REFLECTION PAPER

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COMPLEX PROJECTS
Bodies & Building Berlin

ASPECT 1:
The relationship between research and design

In response to the trend of universities transitioning from traditional spatial and ownership models towards more diverse and flexible shared spaces to accommodate increased collaboration and peer learning, this research focuses on exploring the role of internal circulation in creating architectural fluidity for enhanced learning experiences in university buildings.

The research primarily involves architectural-historical analysis and typological analysis. By classifying the circulation space in higher education buildings of different historical periods, it was found that with the continuous revolution and progress of building materials and structures (especially the use of large-span structures and large-area glass), the boundary between circulation space and different functional spaces has become more blurred. Furthermore, the greater the proportion of circulation spaces in relation to the total floor area, the stronger the fluidity tends to be. However, it is important to note that there is not a singular approach to connecting circulation spaces with other spaces. Through typological research, I have identified four common types: fishbone, goblet, donut, and net.

My designs adhere to the patterns and principles I discovered in my research. They directly impact the architectural design of university buildings, particularly in the following aspects:

Space flow and connectivity: The typological research of circulation area provides insights into the organization and arrangement of internal spaces in educational buildings. This can guide the planning of classrooms, offices, collaborative areas, and the layout of circulation areas to promote seamless mobility, connectivity, and interaction. It helps optimize spatial flow, encourage interdisciplinary collaboration, and knowledge sharing between teachers and students.

Flexibility and adaptability: The fluidity requirements of faculty buildings necessitate spaces that can adapt to evolving needs and accommodate various teaching styles. Typological research guides the integration of flexible design elements, movable partitions, modular furniture, and adaptive technological infrastructures. Historical research provides insights into past successful approaches, fostering adaptability and flexibility in faculty building design.

User experience and engagement: Typological and historical studies on mobility emphasize user experience within teacher buildings. By understanding how circulation space can enhance participation and happiness, an environment that supports diverse teaching practices can be created. This study influenced the organization and material selection of spatial sequences to create a harmonious and inspiring atmosphere.

In summary, typological and historical research on fluidity contributes to faculty building design by guiding space organization, promoting connectivity, fostering flexibility, and enhancing user experiences.

ASPECT 2:
The relationship between the graduation topic and studio topic

The theme of this studio, "Bodies & Building," explores the complex and multifaceted relationship between humans and the architectural environment. Buildings not only provide shelter and functional space for human activities but also influences and interact with the human body in various ways. The relationship between the two can be related to aspects such as scale and proportion, spatial perception and experience, movement and circulation, health and happiness, cultural and social background, etc.

This graduation topic can be seen as a branch and extension of the studio's topic. It mainly focuses on redesigning the internal circulation space of higher educational buildings from the perspective of human spatial perception and experience, to encourage students to flow around and communicate with each other in the faculty building.

ASPECT 3:
research method and approach in relation to the graduation studio

The studio preliminarily summarized the future trends of public buildings by analyzing and comparing case studies of specific large-scale public buildings in agriculture, industry, and the information age. This approach has had a significant impact on my research methods. I use the method of historical analysis to study the patterns and causes of architectural spatial changes, and use typological methods to classify and organize them, which is the theoretical basis and starting point of my design work. It can be said that my research method is a continuation of studio research, but it focuses more on the scale, layout, proportion, and materials of the internal space of higher education buildings.

In addition, the studio also provides a valuable perspective on fluidity, which helps me explore the fluidity of architectural spaces. Exploring this topic from the perspective of mobility, I began to consider how the spatial flow within a building affects user experience and interaction. This requires thinking about how to design circulation spaces, connect different functional areas, and optimize spatial layout to promote seamless mobility. The emphasis on mobility in the studio provided necessary theoretical support, helping me better understand the significance of architectural spatial fluidity and enabling me to integrate relevant strategies and solutions into the design process.

ASPECT 4:
The relationship between the graduation project and the wider social, professional and scientific relevance

The graduation project introduces the concepts of fluidity and flowing space. Fluidity could be understood to operate not as a substance, but as a formative of it. Fluidity is a factor in which force elements mediate interactions between other particles within particular fields, materials, functions, and behaviors, and make them combine smoothly leading to social, physical, spatial, and temporal. It is also the adjustment of the integration between spaces and human beings, the behavior of inhabitants to make those interactions have forms and rules.

The term "flowing space" was first proposed by architectural theorist Sigfried Giedion when discussing the works of Baroque architect Borromini in Space, Time, and Architecture. When describing the wavy wall of San Carlo Church designed by Borromini, he wrote: "Borromini's wavy wall endows the stone with elasticity and makes the stone become an elastic organization. The wavy wall is still the natural companion of the flowing space of elastic plane design"(2008). After Gideon, Bruno Sevi, an Italian architectural theorist, also mentioned the flow space in baroque architecture in his book Architectural Space Theory - How to Evaluate Architecture and also elaborated on the view of flowing space based on the wavy wall in San Carlo Church. They understand the flowing space of this period from the undulation of the wall. However, the composition of the church still does not break away from the central symmetrical pattern and closed space characteristics.

In the period of modern architecture, because of the emergence of new materials, new technologies, and new design concepts, the architectural space has undergone a revolutionary transformation. In 1929, Mies designed and built the famous Barcelona Pavilion. The whole space is relaxed and free, which is called a "flowing space". This kind of flowing space breaks the centrality and closeness of classical architectural space and reflects the dynamic balance between people and the environment. Its flowing and open space feature is the embodiment of the fluidity, fast rhythm, and overall technicalization of modern life. The flowing space contains two characteristics: the continuity of mutual circulation of indoor space and the permeability of space, which refers to the mutual integration of indoor and outdoor spaces. These two enable people to communicate with each other, and also provide a basis for people to communicate with the environment.

Since the concept of flowing space was put forward, it has been widely used in museums and galleries, which have the nature of sightseeing flow. For the current trend that education space pays more attention to social interaction and communication, this graduation project, a flowing higher education building, is likely to be the right answer to improve the learning experience.

ASPECT 5:
Ethical issues and dilemmas you may have encountered during graduation

Learning is increasingly becoming a shared and collaborative experience rather than an individual effort. The democratization of traditional learning spaces to foster dialogue and, more importantly, the emergence of social learning spaces across the entire campus aptly demonstrates this. But have we gone too far? While this project aims to enhance fluidity and encourage student interaction through spatial design, it inevitably gives rise to issues such as lack of privacy and mutual interference. Architects need to maintain a delicate balance between providing personal space and enhancing fluidity to ensure that this aspect is not overlooked or underestimated amidst this wave of transformation.