

SAVE THE OLD BARNS

by

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Every once in a while, we Yankees up here in New England are faced with the challenge of inspecting an old colonial barn at an optional fee above and beyond the home inspection itself.

I apply the same ASHI® Standards of Practice when inspecting an old barn, but I approach the task with sadness, because most of our remaining barns are in a disastrous condition. Neglected maintenance, moisture problems, decay and pest activity are prevalent. Sadly, the extent of deterioration frequently deem repairs to both impractical and cost prohibitive, necessitating a death sentence of demolition. The heritage represented by our old New England barns is quickly disappearing. When an old barn is torn down, a unique museum of colonial craftsmanship is lost forever. Perhaps we home inspectors can help to save a few of the barns with our powers of observation and our knowledge of old house restoration techniques.

The fact that most old barns have withstood "the test of time" with little or no maintenance is a tribute to the timber framing skills of the builders. Old barns preceded building codes, power tools and modern materials. They functioned as one of the most important areas of a farm, providing shelter for animals, storage space, workshop space and even a place for barn dances. However, today most barns exhibit a history of neglect, disrepair and sub-standard alterations.

To better understand & appreciate an old barn, let's backtrack and follow the order of construction used by the farmer and his barn raising buddies.

Location, location, location. New England barns were constructed near or attached to the home for convenient seasonal access between the home, barn and the south 40 acres. Barn foundations were built using field stones obtained while plowing the fields. The foundation may consist of stones simply placed on grade or a stone basement built into a dug-out hillside. As you inspect the barn foundation, be observant for signs of foundation problems. Frost movement, settlement, loose stones, missing stones, amateur repairs, excessive loads and uneven load distribution may all be partly responsible for differential movement and weak load bearing capacity. Faulty grading & soil erosion must also be noted when evaluating the barn foundation.

Before the field was plowed, it had to be cleared of trees. Native lumber was probably used to construct the barn from trees cut right on the property or the lumber was purchased from a local sawmill. Even salvaged lumber was utilized. Remember, a good Yankee never throws anything away! Oak was an available resource and was recognized for its strength, durability and application for timber framing. Regardless of where the lumber came from, it was air dried until ready for use. Unfortunately, the lack of modern kiln-drying techniques allowed the local wood boring insects to move in as the first tenants. The large timbers were usually milled to shape and then the mortise & tenon joints were measured out and hand cut with precision. Assembly required a team leader and a cast of willing volunteers along with horse drawn engineering and lifting skills. I marvel at the precise angles and fit when inspecting the massive wood frames, for even after 100 years the craftsmanship is still evident. (Note: Inform your client that the barns combustible wood floor is not suitable nor strong enough for cars.)

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Back to the bugs and the water problems. Resting on that colonial foundation are floor & wall frames that most likely still provide seasonal meals on wheels for wood boring insects and other pests. Probing of all accessible parts of the barn sills, columns, corner posts etc., is one of the most critical parts of a barn inspection as decay is usually a given. Just make sure you find the decay and disclose it to your client. Be especially critical of the front sill beneath the big sliding wood doors as the lack of flashing above the doors coupled with an earthen ramp against the sill has most likely caused damp rot and excessive decay.

Employ good probing & sounding inspection techniques to every accessible part of the barn floor, wall & roof frames for problems may be readily apparent or superficially hidden. While walking around the exterior, site down each wall from each corner to check for plumb. Step back and view the roof. Barn roofs are seldom maintained and purlins often exhibit excessive sagging from excessive layers of roofing or decay. Barn frames are patched, altered and repaired with what I call "mismatched alternative creativity" - that-ill hold it for a while!. Watch out for weak spots in the main or loft floor frames, as unique trap doors were frequently cut to simplify a farming task. Be especially wary of old barn stairs or wall hung ladders as your personal safety comes first! (Note: Document the presence of suspected hazardous waste if the barn is still full of junk, and also recommend a re-inspection when the barn is empty as hidden problems could exist.)

Get up to the highest level if safety permits. Quite frequently the pest activity extends all the way up to the roof frame. Study each mortise & tenon joint used to assemble the rafters and be on the lookout for decayed mortise & tenon joints and signs of structural collapse at the soffit area. I find that years of roof leakage & a lack of gutters have ruined many a barn roof frame. If the 2nd floor or loft floor is supported by a metal cable & turnbuckle truss system, make sure that you evaluate it for signs of corrosion and for the condition of the fasteners at each end.

As an old barn precedes mechanical systems, it most likely reflects a history of substandard wiring and plumbing that evolved as modernization was attempted by the owner. I guess the spirit of many an old farmer has shielded the remaining old barns from electrical fires and cross connections, but the obvious hazards should be reported with the appropriate **WARNING NOTICE**.

In closing, inspecting a barn should be done at an added fee, but with the same scrutiny as a home inspection. I hope that the remaining old barns can be saved for their historical value, but lets be truthful, your client is paying for your expert opinion as the "general practitioner". He or she deserves an honest over-all opinion: Is the barn restorable on a budget to be established after seeking bids, or has the barn deteriorated such that demolition is the most practical option? I guess the basic question is: what would you do if it were your barn Mr. Home Inspector?

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