[in]formal
Pattern
Language

a guide to Handmade Improvitecture®

PROJECT SUBMITTED FOR THE RESEARCH PRACTICE GRANT
OPTIMIZING PATTERNS THROUGH HANDMADE IMPROVITECTURE

PATTERN 15
SANDWICH CITY (ROOFTOPS)

PROPOSED OPTIMIZATION IN RELATION TO ROOFTOP TYPOLOGY

INCOMPLETE ROOFTOPS

PROPOSED SYSTEMS COMBINING URBAN PARKING & MICRO-ECONOMIES

PROTOTYPES FOR HYBRID SYSTEMS INSPIRED BY PYRAMID TOWER STRUCTURES: COMPACT • FLEXIBLE • EXPANDABLE • ADAPTABLE • INCOMPLETE

EXISTING ECOLOGICAL / PV / LAYOUT

ANALYSIS OF ROOFTOP TYPOLOGY IN RELATION TO URBAN CONDITION

EXISTING ROOFTOPS

EXISTING BUILDINGS

INCOMPLETE ROOFTOPS

INCOMPLETE ROOFTOPS

EXISTING TOWERS

INCOMPLETE ROOFTOPS

EXISTING TOWERS

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OPTIMIZING PATTERNS THROUGH HANDMADE IMPROVITECTURE

PATTERN 32
WAITING AGRICULTURAL LAND

PROPOSED OPTIMIZATION / NEW DESIGN

SUSTAINABLE ENERGY
1. Solar panels - Eco farms

PHYSICAL, SOCIAL INFRASTRUCTURE (COMMUNITY WALL)
06. Waste management
06. Classrooms
07. Kindergarten
07. Communal dining
08. Cultural café
08. Micro-economies

STRUCTURE
04. Frame structure + operable partitions
05. Open web steel plating
09. Insulated sheathing
11. Lightweight concrete slab + tensile shading

GREEN SPACES
01. Community farming
02. Communal park + flower garden
03. Green walkways
13. Rooftop urban farms + hydroponic, terraces
14. Pulley system

PARCELIZATION
01. + green spaces
03. Green walkway
15. Gathering space
16. Pedestrian walkway
17. Vending space
18. Bikeway for waste delivery + future informal sprawl

SUSTAINABLE ENERGY
Solar panels provide energy for waste management plant, classrooms and kindergarten

SEWAGE REUSE
Greywater is collected from households, recycled on site and reused for irrigation of the community park. Water is infiltrated into the ground to avoid contact with the plants.

COMMUNAL DINING
Day: Communal Dining
Operated by men (street café owner) and acts as a gathering space for local artists and neighborhood residents.

Rig: Cultural café
Operated by women and provides dining and socializing opportunities for vendors, elderly and neighborhood residents.

CLASSROOMS
Co-op students and volunteers educate community members on farming, help children with school work and teach adults skills.

CELEBRATE - MAINTAIN

CULTIVATE

WASTE MANAGEMENT
**Organic waste**
**Recyclable waste**

Toikilos collect waste from vendors and buildings and bring it to the waste management plant on site.