






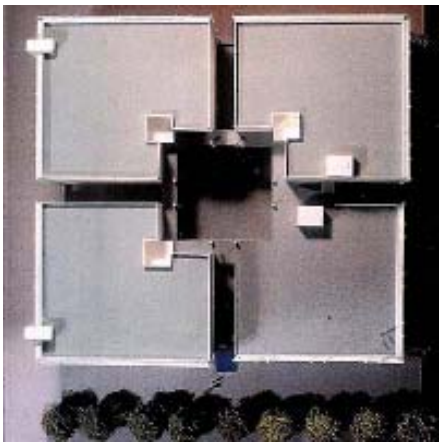


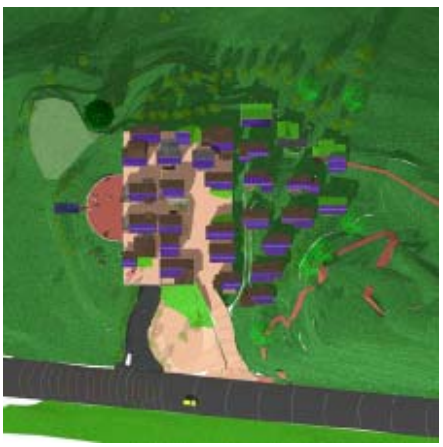


Greg VanMechelen

Architect

FIRM PROFILE

VanMechelen Architects is an architectural design firm with a practice in Berkeley, California. We focus on environmentally-responsible design, and our projects include a variety of alternative building materials and healthy practice designs, including solar-oriented houses, schools and institutional buildings.

Our work involves the integration of building systems and materials with the need to provide healthy and safe environments while respecting natural systems. We create buildings that utilize passive and active solar energy, renewable and resource efficient building materials, and interior spaces that promote human health through daylighting, natural ventilation, and good indoor air quality. We have done work for several clients with chemical injury, and are especially sensitive to the need to reduce the toxic chemicals found in many building materials. Our projects also utilize alternative building materials, such as strawbale and earthen construction, as well as salvaged and sustainably harvested wood, and spray cellulose insulation, made from recycled newspaper. Our work includes residential, commercial, and institutional projects.

The design approach is another unique aspect of our work. To create a design that truly meets the needs, it is critical that the client actually be involved in the design process. This works best with a multiple step process of site analysis and synthesis, in which the client is an active participant in the work. The first step involves analysis to develop a more complete understanding of the physical, social, and spiritual characteristics of place. The design is then created through an interactive working process, with paper cut outs and clay, to develop the planning and the forms for the design. The client is active member in the design, and the Architect's role is somewhat akin to facilitator. In a group process, it is beneficial to all parties that the entire Community participates in this process, as it is in the collective atmosphere that all voices can be heard, and that the true qualities of the situation can be learned. Many do not understand the value of their own contribution, and important insights often come from the least outspoken among us.

We are the co-author of the Revised Master Specifications for Lawrence Berkeley National Laboratory, which incorporates a variety of resource-efficient and waste minimizing materials and techniques. Greg VanMechelen was also the Resource Efficient Building Consultant to the City of San Francisco, advising their Public Works Departments, including Architecture and Construction Management, on Green Building Practices.

Mr. VanMechelen serves on the National Board of Architects/ Designers/ Planners for Social Responsibility (ADPSR), and is Chair of their Northern California Chapter. He is a founding member of the California Straw Building Association (CASBA), on the Board of Berkeley EcoHouse, and also on the Advisory Board to the Sustainable Business Alliance: Berkeley (SBA:B), and Project Green Team. He is co-founder of the Berkeley Green Resource Center, a joint project of ADPSR and SBA:B.

He is also co-author of Building Less Waste, a manual for environmental building practices, and the ADPSR West Coast Architectural Resource Guide. He has written several articles, and presented Green Building Techniques to the General Services Administration and other Federal Agencies, and at numerous universities and conferences.




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Architect

Greg VanMechelen is a licensed architect with more than 18 years of professional experience. He is also concerned with the environmental effects of architecture on both global and human health. He can provide design, construction and material choices that promote good use of limited natural resources, while creating non-toxic environments that increase user productivity and enjoyment. He is on the local and national boards of Architects/ Designers/ Planners for Social Responsibility, and is a co-author of their *Architectural Resource Guide*.

Professional Experience

1992-Present Greg VanMechelen, Architect, Berkeley, CA
1986-1992 Stone Marraccini Patterson Architects (now the Smith Group), San Francisco, CA
1984-1986 Hoffman O'Brien Levatich & Taube, Ithaca, NY

Partial Project Experience

2006-7 **Berkelely Zero Waste Transfer Station, Berkeley, CA:** Master Plan Proposal to redevelop 7 acre site into new 85,000 sf Material Sorting and Processing Facility, and 15,000 sf Office Building. Project features passive and active energy generation and on-site water reclaimation.

2003 **California Conservation Center, Berkeley, CA:** Addition and remodel for Recycling Center Offices featuring a variety of salvaged, recycled, and renewable materials.

1999-2000 **Urban Ore EcoPark, Berkeley, CA:** Industrial Retrofit and Remodel incorporating salvaged elements and environmentally-preferable materials.

2002 **California Vipassana Center, North Fork, CA:** Meditation Pagoda and residential units using passive solar design, strawbale construction, and numerous natural materials.

2005-6 **Waldorf School of Mendocino County:** Master Plan for 4 acre campus and design for new Eurythmy/ Music Hall, Classrooms, Early Childhood Education, and Administration.

2004 **Shorebird Park Nature Center, Berkeley, CA:** Education Center with strawbale construction, solar design, and alternative and recycled content materials.

2004 **Meadowbrook Waldorf School, East Kingston, RI:** Master Plan for 28 acre campus and design for new Grade School and Early Childhood Education Center.

1997-1999 **East Bay Waldorf School, El Sobrante, CA:** Master Plan for Upper School, Gardening/ Craft Structure with strawbale construction, earthen floors, and salvaged lumber.

2006-7 **The Prospects at Pacifica:** Master Plan and design for 34 new environmental residences on an 11 acre site. Project features passive solar design, water reclaimation, extensive landscaping, ecological building materials, and site strategies to minimize the impact of the automobile.

2006-7 **Oakland Noodle Factory:** Design for renovation of 1918 structure into 11 Work-Live affordable housing units and new Performance Space, Rehearsal Space, and Café. LEED Silver Rating.

2006-7 **Homsy Residence, Lake County, CA:** Two new strawbale residences with passive and active solar design, radiant heating, natural and salvaged materials.

2004 **Abrams Residence, Cloverdale, CA:** New strawbale residence with passive and active solar design, radiant heating, natural and salvaged materials.

