Walking in Havana, Cuba

Book Section

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Walking pedestrians account for nearly half of all daily trips in Havana. Walking provides many positive and sustainable benefits, including those linked with accessibility, health and energy conservation, but until recently, transport and urban planners have paid relatively little or less attention to the walking environment. Havana is an exceptional case among island cities in many ways and one outstanding feature is the high level of walking with 46 % of all trips carried out by pedestrians. The use of the bicycle accounts for another 1.8 % as a sustainable form of mobility. In six other Latin American cities walking and biking taken together account for many less trips resulting in a range of values from 32 % to 40 % of all trips, in Barranquilla, Curitiba, Guadalajara, Salvador, Recife and Belo Horizante, respectively (Hidalgo & Huizenga, 2013, figure 6, p 70). The high values of walking as a share of total trips means that more emphasis should be placed on creating better walking environments.

Good walkability depends on factors woven into the urban fabric, such as creating compact built-up areas and preventing city sprawl, increasing spatial accessibility through good street network design, creating public spaces as well as pedestrian and bicycle networks, stimulating walkability, creating mixed functions in the districts preventing social segregation, protecting green urban areas, and improving of public transport infrastructure (Telega et al., 2021, p 3). Both Telega (and CNC 2020) note that the Charter for New Urbanism is aligned "to growing the supply of neighbourhoods that are both walkable and affordable; work to change the codes and regulations blocking walkable urbanism; and advance design strategies that help communities adapt to climate change and mitigate its future impact"

The main objective in this study is to explore two methods called movement and place mapping maping, and walkability surveys (or audits), both of which can highlight issues around walkability and provide different types of data for Havana city. The movement and place mapping gives an overarching view of all movement and place for the entire city's needs by classifying streets leading to a greater consideration of the needs

of people, rather than vehicles, in street planning and design (Jones et al., 2008). The movement and place method helps to determine the appropriate balance of street space and capacity to be allocated to different street user groups and can be used to place greater emphasis on walking and pedestrians. The walkability survey method focusses more on the street level, homing in on issues specific to that street by asking those who use the street where it works well and where it fails to meet the walkers' expectations (see Carmona et al., 2018 for examples). The study concludes with some recommendations for improving walkability.

There is widespread agreement (Fitzsimmons et al., 2010; Lo 2009; Carmona et al., 2018) that the presence of good local quality routes, accessibility to destinations, and perception of safety are three key features that contribute to 'walkability': a multidisciplinary concept describing the extent to which a place is conducive to walking. The definition of walkability has been contested, with debates about what are the best ways to measure it (Forsyth, 2015). In the case of London, a 'Living Streets' survey (Living Streets, 2017) that measured walkability in terms of responses to a few simple questions on a website app found that 72 % of respondents felt the streets were of good quality, 67 % felt the pavements (sidewalks) were good, 57 % said they felt safe walking, and more than 60 % said they could get to shops and parks easily. Measurements and surveys do not always translate well from place to place, and care is required in adapting experimental work for the context of the specific city. To understand the context for these studies, the next section describes the context of mobility and accessibility in Havana, and in particular, the role of walking in the capital city.

Mobility in Havana – the Importance of Walking

Understanding Havana's general transport situation and mobility patterns is essential for developing further sustainable policies for walking in the city. The most recent city mobility survey (Magdaleno et al., 2014), which covers all 15 municipalities of Havana, with 2.1 million inhabitants and an area of 728 km^2, was carried out in 2012. Figure 7.1 shows a map of Havana with the municipal boundaries shown and the main roads and routes into the historic city centre. Important destinations are labelled and shown with single line hatching. The survey, which defines a trip as any movement of more than 500 metres by any mobility mode, found that most trips were on foot. In second place was trips by bus, accounting for 21.1 % of daily trips, followed by cars (10.9 %) and taxis (4.7 %). A smaller number of trips are taken by ferry boat, truck and motorbikes. The key factors from the survey are in Table 7.1.

