

A black and white photograph of a swimmer in mid-air above a pool. The swimmer is in a streamlined, horizontal position, with arms extended forward and legs trailing behind. The pool below has several lanes marked by lane lines. Another swimmer is visible in the background, also in a streamlined position. The text "DESIGNING AN OLYMPIC VENUE" is overlaid in the center of the image.

# DESIGNING AN OLYMPIC VENUE

REFLECTION

**2022/23**

**COMPLEX PROJECTS**  
**Bodies & Buildings studio**  
**REFLECTION**

**student**

Femke Slooff

**chair**

Kees Kaan

**CP coordinator**

Hrvoje Smidihen

**email**

[infocpstudios@gmail.com](mailto:infocpstudios@gmail.com)

**Instagram**

<https://www.instagram.com/cp.complexprojects/>

**website**

<https://www.tudelft.nl/bk/over-faculteit/afdelingen/architecture/organisatie/disciplines/complex-projects/>

**facebook**

[https://www.facebook.com/CP\\_Complex-Projects-422914291241447](https://www.facebook.com/CP_Complex-Projects-422914291241447)

# DESIGNING AN OLYMPIC VENUE

REFLECTION



complex projects

## **The relationship between research and design**

The main approach to this design process was to constantly reflect back on the original design questions when taking further steps in the design. For this design, the project's main design questions included: *How does an Olympic Aquatic centre become future-proof, How does one introduce grass root functions within the design and how does one minimise the impact of the building onto the surroundings?* These questions and the research that was done to answer these questions helped guide the design process and gave a clear objective for the finished design. They also helped answer the main question within the design studio: *How does one design a complex building within the city of Berlin?*

However the research question regarding a building topic, in this case, air quality, was left to the last minute and in the end did not have a clear relation and significance to the studio anymore. Primarily because the research question did not match the other design questions and the studio's main objective. The topic of air quality was not interlinked enough

with the design of the Olympic Aquatic Centre to give it the significance that it probably should have had. This approach of creating a completely separate research question, which was somewhat separate from the main design objective, was not very effective and hindered the design project. After further reflection, the research question somehow shifted from the original research question, to the earlier mentioned studio's main design question. The research question of: *Can natural ventilation systems be implemented in an Olympic aquatic centre whilst still creating a comfortable indoor climate?* Subconsciously became: *How does one design a complex building within the city of Berlin?*

## **The value of the feedback from the mentors**

The primary feedback from the mentors throughout the course was to fall back on these earlier-mentioned design questions to help guide the process. This ended up being very effective in further developing the design process and answering the main design questions. However, as mentioned before, because this was the main feedback given by the teacher, the

research question remained unanswered during the biggest part of the design process because the scope of the studio was pushed towards a different direction.

This approach by the mentors was also incredibly effective when managing the size of the project. The studio topic is that of complex projects, which are often projects that are big in scale and have complex social, economic and/or logistical characteristics. This makes for having to manage a very complex intricate project by yourself. Having these simple guiding design questions helped manage this process, by giving the process more direction when the complexity of the project became overwhelming.

Within this design process, I have learned that sometimes the intended research approach and question might become irrelevant further on in the design when other or even new questions became more important in regards to furthering the design.

### **The relation between the graduation project topic, your master's track, and your master's programme**

The main graduation project topic of designing a complex project within the city of Berlin relates to the master track of architecture as it teaches the student to help manage a large complex design project within a big metropolitan city, whilst using a research-based design approach. By using different research approaches within the design process

such as case studies, and historic and literary research, the graduation project topic relates to the master's program and its emphasis on research-based education.

### **The influence of the research on the design and how the design influenced my research**

As mentioned before the intended part of the studio which focussed on the specific research question did not help further the design process to the extent that that part of the studio remains unfinished and irrelevant. However, the focus of the research on the climate within the building did help with furthering the technical part of the design process as it made me more aware of the role of climate, especially air quality within the typology of an Olympic swimming pool. Because the research question remains partly unanswered the design influenced the research in a way that it became the research instead of the intended research.

### **Assessing the value of my way of working (approach, used methods and used methodology)**

The use of case studies within the design process combined with a very analytical approach made the design process very organised and thorough. However some parts of the design process, therefore, were somewhat limited by this approach as it did not leave much room for experimentation with different design approaches, which was something my mentors made me aware of a couple of

times. Finally, this also caused for some time constraints at the end of the design process when it came to finalising the process. All in all, this approach was very effective and offered a very concise way of working which helped when managing such a big project as this.

**Assessing the graduation project's academic and societal value, scope and implication, including ethical aspects. And assessing the value of the transferability of your project results.**

The project is relevant within the scope of current developments regarding the hosting of large sporting events. The current situation with large sporting complexes often causes a lot of problems in regard to legacy options. By exploring these options through location exploration and the building program makes the project socially valuable. It explores the extent of reusability of building elements and the context of the building. This exploration of a typology that already seems very defined within its characteristics (Olympic Aquatic Centre) by looking into these grass root functions and future possibilities, forms a study with high transferability in the future.