

QUESTIONNAIRE ON URBAN MOBILITY
城市机动性问卷调查

By

Class A03, School of Architecture, Tsinghua University
清华大学建筑学院建03班

Under Direction of

LIU Jian & HUANG He
刘健，黄鹤

**30 students of Class A03, freshmen of 2010,
Tsinghua School of Architecture**

**来自清华大学建筑学院
2010级3班的30名同学**



Contents of the Questionnaire

调查问卷内容

1. On The City Where You Once Lived or Are Living Now

1. 关于曾经或现在生活的城市

2. On Existing Cities Across The World

2. 对世界其它城市的评价

3. On The Ideal City And Its Transportation

3. 关于理想城市及其交通

4. On The Future of Urban Mobility

4. 关于未来的城市机动性

1. On the city where you once lived or are living now.

- Please select a city you once lived or are living in now, and present a brief overview of the city (such as name, location, size, characteristics, etc., 100-500 words) and traffic conditions (for example: what modes of transport are used in the city? Are there traffic jams? Is traffic environment comfortable? 100-500 words);**
- Please use 6-10 adjectives and 6-10 corresponding pictures or photos (or hand drawings) to describe the city and its traffic conditions mentioned above, including both good and bad sides;**
- Please briefly introduce your trips and evaluate the traffic conditions when living in the city mentioned above (for example: What is the purpose of travel? How often do you go out? What are your main ways of travel? Are you satisfied with the local traffic conditions? 100-500 words);**

2. On the existing cities across the world.

- Please list two "mythical" cities across the world which could serve as good and bad examples respectively, and state your reasons (100-500 words, if necessary, with pictures or photographs);**

3. On the ideal city in your mind and its transportation.

- ☐ Please use five adjectives and five corresponding pictures (from movies, novels, magazines, newspapers, networks, works of art, or hand drawings) to summarize the ideal city in your mind;
- ☐ Please provide a brief description of the ideal city in your mind (including the location, scale, landscape and local people's living conditions, etc., 100-500 words);
- ☐ Please use five adjectives to summarize the traffic conditions of the ideal city in your mind;
- ☐ What kinds of transportation modes can be chosen according to different travel distances in the ideal city in your mind;
- ☐ For each transportation mode mentioned above, please list three of the most important conditions for quality guarantee.

4. On the future of urban mobility.

- What would you do if you have the ability and the power to change and improve the urban mobility of the city where you once lived or are now living? Why and how?**

Resume of the Questionnaire

调查问卷结果汇总

关于曾经或现在生活的城市





Hometown (家乡城市)	Number of the students(人数)
Beijing北京	8
Huludao, Liaoning Province辽宁葫芦岛	1
Daqing, Heilongjian黑龙江大庆	1
Baicheng, Jilin Province吉林白城	1
Panshi, Jilin Province吉林磐石	1
Hengshui, Hebei Province河北衡水	1
Renqiu, Hebei Province河北任丘	1
Qingdao, Shandong Province山东青岛	1
Jincheng, Shanxi Province山西晋城	1
Yinchuan, Ningxia Province宁夏银川	1
Xining, Qinghai Province青海西宁	1
Anyang, Henan Province河南安阳	1
Xi'an, Xianxi Province陕西西安	1
Chongqing重庆	1
Guangyuan, Sichuan Province四川广元	1
Ganzhou, Jiangxi Province江西赣州	1
Fuzhou, Fujian Province福建福州	1
Zhoushan, Zhejiang Province浙江舟山	1
Huzhou, Zhejiang Province浙江湖州	1
Hangzhou, Zhejiang Province浙江杭州	1
Chengmai, Hainan Province海南澄迈	1
Seoul, Korea首尔	1

5-10 adjectives and pictures describing the city and its transportation

- Extending in all directions, prosperous, congested, polluted, chaotic;
- Bustling metropolis, sporting occasions, tourist attraction, well-educated, friendly, invaded by wind and sand, large population, traffic congestion;
- Congestion, pollution, messy, difficult to park, cheap public transportation and advanced road network;

5-10个形容词和相应图片描述上述城市及其交通状况

- 四通八达，繁华；拥堵，污染严重，混乱；
- 繁华大都市，体育盛世，旅游胜地，教育突出，对外友好，风沙肆虐，人口众多，交通拥挤；
- 拥堵，污染，混乱，停车难，公共交通价格低廉，路网发达