Table 7.1 Active Mobility, Havana, 2014

PARAMETER	MEASURED VALUE (UNITS)
Trips taken on foot, walking	46 % (of all daily trips)
Daily number of trips/person *	2.16 trips/person (all modes)
Walking trip distance *	1.0 km
Walking trip travel time *	17:34 minutes
Walking speed *	3.3 km/hour
Trips taken by bicycles	1.8 % (of all daily trips)
Bicycle trip distance *	2.1 km

*Note. * Indicates averages. Magdaleno et al. (2014), adapted by the authors*

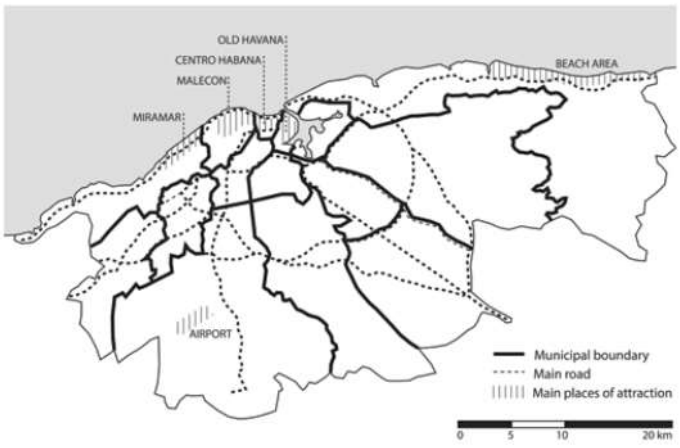

Figure 7.1 Map of Havana
Note. Compiled by authors

Many daily journeys in Havana are multimodal – in other words, passengers have to use multiple forms of transport, each one of them defined as a 'trip', to get to the final destination (Hotz, 2007). For example, one journey from home to work in the morning might involve 4–5 trips, starting with a walk to the bus stop (600 metres), then taking the first bus (5 km), then another (3 km), and finally walking the last 100 metres to the office. If each of these smaller trips take 10–15 minutes, then the overall travel time will be 45–65 minutes long. Rydin et al. (2012, p 2093) note "there is no doubting that walking and cycling are beneficial for health, the fact that poor people are often forced to walk long distances, especially those living in large cities, is not a good situation."

The relatively high dependence on walking and public transport is due to Havana's relatively low level of motorisation, low private car ownership (Enoch et al., 2004). The importance of active modes of travel is recognised by Havana's TA (Rodríguez & Campos Pompa, 2016), which is responsible for designing the city's overall transport strategy and implementing policy, but conditions for walking present challenges and difficulties for many users. This is particularly important for those with impaired mobility, who are a growing proportion of the population: in 2020, 22 % of Havana's citizens were 60 years or older (ADC, 2107). By 2030 the ratio is projected to increase to around 30 % (ADC, 2017; ONEI 2021). Those with mobility impairments or lower incomes often have lower mobilities, and need additional consideration for their walking needs (Rydin et al., 2012; Gehl 2010, Ardila-Gomez, 2012).

Havana is unique compared to other cities, as the motorisation levels are low currently, but the city was once more aligned to higher levels of automobile-centric practices (i.e., high car use and ownership) (Schmid & Peña 2008). This layout did create sprawl in the western zones, however, with the low car ownership levels of today this underlying layer of the city results in various disparities. Some areas have wide and pleasant boulevards and others are much more compact, offering less spaces for mobility – in general the older, more central parts of the city have less space for walking. When thinking about walkability it can be useful to consider the trajectory of automobile growth (and or decline) over time if this has had an effect on walking and pedestrianisation.

