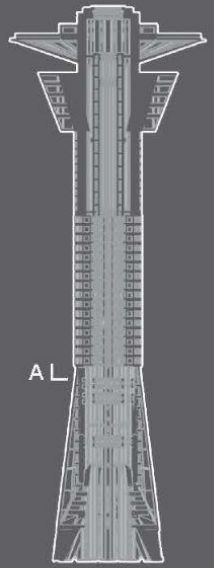
THE EAVE

Transformative Architecture for Emergency Relief

With development, many countries have centered their economies around creating metropolitan cities. These cities have given birth to skyscrapers creating an incredible density of infrastructure and population.

How can architecture respond to disaster? As the world becomes more globalized pandemics are now a worldwide problem. **Metropolises are faced with difficulty in finding adequate relief procedures, lacking preparation and space**. In its partial aftermath, cities are facing the problem of economic migration. With increased unemployment, the price of the city-life exceeds the number of jobs available, and people are slowly moving away.

As a metropolitan shelter, this project presents a **disaster relief solution** for the inhabitants of the city. The building has **two phases of being**, one for regular use and another for emergencies. In emergency, the building expands to utilize horizontal space above ground, accommodating needs such as healthcare, living spaces, and education programs for the unemployed. Taking inspiration from the idea of a protective umbrella, the design utilizes its expandable form and function as the architectural structure of the design. Revolving around a similar concept of providing protection and shelter. While the umbrella provides shelter for only the individual, the Eave provides emergency shelter for a city.

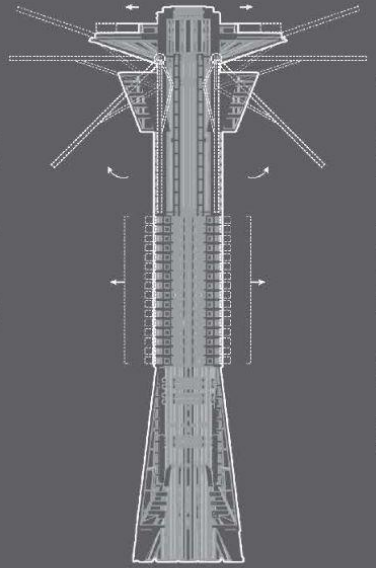


PHASE 01: NORMAL (CLOSED)

In phase one, the building is closed and functions as office space for organizations such as the World Health Organization and the State Department of Health etc.

Programs: Business, Offices & Public Gathering/Community Space

Sustainability: LED lighting, Demand controlled ventilation, Daylighting controls, Active blinds, Occupancy-based lighting controls



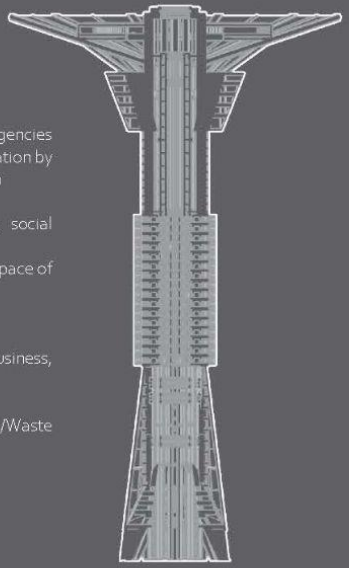
PHASE 02: EMERGENCY (OPEN)

Building opens for displaced peoples due to sudden emergencies within the city. Alleviating the consequence of internal migration by focusing on providing security and services for revitalization

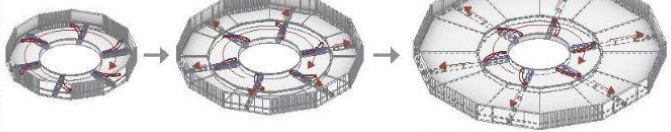
- Use for emergency infrastructures such as hospitals, social distanced living spaces, and job creation
- Extend community service programs as well as provide a space of social distancing for essential workers
- Volunteer and Revitalization programs

Programs: Retail, Agriculture, Recreation, School, Business, Housing, Hospital/Medical, Community

Sustainability: Solar Power, Greenhouse, Composting/Waste Renewal, Water, Carbon Emissions Reduction



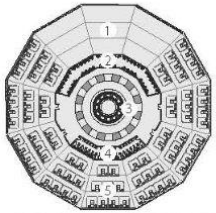
IRIS EXPANSION SYSTEM



PHASE ONE:
Closed System
Natural State

Mid-Transition

PHASE TWO:
Open System
State of Emergency



TOP FLOOR EXPANDED PLAN

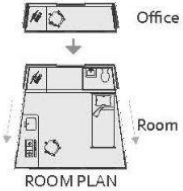
1) MEDICAL STATIONS
2) OFFICES
3) ELEVATORS
4) BATHROOMS
5) HOSPITAL BEDS

RESIDENTIAL EXPANSION SYSTEM

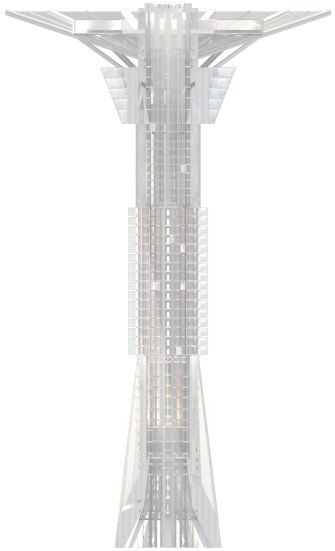
PHASE ONE:
Closed System
Natural State

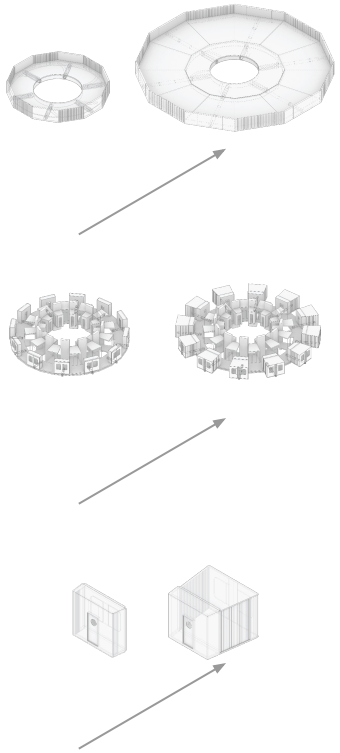
PHASE TWO:
Open System
State of Emergency

ROOM EXPANSION

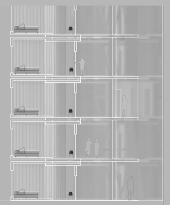


ROOM PLAN





RES DENTIAL DETAIL



RESOURCE DETAIL

GREEN DETAIL