that emphasizes their capacity to lead change and reasserts their presence and authorship in producing the visualization. In addition, by prioritizing their first-hand experiences, the study positions community members as the main bearers of knowledge. The goal is to ground the urban assessment on their experiences. The assessment, driven by the interests of participants, addresses transportation, amenities, services, and housing. Participants also respond to an anonymous questionnaire that offer a higher level of privacy. Their comments emphasize qualitative aspects such as sense of belonging, safety, and social connectivity as crucial to determining the adequacy and accessibility of urban amenities, and infrastructure (fig. 3), (fig. 4), and (fig. 5).

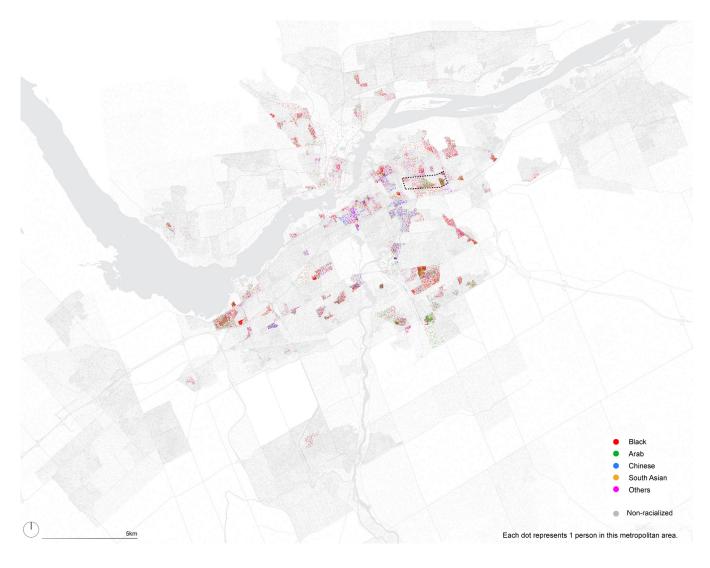


Figure 2. Demographic map showing the spatial distribution of women from the four major ethnic groups in Ottawa-Gatineau only in areas where more than 20% of the population use most of their household income to cover basic needs according to the census low-income cut-offs. The data are based on the Canadian Census. Credits: The map was developed by Natalia Escobar Castrillon in collaboration with Región Austral, and discussed with architect Carolina Sepúlveda and anthropologist Sofía Ugarte.

The mapping workshop engages communities who have been historically neglected. The study focuses on residents of the neighborhoods of Overbrook and Cyrville. As the demographic maps show, in these neighborhoods, 11.93% identify as refugees, and 33.95% as first-generation immigrants. Nearly 40% identify as immigrants and racialized group members, exceeding percentages in many other Ottawa-Gatineau urban areas.¹⁰ Moreover, in this urban area, over 20% of households allocate most of their income to basic needs like shelter, food, and clothing limiting their access to urban infrastructure.

While quantitative urban data show the presence or absence and proximity of urban amenities and infrastructure, gathering qualitative data from communities on the ground is crucial to determine their adequacy and accessibility.¹¹ Marginalized communities may have experiences of the city that differ from the norm and cannot be conveyed through universalizing or abstract approaches. However, existing urban equity studies such as the Ottawa Neighborhood Equity Index that are crucial for current decision-making mainly focus on quantitative data.¹² These studies often oversimplify communities by homogenizing them into numerical scores based on average values for a large urban area. They also overlook the qualitative and experiential dimensions of accessibility such as the sense of safety and belonging. Therefore, a quantitative approach to urban equity is insufficient, particularly when working with marginalized and diasporic communities and their unique experiences.

THE AGENCY OF DIVERGING EXPERIENCES

Scholars and practitioners across various fields have previously examined how oppressed populations experience the built environment differently from dominant social groups. This study builds upon contemporary theories and practices that discuss the agency of diverging experiences in reshaping the present. The study also highlights disciplinary intersections through the work of scholars, artists, and practicing architects. The selection gives priority to those who identify as members of marginalized social groups not only including people but also their thinking.

