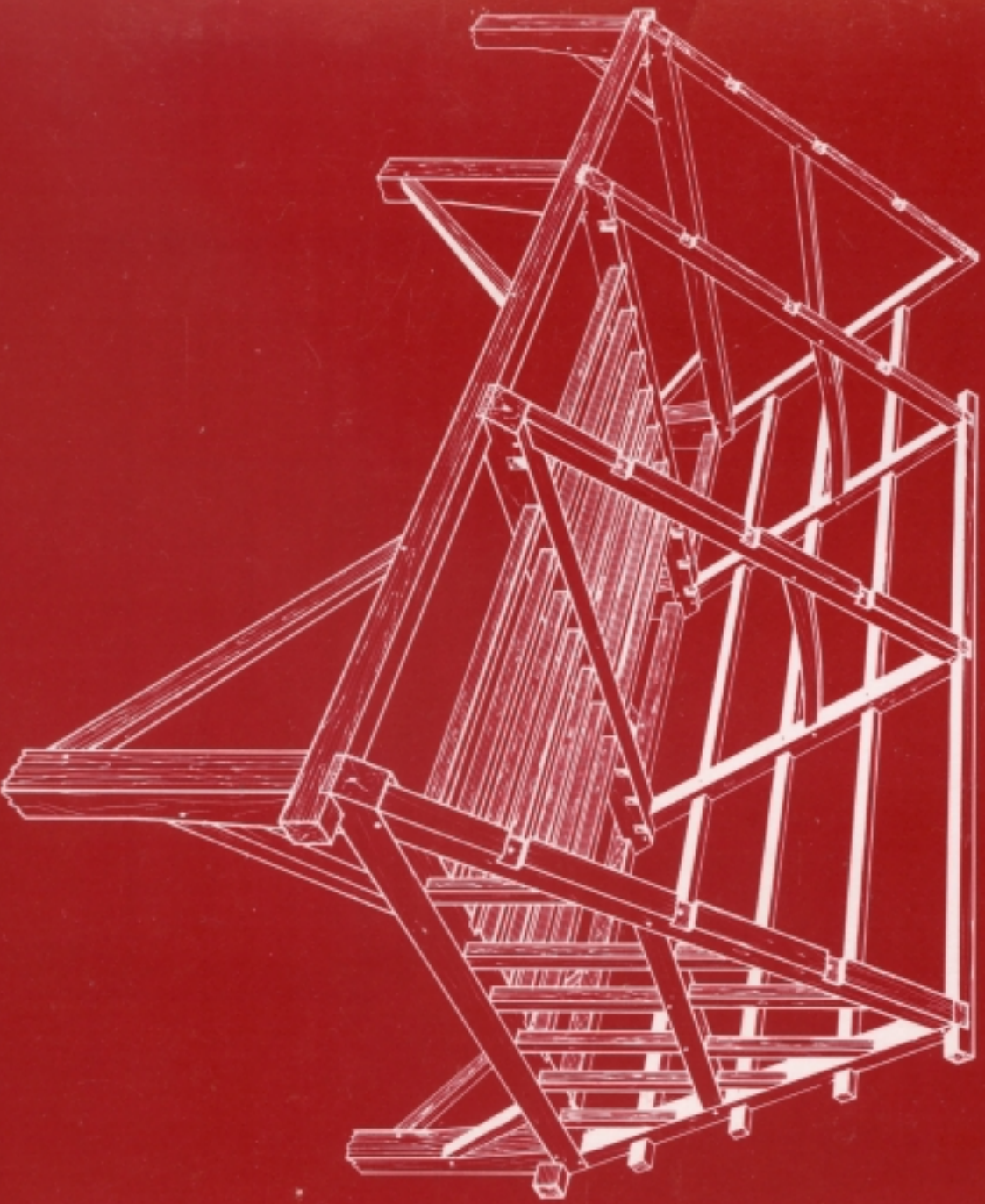


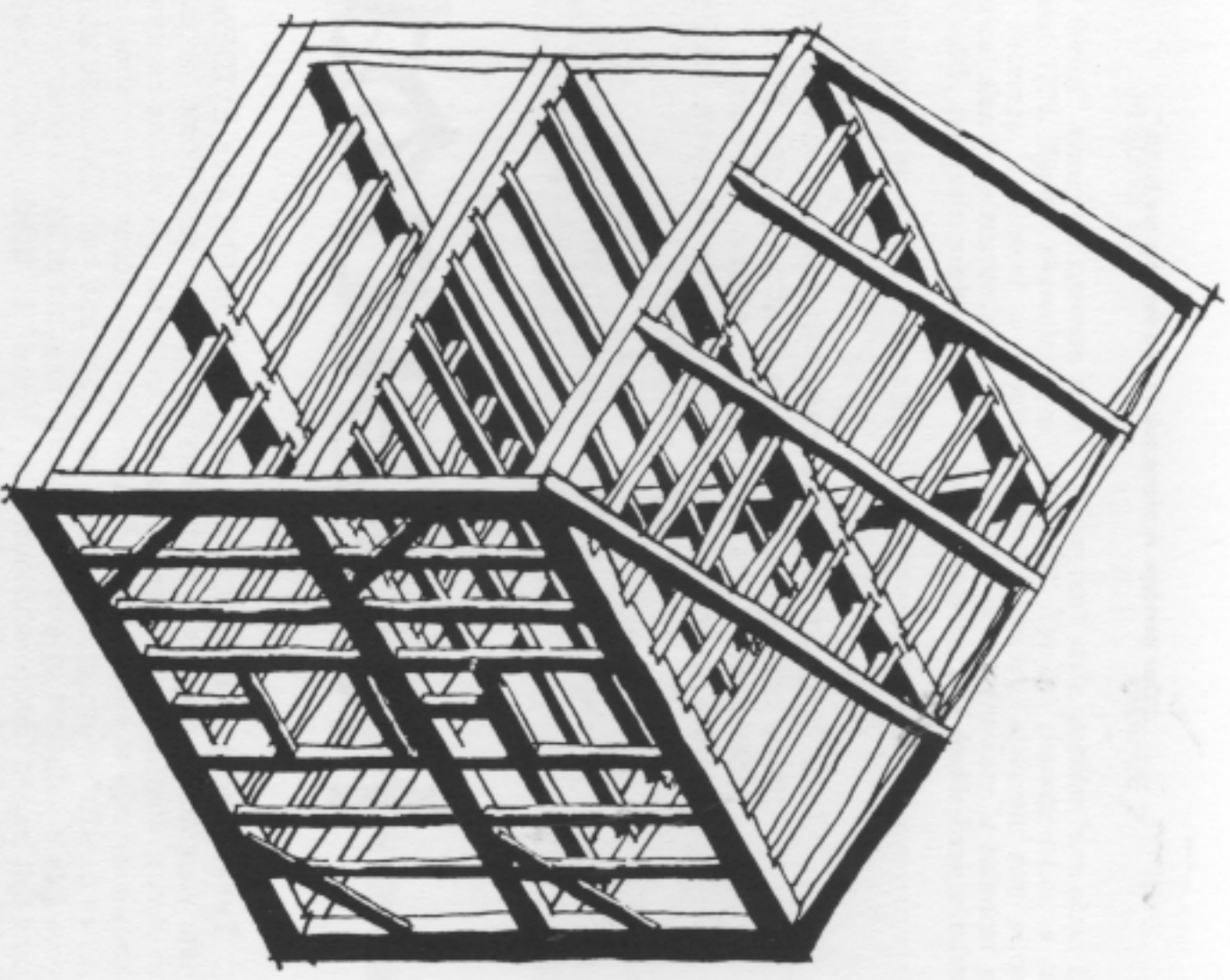
PRESERVING



YOUR OLD HOUSE



A Publication of the Society for the Preservation of New England Antiquities



how to date a house: **part one and part two**

by **David M. Hart**

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Each detail of the appearance and construction of a home contains a clue to the structure's age. Style, orientation, frame, windows, siding, even nails can tell you something. Here's how an expert adds up all those little clues....

text and line drawings by David M. Hart

★ how to date

a house ★

□ THERE ARE THREE BASIC WAYS TO

date your house: through documentary evidence, comparison of the house to known styles, and examination of physical evidence. No one of these three approaches is sufficient in itself. Together they will lead to firm conclusions.

This article is written from the standpoint of New England, but can be used in a general sense for other parts of the country. However, variations in timber-framing techniques, finishes, and stylistic origins dictated very different solutions in such places as Albany, New York, Philadelphia or New Orleans, and one must be careful in generalizing from the specifics addressed. Fortunately, some building components and techniques, such as nails and sash types, were in general use throughout the colonies and can be used as general guides.

DOCUMENTARY EVIDENCE

