

An aerial, grayscale view of a dense urban skyline. The buildings are represented as 3D blocks of varying heights and widths, creating a textured, geometric landscape. A construction crane is visible in the upper middle section of the image. The overall tone is professional and analytical.

Wider effects of urban transport on cities

Use satellite images to compare cities across space and time

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On the one hand....

The geography and wealth of cities affect urban transport



... on the other hand

Urban transport also affects the shape of cities

Why we care: market failures in cities

Transport : an intervention to also integrate externalities in cities

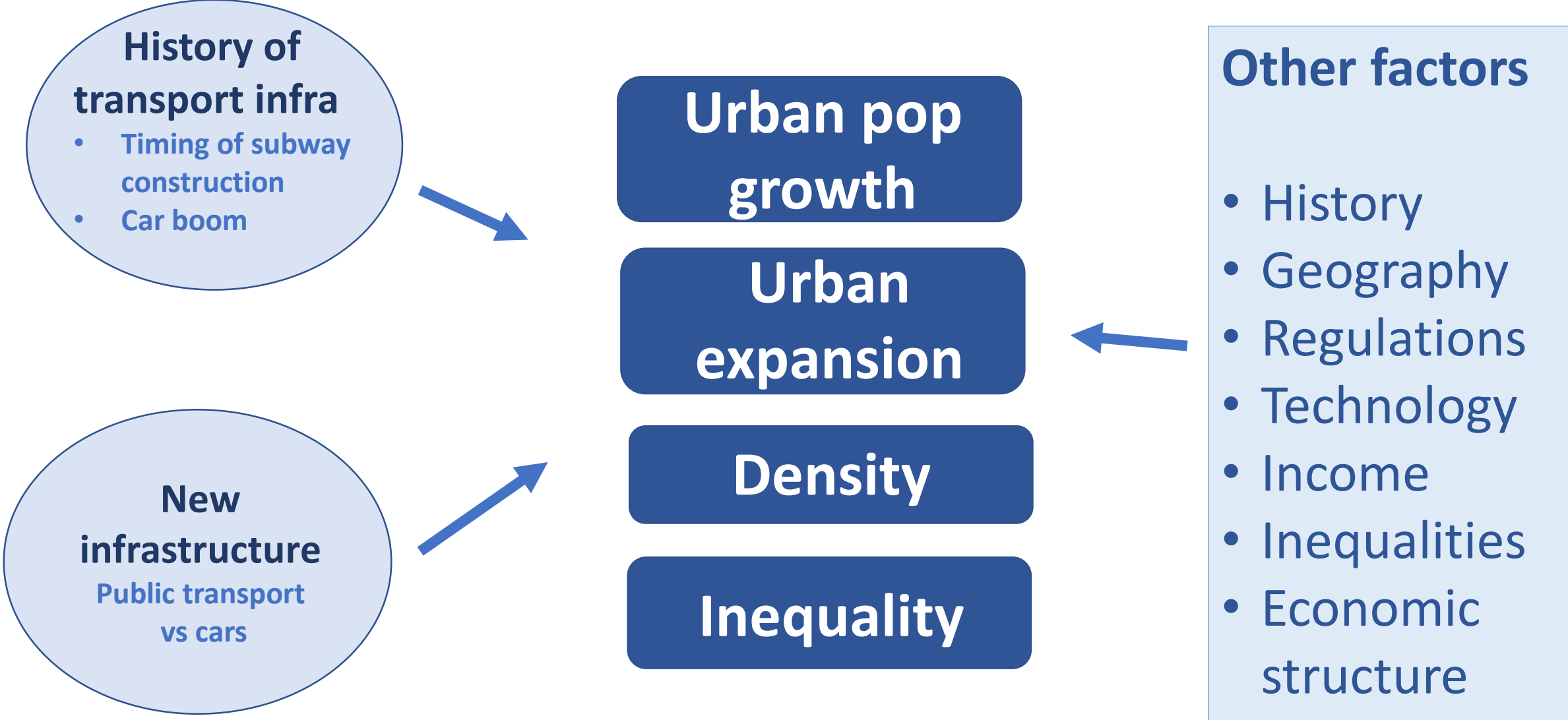
Positive externalities:

- Agglomeration benefits from density for firms and consumers
- Easier to find good workers and to find jobs
- Innovation

Negative externalities:

- Pollution
- Congestion
- Poor use of land

Main drivers of city change

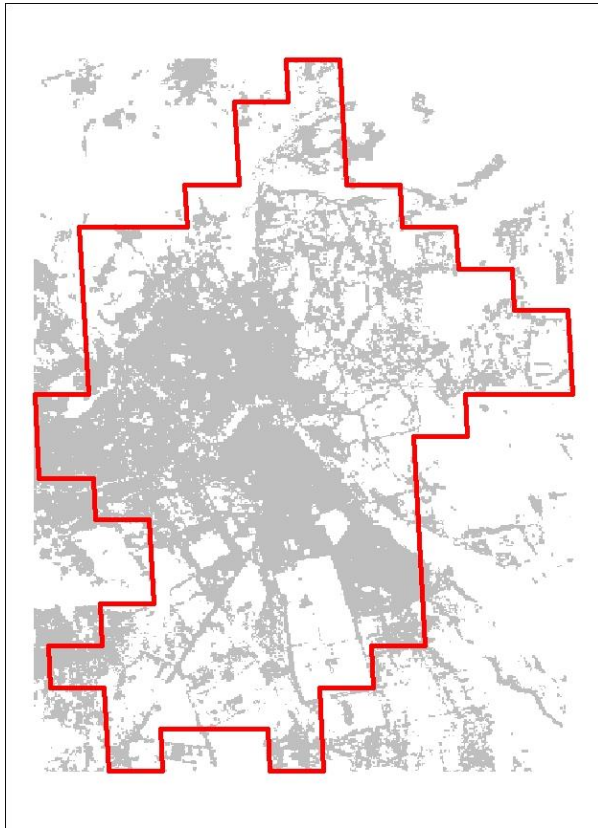


Questions

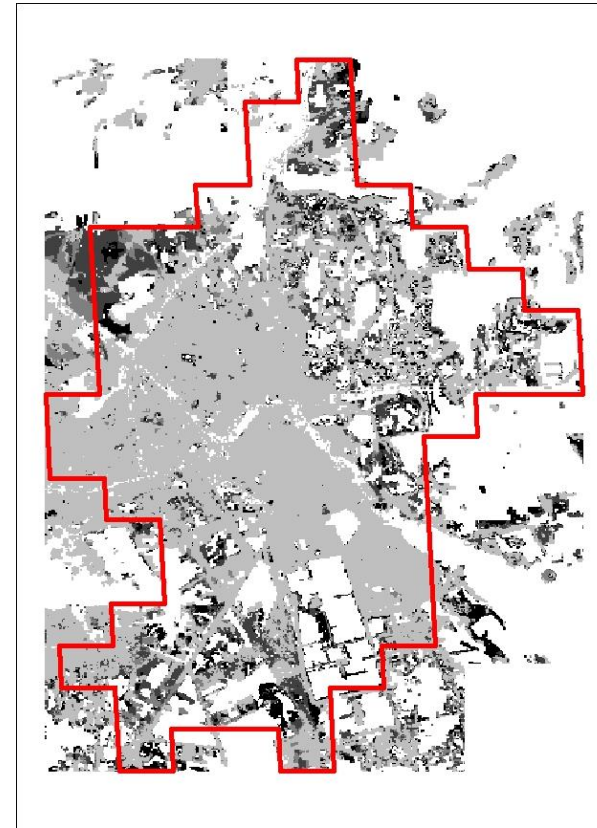
- What is the relationship between
 - ... [**public transport**] the extent of a subway network or a BRT,
 - ... [**private transport**] informal taxi regulation
 - ... [**road infrastructure**] urban highways or the road grid
 - ... [**urban logistics**]and cities' population and its spatial configuration?
- **HISTORY** What is the impact for cities of having grown before or after the boom of the car industry (Europe vs US)?

New data to capture urban shapes: Satellite data for horizontal growth (>10000 cities)