In the hegemonic architectural discourse, the early explorations of everyday urban experiences were linked to the concept of the "flaneur" and psychogeography. In general, these studies assumed a universal type of human subject and body that could wander the top-down planned city freely. However, since the 1908s urban studies have demonstrated that for marginalized populations the body is the site of a struggle where gendered, classed, racialized, and sexualized urban power relationships are projected denying access to resources and places.¹³

However, the diverging experiences of marginalized social groups have also generated alternative epistemologies. For example, scholar, activist, and writer bell hooks argues that the perspective of critical Black women "actively resists the imposition of dominant ways of knowing and looking,"¹⁴ and that they "participate in a broad range of looking relations, contest, resist, revision, interrogate, and invent on multiple levels,"¹⁵ identifying diverging experiences as modes of resistance. Expanding this notion to other factors of social marginalization, scholar in queer and disability studies Robert McRuer develops the notion of criptemologies to discuss the value of the specific knowledge that emerges from the experiences of noncompliance with a normative world.¹⁶ He discusses crip tactics of resistance, analyzing a range of collective projects that speak back, in critically disabled ways.¹⁷

Diverging experiences can generate genuine knowledge but they also constitute geographies and places. Canadian scholar in gender studies Katherine McKittrick discusses how Black women build their own narratives, contributing to a larger geography of resistance that she calls counter-cartographies.¹⁸ McKittrick unpacks a different spatial imagination where tangible and imaginary geographies meet and "put forth more humanly workable geographies."¹⁹ With an emphasis on gender, Canadian geographer Leslie Kern explores the ways in which "women still experience the city through a set of barriers—physical, social, economic, and symbolic—that shape their daily lives in ways that are deeply (although not only) gendered."²⁰ Her study concludes with a series of women-led urban initiatives that open new possibilities for women and other marginalized social groups.²¹

The notion of first-hand experience as a mode of knowledge has also been incorporated into mapping methodologies. Canadian artist Larissa Fassler maps urban social landscapes through her own body, recording her first-hand observations to denounce social disparity, gentrification, gender and racial segregation, and violence.²² Scholar in architecture Nishat Awan argues that diasporic inhabitations can only be understood as the co-production of space, subjectivity, and politics. She proposes the method of "mapping otherwise" to argue for a non-representational approach to mapping the multiple experiences of belonging of diasporic citizens. $^{\rm 23}$

Participatory mapping is a method that has consistently addressed the first-hand experiences and places of marginalized groups. In fact, the origin of participatory mapping can be traced back to the 1970s, when indigenous communities in Central and South America began using mapping as a tool for asserting their land rights and protecting their territories from outside encroachment.²⁴ More recently, architects Fonna Forman and Teddy Cruz have used participatory mapping in their work at the border of the United States and Mexico to document selfbuilt settlements and engage with communities in designing new housing and public spaces.²⁵ Their projects show that participatory mapping and processes are still highly effective at addressing questions of spatial justice.

Traditionally more abstract mapping methods such as GIS mapping have evolved to include the notions of experience and participation. Geographer Mei-Po Kwan works with Muslim women after the September 11 attack. Kwan shows the ways in which the experience of insecurity of gendered and racialized people could be represented by using GIS three-dimensional technology.²⁶ Geographer Caitlin L. Buckle combines biographical methods with Global Positioning Systems (GPS) and GIS to show how migrant stories and experiences can be represented in novel, spatialized ways, linking the personal experiences of migration to broader national policies and geopolitical contexts.²⁷

Scholars have also explored the combination of various research methods to grasp the complexity of first-hand urban experiences. Verónica Vélez and Daniel Solórzano use the term "groundtruthing" to express how communities' experiences reflect more accurate information in research production compared with abstract data. The authors state that:

"although traditionally used to describe the process whereby GIS technicians verify the satellite imagery of maps 'on the ground,' we argue that within Critical Race Spatial Analysis (CRSA), groundtruthing relies on the expertise of Communities of Color to determine the accuracy of geographic maps to portray socio-spatial relationships, particularly how race mediates access to a range of resources and opportunities across geographies."²⁸

—Verónica Vélez and Daniel Solórzano, Understanding Critical Race Research Methods and Methodologies: Lessons From the Field

This paper builds on these theories by combining research methods and grounding the data on the experiences of immigrant and refugee women communities.

MAPPING FACTORS OF SOCIAL EXCLUSION

Demographic maps are a helpful tool for research and activism, but the maps should not be taken as truthful representations of the complex and evolving identities and experiences of populations. This is vital when addressing the multiple and intertwined identities of immigrant and displaced populations. In many cases, demographic maps have been used to control, segregate, colonize, and marginalize communities; however, other studies use demographic maps to support social justice projects.²⁹ In this study, the maps are produced with the purpose of identifying urban areas where the study of urban equity and access is more relevant due to the presence of multiple factors of social marginalization.