Related Public Speaking (partial listing)

KQED Forum, KPFA, KNBR, KFOG, KSAN radio; Bioneers, Sacramento Municipal Utility District, General Services Administration (Chicago and Washington DC), Sandia National Laboratory, Princeton Plasma Physics Laboratory, Argonne National Laboratory, Lawrence Berkeley National Laboratory, Fiber Futures Conference, San Francisco Institute of Architecture, Sierra Club, Natural Building Network, Solar Energy Exposition and Rally

Professional Organizations

ADPSR, NorCal and National Board, Co-chair, Education and Resources Committees; Berkeley EcoHouse, Co-chair; Berkeley Green Resource Center, Co-founder and Advisory Board Member

Professional Registration

Licensed to practice Architecture in California and New York.

Education

1984 Cornell University, Bachelor of Architecture

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View from southwest

Abrams Residence Cloverdale, CA

This 2600 square foot house is located on a remote site above the Russian River. The house design is a transformation of traditional Mediterranean design and the regional barn vocabulary found in many nearby winery structures. With temperatures ranging from below freezing in winter to well over 100 in the summer, passive solar design was of primary importance.

The house features strawbale walls, high flyash concrete, hot water solar panels and building integrated photovoltaic panels.

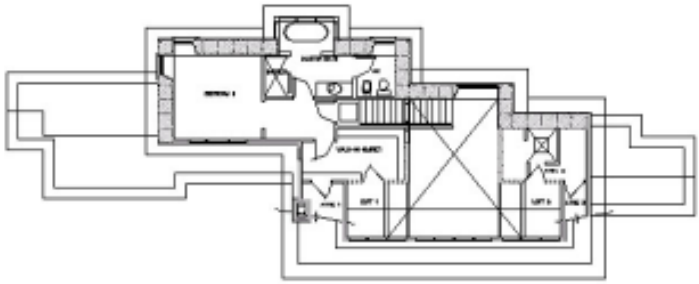
An Entry Trellis provides cover and separates the private space from the parking

Ceiling above kitchen

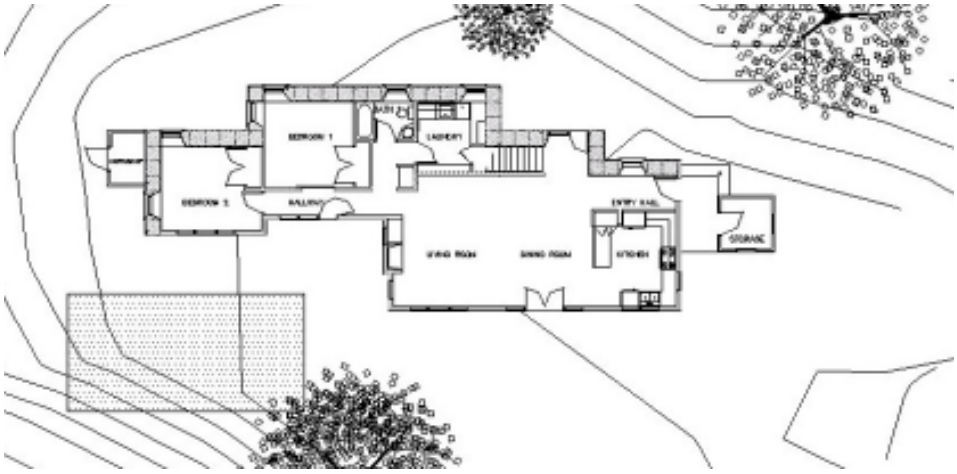
View towards stair from kitchen

South-facing clerestory windows ensure solar energy is absorbed by plaster walls

Bedroom with window seat



Upper floor



Ground floor

The major rooms are located to the south, while service elements - bathrooms, laundry - are on the north.

While the rooms are open, lofts over the living room and kitchen define the spaces and provide greater intimacy. The ceiling structure creates a secondary geometry that unites the spaces.

View towards stair and entry

View towards kitchen

June 21, 3pm

Abrams Residence
Cloverdale CA

Technical Tools

Solar studies at the Pacific Energy Center's Heliodon can help determine window placement, overhangs, and thermal mass locations to maximize passive solar heating and cooling.

The interior space is completely protected from direct sun during the hot summer afternoons (above and left), while there is maximum penetration of sunlight throughout the winter, especially in the cold mornings (below and right).

In addition to confirming the effectiveness of the design, the Heliodon verified that one living room wall would receive minimal direct light and be a safe place for placing a large painting.

site photo December 21, 9am

December 21, 9am

This 2800 square foot residence designed to be completely independent off the energy grid. The house also features Photovoltaic panels mounted on solar trackers, and composting toilets.

Strawbale walls and passive heating and cooling techniques eliminate the need for air conditioning in a climate where summer temperatures exceed 100o F. Overhangs were carefully designed to maximize passive solar gain in the winter while blocking out the hot summer sun.

An extended service porch on the lower floor of the west facade prevents afternoon overheating; in contrast the three high windows in the stairway create a heated space that passively creates air currents to draw in cooling air in the evening.

High clerestory windows on the lower floor bring daylight farther into the spaces and allow the low-angle Winter sun to reach the thermal mass on the walls and concrete stairs.

Composting toilets reduce site water usage and provide valuable nutrients for land damaged by historic cattle grazing.

Composting toilet collection chamber in utility space

Knapp-Levin Residence, Redwood Valley, CA

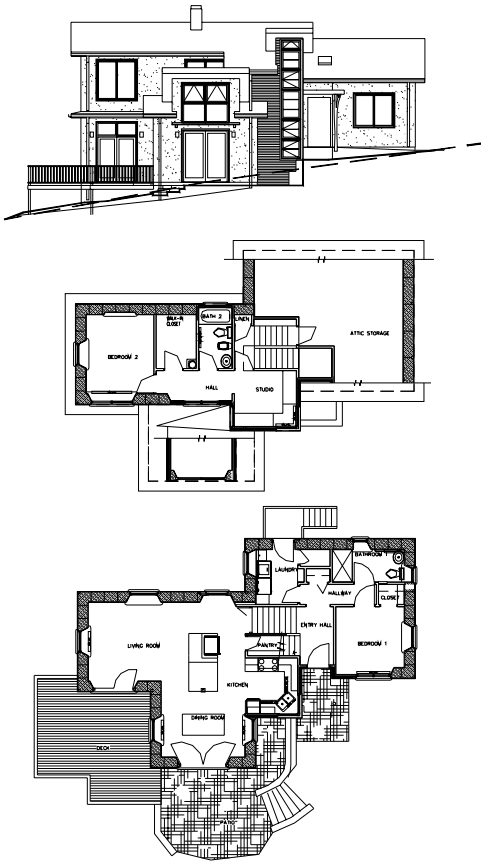
View from kitchen towards living room

View from the North Side Approach

Strawbale Window Detail

View from the west

Southwest view



The 1600 square foot strawbale residence has multiple levels that step neatly onto its sloping site and separate program functions. Although compact, the house feels larger with a dynamic arrangement of rooms. Expansive views are captured through large south facing windows which also bring in solar warming.

