THE TRADITIONAL FUTURE

THE SECOND LIFE HUB

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   Community, factory, textiles
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   Structure, pods, landscape, activities
THE TRADITIONAL FUTURE

THE SECOND LIFE HUB

RE-CYCLE AND UP-CYCLE HUB FOR TEXTILE COMMUNITIES IN INDONESIA.

DEALING WITH INDUSTRIAL TEXTILE WASTE AND THE COMMUNITY.

![Diagram showing the process of recycling and upcycling waste to create new products and knowledge.]

- WASTE
- RESOURCE
- UPCYCLE
- NEW PRODUCTS
- KNOWLEDGE
THE TRADITIONAL FUTURE

INDONESIA AND THE TEXTILE INDUSTRY

WASTE AND THE INDEPENDENT WORKFORCE
90% of textiles used in the industry are produced within Indonesia.

65% of all of the textile companies in Indonesia are in Bandung.

Nearly a third of Bandung’s population is employed in the textile industry.
COMMUNITY FACTORY WORKERS
Textile production process revised through a Sankey Diagram, the diagram concentrates on flow amounts within the kampung.
WASTE TO SITE AREA RATIO

80cm x 80cm x 80cm

330kg

120cm

1Ton

375Ton

1,263m²

3,818m²

3,818m²
SEAMSTRESSES
TAILORS
COLLECTORS
SORTERS
¿Can the flow of textile waste streams be hacked and used to re-invigorate a community’s knowledge and home economy?
¿How can the re-processing of textile waste become part of the built environment?

¿What kind of space is needed to bring the community together and create a self-teaching community of textile experts?
THE PROTO-STRUCTURE
THE ROOFS
THE TRADITIONAL FUTURE

THE BRICK + THE SECOND LIFE HUB
PROGRAMME CONCEPT
The Traditional Future

SITE
PLACEMENT STRATEGY

1. THE PRODUCTIVE LANDSCAPE
2. THE SOCIAL ALLEY
3. THE FUNCTIONAL LANDSCAPE
4. THE LONGHOUSE
THE TRADITIONAL FUTURE

THE PROGRAMME

SPACES AND ACTIVITIES
1. NEW KAMPUNG ALLEY  
2. PRODUCTIVE LANDSCAPE  
3. FUNCTIONAL LANDSCAPE
FIRST FLOOR ACTIVITIES
NEW KAMPUNG ALLEY
NEW KAMPUNG ALLEY
MATERIAL PRODUCTION
1. Loose textile membrane for privacy
2. Sawed textile-hollow block with reinforced poured concrete for creation of closing lintel
3. Textile hollow block 200x200x400 rollock position for natural ventilation
4. Textile hollow block 200x200x400 wall with mortar-cement joints 1:5
5. Coconut wood partitions for WC
6. Ceramic floor-toilet
7. Poured concrete step for toilet installation
8. Textile-cement paver 100x200x200mm
9. 6" HDPE perforated drain pipe on foundation
10. Foundation head reinforced concrete with No.4 rebar 300x00mm
11. Stone foundation 700x300mm mortar-cement 1:5
12. 7” cement pipe connecting into septic tank and further into a simplified sewage system
13. Inspection opening into septic tank
14. Septic tank construction with reinforced concrete slab 150mm thick with No.3 rebar
15. Preparation layer, excavated earth, cement, water.
WASHING POD
CO-WORKING POD
WORKSHOP POD
CO-WORKING PODS
1 Tubular steel column 168 x 7.11mm for timber frame support of workshops
2 Textile-cement paver 100x200x200mm
3 Steel plate connection 200x200mm for tubular steel column
4 Reinforced concrete foundation header with simple rebar reinforcement 210x210mm
5 Compacted sand-layer for paver bedding
6 Compacted backfill from in situ soil
7 Reinforced stone foundation wall 210x500mm
8 Preparation layer, excavated earth, sawed textile-hollow block with reinforced poured concrete for creation of lintel on foundation wall
9 Compacted backfill
10 Topsoild for planting
11 Electrical outlet on table
12 Pod switchbox (electrical outlet)
SEWING WORKSHOP POD
TOP SEWING PODS
OPEN LEARNING
OPEN LEARNING POD
THE TRADITIONAL FUTURE

THE “PURPLE WALLS”

