



# The Chronicler

Newsletter of the Hartland Historical Society, Inc.  
Gaylord House Museum, 141 Center Street, West Hartland

Mail to: P.O. Box 221, East Hartland, CT 06027—[hartlandhistoricalsociety@gmail.com](mailto:hartlandhistoricalsociety@gmail.com)

[HartlandHistoricalSociety.com](http://HartlandHistoricalSociety.com)

Spring Edition 2016

**Friday, May 13, 7PM**

## **Spring Membership Meeting, Town Hall, Refreshments**

**All of you are invited - Members encouraged to attend. Your input makes a difference.**

**Vote in Officers and Directors for 2 year term, reports from officers,  
discussion of projects to consider and events for this year.**

The Historical Society enjoys bringing our town's history into your lives through its newsletters, events, publications and the Gaylord House Museum.

**Its livelihood depends on membership dues, donations and volunteers!  
Annual membership envelope enclosed for your convenience. Thank you!**



The following account of the barn that most of us know as the "Frog & Turtle barn" is a wonderful read. Enjoy!

### **Preserving a Relic of Hartland's Agrarian Past**

By Matt Watson

When I was a young boy growing up in East Hartland in the 1960s, my family owned a Jersey cow that provided fresh milk, cream, butter, cheese and other dairy products to our large family of nine. Because we lived in the center of town on a lot that lacked a barn or pasture, we kept the cow at a small hobby farm in the southeast section of town between Route 20 and Skinner Road, owned by local resident Willis Hayes. Willis's property had a barn, an apple orchard and several acres of pasture. I was 4 or 5 years old at the time and my favorite activity was accompanying my father on his twice-daily trips to milk the cow, replenish her food and water and clean her stall. The old barn had a hayloft that was home to several feral cats and when those cats heard the click of the barn door's latch they would race down the stairs and wait patiently as my father milked the cow, hoping for any excess product to be squirted in their direction. My siblings and I loved exploring the mysterious old building with its stables, grain bins and farm implements, and it was there that I began to develop what would become a lifelong love of old barns.

One summer Willis's farm wasn't available, so Edith Leopold offered to allow us to graze the cow in a pasture across the street from her home on Rengerman Hill Road. In that pasture stood an old barn that would one day come to be known locally as the "Frog & Turtle Barn", for a mural painted on its north side by local artist Hank Prussing. Each evening when my father got home from work he would change his clothes and drive down to Edith's small farm to milk the cow, often with several of my siblings and me in tow. Because of the warm summer weather it wasn't necessary to keep the cow inside, and one Sunday morning she gave birth to a calf in the open pasture, generating much excitement for Edith and her friend Mary Dwyer, who witnessed the event.

Sadly, Willis Hayes passed away in 1968 and his farm was sold and subdivided, and the old barn where we had kept our cow was eventually torn down to make way for a new house.

Over the years, as our family grew and my father's "day job" at Combustion Engineering in Windsor, CT became more demanding, he had less time for small-scale dairying, and he eventually sold the cow. Many years later, after graduating from college and moving to southern California, I would return home to Hartland each Christmas to visit family and friends, and during those trips I would often drive by the Leopold barn to see how it was holding up. In 2001, Edith passed away and left her house, along with the barn and pasture, to the Audubon Society. Fortunately, she had taken good care of the barn over the years, and at the time of her passing it had a solid roof and a recent coat of paint. What wasn't evident from the outside however, was that the structure's massive wood sill beams were severely rotted from many decades of resting at ground level on a single layer of foundation stone, and as the years passed it began to sag and lean to one side. Also, the Prussing mural started to wear and fade as creeping vines and wild sumac trees slowly took over the old weathered siding.