5-10 adjectives and pictures describing the city and its transportation

Natural, muddy, dusty, bad sanitary condition, simple, convenient

5-10个形容词和相应图片描述上述城市及其交通状况

自然、泥泞、尘土大、卫生条件差、简单、方便



5-10 adjectives and pictures describing the city and its transportation

5-10个形容词和相应图片描述上述城市及其交通状况

Medium size , costal, smooth, undulating, tilt

中等大小 濒海 顺畅 起伏 倾斜



Yinchuan, Ningxia Province宁夏银川

5-10 adjectives and pictures describing the city and its transportation

High-speed, chaotic, cheap, convenient, crowded, dilapidated

5-10个形容词和相应图片描述上述城市及其交通状况

高速、混乱、便宜、方便、拥挤、破旧



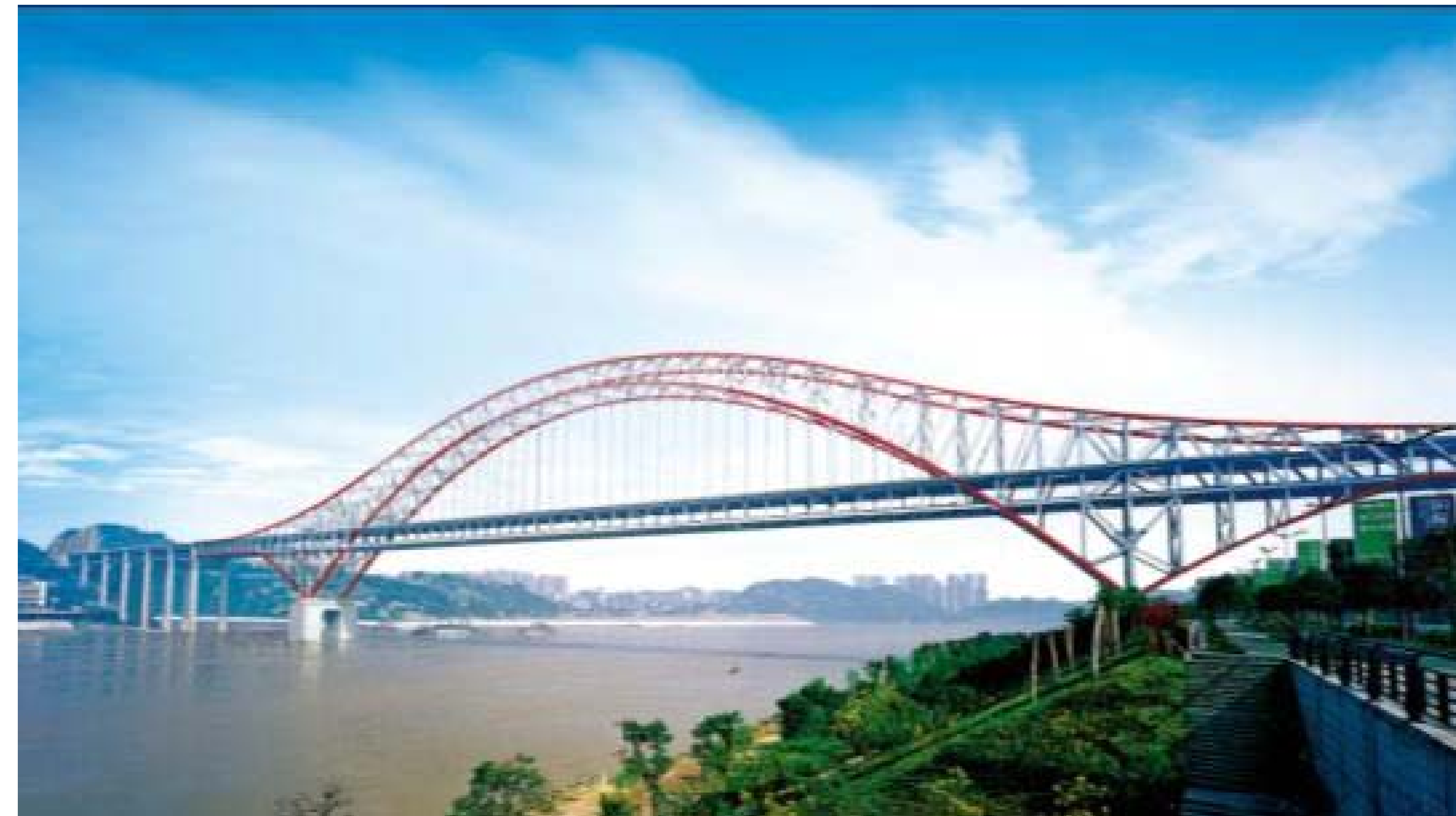
Chongqing重庆

5-10 adjectives and pictures describing the city and its transportation

Smooth, developed, comfortable, fast; there tend to be congestion in the circular roads around the business district, and roads in the old urban area are not well planned, which are narrow and tend to have congestions.

