Introduction

Every House’s story IS Unique

Diving into architectural technology is no easy task, but can be rewarding. It often reveals additional information when coupled with an understanding of the historical timeline. If you have not yet done this, consult our other brochures on architectural styles and researching your house history. They will get you started on your journey.

Rules for Research

Use the following rules as a quick guide to success:

- Don’t believe everything you read
- Expect conflicting data
- Document all info (sources, dates, books, page numbers, web sites)
- Print, copy or photograph most everything – it’s evidence!
- Don’t repeat work – use what has already been done!

Gather Existing Historical Information

Before you begin, collect as much existing information as you can about your house. Ideally, you will have completed some form of house history which will include the following:

- Deeds and a list of occupants and/or owners.
- Maps showing the property at different dates.
- Photographs of the existing building (and outbuildings) on the property

Once you have this basic information, you can use it as a backdrop to your analysis of existing historic fabric.

Using Style to Approximate

Predominant Building Styles

Changing tastes through the ages resulted in a plethora of architectural styles in New England from 1630 through 1930. While far too many to list here, we’ve included approximate dates for building styles. The dates vary by region but give an approximate range to begin your study. Your building may contain more than one style, which is a good indication of a transitional period or changes over time.

- Athenaeum Hall in Saxonville is a good example of a Greek Revival Building. Some later 19th century changes can easily be seen in the windows.

Major Styles and Dates

Colonial Era
- First Period (1600-1730)
- Colonial (1730 – 1780)
- Georgian (1730 – 1780)

The New Republic
- Federal (1780 – 1820)

The Revivals
- Greek Revival (1820 – 1850)
- Gothic Revival (1840 – 1860)

Victorian Era
- Italianate (1850 – 1870)
- Second Empire (1860 – 1870)
- Stick (1870 – 1880)
- Queen Anne (1880 – 1900)
- Eastlake (1880’s)
- Shingle (1885 – 1910)
- Richardsonian Romanesque (1880’s)

For more information about styles, see our brochure on architectural styles available on our website.

Using Physical Evidence

Reading Architectural Technology

Architectural technology is a good indicator of your building’s original construction and subsequent changes over time. For the seventeenth and eighteenth centuries, very little change was made to traditional methods. In the nineteenth century, however, multiple developments created a rapid succession of technology that impacted home building. Their impacts are still seen in our buildings today. The following sections are the most common areas of change and usually the most accessible for you to view.

Building Framing

The bones of the building are usually the best place to start. Framing tradition began in heavy timber, common through the early nineteenth century. The development of balloon framing carried us through to the end of the nineteenth century. This lighter form of construction used precut timbers. The result was quick and easy building. It improved design potential, so you usually see an increase in architectural styles. Unfortunately, a flaw in design resulted in need for improvement, resulting in our modern method: western platform. The minor difference creates a fire stop between floors, eliminating safety risks of the balloon frame.
Saw Markings
Improvements in saw technology changed framing methods. Cutting marks left behind by blades can usually be seen on timbers. Hand hewn timber and pit sawn boards are the earliest forms of cutting and remained through the eighteenth century. This later gave way to the horizontal saw in the beginning of the nineteenth century and finally the circular saw at the end.

Circular saw marks found on a balloon frame house and visible in the attic. Look for framing in your basement and attic when not easily accessible on main living levels.

Floor Plans and Room Layouts
Floor plans change over time with framing methods. They begin with the hall and parlor method around a central chimney and ultimately evolved into more complex form. Notable varieties, such as the saltbox, center hall and side entrance, followed. Usually, floor plans vary too much at the end of the nineteenth century to be accurate so this method of dating works well for earlier buildings.

Typical eighteenth century house floor plan. This plan began as a hall and parlor, and then evolved over time. Houses became bigger and more complex as technology evolved.

Plaster Walls
Your plaster walls are usually a good indication of age, although it’s hard to see. Plaster is commonly used as a wall finish, but virtually does not change. The lathe or wall behind supporting it does. The earliest buildings used brick infill as a backing for walls. By the eighteenth century, that had evolved to a less costly accordion lathe. This ultimately evolved into split lathe and finally, cut lathe. Cut lathe came in standard lengths of 48” resulting in the standardization of stud spacing of 16” and 24”

Split lathe wall with plaster removed. Individual boards are nailed to the stud then plaster is applied over. Usually studs and lathe were not level and the professional plaster ensured level walls.

Fireplaces
Fireplaces are another good indication of age in a house. Early buildings had large open hearths that were inefficient. In the early nineteenth century, Rumford fireplaces made their appearance. By midcentury, fireplaces were replaced by stoves, indicated by slender chimneys. Other sources of heat replaced those at the end of the century. Only toward the end of the century did fireplaces return as a decorative element.

A Rumford fireplace in a colonial home. They are marked by a shallow firebox, which increases heating efficiency.

Window Profile Styles
Windows are a major contributor of architectural character to a building. They are visible on the exterior, and let light into the interior. As style changes, so too did windows. The most change can be found in the muntins, which divide glass area. Each style had a particular profile which can be matched. Because of their ease of being updated, windows often were swapped out for newer style so be cautious in dating your house on windows alone.

Window muntin profiles from 1700 through 1900. Variations of the styles will occur in different regions and with access to different tools (machine vs. hand made).

Nails
Nail types can help us identify building construction, especially in the nineteenth century when the technology evolved quite rapidly. Early nails were handmade by blacksmiths. Improvement in machining generated the first cut nails in the early nineteenth century. They were improved again around the first quarter of the century and again at the end of the century with the wire nails.

The evolution of nails helps identify building construction or subsequent changes over time.

Completing the Story
Explore the Nooks and Cannies
Explore the hidden areas in your home as best you can. Sometimes those locations have been untouched since the time of construction and can tell a lot. You may be rewarded with unexpected finds!

Filling in the Blanks
Armed with an armada of information, you should be able to link your historic narrative to your architectural study and determine construction and change times.

Sharing the Fruits of Your Labor
Finally, the last step is to take all you have learned and share it! Write up your house’s history in a narrative and donate it to your local historical preservation commission or society. They will both be glad to take it; your house makes an important contribution to your community and is worthwhile preserving it.

Suggested Reading
A Building History of Northern New England
Written by James L. Garvin, this book is an in-depth look at architectural technology from the seventeenth through early twentieth century. It is illustrated and easy to read. Garvin covers everything discussed in this pamphlet and much more. It is certainly a worthwhile read.

Acknowledgements
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Hidden void next to a fireplace showing historic lathe walls.

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