

aegis

Architectural Solution for Community and Critical Facility Resilience

The aim of this thesis is to show ways architecture can help to create disaster resilient communities with a focus on critical facilities. Specifically, as an example, a school, health facility and evacuation center for a neighborhood in the Philippines will be developed.

Often, architecture focuses a lot on appearance instead of actually sheltering people and protecting them from the destructive elements of nature. Disaster resilient planning and architecture are very important as frequent repairs and maintenance or complete replacement after disasters put pressure on public and private resources as well as the environment, including energy, waste and emissions. Additionally, buildings made from weak materials tend to benefit less from retrofitting than newer buildings constructed with appropriate materials.

Humanitarian architecture has been focusing a lot on disaster relief by building temporary structures for shelter after a disaster. Although these structures are needed, they are no long term solution. It has to be ensured that affected people can return to their old lives and homes. Moreover, a lot of disaster resilient architecture is developed for the wealthy with expensive materials and building methods. This thesis challenges these common practices, by offering a different entry point for architecture in disaster prone areas. I would like to propose disaster resilient architecture made from local, cheap materials to make it accessible for communities in poorer areas of the world.

This thesis will include a conceptual background on disaster resilience, building materials and construction methods and a proposal for a resilient community in the Philippines.