Another difference in Cuba is that whereas urbanisation in many island cities has been rapid (Pigou-Dennis & Grydehøj, 2014) in Havana the population has been relatively stable over several decades (ADC, 2017). The city has always been strongly internationally connected, and as the country's capital, it acts as a strong attractor, drawing in migrants from other parts of the island. The capital accounts for almost 20 % of the Cuban population. It is a relatively dense urban area, with a historic core and smaller sub-centres. In terms of mobility, the most recent survey confirms that walking accounts for the highest number of daily trips, not only in the centre, but also in peripheral neighbourhoods. It is, therefore, important to understand the walking conditions and the factors that might improve them, in order to improve the quality and performance of urban mobility in Havana. The next section will look at two tools that have been used to investigate conditions for walking in Havana in order to help shape more sustainable transport practices. The chapter then describes the results observed using both of these methods, and outlines some lessons which can be applied elsewhere.

Walkability Survey Methods

The two methods both involve auditing and classifying walking areas, in order to better understand and describe walking and walkability, with an ultimate goal of increasing and safeguarding walking and pedestrians. The first method of movement and place is most appropriate for large-scale mapping. The second method is more appropriate for smaller-scale districts or single streets. It would be possible to carry out, for example, a walking workshop or series of surveys across the city in different municipalities as well but in this study we focus on a single street (called *Galiano*) of importance for shopping which is also close to a major transport interchange.

Movement and place

Two main methods are described in this chapter, with their results. The first used the 'Link and place' approach (Jones et al., 2007; Jones et al., 2008), re-cast as 'movement and place': '*movimiento y lugar*' in Spanish. Using multi-stakeholder participatory workshops, the city of Havana was mapped using a set of criteria to describe the entire city network employing the method of link and place, whereby every street is characterised by the importance in terms of movement (M1 to M4) and place (P1 to P4). 'Movement' includes all movements of people, objects and services, and is not only motorised vehicles (bus, taxi, car, truck) but also all other forms of movement including walking, biking, strolling, skateboarding, etc. (Jones et al., 2008); and the 'Place' function describes the location's use as a destination itself, where people spend time to meet or socialise (Ortegón-Sanchez et al., 2022, Forsyth, 2015). The matrix of movement and place is shown in Table 7.2, with descriptors for each level: national, city, municipality, and neighbourhood (*barrio*).

Table 7.2 Movement and Place Criteria with Corresponding Strategic and Geographic Level

LEVEL	MOVEMENT DESCRIPTOR	PLACE DESCRIPTOR
National	M1 part of a national route, connects main cities (moving goods & people)	P1 places of national or international significance (tourism attraction, high historic or cultural value)
City	M2 part of the major routes in the city – key radial routes or strategic routes, connects municipalities, connects centres or subcentres	P2 places with high significance and value for the city (but not at the national level)
Municipal	M3 enabling movement of goods & people within the municipality	P3 Relevant places for the municipality (commercial centres, etc.) used mainly by those living nearby (often not frequented by those living outside that area)
Neighbourhood (Barrio)	M4 Local streets primarily for access, residential streets and service lanes	P4 Places of interest exclusively for the users or residents of the immediate area

Note. Adapted from Ortegón-Sanchez et al., 2022 and based on Jones et al., 2007

The main streets were coded in terms of m and P values on a 4× 4 matrix. About 2 % of all space is designated as M1–M3 and P1–P3 combinations, with the rest consisting of minor local (M4 and P4) thoroughfares. By identifying locations according to the categorisation on the Movement and Place matrix on the map of Havana, the survey reveals how streets are used for both transport routes and as destination-spaces, and so becomes a useful tool for transport planning.

Clearly, places that community participants designate as P1 and P2 need to be recognised as spaces of importance for the area's inhabitants, and this needs to be taken into account alongside the status of the road as a conduit for movement, so this mapping technique can help to identify the location's difficult discussions about levels of traffic, space for walking and many other facets of mobility can be explored. The street is called *Galiano*, a major shopping street in Central Havana that was categorised as M1 to M2, and P1 to P2, indicating national/high significance with critical/major flow of people and goods. It is here that the second type of spatial analysis was conducted. The position of *Galiano* street in Havana is shown in Figure 7.2. *Galiano* connects the sea front (the *Malecón*) to *Curita* Park, which is a busy interchange where many people change modes of transport from bus to taxi or vice versa. The *Capitolo* building is located north-east from *Curita* and Old Havana's pedestrianised area is approximately a 10-minute walk away, depending on walking speed and route taken.

