

Reflection P4

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Design Assignment

The design assignment is development of a transportation hub in the centre of Shanghai. The design aims to provide a interchange metro station integrated with new public program and a new urban park to blur the transition between the landscape and the building.

The Research Objective

The research of the graduation project starts from research's personal life experience in Shanghai. The rapid development of the urban space brings neither singular identity nor relations, only solitude and similitude. Life in the megacity is always fast and overwhelming. People are rushing from one place to another. They spend so much time in the transportation space but cannot feel the connection with the space, only considering it as a pass through space rather than the destination. This kind of space is defined as Non-places by Marc Auge in the book *Non-places: an introduction to supermodernity*. If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational, or historical, or concerned with identity will be a non-places. On some level, Shanghai it is can be a mega non-place. This research seeks to find the reason and solution to this dilemma.

The relationship between the theme of the studio and the chosen subject.

Hyperbody's Graduation studios involve a research driven design approach, which primarily focuses on articulating the complex relationship between social, environmental, spatial, technological and user based information with physical matter. Focusing on the development of large architectural scale urban inserts. Parametric design method and digital robotic building provide both thinking ways and technical tools.

My research has been focus on shaping a new hybrid transportation space which can be not regarded as a non-places. To deal this modern crisis, The design of transportation space should rethink the relationship between the space and people, at the same time, this new type of space should connect to the vernacular and historical features to enhance the unique cultural identification of a city. To achieve this, I conduct research on form finding using computational simulation. Computational crowd modelling technique via agent-based models makes it possible to conceive functional spaces in terms of dynamic patterns of social communication, rather than static accommodation. Further the materialization technique using robotic arms provides a critical methodological step for overcoming barrier between definition of the form with subsequent physical realization.

Relevance in the wider social context

The massive emergence of Non-places worldwide can be regarded as a crisis of architecture. With my graduation project, I hope to explore design method to deal with this Non-places dilemma. At the same time, The massive appearance of non-place enlighten architecture that it is impossible to meet the changing requirements of urban space with the limited forms of

modernist. Therefore new process and method are needed. The computational design process and robotic materialization method I adopt in my graduation project make me more believe that computational design and robotic materialization can be the ideal measure. This whole design process and final work would be beneficial to me and my peers on some degree.

Conclusion and further development

At the first stage of the project, the scope of the research on site is wide and without a focus, I find it is really hard to narrow down and link research to design, but after the P1, I started a study on the computation design. Then I realize graduation project is not a one way process, the research and design sometime start from two ends and meet in the middle. In the later stages, I focused on how to link computation design to the materialization and production techniques. Through the whole design process, I value the approach to design and re-examine from three different scales(macro-messo-micro). The connection of the different scale give me more insight in different design scopes, from climate control, structural performance, and production mothod. As for the next stop, I hope could investigate more in the micro scale and prototyping.