

SHANGHAI CONFERENCE JULY 2005

Enrique Peñalosa  
Former Mayor of Bogota

*Designing spaces for movement*

# **URBAN TRANSPORT FOR A QUALITY CITY**

**I will propose that the best and most advanced cities use the private car least for their mobility needs.**

I will also present a couple of examples from a city that is not advanced, nor very exemplary in most aspects: Bogotá, my city, with 7 million inhabitants.

**Shanghai is and will be one of the world's richest, most powerful, most influential cities. It could also easily become a model of transport sustainability to the world megacities.**

**Shanghai has what urban transport experts dream of: high density for extremely efficient, low cost, high frequency public transport. And 40% of the population using bicycles every day.**

**Shanghai has a fantastic network of protected bicycle ways; and 40% of its population uses bicycles every day.**

**Two thirds of 2050 Shanghai  
have yet to be built. It can  
construct hundreds of  
kilometers of pedestrian  
streets, thousands more  
kilometers of protected bicycle  
ways, world class parks and  
public transport.**

# Competitiveness and Quality of Life

## 竞争力和生活质量

**Quality of Urban Life is a goal in itself. But it is also critical for economic development, as it is necessary for attracting and retaining Highly Qualified and Creative Individuals.**

提高城市的生活质量是城市自身的发展目标，但对于经济的发展也至关重要，因为这是吸引并留住高素质且富有创造力的人才所必需的。

**WE CANNOT DESIGN AN URBAN TRANSPORT  
SYSTEM UNLESS WE KNOW WHAT KIND OF A  
CITY WE WANT.**

在未弄清楚我们到底需要一个什么样的城市之前，我们  
无法设计城市的交通系统。



VS  
与





**If a city is good for children and old people, by themselves, it will be good for everybody else.**

如果一个城市能使老人和孩子自主地生活，那么它也适宜于其他所有的人。

**Do we want a city for people or a city  
for cars? There are severe  
incompatibilities.**

**我们是希望创建一个汽车友好还是以人为  
本的城市？小汽车和行人之间严重不协  
调。**

**High velocity roads are like fences in a cow pasture: they block our walking; it is not pleasant to walk or ride a bicycle next to a high velocity road.**

**高速公路的噪音特别大；在喧闹的高速公路旁散步或步行决不是一件快事。**

**Cars kill people, mainly children;  
cars park on pedestrian spaces.**

**小汽车夺走人的生命，尤其是小孩子；  
小汽车停靠在步行区，噪音特别扰人。**



**For 5,000 years all city streets were pedestrian**

**约 5,000 年来，所有城市的街道都是步行的**



# URBAN LIFE IN THE PAST

## 以前的城市生活





When cars appeared we should have started to build a parallel road network: One for cars and the other exclusively pedestrian.

出现小汽车以后，人们不得不开始修建并行的道路网络：一条用于行车，另一条专门用于行走。

**Why all streets for motor vehicles? Why not design a city where half the streets are for pedestrians and bicycles only?.**

**为什么所有的街道都是为机动车敞开的呢？为什么不设计一个行人和自行车可以在其中一半的街道上安全出行的城市呢？**

**Many Chinese cities have successful pedestrian streets. However, the idea is not to have a few pedestrian blocks, but a network, hundreds of kilometers long. At least one meter of pedestrian street for every 3 or 4 meters of vehicle streets .**

中国的许多城市都有着修建得很成功的步行街。但是我们的理念是：不仅仅是只拥有少数步行街，而是要有一个规模达数百公里的步行街网络。至少每**3**至**4**条机动车道就得有**1**米的步行街。



**Shanghai 2050 could have a  
500 km pedestrian-and-bicycle-  
only street network which New  
York or London could not  
have.**





保障社会安定

5000-50000  
全场  
7  
折  
满100减30  
满200减500

**In Bogotá we built the Porvenir Promenade, an 18 km pedestrian street, through many neighborhoods that did not even have pavement in their streets. It was a project for the people, not the motor vehicles.**

在波哥大，我们修建了 **Porvenir Promenade**，这是一条 **18** 公里长的步行街，穿越了许多甚至在道路上连人行道都没有的社区。这是一项以人为本的工程，而不是为了机动车。

# EL PORVENIR PROMENADE







BARCLAYS

Cars on sidewalks or parking bays where there should be sidewalks tend to suggest that citizens with cars are more important than those who don't have them.

