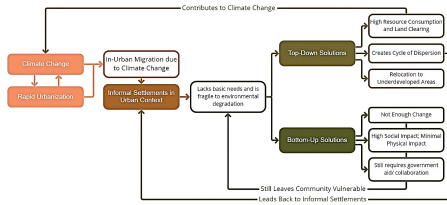




# RE/LOCATION:

## HOUSING INCUBATION AS A FOUNDATION FOR COMMUNITY DEVELOPMENT

### INFORMAL ARCHITECTURE



**Built Housing** **Health/Nutrition** **Livelihood Support**

**FRAGILITY** CURRENT CONDITIONS OF SAN ROQUE

Informal settlement communities remain to be one of the most fragile sectors within our city since their improper housing developments make them victims and contributors of climate change.

Current top-down housing solutions do not help since they are placed in static housing far from their livelihoods; forcing them to move back to other informal settlements in other areas/locations.

**Housing System** **Community Organization** **Grassroots Programs**

**AGILITY** SOCIAL ORGANIZATION OF SAN ROQUE

Despite this fragility, these communities still show agile characteristics; mainly through their grassroots organizations that contribute to their development. This can then be exploited by integrating this aspect with existing top-down housing efforts to create an inclusive and lateral development where the community is involved in the process of developing their communities.

### Make use of Community Incubation that...

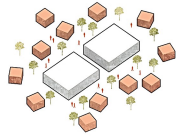
**Aids and educates the innovation of their housing typology, and...**

**Aids their transition to their final destinations and future developments**

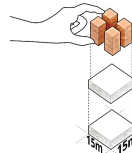
This results in the idea of a Community Housing Incubator that helps innovate and develop an informal settlement community by providing them skills and training to innovate on their dwellings. This teaches the community how to build and innovate their dwellings with the aid of housing bodies and professionals. This process was then applied to the community of San Roque, an established informal settlement within Quezon City that exhibits the fragile and agile aspects mentioned.

### INCUBATION MORPHOLOGY

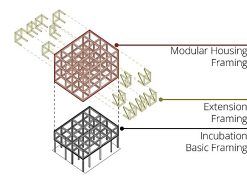
#### INCUBATION CLUSTER



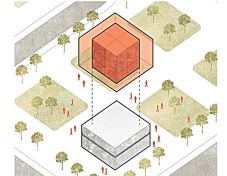
**1. Typical Configuration**  
Main programs consist of housing incubation that helps develop the community, and the housing units.



**2. Program Compression**  
Programs were vertically compressed within a 15mx15m Incubation cluster based on fire code restrictions.



**3. Modular Framing**  
Consists of a basic framing for the incubation and a modular demountable framing for housing spaces.

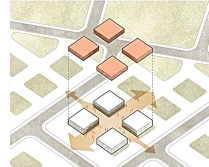


**4. Incubation Cluster**  
A Cluster with flexible and expandable residential units on top of reconfigurable incubation programs is then formed.

### INCUBATION BLOCK



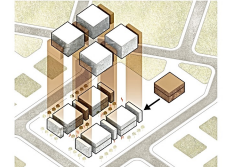
**5. Block Configuration**  
Consists of four (4) incubation clusters starting with ground level maker-spaces interconnected to pedestrian corridors.



**6. Workshop Spaces**  
Skills training and INFED workshops are placed on the second floor to complement the maker-spaces below.



**7. Incubation Block Formed**  
Overall focuses on teaching and training the community on how to innovate and develop their housing and community.



**8. Circulation Connection**  
Circulation cores connect the incubation clusters to residential units and other adjacent incubation clusters.

### INCUBATION SITE



**9. Incremental Incubation Process**  
Portions of the community based on vulnerability are slowly transferred from San Roque into the site to begin their incubation process.



**10. Preparation of Site Network**  
Manila Seedling Bank was used for incubation due to its adjacency to San Roque. This is first prepared as a public space with the cluster grids in place



**11. Main and Sub Incubator Blocks Placed**  
Main Incubators are placed that help incubate the community's residential typology while Sub Incubators focus on housing in relation to a specific industry.



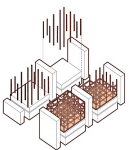
**12. Additional Clusters Placed**  
Additional Sub Incubator Clusters can be added as the demand and need increases within the area/site.

## INCUBATION PROGRAM

ARCHITECTURE CYCLE

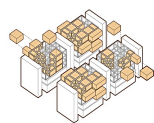
### Placement of Residential Structural Framing System

Residential superstructure is placed by once the community finishes the spatial configuration of their units.