Dating your home by documentary evidence involves the examination of all known documents relating to the structure and land. This includes a gathering together of all available source materials such as deeds, wills, town and state records, maps, photographs, and history books for inspection and comparison.

A land title search is usually very helpful in tracing the ownership pattern. The accepted procedure is to trace the property from the present back to the earliest records. It is extremely important to trace back to the origin in order to authenticate the results with a clear title line. Land was often divided in confusing ways over the years, and a dead end in a deed search can sometimes be circumvented by a search of deeds to the adjoining property, which may show the

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FIGURE 1

A "First Period" house, the common style up to about 1725. Typical characteristics: massive chimney, casement windows, asymmetrical plan and elevation, steep roof pitch (45°-60°), and gable overhangs.

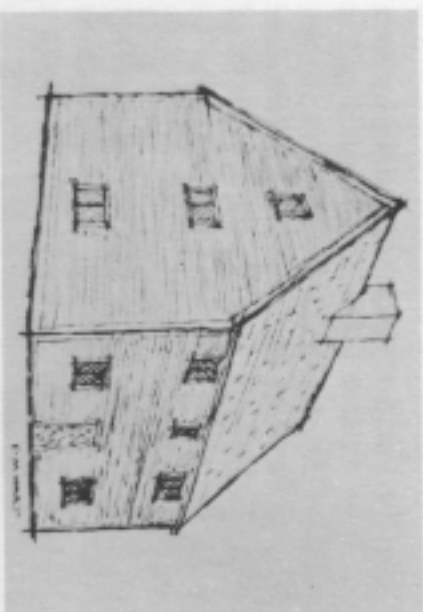


FIGURE 2

"Georgian" style, popular from about 1725 to 1790. Typical characteristics: a large central chimney, moderate roof pitch of 30°-40°, center entrance, a balanced plan and elevation, and double-hung windows.

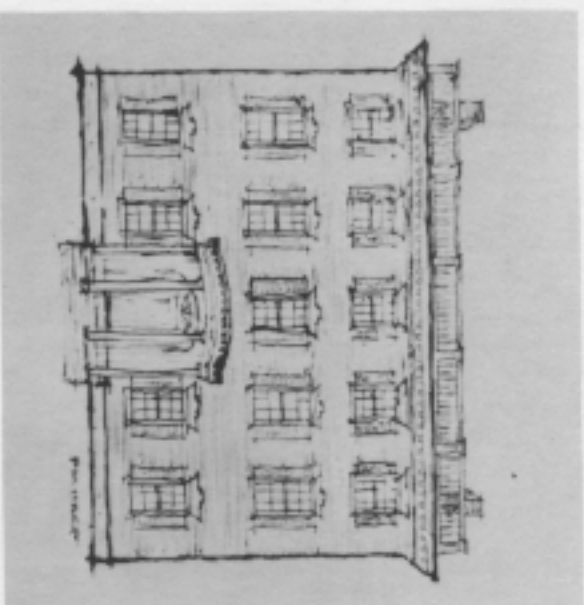
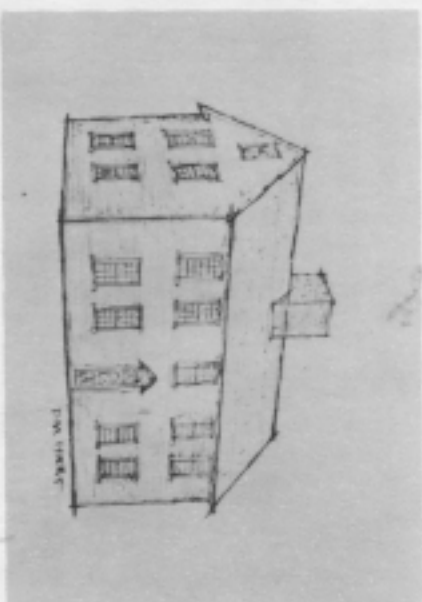


FIGURE 3

The "Federal" style, in vogue with New England housewrights from about 1780 to 1820. Typical characteristics: a low-profile roof, balustrade across roof edge, balanced elevation, and light classical trim details.