5-10个形容词和相应图片描述上述城市及其交通状况

现代、畅通、发达、舒适、快捷；商圈环道易拥堵，老城区道路规划较差较窄，易拥堵

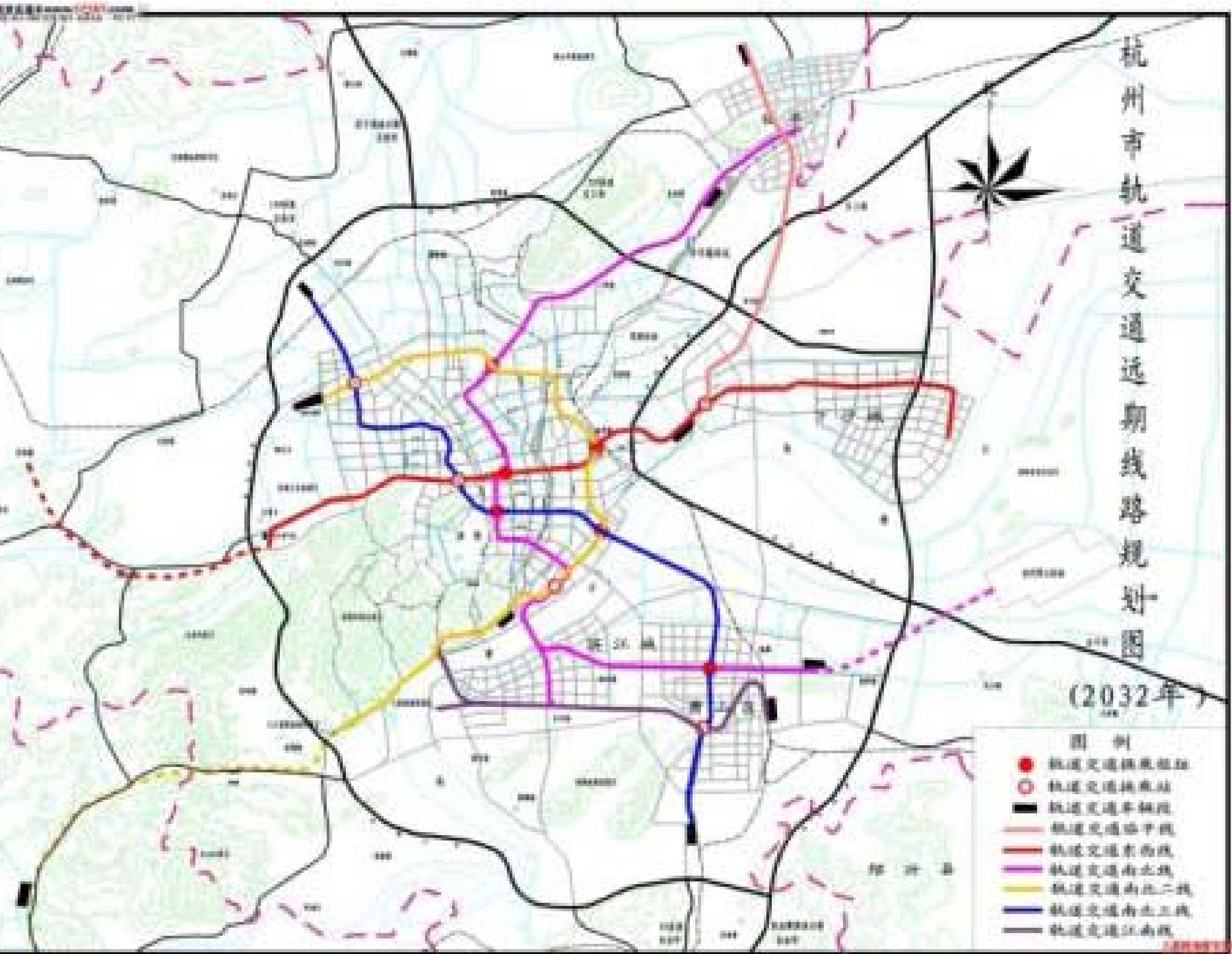


5-10 adjectives and pictures describing the city and its transportation

5-10个形容词和相应图片描述上述城市及其交通状况

Extending in all directions, convenient, fast,slight polluted, chaotic

四通八达，方便,快速，轻微污染，混乱



Chengmai, Hainan Province海南澄迈

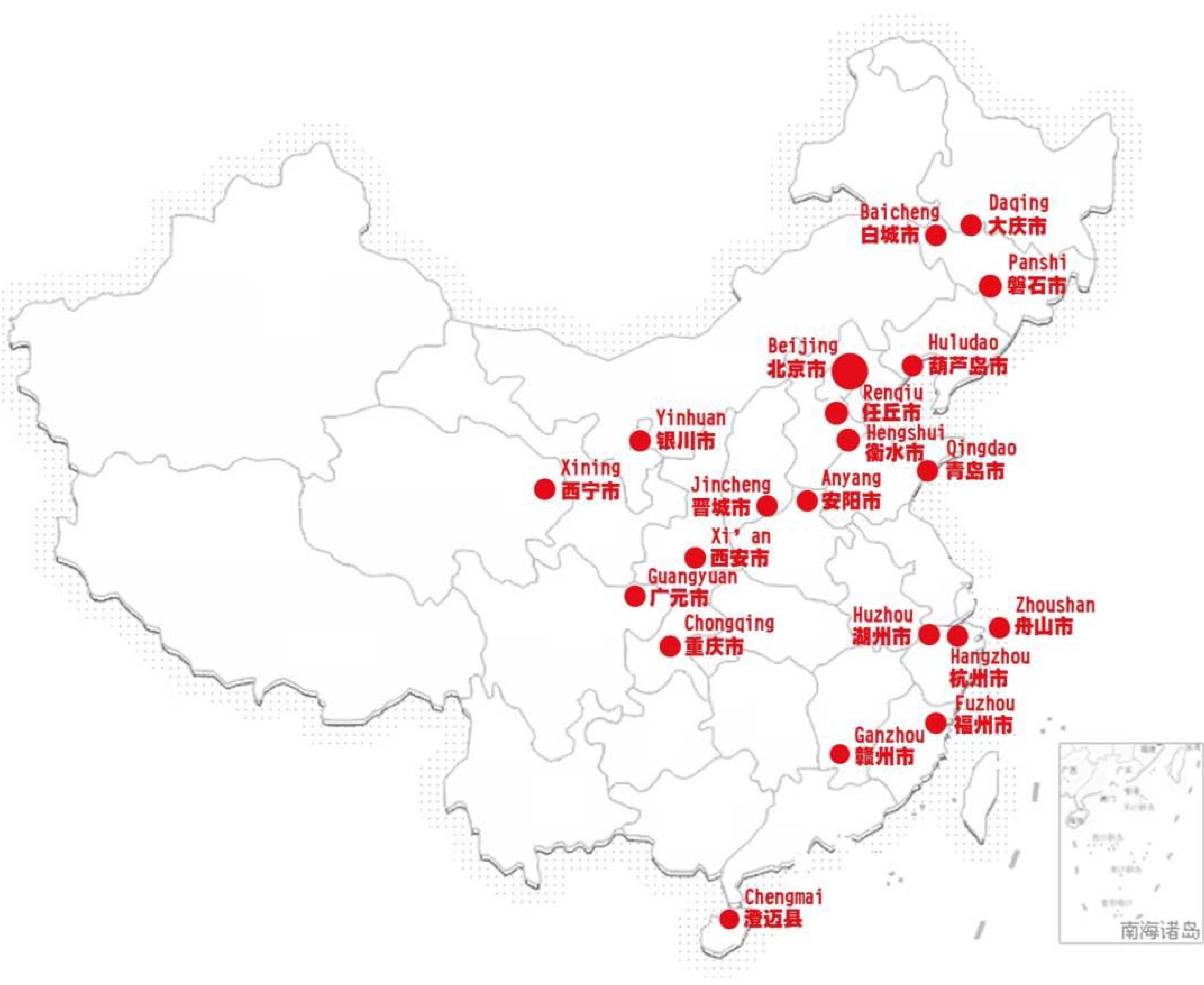
5-10 adjectives and pictures describing the city and its transportation

Comfortable climate, convenient transportation, relatively low quality of the residents, serious traffic violation

5-10个形容词和相应图片描述上述城市及其交通状况

气候舒适 交通便利 居民素质相对较低
交通违法现象严重





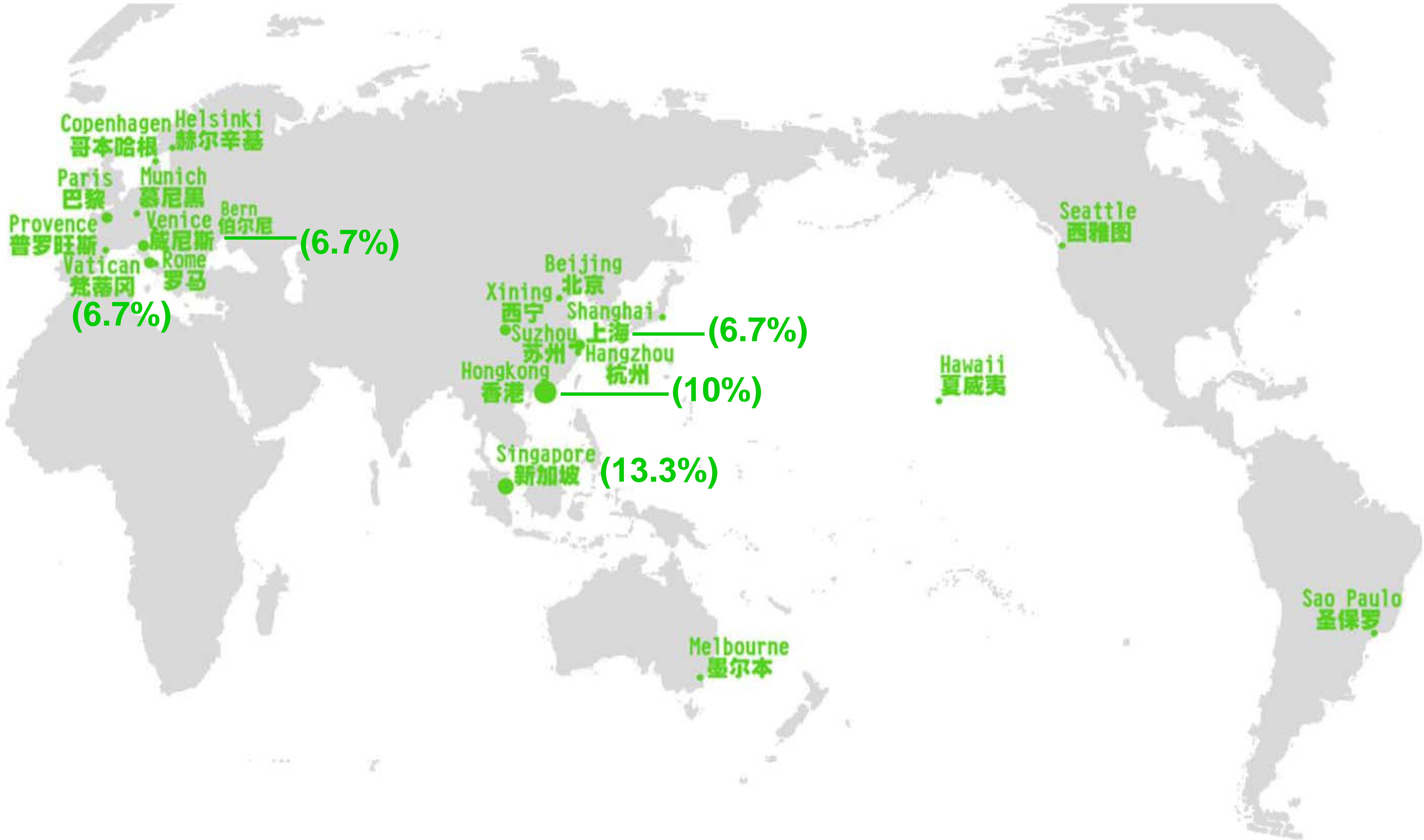
Adjectives mentioned

- Congested, 60%**
(most from big cities)
- Chaotic, 30%**
- Convenient 27%**
(most from middle-sized and small-sized cities)