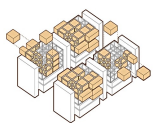
### Construction and Assembly of Residential Units

Main Incubators cater mostly for incubating the community's residential typology.



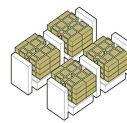
### Placement of Community Workshop Spaces

Community workshops are placed for community to learn and improve on livelihood skills.



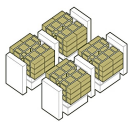
### Placement of Community Spaces and Expansion of Units

Community Spaces are added, and residential units are expanded by the community.



### Deconstruction and Transportation of Units

Residential units are deconstructed and transported to their final relocation sites.



DONE BY PROFESSIONALS

### 1.0 PREPARING TO MOVE-IN

### 2.1 FABRICATION & MOVING-IN

### 2.2 COMMUNITY WORKSHOPS

### 3.0 GROWTH OF INCUBATOR

### 4.0 FINAL DESTINATION

INCUBATION CYCLE



**Community Design Collaboration**  
Community plans and designs the spatial configuration and framing of their units.



**Fabrication & Assembly Training**  
Community executes their designs by learning how to construct their units.



**Livelihood Skills Development**  
Community learns to develop livelihood skills relating to home-economics and agroecology training.

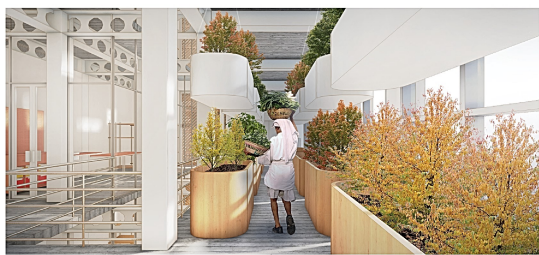


**Execution of Grassroots Programs**  
Community learns how to plan and execute their grassroots programs and the expansion of their units.



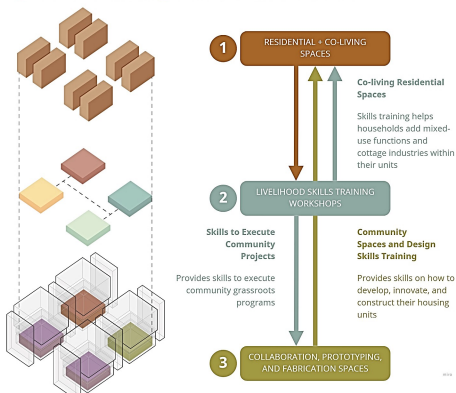
**Incubation for Final Destination**  
Depending on the situation, the community is oriented and prepared for their relocation sites.

DONE BY COMMUNITY



## a ● TYP. RESIDENTIAL BLOCK

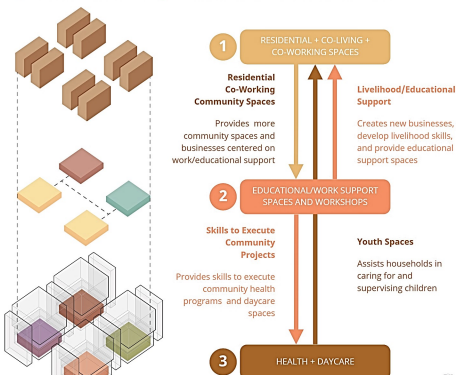
- RESIDENTIAL UNITS ● AGROECOLOGY WORKSHOP
- COMMUNITY OFFICE ● HOME-ECONOMICS WORKSHOP



- DESIGN FORUM AREA ● FABRICATION WORKSHOP
- PROTOTYPING STUDIO ● DAYCARE/HEALTH CLINIC

## b ● CO-WORKING BLOCK

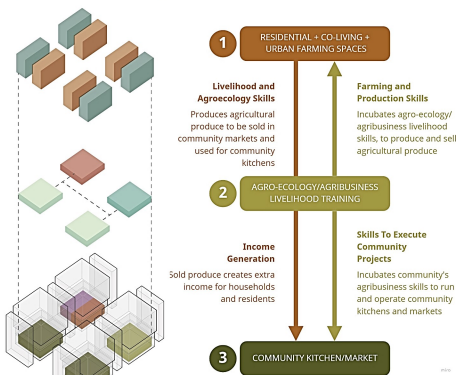
- RESIDENTIAL UNITS ● COMMUNITY OFFICE
- VERTICAL FARMING ● CO-WORKING/LIVELIHOOD TRAINING



