

UCL-Osaka Walking Cities Lab: putting research into practice

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Walking remains the main mode of transport in many sub-Saharan African cities, especially among low-income residents in informal settlements. Yet, it is well acknowledged that walking conditions in African cities are precarious and unsafe. This is partly due to the prioritisation of local urban design for auto-mobility.

Under the right physical and social conditions of the urban built environment, walking offers major benefits. But in most cities across Africa, poor planning and pedestrian infrastructure makes walking a serious challenge. Yet, it's something that most people who live in African cities have to do every day. The majority of Africa's urban population live in informal settlements. These are often neglected by state authorities, under-serviced and deprived. They have limited access to basic transport infrastructure and services. As such, many low-income informal residents resort to walking and other informal transport systems. This has led to the notion that African cities are 'walking cities' that are not walkable.

The Walking Cities Lab collaboration aims to consolidate the UCL-Osaka University Walking Cities Lab (WCL) (<https://www.walkingcitieslab.com/>) as an international platform for best practices and innovative approaches for the study of walking cities that are not walkable. The lab was initiated as part of the Osaka University – University College London (UCL) International Joint Research Project on a street-based approach to informal settlement improvement in African cities, and it has received further funding from the UCL-Osaka Strategic Partners Fund. An interdisciplinary group from Osaka University and UCL set out to investigate how low-income urban citizens build and give meaning to their walking environment, transforming existing routes and facilities to improve their everyday walking experiences and practices.

The first case study (2019-21) was Moyiba, an informal settlement in Freetown, the capital of Sierra Leone, with the support of the Sierra Leone Urban Research Centre (SLURC), where we developed, tested and refined our methods and framework. During 2021-22 the team expanded the research to a new city and two new neighbourhoods: New Town and Dome, in Accra, Ghana. In this context we examined the effect of distance to the city centre on the construction of walkability in low-income informal settlements. Learning from these experiences, the lab now aims to apply the knowledge we have produced to practice, seeking to develop a walkability assessment of neighbourhood upgrading interventions in a new African city, Maputo in Mozambique, as well as consolidating our methodological kit for broader replication and adoption.

The aim of this collaboration is to advance a nuanced and localised application of the assessment of everyday walking environments as part of the criteria for evaluating the impact of neighbourhood upgrading practices in historically vulnerable and disadvantaged territories, and to establish a community of research and practice around this topic led by the UCL-Osaka WCL. In the context of rapid and often unplanned urbanisation, with deficits in infrastructure, increasing motorization and insufficient public transport supply, urban mobility factors into people's inclusion or exclusion in terms of access to vital services and infrastructure, and consequently, their overall urban experience or wellbeing. This is often the worst case for those in low-income communities of urban areas. The Walking Cities Lab's methods, knowledge co-production approaches and partnerships aim to address an area that remains largely unaddressed in international research and practice on walkability: the unwalkable city.

Previous research

We used a participatory web-mapping tool, Maptionnaire, to explore the variety of walking routes and their characteristics. We used the tool also for a qualitative assessment of local walking practices and experiences to shed light on the realities of everyday walking. The study showed that walking is

the predominant mode of transport within the settlement. Daily commuting patterns combine walking with other informal transport modes such as okada (commercial motorcycle) and poda poda (commercial transit bus).

The study revealed that residents of Moyiba are not walking because it is a sustainable choice. Rather, walking is imposed by exclusionary urban configuration. This includes the steep physical terrain, unplanned physical morphology, limited connectivity and poor infrastructure for motorised transport. Data from our Maptionnaire tool revealed that only 11% of the mapped walking routes were paved. Paved roads were severely damaged or had become dumping grounds for construction materials or solid residue from waste. For residents, walking is the default position because of the poor availability of public transport. Then there is the high cost of transport fares. In addition, walking is faster than other alternatives.

Our study found that walking intersects with everyday social and economic lives. Some respondents walk because 'everyone walks, thus allowing for social interactions. Walking also provides easy access to community or economic facilities, including schools, churches, water stations and street vendors. These are often located along walking routes.

Unfortunately, our study showed that walking routes were exposed to more than 120 risks. These included steep routes that were a potential for mudslides, potholes, open electrical wires and abandoned construction material along walking routes.

Residents have mitigated these risks, either individually or through collective efforts. Collective efforts include the provision of street lighting and the use of sandbags along walking routes during the rainy season. They have also carved stairs within the steep terrain using gravel and rocks were common.

The study showed the benefits of walking in a safe, comfortable and aesthetically pleasing environment. Residents highly rated walking routes with street lights provided by the community. Similarly, routes with natural or self-planted trees for shade, and street benches for relaxation, induced feelings of comfort and attraction. On the other hand, walking routes marred with dirt and dust, isolation and lack of nature produced negative feelings among residents.

Our more recent work in Accra, Ghana shows that informal street vending, particularly those more consolidated, make overall positive contributions to walkability, through improvisations that improve the comfort, safety and pleasure of the walking experience. Furthermore, we find that when comparing informal settlements from a walkability perspective, location (relative to the city centre) matters for better or for worse. While more central neighbourhoods have better accessibility, peripheral neighbourhoods enjoy less traffic, more greenery and more enjoyable conditions overall.

Further work

The WCL team at UCL has been approached by Architects Without Borders (AWB) in Maputo, Mozambique in the context of an ongoing collaboration as part of the research project Transitions to Sustainable Urban Mobility ([T-SUM](#)). AWB is leading a neighbourhood upgrading programme in the neighbourhood of Chamanculo C in partnership with Water and Sanitation for the Urban Poor. After learning about the work of the UCL-Osaka WCL, partners in Maputo have expressed their interest in testing the methods developed by the lab to incorporate a walkability assessment as part of their evaluation of the streets opening component of the upgrading programme.

The case of Maputo presents a unique opportunity to adapt and apply the conceptual framework and methods developed and tested in Freetown and Accra in the context of a practice-oriented intervention that has a direct impact on walkability in a low-income informal settlement. The UCL-Osaka team will work in partnership with the team led by AWB for the evaluation of the effects on everyday walking environments and practices of residents in Chamanculo in three distinct areas of the neighbourhood: Intervention area Phase 1, which has two-metre wide open streets; Intervention

area Phase 2, which has three-metre wide open streets; and control area, where no streets have opened and some alleys can be one-metre wide or less.

Conclusion

Our findings point to the issues policy makers should take into account when planning urban transport and building roads. They should also find ways of enhancing community-led initiatives aimed at making cities walkable. Communities are highly adaptable and innovative in their approaches to mitigating the risks of poor infrastructure. However, their efforts have limits. The long-term and sustainable solution is for urban transport and development planners to integrate the walking experiences and behaviour of local residents into their planning.

They can do this through experimentation and other strategies that build the capacity of communities to mitigate risks. In addition, existing community initiatives should be incorporated into future planning for a comfortable and pleasurable walking environment. Officials should seek to understand walking from the perspective of residents. This will provide insights on the challenges and opportunities for access to everyday social and economic facilities. This will also inform the upgrading of informal settlements.

The overall public policy objective should be to promote an inclusive city where residents are not captive walkers but walk because it is accessible, safe and pleasurable to do so.

Photos