停在人行道或本应是人行道的停车位上的小汽车会使人产生拥有小汽车的人比没有小汽车的人更为重要的感觉。



干洗中心

洗车中心





Parking is not a constitutional right anywhere. A city can chose not to narrow pedestrian spaces in order to allow parking.

**In a good city people enjoy being out in the public space, walking, playing, sitting, looking at other people.**



環  
佳  
如  
春  
登  
台

COMEX

精益眼镜  
中华老字号

胡开文  
凤祥楼

OLYMPUS

McLester-Domyes

**The fewer cars there are, the more pleasant it is to walk in a city.**







Different from other challenges such as health or education, urban transport does not improve with economic development.

交通问题与其它挑战（例如健康和教育问题）不同，它不会随着经济的发展而改善。



One truth about urban transport: It does not matter what is done, traffic jams will become worse; unless a radically new model is adopted.

城市交通的一个事实是：无论采取何种措施，交通拥堵都只会越来越严重，除非采取一种新的革命性的模式。

Transport problems are not solved with money or technology:  
Only with changes to our way of life.

Shanghai does not have the low density problem of American cities.



Trying to solve traffic jams by  
building more road infrastructure is  
like trying to put out a fire with  
gasoline

为了解决交通拥堵而修建更多的道路  
基础设施就象是火上浇油

**When bigger roads are built, the city grows farther and motor-vehicles travel longer distances.**

**It is the same having double the number of cars, as having the same number of cars doing double the distance.**

修建了更宏伟的公路后，城市会变得更大，机动车也可以行驶得更远。

让同等数量的汽车行驶双倍的距离与让汽车的数量翻番所产生的效果是一样的。

**Atlanta has 3 million inhabitants and giant highways. Yet TIME LOST IN TRAFFIC JAMS INCREASES EVERY YEAR.**



Urban highways will not solve  
traffic jams.