- DESIGN FORUM AREA ● FABRICATION WORKSHOP
- PROTOTYPING STUDIO ● DAYCARE/HEALTH CLINIC

## c ● HEALTH/NUTRITION BLOCK

- RESIDENTIAL UNITS ● COMMUNITY OFFICE
- VERTICAL FARMING ● AGROECOLOGY WORKSHOPS



- DESIGN FORUM AREA ● FABRICATION WORKSHOP
- PROTOTYPING STUDIO ● COMMUNITY KITCHEN/MARKET

## OVERARCHING ROOF

Residential Block is covered with an overarching roof that allows more open activities and functions to happen within the block.

## RESIDENTIAL INFILL

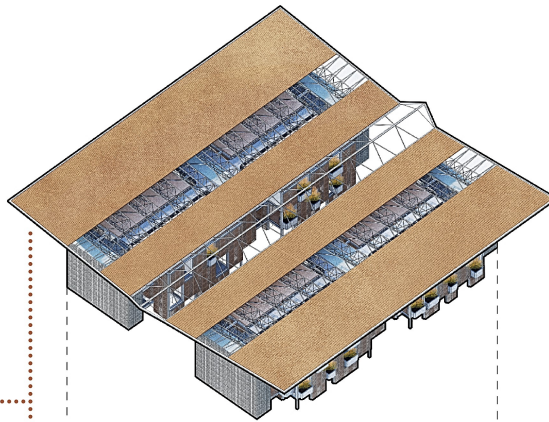
Consists of flexible residential units that are designed, modified, and adjusted by the community with the aid of professionals within the incubation programs.

## WORKSHOP/TRAINING

Consists of skills training and informal education centered on designing and planning their own units and neighborhood configurations. These also center on their current grassroots programs that help develop and meet their needs as a community.

## COMMUNITY MAKER-SPACE

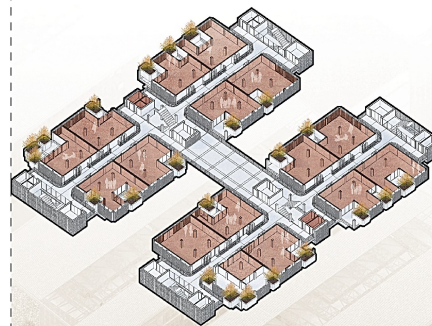
The ground floor was made to be a robust internal street in between clusters. It typically consists of design fabrication, design prototyping and learning, community design forum, and community acupuncture spaces.



4-5F

RESIDENTIAL UNITS

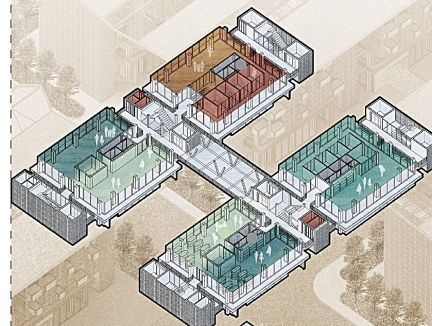
UTILITIES



3F

RESIDENTIAL UNITS

UTILITIES



2F

COMMUNITY OFFICE

WORKSHOP STUDIO

LECTURE ROOMS

PROTOTYPING STUDIO

DESIGN OFFICE

TOILETS



GF

DESIGN FORUM AREA

PROTOTYPING STUDIO

COMMUNITY ACUPUNCTURE SPACE

FABRICATION WORKSHOP

FABRICATION WORKSHOP

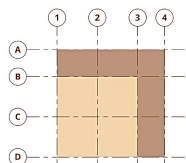
## a ● TYPICAL INCUBATION BLOCK

An Incubation Block consists of four (4) Incubation clusters that have interconnected programs. These typically consist of a Prototyping Studio, Community Design Forum Area, Fabrication+Build Workshop, and a Community Acupuncture Space. Overall, these incubation clusters can also host varying combinations and configurations in relation to a specific industry or activity program depending on the need of the community/neighborhood.



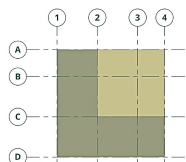
## 1.0 RESIDENTIAL GRID

Community first collaborates and learns how to design the spatial configurations of their units. This starts with the idea of modularity as a unit of space in the form of an ordering grid to arrange the unit spaces.



