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Cob House Project at Sticks & Stones Farm

Ancient Building Style Sees Resurgence

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After experiencing a freezing cold winter like the one just past, it is nice to think of a house that can stay warm in the winter and cool in the summer simply because of the materials it is built with. Facilities management and maintenance company FrontStreet Facility Solutions, Inc., in partnership with Newtown's Sticks and Stones Farm learning center and the Chacaruna community organization, is building one such cob house in Newtown this spring.

Cob structures can be found in a variety of climates across the globe; many old cob buildings can be found in the UK, Africa, the Middle East, and some parts of the eastern United States. A number of cob cottages survive from mid-19th century New Zealand. There has been a modern-day resurgence of interest in the cob house as an energy and resource-efficient alternative to conventional building materials and practices.

What is a Cob House?

Cob is an ancient building material that seems to have been used for building since prehistoric times. Traditionally, English cob was made by mixing the clay-based subsoil with sand, straw and water, then

using oxen to trample it. The earthen mixture was then ladled onto a stone foundation in courses and trodden onto the wall by workers in a process known as cobbing. The construction would progress according to the time required for the prior course to dry. After drying, the walls would be trimmed and the next course built, with lintels for later openings such as doors and windows being placed as the wall took shape. The material has a long life span even in rainy climates, as long as a tall foundation and large roof overhang are present.

“A cob house is not mainly composed of synthetic materials but rather built out of natural materials found in nature,” explains Marc D. Lash, sustainability champion at FrontStreet Facility Solutions, based in Bohemia, New York. “A cob house can be built from the earth right beneath the building site.” Those natural resources that are not available on the site (sand, gravel, stones, timber and other materials) are usually sourced locally.

What are a cob house’s benefits?

Energy efficient: A cob house requires minimal electric and gas heating or, in many cases, none at all. The walls of a cob house are generally about 24 inches thick, creating a “thermal mass” that absorbs sunlight and warms the building over the course of the day. This is basic solar heating, and it keeps the inside of the building warm in the winter and cool in the summer.

Low cost: The primary building materials are very easily accessible and cheap resources to acquire. Other parts like windows and doors can be salvaged. FrontStreet Facility Solutions partners with windows replacement companies to reuse old windows removed from homes and offices. A high quality cob home for a family of five can cost a few thousand dollars, Lash says.

Healthier: Unlike conventional homes which are constructed with synthetic, industrial-formed materials, cob homes are built almost entirely out of natural, clean materials. Modern buildings made out of typical building materials are full of indoor air pollutants and off-gassing of chemicals contained in the building materials. Cob, on the contrary, “breathes” through its tiny pores and keeps the air fresh and clean.

Stands the test of time: The straw, which is part of the cob mix, acts like a natural rebar to hold the whole structure together as one monolithic piece. Many cob homes have lasted for hundreds of years with minimal maintenance.

Stronger communities

An important social component of cob homes is the fact that their construction allows the participation of the communities. “You don’t have to be an expert to help in the building process. Even children can help build in many instances. Building with cob can be a good social activity and it contributes with strengthening communities,” Lash explains.

The foundation of the cob house at Sticks & Stones is due to be finished by the end of April, with actual construction starting in May. The goal is to have the cob house finished by June 10 and opened to the public through Sticks and Stones Farm. These groups are working on a second project in New York and hope to build as many as 15 cob homes starting next year.

Ana Mercedes Kranzlin is a contributing writer to Natural Awakenings Fairfield County.



For more information, call 203-270-8820, visit SticksAndStonesFarm.com or email Mlash@FrontStreetfs.com. Sticks & Stones Farm is located at 201 Huntington Rd, Newtown. See ad, page 39.

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