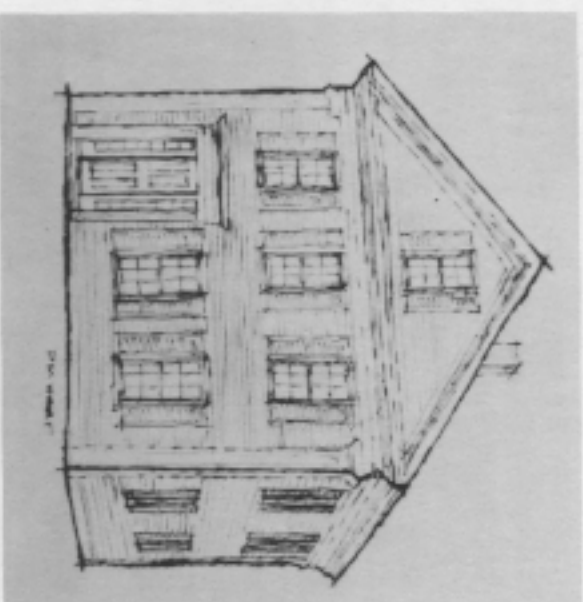


FIGURE 4

The "Greek Revival" style was common from about 1820 to 1860. Typical characteristics: a pedimented gable end facing the street, pilasters on the corners, heavy trim, and small, spindly chimneys.

There are very few, if any, remaining examples of First Period homes that have not been altered....

division of the land in question.

Dating by documentary evidence is frequently difficult and time-consuming and, due to missing records, sometimes impossible, but will often produce the exact date of construction. However, a few cautions must be kept in mind:

1. A home may have been moved into its present site from somewhere else, thus confusing the date of the structure which may be later than documentary evidence would indicate.

2. An earlier house may have been moved off the site; or could have been torn down, burned, or otherwise destroyed. The construction of the newer house need not necessarily show up on records, so that documentary evidence points to a misleadingly early date of construction.

STYLISTIC DATING

There are many reference sources available that can be used to determine a house's age from its exterior appearance; for this article only the highlights of the more common vernacular styles will be touched upon.

First Period (1620-1725): This style was characterized by a steeply pitched roof (45° and steeper), gable and story overhangs, drops and pendants, massive chimney stacks, and leaded glass windows. There are few, if any, remaining examples of this type that have not been at least moderately altered but, with careful analysis, one can recreate (on paper) the house's original appearance. (See Figure 1.)

Georgian or Second Period: This style became widespread after 1725, and continued right up through the Revolution. Typically, houses of this period have a balanced design (double-hung windows on either side of a central entrance) and are similar to what we sometimes call "center-entry colonials." This style did go through several small variations and

changes that relate to economic conditions, time and locality. (See Figure 2.)

After 1790, styles changed with more rapidity. Post-colonial styles such as the Federal from 1790 to 1820, and the Greek Revival from 1820 to 1860 (see Figures 3 and 4), gave way to a flurry of romantic and eclectic styles such as Queen Anne, Shingle, Second Empire, and so on. A detailed discussion of these styles may be found in sources such as Marcus Whiffen's *American Architecture Since 1780: A Guide to the Styles*.

It is important to note, however, that early houses were often updated to the prevailing style and it is not unusual to find an original Georgian house that has been given larger Federal windows, then a Greek Revival entrance, and finally a room or more remodeled in the Victorian era. One should be careful not to rely too heavily on any particular component, and the house should be appreciated for what it now is; it might be more important in its own right than it would be if it were "restored" to any particular period. (See *YANKEE*, December 1975, "The Eight Most Common Mistakes in Restoring Your Historic House and How to Avoid Them" by Morgan W. Phillips, for a more detailed discussion of restoring houses.)

The color photographs in this article illustrate the types of houses that one may see from the roadside; these are early homes that have been modified and now present quite a different appearance as compared to the "typical" treatment one associates with the styles.