2. On Existing Cities Across The World

Good Examples

对世界其它城市的评价
好的案例



Example of good city and the reasons

优秀城市代表及其理由

Singapore (chose by 13.3% students)

- well-planned and has distinct urban characteristics in each city area
- vehicles are automatically charged when they travel through certain roads
- the high-rise buildings along the roads are equipped with underground parking space to solve the parking problem
- Subway lines are clear and accessible

- 规划完善，各个市区特色分明
- 车辆通过某些干道时自动收费
- 路边高层建筑地下均设有停车场，解决停车问题
- 地铁线路清晰通达



Example of good city and the reasons

优秀城市代表及其理由

Hongkong (chose by 10% students)

- scientific planning of transport line, perfect transport management, the high quality of drivers and pedestrians
- due to rational design of the road network and the advanced public transport network, various requirements for going out can be realized
- The traffic management level is high
- Many buildings have well combined the traffic function and economic function (office, business, etc.). The only drawback is that the traffic cost is too high.

- 香港交通线路规划非常科学，加上完善的交通管理，以及司机、行人极高的交通素质
- 由于其合理的路网设计和发达的公共交通网络，各种目的的出行要求都可以实现。
- 交通管理的水平很高。
- 很多建筑的交通功能与经济功能（办公、商业等）结合得很好。美中不足的是交通价格过高



Example of good city and the reasons

优秀城市代表及其理由

Shanghai (chose by 6.7% students)

——convenient transportation, appropriate density of the transportation network of subway and buses, and most places are reachable with appropriate means of transportation.

——Shanghai is a modern society almost built from scratch, and there is less constraint from old system. Therefore, Shanghai can freely make new plans, and in the new urban planning for Shanghai, the impact of Huangpu River to the city has been adequately considered, and the overall road network of this city is relatively reasonable.

——交通很便利，地铁和公交的交通网密集程度适中，大部分地方都有适宜的交通可以到达。

——上海是一个几乎建立在一张白纸上的现代化都市，旧制的约束较少，于是上海可以非常自由的进行新的规划，同时在新的上海滩的规划中，充分考虑到了黄浦江对于城市的影响，整个城市的路网就规整的比较合理。

Example of good city and the reasons

优秀城市代表及其理由

Venice (chose by 6.7% students)

- Venice, city on the water, beautiful and romantic.
- it has its own unique transportation system, the canal goes through the city which to a great extent is used as a transportation line
- in addition to being one of the main transportation tools in the city, gondola is also a beautiful scenic spot of this city

- 威尼斯，水上之城，非常优美，有浪漫气息
- 拥有自己独特的交通体系，运河穿城而过，极大程度的被用作交通线使用
- 冈多拉成为城市主要交通工具的同时又是一道亮丽的风景线。



Example of good city and the reasons

优秀城市代表及其理由

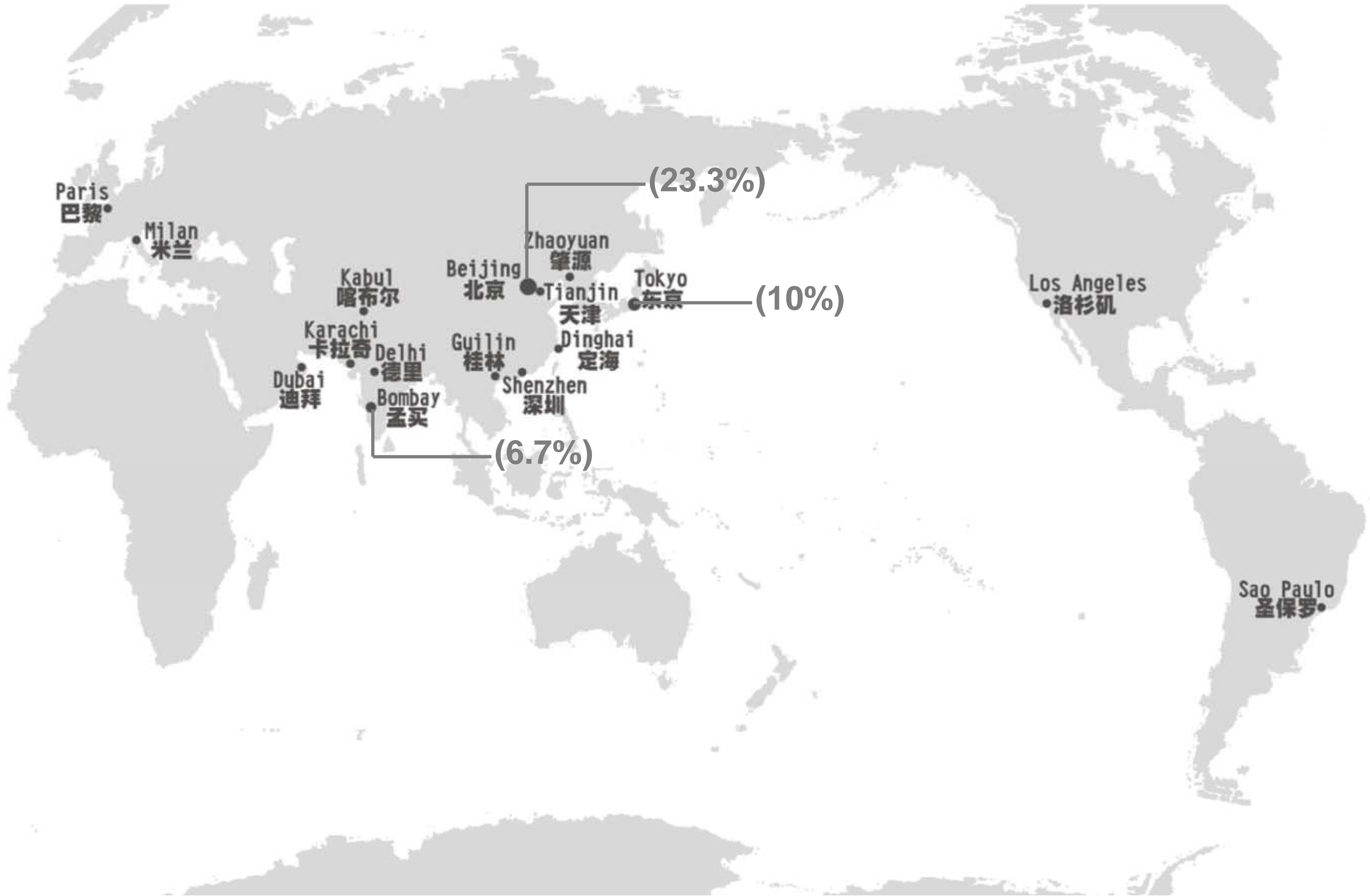
Utopia (chose by 1 student)

about its photos, you have to make them. First of all, the **urban environment should be good**, the **citizens should have high quality**, there should not be too many people, people should choose environment-friendly and low-carbon means of transportation when they go out, there should be **no traffic jams**, use of the private cars should be avoided, and the city should **not be too big**, so that it won't take too much time to go anywhere.