In 2006, I contacted Scott Heth, Executive Director of the Audubon Center in Sharon, CT to express my concern about the barn's condition. At that time, my primary goal was to find a way to slow or halt the decay of the structure so that it might last long enough to be fully restored at some future date. Scott was sympathetic to my cause, but he didn't have the budget for a stabilization project and over the next 5 years the barn continued to deteriorate. In December 2011, I suggested to Scott that he apply for funds under the Historic Barns Grant program administered by the Connecticut Trust for Historic Preservation, whose stated goal was to "support efforts to preserve the iconic historic barns of Connecticut". Grant monies from the program could be used for three purposes; a conditions assessment (\$1,500), a feasibility study (\$1,500), and minor stabilization (\$5,000). In order to be eligible for the program, the barn would have to meet at least 3 of the following criteria:

1. Be over 75 years old.
2. Be located in a prominent public view-shed.
3. Demonstrate public benefit.
4. Be an outstanding example of type or era.
5. Be in active agricultural use.
6. Be listed in the local historic survey, State Register of Historic Places and/or National Register of Historic Places.
7. Be a barn with scribe rule framing.
8. Have project support from a local historical organization and municipality.



The Leopold barn clearly met requirements #1 and #2, and a good case could be made that it met #3, as well (I didn't know it at the time, but it also met criteria #4 and #7 - more on that later). Grant monies were only available to municipalities and non-profit organizations, so a move to save the barn on the Leopold property would have to be sponsored by the Sharon Audubon Center along with The Hartland Historical Society and the Town of Hartland. The Sharon Audubon Center would also have to become a paid member of the Historic Barn Preservation Association. I told Scott I thought his support for the project would go a long way toward encouraging the other entities to join the effort, greatly increasing the chances that grant monies would be awarded. In May 2013, I received an email from Scott indicating that the Sharon Audubon Center had joined the Historic Barn Preservation Association and that it had also applied for the grant. Four months later however, Scott decided to leave his position at the Center after 30 years on the job, but before departing he introduced me to Mike Dudek, the person then in charge of the Edith Leopold Sanctuary. Unfortunately, by the time Mike and I spoke at the end of January it was becoming increasingly evident that the Leopold barn project would likely not be receiving grant funds from the State of Connecticut any time soon, due in part to a reduction in funding for the program. Mike told me the Audubon Society was considering selling Edith's former home across the road from the barn and asked if I might be interested in purchasing it. I told him I would consider it, but only if the barn came with the deal. The terms of Edith's donation to the Audubon Society prohibited the sale

of the land where the barn was located, so my plan was to purchase the house and then dismantle the barn, move it across the street, and re-erect it next to the house. I wasn't keen on removing the barn from its original site and taking it out of its historical context - nor was I in the market for a home in Hartland - but I knew that if something wasn't done soon the Frog and Turtle barn might collapse and be lost forever. As the weeks dragged on however, it appeared that bureaucratic red tape at the Audubon Society's headquarters in New York City would likely prevent this deal from ever coming to fruition, so I hatched yet another scheme to save the structure. In April, I reached out to Mike once again and asked if the Audubon Society might be willing to allow me to dismantle and remove the barn with the idea that I would eventually re-erect it at another location in town. To my surprise, he responded by email a few days later stating that they might consider such a deal if I could demonstrate that I had the means and resources to take the barn down quickly and safely. I immediately reached out to Charlotte Hitchcock, a barn researcher at the Connecticut Trust for Historic Preservation, who referred me to Renard Thompson, President of Colebrook, CT-based Bring Back Barns ([www.bringbackbarns.com](http://www.bringbackbarns.com)); a company that specializes in restoring 18<sup>th</sup> century Connecticut barns. I called Renard and he told me he and his team would be able to start the job in April if I could secure the necessary paperwork from the barn's owners. On April 17<sup>th</sup>, Mike Dudek sent me a letter stating that The Audubon Society had formally agreed to allow me to dismantle and remove the barn. In his letter he strongly urged that I "re-erect the barn within East Hartland to ensure its continuing connection to the town", which of course had been my plan all along. Finally, on June 9<sup>th</sup>, 2015, after weeks of legal wrangling I received a signed document officially granting me ownership of the barn. Included in the contract were requirements that the job be completed by no later than August 1<sup>st</sup> (less than two months) and that the site be left clean and graded. Renard and his team went straight to work, and by mid-July they had stripped the exterior sheathing, photographed and documented the entire structure, labeled each and every post, beam, girt, and rafter, dismantled the frame, hauled it to a safe location, and stacked and covered it with a protective tarp.