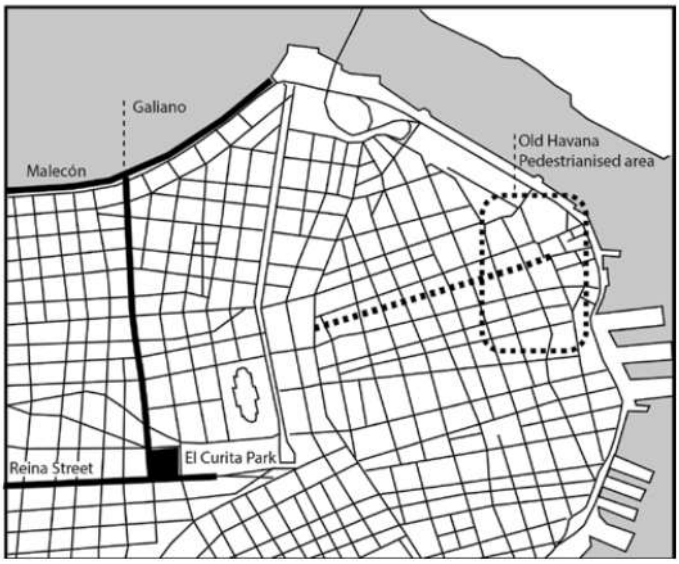

Figure 7.2 Map of Havana Showing *Galiano* street
Note. Compiled by authors

Auditing 'Walkability'

In the study of *Galiano* street, the focus was on the experience of walking in a specific location. Running from the seafront to the *Parque el Curita*, a city square, *Galiano* attracts many pedestrians, but suffers from poor infrastructure for walking. The research centres around a "walkshop" method, or "walking workshop" (Ortegón et al., 2022), carried out in the city street, with participants walking, rather than working in a studio or educational environment. In this way, the participants have direct connectivity to the street and those who use the streets.

A variety of surveys can be carried out by those undertaking a walkshop – the walkers themselves can complete the survey, or enlist others walking in that area to complete the survey (see Saunders 2021a and 2021b for a wide range of tools). Both sets of participants will yield meaningful results but, as highlighted by Fitzsimons et al., (2010) and Forsyth (2015), different stakeholders will have different perspectives on how walkable a route seems to be. These different sub-groups of walkers perceive different issues and problems with walkability and describe issues in subtly distinct ways that researchers need to be aware of, as they try to cater for different needs of all members of the community.

In the *Galiano* study, walkshop participants included 22 transport policy practitioners, local stakeholders, and researchers, supported by students studying architecture and the built environment who know *Galiano* well. Most of *Galiano's* pavements are protected from the traffic in the street by their colonnades – essentially large porches at the front of every building, supported by a series of columns at regular intervals. These areas provide shade and shelter for pedestrians. The buildings function as both housing and commercial, so some porches have a lot of activity, with customers waiting to be served from sales outlets, or people visiting friends or family.