On the ground floor the living room, dining room and kitchen center on an open buffet adjoining the fireplace and refrigerator enclosure, which also provide thermal mass for passive heating and cooling. An exposed round pole provides a vertical design element at the edge of this centerpiece.

The interiors are open and brightly lit, with softer strawbale walls contrasting with sharp, linear design elements.

Mines Residence, Wilseyville, CA

Entry/ Northeast View

West view. The addition is to the left

The addition builds on the dynamic forms of the existing house

The Clients wanted to add a second story Office/ Studio and Deck Space, while preserving the design character of a house built in the 1920's and added onto in the 1970's.

A dynamic approach to massing enhanced the stepping design of the house, screening views from neighboring houses, and working within zoning setbacks. Windows and skylights maximize natural light in a dense woods, while the deck projects and becomes part of the tree canopy.

The site is surrounded by dense redwood trees, and maximizing natural light was critical. Each room has windows facing in at least two directions. The Studio has windows on all four walls, as well as skylights.

The house had previously been heavily with copper napthanate in the crawl space, which was contaminating the air in the interior. The main floor was rebuilt to seal the toxic chemicals from the living spaces.

Natural materials are used throughout, including bamboo floors and non-toxic paints.

Studio deck built into the Redwoods

View from southeast

Greenleaf Residence, Larkspur, CA

Northwest View

Studio interior has extensive natural light from a variety of sources.

Detail showing encasement of toxic crawl space

Connecting interior rooms expands the space and increases natural light.

Dining Room opens to Kitchen and Living Room

Skylights and high windows in tub bring light while preserving privacy

A large kitchen island creates a new social center.

Greg VanMechelen
Architect

Deck View

Segelcke Residence
Half Moon Bay, CA

1300 square foot complete remodel of derelict residence on ocean front lot.

The design has both a "nautical" feel desired by the Client and the County, while incorporating a variety of salvaged and environmental materials.

Stepping forms and a sleek profile evoke images of sailing ships. Phase II work will provide a sail-shaped windscreen. The south side is almost entirely glass, to take advantage of the view and solar heating.

The interior features salvaged maple flooring and salvaged kitchen cabinets and bathing fixtures. Fiberglass windows were selected for their durability with the harsh salt air.

View from Southwest

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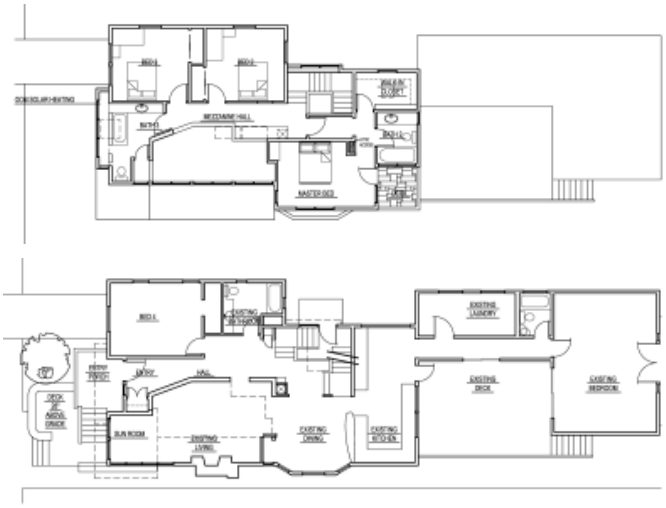
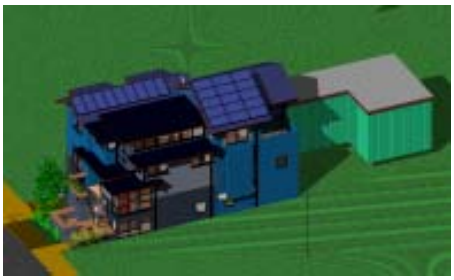
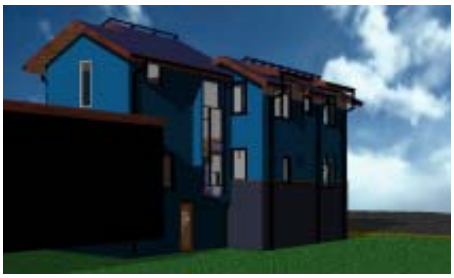


This goals for this addition and major remodel to a 90 year old house were to improve the energy performance and bring natural daylight into a dark interior with a large house to the immediate south. Clerestory windows and dramatic forms bring natural light into the interior spaces from a variety of directions and angles.

The addition is easily distinguished with strong rectilinear forms and bands of light.

In addition to the passive solar heating, environmental features include a 4 KW photovoltaic system, salvaged wood flooring, and FSC-certified wood.





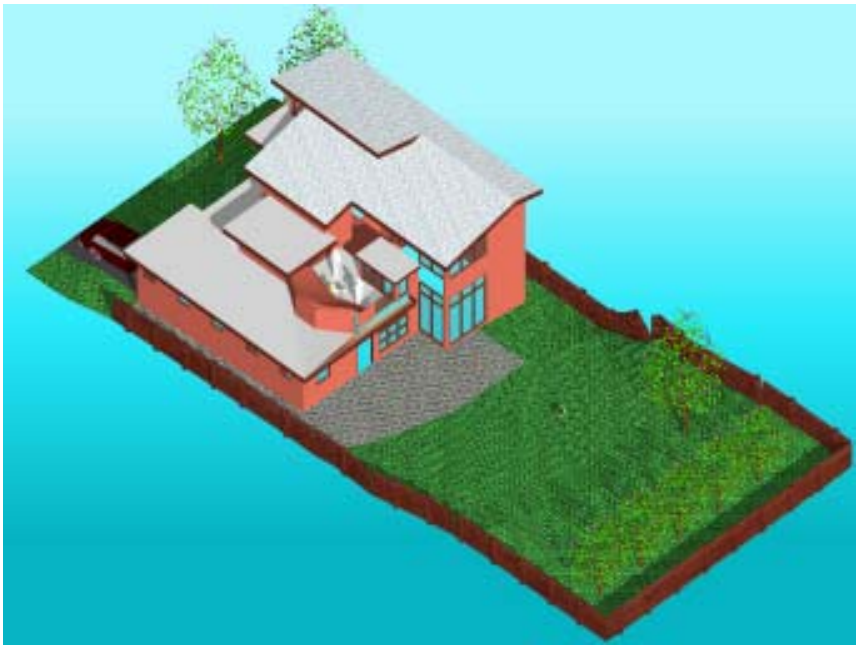
Robertson-Moe Residence, Berkeley CA

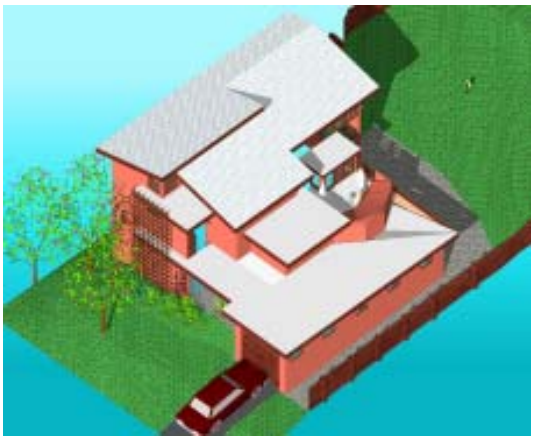
Wolf Residence
Castro Valley, CA

Remodel and second story addition to 1950's house.

