



EUROPE CENTRAL STATION

EURASIA BY TRAIN

Bodies & Building in Berlin studio
Reflection Paper by Luuk Peters

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P4 Reflection Paper

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TU Delft | Architecture and the Built
Environment

Complex Projects Graduation Studio
2022-2023 | Bodies & Buildings in Berlin

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30/05/2023

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REFLECTION

01

INTRODUCTION

For my Graduation Project, research was conducted on what the requirements are to design an intercontinental station if traveling by train becomes the standard. This led to the design of Europe Central Station within Berlin, which aims to provide a gateway to a hypothetical high speed train connection between Europe and Asia. The research resulted in additional functions such as border control, cultural activities & package services. While the package services were an outcome of the research, the primary focus of the design was on the passengers part of the station with the integration of border control and cultural activities.

ASPECT 1 | THE RELATIONSHIP BETWEEN RESEARCH AND DESIGN

Looking back at last year, the strong relation between research and design has never been so evident to me. And this relationship exists in both directions; Research by Design & Design by Research. This became very clear during the design process where we used the research done to design a complex project and next to that researched the best solutions by designing several options during each design stage.

Without the extensive research done in the first semester, probably a more superficial station would have been the final outcome. The research done was a key part to design such a complex project and provided the right data to use evidence-based design. This helped a lot in making decisions along the road based on the research and therefore transformed into a well-thought-out design.

ASPECT 2 | THE RELATIONSHIP BETWEEN YOUR GRADUATION TOPIC AND STUDIO TOPIC

Intercontinental Train Station - Bodies & Buildings.

As part of the 'Future' group of the Complex Projects Graduation Studio 'Bodies & Buildings in Berlin,' research was done on the

requirements to design an intercontinental station if traveling by train becomes the standard. This research and design of an intercontinental train station is highly related to the studio topic of 'Bodies & Buildings in Berlin' as it researches a new way of traveling with a High-Speed Intercontinental Railway Network.

It not only provides the program requirements to design such a station but also studies how the users (the body) are related to this kind of station (the building). During the design process, research was done on how to provide a clear and efficient flow with natural wayfinding within such a complex building, how to keep the building legible as a train station, and how to integrate an airport terminal-like-building within its context.

ASPECT 3 | RESEARCH METHOD AND APPROACH CHOSEN BY THE STUDENT IN RELATION TO THE GRADUATION STUDIO

In the Complex Projects Graduation Studio, a framework for research is provided to create a clear and evidence-based basis from where I could explore my own fascinations. With the help of group work, seminars, and my research, this fascination came to life and evolved from a standard train station towards a train station that provides access to intercontinental connections.

On a group level, we studied the future of Berlin and how our projects could be integrated into the city. We studied governmental documents and the geographic data of Berlin to highlight where future development was possible in Berlin and positioned our projects within those areas to act as a catalyst for urban development.

In the seminars, we researched together the flow of the body within transportation hubs. This helped with designing the flowchart of the building in an efficient and clear manner. On top of that, it gave a better understanding on how to design spaces in relation to the flow of people. For example an open station hall with visual connections to the platforms and departure halls is needed to provide an

overview of the station, while a more enclosed area is needed at the border security to slow people down and focus on the border check.

On an individual level, I researched the train station on three subjects: Site, Program & Client. By using data-driven research and many reference projects, a Design Brief was written to design an intercontinental train station. This provided the much needed basis for the design process.

A very important part of the research was a site visit to Berlin. This had a huge impact on how we perceived the city and where a project like ours would fit within Berlin. It gave a better understanding of the immense scale of Berlin and the polycentral layout of the city.

ASPECT 4 | RELATIONSHIP BETWEEN THE GRADUATION PROJECT AND THE WIDER SOCIAL, PROFESSIONAL AND SCIENTIFIC RELEVANCE

As the world is searching for new ways to fight climate change and live more sustainable lives, rethinking the way we travel is undeniably important. The current aviation market has one of the largest CO2 emissions per passenger compared to other modes of transport, and this is not changing anytime soon. In the meantime, new technologies provide us with more sustainable modes of transport that are catching up with the speed of airplanes. Since these new technologies are relatively new, further scientific research must be conducted to make these innovations feasible.

Looking at the railway sector, technological advancements make it possible to travel sustainably at a speed close to airplanes. However, the way we will travel with these high-speed trains and how the stations will look are not yet defined. This graduation project explores a new train station as a gateway to a speculated high-speed intercontinental railway network, proposing new kinds of programs and ways of traveling. The design shows how a train station can operate like an airport terminal while still being integrated within an urban context.

ASPECT 5 | ETHICAL ISSUES AND DILEMMAS YOU MAY HAVE ENCOUNTERED DURING GRADUATION

A very obvious ethical issue is why the world isn't connected more by train already if it is so much more sustainable than traveling by an airplane? Now that is highly related to political dilemmas and investments. For such a system to thrive, a large investment is needed in the infrastructure between continents. Who will pay for that? Who will maintain that? And in cases of war, will the connection remain accessible or does it become unsafe to use? This in contrast to the plain, which is a lot more flexible and can fly to every direction if the geopolitics demand that. These political and economic uncertainties are the reason why we don't see such direct connections today.

Another difficult, more locally, dilemma was to design a train station where a lot of the program is behind the security border (and therefore not publicly accessible) while still being open and publicly accessible for the neighborhoods around the station. How to remove a barrier between the two neighborhoods on either side? How to provide safe and efficient traveling within the station, but also inviting people living nearby to make use of the transportation hub. This design aims to provide a solution by separating the different functions and creating a barrier free passage in between the public program and secured program of the station.