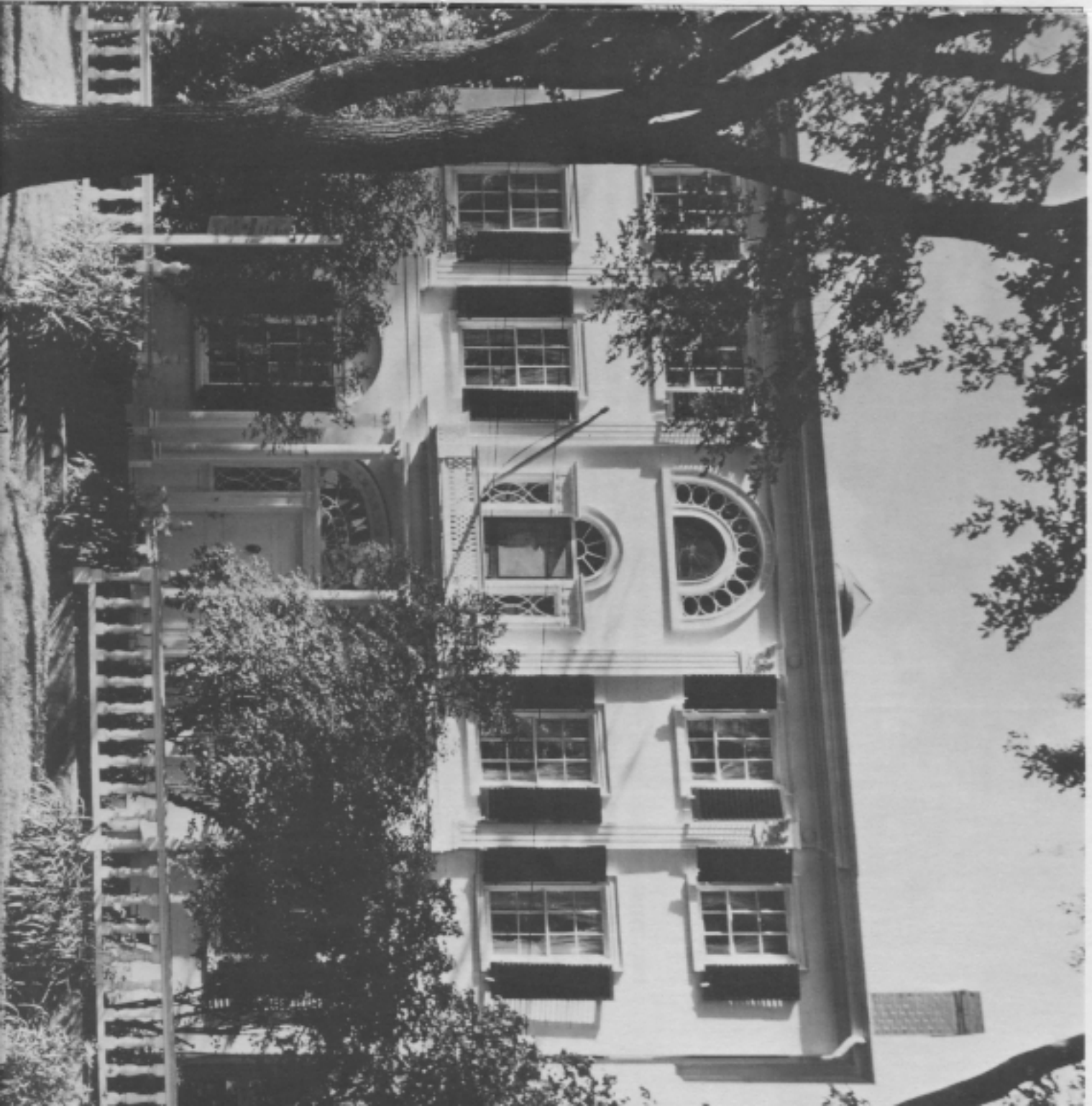
PHYSICAL EVIDENCE

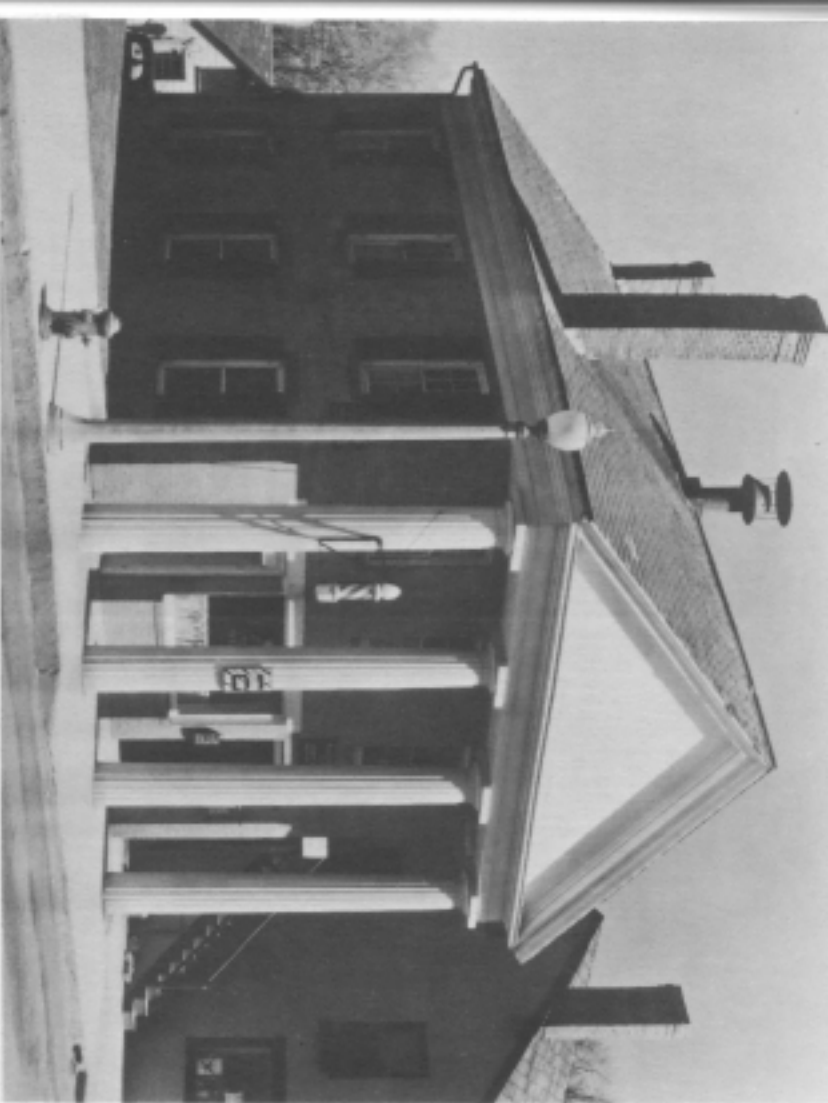
By careful examination of physical evidence one can usually determine with fair accuracy the date of many components of a house; the analysis of all such clues can then be used to arrive at an approximate date of construction. If documentary evidence is available, then the

Right: A good example of a Georgian period home — balanced facade, typical entrance — which also displays a hipped roof, used commonly in the latter part of the 18th century.



Below: This beautiful home in Wiscasset, Maine, represents high-style Federal architecture. Notice the balanced facade, three stories, low-profile roof that appears flat, and the elaborate window treatment above the entrance.





Above: This handsome typical Greek Revival structure in Concord, Massachusetts exhibits a pedimented gable end turned to face the street, a columned portico modelled after ancient Greek architecture and tall, thin chimneys.