The original house was dark and had limited opportunities for passive solar heating. Clerestory windows provide solar gain to all interior spaces; their dynamic shapes form enclosures for rooftop decks. The forms create a continuity between interior and exterior spaces, and there is a sense of mystery in the continuous lines.

The roof also provides space for a large photovoltaic array. The goal is to make a zero energy house.





View from street

View from back yard

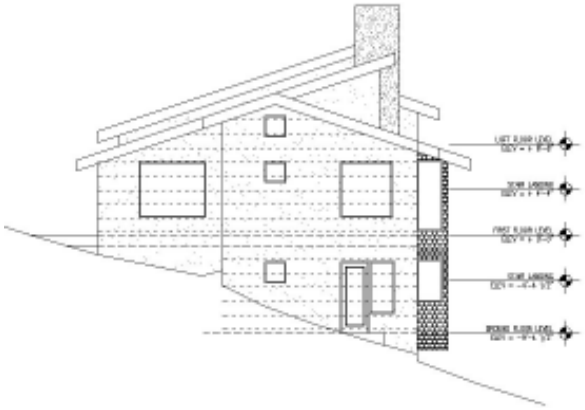
Sandford-Marshall Residence
El Sobrante, CA

1750 square foot strawbale residence on rural site.

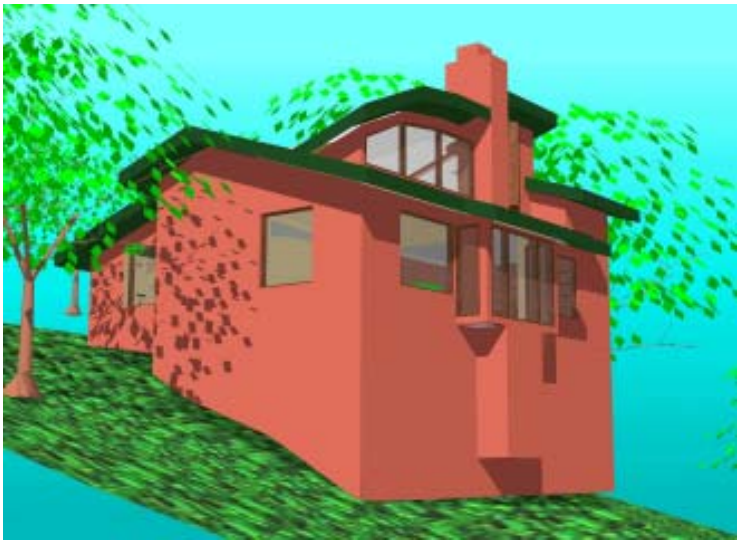
With the very steep hill slope, the private spaces are placed on the lower level, allowing larger volumes and better passive heating for the Living, Dining, and Kitchen.

The roof forms dominate from above, and slope to match the hill. The roof provides space for solar hot water and photovoltaic panels while maximizing water harvesting. From below the house takes a more organic form, with dynamic relations between projecting bays and clerestory windows.

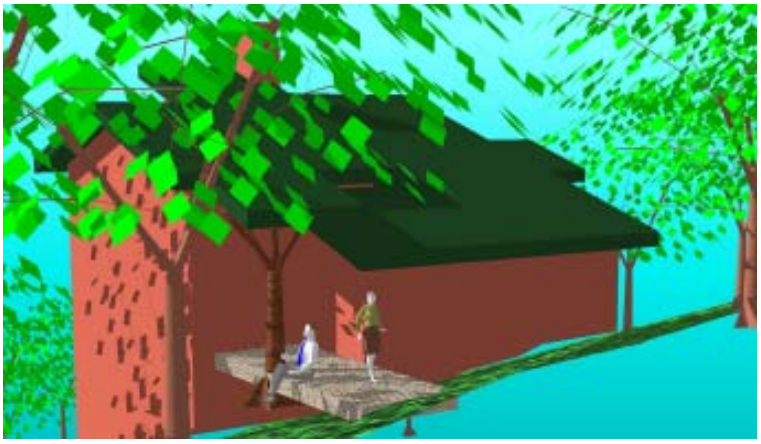
The interior features earth plasters, and salvaged cabinetry and doors.



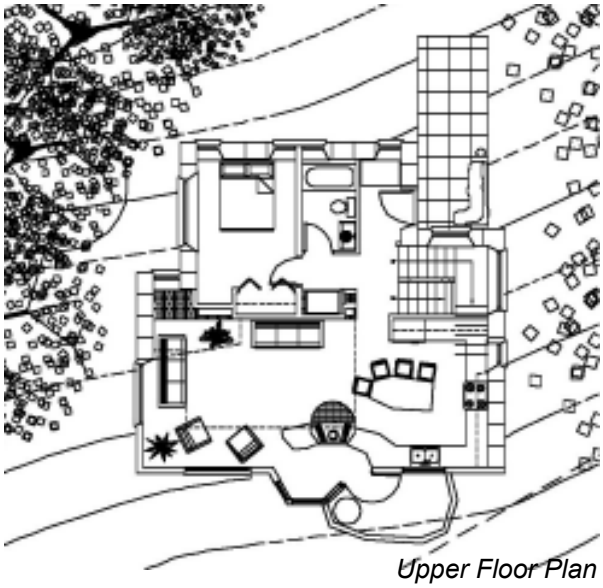
West Elevation



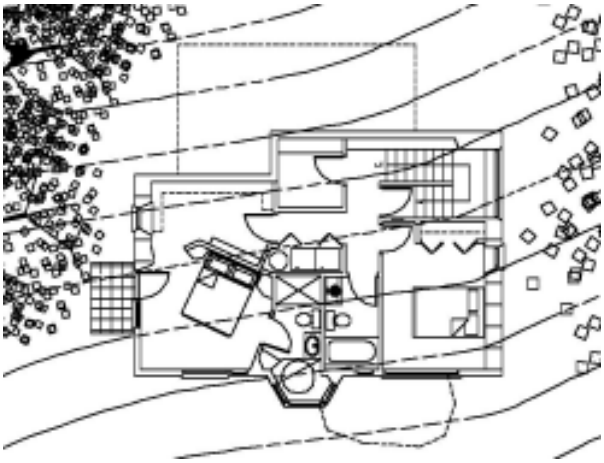
View from Southwest



View from Entry Approach



Upper Floor Plan



Lower Floor Plan

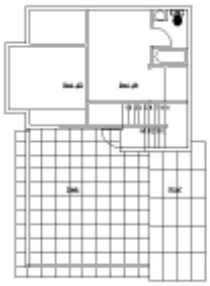
The original house, built in the 1920's, is surprisingly modern and strikingly similar to a house designed by the German philosopher Ludwig Wittegenstein for his sister.

