

THESIS REFLECTION

Graduation Project

Topic: Bike Factory 4.0

Studio: Complex Projects - AMS MID CITY studio

Group: Oud Zuid

Tutors: Steven Steenbruggen, Hubert van der Meel

Personal Information

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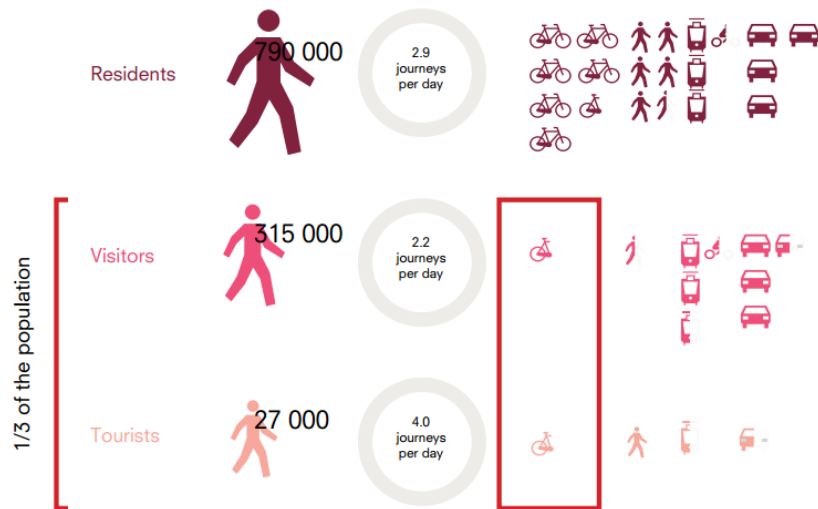
The relationship between research and design

Research | Why

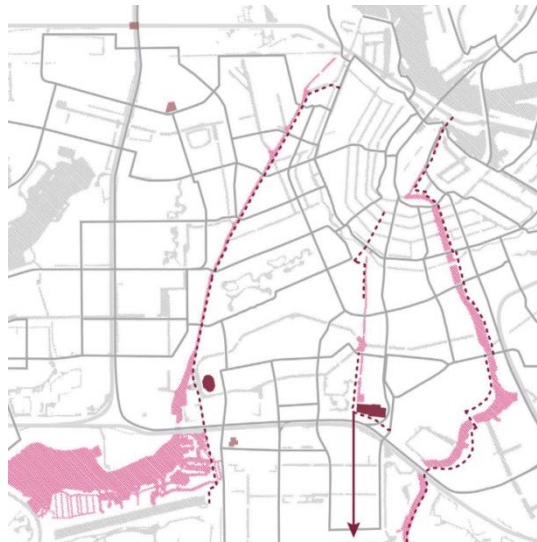
In the MSc 3 research phase, I've been studying the mobility of Amsterdam, especially bicycles. When we talk about the mobility in Amsterdam city, there are always different scales included: in a broader scale, Amsterdam is well connected to the rest of the world by airlines and high-speed trains, while in a more local scale, the city has convenient tram/ metro/ bus system as well as one of the best bicycle network in the world. Hence when these scales meet, certain hubs on the boarder of Amsterdam (namely the railway ring and the A10 highway) are needed where people could transfer from "fast" to "slow", in this case RAI Amsterdam specifically, as one of the P+R (Parkeren + Reizen) stations.

However, according to statistics from Gemeente Amsterdam, bike remains the least popular choice of people transferring to a local transport mode, even though Amsterdam is well known as the bike capital. While one of the world's best bike network is already widely appreciated by

Amsterdammers, it still remains more or less a secret for visitors.



Moreover, in terms of the further completion of bike network towards the south, the 3 highlighted waterways below serve as backbones of the city expansion. While the bicycle paths along Schinkel and Amstel River have been finished, the bike road in the middle is still incomplete, and stops at the south end of Boerenwetering.

