BETWEEN DWELLING AND RAIL
reflection paper

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TU Delft faculty of Architecture
Cross domain graduation Lab:
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Introduction

Within the Architecture graduation studio City of the Future, I chose to focus on designing my vision of a railway station of the future. This came from my fascination for the degree of public access and experience of a railway station which constantly changes conceptions on railway station architecture. My graduation project started with the personal goal to explore how public a railway station can truly become, and why, reflecting on for example the incorporation of closed check-in gates at major railway stations in the Netherlands and how this reality goes against the vision of railway stations manifesting themselves as the great connector between urban fabrics and people.

Through initial research into Dutch railway stations I realised that the challenge I was investigating had a lot to do with my views on the way stations were designed: whether they are like an imposed urban plan that changes its context, or something that is instead influenced by its existing context. Because my focus was on this public interaction within and around the station, I wanted to look for a location that had the potential for this bi-directional view on station design. I came to the conclusion that for me, this challenge took place not at the central station of a city, but slightly more outside the centre in a peri-urban neighborhood.

At station Amsterdam Lelylaan, I found a situation where the station has a relation to its context that can be called uncomfortable, and the station itself is designed as no more than a transfer stop. This location was very interesting for me, because while it seems like an ambiguous almost-city when travelling by train from Schiphol, it is actually a location where a lot of different situations present themselves, from post-war neighborhoods to new Transit Oriented Developments. The ambiguity in this location was very interesting for me in regard to my quest to design a station engaging with public space, because at Lelylaan this was not yet explored but seemed a very important future development. On-site observation of users as well as passers-by and surrounding neighborhoods shaped my main research question:

“how can transit oriented developments and daily commuting in the peri-urban area, create a railway station that integrates with its context beyond being a transfer machine?”
Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

For me, this personal observation of a site both in physical and societal perspective is very important and gives me a good view on addressed subjects. I wanted to do case study analyses of railway stations and their public character and engagement. The studio’s relation to the research of the BNA already provides a good set of practical and relevant references as well as a possibility to follow the thematic discourse set out by their City of the Future research project. However I did not want to just brush the surface of a good analysis by staying generic in my focus, or too focused on situational discourse set out by these projects, so I wanted to come up with a specific, theoretically founded, scope before doing the analyses.

In order to include both themes of the station as a public space, and integration within the peri-urban area, I decided to first do theoretical research into these two subjects and then use their conclusions as a framework for more specific case study analyses of railway stations in the Netherlands.

In translating the theoretical frame that I had created for myself into the scope of the case study analysis, theory had to be translated into physical and visual things. I found that this frame started out as a way to valuate and compare different case studies and their relevance to my research. From a ‘top-down’ analysis method, this frame would not get me any conclusive results.

I found that personal observation for me was a strong tool, but also a very subjective tool for really assessing values in station areas, because I have a personal vision on these values and through observation try to confirm my own views. This is why I started looking for a more solid theoretical basis for the method of these case studies and used theories by Jan Gehl, combining my own views on railway station spaces with his theories on social public space to justify my direction in these case studies. I believe that in the end the created theoretical frame also helped as a reflection on my found observations.

I was pleased about how this combination of theoretical and more practical thematic research for me formed a basis for the design, though I struggled a little throughout the first semester with outlining a clear path of inputs and results relating different stages of the research. On the next page, the structure of my research is shown. Working with different research methods and different topics can give different kinds of results, so translating these results into input for another part of the research can be challenging. This I experienced when translating findings from theoretical research, which were very generalised and intangible, into input for the case study analyses which were based on observation of physical space and activity. Also in the next step, translating research into design, these results weren’t able to literally find their way into design tools. In the end however I think this proved useful, because these results were able to guide my design process without limiting design freedom or programmatic freedom.