The walking audit used a series of 20 questions based on the main themes, which comprise what constitutes walkability as perceived by the participants using three main areas of interest. These can be categorised as infrastructure quality, environmental quality, and subjective well-being (Ortegón et al., 2022 and Saunders 2021a). The infrastructure theme includes items such as seating, places to stop (and rest), crossings, shelter, width and surface of pavement, and obstacles in the way of the users. Environmental items include noise, air pollution, traffic levels, litter and safety of pedestrians. Subjective well-being includes whether users feel satisfied, relaxed, and if the surroundings are attractive and welcoming; these are also called alternatively global assessment of the street. Destinations need to be attractive in the sense that there needs to be things to see and do as well as being a destination in terms of why the person might be walking there (such as shopping, work, education, social visits, etc.). The questions were adapted slightly for the context of Cuba as the toolkits, has been devised for use in the UK and Australia. The UK and Australia studies tend to use complicated traffic counts and fine granularity to devise a final outcome or rating, which takes much longer to compile the data. In this instance, a basic set of 20 questions was utilised with a Likert scale. Not only was this more appropriate to the conditions in *Galiano*, but also the more simplified tool ensured that the results could be analysed, shared and discussed on the same day as the audit. Many other types of walking audits are possible to undertake using more complex methodologies (Adkins et al., 2012; Sallis 2021; Cain et al., 2017; TRL/Pers 2021; NACTO 2018).

Results

The results are presented firstly at the city scale level using movement and place to describe the findings for all fifteen municipalities across the entire road network. Secondly, walking survey results of *Galiano* street are explained in more detail, giving a closer view of what issues there are for pedestrians.

Movement and Place

The movement and place results are shown in Figure 7.3. Movement results map on to the traditional road classifications, with larger roads carrying more movement. The ring roads are clearly visible (as M1), and the *Malecón* along the sea front is also classed as M1. Smaller link roads are classed as M2 and M3, and the smallest levels of mobility are shown as M4 being local streets. In this map, for clarity, M4 roads are not shown but they are essentially all other very small roads and streets connecting larger M3 roads. With respect to 'place' (P1 to P3) allocations, the map in Figure 7.3 shows some of the disparities with movement – these are the areas, which could be considered to cause most friction between modes of transport (e. g., walkers and traffic). These areas are denoted by dark areas labelled P1, which are situated very near to M1 locations. It should be noted that P4 places are also not depicted directly in the map to improve clarity. The largest single designation is M4P4 at nearly 76 % of all areas, and this is expected, as the street network in Havana is dense and these streets tend to be used by locals with very little or no traffic. Other areas of interest are those which are M1P4 (6.8 %) and M4P1 (5.6 %).

Table 7.3 Movement and Place Portions Mapped on the Road Network.

	P1 (%)	P2 (%)	P3 (%)	P4 (%)
M1	0.3	0.2	0.2	6.8
M2	0.1	0.5	0.2	3.9
M3	*0.3*	0.1	0.1	3.8
M4	*5.6*	1.3	0.8	75.7

Note. Compiled by authors

M1P4 places an emphasis on movement (low place value) and is due in part to the actual main roads and arterial roads, and the vehicle-centric places nearby. Areas designated as M4P1 are observed mainly in the historical city centre or in pedestrian 'hot spots' in the periphery which correspond to specific places such as parks, the botanical garden, zoo, and the university campuses, and in total account for nearly 6 % of the city. The combination of low movement and high place means that these locations are subject to disturbance from any increase in traffic flows or changes in motorised mobility levels. Areas nominated as M4P2, which account for another 1.3 %, are also important place locations.