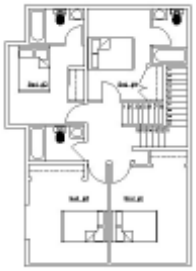
With this inspiration, the 3 story addition draws its influence from the mid-life paintings of Hans Hoffman, with dynamic planar volumes that create overlapping spaces and forms.

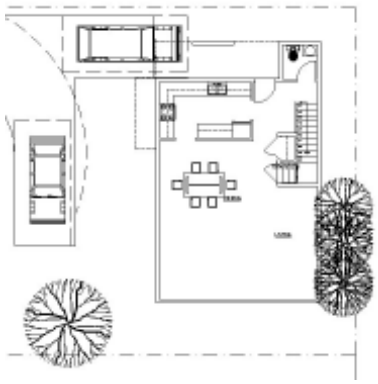
Richardson-Lee Residence, Berkeley, CA

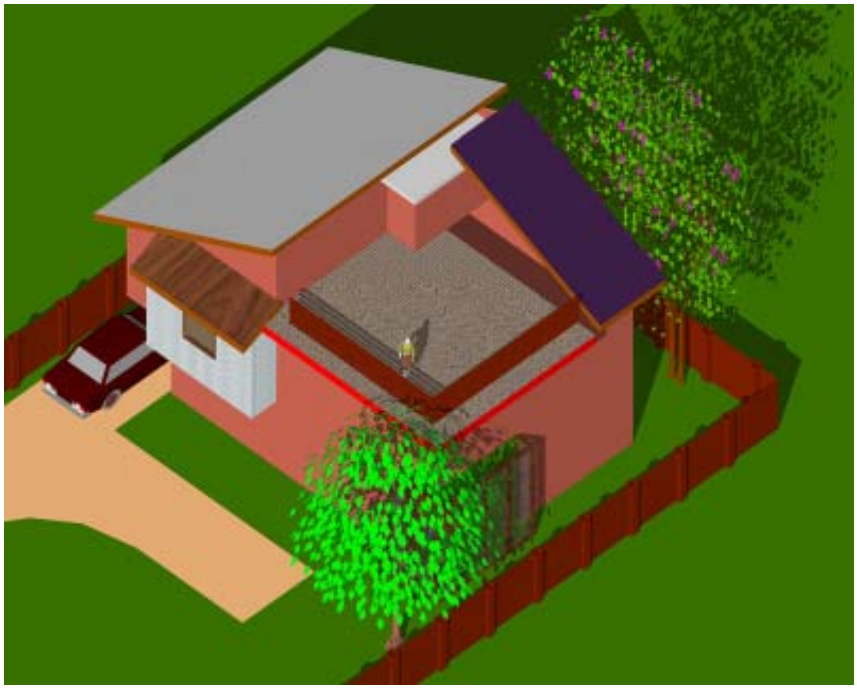
New Residence, Berkeley, CA

Rear Yard Residence on dense urban lot. Careful planning permits 5 bedrooms, 4 baths, and roof deck while permitting passive solar gain through almost all rooms. Roof is shaped for Photovoltaic panels.









The Clients were looking for Anthroposophic Design for their new residence on a very hot, dry, flat, and barren site approximately 50 miles west of Phoenix.

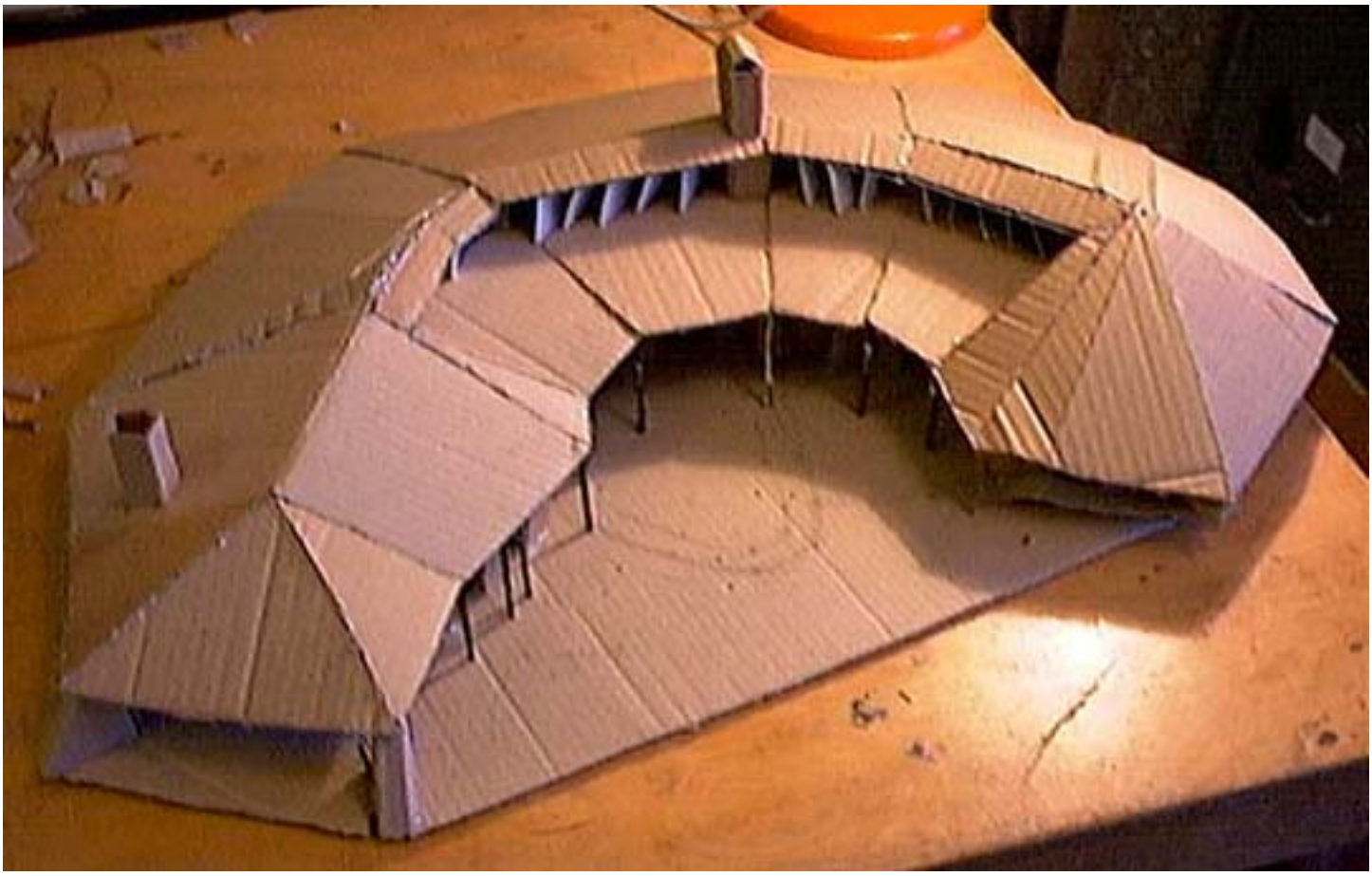
The design utilizes an open courtyard to unite the spaces and protect against the harsh elements. The feeling of oasis is further enhanced by a small pool, which also provides evaporative cooling for the house. Large overhangs provide shelter and a design theme connecting the house to the land.

