

Exploring the arrogance of space with

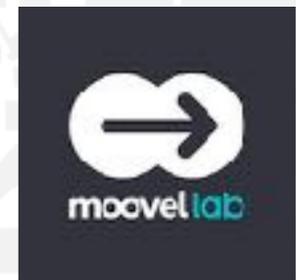
What the Street!?

Senseable City Lab, MIT, June, 2017

Michael Szell

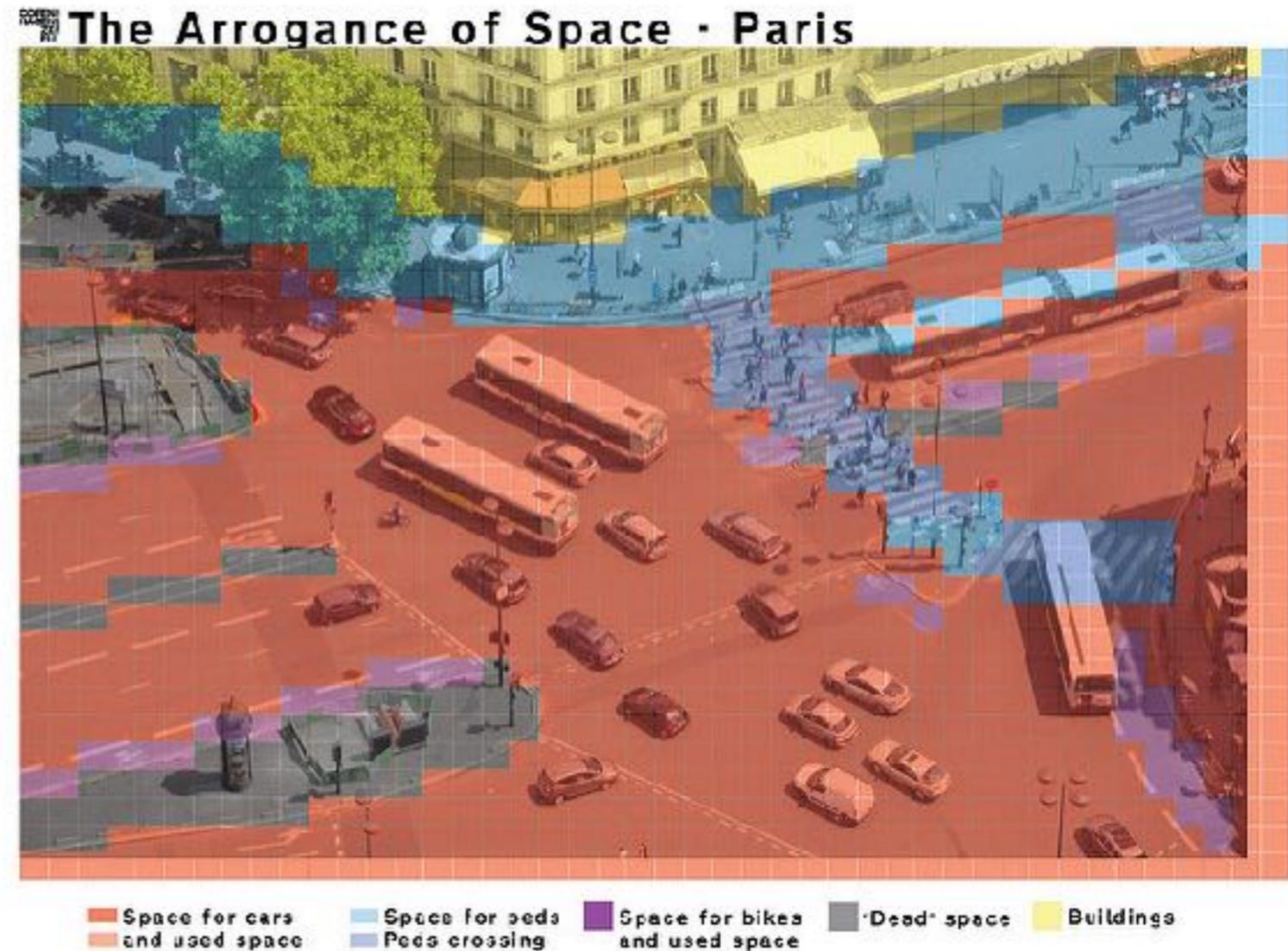
[@mszll](#)

with: Stephan Bogner, Benedikt Gross, Tobias Lauer, Anagrama, Tilman Häuser, Raphael Reimann, Daniel Schmid, Joey Lee, Johannes Wachs, Thibault Durand



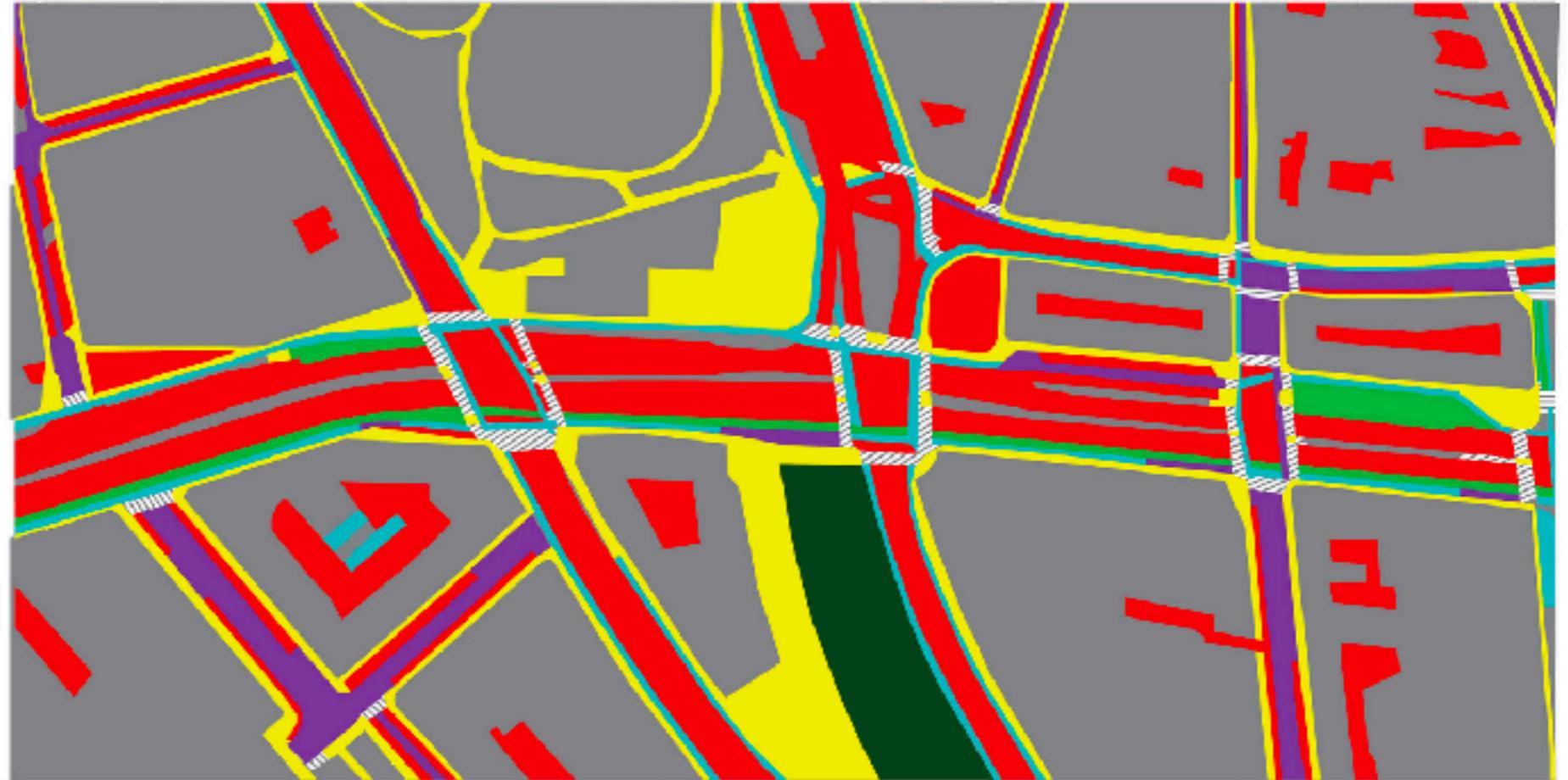
The arrogance of space

Space is not distributed fairly between modes of transportation



The arrogance of space

Case study:
Copenhagen



Arrogance of Space - Copenhagen. A Section of Hans Christian Andersen Boulevard



Modal Share for Copenhagengers Commuting to Work/Education



Allocation of Transport Space in Copenhagen



And this is the
best place in the
world for bikes!