At the same time I also did some situational research into Amsterdam Lelylaan and the context of municipal plans of Amsterdam, but I found that this was a part of research that was seperated from the research into railway stations. In the end, I think that both the chosen location and the situational research for my project provide more an anekdote than a framework for the design: it is a real situation that justifies a specific course of research and design into the topic of railway station developments.
part 0
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pre-search: thematic exploration

part 1
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local station, networked city

1. theoretical frame
- polycentric city network
  - theory
  - case studies
- peri-urban station as public space
  - theory
  - case studies

2. case studies

3. evaluation tool

4. discussion
- Manifesto

part 2
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1. site analysis
- Development Plan for Lelylaan station area

2. conclusion / discussion
- Project Design
- Reflection
The relation between research and design

In our studio, the first semester focuses more on research and at the P2 a first sketch design is presented as a proposal of the translation of this research into an architectural design. For me, approaching the P2 was the reason to even start with thinking about a design, so this created a very direct translation of research into design. It led to an interesting effect, which was also pointed out during a talk I had after my P2 with Marten Wassmann of Benthem Crouwel Architects: though the design really focused on this relationship between station activity and contextual activity, the scale of the station as a distinguished program seemed lost. I reflected this back to my case study analyses, which in their scope of public areas really focused on the area around and including the station, rather than the internal dynamics of the station or the station as a physical element / building in its environment.

After becoming aware of this, I did not want to let this affect the course of my research or case studies, or alter their outcome. It made me more conscious about the different aspects and scales of my design, of which the environmental qualities that I discussed with the case studies was an important one. Also, the way of looking at these spaces that I developed during the case studies really helped me to read the core elements of the station area as well, and situationally for Lelylaan come up with an initial gesture of creating a ‘boulevard’ between different modalities and spaces at the station for example.

I think the process of thematic research really proved important for my design process as well, starting not from ‘designerly’ qualities like massing, sightlines or spatial gestures but rather from programmatic and systematic design like a hierarchy of routing reflecting to conceptual program. This more abstract and research-based thinking meant that I took longer to come up with actual thorough massing or situational design, but it did give me a very solid argumentation of design choices throughout the process, and the ability to in the end come up with a strong connection between research, concepts, and architectural design.

So towards P3, my focus in designing was very much on the conceptualisation of a railway station that incorporated findings from the research, regarding significance of the station in the wider context, the possibilities offered by mixing functions and relations in the station in a particular order, and the creation of a sense of ownership for example. At P3, this lead to a design that could be seen as 80% conceptual and 20% situational. This was really what I wanted to do for my design, to bring an aspect of conceptual and architectural quality that is given priority in the design rather than a more ‘developer’ point of view that focuses on project-based quantities and situational aspects.

During this stage, I did more design research into for example the works of Piet Blom and his thinking about ‘dwelling as urban roof’, in relation to my design that uses dwelling and office functions to foster public activity on plinth level. I was thinking of including this kind of research into the research booklet but decided this was more part of the design process as a reference or guide, rather than actual case-building and setting out a discourse to follow, like I did during the research phase.

Towards the P4, I tasked myself with the translation of systems and concepts into a design that made sense in the area. The focus on reality and situation added restraints too, the main aspect being my choice to design as ‘additional’ as possible, from an existing situation rather than bending the context or reinventing the existing railway overpass to aid my design. Though this gave me a lot of extra design challenges, the decision can be related to the more theoretical task I already set for myself: to see the location as a case study application of a broader design concept, to add interventions that react to an existing situation, to see a station development as a collection of situations rather than a holistic intervention.
Design at P2

Sharing the station: distance, diversity and mix between station amenities and their routing foster 'social' public space. The context benefits from its open character.

- parking spaces
- bus stations
- info booths
- restaurants
- cafés
- meeting spaces
- station amenities like kiosk, AH to go, Lebkov, etc
- other fastfood-related amenities

Potential of this integration and interaction to start a functional narrative between activities, movements and functions, to really interweave them and shape the station by its (social) activity.
The relation between my graduation project, the studio topic, and the master track Architecture.

My graduation project is part of the City of the Future cross domain studio. The studio follows contemporary urban topics adressed by the similarly named BNA research project, like circularity, urbanisation, energy transition, and infrastructure. For my project, the current and increasing relevance of transit oriented development in our cities that is linked to the urbanisation challenge is a leading topic, but what I also came across in many of the presented BNA project results, as well as in general planning and architectural discourse within the topic of urban infrastructure knots, is the appreciation of (green) public space and its experiential qualities. This is something that relates very well to the personal goals I have set out for my graduation project and how they fit within the general theme of the studio, which is to create visions for the Dutch city of the future.

