Pedestrians in two medium-income island countries - what happens when traffic grows?

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Chart by: Roget Teoh, UCL

- Cluster 1 - Cities in developing countries
- Cluster 2 - Cities in "Developing Pathway 1'
- Cluster 3 - Cities in "Developing Pathway 2"

What is happening in Cluster 1 (cities in developing countries)?
Are they heading towards Cluster 2 or 3?

..and how can we study that with minimal data?

Case study 1: Havana, Cuba
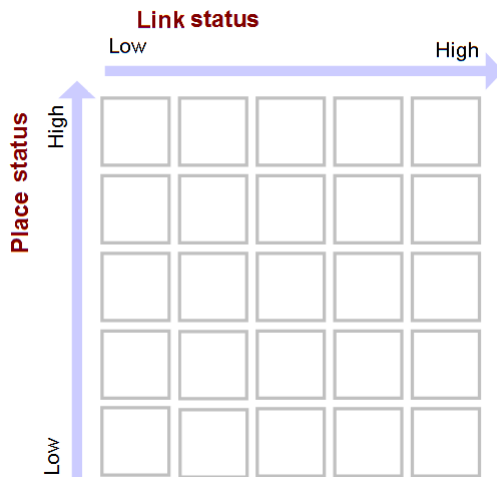

Photo by: Adriana Ortegon, UCL

Low car ownership

High walking modal share

Use of streets as social spaces
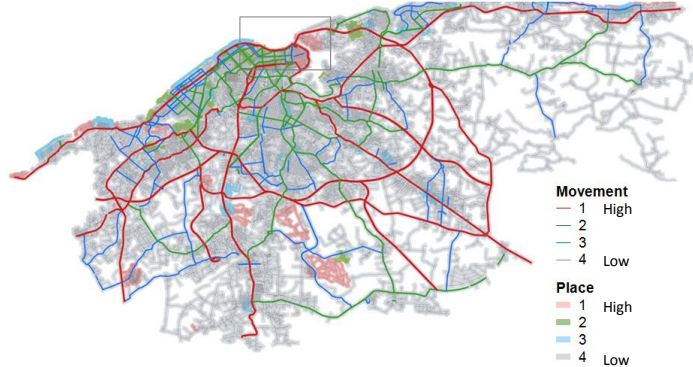
A new classification for Havana's road network

Road classification is usually based on one dimension only: movement (roads as a **link**).

We added a second dimension: '**place**' (roads/streets as a destination in themselves)

Link status

Low   High

Place status

High

Low

Classification done in participatory workshops

A new classification for Havana's road network

Conflict: high movement, high place status

But as it is, the road is designed mainly for movement
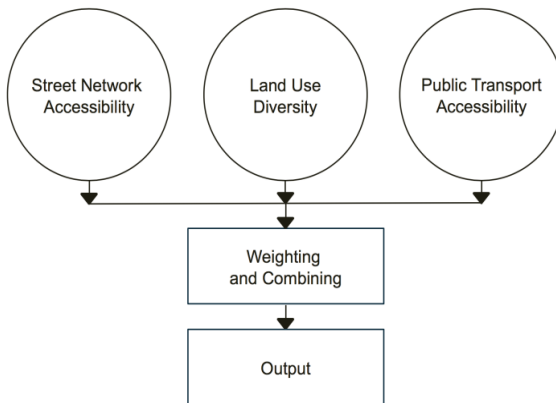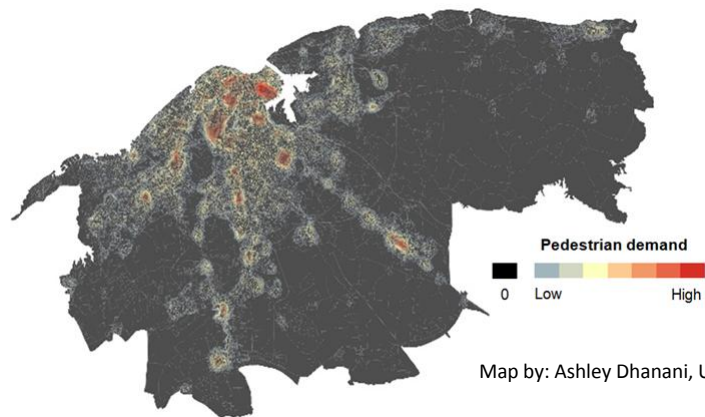

A walkability model for Havana

Diagram by: Ashley Dhanani, UCL

Model developed using Open Street Map data and validated in workshops with residents