Really!

Cars are used 36 min per day

Cars are not used 1404 min per day

Cars are used 36 min per day

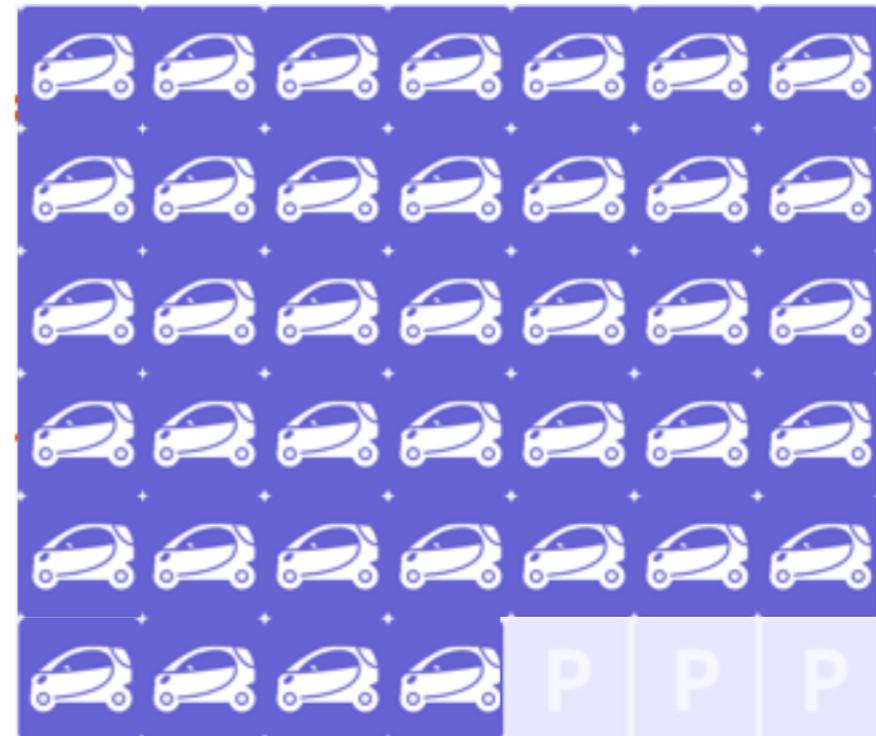
Cars are not used 1404 min per day

A typical snapshot of Berlin

30,000 cars moving



1,200,000 cars parked



Cars are used 36 min per day

Cars are not used 1404 min per day

A typical snapshot of Berlin

1,200,000 cars parked

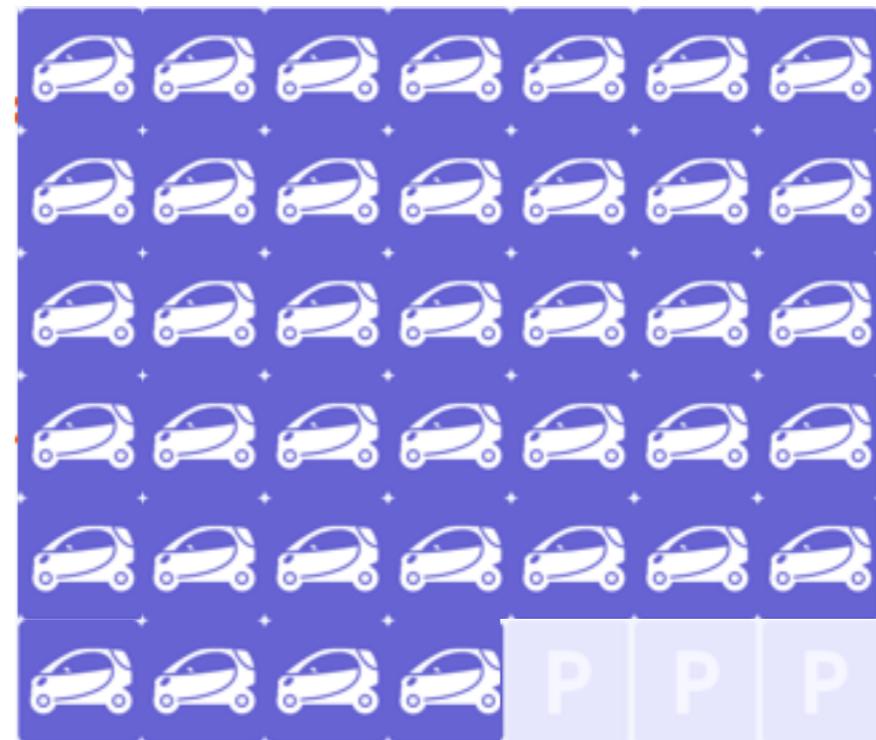
64,000
Playgrounds

= 4x

CENTRAL
PARK



=

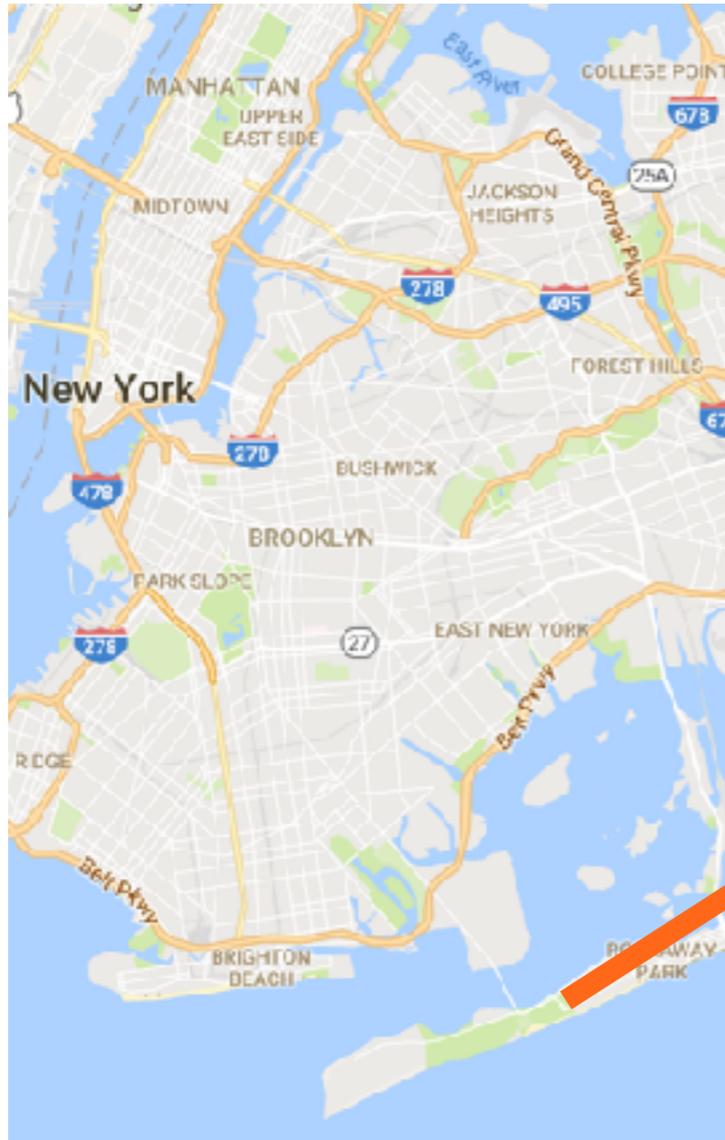


How does all of this space look like?