乌托邦吧~照片什么的就只有自己去创造了。首先城市环境得好，居民素质要高，人不能太多，大家都有绿色环保低碳的出行方式，不能堵车，最好不要开车，城市不用太大，去哪里不用花太多时间。

Bad Example

较差城市



Example of bad city and the reasons

较差城市代表及其理由

Beijing (chose by 23.3% students)

——traffic jams are frequent, and there is even the policy of traffic restriction to vehicles with odd or even license plate number.

——Beijing: There are so many roads and overpasses that it's no wonder the drivers will often lost their ways.

——The traffic situation is in a mess and traffic jams are serious. Railway and subway transports are still crowded.

——交通状况不容乐观，堵车现象层出不穷，甚至还有单双号限行政策

——修了那么多路那么多高架人开车总会绕晕过去

——城市交通混乱，拥堵现象很严重。轨道交通仍然拥堵。



Example of bad city and the reasons

较差城市代表及其理由

Tokyo (chose by 10% students)

——There are more people and less land, the plot ratio of buildings is too large, while construction areas of residences and hotels are relatively small, making people very uncomfortable.

—— Buildings are generally high, blotting out the sun and causing psychological pressure. There are too many people crowded in the public areas with competitive pressure. The city is over industrialization with fast pace of life and lacks of places and conditions for people to relax.

——人多地少，建筑物容积率过大，住宅、酒店等建筑面积相对较小，非常不舒服。

——建筑物普遍较高，遮天蔽日，加强心理压力。人口太多，公共场所大多拥挤不堪，竞争压力大。整个城市过于工业化，生活节奏太快，缺少可以放松休息的场所和条件



Example of bad city and the reasons

较差城市代表及其理由

Bombay (chose by 6.7% students)

——My first impression of Bombay was from the movie “Slumdog Millionaire”, which has presented various chaos and traffic congestions of this city.

——this city has chaotic planning, or due to lack of planning in early period, in some poor areas of this city, residents live in an unstable state. In addition, Bombay is also one of the cities with the biggest populations. Beijing has a population of 19 million and an area of more than 60,000 square kilometres, while Bombay only has an area of about 400 square kilometres with a population of more than 18 million. At present, lives in Beijing are not very pleasant with so many people, and the situation of Bombay is unimaginable. Bombay is just a representative. In my mind, a terrible city can be like this: too many people within a limited area, serious environmental and traffic development caused by development, low level of regional economic development and chaos.

——对于孟买的最初印象来源于<<贫民窟的百万富翁>>这部电影，

——城市规划得很乱，或者说早期就没有规划，所以在这个城市的一些比较贫穷的地区，居民都是生活在一种很不安稳的状态。另外，孟买是世界上人口最多的城市之一，北京人口1900万，面积6万多平方千米，而孟买仅4百多平方千米，却生活了1800万的人口，我们现在在北京生活得可以说就不怎么舒服，可以想象孟买的状况。孟买只是一个代表，在我心目中，糟糕的城市可能是这样，人口多地域却相对狭小，急于发展环境、交通问题严重，地区经济发展水平不高比较混乱等

3. On The Ideal City And Its Transportation

关于理想城市及其交通



5 adjectives and pictures describing the ideal city in your mind

Beautiful and comfortable environment	45%
Convenient	33.3%
Cultured city	23.3%
Green space	16.7%
Small-scale	16.7%
Quiet	
Safe	
Orderly	
High quality of citizens	

5个形容词和相应图片描述心目中的理想城市

——优美舒适的环境	45%
——便捷	33.3%
——文化都市	23.3%
——绿地空间	16.7%
——小尺度	16.7%
——安静	
——安全	
——有序	
——高素质的市民	

