San Luis Sustainability Group

Research and Development

Sustainable design is a new approach that requires research and development be integral parts of architectural practice. SLOSG has been in the forefront of research, development, and application of affordability, regional considerations, passive design, green materials, and water resource issues as they affect sustainable design.

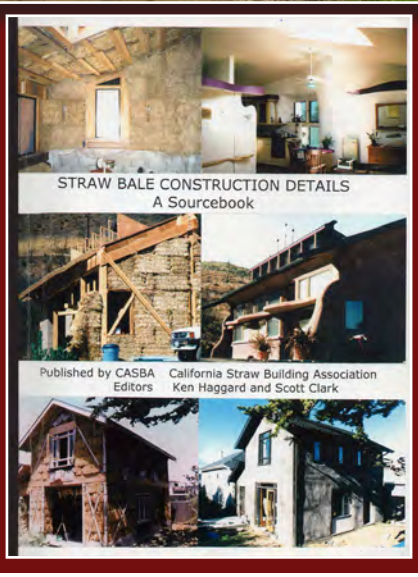
Camp Ocean Pines, Cambria, California

A good example of **affordability** is the rejuvenation of **Camp Ocean Pines** in Cambria, California. This old YMCA camp had worn out infrastructure and an extremely low budget for new buildings. For its transformation into a local arts and conservation camp we developed 12 twelve-person cabins at a very low cost by:

1. Research on camp regulatory and permitting issues, which streamlined the process and greatly reduced fees.
2. Reduction of materials costs by the use of site milled lumber from dead trees on site and straw bale shear walls.
3. Design and construction of a prototype cabin using a design-build process costing $50 per square foot.
4. Construction of remaining cabins with volunteer workshops.

These efforts have resulted in the following SLOSG milestones:

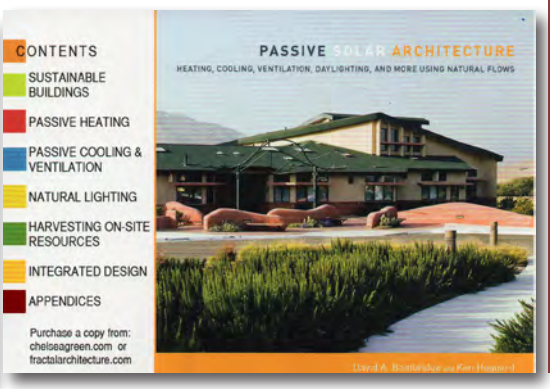
-First passive solar building in California
-First Place Award AIA International Competition on Sustainable Communities
-First Net Zero energy commercial building in California
-First LEED certified synagogue in the United States
-First book on straw bale construction details for the California Straw Bale Association
-Selection among the top ten green architectural firms by Natural Homes Magazine



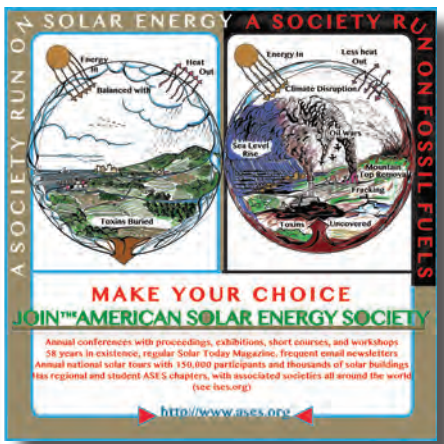
Community workshop for cabin construction at Camp Ocean Pines in Cambria California shown left.

Rainwater catchment systems and a rain garden were later installed at Camp Ocean Pines through a similar community workshop led by SLOSG in conjunction with SLO Green Build's Appropriate Technology Coalition.

San Luis Sustainability Group has been involved in the development of **Passive Design** from its beginning, designing over 200 passive buildings and developing technical publications such as: *The Passive Solar Handbook for California* for the Energy Commission, *The Passive Solar Architecture Pocket Reference* for the International Solar Energy Society, Passive Solar Architecture: a text book on the subject published by Chelsea Green in 2013.