With the barn removed, it was now time to clean up the site. It took five workers four days and three 30-yard dumpsters to haul away the trash, debris, lumber, tires, rusted metal drums, bricks, cinder blocks, garden tools, fencing, kerosene heaters, and various other items that had accumulated in the barn over the past 100 years or so. Not everything I found in the barn was discarded, however. I kept a wagon wheel, some horse tack, a primitive hand-made wooden door with leather hinges, some old windows, the barn's lighting rods, a large stack of weathered boards and even some of Edith's personal possessions, including her mailbox and 3 homemade bird houses.

With the first phase of the site cleanup completed, Hartland native Bill Levan and his crew from W.K.L. Construction pulled the sumac tree stumps, hauled in clean fill, and graded the site smooth. They also moved all of the barn's original foundation stones to a secure storage location, where they now await reuse in the structure's future foundation.

During the dismantling of the Leopold barn I was surprised to discover how remarkably unchanged it was from its original construction. It had never been enlarged or altered in any significant way, nor had it received any "modern" upgrades, such as windows, a cupola, a cellar, metal door tracks, electricity or plumbing. Also, although a crude wood floor had been added to the livestock bay, probably sometime in the mid-to-late 1800s, the large hay mow (rhymes with "cow") on the north side of the barn still had its original dirt floor. The 2-inch thick wood-pegged wagon drive, or threshing floor, was still in place as well, although only about two thirds of it could be salvaged, due to rot and decay. The only visible alteration to the structure was an enclosed portico that had been added to the building's east side sometime prior to the 1920s.

But how old was this barn, I wondered? My first clue came only a few days into the project when Renard Thompson called to tell me the entire structure had been "hacked out by hand with an axe". Not a single structural member - not even the smaller braces - had come from a saw mill. Most barns built after 1800, and even some from much earlier, were constructed using a mixture of hand-hewn beams and milled braces. The fact the Leopold barn had no milled members suggested that it might be from an earlier period than I had originally thought.

In the absence of reliable documentation, such as early land deeds and town tax rolls, barn experts like Renard Thompson use a variety of clues to help them date old barns. The first is to look at the style of the structure. The earliest Connecticut barns were modeled after examples from the settlers' native British Aisles, which had been built primarily for hay and grain storage. However, Connecticut farmers quickly discovered that, due to the harsh New England winters, they couldn't leave their livestock outside year round as had their Old World counterparts. This required a number of design changes that resulted in a new style of barn that was uniquely American. Various known as an English barn, a Yankee barn, a Connecticut barn, and a thirty-by-forty (most barns of this style were roughly 30 feet by 40 feet), this New World-style barn differed from its English predecessor in several ways. First, instead of a thatched roof, the Connecticut barn used cedar shingles split from trees harvested from the abundant swamps and lowlands found on nearly every New England farm. Also, although it featured a large central wagon drive flanked by two bays - much like the barns of Europe - only one of the bays in the Yankee barn was used exclusively for hay storage. The other was designed to house livestock. Often, the wagon drive in the Connecticut barn would be offset, with the narrow side of the building being used as the animal stable and the wider bay for the hay mow. There would also typically be a scaffold above the animal stables where additional hay could be stored. This not only increased the barn's storage capacity, but also helped keep the animals warm during the frigid winter months. A second scaffold located near the barn's peak would be used to store grain crops like wheat and barley. This scaffold, sometimes called rye-beams, was accessible by a built-in ladder and helped protect the crops from damage by mice and rats. The early Connecticut barn also typically featured two sets of wagon doors - one set on each of the barn's eave sides - enabling a hay wagon to be driven in one side for offloading and straight out the other side when empty. This arrangement also facilitated the winnowing of grain. On a breezy day, after the sheaves had been laid out on the threshing floor and beaten with flail sticks to separate the grain kernels from the straw, both sets of doors would be propped open to create a cross draft. The grain would be placed in a winnowing basket, and as it was gently tossed into the air the breeze would carry away the lighter chaff, leaving behind only usable kernels of grain. Often, a wide board would be placed on the threshing floor across the downwind doorway to catch any grain kernels that might be carried away with the chaff. This board was known as a "threshold", and today we use the term to describe a strip of wood or metal placed beneath any doorway (the threshing process also produced other modern terms like "flailing around" and "winnowing down").

