Reflection

Aspect 2: the relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

The graduation studio of “Flowscapes” explores infrastructure as a type of landscape and landscape as a type of infrastructure (cf. Strang, 1996). The hybridization of the two concepts seeks to redefine infrastructure beyond its strictly utilitarian definition, while allowing landscape design to gain operative force in territorial transformation processes. Through focusing on landscape architectonic design of transportation-, green- and water infrastructures the studio aims to develop innovative spatial armatures that guide urban and rural development and represent their civic and cultural significance. This thesis project tries to create complete designs by not only focussing on one of the infrastructures, but by taking four into account (where transportation infrastructure is divided into transport- and energy networks). While taking the four networks into account synergies can be created among the infrastructures, and a complete landscape can be designed.

Aspect 4: the relationship between the project and the wider social context

Infrastructure is taking up increasingly large amounts of our environment. Though often successful in geopolitical and economical terms, the tendency to engineer infrastructures for ‘single purpose’ often results in disrupted landscapes, defaced retrofitted constructions and buildings, and erasure of cultural and natural values (Nijhuis et al, 2016). However infrastructure doesn’t only have the ability to disrupt landscapes. “Once married with architecture, mobility and landscape, infrastructure can more meaningfully integrate territories, reduce marginalization and segregation, and stimulate new forms of interaction. It can then truly become “landscape”.”(Shannon & Smets, 2010) In the process of integrating infrastructure into the landscape new hierarchies among infrastructures can be implemented to address current issues our society is facing, like climate change, inclusive cities and changing energy and mobility systems. Landscape architecture being an integrative discipline, gives it the possibility to call on other disciplines to help their cause. The ability to implement technological advancements gives the power to improve the functionality of infrastructures, while the traditional skills of the landscape architect give the ability to increase the value of our environment through aesthetics and legibility. The case of the Metropolitan expressway and the Sumida river in Tokyo is nearly a perfect representation of the current issues our planet is facing. The expressway and the flood protection have caused the neighbourhoods to be disconnected from the river, which played an important role in the emergence of the surrounding tissue and the culture of its inhabitants. However by the danger of possible earthquakes, the expressway (transport infrastructure) and the flood protection (Hydrological infrastructure) have to be modified to be resilient in cases of natural disaster. Simultaneously the unstable situation caused by the sole reliance on nuclear and fossil fuels for energy production was exposed. Tokyo lacks a renewable energy production (energy infrastructure) which they are now forced to build up. Finally Tokyo uses only 3% of its surface area for public green spaces (Public space infrastructure), which is far below the advised minimum of 6% proposed by the World Health Organisation. This master thesis aims to synergetically address these issues through the four infrastructures of Transport, Hydrology, Public space and Energy by intervening into the landscape.

Aspect 1: the relationship between research and design

Infrastructure is intrinsically connected to the development of the landscape, in particular the urban landscape. “Infrastructure will determine a city’s development and economic future, because the ability to collect, exchange, distribute goods and services, resources, knowledge and people within its territory is in direct relation to a city’s productivity” (Hung & Aquino, 2013). Therefore intervening into infrastructures will give direct control of the city’s development and economic future. The question is how do landscape architects intervene into infrastructures? It is through the modification of the landscape. This thesis aims to test how infrastructures can be made more efficient by embedding them more meaningful into the landscape. More specifically the embedment through the modification of the topography of the landscape is tested. When the topography embraces the infrastructures, a more meaningful landscape is created, while the efficiency of the infrastructures are stimulated or maintained. The aesthetic and experiential quality can be managed and “measured” with the knowledge of a landscape architect. However with the skillset of the landscape architect it is hard to quantify the functionality of the infrastructures, as the specialized technological knowledge is not (traditionally) present in landscape architecture. Therefor in this thesis project the aim is to implement current technological advancements from the perspective of the landscape architect, and not try and create technological advancements.