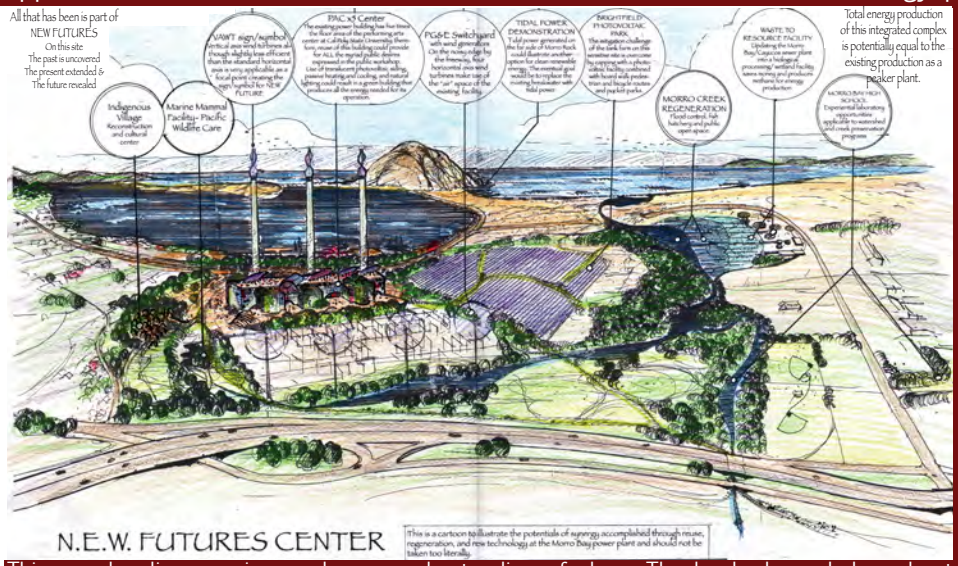


Poster graphic created by SLOSG for the American Solar Energy Society.

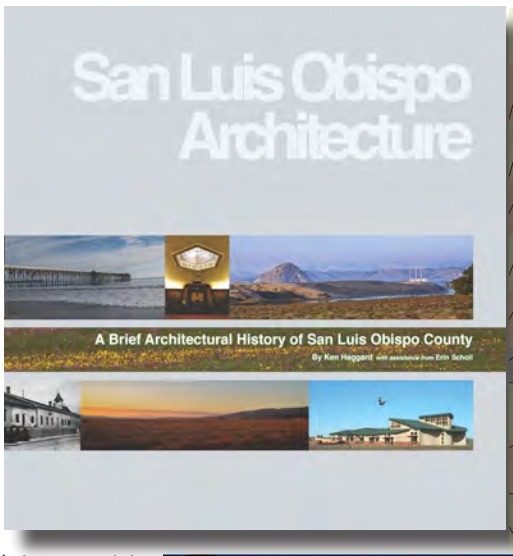


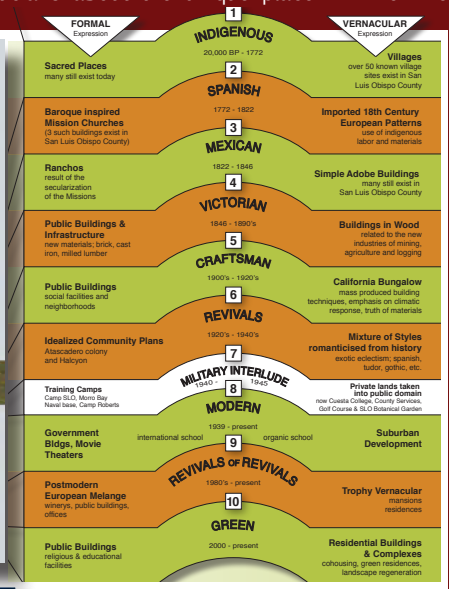
Other Research and Publications

Sustainable design places a new emphasis on localism with less importing of energy and resources required. SLOSG has been involved in the development of materials that allow for this. For example, the N.E.W. Futures Center project shown below is a conceptual study for the conversion of the obsolete power plant in Morro Bay to a coastal energy/environmental cultural facility with efforts that allow sustainable approaches to water use and reclamation as well as sustainable energy production.