A walkability model for Havana

Pedestrian demand
0   Low   High

Map by: Ashley Dhanani, UCL

Some areas have high potential demand but low pedestrian flows, according to residents – with traffic speeds and lack of sidewalks pointed as reasons

Case study 2: Praia, Cabo Verde
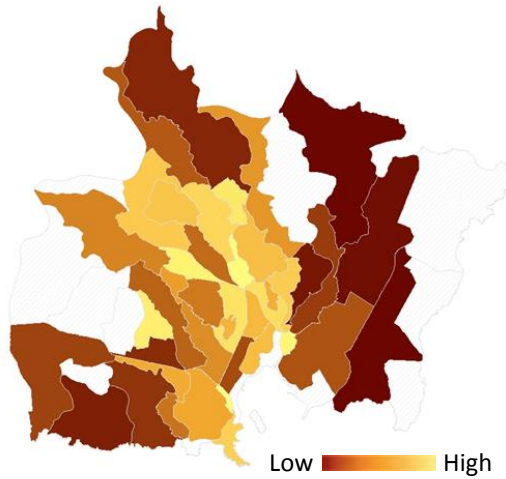

Economic growth - but more inequality

Fast city growth – but disorganized

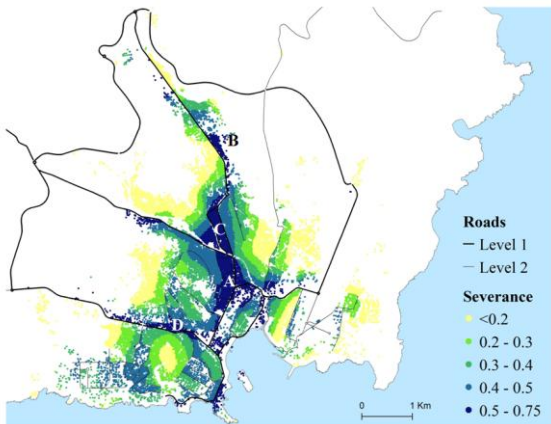More traffic, more and wider roads – but poor public transport

Mapping quality of walking

Considering: pedestrian space (total; formal); road width; crime incidents; slopes; flood risk

Large differences by neighbourhood, related to income but also with how old is the neighbourhood

Low ▬▬▬ High

Mapping severance effect of roads on pedestrians

Roads
— Level 1
— Level 2

Severance
• <0.2
• 0.2 - 0.3
• 0.3 - 0.4
• 0.4 - 0.5
• 0.5 - 0.75

0   1 Km

'Hotspots' of severance are mainly poor areas

People's perceptions: group discussions

animals stray dogs confusion rubbish flooding rain slopes
cars on pavements drivers signals no crossings cross the road speed accidents cars traffic roads noise air pollution
disorganization buildings organization streets squares pedestrian space public spaces inner streets narrow dense cul-de-sacs
obstructions street traders confusion pavements damaged holes surface cobblestones dirt track asphalt no pavements
delinquency 'thugs' violence safety 'kasubodi' lighting night
poor social problems young people avoid busy people peaceful
public institutions churches health centre pharmacy kintergarten services banks shops places to go schools university facilities
sport leisure green spaces
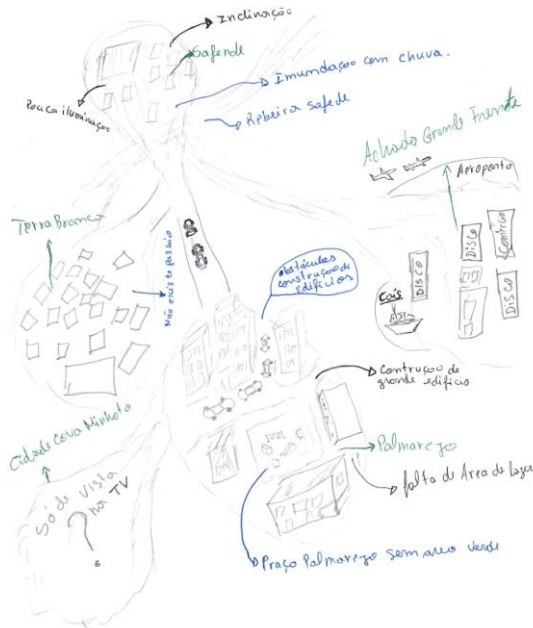access near central buses

Negative ▬▬▬ Positive

People's perceptions: perceptual maps

Disconnected neighbourhoods

Conclusions

In both cities, growing traffic is becoming a problem for pedestrians, aggravated by the fact that the design of existing/new roads favours car users

Research methods used can be used with minimal data, complemented with local knowledge