The Edith Leopold barn is a classic New England 3-bay structure with an offset wagon drive, livestock stables, a hay mow, rye-beams, and two wagon doors on each of the barn's eaves sides. This suggests the structure was built sometime before 1840, when the new "gable-front" barn style began to emerge in Connecticut and across the Northeast.

Another way barn experts can date a structure is by looking at the framing technique. From the first English settlement to the early 1800s, New England barns were framed using an ancient method known as the scribe rule, in which each timber is custom mated to its adjoining timber. This was a slow and tedious method of framing, so in the early 1800s, inspired by the Industrial Revolution with its concept of interchangeable parts, a new framing technique, called the square rule, was developed. With this method, instead of custom crafting each joint, framing parts were hewn to predetermined dimensions using patterns and a framing square. This took less time and required less skill than the scribe rule technique. The Leopold barn was framed using the older scribe rule method, indicating a construction date of no later than the early 1800s.

The tools used to bore the holes for the wooden pegs, or "trunnels" (tree nails) that hold a structure's intricate joints together also reveal a lot about when it might have been constructed. For centuries, master joiners used a device called a shell auger for this task. Skilled craftsmen would make a clean, straight hole by turning this spoon-shaped device in a circular fashion and exerting enough downward pressure to cut into the wood. However, during the boring process the wood shavings had to be cleaned out of the hole after only a few rotations of the auger. This was a tedious and difficult process that required an extremely sharp auger and more than a little strength and skill. Around 1795, a significant technological leap in timber framing occurred with the invention of the spiral auger. Believed by many historians to have been developed by Connecticut ship builders, this screw-shaped auger cut much faster and more accurately than the shell auger and it automatically expelled the wood shavings with each turn of the handle.

Renard Thompson and his crew from Bring Back Barns determined that the bore holes in the Leopold barn's timbers had been made using a shell auger, pushing the likely construction date back to the pre-1800 period.

The type of nails used to affix roof sheathing and siding to a barn can also tell us much about its age. Before 1790, all nails were hand made one at a time by a blacksmith. This was a very labor-intensive process, making iron nails an expensive commodity (there are many historic accounts of entire structures being burned to the ground simply to recover the nails for use in another construction project). After 1790, most builders switched to the newly-invented machine cut nails - similar to the square nails used today to install hardwood flooring - which were more uniform and less expensive than the hand-wrought variety. After removing two layers of asphalt shingles and one layer of cedar shingles from the roof of the Leopold barn, Renard Thompson discovered the original hemlock sheathing still held in place by hand-wrought iron nails, suggesting the barn was likely built before 1790.

In recent years, a more scientific and accurate method for dating old structures, called dendrochronology, or "dendro-dating", has been developed. This sophisticated computer technology compares the tree ring growth patterns of a structure's timbers to dated masters from the local region. We're fortunate in the Northeastern United States to have one of the most extensive databases of historical tree ring growth patterns in the country, with some species dating back nearly 500 years. In June 2015, Bill Flynt, Architectural Conservator for Historic Deerfield, Inc. and one of the world's foremost experts on dendro-dating, conducted a study of 15 timbers from the Edith Leopold barn. His study revealed that the timbers had been "felled over a period of several years with the last of the trees coming down in 1775". In the preamble to his report Bill states that "trees were usually felled in the winter months with frame preparation occurring shortly thereafter, so the earliest a frame could be raised would be in the year following the felling date".

