Process Reflection:

Located on the North side of the ij River, separating the north from the south side of Amsterdam, the NDSM wharf is a site with a long history of shipbuilding and industry, which, mainly due to the uprising of the Rotterdam Harbor, was declared bankrupt in 1978. After the dissolution of several shipbuilding companies there, the deserted industrial site gradually became a “breeding ground” for artist and artistic companies. Nowadays the site is considered a cultural hotspot in Amsterdam, Hosting a large number of creative companies and events as well as an creative/artistic culture/community. The municipality of Amsterdam is currently developing plans for further development of the area and intends to make the NDSM wharf “part of the city centre” located on the other side of the IJ river.

In my opinion the current plan collides with the policy of creating more housing and business opportunities in Amsterdam. The current master plan for the NDSM wharf as such is thus mainly focused on housing and offices. Leaning more towards the creation of either a business centre or a suburb. My intention as such is to generate a public building which deals with the sites historical and cultural qualities. In the form of an expo (and shops) to serve the various creative companies and overall artistic culture of the NDSM wharf, and an exhibition of the site’s most distinct UNESCO monuments in relation with various objects and artifacts collected related to the NDSM wharf and its history, collected from different museums.

The first step in the process of designing this building consisted of a simulation that drew a relation between important attributes in the context. These vary from physical historical features (monuments) to cultural hotspots, to public entrances on site etc. each with a different attraction factor on a different time of any default day. As such a visual representation of the site’s potential “public fields” was created, providing information on public/private zones as well as giving hints to 3d form/initial morphology.

The second step was to determine the allocation of various functions within these fields. Each function with a distinct degree of public/private as well as connection to other functions and attributes on site, based on the theories of Joseph Kosuth and the relation between displayed art and the context it finds itself in. This provided data sets and maps of where each function should be, what character it has, location of entrances and initial topology. Both the first and the second step are almost fully parametric in nature.

The third step of the process consisted largely of analyzing various buildings as well as top-down morphological studies, which were more modernistic/formalistic then parametric in nature. Mainly due to the fact that the architectural interpretation of the data sets generated earlier wasn’t clear yet. Most solutions were rather pragmatic although using parametric software such as grasshopper vs Ecotect. By zooming in on different parts of the

building, reducing the complexity of the problem, a decision on an architectural concept/interpretation was made that could be applied to the buildings various architectural components such as light/openings, topology , closure/opening positive space/negative space, materialization etc.

The fourth step was to parametrically link the various architectural components, instead of letting them act as individual solutions. Next to that was the challenge of solving the more technical issues regarding construction, materialization, CNC component production, installation etc. All in relation to the architectural concept and the earlier preformed data sets/ simulations. In this period the parametric and digital approach proved beneficial in solving the problems.

The overall process consists of various approaches, both top-down as bottom-up, to solve various problems. the process leading up to this building has had various stumbling areas, in which one needs to take a step back, re-evaluate and try another approach. Due to the sheer complexity of the data sets and the proposed building I've found that my mind easily tries to pick the most straight-forward, pragmatic solution. I consider this to be an easy trap and will try to avoid it in future projects.

Regarding structure: When taking a look a the carrying part of the building, (at prox 3 times earths gravity) one can see potential problematic areas light up. Mainly in this region. the first step I took was to draw certain support areas closer to the centre, to create a more force favorable map. Here's a representation of the force lines on the problem area. It displays how the forces are moving, and where potential expansion and support areas are (S)

by dissecting these frames one can create a network of "beams" and trusses that can channel the forces to the support areas. The network like interior of the building in a simulation where all areas are weight loaded, shows similar problems, and channels way to much forces to the centre. This is solved by strategically placing several support areas in the network, so that the forces can be channeled to the support areas on the ground. This solution also involves "hanging" certain interior support points, to the areas in the main outer shell that suffer from tensile strength and in that way assist in channeling the forces.