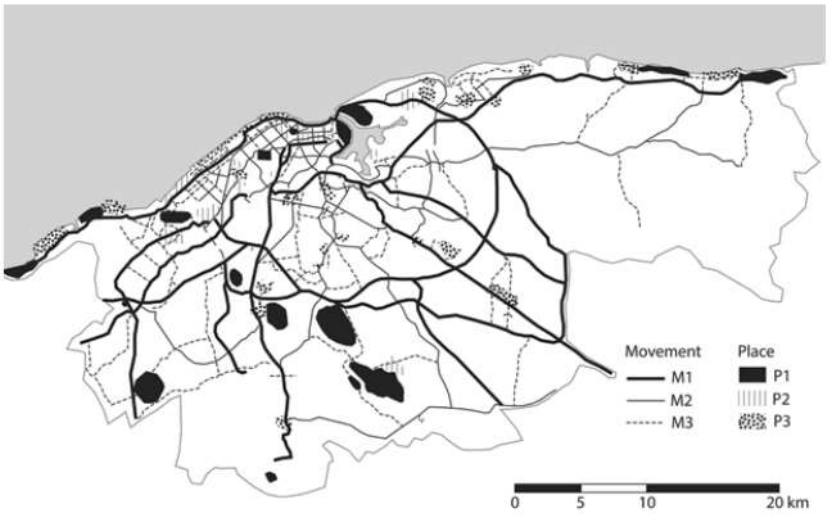

Figure 7.3 Movement and Place Classification of Havana
Note. Compiled by authors

Walkability and the Walking Environment

The walking for *Galiano* found that pedestrians placed high values on the width of the colonnaded area and the shade that the overhang provides (as shelter) was also noted. Other issues that were significant included: a positive environment, it was safe (no crime), attractive and interesting (Ortegón et al., 2022).

Areas for improvement included not having enough places to stop and rest, and issues with obstacles in the way of the walkers. Others noted issues with the colonnade surface, which can change from building to building, creating a walking flow which requires going up and down more frequently than a level surface. This motion, coupled with cracks or slippery surfaces due to water, dust or oil can create increased risk for walkers to fall. In some sections that were being refurbished, walkers had to deviate onto the street, which is only ideal when temporary and when the walking area is protected and well-signposted.

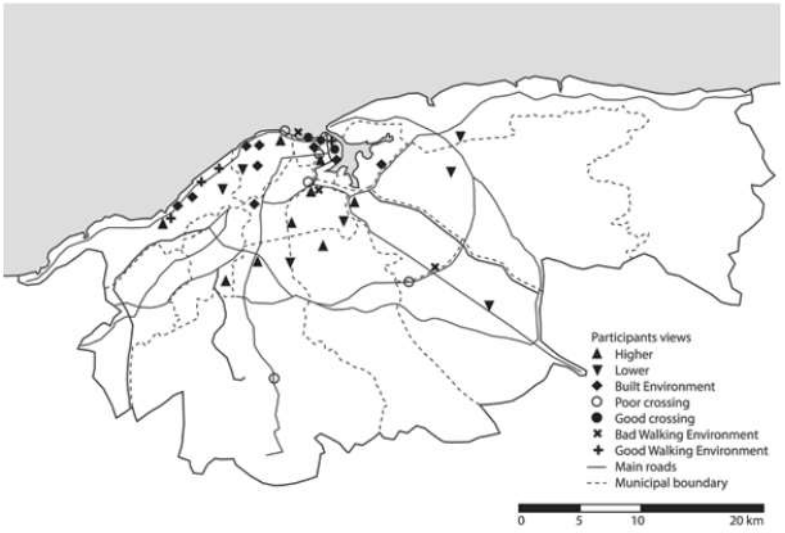

Figure 7.4 Community Views About Walking and Walking Environments in Havana
Note. Compiled by authors

Participants explained that in many instances in Havana at certain times of the day when traffic flows are lower, pedestrians take to the roads as it is sometimes easier (flatter) and more direct than on the pavement; sometimes in the evening the lighting is better in the street too. There is no quantitative measure on this behaviour to deviate into the road, but it tends to indicate a desire for walkers to find the best and most comfortable route. Clearly, walking on the street places pedestrians into traffic and increases the risk of accidents (Rydin et al., 2012).

The movement and place results were then discussed qualitatively, along with the results found by the walking audit. The team mapped their findings onto the movement and place map as an overlay highlighting specific issues that they observed with respect to the overall walking environment. These issues are shown in Figure 7.4. The ring roads and connectors are clearly observed as thin lines, usually as places with high movement being classed as M1 or M2. The participants rated the environments as having a good built environment, the conditions of specific crossings (and thus navigating their way through traffic), and the overall walking environment.

The walking environment, which was the focus of the walkability/walkshop process, is shown on this environmental map as one of the four poor walking environments - namely *Curita*, *Carretera Central* and two major junctions at the head of the *Malecón*.

