Delta Interventions is a design studio with a strong emphasis on the translation of research output into design concepts. In 2016-2017, the studio will focus on varies interventions in the San Francisco Bay area to adapt the future climate change which includes the sea level rise, flooding events etc. Projects within these areas can vary from large scale concepts and strategies to small scale designs or bottom up interventions: from region landscape intervention to building construction.

The research of the project starts with mapping the historical changes of a particular region in three aspects: urban occupation, nature, and infrastructure. The maps are made in both ‘Bay Scale’ and ‘Urban Scale’. Through out the research we had a basic understanding of how the bay area is formed and why it looks as it is now. In addition, it is also known that the bay area, from the Gold Rush, has gone through several phases of development: from agricultural development to industrial development, and finally the post-modern development.

My personal research is focused on the post-modern development, which includes the transformation of formal coastal industrial areas. At the beginning of the Gold Rush, only a few spots in the bay area were developed, such as the San Francisco City, San Jose, and Oakland. As a result of new net work built, cities were linked and expanded rapidly. The industrial era started around 1917 when the automobile industry in Oakland was established, as a result of the size of the domestic market and the use of mass-production. After WWII, industrial areas slowly transformed into light manufacture, commercial and cultural base for new needs of the post-modern urban life. Those areas hold a lot of opportunities and possibilities in the future, because those are the sites with a rich history, and plus a lot of heritages. However at the same time, they also face the challenges from the climate change. Since the sea level rise is becoming increasingly threatening to San Francisco Bay, coastal old industrial sites are thus in a dangerous situation. The design of my graduation project is therefore dealing with the conflicts between the site transformation and flooding hazards. It is first a urban intervention that gives the nature back to the site which it once belonged to. Then it goes with the combination between nature and infrastructure that protects the site from flooding. Finally it is a connection of the re-use existing structure with the dynamic landscape.

The theme of the graduation studio is to make different interventions to make a focused site adaptive to the climate change. In the case of my project site, it was once a old shipyard, now it is designed to be a cultural base. Down to the building scale, it is a renovation of a historical industrial building. It is a cultural center where people can have various activities and at the same time, a delta museum where people can learn about knowledge of delta, from exhibitions or spatial experience: the rainwater cleaning process, the sea level rise, the flooding events etc. So the case study is mainly focusing on 1. Renovations of historical buildings 2. Rainwater management 3. Waterfront landscape design.

Examples of the case study:
Matadero Madrid (Madrid, Spain)
Serviço Social do Comércio - SESC Unidade Pompeia (São Paulo, Brazil)
Academy Mont-Cenis (Herne, Germany)
Benthemplein (Rotterdam, Netherland)
The Big U (New York, US)
California Academy of Sciences (San Francisco, US)

My graduation project is in Pier 70, located in the Central Waterfront of San Francisco. The formal shipyard requires new development to include rehabilitation of historic structures and creation of a substantial amount of public access and open space, in addition to remediating the site. New business like Pier 70 Partners and the Noonan Building has accommodated activities like open markets, events and small studios. In addition, because of its unique building types featured formal industry, this place possess a high potential of future development. It will be an extension of a green coastal line from the Mission Bay to give the public full accessibility to the waterfront. A promenade based on the massive green area will be designed in favor of the citizens. The building itself is part of the promenade. Visitors can access through the building while having the chance to encounter or use facilities to learn something about the delta. The building will also be a cultural base, it includes a community library, a small museum, several flexible places to provide flexible activities such as exhibition, lectures or workshops for the citizens.