

A Book Review: by David Bainbridge
Handmade Hot Water Systems: \$4.95
Art Sussman and Richard Frazier, Illustration by Pam Brazier
Garcia River Press
P. O. 527
Point Arena, CA 95468

The author's goal, as stated in the introduction, is to "provide the information that will enable you to understand, design, build, and install your own alternate energy water heating system." I would have to say they have succeeded in doing exactly that with considerable style with this well-illustrated, readable, and practical text.

The primary emphasis is water heating with wood and, as that is the author's specialty, it is very well done. Detailed instructions are provided for making and installing both stovepipe and firebox water heaters. These are done well enough to inspire almost anyone to give them a try.

The book also includes general information on solar water heaters and plans for a flat plate collector. While this is adequate, and includes references to some other sources, it does not measure up to the word section. For solar water heating the reader will do much better with Practical Solar Heating by Kevin McCartney, Solar Water Heating in California by F. A. Brooks, Rain Magazine's Solar Workshop Manual, and Bruce Institute's How to Build a Solar Water Heater.

For more information on passive solar water heaters I would recommend my Passive Solar Catalog (\$6 ppd from Passive Solar Institute, P. O. Box 722, Davis, CA 95616), Passive Solar Water Heater Plans (\$10 from Integral Design, 4438 G Street, Sacramento, CA 95819). Plans for passive water heaters are also available from Horace McCracken and Zoneworks.

Solar Clips

What is believed to be one of the largest waterwall passive solar installations in California is nearly completed in Davis, CA. The low cost

housing project of the City of Davis includes three duplexes (6 units) and a single family detached home.

Design was by Living Systems of Winters, California, general contractor is Walker-Donnant, financing was by Farmers Home Administration, and waterwall installation is being done by Denny Long. The waterwall design uses 18" diameter culverts (see photo) with plates welded on the bottom. The solar system will meet the total cooling demand and 75-85% of the heating demand.

Product Update

Integral Design has recently released designs for two passive solar water heaters. These include a two-tank vertical and two-tank horizontal systems. The plans are well illustrated and written (although a beginner might like a little more information). John Burton, the designer, has installed and designed a number of passive solar water heaters in the area and knows whereof he speaks. They can be purchased from Integral Design, 4438 G Street, Sacramento, CA 95819 for \$5 @ ppd.

Product Update

The Passive Solar Institute has completed plans for a simple solar simulator that will prove useful for anyone involved in solar design. It can be used for both summer shading and winter sun penetration and exposure tests. Plans, including the solar angle chart, are \$5 ppd from the Passive Solar Institute, P. O. Box 722, Davis, CA 95616.