The demographic maps were developed using census data. Although the Canadian census offers limited options to describe populations' identities, this source offers the most complete geo-localized data set available for the urban area of study. The data set includes information about immigration and refugee status, economic insecurity, ethnicity, and gender. The first map displays the spatial distribution of populations based on their immigration generation (first, second, and third) and refugee status (fig. 1). The second map displays the spatial distribution of women from the four major ethnic groups in Ottawa-Gatineau (Black, Arab, Chinese, and South Asian) in areas where more than 20% of the population uses most of their household income to cover basic needs (rent, food, and clothing), according to the census low-income cut-offs (fig. 2).

These maps reveal that racialized and economically insecure refugee and first-generation immigrant women are present in many areas of the city. However, in higher densities (comprising over 40%) in neighborhoods such as Herongate, Cyrville, Walkley, Overbrook, Mont Bleu, Fairfield Heights, and Sheffield Glen. Therefore, addressing urban equity in these urban areas becomes particularly urgent.

MAPPING WITH IMMIGRANT AND REFUGEE WOMEN ON THE GROUND

The qualitative study focuses on the neighborhoods of Overbrook and Cyrville. In addition to the conclusion of the demographic maps, this urban area was selected because I had established a previous long-term and reciprocal relationship with these communities. This is a key aspect to avoid extractivist approaches to marginalized communities. Previous to this study, I designed a series of architecture courses according to the interests of community partners. Within this framework, I worked with students and community members to document their stories, pursue service-learning opportunities in the neighbourhoods, and raise funding to implement a small-scale architectural intervention. My community partners include social workers, local associations, and residents who confirmed that this study could benefit underserved communities in the area.

The participatory mapping workshop invited people who identify as racialized immigrant or refugee women living in the neighborhoods of Overbrook and Cyrville in Ottawa. To reach out to those who are less likely to participate, I collaborated with community partners who work with immigrant and refugee people in vulnerable economic circumstances.³⁰ Nineteen racialized immigrant and refugee women attended the workshop. The majority of participants had recently moved to Canada and had lived in their neighbourhoods for less than five years. Many participants also identified themselves as Muslim women who came from the countries of Somalia, Congo, Rwanda, Algiers, and Tunisia.

The design of an accessible workshop was a crucial aspect of engaging marginalized populations. The activity took place at the Overbrook Community Centre to bring the activity as close to the community as possible. In addition, community partners assumed leadership roles. Although I am a first-generation immigrant woman, my outsider status in the community meant that the participants could feel uncomfortable or unsafe interacting with me directly. As a result, community partners led and explained the activity, guided participants, and acted as translators for the cultures and most common non-English languages spoken in the neighbourhood (French, Arabic, and Swahili). To support the participation of women, research partners and workshop participants were welcomed to bring their children, and members of the team looked after them while the participants completed the activity. In addition, research partners and participants received equal compensation to underscore the equal role of the community in co-producing knowledge.

The development of the participatory map began with the design of a base 3D map of Overbrook and Cyrville that could be easily read by community members.³¹ The map emphasized subsidized housing, local business and services, and public and affordable facilities and infrastructure. The second layer was added during the workshop. Participants were invited to write annotations, renaming and reinscribing the base map from their worldviews while reflecting on their urban experiences of exclusion and resilience that challenge the official narratives of the neighborhoods.

The resulting map included participants' multilingual comments, written directly on the base map (red text). Participants also filled in an urban experience questionnaire in which they submitted comments privately. That method of conveying information was critical when engaging with people who could feel unsafe sharing their opinions publicly, such as people pursuing immigration processes, women from cultures where they are excluded from the public sphere, and racialized people. The third layer was added in postproduction and included the anonymous comments on the questionnaires (lowercase violet text). (fig. 3, fig. 4, fig. 5).

The map uncovers modes of reading the neighborhood different from official descriptions of the area. The map also reveals the challenges that immigrant populations face regarding mobility, housing, amenities, and services, as well as the resilience



Figure 3. Urban Experiences of Immigrant and Refugee Women (detail of Overbrook west side), June 2022. Map elaborated by participants of the public mapping workshop.

and solidarity of the community in facing these challenges collectively. Generally, community members described a neighbourhood of contrasts, with a stark spatial divide between high-income, White, homeowners, and low-income racialized tenants. The contrast between communities coexisting in this urban area underscores the need for a study that focuses specifically on marginalized communities and on their unique qualitative experiences.