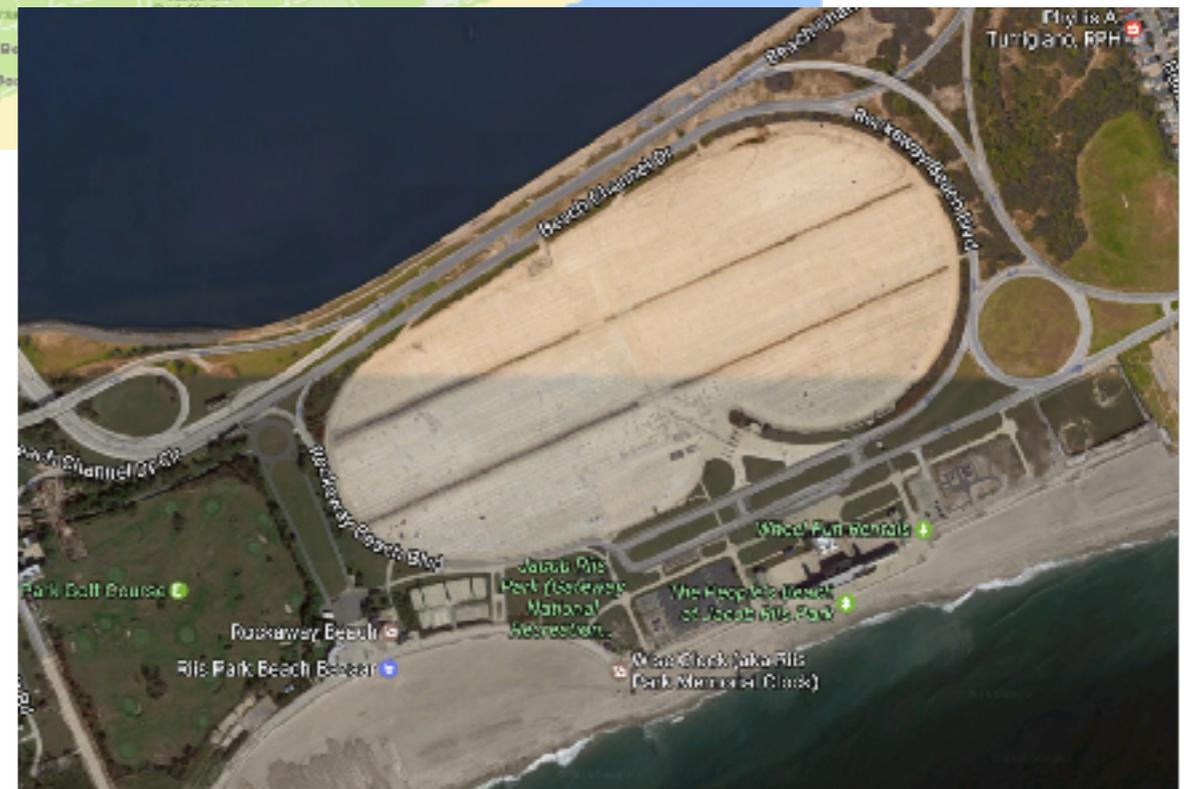
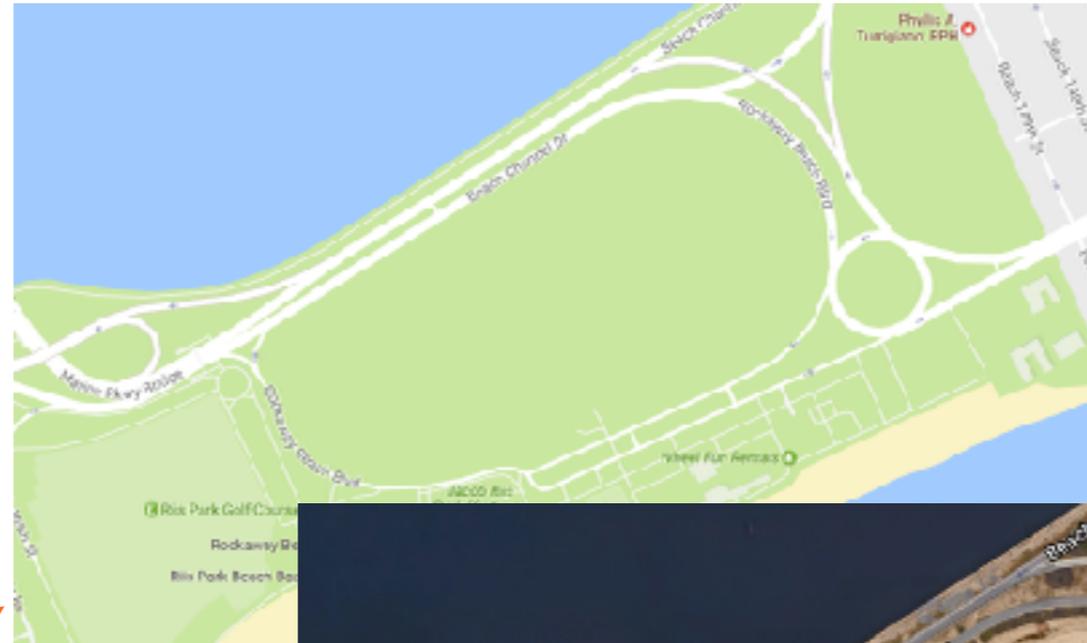
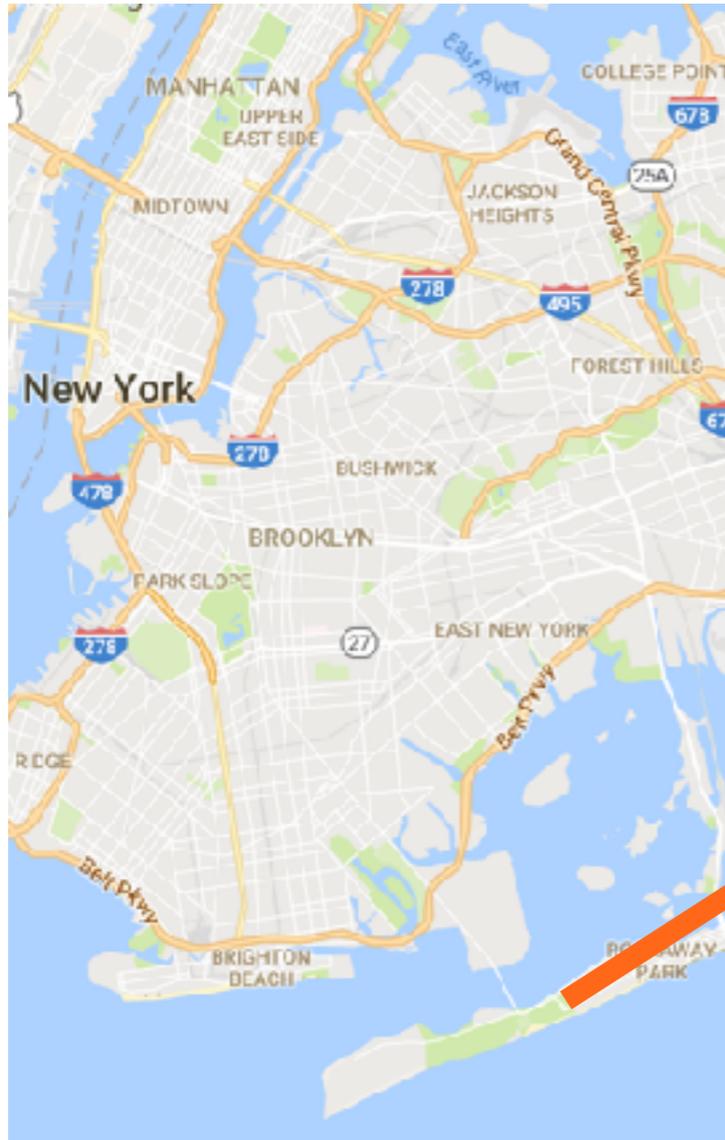
How can we get it back?



What a lovely green..



What a lovely green..