These are all places that have high movement (M1) for both motorised vehicles as also for pedestrians sharing road space. Similar areas were noted to be places of poor crossings with insufficient space and time for pedestrians to cross streets and junctions. Many of the trips in Havana are multi-modal, as highlighted earlier, and tend to be polycentric, (Hotz, 2007). It is not surprising that places, which were found to be poor crossings– see the five open circles, or places ranked with lower rated environments– are somewhat isolated. These isolated destinations are important places for shopping, work or transport interchange and require further investigation to find out if it is possible to improve the walking environment. Figure 7.4 also shows two places that have good crossings, were deemed to be good environments in both their place and walkability, and these tend to be towards the western and northern edges of the city. These environments are important to city residents as many walk and, in particular, with an ageing population (ADC, 2017), walkers are very aware that falling and getting hurt can result in long recovery times. The elderly walkers try to minimise risk whenever possible. Many mobility studies have not yet considered trips taken by children directly, and with 14 % of the Havana city population being under 15 years of age (ADC, 2017) it is important to ensure this group has access to recreation, play and open spaces with fresh air. Considering subgroups within these studies is important and more work is needed in this area for many cities.

Discussion

This section outlines some of the lessons that have been learned by working with communities in neighbourhoods in Havana when using the various methods, such as link and place and walkability audits. The movement and place method allowed for the establishment of a new way of characterising roads and their associated places, which accounts for all movement – not just movement of vehicles. It reveals the differences between places and can be used to consider ways to make specific locations more 'place-oriented'. An example for Havana would be further investigations on areas deemed M4P2 to see if these places can be enhanced through interventions to make them even stronger destinations for those going there. Similarly, with zones of relatively high movement such as M2P4 and M3P4 (together account for nearly 8 % of Havana) one may want to consider if this movement is caused by too much traffic and if it interferes with the local neighbourhood in terms of difficult crossings, excessive traffic noise, dust, or other issues.

Although, to our knowledge, this is one of the first instances of these kinds of tools being used in the Caribbean and in the Cuban context, we suspect that further use

of these tools in other parts of Cuba would be very useful. As one example, it would be useful to know how well these tools translate into other places, and it would be beneficial to compare and contrast certain places for their walking related issues. At the same time it is important to note the differences, for example, as Havana maintains a steady population over time, has low motorisation rates, and very high penetration of sustainable transport modes such as walking and bus use. A study in Jamaica to examine determinants of physical activity, adiposity and diabetes within a multilevel framework found that neighbourhoods with high disorder or areas with higher recreational space availability had significant positive associations with low/no levels of physical activity among women (Cunningham-Myrie et al., 2015). This recreational space availability was counterintuitive to their hypothesis that more space could result in higher levels of activity. It coud be that recreational spaces are associated with a low perceived level of public safety in poorer neighbourhoods.

More detailed work in this area is required and it would be very useful to ascertain if the position of green spaces nearby to neighbourhoods helps raise physical activity levels and/or increase overall happiness and well-being. In this case, the use of street measurement tools like movement and place or walkability surveys can be coupled with health statistics or other forms of data using GIS (geographic information system) to highlight issues of concern and potentially way to improve that environment (Telega et al., 2021; Abastante & Gaballo, 2021). One useful recommendation here is that it is important to understand the demographics of those doing the walking – for example, in Havana, the under 15-year-olds represent 14 % of the population (ADC, 2017). It is also important to provide places and space to play and engage in recreation, as this improves well-being and mental health (Roe & McCay, 2021; Gehl 2010). Rydin et al. (2012) emphasise that urban planners need to help promote a higher level of physical activity through interventions. Interventions include any actions which can help increase population density, diversify land uses, consider transport demands for all groups, and improve street connectivity overall. In general, any proactive action which attempts to change and improve the overall built environment can be considered to be an intervention. These can be as simple and inexpensive as line markings for crossing, or much more complicated as a series of planned actions. A series of twenty non-motorised policies which can support interventions that are more sustainable are summarised by Pojani and Stead (2015, p 7792, Box 2) based on work from Northern European cities.

