

Passive Solar “off-the grid” House* near Santa Cruz, California

Designed by Hal Levin, 1981
Constructed by owners' sons

* Owner-occupant name withheld for reasons of privacy. Still occupied (2012) by family of original client-owner-builders.



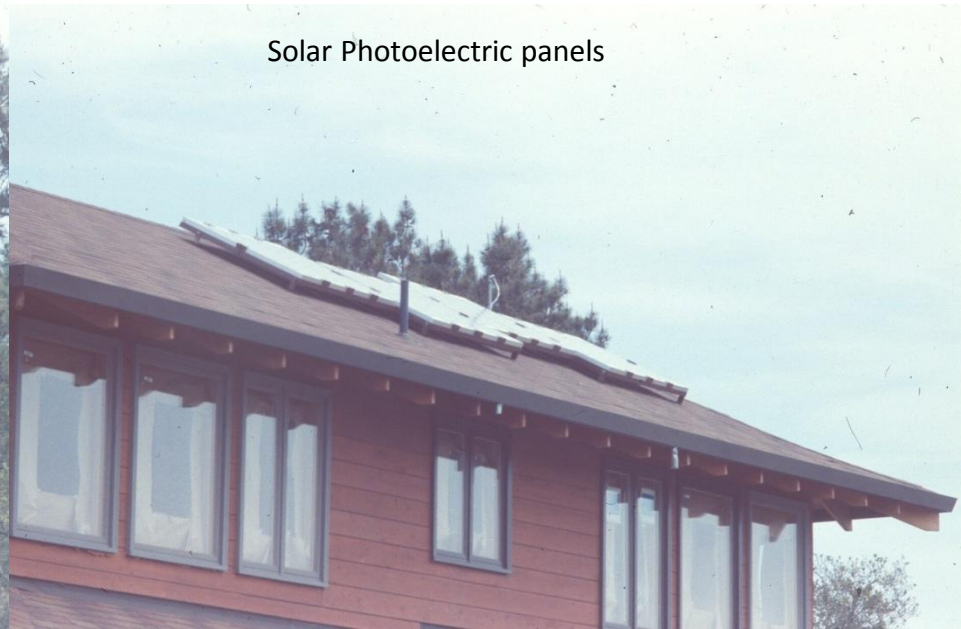
Southeast view



South view with solar PV on upper roof and integrated passive solar hot water heater on lower roof



Integrated
Passive
Solar hot
water
heater on
lower roof



Solar Photoelectric panels



Operable skylight open on upper roof to induce air flow and passive cooling in summer

Sun room on southeast corner of house, open to dining area and kitchen



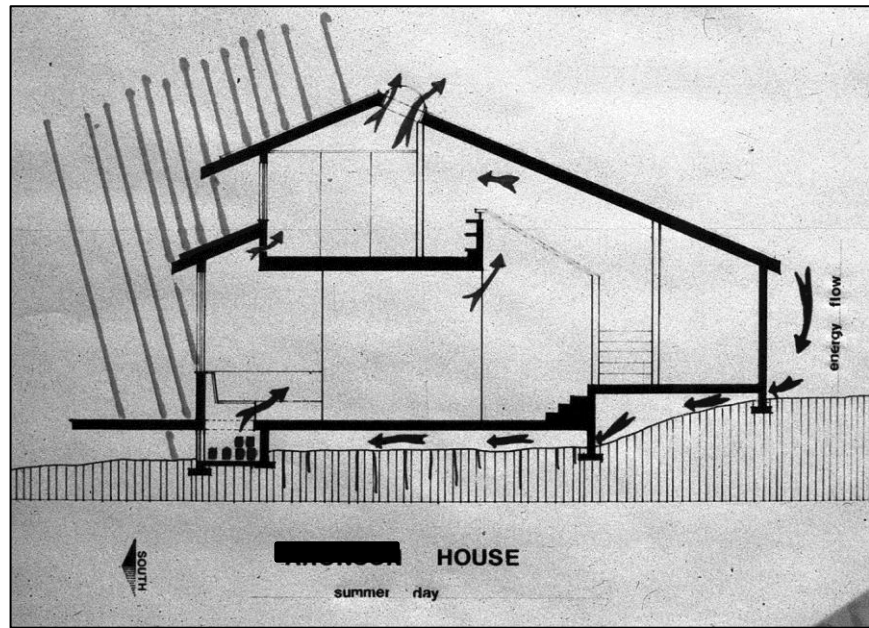
Glazing of crawl space under living room for water filled 19 Liter black metal cans for thermal storage

View into sun room through kitchen and dining area

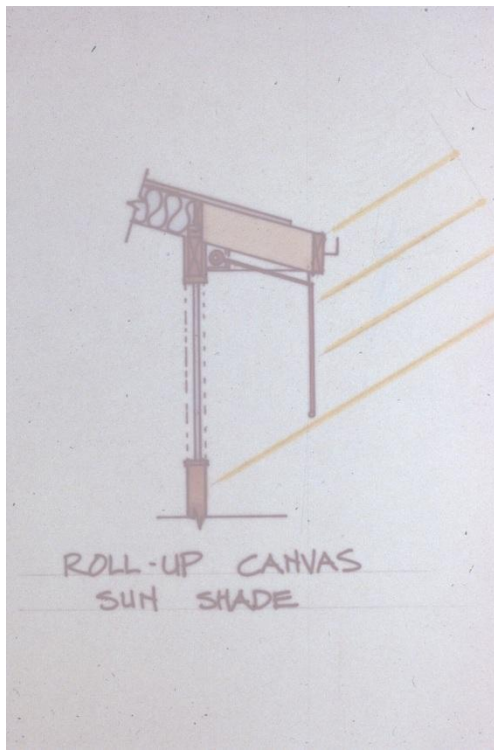




Wood stove as back-up heater (above)



Summer air flow, out top inducing air flow under house where contact with earth provides pre-cooling, entry at south side. Operable vents in 2nd floor south side allows direct entry of air from below



Roll up canvas shades on outside to protect against solar gain in swing seasons (fall and spring)



Southwest corner living room, visible under couch is an open, operable vent through to crawl space where warm air is available when house is cool.