Right: Hamilton House in South Berwick, Maine is a striking example of a Georgian home built at the height of the style's development. The house, displaying balanced facade, hipped roof, dormers and four chimneys to serve the master, is owned by the SPNEA and is open to the public.



The correlation of documentary and physical evidence often results in a

two must be correlated — an even more exciting process. This correlation of documentary and physical evidence often results in a neat dovetailing of information which can answer many questions about the structure.

There are many areas that one can examine for clues as to a structure's antiquity: the frame, nails or other devices used in construction, exterior and interior surfaces, trim elements, windows and doors.

Timber Framing

Frame types can be categorized as First Period, Second Period, Transitional, or Balloon. There are subtleties and many different combinations, but the discussion will be limited to basic types. In New England, the "Carved

neat dovetailing of information....

Frame" was predominant from the arrival of the earliest settlers until about 1720. It was a heavy, ponderous timber frame with many of its elements carved or decorated with chamfers and other forms of embellishment. One usually finds chamfers on the summerbeam, girts and posts, though not always on the latter. This type of construction was meant to be exposed to view, and commonly had no further interior finish than plaster walls and neatly planed and molded partitions of wood. (See Figure 5.) We can assume such a chamfered frame to be "First Period" and built before about 1725. A cautionary note: many early houses were taken apart and their wooden members reused in newer homes. Thus, one can commonly see

early rafters, summerbeams, girts, joists and studs reused in similar or entirely different positions, and one must be careful not to misinterpret such evidence. About 1725 a newer form of construction and style had evolved. Whereas earlier houses had an asymmetrical appearance, the new Georgian style (influenced by the English Renaissance) dictated a new harmony and symmetry in both plan and elevation. Earlier houses were remodeled to this balanced plan, with such technical innovations as double-hung sash. At the same time, the new style demanded a radical change in interiors, as the exposed beams were no longer visually acceptable. Now, beams were cased with finish boards, and ceilings plastered. The woodwork was

usually painted, in contrast to the exposed wood predominant in the first period. More intricate Georgian paneling now replaced the simple feather-edge or molded sheathing common to First Period interiors.

Changes are evident in the frame also, as housewrights gradually adopted the use of comparatively lighter members, although still similar in design and function. The major change occurred, however, in the finish of the members which, no longer meant to be exposed to view, ceased to be smoothly finished and finely carved with chamfers. Large timbers of this period were comparatively rough-hewn or sometimes sawn with an up-and-down mill saw. Subtle changes occurred throughout the eighteenth cen-

Wooden shingles rarely last more

tury, such as differences in the splay of vertical posts, and the continued trend towards lighter members. However, such trends are only generalizations, and should not be considered to be quantitatively significant in the analysis of the house.

To sum up, the Second Period (from about 1725 to about 1790) is typified by rough-hewn or rough-sawn framing members, covered up by casings and plastered walls and ceilings. Many of the First Period homes were upgraded during this time; some had their beams painted, while others had their beams cased over with beaded or plain boards.

than 40 to 70 years, and are therefore unreliable indicators of age....

Frequently the ceilings were plastered between major framing elements.

At the end of the eighteenth century, many factors were affecting the design of houses: the Industrial Revolution was making new building components available; builders' handbooks proliferated, promoting different architectural principles; and stylistic changes became frequent and dramatic. (For an excellent discussion of these styles, see *American Buildings and Their Architects, The Colonial and Neo-Classical Styles, Vol. 1*, by William H. Pierson, Jr.) All these rapid changes were accompanied by accelerated evolution towards lighter members,

with most timbers now being sawn with an up-and-down mill saw. No really drastic changes in framing technology took place, however, from the 1780's to about 1820.

Between 1820 and 1830 New England and the rest of the new nation gradually but definitively espoused a new national style: the Greek Revival. This style was popular until about 1860, and a vast number of houses were built during these decades. The construction industry underwent a tremendous change, with the production of smaller-dimension lumber greatly eased by further technological development of the up-and-

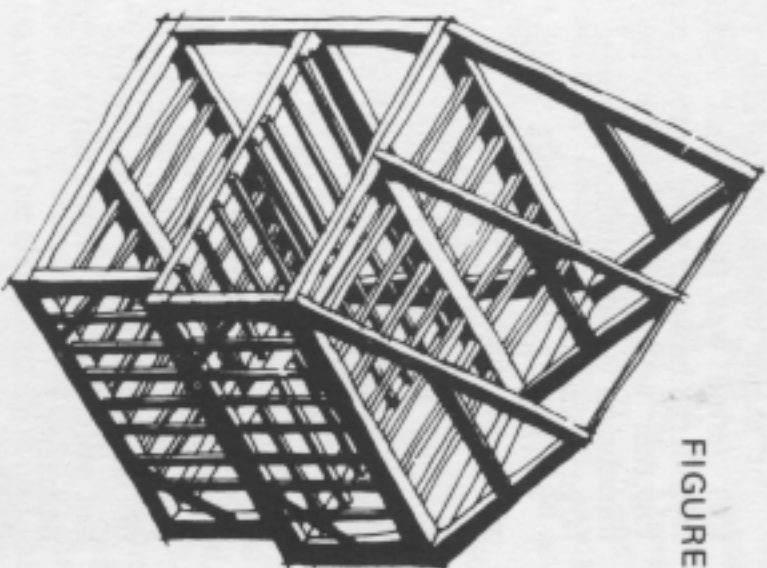


FIGURE 5

Above: Line drawing shows the characteristics of a First Period frame, which was employed by housewrights up to about 1725. The massive timbers are exposed to view on the interior, and almost always the main beams have carved chamfers.

Left: The Fairbanks House in Dedham, Massachusetts, is a good example of a First Period home, framed as shown above, even though the form of the 17th-century house (section with the steeply pitched roof) is obscured by later additions. The double-hung sash are not original, of course, since they are typical of houses later than 1715.

down mill saw, which permitted greater accuracy and increased operating speed. Sawn lumber became generally cheaper and, in the midwest, the modern "balloon frame" was born in the 1850's (so derisively named by the old-timers to imply that the new lighter-framed houses could be picked up by a strong wind and carried away like a balloon!)