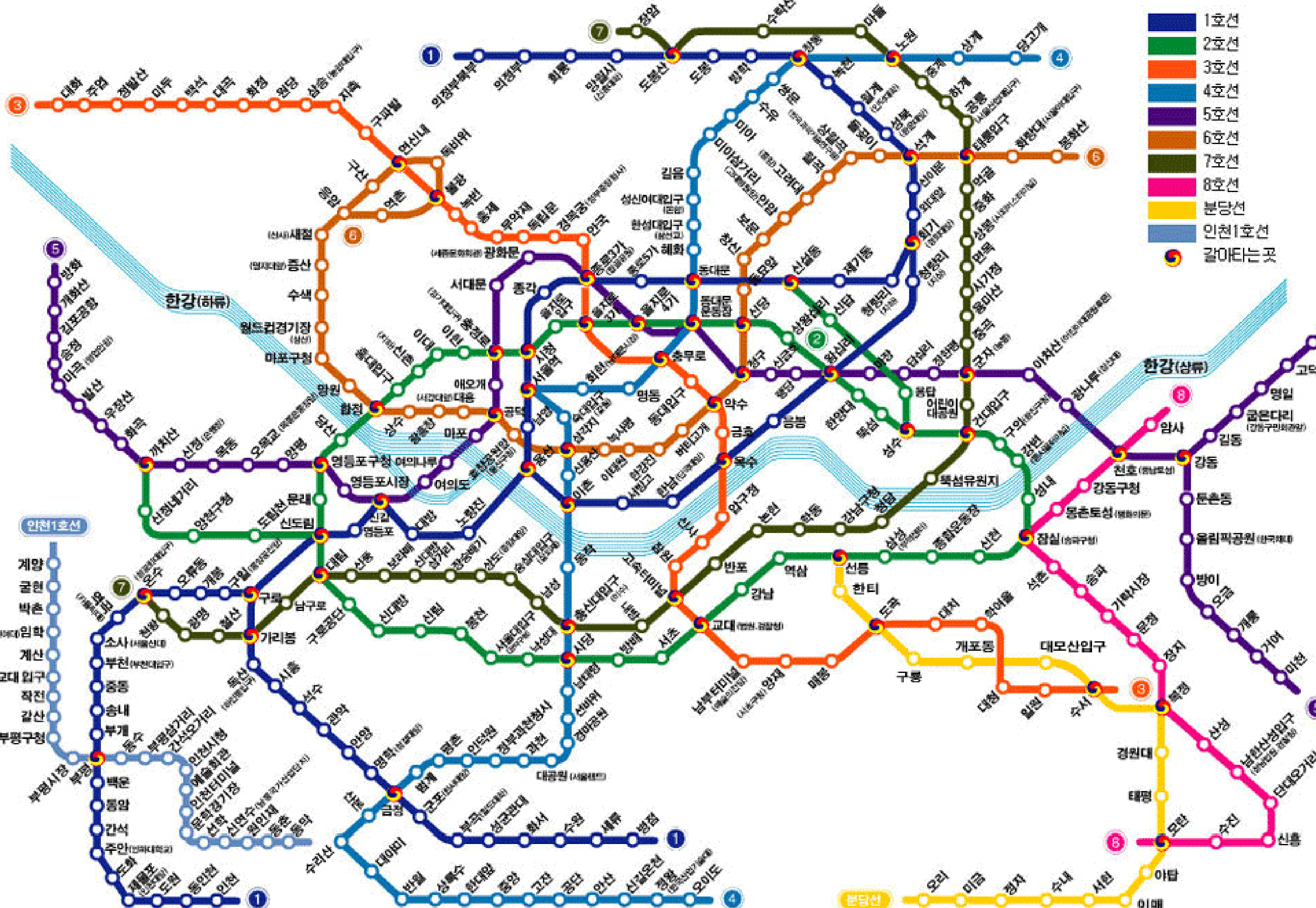


5 adjectives describing the transportation situation in the ideal city

Convenient	50%
Comfortable	40%
Efficient	23.3%
Safe	23.3%
Environment-friendly	20%
Orderly	
Spacious	
Affordable	

5个形容词描述理想城市的交通状况

——方便	50%
——舒适	40%
——快捷有效	23.3%
——安全	23.3%
——环保	20%
——有序	
——宽敞	
——可支付的	



Transport modes in the ideal city

理想城市的出行方式

walk, bicycle, bus, taxi, private car, metro

步行，自行车，公交，出租，私家车,地铁

<5KM walk	5km以内 步行
<10km public transportation	10km以内 公交
>10km metro in urban area	10km 以上，市区内：地铁
>10km private car in sub-urban and rural area	10km 以上，市区外：私家车

<10mins walk	10分钟以内为步行
10-30mins bicycle	10到30分钟为自行车
>30mins bus or metro	30分钟以上可选择公共交通如地铁公交
Avoiding private car or taxi	尽量不选择出租车或私家车。

For short distance, walking is recommended; for relatively long distance, electric vehicles can be used; for long distance, rail transportation can be used; encourage the use of public transportation and low carbon.

短途的倡导步行，较长距离的可以采用电力驱动的机动车，长途的使用轨道交通，鼓励使用公共交通工具，鼓励低炭出行。

.....

.....

3 favorable conditions for each of the transport mode mentioned above

有助于上述出行方式的3个重要条件

Walking: spacious crosswalks, street trees, traffic lights;	步行：足够宽敞的人行横道，行道树，恰当的交通灯；
Bicycle: spacious bike lanes not occupied by other vehicles, street trees, good road conditions;	自行车：宽敞且不被其他车辆占据的自行车道，行道树，良好的路况；
Bus: no traffic jams, high frequency, small population;	公交：不堵车，发车频率快，人少；
Taxi: fast, comfortable, cheap;	出租：快捷，舒适，便宜；
Private car: small, fast, low fuel consumption	私家车：少，快捷，油耗低；

Walk, ride a bicycle——safe, simple, beautiful views;	步行、骑车——安全 简单 美景
Bus, subway——light, air, bright;	公交车、地铁——光 空气 敞亮
Train, passenger bus, private car, air plane——fast and convenient, clean, spacious.	火车、客运汽车、私家车、飞机——快捷 干净 宽敞

Environment-friendly, efficient, safe	环保，高效率，安全
---------------------------------------	-----------

Walking: pedestrian way, trees, quiet	步行：绿化、安静、人行道
Bicycle: safe, bicycle lane, sunlight	自行车：车道、绿化、安静
Motorbike: safe, few vehicles near by, good weather	公交车：不堵车、车内环境、不拥挤
Bus: spacious, comfortable, no traffic jam	地铁：车内环境、不拥挤、方便
Private car: family day out, sunny, good mood	打的：能随时招到车、司机态度好、不堵车
Railway: long-distance travel, safe	驾车：不堵车、道路、环境绿化
Airplane: good weather, fast, comfortable	

4. On The Future of Urban Mobility

关于未来的城市机动性

How to change and improve the urban mobility of the city where you are living

如何改进现在你居住城市的交通

- Controlling the number of private cars.

——Improving the status of bicycles

——the city should investigate into the existing problems

——make plan on the subway

——it should make efforts to strengthen the publicity and education to make people understand the importance of traffic rules ; on the other hand, it should enhance the punishment to alert people.

——Separate the roads for motor vehicles from those for pedestrians to ensure the safety of the pedestrians.

.....
- 控制私家车数量

——改善自行车出行现状

——应该对整个城市的现有问题进行调查

——对地铁系统进行规划

——一方面要加强宣传教育力度，使人们都了解遵守交通规则的重要性，另一方面，要增强惩罚力度，使人们提高警惕。

——人车分流确保步行者的安全

.....