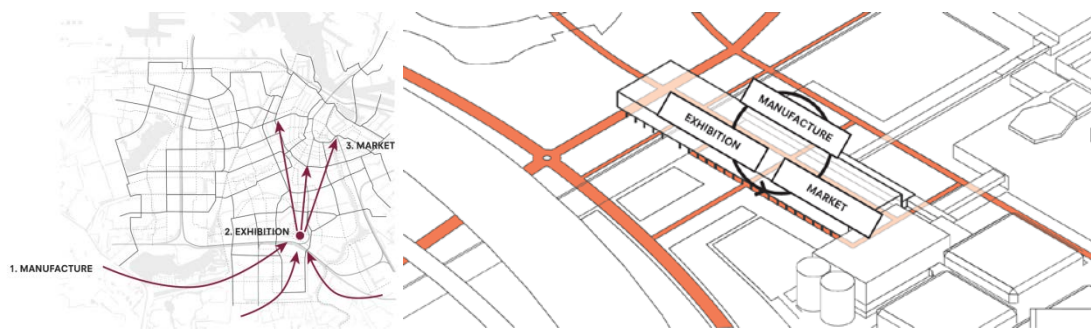


Since there are hubs such as Station Zuid, Station RAI and P+R Stations for public transports, what if a hub specific for bike?

Design assignment | How

As a result, the design question is: what kind of building is needed as a bike hub on this very joint, RAI Amsterdam, and to promote bike as a lifestyle from “experiential knowledge” for residents to a “common sense” for everyone?

If we take a step back to the history, just as the name RAI indicates, De Rijwiël Auto Industrie (the Bicycle&Car Industry) or the RAI Complex has long been a place for exhibitions of bicycles, motorcycles and cars ever since it was established in 1961, being the second step of the traditional manufacture- exhibition- market chain of the current “Industry 3.0” era. Yet to develop a “bike hub”, we need a step further: Industry 4.0, where the 3 steps are combined together on site.



Industry 3.0: Global scale

Industry 4.0: Local scale

So the strategy is: first introduce urban bike grid into the building and create a cycle-through circulation; then centralize the circulation with bike factory 4.0, where the whole manufacture process is opened to customers, turning the factory itself into exhibition and marketing place.

The relationship between the studio theme and the thesis proposal



In the AMS MID CITY studio, we develop the future Oud Zuid based on a structure of 3 axis: the Zuidas infrastructure-culture axis, the Berlage Plan Zuid historical axis and the Boerenwetering water axis.

Located on the crossing of two axis, the bike factory 4.0 project plays a role as the gateway connecting the outskirts to the bike network of city center, as well as the development of Zuidas cultural strip.

The relationship between the approach of the studio and the method chosen by the student in this framework

In Complex Projects studio, we are encouraged to operate within many different scales and to see the world through many lenses. I find this practice of vital importance as a contemporary architect when dealing with a globalized and increasingly complex world.

On urban scale, the project serves as the bike hub of the city mobility network extension to the south. On neighbourhood scale, by connecting the adjacent Beatrixpark with RAI, it opened the

“back door” of RAI Complex for cyclists besides the existing front door for various public transports. And on building scale, the factory 4.0 is adding democracy identity to the future development of the business complex.

Relevance in wider social context

Discussions about bicycle never stop in Amsterdam. After all these years' theory as well as practice, it is generally accepted that in such a compact and flat city, bike has been and would remain the best way of mobility in the next few decades. After all, cycling is healthy and keeps the city accessible and attractive. Without it, the city would quickly come to a standstill. And all these bikes are an important source of jobs, for designers and manufacturers, for shops.

However, according to statistics, though bike has been the best appreciated mode of mobility for Amsterdamers, public transports and cars that are less convenient in the city are still the first choice for visitors of Amsterdam.

So in promoting bike as a sustainable and applicable way within the city, there's still a huge potential in visitors who constitute 1/3 of the whole population, to raise their awareness and finally raise their choices for bike when transferring on the edge of the city.