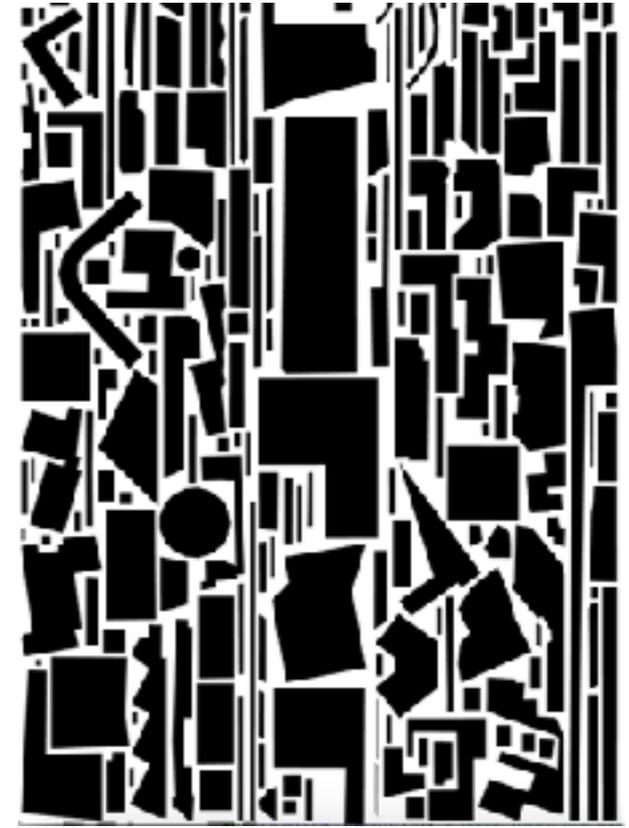


Use polygon packing to visualize ALL parking spaces





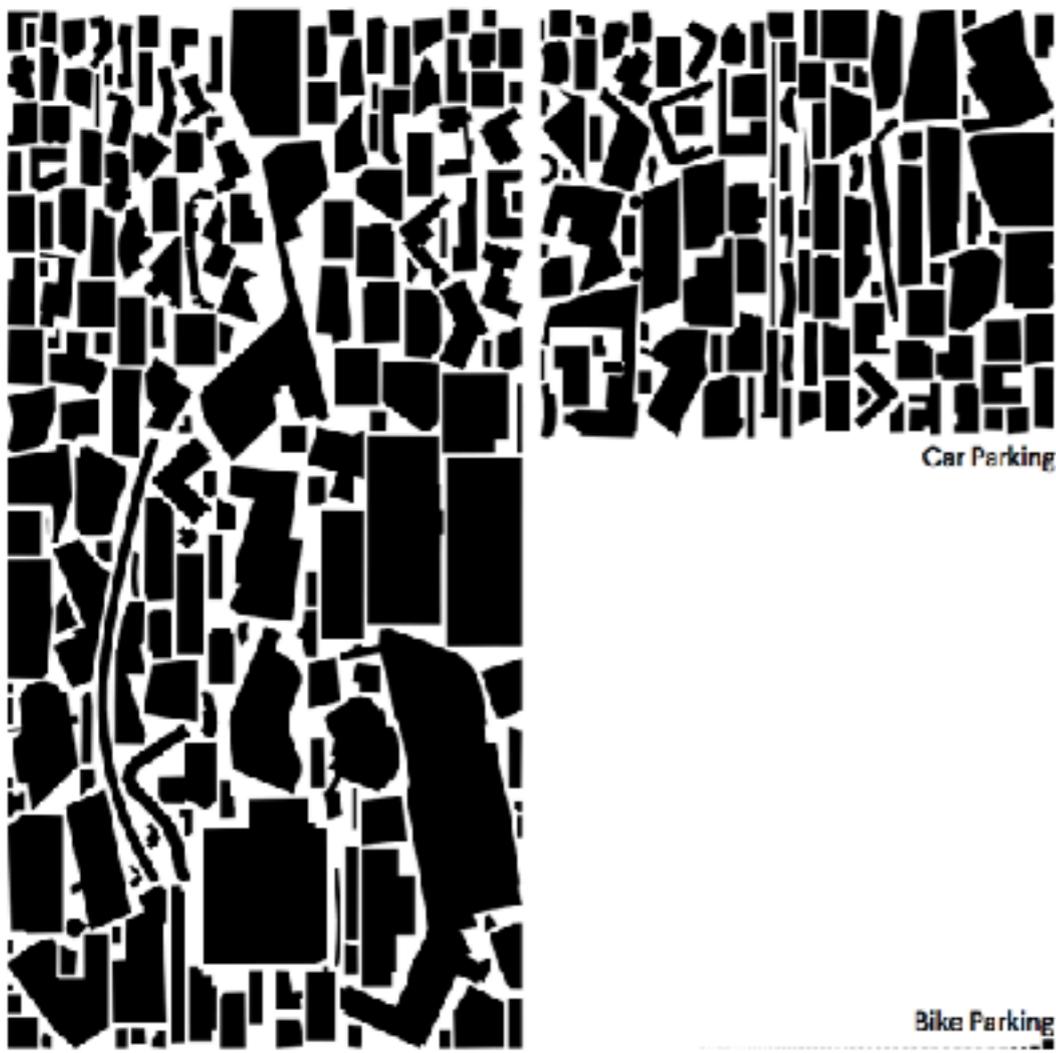
Cities have unique patterns



Cities have unique distributions

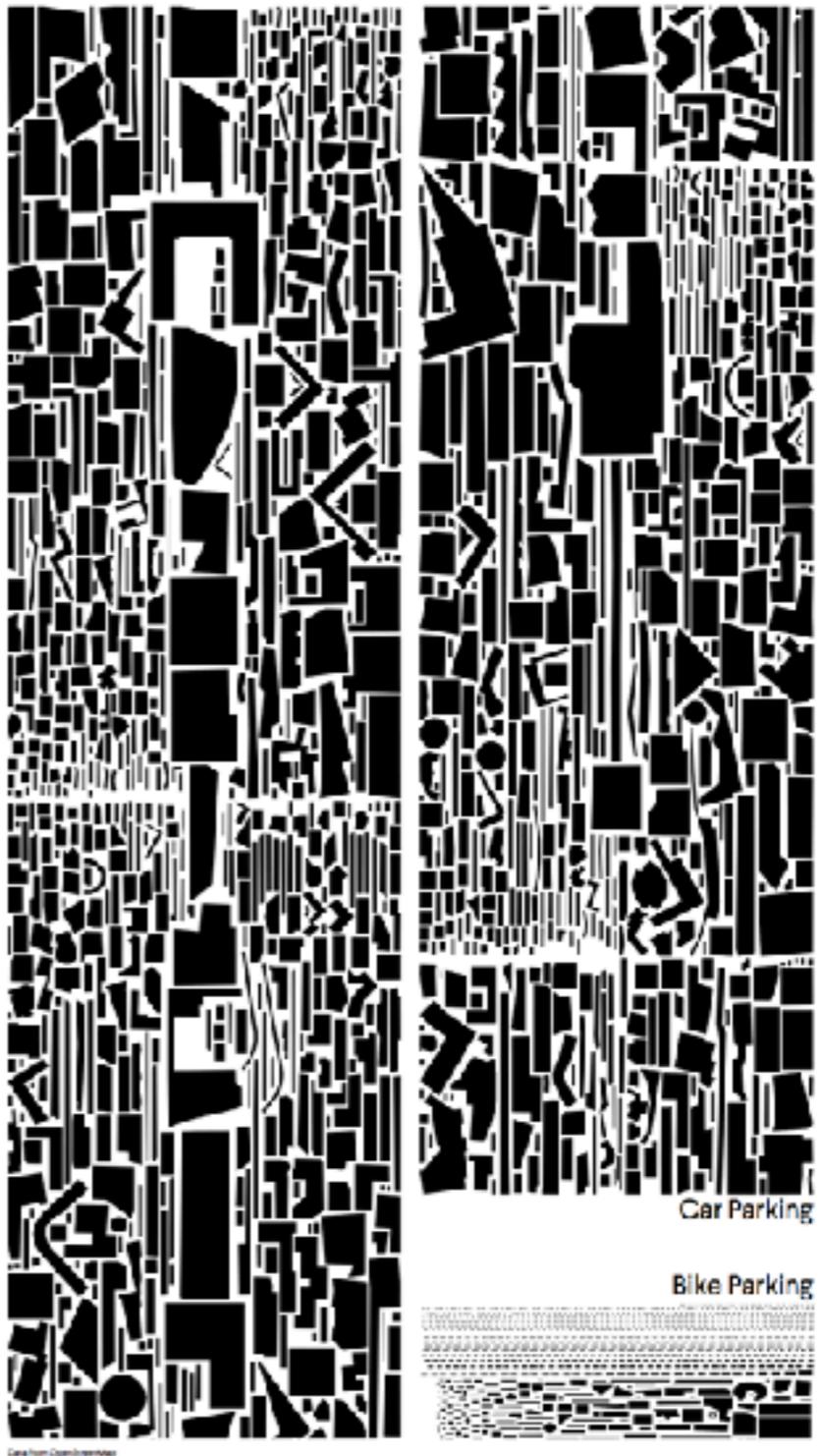
Boston

What the Street!? <http://whatthestreet.mocvellab.com>

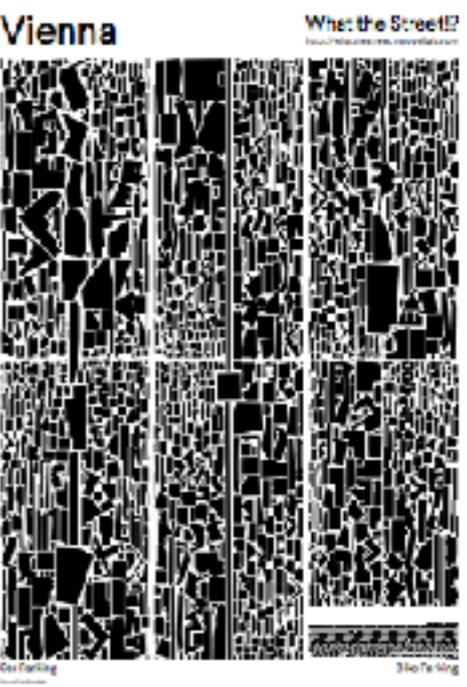