City of Tomorrow

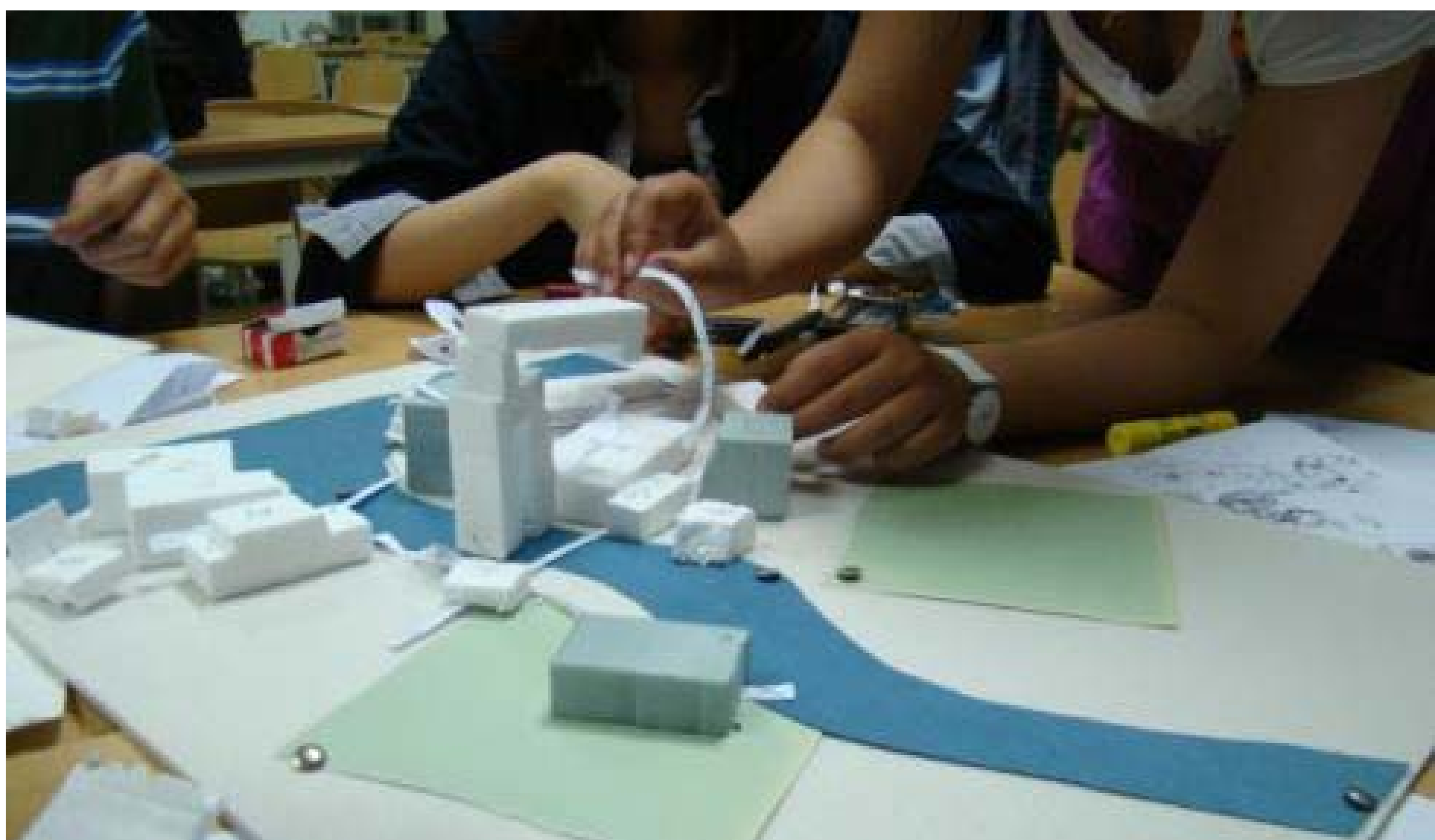
明日之城的设计和讨论



team 1



team 2



team 3

Scheme 1

方案1

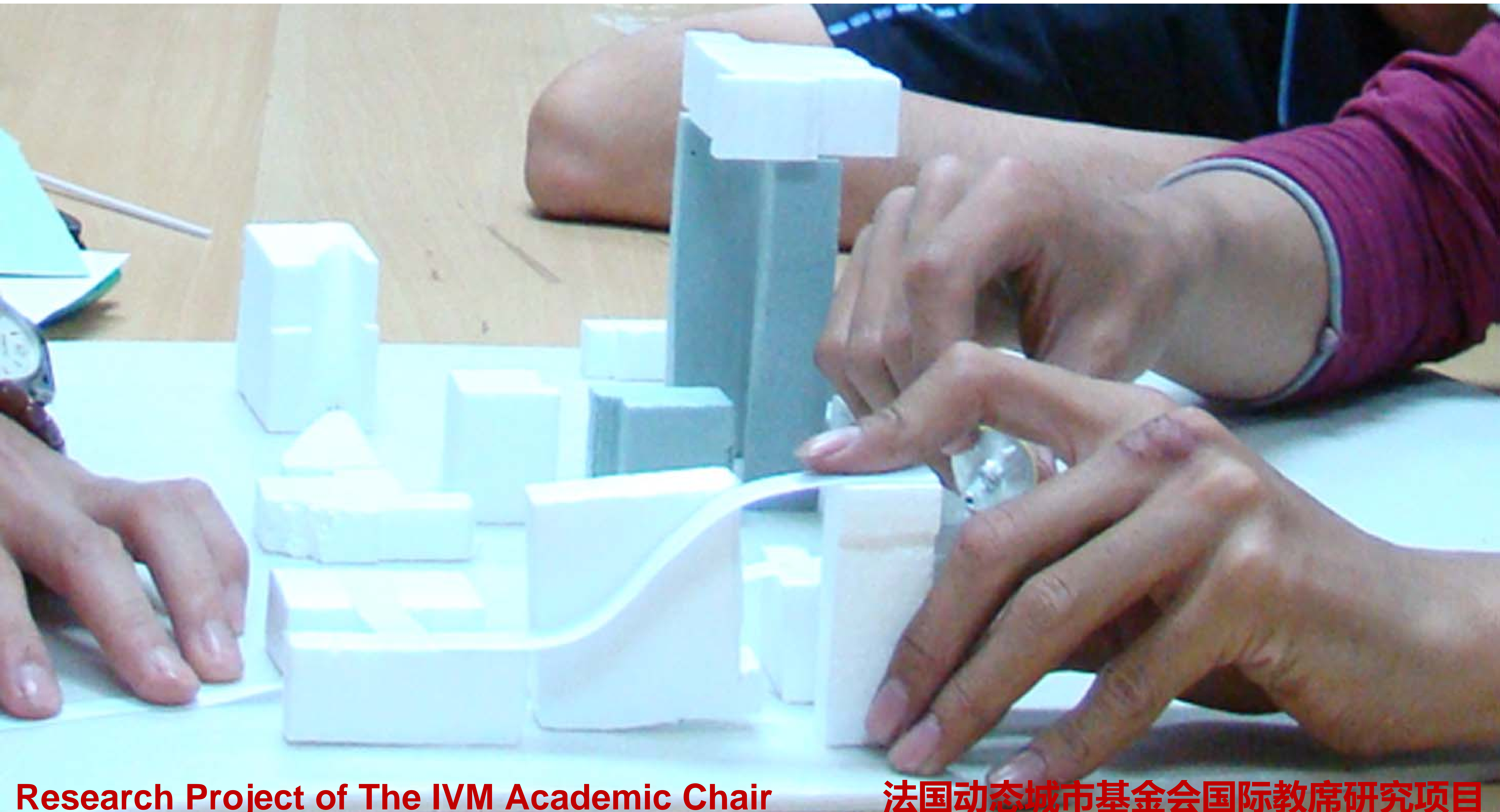
- middle-sized city near sea
- Tourism industry along the seashore, villa area between the mountains and sea, commercial district, government district, residential district, light industry district and agriculture district distributes successively from central city to suburban area , university city and high-technology district located near the valley
- the roads along the sea and the river shape the frame of urban transportation, the tram and the pier are the important infrastructure of transportation



Scheme 2

方案2

- small-sized city with high density
- small blocks in the urban area in mix-use development
- 3D transportation
- 3D green space, buildings are covered by vegetation, providing natural environment to pedestrian