ACTIVITY PARTITION
THE PORTALS
PROGRAMME TRANSITIONS
MATERIALITY
1. 200x200x400 hollow textile-cement block. 60% recycled textiles (mixed polyester, cotton, acrylic viscose) 30% self-leveling cement 10% lime
2. Textile block overlap to form structural corner
3. In-block column with rebar reinforcement built in 100x100mm and cement por throughout connection
4. Horizontal rebar bracing
5. Perimeter stemwall with textile hollow blocks 200x200x400
6. Foundation ring pour with horizontal rebar reinforcement
7. Rebar connections column-foundation work
THE TRADITIONAL FUTURE

THE ROOF STRUCTURE

COLUMNS & BEAMS
STRUCTURAL CONCEPT
MODULE REPEATITION
HORIZONTAL BRACING
SECONDARY BEAMS
MEMBRANE SUBSTRUCTURE

MEMBRANE + SUNSHADING
COMPLETED STRUCTURE
STRUCTURAL MODULE

Column lines

Beam placement

Horizontal bracing

Connection

Secondary bracing

Structural module
BEAMS AND COLUMNS

Structural frame

1. Three-piece column A
2. Three-piece beam
3. Three-piece column B
1. Compound glulam Mengkuland timber LVL with steel rivetting 200x500mm
2. Compound glulam Mengkuland timber LVL connection piece for three-piece column 350x500mm
3. Steel hexagonal screw for fixation
4. Upper steel base plate 30x500x750mm
5. Middle steel plates for base connection 30x500x300mm
6. Bottom steel base plate 40x500x750mm
7. Steel hexagonal connection base to foundation
8. Above-ground grout header for foundation wall connection
Beam and column connection

Base connection (to foundation)
1. Textile-cement paver 100x200x200mm
2. Compound glulam three-piece column 750x500mm Mengkulang timber LVL with internal steel plate for foundation connection
3. Four-piece steel plate connection 750x500x400mm
4. Reinforced poured concrete foundation wall 510x510mm with No.4 anchoring rebar
5. Anchor bolts into foundation wall
6. Steel rebar reinforcement 250x250mm
7. Compacted earth backfill
8. Fine gravel fill for drainage pipe
9. 6" HDPE perforated drain pipe on foundation
10. Footing foundation rebar grid reinforcement
11. Preparation layer, excavated earth, cement, water.
THE TRADITIONAL FUTURE

SUN AND WATER

THE FUNCTIONAL LANDSCAPE
SHADING + STRUCTURE
SUN SHADING
VENTILATION + COOLING
1 Textile-cement block (full)
150x100x200mm
2 Geotextile wrap
3 Topsoil for planting
4 Compacted backfill trench from in situ soil
5 Rounded gravel 20-40mm as pipe bedding
6 Perforated flexible HDPE pipe for rainwater collection (to storage tank)
7 Concrete foundation with simple steel rebar reinforcement 150x150mm
RAINWATER 2300mm/yr

SUN

SOLAR collector

heated

cold

waste heat

showers

washing

toilets

GREY WATER

SOAP FILTER

SEPTIC TANK

solids

liquids

SEPTIC TANK solids

GREY WATER

evaporation

PHYTO-REMEDIATION

INfiltration
WATER MANAGEMENT

1. Soap filter
2. Settling tank
3. Anaerobic baffled reactor
4. Anaerobic baffled reactor
5. Anaerobic filter
6. Plantedd gravel filter
7. Water storage tank
8. Absorption wells
9. Perimetal French drinks

2,300mm/year
748,939 lt/year

GREY WATER
BLACK WATER
To septic tank - to S.S.S
DEWATS
ABSORPTION WELL DETAIL

SOIL LEVEL

PREFABRICATED CONCRETE CAP

300MM

FINE POINT GRAVEL

CONCRETE-TEXTILE BLOCKS STAGGERED

BASE LAYER

300MM

VAPES

300MM
LANDSCAPE AS WATER BUFFER
THE TRADITIONAL FUTURE

ACTIVITY LANDSCAPE

THE SOCIAL BUFFER
THE TRADITIONAL FUTURE

THE SLH AND THE PERIMETER

ECONOMIC ACTIVATION
RESPONSE TO HUB NEEDS

ACTIVATION SPREAD
THE TRADITIONAL FUTURE

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