In the east, however, the tradition of post-and-beam construction was adhered to until the end of the Greek Revival, or at least to the 1860's. Frames of this period were usually sawn with an up-and-down mill saw.

The major change in framing during this period was the gradual evolution from large hewn or sawn timbers pegged together with wooden pins to smaller-dimension sawn lumber fastened with large, cheap cut nails.

Towards the end of the Greek Revival, the balloon frame and its variations, the western and platform frames, became increasingly accepted. These newer techniques, at first resisted in the east, permitted standardized sizes of light lumber that one or more men could easily handle. (As a note of comparison, a post, girt or summer as used in older frames could weigh between 500 and 800 pounds, and necessitated many people to lift and assemble: a "house-raising" was not only a social event, but a technical necessity.)

Nails

Although the basic house frame was usually assembled with mortise and tenon joints, pegged with wooden pins, iron nails were used extensively in construction. This evidence is always helpful in determining the date of construction of a house. The hand-wrought nail, fashioned by a smith, was in use for thousands of years, and was prevalent right up to the 1790's, when hand-cut and machine-cut nails began to supplant them, particularly in the smaller sizes. (See Figure 6.)

Wrought and Cut Nails

Wrought nails are easily identified,

since all four sides taper to a point. Heads can vary from large "rose head" to the almost nonexistent head of a finish nail. If wrought nails were used to attach the exterior sheathing to the frame, or the interior trim, it is a good indication that the house in question was built before 1795, by which time cut nails were commonly in use. A couple of fine distinctions should be made concerning the introduction of cut nails. First, we are apt to find wrought nails in use a little later in remote districts, as new inventions did not reach these settlements overnight. Second, even though cut nails were generally much cheaper than wrought nails, early machinery was not able to handle heavy steel plates, and the larger sizes were developed later. One can often find houses with a mixture of wrought and cut nails used in their original construction; this is in itself a good hint of age, as it would indicate a transitional period of, say, 1795 to 1825.

Some subtleties are worthy of note. The first cut nails were machine-cut but hand-headed, as early machinery did not form the nail heads. During the period of 1795-1820, then, the industry produced a nail that is easily distinguished from the later cut types, assuming that the nail is in relatively good condition. About 1817 to 1820, machinery was developed which could also form the nail heads. This type of cut nail is produced even today by a few manufacturers.

Wire Nails

Cut nails, however, remained in use for less than a century, as wire nails, yet cheaper to produce, were introduced on a large scale in the 1880's. It is therefore probable that a house that contains only wire nails dates from no earlier than the 1880's.

Exterior Surfaces

Various clues can be drawn from the exterior weatherproofing surfaces of houses, but climate takes its toll of wood, paint and other exposed materials, so that it is quite likely that

such surfaces on a given house have been replaced more than once.

Roofing

Wooden shingles rarely seem to last more than 40 to 70 years, and are therefore unreliable indicators of age. Slate, although very expensive, is a very long-lived material if attached to the building properly. More often than not, slate nails determine the life of a roof, and when the nails rust through, down come the slates. Historically, slate was generally used on the more expensive buildings after the mid-nineteenth century, but had appeared in Boston even in the seventeenth century.

Sometimes one is fortunate enough to find early shingles on a roof, left in place when a later addition to the house enveloped the roof in question. Such wooden shingles, attached with wrought nails, indicate an installation date prior to 1795; after that time cut nails were used, and were continued in use until recently, since it was felt that their holding power was superior to that of wire nails.

Siding

There is considerable variation in siding materials, and only the more general types will be dealt with in this article.

As a general rule, houses were not painted or otherwise protected before approximately the second quarter of the eighteenth century. Most unprotected wood does not last long, and it is safe to say that wooden siding probably did not last more than 40 to 60 years on the earlier houses, at which time it was replaced. Examples of early siding remaining today are scarce indeed! However, just as a roof is sometimes covered over, there are examples of early siding left in place when the owner has nailed new siding over the old, or has added to the house and left the original siding in place. Such remaining examples fall into two categories: clapboards and weatherboards. Remaining early clapboards are rare — they tend to be riven, feathered at the ends, and applied with

rose-head wrought nails either to sheathing or directly to studs.

Weatherboards are simply thick wide boards, usually beveled at the top and bottom to keep out the rain, and applied horizontally to the studs. While they seem to be less prevalent than clapboards in the First Period, a few examples have been uncovered recently in New England. These are about 2" thick, with a bead or molding carved into the lower edge for decoration.

Little change in siding materials took place from 1725 until the 1780's. One expects to find 5" or 6" wide clapboards laid up 3" to 3½" to the weather throughout this period of time. These were generally sawn, skived at each end, sometimes decoratively beaded along the lower edge, usually 4' long, and attached with wrought nails.

After the Revolutionary War, the skived treatment gradually gave way to butt joints, which became the general rule in the early nineteenth century. Other exterior wall treatments came into use, however, and quite a few high-style houses were built just after the mid-eighteenth century that had matched, flush boards, or flush board with U-grooves cut in to give the effect of stone construction, called rustication. Butt-end clapboards, of course, run right up to the present day. The clapboard style and the nails used for attachment usually indicate the age of these elements.

Foundations

It is very difficult, if not impossible, to date a home accurately by its foundation alone. Generally the foundations were built of random fieldstone, laid up either "dry" (that is, no mortar used) or with clay or lime mortar. However, neither of these was practiced with enough regularity to predict the age. Actually, one can see fieldstone foundations being used right up to the twentieth century, thus confusing the issue. (continued)

Windows

Windows often give a good indication of the age of a house. Windows changed as follows:

Early windows, produced before c. 1725, were of the casement or fixed glass variety, had a wooden or metal frame, and lead or metal dividers, with small squares or diamond-shaped panes of glass. These windows are very rare today, but the evidence for casement openings is occasionally found hidden in a wall that has subsequently been boarded up. If this type of window or its frame is found, it is an indication of First Period date.

In 1705-1725, the double-hung sash made its appearance, and rapidly came into use all over the 13 colonies. These were simply two separate sash which slid up and down vertically in a window frame, sometimes with leaded glass, sometimes with new-fashioned wooden muntins. Little differentiation can be made between 1705 and 1840 in terms of general layout, but much can be determined from the muntin configuration. Generally, the muntins were originally made quite wide and flat and gradually became narrower and deeper from 1705-1860.

