High Thought – Low Tech

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Collaboration with India

Phase Objectives
- Research and establish form and performance guidelines
- Research and establish material and system frameworks
- Establish a concept design
- Establish a site design

Vision
- Constructing prosperity through integrated community in rural India

Intention
- To preserve contextual form and instil innovative function

Project Initiatives
- Opportunity for contentment
- Embrace traditional culture
- Provide adaptable variations
- Graft project into site context
- Incremental Phasing

Phase 02

- Team A
- Team B
- Team C
- Team D
- Team E
- Team F

To preserve contextual form and instil innovative function

Traditional Solutions
- Intentional Design
- Regional Resources
- Flexible Materials

Climatic Strategies
- Climatic Design
- Building Methods

Traditional Materials
- Masonry
- Bamboo
- Rammed Clay

Innovative Design Solutions
- Masonry
- Weavers
- Farmers

Family Patterns
- Nuclear
- Prevention
- Standards

Seismic Design
- Assembly
- Reinforced
- Materials

Life Cycles
- Variations
- Expansion

India site

Mexico site

USA site

Concept site plan

Concept site diagrams
Design strategies focus on the geographical context of West India, the economy of the region, and the local culture in Wagnagar. The strategies focus on ease of construction, materials, community and climate.

- Strategies
  - Construction methods
    - Building methods
      - Knock-out block
        - Allows for future wall expansion
      - Recycled masonry
        - Used for re-infiltration zones in courtyards
    - Foundations
    - Heavy / light construction
      - Rat-trap brick bonding
  - Life cycles
    - Building limits
    - Program area
    - Enclosed program
    - Stacked wet program
    - Mother program
    - In-between program
    - Independent roofing system
      - Allows for future vertical expansion
  - Seismic design
    - Reinforced corner connection
  - Climate
    - Night climate zone
      - Stacked wet program
      - Kitchen - courtyard
      - Tight boundaries
    - Mid-day climate zone
      - Kitchen - storage
      - Passage proximity
      - Program adjacencies
      - Bedroom - bath - bedroom
    - A.M. climate zone
      - Passage proximity
      - Program adjacencies
      - Bedroom - bath - bedroom
    - P.M. climate zone
      - Passage proximity
      - Program adjacencies
      - Bedroom - bath - bedroom
  - Program
    - Master bedroom
      - Washroom
      - Bath
      - Sleep facing north
      - Entry
      - Puja
      - Living area
      - Kitchen
      - Storage
  - Migration patterns
    - A.M. climate zone
    - Mid-day climate zone
    - P.M. climate zone
  - Phasing
    - Phasing 01
      - Building limits
      - Program area
      - Program adjacencies
      - Master bedroom
      - Living area
      - Kitchen
      - Storage
    - Phasing 02
      - Holding house phasing
      - Independent roofing system
      - Second floor expansion
      - Intermediate buttresses
      - Heavy / light construction
      - Rat-trap brick bonding
      - Second floor expansion
      - Intersecting construction
      - Common gathering space
      - Intersecting construction
      - Common gathering space
  - Family patterns
    - Nuclear family
    - Oriental family
    - Westernized joint construction
  - Seismic design
    - Nuclear family
    - Oriental family
    - Westernized joint construction
  - Construction methods
    - Plan
      - Separation by gathering space
      - Common gathering space
      - Intersecting construction
      - Common gathering space
      - Intersecting construction
    - Section
      - Connection by gathering space
      - Deep overhang
  - Life cycles
    - Plan
      - Separation by gathering space
      - Common gathering space
      - Intersecting construction
      - Common gathering space
      - Intersecting construction
    - Section
      - Connection by gathering space
      - Deep overhang
  -策略
    - 设计策略关注西印度的地理背景，区域的经济和当地文化在Wagnagar。策略关注施工的便利性、材料、社区和气候。

- 施工方法
  - 建筑方法
    - 打孔块
      - 未来墙面的扩建
    - 再生石材
      - 用于渗水区的庭院
  - 阶段
    - 第一阶段
      - 建筑范围
      - 程序区
      - 主卧室
      - 生活区
      - 厨房
      - 存储
    - 第二阶段
      - 持有房屋阶段
      - 独立屋顶系统
      - 第二层扩展
      - 中间壁柱
      - 重型 / 轻型构造
      - 老鼠笼砖键
      - 第二层扩展
      - 相交构造
      - 共享空间
      - 相交构造
    - 剖面
      - 连接共享空间
      - 深部遮阳
  - 家庭模式
    - 核家庭
    - 东方家庭
    - 西方化联家
  - 地震设计
    - 核家庭
    - 东方家庭
    - 西方化联家
  - 施工方法
    - 平面
      - 分离共享空间
      - 共享空间
      - 相交构造
      - 共享空间
      - 相交构造
    - 剖面
      - 连接共享空间
      - 深部遮阳
Site Planning

The tradition and culture of Wagnagar demands preservation, yet balanced with site planning and design. The site is located in the center of the Wagnagar. The site location provides opportunities for the project to anchor itself into the context and traditional vernacular.

Site context
Grafting new site design into existing density and massing to match context

Site massing
New density and massing sculpted equivalent to the existing site condition

Public space
The public courtyards are carved from the mass to serve as cluster courtyards

Building area
Each individual site is shown with approximate maximum building foot prints based on program
Construct Prosperity through integrated community for the other half.

Intention
Preserve form and instill function

Phase One Built Out in Context

High Thought – Low Tech
A comprehensive study of housing in rural India
Sam Bouck + Forrest Reynolds
Professor Mark DeKay – Spring 2013

Vision
Construct Prosperity through integrated community for the other half.

Intention
Preserve form and instill function

Site Context

Site Context

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Site Context

Site Context

Site Section Through Plans 01 + 08

Site Section Through Plans 01 + 08

Project Site Built Out in Context
Climactic Strategies Bundle for Design
In the hot and humid climate of South Western India, there are several design strategies to consider for creating more comfortable buildings. Through the design of this project, this series of identified strategies were considered.

Photographs courtesy of students at the College of Architecture, Sardar Patel Institute of Technology, Vasad, India.

Bundle Illustration Diagrams courtesy of Mark DeKay.