

Hart's Mill: Architectural Background

Anthony 06/04/2016

Basic commitments

Our Vision (Mission) Statement states:

We envision a world in which people live in justice and harmony with each other and the land.

Principles and Intentions relevant to design include:

11. Buildings and infrastructure will be designed to integrate harmoniously with each other and with the land. While recognizing that members' ideas of what in fact is harmonious or beautiful may be quite varied, we nonetheless commit to community attentiveness to overall aesthetics and establishing a process for decision-making on aesthetic matters.

12. Buildings and infrastructure will be designed for minimal or positive impact and maximal liveability. We prioritize clean and healthy water and air (indoor and out), water catchment and recycling on-site (including full-scale "waste" composting), soil restoration and enrichment, and careful preservation and enhancement of viewscape...

13. Buildings and infrastructure will be designed to allow for variety and both accessibility and privacy. We will keep as much land as possible open both for farming and for wild area. In the built areas, intelligent and cooperative design layout will accommodate varying needs for privacy, quiet, security and clustering, and carefully balance and enable both regular outside visitation for educational purposes and the privacy and other needs of members.

27. We aim for socially and economically just relations within the community. We commit to considering the full economic and social impact of our actions upon each other; to reducing or eliminating economic barriers to community membership and other economic and social inequalities; to valuing the full range of talents, time, and treasure that members bring to the community and to working out fair trade-offs between them (agreement #7) as circumstances may require...

Themes from previous discussions

In late 2014 and early 2015 we held a series of architectural discussions in preparation for our CUP application. Many desiderata came up. Following is my summary of the main themes that "stuck". Please note that these are mostly not fully consented to, only common themes and directions from those discussions.

1) Living in harmony with the land

Minimize further degradation to our land; maximize restorative effect; build for resilience wherever we can and for a stronger sense of connection with the land; practice sustainable/low-impact building. Act as ecologically responsible citizens on all scales (local, bioregional, and global).

Specific design mandates:

a) **Small homes.** We consistently mentioned 1200 sq ft or so as the high end for a 2 BR home, with many houses significantly smaller (the 400-600 range). This can be done partly through major leveraging of common facilities. We may discourage guest bedrooms in individual houses, encourage shared bedrooms for kids; and discourage household laundry rooms (use the common one!) or large private kitchens, workshops, etc.

b) **Low energy demands.** In general, aim for tight building envelopes, great insulation, etc. Avoid major, or perhaps any, AC demands.

c) **Draw on the sun.** Our draft Standards declare that we will require passive solar design strategies in all buildings. Use south exposures for windows and thermal mass (stone, tile, water, etc.) to collect heat, place windows and vents to make best use of interior temperature differentials for ventilation/cooling. Active solar is also encouraged, with consideration for other ecological impacts as well (e.g. PVs can be toxic to produce, long shipping distances, etc.). There will be design implications of solar cooling strategies as well.

d) **Use on-site or very local materials, recycled/able materials as far as possible; minimize construction waste.** Maximal use of recycled and recyclable materials/ maximal use of local/onsite materials. Standards say: "Whenever possible, use trees harvested from the site (some homes may be built of cordwood) and sand and clay from the site as well (e.g. for cob houses, landscaping tile and brick)." From off-site, there is some advantage to modular buildings on ecological grounds because at least construction waste and worker transit are much reduced

e) **Careful ecological orientation.** Site and orient buildings and other structures and shade trees to maximize solar access to building roofs and the southern wall of buildings in the winter and minimize solar access to windows and doors in the summer. Likewise, plan to use summer's prevailing winds for cooling and ventilation while shielding as far as possible from the cold winds of winter.

f) **Convivial outdoor spaces.** Maximize convivial and celebratory outdoor spaces; encourage members to spend time outside through intentional outdoor structures and "outdoor rooms".

2) Living with justice toward each other.

Design for maximal economic accessibility, especially "reducing or eliminating economic barriers to community membership and other economic and social inequalities" (P&I 27) by keeping costs reasonably low and homes relatively comparable economically.