Marrakech: 1985

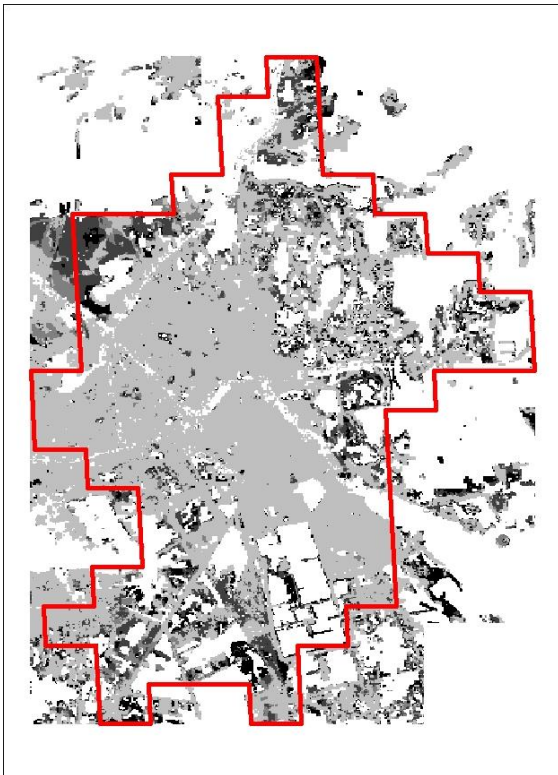


Marrakech: now

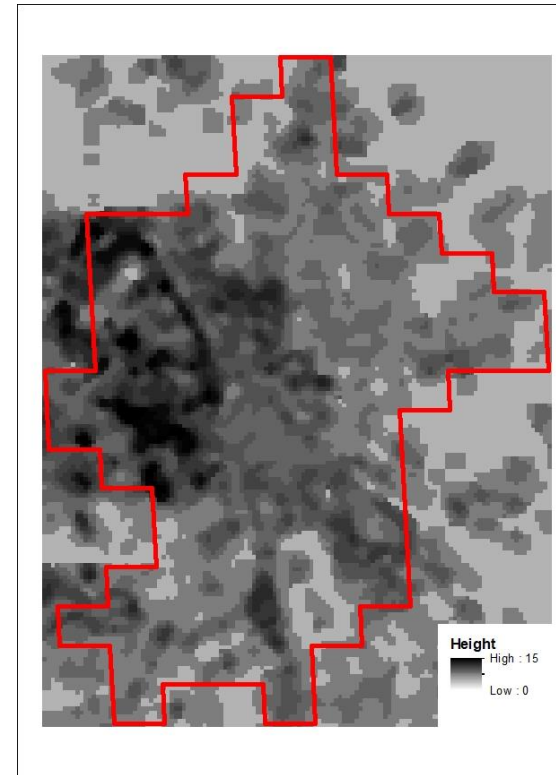


New data: new techniques to produce global elevation maps

Vertical growth (built-up)



Horizontal growth (height)

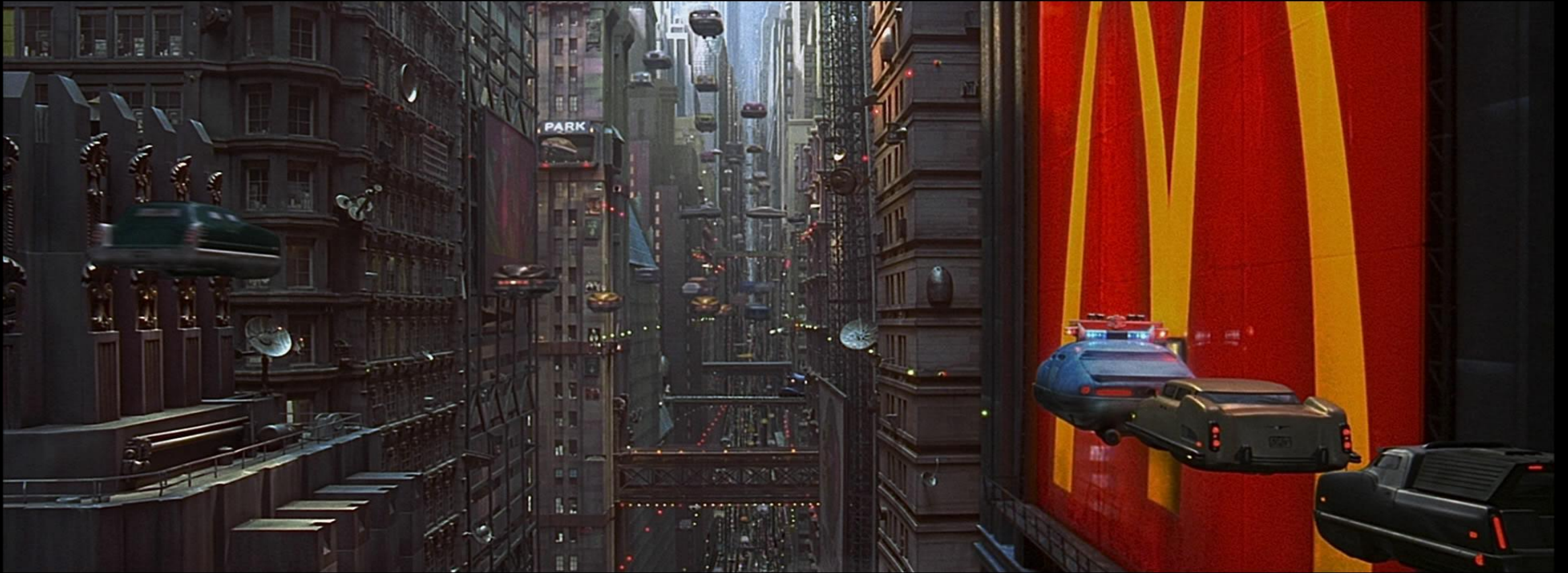


Which complementary policies?

Other urban market failures :

- Land market imperfections
- Imperfect building sector and real estate market
- Behavioral issues

Disruptive urban mobility



Picture from the movie "the Fifth Element"