Mobility and Transportation:

The unreliability and precariousness of the public transportation network comprise one of the main issues discussed in participants' comments across the neighborhoods. Residents describe insufficient, missing, and unreliable bus schedules and unsheltered stops with no benches. This is particularly relevant for recently-arrived immigrant women. According to Canadian geographer Valerie Ann Preston, "immigrant workers often commute by transit more than other workers because of generally lower incomes, limited access to cars, and a tendency to work closer to home. Immigrant women, especially recent immigrants, are more likely to use alternative modes of transportation [other than private cars] than immigrant men."³² In organic conversations during the workshop, participants explain that the inadequate transit infrastructure in the neighborhood reduces their access to employment options, education, and services. Participants also mention that the lack of bike lanes or their lack of continuity, and a lack of sufficient parking spots per household also limit their mobility beyond the neighborhoods.

As a result, participants clarify that they mainly move on foot and remain within the neighbourhood, but they also encounter challenges related to pedestrian mobility. They mention that the streets on the eastern part of Overbrook have insufficient and broken public lighting increasing their feeling of insecurity. They also discuss the absence of proper sidewalks, which are missing or too narrow, particularly for someone walking with children, a stroller, or groceries. In addition, participants emphasize the lack of snow removal services in pedestrian areas in winter, which limits general accessibility and safety, isolating residents from their surroundings, which particularly affects women.³³

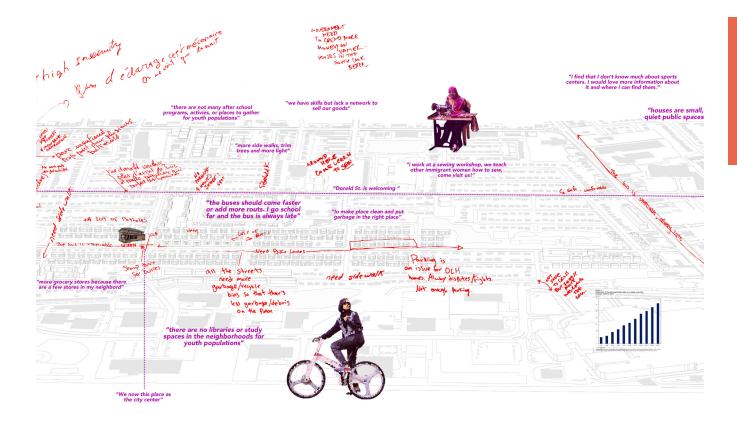


Figure 4. Urban Experiences of Immigrant and Refugee Women (detail of Overbrook east side), June 2022. Map elaborated by participants of the public mapping workshop.

However, their comments also show the resilience of the community. Several participants explain that facing the unreliability of public transportation and the lack of parking spots, many neighbours share cars or exchange rides daily, and several households share their parking spots. Regarding safety issues such as the deficiency of public lighting, participants explain that many residents kepp the lights on at night to illuminate the street.

Amenities and Services:

Participants question official narratives of the neighborhood when describing their preferred amenities. In Overbrook, official narratives tend to focus on the Overbrook Community Centre as the main amenity of the neighborhood. However, workshop participants highlight that many of the activities offered at the centre are unaffordable or unwelcoming. Rather, they re-center the discussion around the intersection of Lola St. and Queen St., what they refer to as "the city center." Here, a series of local and culturally diverse grocery stores, restaurants, and religious buildings have been running for years attracting diasporic communities. The participants also highlight Donald St. as a welcoming street where they can find many affordable and culturally diverse services and supportive local associations. One of the participants disclosed that, in this area, a womenled sewing workshop helps integrate newcomers and promotes what they describe as a tight-knit community.

In Cyrville, participants describe the neighborhood as a wellserved area, where services are close by, culturally diverse, open until late, and affordable. They also mention that they feel welcome by the inhabitants of this area, mainly composed of recently arrived refugee populations.