The kind of glass used in glazing windows is sometimes a good indication of the house's age. Crown glass was made up until about 1825, and can sometimes be recognized by its slightly curved ridges acquired during the manufacturing process. Cylindrically-processed glass was manufactured from 1825 until about 1850; identification of this type of glass is not necessarily positive, although it certainly can be described as wavy and sometimes has imperfections and air bubbles in it. After 1850, sheet glass came into use; it has all the characteristics of modern glass, i.e., it is relatively flat and free from imperfections.

The foregoing discussion represents an idealized approach to dating houses. In practical terms, there are many more facts and variations that one must be

aware of to be assured of reasonable accuracy. For example, regional variations upon the main theme are many, and often uncatalogued. The major population centers tended to follow the stylistic and technical trends quite closely, whereas the more remote areas may have architectural characteristics that are 10, 20, or even 50 years behind the times. Also, of course, there were many builders and owners who copied some style or example that they liked from another area, or duplicated an earlier house for sentimental reasons.

The interior elements of a house are often very good clues to its age of construction, or remodeling: these include doors, sash muntin profiles, fireplaces, trim, plaster, paneling and floors. These



FIGURE 6

details will be the subject of a succeeding article.

Professionals are available who can give guidance to individuals and organizations in developing a program to date an historic house. These professionals can also be consulted for specific answers to more technical or complex questions than can be explored in this short article. The field of historic preservation is rapidly expanding, and is making use of various new techniques such as tree-ring dating (dendrochronology), non-destructive x-ray examination, and microscopic inspection of old paints. ■

The interior finish of almost every house will display exceptions and anachronistic details, but the objective consideration of certain features can really help pin down the age of a structure.

by David M. Hart

HOW TO DATE A HOUSE: PART TWO

□ My PREVIOUS ARTICLE (SEE "How To Date a House," YANKEE, July 1976) dealt with the exterior and structural aspects of dating a house in New England — including the frame, roof, sidewalls and nails. This article will deal with dating the components the builder used to finish the inside of the house, including wall paneling, doors, fireplace trim, and plaster.

There are many factors that must be considered when one is examining the interior of a house and assigning a date of construction. First, as my earlier article pointed out, there is sometimes a time lag between the metropolitan and more remote areas of the region, and some constructional techniques, products, designs and ideas do not show up in remote areas for 10 or 20 years or even

more after they were first introduced in the main population centers.

The second major factor to keep in mind is that people often finished off portions of their houses long after construction, and then remodeled the house at various times. One is apt to find that some parts of the house remained unfinished for a time, and then were finished off in a style later than the original construction. For example, a house may have been built in 1770 and a few rooms left unfinished until 1805. The 1805 portion, done in the latest "style," will almost certainly be different from the earlier portions of the house, and thus will present an inconsistent appearance. Some parts of houses were never finished off: second-floor loft areas, or even front stairways to the un-