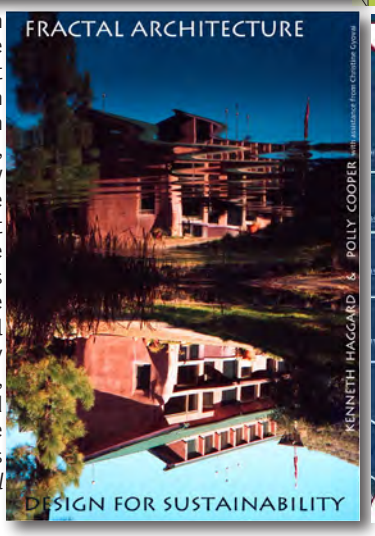


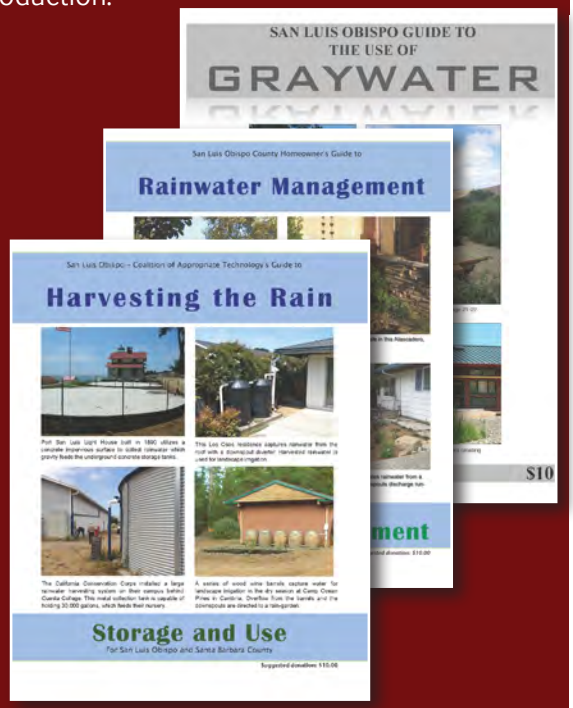
This new localism requires a deeper understanding of place. The book shown below about the architectural history of San Luis Obispo called *San Luis Obispo Architecture*, was produced to educate clients, planners, and politicians about the unique place in which we are privileged to live and build.



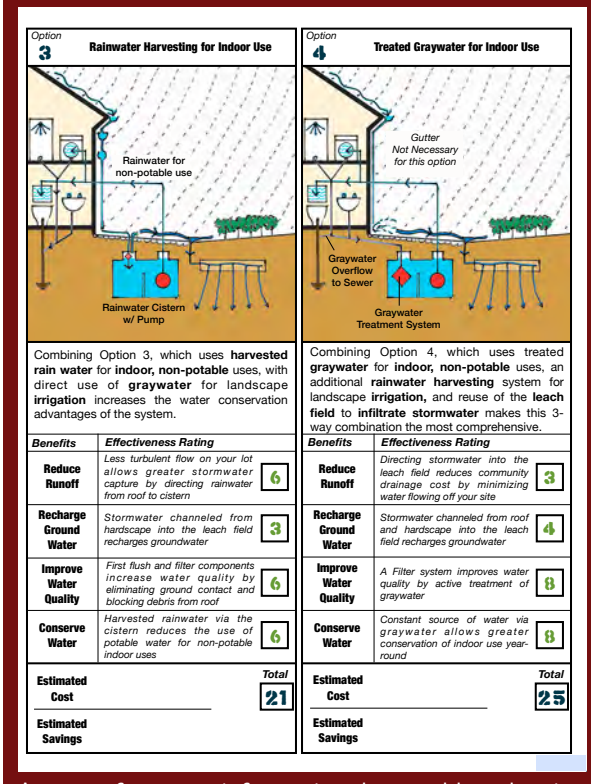


It is our opinion that sustainable design is not just modern architecture in 'green' clothing, but a new architecture for the 21st century. The implications of this on the architectural vocabulary of geometry, history, and aesthetics are explored in this book *Fractal Architecture.*





Various publications by SLOSG in combination with SLO Green Build's Appropriate Technology committee shown above.



A page from an informational pamphlet showing research conducted by SLOSG and SLO Green Build for the County of San Luis Obispo's Septic Decommisioning and Reuse Plan for the Los Osos Wastewater Project.