

MUD BRICK HOUSING IN DESERT CLIMATES PROPOSAL FOR AN E-COLONIA

Cooperative building of low cost, energy-efficient adobe dwellings for families in need of decent housing.

ADOBE BUILDING

We believe mud brick structures offer the most satisfying dwelling solutions. The simple houses we propose are:

- a. built without wood, with vaulted and domed roofs of sun-dried brick;
- b. well oriented and suited to the climate, cool enough to eliminate considering air conditioning;
- c. low cost since sun-dried brick is made on-site with labor donated or bartered;
- d. built according to vernacular methods of design and construction, allowing the community to meet its own housing needs.

CONSTRUCTION METHODS

Design

Designs will be prepared for single-family dwellings of 750-1400 sf, made of adobe, of one or two stories enclosing a courtyard for climate control. Every house is unique since it reflects each family's special needs and preferences, especially in orientation. Plumbing and electricity included.

Materials

Bricks will be shaped in wood moulds and dried in the sun before using to build walls on a raised foundation of local

stone, rock and poured cement. Clay and sand for bricks and mortar are mixed on site. As required by code, bond beams and rebar or bamboo will be used to insure stability, along with standard pipes and wiring.

Methods

Local specialists will attend to soil content, structural requirements, plumbing and wiring. Bricks will be tested for stability as well as the completed structures. Drainage, sewage and seismic concerns are carefully studied. Most of the labor will be done by our team and by family members themselves. Work teams of ten or twenty people will be organized to insure efficiency during construction. Duties will be assigned according to age, strength and ability. Through participation dwellers gain practical knowledge, skills, cut costs and forge community ties. The process of cooperative building strengthens commitment to home and to neighbors.

Landscaping.

Visual and olfactory delight emanates from indigenous trees, coverings and plants, complemented by aloe vera, rosemary, lavender and citrus depending on climate.

EXPERIENCE

Since 1994 problems have been discovered and solved. These practices provoked useful questions and suggestions from all those involved in actual construction, at community meetings, workshops or interviews.

Simone Swan, Adobe Alliance, Inc. adobealliance.org
swan@adobealliance.org