Interior spaces have dynamic, non-rectillinear shapes, with the Kitchen at the heart.

Floor Plan
The Kitchen is at the center, with Dining and Library to the left. The Master Suite is at the lower left. To the right are the Family Room, Office, and two Bedrooms and Bathroom.

Deresh Residence, Arlington, AZ

joint project with Christopher Day, architect



View of the Model

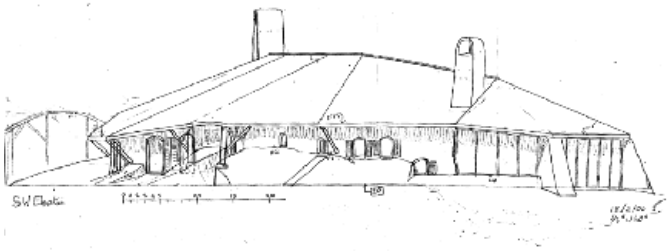
The climate extremes were the basis for this 2800 sf Residence in the Gila River Valley, west of Phoenix Arizona. Both Ancient and Modern strategies were incorporated into a design based on Anthropsophic principles

Other climate systems include cooling towers, natural ventilation, stratification, ground-tied geothermal exchange, and swamp coolers.

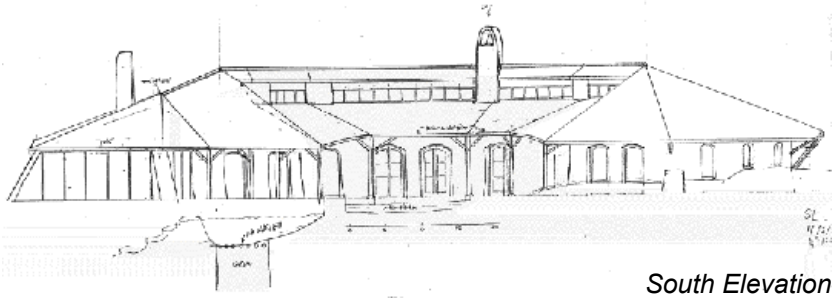
Natural materials, including strawbale, cob, adobe, and earth mounding temper the extreme hot and cold, while overhangs and trellises protect the interior from the harsh summer sun, while clerestory windows allow the warming winter sun.