Specific design mandates:

a) **Low building costs.** Small and simple homes keep construction costs low. Make the Common House suitable for many household needs (laundry, guest rooms) to reduce size and appliance costs for individual homes, but not highly costly either (since CH costs will be distributed across members also).

b) **Relatively similar costs.** Keep homes relatively comparable economically; avoid building a community that visibly reflects/perpetuates economic inequality.

c) **Minimize or streamline the usual architectural process.** Individual architect-designed homes are the most expensive process. Instead, use standard designs, work from modular / pre-built units, plan multiple dwellings at once to make use of economies of scale when buying materials or hiring builders, etc.

d) **Self-build options and styles.** Support the option for self-built homes, or at least major contributions of construction time and labor by owners/residents. This favors labor-intensive (by members) building methods/materials over methods with larger purchased inputs (commercial building products, professional subcontractors).

3) Living in harmony with each other.

Design to support and encourage rich, varied, and inclusive community interactions, with careful attention to the need for private spaces as well. All design should fit our close-in village layout.

Specific design mandates:

a) **Ready physical accessibility of built public spaces for all.** Build to ADA standards or better to attend to the special needs of children, differently-abled, and the elderly.

b) **A variety of spaces across the public/private continuum.** Design around envisioned activities, and make ample provision for a mix of public, private, and in-between kinds of spaces

c) **Public spaces spread widely.** Design the Common House to maximally support shared community activities, and offer many in-between kinds of spaces as well. Consider requiring each house and its immediate environs to incorporate some elements of “public private space” (i.e. don’t restrict public space just to the CH).

d) **Artful design of all public spaces to support/ nurture/ prompt a range of social interactions.** Pay careful attention to size (*Pattern Language* says the tendency is to build public spaces too big); keep many of them informal; ensure that some should have excellent acoustics; some should straddle indoor/outdoor (patio/ openable wall/ indoor room); etc. “Make significant use of porches to increase usable (but unheated/cooled) living space and to create maximal social interaction space” (*Pattern Language*). Build convivial outdoor and creative spaces of all kinds (porches, patios, courtyards, outdoor kitchen(s), playspaces, gardens, picnic areas, art, etc.)

e) **Artful design of private spaces to variously support both accessibility and privacy.** Homes should include the full gradient of spaces: some open to sun, neighbors, and passersby; others that are or can be shielded from public eyes for family, couple, and/or individual privacy. Following the proposed Architectural Standards, create at least some private courtyards on the sides of homes with the exterior wall of the adjacent home designed with no or high/ clerestory windows which do not allow a view from the interior of the house into the neighboring courtyard. They could also be glass block or some other translucent but not transparent glass. Contrariwise, some members may prefer wide-open glass walls that create a shared open courtyard between homes.

4) Integrating buildings and infrastructure harmoniously with each other and with the land (P&I 11)

Design individual buildings/homes with the overall aesthetic in mind. We are building ourselves into a community in the social sense, in close conversation and coordination with each other while honoring and celebrating our differences; we should build the physical community in the same spirit. Design in ways that are manifestly “in conversation” with the land as well.

Specific design mandates:

- a) **Design primarily within one or a few coordinated styles.** When diversity is desired, develop variations within a shared stylistic vocabulary, and specify it in architectural code/design standards.
- b) **Houses that synergize with their neighbors.** Plan for homes whose shapes and prominent features (rooflines, massing) are proportional to each other, also to be specified in architectural code/design standards. Take care for drainage, runoff, lighting, and other effects on each other, as well as the shape of outdoor spaces created by the ensemble of dwellings.
- c) **Homes physically linked into a connected flow.** Make visually and communally satisfying use of the close proximity of our homes by careful design of courtyards, colonnades, half-walls, “half-hidden gardens” (see *Pattern Language* summary, #111), plantings, etc. to create a continuous streetscape and/or analogous connectivities.
- d) **Styles that visibly incorporate local materials and natural design elements.** Make consistent and widespread use of clay, fieldstone, and wood, some at least from our land and homesites. Prefer earth colors. Standards say: “Obtain a visual harmony of good quality, locally appropriate finishes and colors”.
- e) **Styles that visibly speak to the land.** Acknowledge and mirror the flow of the land (e.g. elevation changes, places of copses and great trees, etc.) in design and layout, especially of home clusters and the Common House.
- f) **Styles that visibly acknowledge local/vernacular architectures.** Keep the bulk of our building compatible with other buildings in the area and with local traditions; avoid architecturally declaring ourselves to be “other”. This could include respectful but playful/creative use of vernacular elements within a more varied overall design. Promote creative and unique decorative elements such as stained glass, tile, mosaics, curved walkways, spiral patterns, window/door trim that follows the tree shape rather than being squared off, gateways/fences made from sinewy branches, decorative boulders, and so on.