

URBAN AGE ELECTRIC CITY CONFERENCE

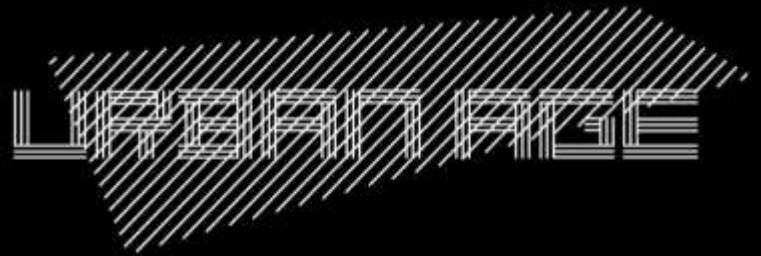
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*The low-tech experience and social
inclusion: Medellín's MetroCable*

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The low-tech experience and social inclusion: Medellin's *Metrocables*

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Medellin's *Social Urbanism* Governance, mobility and poverty

1. Introduction
2. Mobility and social exclusion
3. *Metrocables*: Quick-fix toys?
4. Lessons from Medellin



Aerial cars: a new urban fad?



London: *Emirates Air Line* (2012)



Complexo do Alemão, Rio de Janeiro (2010)



Constantine, Algeria: *Télécabine* (2008)

Source: Darine (Wikipedia)



Medellin's aerial cable-cars (*Metrocables*)



Line K (2004)



Line J (2008)



2. Mobility and social exclusion

- Mobility as a necessary condition of contemporary urban life
- (Im)mobility and class - the wealthy can enjoy the luxury of immobility; the very poor are anchored to one place
- Limited mobility:
 - Constrains participation in urban life
 - Turns geographical marginalisation into deeper social exclusion

Bauman, 2000; Ohnmacht et al., 2009; Ureta, 2008; Zibechi, 2008; Kaufmann et al. 2004





Metrocable comunas (districts)

Among the city's poorest and most conflictual in the city

Between 44 & 62% of *comuna* residents are tenants



3. *Metrocables*: ‘Quick-fix toys’?

Two *Metrocable* lines linked to the (surface) metro system:

Linea K (Santo Domingo Savio): opened 2004

- *Comunas* 1 & 2 (230,000 inh.)
- Length: 2 km (rises 400 m from valley); 3 stations
- 3,000 passengers/hour
- Funding: Medellin municipality 55% + Metro 45%

Linea J (San Javier): opened 2008

- *Comunas* 7 & 13 (295,000 inh.)
- Length: 2.3 km; 3 stations
- 3,000 passengers/hour
- Funding: Medellin municipality 73% + Metro 27%



Medellin Metro system



Metro:
State commercial enterprise:
•50% municipality +
•50% province



Metrocables and urban upgrading programme



Linea K and *Parque España* Library



Parque Arvi tourist Line L



Upgrading along the *Juan Bobo* stream



Before upgrading



After upgrading



Upgrading of public spaces



Parque del Ajedrez Popular before and after upgrading



Economic activity and public investment (PUI) in and around *Línea K*, 2002-2010:

- Capital investment in *Metrocable*: ca. US\$24 million
- Investment in public space and other public facilities: ca. US\$225 million
- Increased open space: from 0.65 to 1.48 m²/inhabitant
- Increase in number of local businesses: from 700 to 1,000
- 92% of jobs in public works generated locally
- 18 new parks, 4 new pedestrian bridges
- Tourism as a new source of income



Cost comparisons with other systems

Mode	Year completed	Capacity	Length (Km)	Cost/Km (US\$ million)
Medellin: <i>Metrocable</i> Line K	2004	3,000 pax/hour	2.1	11.6
Medellin: <i>Metrocable</i> Line J	2008	3,000 pax/hour	2.8	16.8
Caracas: San Agustin <i>Metrocable</i>	2010	1,200 pax/hour	1.8	176.0
Bogotá BRT Phase I	2000	N/A	N/A	8.3
Bogotá BRT Phase II	2000-2008	N/A	N/A	15.2
Bogotá heavy rail (1997 proposal)	N/A	N/A	N/A	105.0



Have *Metrocables* improved mobility?

- Convenience, safety and comfort
- Transport savings (combined fares) BUT seen as expensive
- Time to reach main metro line for residents in highest areas reduced from 1½ hours to 15 minutes (plus distance to station and long queues at peak times)
- Main cable-car users: formal sector workers
- Less advantageous for:
 - Multiple transport modes
 - Multi-purpose trips (e.g. women)
 - Workers with bulky parcels
 - The young (mobile phones rated more highly)



4. Lessons from Medellín

- Consensus on the need to reduce violence and social exclusion built through negotiation and over time
- Political imagination and boldness: *Metrocables*, escalators, BRT
- Urban (physical) interventions at the core of efforts: transport, public space, civic architecture
- Powerful publicly-owned institutions, not privatised, highly appreciated by citizens:
 - *Empresas Públicas de Medellín* (utility company with assets worth US\$10 billion): surplus of US\$877 million transferred to municipality in 2010-11
 - Metro Company
- Poverty given visibility – collective self-esteem and sense of inclusion increased more than mobility
- A clear urban project carried over by successive governments



Movilidad & urbana & pobreza:

Aprendizajes de Medellín y Soacha, Colombia

Julio D. Dávila (compilador)

Dávila, J.D., (editor), *Urban mobility and poverty: Lessons from Medellín & Soacha* (forthcoming 2012).

www.ucl.ac.uk/dpu/metrocables