Entry Sketch

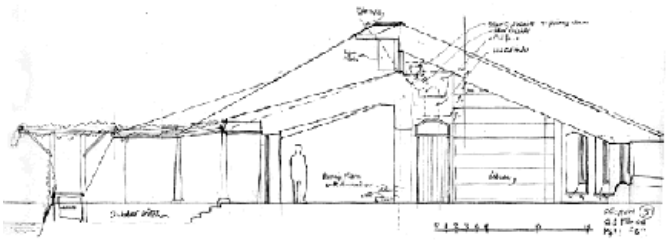
Northeast Elevation



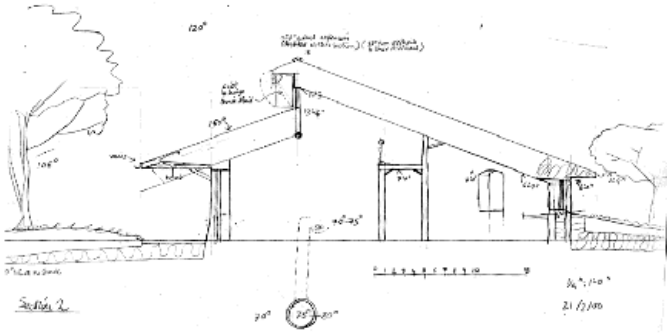
Southwest Elevation



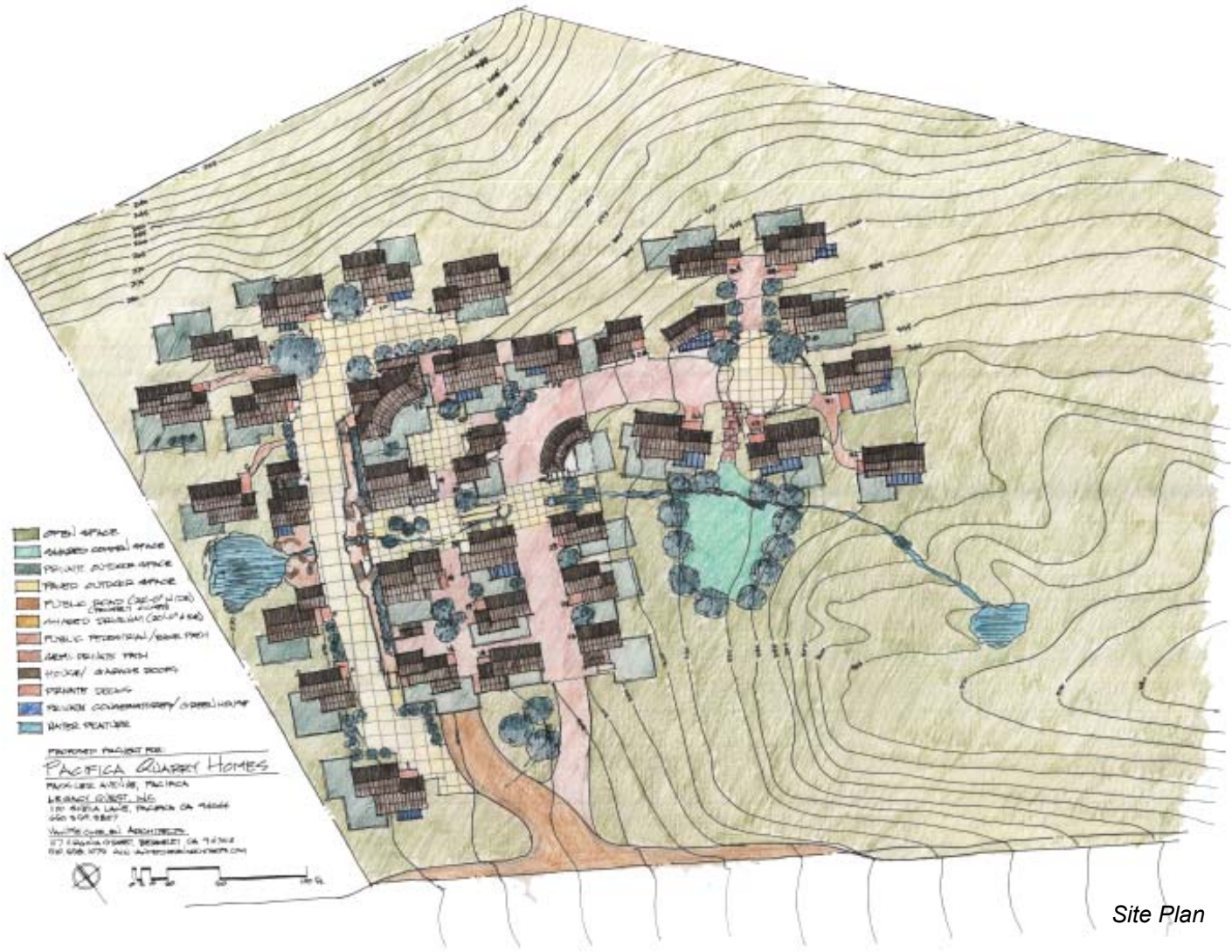
South Elevation



Cross Section at Pool



Cross Section showing cooling systems



Site Plan

The Prospects, Pacifica, CA

New ecological village on 11 acres of former quarry site near the Pacific Coast.

The project features 34 new cottages, each 1200-1500 square feet, that are models of environmentally responsible development. Each residence will be a “zero energy home”, where all energy needs are met by renewable sources, including photovoltaic panels, passive solar design, and hot water solar heating.

The site will be developed to minimize disruption; the structures will cover 2 acres, and the remaining land will be restored with native vegetation and have trails, community gardens, and other recreational spaces. The site is also planned to minimize automobile traffic; a short driveway leads to a buried parking garage, hidden below dwellings. Residents can carry heavy loads in either electric or manual carts.

The project will also capture and utilize all on-site rainwater. A series of ponds and cisterns will store the winter rainwater for use in the landscape. PV powered pumps will recirculate the water to the highest pond, where it will cascade down a series of streams and waterfalls to an amphitheater along the main pedestrian promenade.

The roof of the parking garage will be developed as a series of small courtyards and plazas to promote interaction among the residents. The main plaza is centrally located and has a commanding view of the Pacific Ocean. A recirculating water course, fed by captured rainwater, courses from a pond adjoining a picnic area on the hill above, past gardens and play fields, through garage roof courts and plazas, before cascading down a waterfall to the lower level.

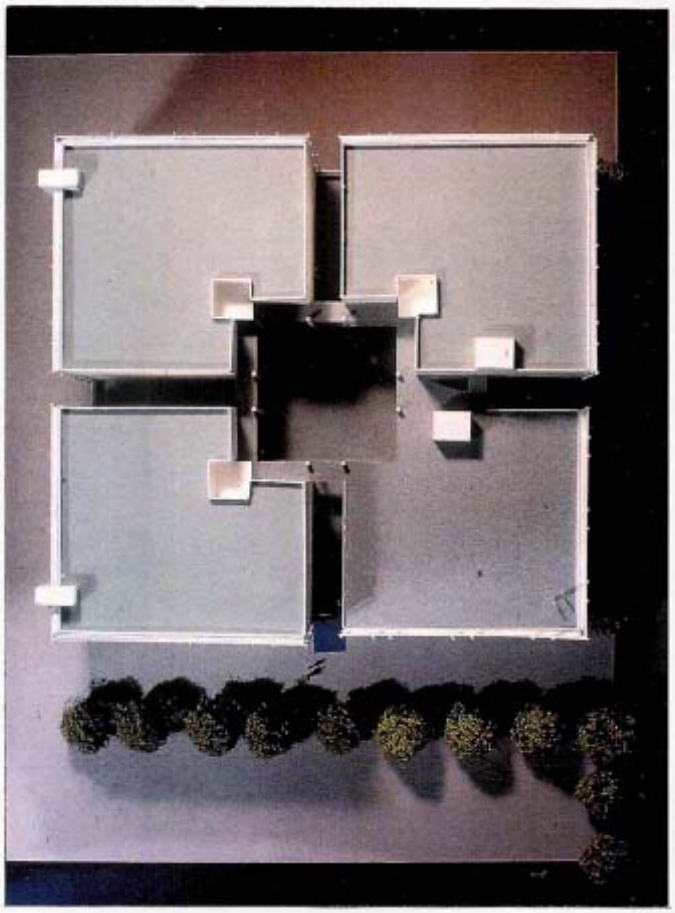
Below the main plaza is a walkable promenade, with small alcoves and decks for sitting and relaxing, and an amphitheater for seasonal cultural events.

Although the project is densely populated, the perimeter is surrounded by low cottages which give a small scale appearance to the development.

Project:	Concept Acceleration Project Emeryville, CA
Description:	44 condominium units with parking garage and retail space
Cost:	$4.5 million
Completion:	1995 (projected)

The dualistic character of the surrounding industrial and residential community generated the design for this live-work and retail complex. Bold rational forms are countered by smaller scale elements. A raised private central court with circulation balconies allows for more natural light and cross ventilation to the units. Geared for service industry professionals, there are simple rectangular units and dramatic wedge shaped units. Simple order and construction logic make for a powerful yet economical design. Environmentally-considered building materials are utilized throughout the project.

