Managing Crawl Spaces with Neutocrete with Anthony Buonaiuto founder and owner of Neutocrete Systems, Inc. and Ethan Allen

To vent, or not to vent?
Insulate the ceiling, insulate the walls, don't insulate at all.
De-humidify, don't de-humidify.
Old school, new school.
Science, or common sense.

Complicated stuff crawl spaces. In March 2012 Anthony Buonaiuto founder and owner of Neutocrete Systems, Inc. and Ethan Allen their northeast representative spoke about exactly these issues. This is where they land on these puzzling and very real issues:

To vent, or not to vent? Historical best practices for building homes with crawl spaces has a formula for the size and placement of vents. It was a given that we wanted air to flow through the crawl space moving the moist air out. But does the air simply flow through the vent and exit the crawl space neatly on the other side?

Neutocrete closes the vents to prevent moist air from entering the crawl space. They believe having a vent in a crawl space actually encourages moist air to enter the home when you take into consideration the stack effect of air in a home. Stop the moist air from entering the crawl space, and you stop it from entering the home.

Vapor barrier, no vapor barrier. Generally folks cover the crawl space dirt floor with 6-mil poly overlapped by 12 inches at all seams and secured at the edges with turf staples or maybe bricks.

Neutocrete covers the entire dirt floor with a mixture of cement and vermiculite. Animals move the plastic vapor barriers and poor installation in a challenging workspace often means the barrier isn't really doing its intended work. Neutocrete is a permanent solution to this problem.

De-humidify, don't de-humidify. We are all used to recommending that clients run a de-humidifier in the warm moths. The goal we say, it to get the relative humidity to below 60% to prevent mold. De-humidifiers work hard and the Neutocrete folks argue that the de-humidifier will keep working, pulling the moisture through the concrete or fieldstone, desperate to do its job! Moisture is moisture after all, and the machine is designed to find it.

The Neutocrete company philosophy is rooted in their work with Advance Energy of Raleigh, NC, a company that researches and tests applied building science. Their philosophy is the following: add the basement and the crawl space into the building envelope and the air quality will improve and energy efficiency will improve. Don't insulate the basement or crawl space ceiling, insulate the area between the foundation up to and including the sill, this is where cold air gets in. Don't ventilate the space, condition the space so that the moist air doesn't get in (through the Neutocrete flooring sealant). The Neutocrete method, seal the floor, close all vents, insulate the walls, if you can throw some heat into the space, even better.

We attend ASHI continuing education programs precisely because the building science field is a robust and vibrant industry, new products and discoveries are happening constantly. So, what do we do when the philosophy changes so drastically to be actually the opposite of what many of us were taught or simply have come to believe as the standard wisdom? Me, I listen, read the journals, talk to colleagues, attend ASHI seminars, go on site visits, and hope that when I talk to clients, they see me as an educator and advisor.

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