

“Next Generation” 1st prize Asia Pacific

Bicycle use for commuting revitalization project, Beijing, China

Project data

Project group	Building and civil engineering works
Project background	Research project
Estimated start of construction	Not applicable
Main author	
Name	August Liu, Master
University	Massachusetts Institute of Technology (MIT) Cambridge, MA, United States
Study direction	Architecture
Supervisor	Andrew Scott
City, country	Fremont, CA, United States



Further author(s)

Not applicable

Comment of the Holcim Awards jury Asia Pacific

The jury is convinced by this remarkable project due to its visionary and strategic approach. It advocates bicycling as a powerful alternative for urban transit and recalls its well proven potential in the world's former bicycling capital. The visionary idea is shown to integrate pollution reduction and energy saving solutions into existing structures while addressing the urgency of implementing different approaches to urban transit – here and in other cities of the world. Moreover it demonstrates how residual central spaces may be occupied with beneficial and sophisticated design solutions in function, embedded systems and aesthetics that are well integrated. This “out-of-the-box” thinking sends a message to all developing metropolitan areas and provokes a process of rethinking by contemporary urban planners.

Project description by author

This project intends to be a catalyst for a renewed bicycle culture in Beijing, the capital of the former “Bicycle Kingdom”. Beijing, having more bicycles than any other city in the world just 15 years ago, has in recent years undergone a drastic shift to become a city consumed by cars and highways, producing disruptive voids in the traditional small-scale fabric of the city that once made the old city unique. It has also produced the highest traffic volumes and longest automobile commutes in the world as well as some of the highest levels of air pollution among major world cities. This ironic shift from a city dependent on the most sustainable form of transit to one that is gridlocked by the form that is the least sustainable is what this project critiques.

Recognizing that this shift is largely attributed to the changing culture of the citizens as they gain higher economic status, the project attempts to create a place for a desirable counter-culture to the current trend toward motor vehicles. It will target the population of the growing white-collar working class as its main audience, as they are the ones who are setting the trends of contemporary transportation in Beijing.

The proposal is a new building typology for the city - a bicycle commute center which will occupy the interstices of Beijing's extensive highway system. The bicycle commute center will provide an “oasis” in the city, a place which promotes a lifestyle of wellness and sustainability centered around the daily bicycle commute – a lifestyle antithetical to that of the motor vehicle. The driving metaphor for the project is the “auto”-mobile lifestyle, derived from the literal meaning of the phrase for “bicycle” in Chinese: “zi” (auto/self) “xing” (mobile/sufficient) “che” (vehicle).

Relevance to target issues by author

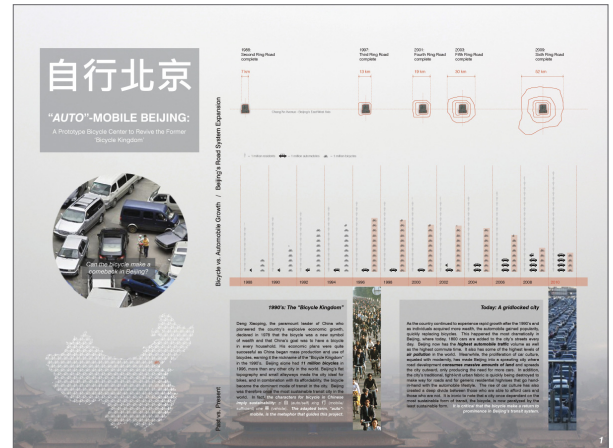
Innovation and transferability – Progress
Although this project is sited in Beijing due to the city's drastic shift from bicycles to automobiles, it can be applied to any city which has experienced a rapid growth of automobile infrastructure in the city. Nearly all large cities in China and many cities in the world are endorsing the growth of automobile infrastructure, creating a similar condition to that in Beijing today. Therefore, this prototype project can be applied to all cities in the world with these types of conditions.

Ethical standards and social equity – People
The bicycle is the most affordable and agile form of transit in Beijing. The automobile and its physical infrastructure have generated a social and spatial divide between rich and poor. The project targets the middle and upper classes to convince them to convert from driving to bicycling, therefore increasing chances to preserve existing bicycle infrastructure and to develop new bicycle facilities in the city which are accessible to everyone and not only the elite.

Environmental quality and resource efficiency – Planet
The bicycle commute center is a building which generates its energy through its surroundings. It is fully self-supportive and metaphorically analogous to a person riding a bicycle. More significantly however, the center promotes a lifestyle of sustainability which has the potential to reach wide audiences, and advertises its energy collection methods and the alternative lifestyle it contains to promote this agenda to the public.

Economic performance and compatibility – Prosperity
The project promotes the most affordable form of transit in Beijing, while also creating a new retail typology for the city. It can be projected that the money saved by commuting by bike instead of car will be put into the retail establishments of the bicycle commute centers, as well as back into the greater Beijing economy. Time saved by commuting by bike over car will also make the city more efficient and profitable as a whole.

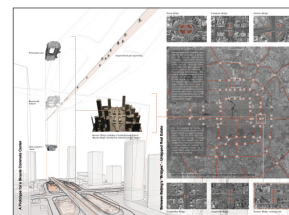
Contextual and aesthetic impact – Proficiency
The proposal can be considered a functional and aesthetically pleasing improvement on the highway interstices of Beijing which would otherwise remain as wasted space. The bicycle commute center is also very specific to its surrounding highway context, using the close proximity to draw wind energy from passing cars and also to promote its agenda of creating a sustainable lifestyle centered around the bicycle commute.



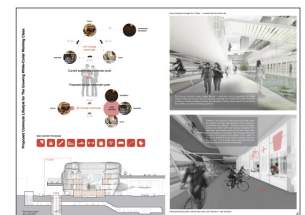
Introduction.



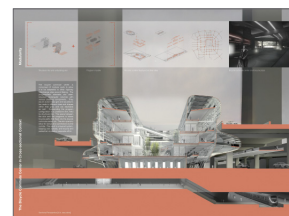
Proposal overview.



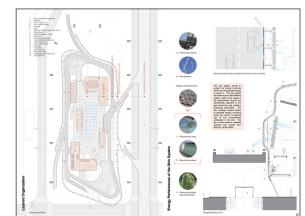
Network concept.



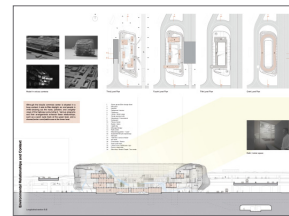
Programmatic proposal.



Sectional perspective.



Sustainability.



Environment and context.



The “Oasis”.



Proximity and tension.



Cultural statement.