

**The following was written for the Fall 2008 Sustainable and Solar Home Tour, Tucson, AZ:**



John Lovegrove and Leslie Cox designed and built their new custom home in the Barrio Historico neighborhood. The design was inspired by their previous 1912 adobe home, a nearby corner market they had renovated several years earlier. The new location allowed 180 degree rotation of the features they loved and an opportunity to incorporate these

significant energy saving ideas:

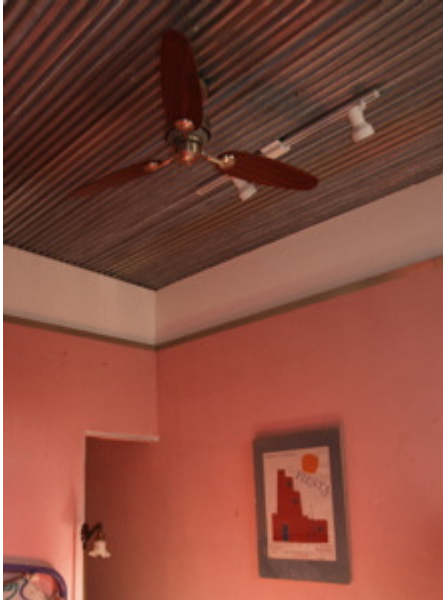


--The massive walls and historic cornice detail are made of rastra. Rastra is an insulating product made of 70% recycled material.

--All windows and doors are DG with low-e glass. Those on the south & east sides are shielded by massive overhangs whose dimensions were calculated to deflect high angled summer sun and to admit lower angled winter light. There is only one, small, west-facing window.

--Abundant insulation is stuffed between ceiling and roof. The roof is painted w/ highly reflective white paint.

**The effectiveness of these decisions is being realized in lower utility bills.**



Long addicted to the recycling of building materials, John sought used materials and gave them new life, more often than not, quite different from their original purposes.

--The striking ceilings, as well as patio fencing, are made of steel hat-channel purchased at a garage sale.

--The unique rails for the loft space were created with used metal shelving set vertically.

--Both bathroom vanities were recycled from Swap Meet finds. The guest vanity was a Physician's cabinet. The master vanity was a former office supplies cabinet. All of the ceramic tile in the bathrooms came from Gerson's Used Building Material.



--In the kitchen a modernistic take on the traditional Mexican style open cabinetry was achieved using imperfect 4 x 4" Italian quarry tile (rejected & sold for a quarter of the retail price). Glass shelves between columns came from a garage sale.

--Master bedroom doors were salvaged.

--All interior door

hardware is antique—long sought and saved.

--All shelves in closets & loft are recycled commercial shelves.

--recycled metal doors serve as patio gates and as a desk in the loft (the legs are a wooden door cut in half)

**Judicious choice of materials saves present & future materials.**

--The use of plain white plaster in the largest rooms and bright yellow, blue, & pink integral colors added to plaster for the smaller rooms saves the expense of paint and future re-painting

--Concrete counters in the kitchen are durable & heat resistant. Most authors conclude it's a "good green choice".

--brick & concrete floors (color powder added just before the finish) saves the expense other floor finishes that wear out over time.

**Simple & common sense energy saving ideas are used throughout:**



- Individual pull-chain fluorescent lights used instead of dimmable track lights
- Plastic pans in sinks collect gray water for plants
- A laundry line in yard serves as the dryer (only a front load washer is in the laundry room)

All in all, John's innovative approach to design and materials enabled the couple to build a highly personalized home for less than \$100 per square foot.