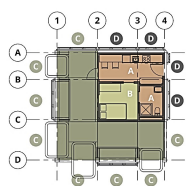
### UTILITIES & LIVING SPACES

2x2m and 2x3m grids are used for utilities while 3x3m grids are used for living spaces.



### EXTENSION MODULES

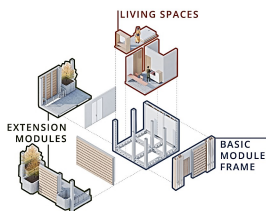
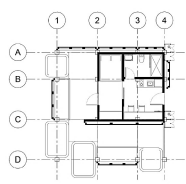
Minimum module starts with a 24-25m<sup>2</sup> unit that can be expanded to a 64m<sup>2</sup> unit over time.



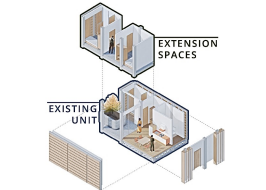
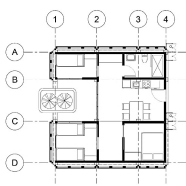
### SPACE TEMPLATES

- A** UTILITIES SPACES  
Kitchentette or Bathroom Module. Carries most of the utility connections in terms of plumbing, sanitary, and electrical.
- B** LIVING SPACES  
Bedroom/Dining/Living Room Module. Utility connections are sandwiched within walls.
- C** EXTENSION SPACES  
Balcony areas that can be converted into LIVING SPACES
- D** BASIC UNIT  
Consists of 24m<sup>2</sup> - 25m<sup>2</sup> unit that can be expanded over time based on the needs of the residents

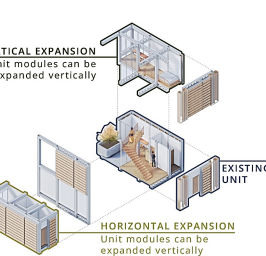
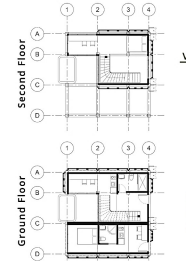
### BASIC UNIT (24-25m<sup>2</sup>)



### EXPANDED UNIT (64m<sup>2</sup>)

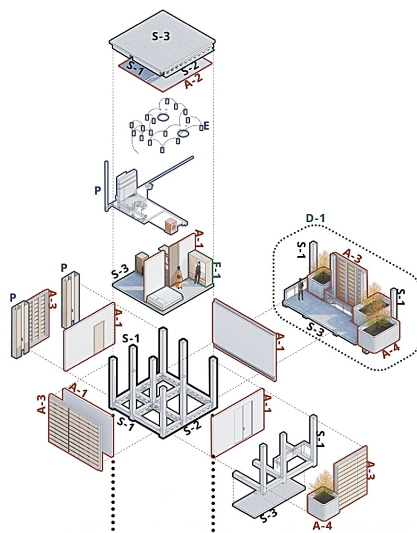


### UNIT EXPANSION



## 2.0 UNIT POSSIBILITIES

After the units modular grid has been planned and designed, the community can then construct, assemble, and create their own arrangements and configurations that suit their needs.



## RESIDENTIAL UNIT

The modular housing units have varying adjustable and modifiable components that have tiers of construction/assembly.

### DESIGN ASSISTED PARTS

Demountable structural framing that are assembled and disassembled by professionals.

- S-1: Structural Demountable HSS Frame
- S-2: Cellular Demountable Steel Frame
- S-3: Composite Demountable Slabs

### DIY COMPONENTS

Unit enclosure systems to be assembled/ manufactured by the community, and can be aided by professionals

- A-1: U-Build Wall Flat Pack Module
- A-2: U-Build Ceiling Flat Pack Module
- A-3: Reclaimed Facade
- A-4: Ashcrete Planter

### DESIGNED COMPONENTS

Done by the community with assistance from professionals

- P/E: Plumbing (P) and Electrical (E)
- F-1: Furnishing
- D-1: Extension Space/Balcony

## CO-LIVING EXTENSION

Extension spaces can also add mixed use extension spaces for businesses and other livelihood needs, creating a mixed-use housing unit.

## COMMUNITY ACUPUNCTURE SPACES

Co-living units combine to form productive community spaces that service each floor within a residential cluster.