The lack or insufficient number of diverse services, facilities, and amenities is another important aspect that participants mention. Residents point to the fact that many private educational facilities (e.g., language and adult schools) in the neighborhood are only Christian for a community of diverse religious affiliations. They also highlight the lack of women-specific facilities that allow everyone to participate in public life such as the lack of sport centers and pools with dedicated women-only areas. In addition, participants mention that facilities do not serve all age groups. For example, the young population has no spaces to gather since schools offer no after-school programs and the

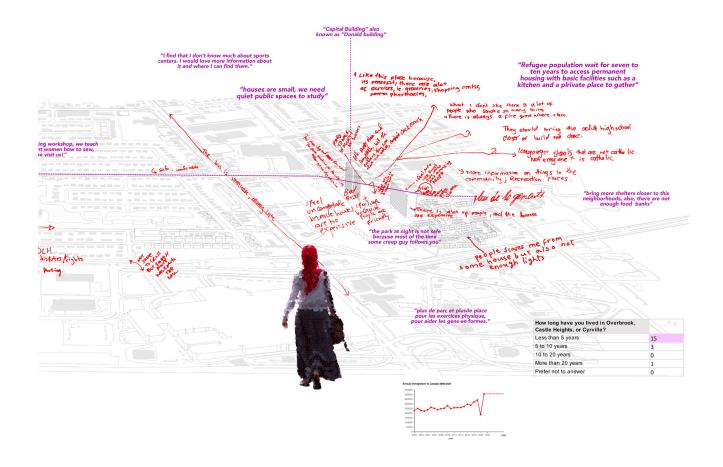


Figure 5. Urban Experiences of Immigrant and Refugee Women (detail of Cyrville), June 2022. Map elaborated by participants of the public mapping workshop.

neighborhoods have no library or study space for youth to support each other. Participants also discuss the limited schedule of daycare centers that are closed on weekends or after hours. This schedule fails to support people who work beyond regular shifts which is usually the case with economically insecure populations.

Participants also assess public spaces, parks, and streets. Most participants agree that public spaces feel unsafe, and several admit that they hardly ever use them. In particular, residents mention that parks are popular places to gather in the neighbourhood, but that they lack sheltered spaces and benches, which limits the activities they can host and the time of the year the spaces can be used. Participants also describe the neglect by the municipal government in removing garbage from public spaces, which affects their level of comfort and safety and stigmatizes the community.

Housing:

Housing accessibility is another primary concern for recently arrived individuals, particularly if they enter the country as refugees. When refugees first arrive in Ottawa, the government provides hotel or motel lodging until permanent social housing becomes available. According to the neighbors, the waiting time increased to seven years during the pandemic, and people living in these conditions around the neighbourhood usually lack basic infrastructure, such as gathering places or a kitchen to cook daily meals. Furthermore, lacking a permanent address poses limits to sending children to a school, applying for subsidies, or accessing a food bank.³⁴

For those participants with permanent housing, most live as tenants in subsidized housing. In Cyrville, participants reported a lack of maintenance at the Capital Towers high-rise housing complex where a high percentage of recently arrived refugee populations live. They also denounce the inadequate and unsafe public spaces around the complex. In Overbrook, many residents live in properties managed by the Ottawa Community Housing Corporation (OCH), a public housing alternative where rents are adjusted to the income of households. However, two public revitalization projects are set to radically transform these urban areas in the next few years: the Ottawa Community Housing's *Overbrook Community Renewal project*, and the City of Ottawa's 2021 Official Plan.

The Overbrook Community Renewal project is a plan to replace the large stock of OCH housing units located in Overbrook with new buildings. This process will require temporarily or permanently relocating current residents and disrupting their organic social support networks. In addition, participants raise their concerns regarding the new building typology of condominiums that is replacing the semi-detached housing typology. Current houses have individual backyards and lawns that allow neighbors to connect and develop organic networks of solidarity, for example by overseeing each other's kids.

In addition, the 2021 Ottawa Official Plan was developed to reduce urban sprawl and efficiently use the urban infrastructure by placing 60% of new developments within the city's Greenbelt, where the neighbourhoods discussed in this study are located. One of the problems with this operation is that new buildings contribute to rising prices in the area, which could result in gentrification. Initially, this phenomenon will affect residents who do not have the privilege of living in OCH buildings (with adjusted rent prices) and those seeking to buy homes in the area. However, people living in OCH housing will eventually face rising prices of services in the area. This is particularly problematic in this neighborhood since census data indicate that a large percentage of the population (including those living in OCH housing) use most of their income to cover the basic needs of shelter, food, and clothing and thus have limited capacity to afford rising prices.