The *Galiano* street audit found that certain factors were better than others – such as provision for shade, visual stimulation, and the utility of shopping, and accessing the interchange. Areas for improvement included those suggested by Gehl (2010) such as better surfaces, ramps, removal of irritating obstacles in order to provide a more

disciplined pedestrian zone. Gehl also recommends that a physical distance of about 500 metres is found to be acceptable (p 127), and that when comfort is low, then sometimes the distance needs to be even shorter. *Galiano* appears to have segments, which help break up the route. This is an area that could be considered for future interventions to make this walking area more pleasurable. Considering the movement and place of each street in the network alongside of their respective local street audits would also yield useful results for future work.

In Praia (located on Santiago island and the largest city of Cabo Verde) the authors found that the higher the urbanisation level of a neighbourhood, the lower the provision of pedestrian space and the higher the proportion of "formal space" (Ancies et al., 2017). More urbanised areas also tend to have more crime and a higher collision risk. This kind of insight could be very useful for other cities attempting to rethink their transport planning and policies and place in order to increase walking and enhance walkability. Havana, however, unlike Praia, has good coverage for the public transport system and also has high levels of access in most areas for shops and recreation and leisure. A useful tool from the Cabo Verde case study is the use of photographs to document and share different perspectives and aspects of walking in the city. This study found the use of physical maps, which the participants could interact with and discuss, very useful, and Jones et al. (2008), use maps in the local community with good results. Overall, the use of movement and place as a systematic method to characterise the city proved to be very useful for raising the awareness of the importance of place. Coupled with a street survey, this provided more local and detailed information which can be considered if interventions or changes are being considered.

Conclusion and Recommendations

This chapter started with some overarching aims encapsulated by the following questions: What lessons have been learned by working with communities in neighbourhoods in Havana and from the two methods applied? This summary will help address both of these questions and outline some ideas for other communities and places to test and learn in their own island situation.

For Havana, it was observed that tools and toolkits (and their associated methodologies mainly from the UK) could be utilised to map movement and location at both an overarching city-wide level and also at the municipality. The process worked best when a previous example of city mapping was outlined, and for local mapping the survey was adapted to appropriate culture and linguistic terminology. More work is required in this

area with further detailed mapping and checking, with local partners needed at each municipality. Municipalities could also share the results. For example, some of the largest mobility flows in Havana between *Plaza de la Revolución* and *Centro Habana* have been captured in the mobility survey, but these should be viewed along with movement and place maps to gain further insights. For walking surveys, further testing should be carried out in order to ensure that appropriate questions and metrics are being used for the city's context and the place being measured for walkability. Street audits at the street level are highly useful and will result in many useful outcomes: different streets in different municipalities can be compared/contrasted, suggestions for improvements to place can be made; 'hot spots' of poor environments can be made transparent, and key factors can be combined statistically to see what factors correlate with one another. However, as noted by Arellana et al., (2020), care must be used with walkability indexing, especially with weighting of the factors and how those being surveyed interpret the questions but also how those carry out the work interpret them. It is also worth noting that many city visions that frame the city as a liveable place (see, for example, those from Roe & McCay, or Gehl, 2010, Ortegón & Tyler, 2016) can be coupled with street audits and other mapping methods. Using a vision such as 'design approaches for an active city' (Roe & McCay, 2021) can help align these methods with the overarching needs for, and the requirements of the people. These frameworks or visions allow the community and facilitators to ask open questions such as 'how much green space is required to ensure our city has good mental health?' Ultimately, it is the people that make up the city, and by concentrating on them as a focal point, our hope is that better urban environments which suit city dwellers can be achieved. By using and combining multiple techniques and then summarising the findings through a series of workshops, events, working papers and/or published papers over time, the city can use these results to test their interventions as part of the larger strategy to promote more sustainable transport options.

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