邮政

中国邮政  
CHINA POST

江西 TAXI

沪D J8865

TAXI

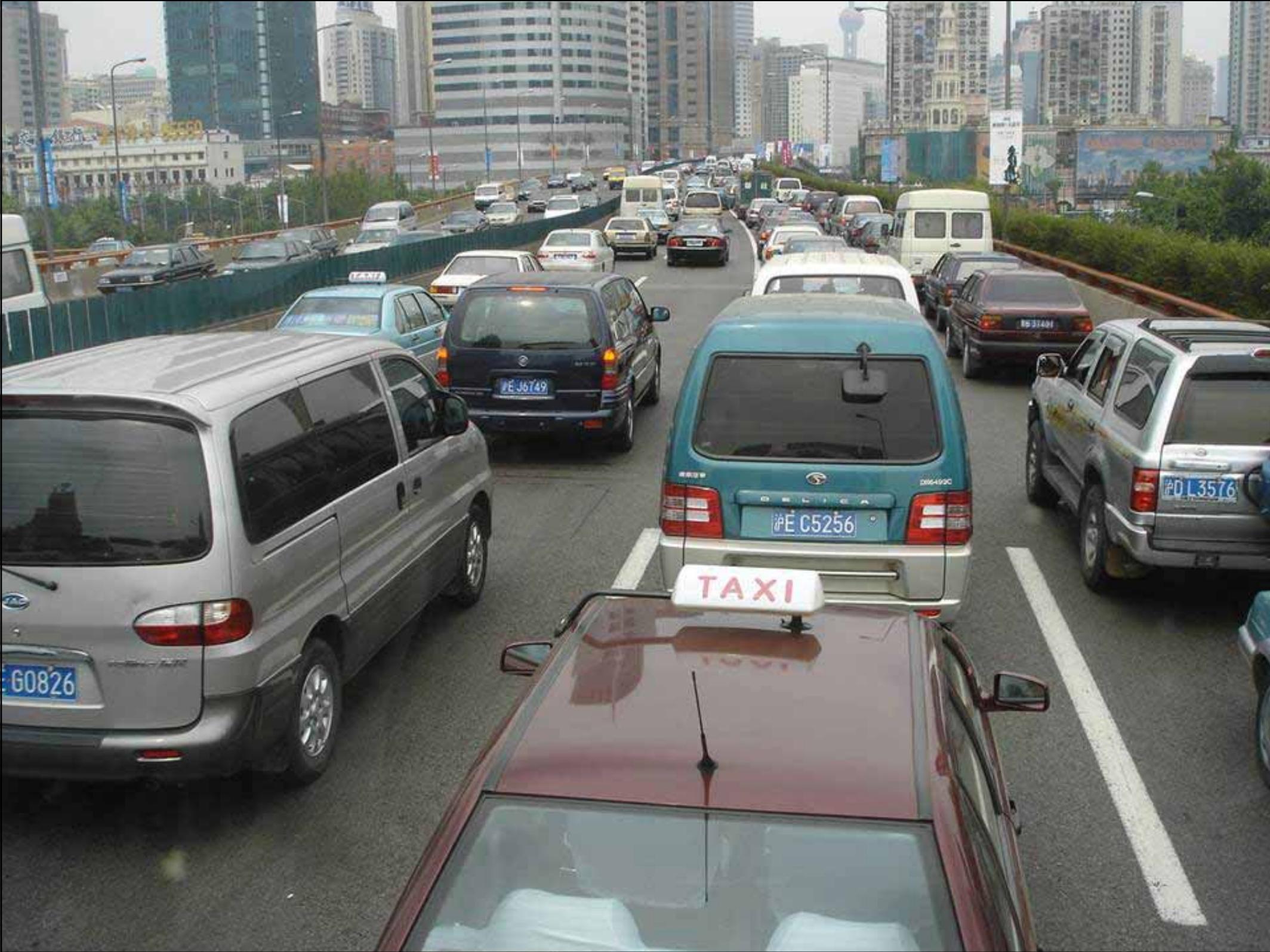
佳园·屋 全新八套装饰样板房欢迎参观  
地址：吴中路1999号（外环线路口）

沪D U4654

MY BORN DAY  
THE BORN DAY  
THE BORN DAY

沪A 27311

8-2





**Road investments aimed primarily at reducing traffic jams use resources that could solve social needs.**

Elevated highways affect the  
quality of the space around  
them.



上海自然博物馆

No European city has an elevated highway through its core areas.

If we have urban highways, buses could be assigned exclusive lanes on them in order to make better, more democratic use of scarce uninterrupted road space.

Despite the license-bidding system, car use is growing in Shanghai. It can do progressive damage to the city's quality of life and to its economy.

The only solution is public transport,  
not for those with lower incomes,  
but for everybody.

唯一的解决方案是使用公共交通。但  
不仅仅是指那些低收入者，而是指  
每一个人。

Transport is not a technical, but a political issue. Who benefits from the policies adopted?

交通并不是技术问题，而是政治问题。谁是现行政策的获益者？

# Which is the objective of our transport policy?

我们交通政策的目标是什么？

**a. Provide efficient mobility for all.**

**b. Minimize traffic jams for the higher income groups.**

**a. 为所有的人提供便捷。**

**b. 为高收入群体减轻交通拥堵。**

# Which use of our road network should have priority?

谁应该优先使用我们的道路网？

**a. Bus rapid transit, which will move up to 150 passengers per bus?**

**b. Private cars mostly with one passenger?**

**a。快速巴士系统每辆车可以容纳150个乘客？**

**b.大部分私家车只有一个乘客？**

Quality public transport is necessary but not sufficient. Car use must be restricted.

高质量的公交系统是必需的，但远远不够。必须限制对小汽车的使用。



**If public transport use is our goal, traffic jams may not be a problem, but a useful tool. Traffic jams make people want to use public transport.**

# TRANSPORT



**Through a tag number system, 40 % of all cars must be off the streets during peak hours two days every week. This reduced trip times by about 21 minutes and lowered pollution levels. Gas consumption went down by 10.3%.**

通过车牌号码系统，波哥大有 **40%** 的小汽车在早上和下午各有两个小时不能上路。此方案使路上花费的时间缩短了约 **21** 分钟，并且降低了污染程度，汽油的消耗也降低了 **10.3%**。

Zurich is Europe's richest city. Yet 60% of its population takes public transport every day and 20% walk or bicycle.