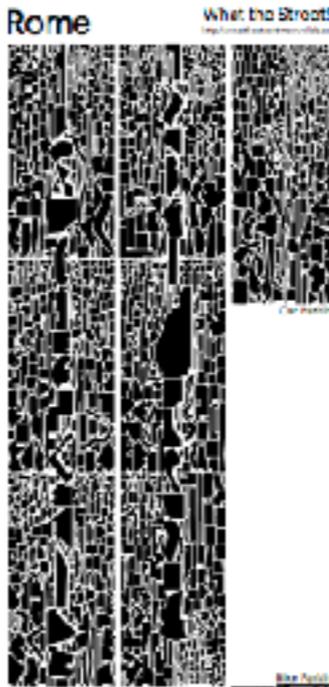
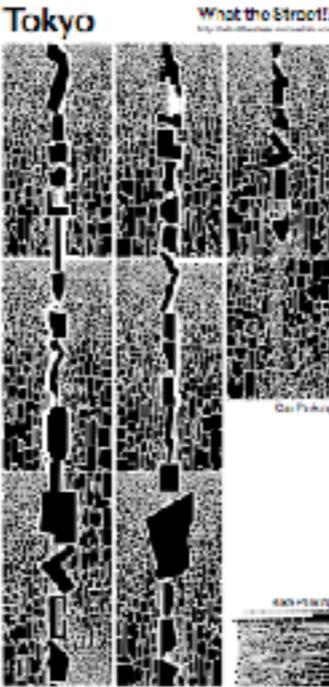
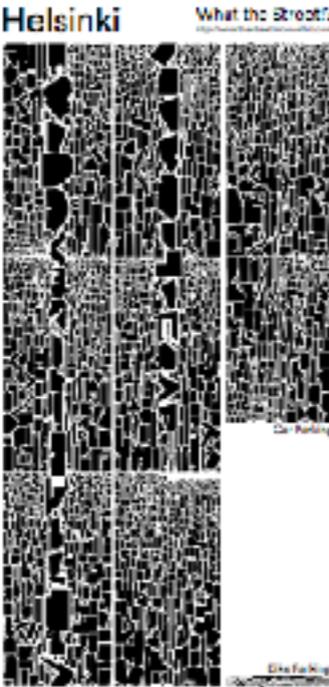
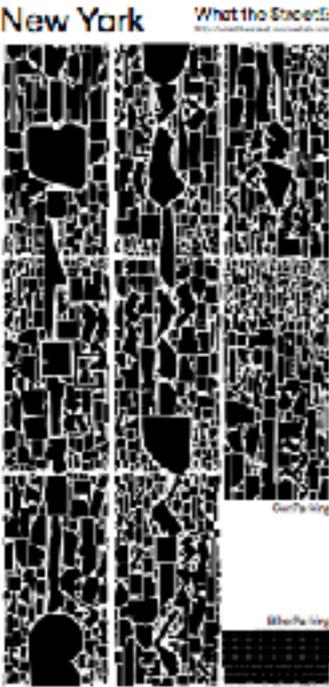
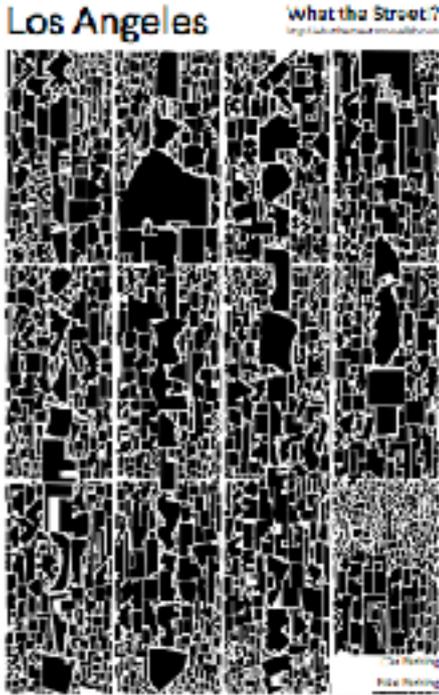
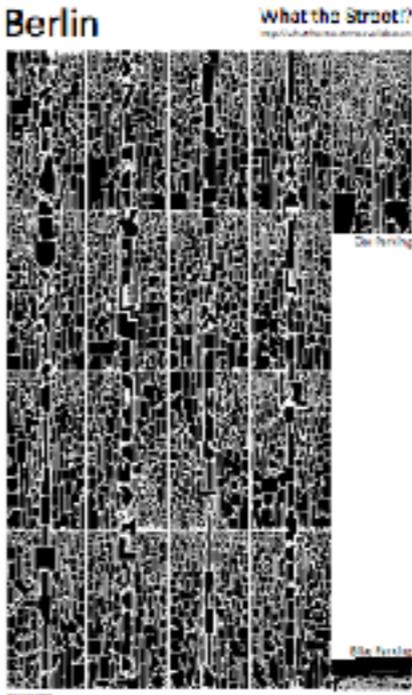
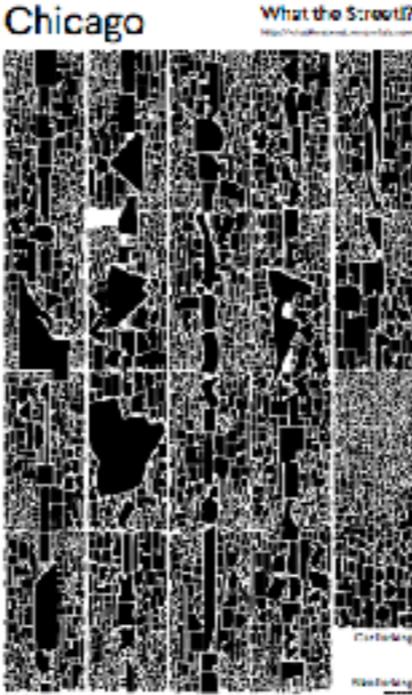
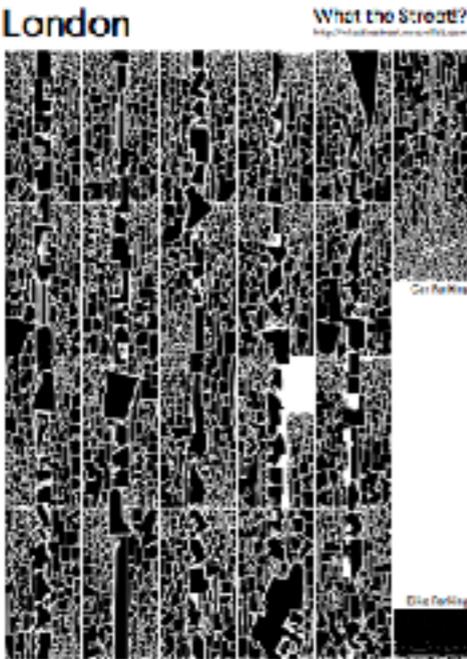
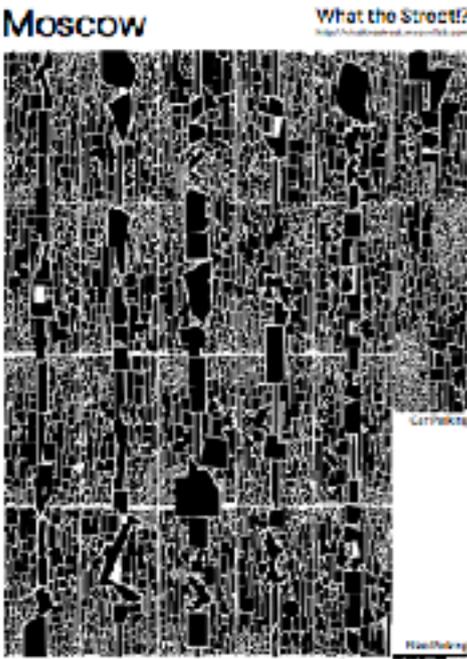


