



Straw homes perfect for desert, builder says

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YUCCA VALLEY — Attendees at this month's lecture at the Hi-Desert Nature Museum learned about straw bale construction.

Janet Armstrong Johnston, an architect and general contractor, began with an overview of the history of straw bale construction, which began a century ago in Nebraska because of a dearth of timber in the Plains.

Johnston is a founding member of the California Straw Building Association and said straw bale construction began a renaissance here after the first permitted structure was approved in California in 1993.

“Straw bales build beautiful, thick-walled homes that are perfectly in tune with the desert landscape,” Johnston said. “Straw is an annually renewable resource that provides great insulation against desert temperatures.”

Johnston further explained how bale construction reduces heating and cooling energy needs. Additionally, Johnston said because it shifts rather than crumbles in an earthquake, straw bale is good for California construction.

A boost to straw bale construction, Johnston explained, was a prohibition on the burning of rice fields because it polluted the air. Rice straw is tougher than other straws and its high cellulose content makes it unsuitable for compost or feed, but great as a building material.

Johnston said Habitat For Humanity has shown some interest in straw bale construction. The Internet has allowed information with tips and ideas, successes and failures about straw-bale construction to be shared with builders worldwide.

Straw bale construction became more mainstream as architectural journals slowly began to recognize the technology.

Johnston came to Joshua Tree in 1998 to help build this area's first straw bale home, alternately known as the vault, the loaf of bread and the Harrison House. There she met the man who would become her husband, George, who was also on the project.

One of Johnston's bigger projects was designing Sacred Sands, a bed and breakfast on Quail Springs Road leading into Joshua Tree National Park. Again, husband George was a builder.

Johnston said there are seven straw bale structures in the Basin with more being planned, including the Sky's the Limit observatory in Twentynine Palms.

Attending the lecture were Peter and Marilynn Poillon, who are putting the finishing touches on a 1,640-square-foot octagon home in Yucca Mesa of post and beam construction infilled with rice straw bales.

A wrap-around porch puts 3,000 square feet under the roof. The 65-pound bales in the Poillons' walls are 19 inches thick and the walls filled out to 22 inches after cement stucco was applied to the exterior and earth plaster is applied to the interior walls.

The presentation was part of the First Wednesday lecture series, presented with coordination from the Morongo Basin Historical Society.