慕尼黑是欧洲最富有的城市。但**60%**的人每天都乘做公交，**20%**的人步行或骑自行车。



**Manhattan, New York's central island, is probably the richest city in the world. Yet more than 80% do not own a car; and more than 90% do not use one every day. They use public transport. And if they want to go to the beach or the countryside on the weekend, they rent a car.**

**Cars are a means of social differentiation: Those who have and those who don't; between those who have more expensive ones and others who don't. Bicycles tend to integrate people in a more democratic manner.**

小汽车反映出社会阶层的差异：例如有小汽车的和没有小汽车的人；有昂贵的小汽车和只有低档小汽车的人。而自行车则以更为民主化的方式将人们融合到一起。



Amsterdam, The Netherlands

荷兰阿姆斯特丹

**Bicycles are not for the poor:  
Denmark has a higher income per  
capita than the United States. And  
nearly 40% of Copenhagen's  
population use the bicycle daily.**

自行车并不是穷人专用的：丹麦的人均收入比美国，  
但哥本哈根近 **40%** 的人都使用自行车日常代步。



**drempel**  
Lansen/Halsen,  
richting N.W. van't Hof











Groningen





**A physically protected bicycle way is evidence of democracy: it is a symbol that shows that a citizen on a bicycle is equally important as one in an expensive car.**

良好的自行车基础设施是民主政治的反映：它表明一个骑在自行车上的公民与另一个坐在豪华轿车中的公民同等重要

**A city that walks and bicycles  
is more fun, humane and  
interesting than one where  
citizens are hidden inside  
motor vehicles.**

**In both central Shanghai and central London, a bicycle is the fastest means for trips less than 5 kilometers long.**

**And average trips in Shanghai are 6.9 kilometers long.**



Houten, The Netherlands











**Shanghai's use of bicycles is an example to other world megacities. (Although I am afraid motorcycles will run bicycles off bicycle ways)**

**To be able to safely bicycle  
anywhere radically  
improves the quality of  
childhood. For this,  
physically protected  
bicycle-ways in all streets re  
necessary.**

**New York or London citizens would be willing to pay large amounts of money for their children to be able to safely use bicycles. (They move to the suburbs in order to get this)**

**If citizens without a car have the same right to mobility as those who have one, physically protected bicycle-ways are not just nice, but an obligation of a democratic government. Western cities will have to learn that.**

Rail mass transit is wonderful;  
but it is too expensive to serve  
all points of a city. It needs to  
be complemented by quality  
bus systems.

It is more pleasant to ride public transport on the surface, looking at people and the city, than to be underground one hour every day.

If a few lanes are given exclusively to public transport, it is possible to structure mass transit systems, with similar speed and capacities as rail systems, at much lower costs.

如果能为公交系统单独划出少量专用车道，就可以构建这样一种大型公交系统：其速度和容量与轨道交通系统不相上下，但是成本要低得多。

# TRANSMILENIO



**TransMilenio moves more passengers per kilometer / hour than 90% of rail systems in the world at a similar speed. It moves 77% as many passengers per kilometer/hour as the Hong Kong metro.**

新世纪公交系统公里/每小时运送的乘客比90%同样速度的轨道交通所运送的乘客都要多，是香港地铁的77%。

TransMilenio 是在路中间行

# TRANSMILENIO



# TransMilenio



Photo: TRANSMILENIO S.A.

# TransMilenio

## Infrastructure: Stations

### 基础设施：车站



# TRANSMILENIO 支线公共汽车

## Operation: Feeder Service



21% of TransMilenio  
passengers own a car but  
prefer to leave it at home.

21%新世纪公交系统的乘客都有  
小轿车，但他们都把它们放在  
家。

High quality public pedestrian space around BRT (Bus Rapid Transit) systems is as important as buses themselves. BRT projects must be urban improvement projects. Citizens must wish the system to come to their neighborhood.

BRT 系统周围高质量的步行公共活动场所与公共汽车自身同样重要。BRT 工程必须是一项城市改善工程，必须做到让市民们期待该系统进驻他们的居住区。

Rail systems demand enormous resources, which are taken from other valuable uses. For the cost of one subway line that would move 10% of the population at best, TransMilenio will solve the city public transportation needs.