Copenhagen

What the Street!? <http://whatthestreet.mocvellab.com>



What the Street!?! covers 23 world cities



Use graph algorithms to roll up ALL streets, bike lanes, and rails

<https://github.com/gboeing/osmnx>

Home Search Streets

0 m²

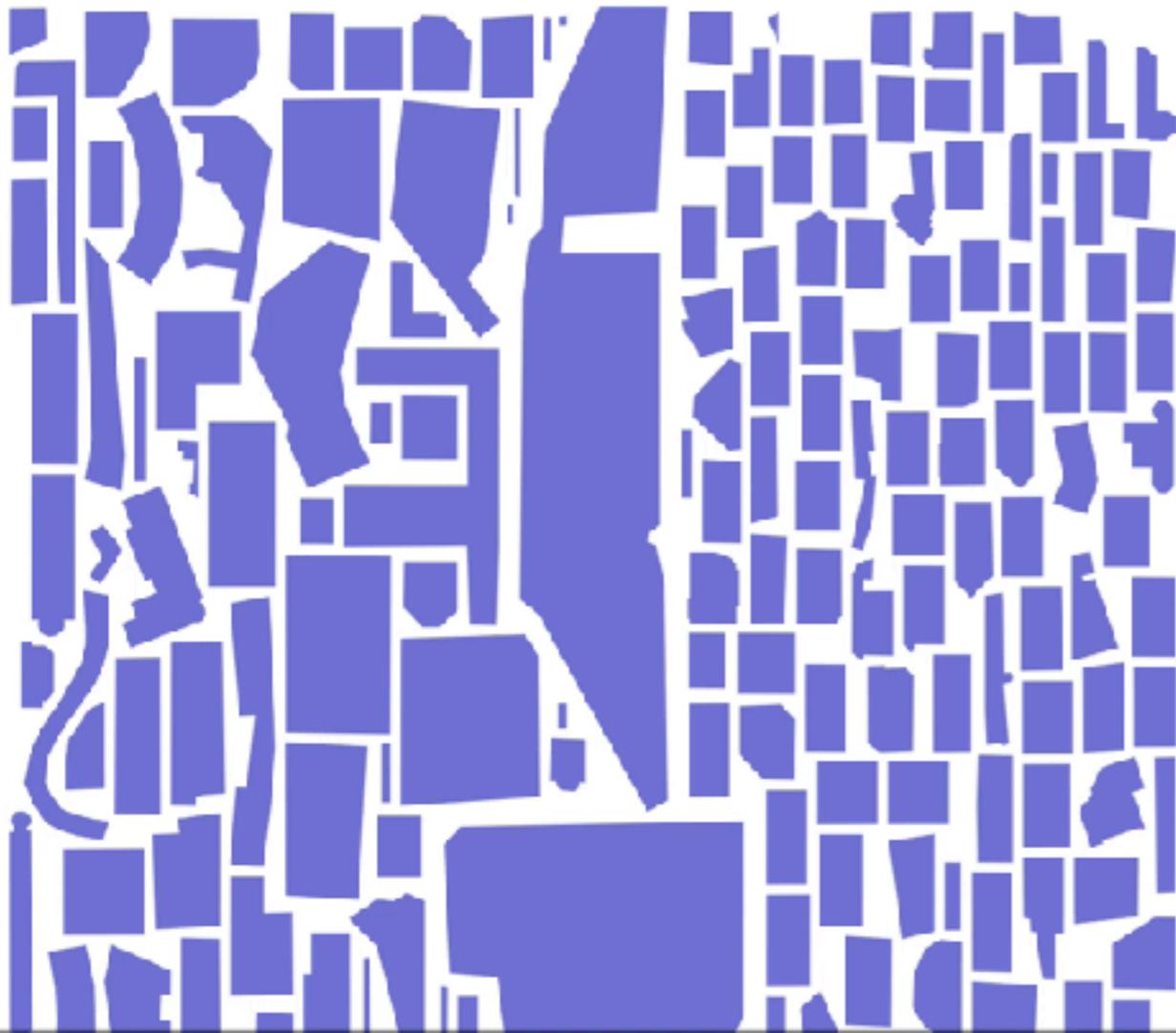


No Parking Selected

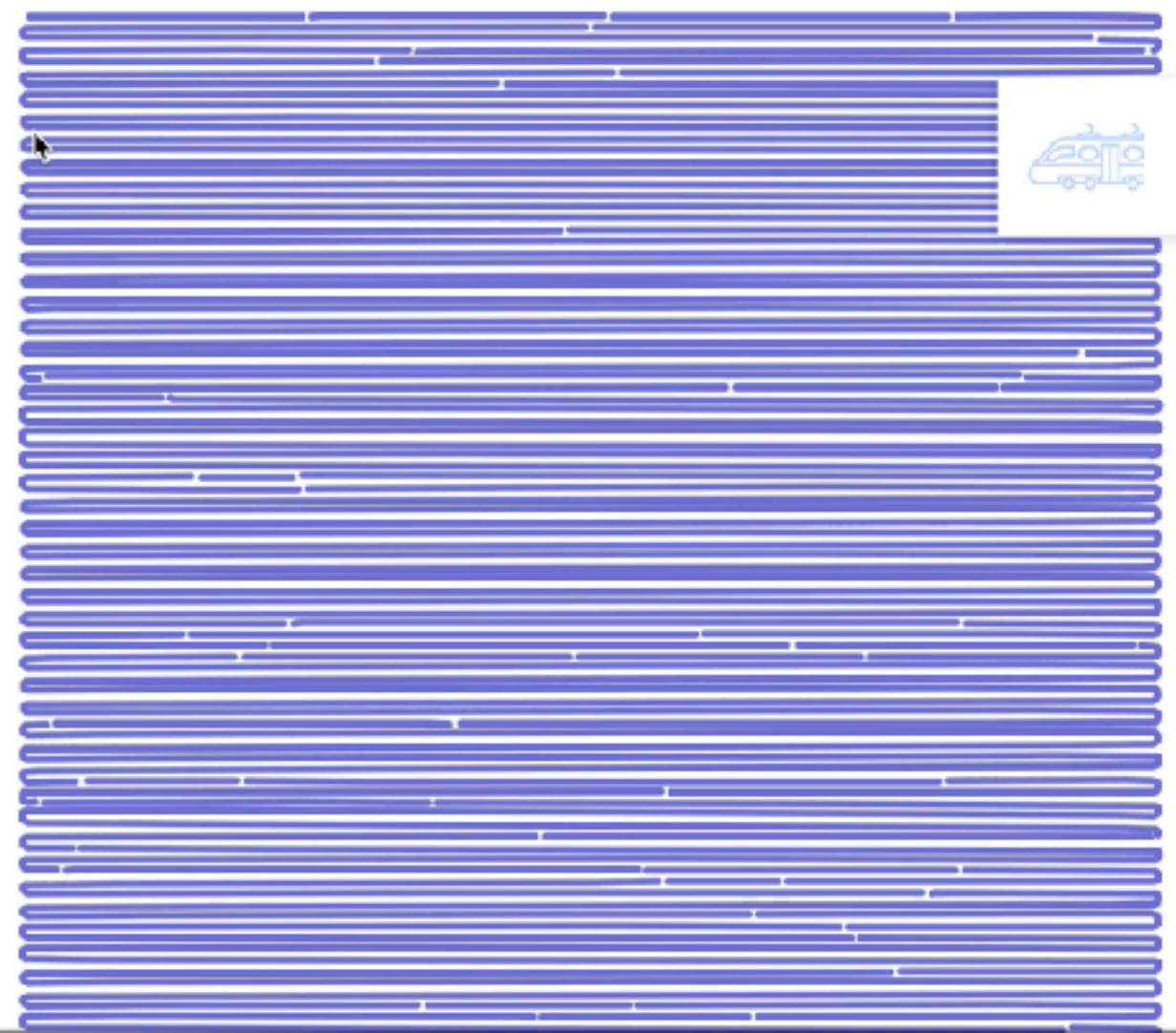
0.0 m²

No Lane Selected

Car Parking



Car Lanes



Scroll to next

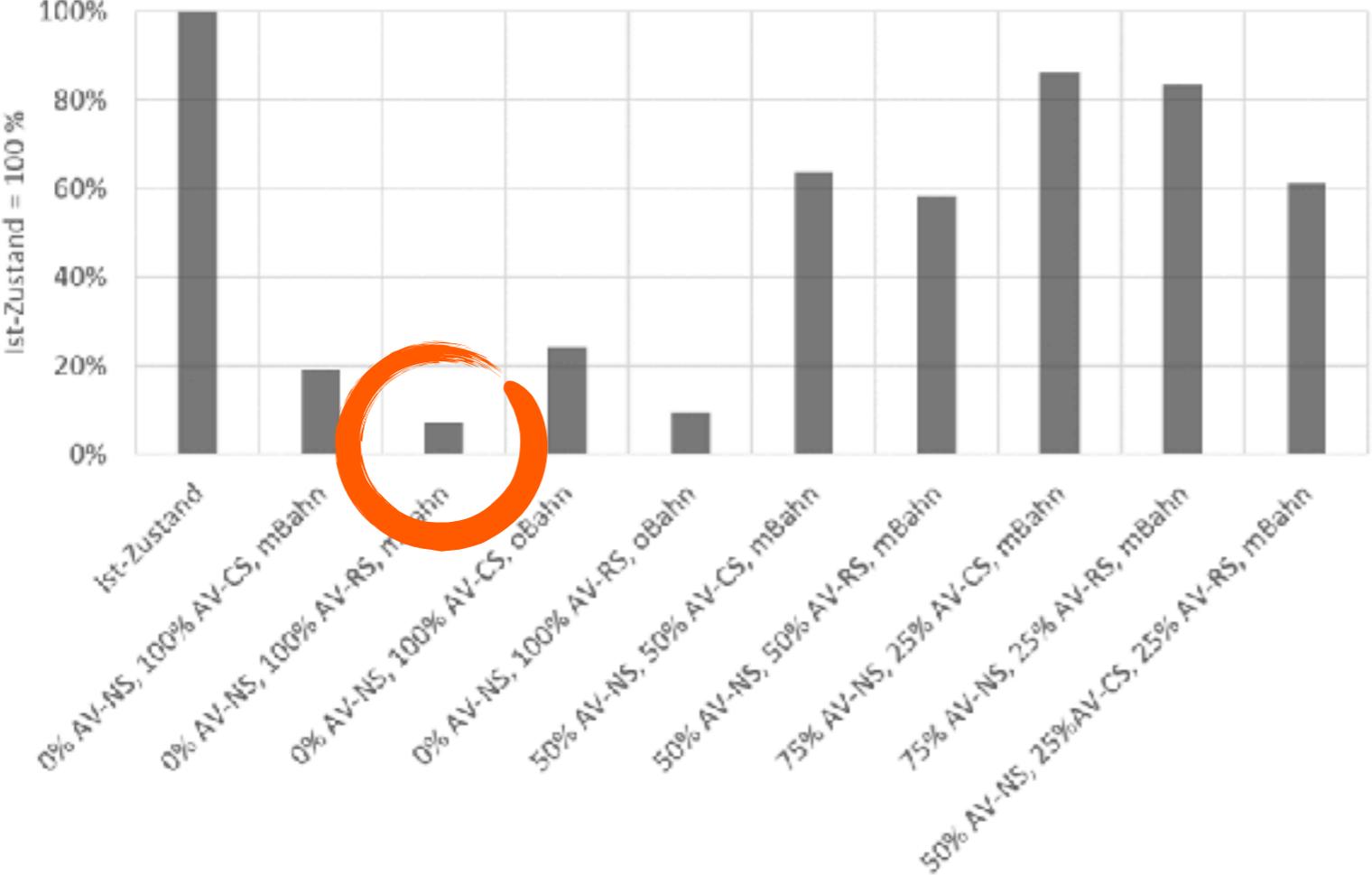


How can we get back the space?