This theme can be interpreted in many different ways, so how an individual project can be shaped within it is still very flexible. It can range from a very large scale, billion euro design for a speculative future over many years, or stay closer to current reality and prevailing issues. I wanted to stay very close to these current issues and come up with a design that could hypothetically be built as soon as possible, because this is what I prefer myself: an architectural reaction or continuation on something evident and tracable, rather than a speculation which is in my opinion always uncertain and in that sense very personal.

Working very much from the inside out, from research that spawns a building that then starts to negotiate with its environment on a larger scale, this is very much what an architectural project should be about in my opinion: a design that has a strong theoretical underlay, or opinion, and then starts to negotiate this into its physical and visual shape. That being said, my project also takes on a direction that relates to public space and the space between buildings, which can be considered a more urbanistic approach, or maybe an architectural track yet to be defined. I believe that the way of thinking about relations between spaces, activities and users is something that makes the architectural design of a public building very much comparable to the design of small scale urbanism like a master plan or a streetscape. This provides an interesting way of looking at the typology of railway stations and their programme, and how they react to their context, which I think is a very important aspect of architecture: thinking about the building as something that is always related to its (public) context, whether spatially or functionally.

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

In the field of architecture, both in the Netherlands and abroad, railway stations are becoming a more interesting architectural subject after a long period of standardisation and systemized design that was far from architectural. This change provides my project with many interesting contemporary references to use and build upon, both from a research and a design perspective. The project can also relate to the course set out by the NSP program from the Dutch government, which specifically focused on TOD and economic qualities of major railway station areas as well as their public space. This program caused a re-evaluation of many smaller stations aswell and as a result this wave of station redevelopments is moving to these smaller stations as a domino-effect. However, different project scales ask for different interventions and these cannot always
be translated easily. Where the NSP focused on economic developments, smaller projects direct their attention to the public environment or the infrastructure’s role in the urban fabric.

I found an unresolved duality in station area developments of the scale of Lelylaan, which are sort of inbetween the NSP scale and the more rural scale. A duality of designing dwellings for their proximity to transit stations in a way that actually does not appreciate their local qualities, and the realisation that the quality of public space as well as public activity is very important in urban planning. Design for public activity is a topic that is gaining interest and is being discussed by architects like Jan Gehl, but in my opinion the translation of this interest into railway station areas is something that is still very ambiguous because of this transit oriented character of the developments. For me, designing a station as well as a more general framework for this task, and how to read these areas, are the core values that my project adds to the discourse on railway station (re)development in the Netherlands.

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

During my project I have encountered a number of ethical issues, mostly during the design phase. For example, I chose to put the Lelylaan under the surface only at the station level, instead of designing a much longer tunnel which is usually the case. This was an ethical choice for me coming from two considerations: first of all the historical value of this street in the AUP urbanism, which I regarded as an important factor to be maintained in the area. Secondly, in my opinion the experiential qualities of driving a car are lost if they are put under the surface at every opportunity. I think we have to think about experiential qualities for every modality including the car, otherwise driving a car would become an almost depressing activity without any daylight. Putting the road under the surface locally, adds an experience of space and scale to the route of the car aswell.

Another ethical dilemma was something I have already mentioned: the degree of realism and feasibility in the project, mainly regarding the preservation of the railway overpass. This decision for me defined a balance between existing and new values of the area aswell.

A more general dilemma found in railway station architecture is the balance between efficiency and experience. This is again the dilemma that my project is based on: while we desire high quality spaces and experience in design, we also want to move faster and more efficient than ever before, so the railway station has to take a clear position in this. My project aims to show both sides of the station, so the locations where this distinction becomes visible are very important. One of these locations is the bicycle path that runs through the middle of the station, and the places where it provides access to the underground bicycle parking: the most efficient choice seemed to be putting the bike road in the same tunnel as cars, and have them access the parking garage from there. However this would treat bicycle traffic as high speed traffic, and eliminate them from the social centre of the station. So I kept them on plinth level with access to parking designed close to this social centre: the ‘decision moment’ between going through the station or staying and enjoying has more potential here. The downside is the high speed traffic that will move through a part of the station boulevard.