轨道交通系统需要占用大量的资源，而这些资源本来可以用在其他更有意义的地方。一条地铁线路最多只能携运全市 10% 的人，但如果将该地铁线路的成本投在 TransMilenio 系统上，则它可以满足整个城市的公交需求。

**TransMilenio, as any  
successful mass transit  
system, has to be faster than  
private cars.**

# TRANSMILENIO



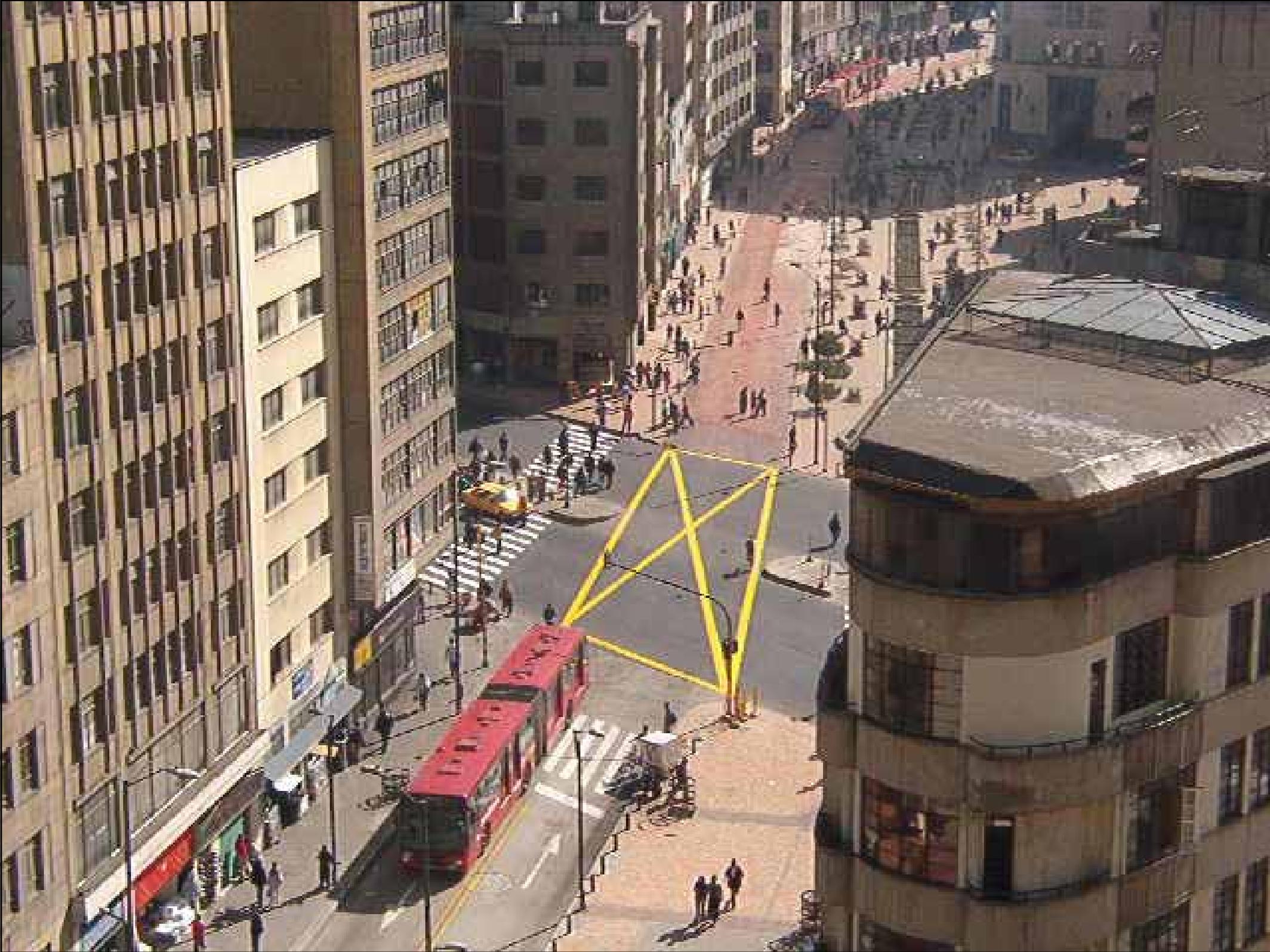
# TRANSMILENIO



**In narrow streets cars can be kept out, leaving them only for buses, bicycles and pedestrians.**

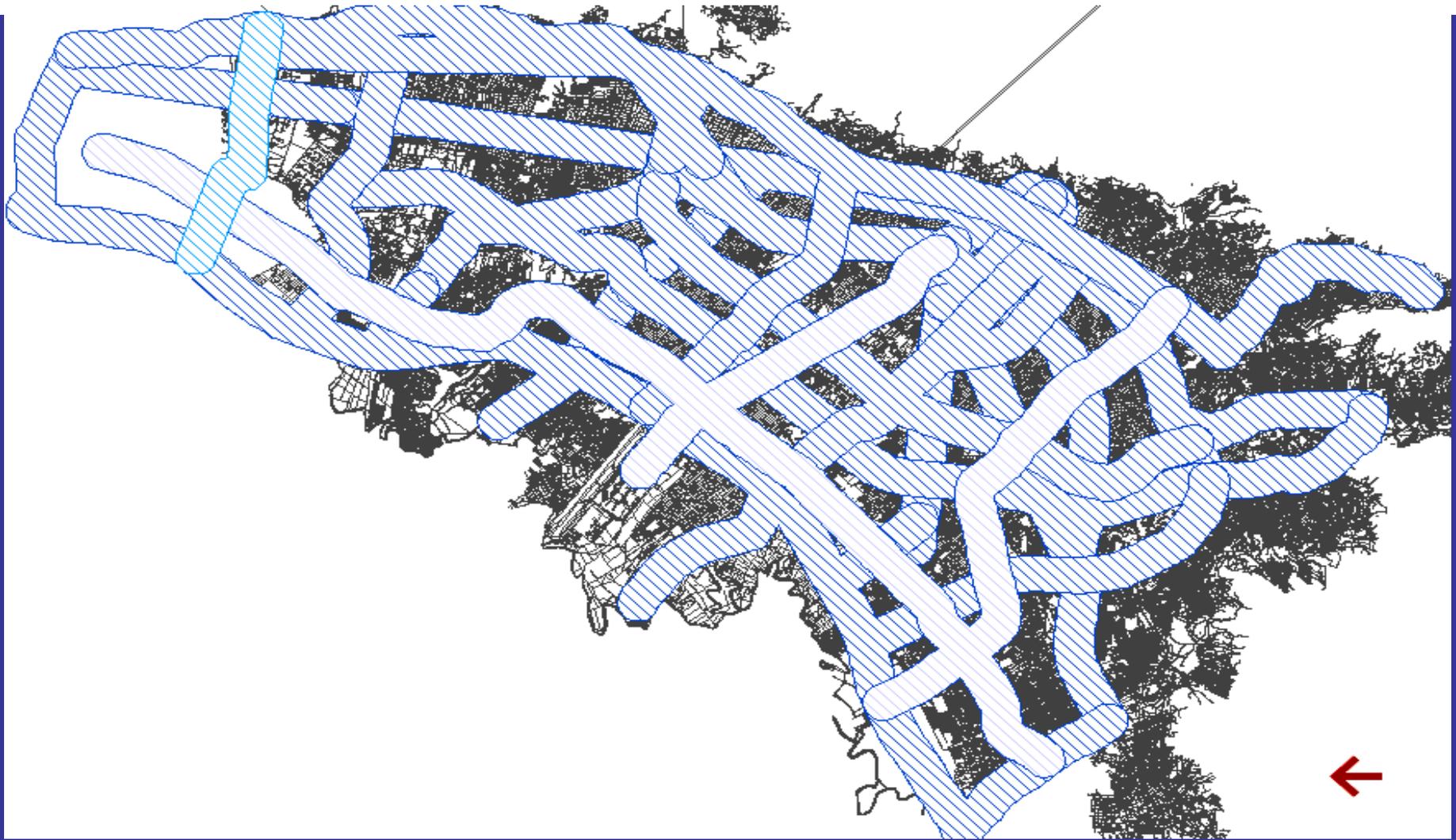






By 2020 Bogotá will have a quality public transport line less than 500 meters away from the homes of 85% of its 9 million inhabitants' homes by 2020.

# BOGOTA 2020



85% of the 9 million inhabitants will live within 500 meters of a trunk line.

9百万居民中的85%会生活在距离干线公路500米远的地方。

IN TERMS OF TRANSPORT, A  
CIVILIZED CITY IS ONE WHERE  
A CHILD ON A TRICYCLE CAN  
SAFELY GO ANYWHERE