All of the evidence above suggests a high likelihood the Edith Leopold barn was constructed in the year 1776, making it one of the oldest, if not *the* oldest, extant barn of its type in Hartland.

Looking back, it seems that none but the most foolhardy would have chosen Hartland's East and West Mountains, with their thick forests, poor, rocky soil and short growing season, for even modest subsistence farming. Nonetheless, the ubiquitous stone walls that today crisscross almost every one of the town's 22,000 acres are a testament to the sheer grit and determination of those hardy settlers who felled the trees, pulled the stumps, tilled the soil and cleared the pastures of their endless crops of stone. Today, old fieldstone foundations can still be found throughout Hartland's former farmland, but precious few standing buildings from the town's early settlement period exist, and fewer still of the original barns survive. The Edith Leopold barn is one of the last remaining structures of its kind in town and my wife Melissa and I hope to one day reconstruct it at a location where it can once again be seen and enjoyed by current and future generations of Hartlanders. To honor the barn's history, that location will ideally be somewhere on the East Mountain, preferably on the site of a former farm that includes other structures from the same period.

Not surprisingly, the Leopold barn has suffered a fair amount of decay over the past 200+ years and many of its timbers, especially the sill beams and the bottom portions of the corner posts, will need to be repaired or replaced, as will approximately 35% of the original threshing floor.

In addition to these repairs, Melissa and I plan to replace the missing wagon doors with authentic eighteenth century copies, complete with hand-forged strap hinges and pintles. We also intend to rest the structure on a dry-laid field stone foundation, similar to the original, but one that will raise the sills off the ground to prevent rot. Until then, the Leopold barn will remain safe and dry awaiting its new place in the Hartland landscape.





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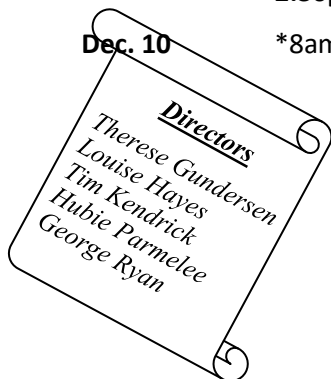
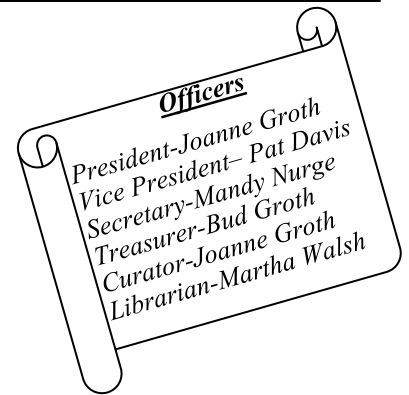
**The Hartland Historical Society's** mission is to discover, procure and preserve whatever historical facts may be available relating to the civil, military, literary, cultural, and ecclesiastical history of the town of Hartland; and to investigate and preserve such traditions and knowledge as now exist only in the memory of persons. The Society will be responsible for sponsoring and exhibiting the collection of historical articles, pictures and other items relating to the town.

Hartland Resident  
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### 2016 Calendar of Events

\*Hartland phone book, miniature houses & publications available for sale

- May 13** 7pm, Friday, Spring Meeting, Town Hall
- May 30 9:30 am, Monday, Memorial Day Parade
- June 12** \*2pm, Sunday, Home Tour, Joan Stoltze
- July 27-30 \*Carnival Booth/Parade
- August 14** \*1pm, Sunday, Blueberry Picnic, Gaylord House
- October 1 1pm, Saturday, Wildness School  
 CCC Camp Robinson presentation co-sponsored  
 with the Hartland Land Trust  
 2:30pm Fall HHS meeting in adjoining room  
 \*8am, Santa Breakfast, E. H. Fire House



**LOOK INSIDE....**

- ◆ Story of Dismantled "Frog & Turtle" Audubon/Leopold Barn in East Hartland.
- ◆ Membership/donation envelope