1 Roof view
2 Street view
3 Perspective showing materials



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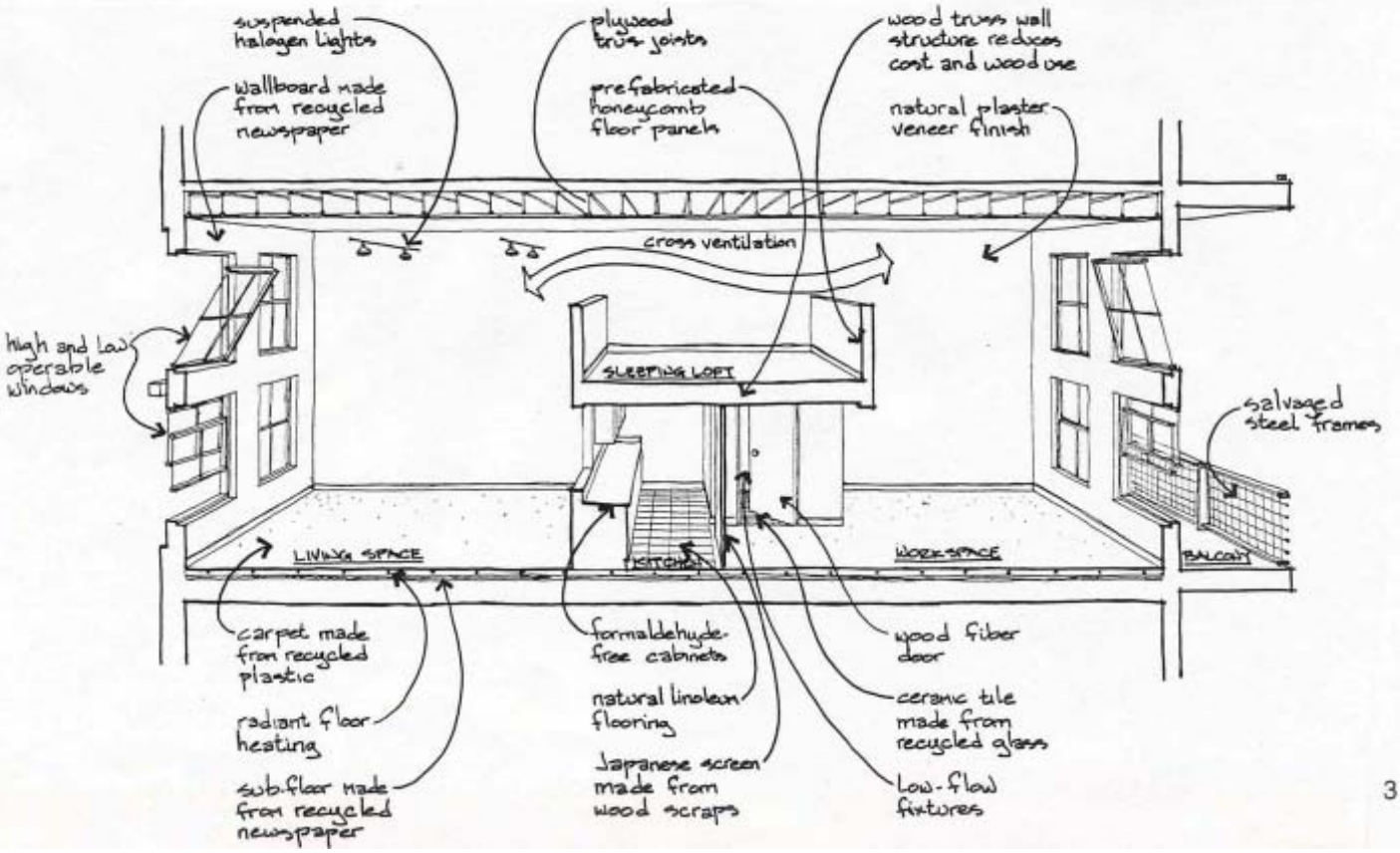

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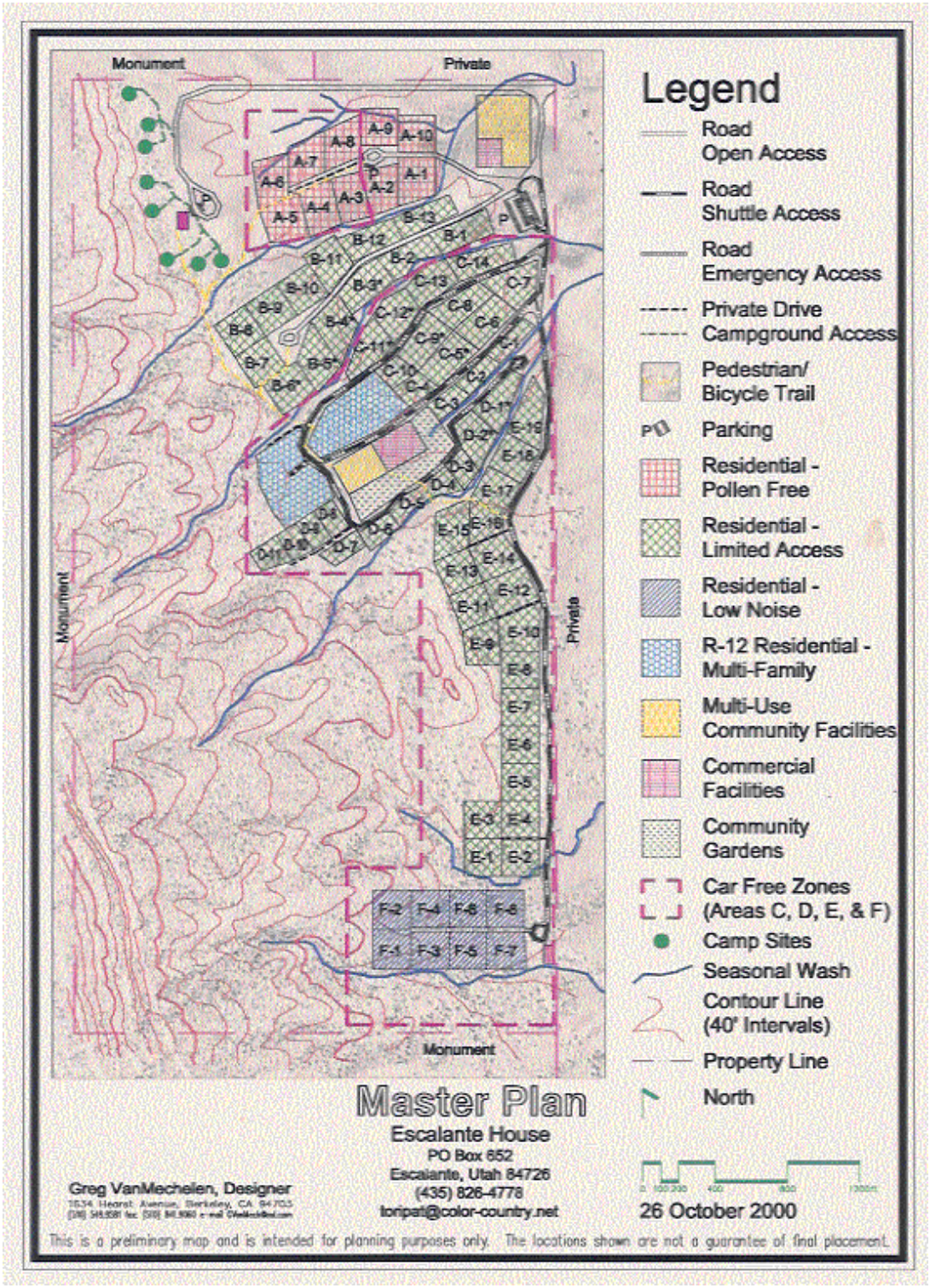

Escalante Master Plan, Escalante, UT

A new development for individuals with severe environmental illness and multiple chemical sensitivity (EI/MCS). The design is based on providing a variety of connected communities with areas separate by the degree and type of illness or sensitivity. These communities stretch east-west, separated by deep creek washes, and are also oriented to minimize cross-pollution by the prevailing winds.

Vehicle access is limited to areas where residents can tolerate both the noise and pollution. More severely afflicted residents are located further from the entry and common areas. Private parcels are provided as well as camping for those who cannot tolerate interior environments.