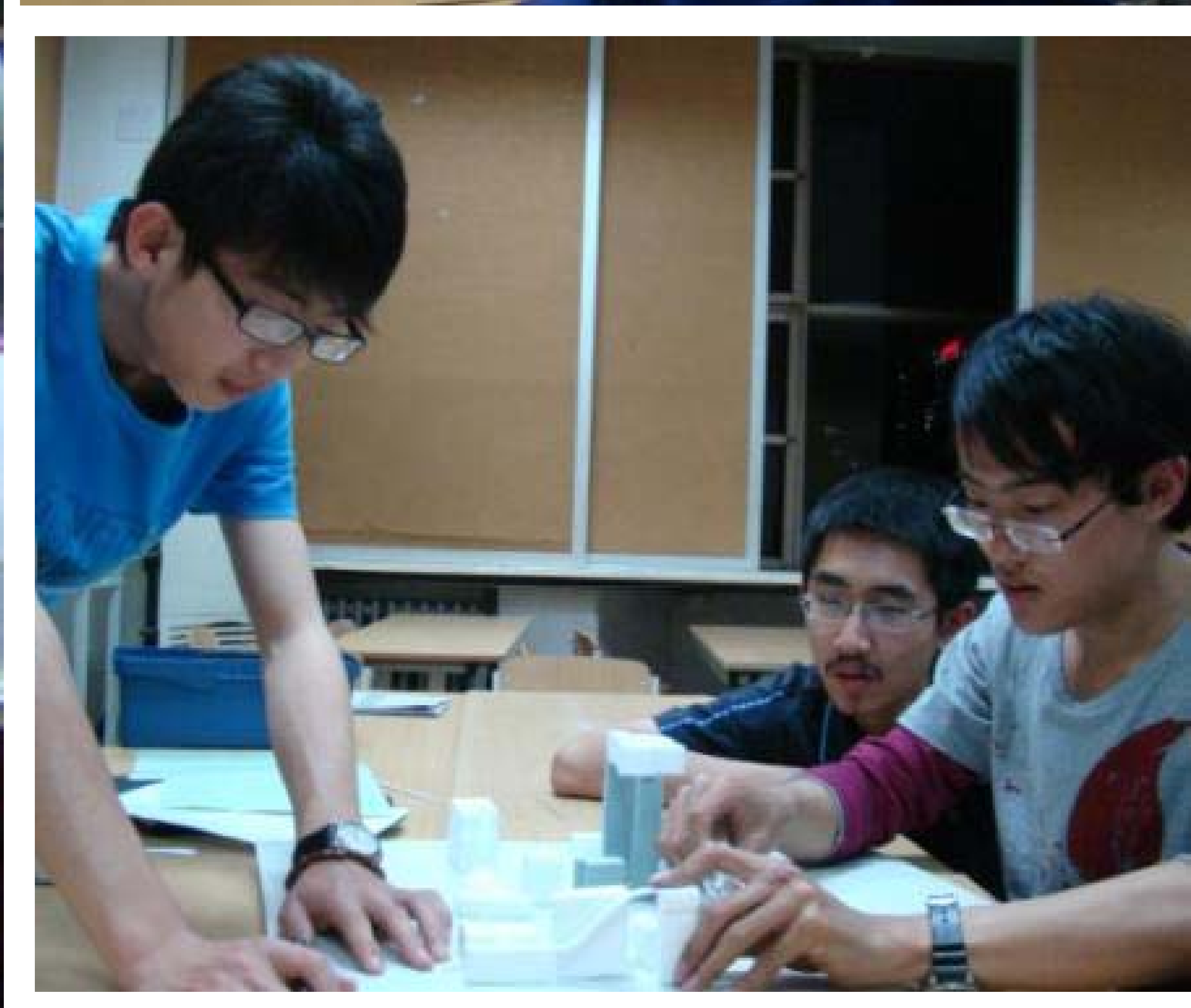
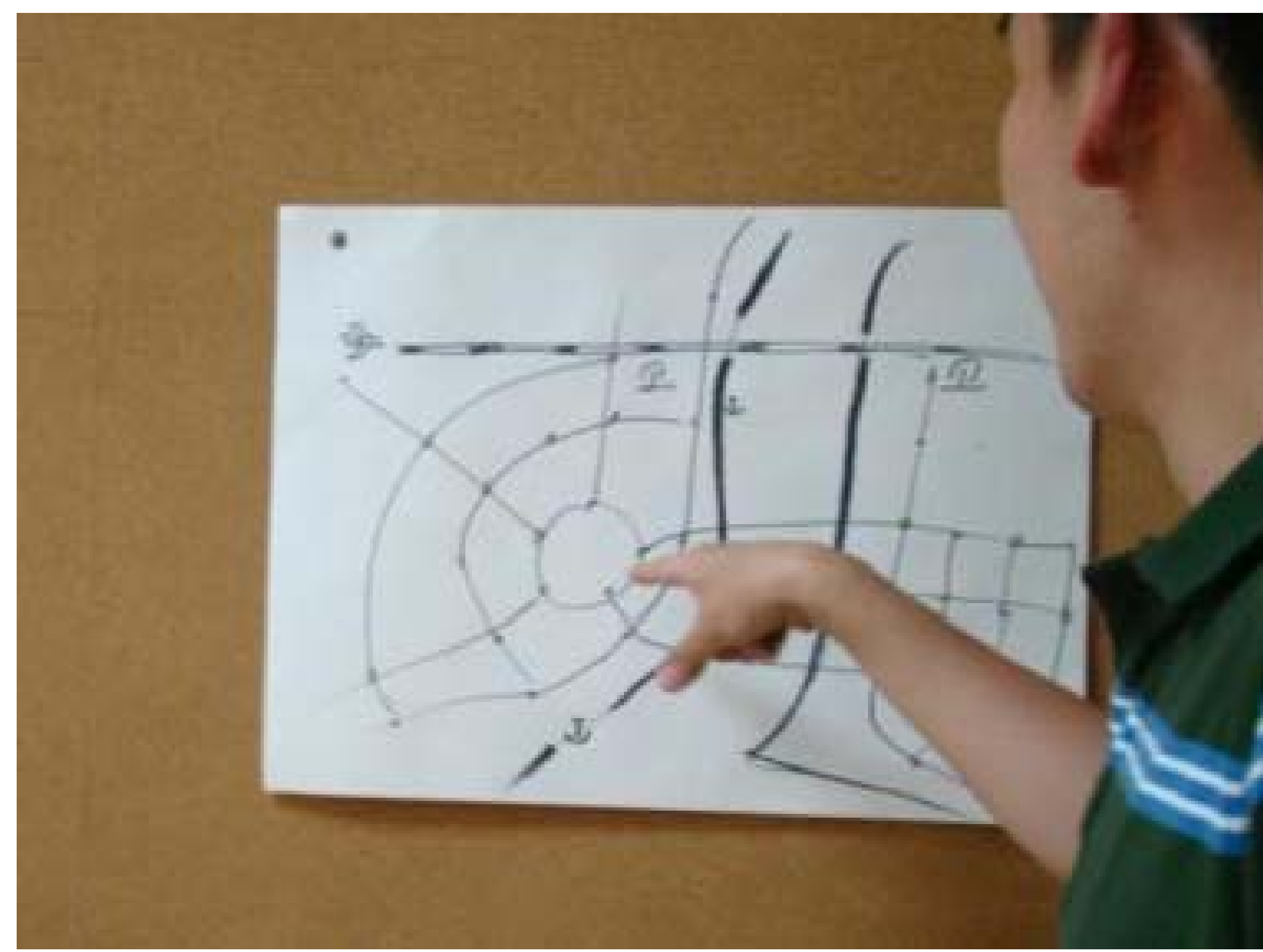


Scheme 3

方案3

- Big city along a river
- Clean zoning
- different road network in different area, radialis road system in north of river while square road system in the south
- huge dam in case of flood





The End