10% of self-driving cars can deliver same mobility

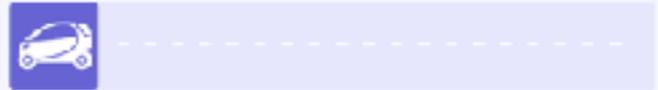


93% of parking spaces can be saved by autonomous, shared vehicles

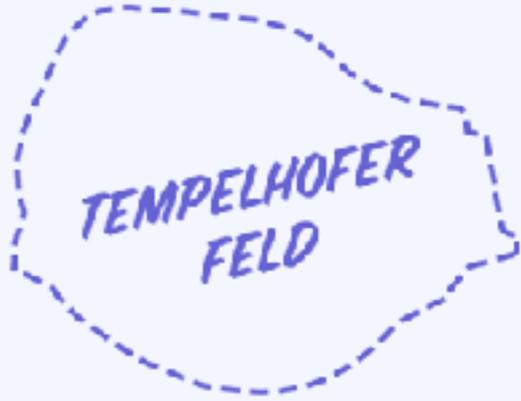


Future Berlin

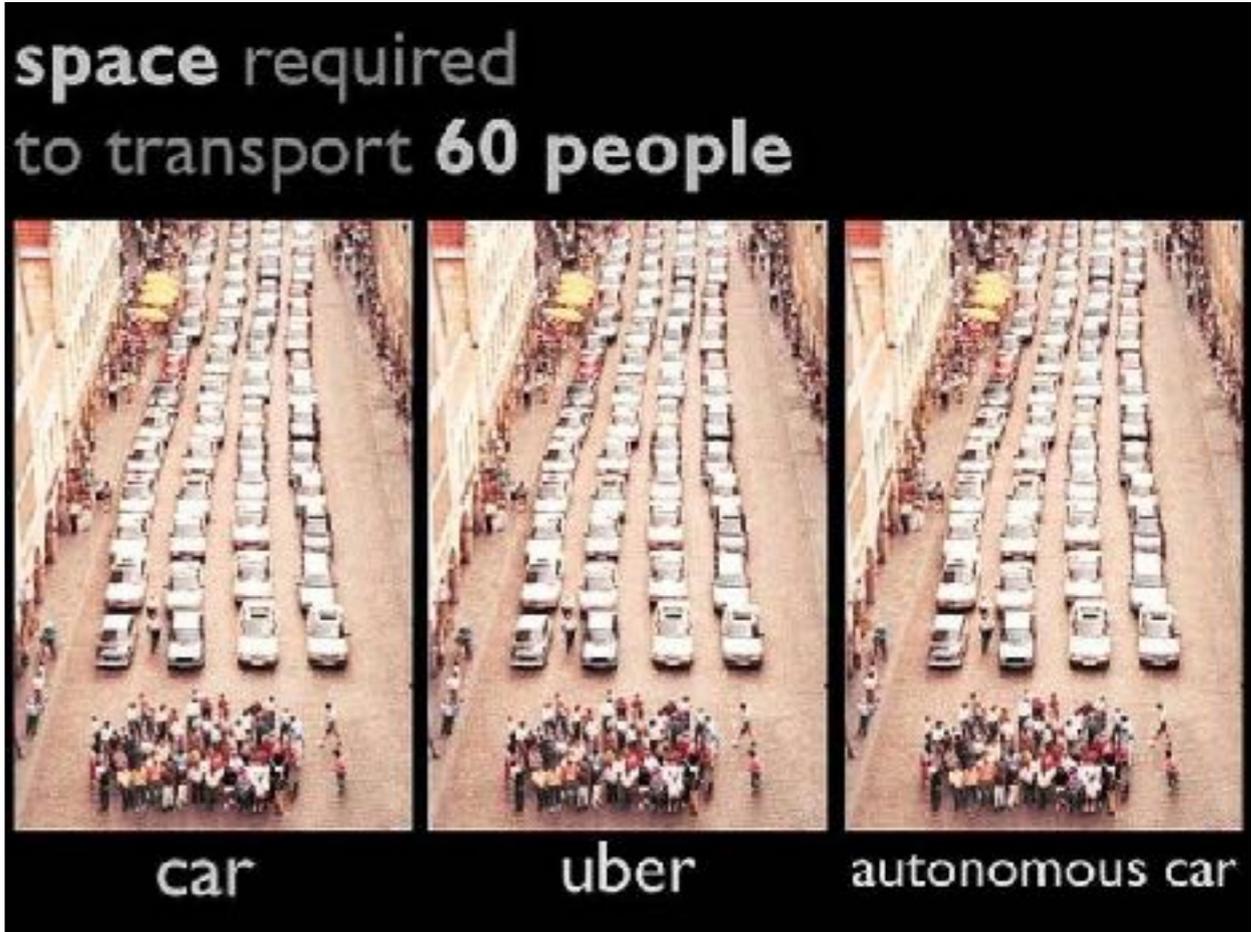
Autonomous cars on the road



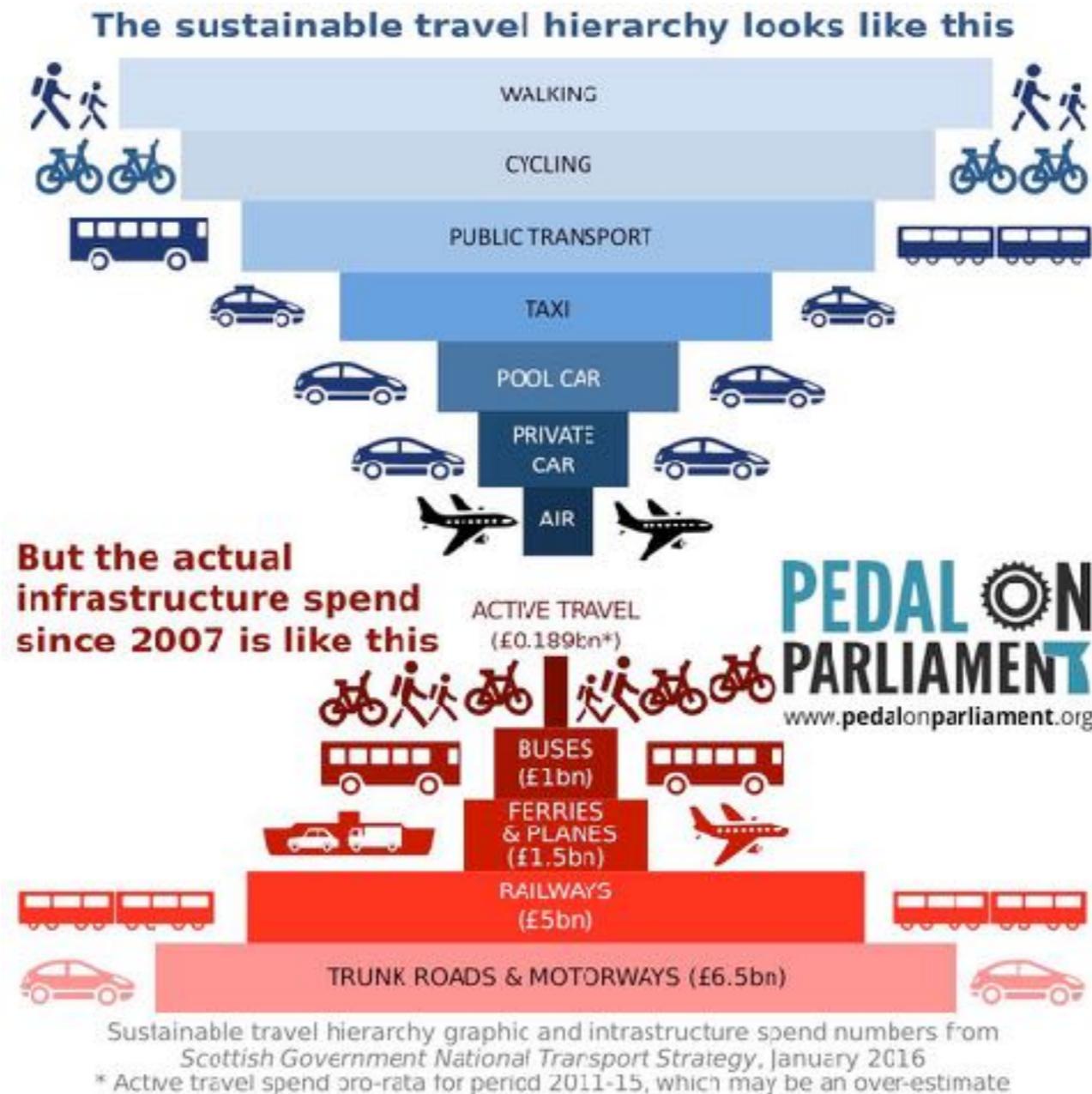
Parking



Autonomous, shared cars are nice, but NOT the ultimate solution

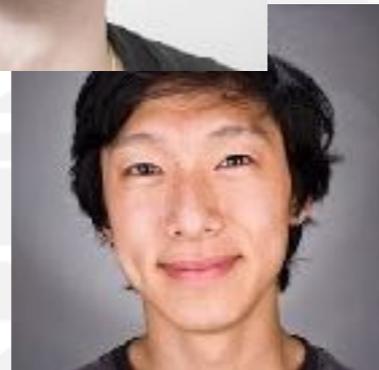
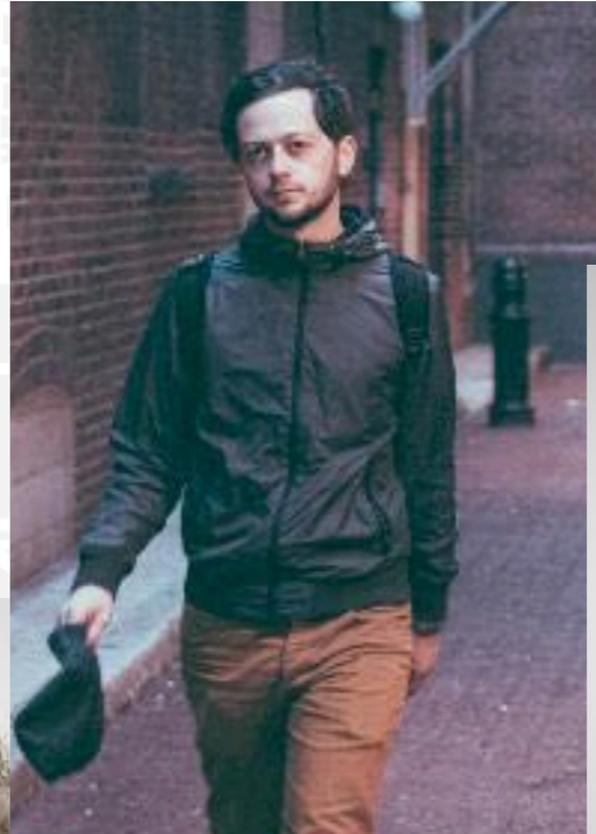


Let us prioritize + incentivize what works best for society



Good scaling arguments why car-centric cities are not sustainable

whatthestreet.moovellab.com



Thx to OpenStreetMap for all the data!