### SAMPLE CONFIGURATION (HEALTH/NUTRITION BLOCK): C ●



## ROBUST CLUSTER

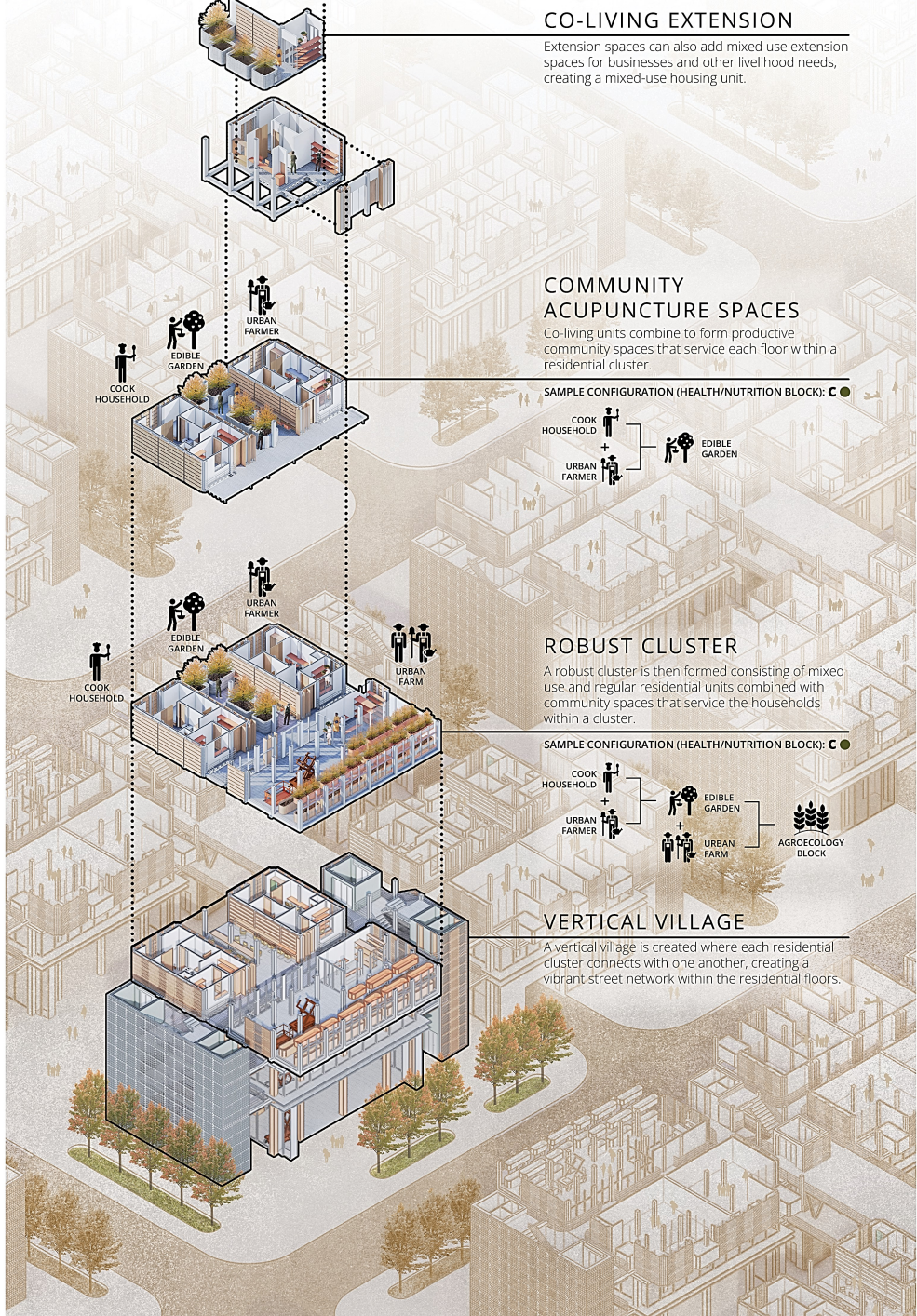
A robust cluster is then formed consisting of mixed use and regular residential units combined with community spaces that service the households within a cluster.

### SAMPLE CONFIGURATION (HEALTH/NUTRITION BLOCK): C ●



## VERTICAL VILLAGE

A vertical village is created where each residential cluster connects with one another, creating a vibrant street network within the residential floors.



## 3.0 GROWTH OF UNITS

The units then consist of adjustable and modifiable parts that can be done by the community, or with the help of professionals. After the units are constructed, these can then be continuously modified and expanded by the community. This can then create varying living configurations that create more robust residential networks within a cluster. A vertical village is then created through the growth and modifications of these units.