THE AGENCY OF MAPPING WITH COMMUNITIES

This study expands the emerging body of research centered on studying and visualizing the first-hand urban experiences of marginalized communities and offers three original contributions. First, it focuses on economically insecure and racialized immigrant and refugee women, generating knowledge along with a population group that has been historically omitted from urban studies despite their increasing presence in Canadian cities. Second, the study designs an accessible mapping workshop and explores a mapping method that invites participants to appropriate, rename, and leave their imprint on an abstract urban map, emphasizing their capacity to lead change. Finally, this study demonstrates that studies of urban equity must place the first-hand experience of communities at the center, particularly when working with diverse diasporic communities.

The study shows a clear divergence between quantitative and qualitative studies. Existing quantitative studies of urban equity in Ottawa, such as the Neighborhood Equity Index, indicate that the physical environment of Overbrook and Cyrville is above the city average, scoring within the highest range compared with other neighborhoods. The index considers the number and proximity of community places for meeting, walkability or proximity to services, presence of transit, amount of usable green space, length of commute, and rental stock available. However, the participatory map demonstrates that the conclusion of this empirical analysis differs greatly from the experiences of residents. In the participatory map, the community shows that the existing urban infrastructure of the neighborhoods is in part inadequate or inaccessible. Through their comments, the participants redefine accessibility beyond mere presence and physical proximity to include questions about cultural, religious, and linguistic diversity, gender and age inclusivity, safety, affordability, schedule flexibility, cleaning and maintenance, reliability of transit and services, the presence of social diversity and connectivity, and the fundamental role of networks of social solidarity and mutual support to overcome urban challenges.

While these aspects are relevant when collaborating with any community, they are fundamental when working with economically insecure racialized immigrants and refugee women. In addition, although some of these aspects could be quantified according to existing data, only communities' real-life experiences of places, services, and infrastructure can verify this data and add the complex qualitative assessment of adequacy and accessibility. Furthermore, a qualitative and detailed approach is vital when working in urban areas, where highly privileged and underprivileged communities coexist. The findings also suggest that an equity-centered approach to city planning should not focus on providing the same services and infrastructure to all areas but should focus instead on responding to the perceptions and priorities of each community, especially the most vulnerable. These interests will have to be negotiated by developing new participatory methods that continue to engage and empower marginalized groups.

The participatory map is effective in establishing common ground for bringing together highly diverse diasporic communities and amplifying their voices. Through the map, communities share their experiences visually to overcome language barriers. One key aspect is that the method offers flexibility and openness to capturing unforeseen responses. As a result, the comments of the participants are not limited to assessing urban infrastructure. Community members rewrite the map with other readings of the neighborhood recentering the narrative toward the east side, and renaming elements in the landscape as a form of counter-mapping that challenges official narratives.

The production of the participatory map has also led to the development of design-build proposals for the neighborhood designed collectively by students and residents. Just as the built environment can frame certain people as foreign by marking them as different, unfitting, or unwelcome in normative spaces, the epistemologies and narratives of diasporic communities have agency. They reinvent places, make visible and denounce racialized and gendered systems, and design more equitable urban futures.

ENDNOTES

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- 29. For example, the Esri's Racial Equity GIS Hub is a resource hub to assist organizations working to address racial inequities. The hub includes data layers, maps, applications, training resources, articles on best practices, solutions, and examples of how Esri users from around the world are leveraging GIS to address racial inequities. <u>https://gis-for-racialequity.hub.arcgis.com.</u>
- 30. Maryame Ichiba, Natalia Szerszunowicz, and Vanesa Fareau (The Bridge Engagement); Sadia Jama (Social Planning Council of Ottawa); Sophia Jacob (The Canadian Women of Color Leadership Network); Alia Farhat (The Overbrook Community Association); and community members and activists Khadija el Hilal and Gloria Uwamahirwa.
- 31. To construct the base map we use a combination of sources: an AutoCAD map of Ottawa (scale 1:1000) from McOdrum library (<u>https://library.carleton.ca/</u> <u>find/gis/geospatial-data/ottawa-11000-scale-topographic-maps</u>), 3D data from CadMapper, site visits, and conversations with community leaders.
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- To know more about this situation, CTV news has several articles on the topic: <u>https://www.ctvnews.ca/world/they-got-out-of-afghanistan-but-now-refugees-are-stuck-living-in-canadian-hotels-1.5951026</u>