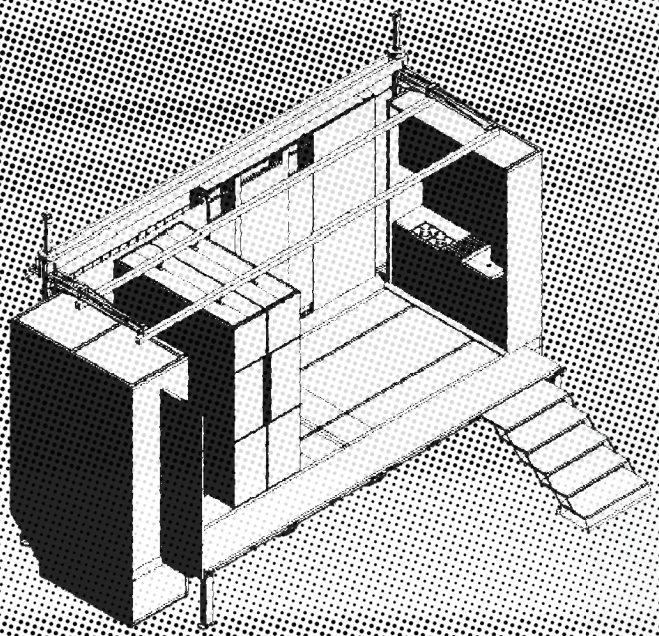

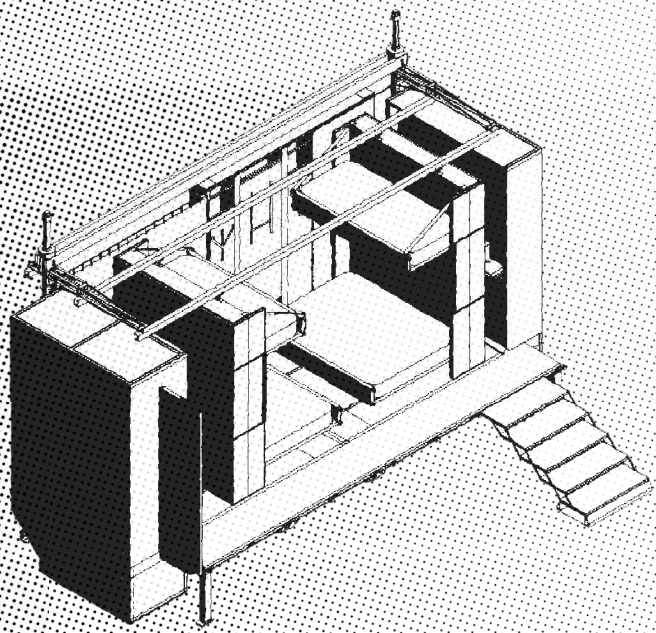

Ben Gravel

Disaster Displacement

Following a devastating natural disaster or climatic conflict, architecture plays a crucial role in not only rebuilding lost infrastructure, but being able to react to the needs of the community by providing comfort and safety as they endure struggling times. A successful disaster relief approach should meet short term needs as well as long term efficacy, depending on the type of natural disaster and the location of construction. Long term adequacy should especially be important in high poverty areas and in families who are not financially capable of moving out of a temporary home shelter and progressing toward a better quality of life. For instance, many of the people who were affected by the 2010 Haiti earthquake still reside in temporary shelters and are not financially stable enough to move elsewhere. They are currently living without basic necessities such as access to plumbing and electricity, which clarifies the need for an effective long term infrastructure.

In recent months, residents of California have experienced severe turmoil from the effects of tragic wildfires that have spread across the state. The eastern part of the state, away from the shoreline, is where a majority of these wildfires take place. Unfortunately, the average annual household income in this area of the state is the lowest, which prioritizes the need for long term relief housing strategies. Due to the effects of climate change and global warming, the “fire season” is starting earlier and ending later each year. The earlier spring snowmelt creates longer, more intense dry seasons therefore making the vast forested regions more susceptible to severe wildfire. Therefore, the need for disaster relief housing in California is increasing in demand as the climate is continuing to rapidly affect communities.

In order to provide for individuals and families displaced by wildfires, there are a few characteristics of a relief housing or shelter that would best suit these people. It is critical that the shelter is constructed using abundant and renewable materials from local communities, making the unit as a whole cheaper. A lower cost housing unit will make them more affordable for people affected by wildfires in low income areas. Also, it is important that the unit is made of noncombustible materials so that it withstands the spread of surrounding

wildfires. Specifically, as the exterior skin of the structure, incorporate CMU blocks, metal and sheet glass, or any material that passes the ASTM E 136 as a non-combustible material. The units should be adaptable and easy to assemble with basic tools and little knowledge of assemblies. Each unit would be transformable, so that it has the ability to adjust and adapt in order to account for a variety of living situations.

Citations

"2020 Fire Season Outlook." Ca.gov. Cal Fire, 2020. Web. 5 Dec 2020. <https://www.fire.ca.gov/incidents/>.

Schuler, Timothy . "It's Time for Designers to Embrace Fire as the Ecological and Cultural Force That It Is." ArchDaily. 2 Nov 2020. Web. 6 Dec 2020. <https://www.archdaily.com/tag/disaster-relief>.

Editorial, Equipo. "Living Capsule Offers Shelter from Disasters." ArchDaily. 18 Dec 2016. Web. 5 Dec 2020. <https://www.archdaily.com/tag/disaster-relief>