FIGURE 1

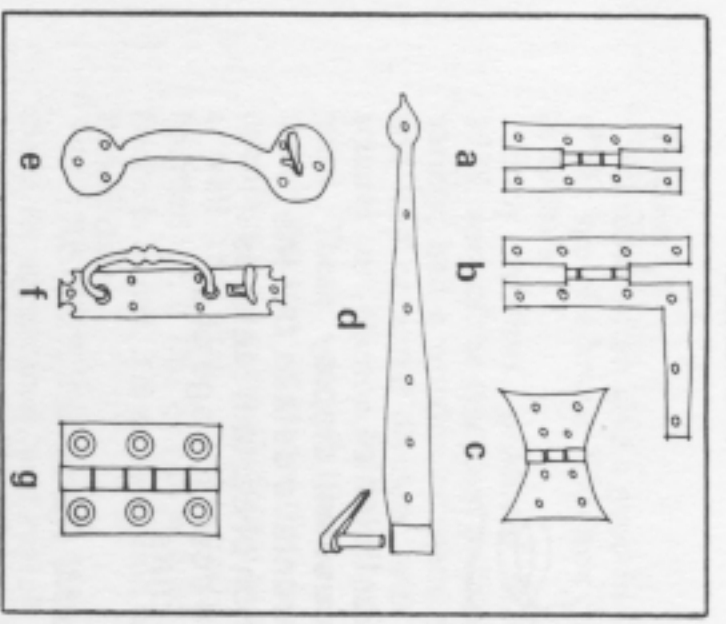
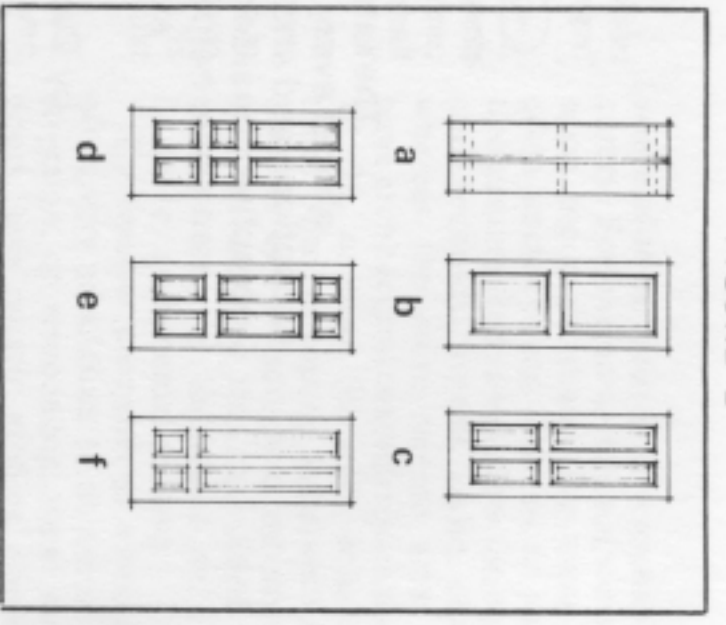
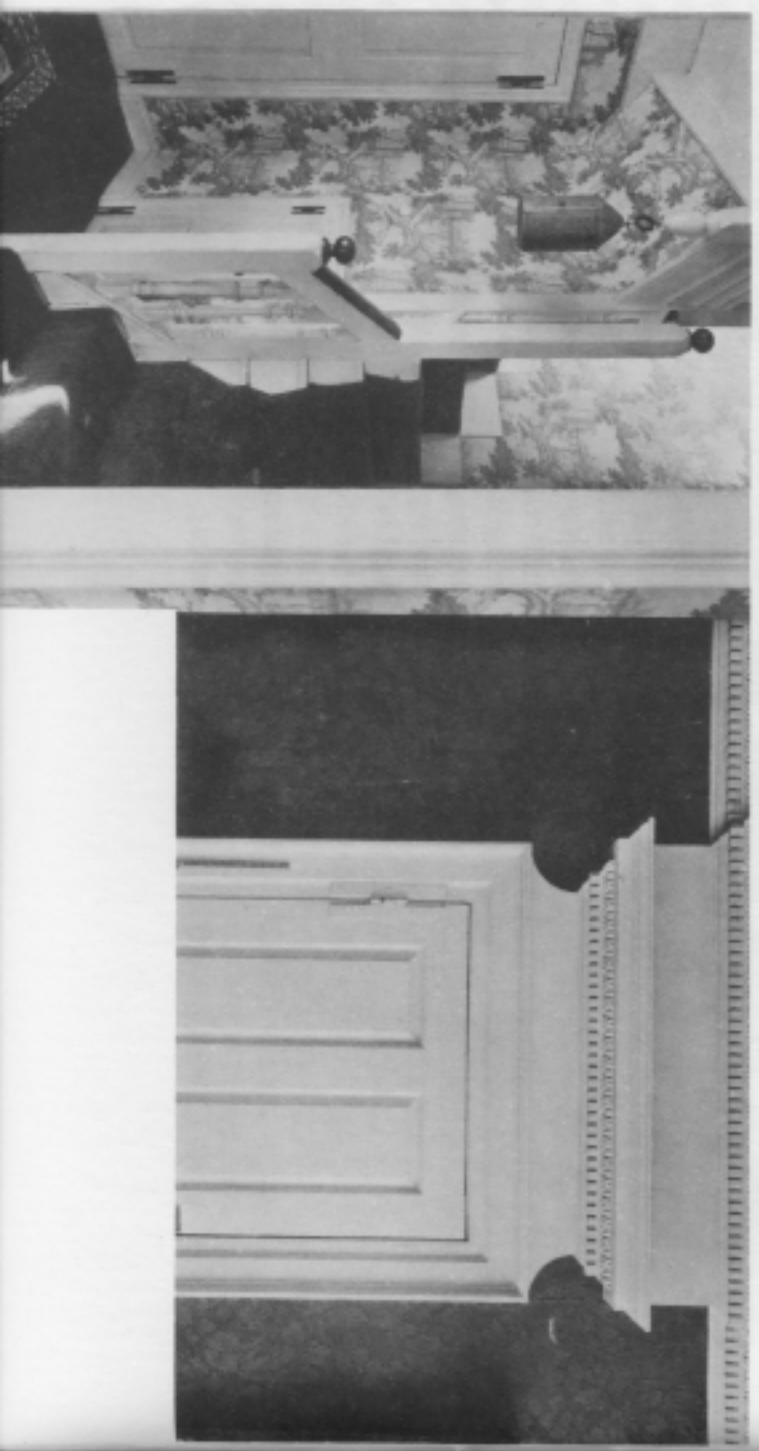


FIGURE 1: Door hardware can often help establish a date. The H hinge (a), HL hinge (b), butterfly hinge (c), and the strap hinge (d) were in use until about 1790 when the cast-iron butt hinge (g) was introduced. Wrought-iron thumb latches like the Suffolk (e) and more expensive Norfolk (f) were used extensively up to 1840. FIGURE 2: "First period" doors (a) and (b) were in use until about 1725, (b) usually in high-style houses from 1700 to 1725; variations of typical Georgian doors (c) and (d) were common from 1725 to 1790; the Federal six-panel door (e) was in vogue from about 1790 to 1830 when the four-panel Greek Revival door (f), exhibiting a wide molding (see Figure 3-d, next page), became popular.

FIGURE 2



The two photographs below illustrate the wide differences between houses of the same period. Each of Georgians house — note the H hinge and simple doors — while the one at Hingham, Massachusetts house — note the H hinge and simple doors — while the one at right shows a detail of elaborate high-style finish from the Pierce-Nichols House in Salem, Massachusetts designed and built by Samuel McIntire (photo courtesy, Essex Institute).



finished portions of a one-story house, for example. Woe be to the new owner who decides to rip out the "later" portions of his house and discovers that there is no earlier evidence — because there never was any original finish!

Thirdly, we have to address the whole question of economic and social standing. When comparing the various details of the region's architecture, one finds that the house of a man of means often had details as well as furnishings that were not found in simpler dwellings. When we examine some details such as panel moldings, it seems that most houses built between 1725 and 1790 had an ordinary quarter-round molded into the edge of the stiles and rails of doors. Further, when we examine houses built after 1790, we find that a small fillet or fillets have been added; therefore, we conclude that this is a characteristic that one can use with authority. (Fig. 3-a, 3-b.) However, upon examination of some of the "best" houses, one finds that this is not true — these fancy houses did, in fact, have this characteristic as early as

1730. It appears that stylistic details not only followed population centers (i.e., there may be a delay of 10 to 40 years before some details reach the hinterlands from the cities and towns) and the remodeling whims of the homeowner, but also followed economic lines (i.e., a "best" house in the hinterlands could have the latest in style and furnishings). It becomes apparent that any generalizations become rather hazardous if they are made without qualifications. We now realize that it is possible to have two houses in an outlying town or district that displayed quite different stylistic details and yet could have been built in the same year: one for the average homeowner and one for the prosperous merchant.

The characteristics and details of interior finish can now be examined in an attempt to ascribe a date of installation, which, combined with the documentary and stylistic information, will help find the possible date of construction of a house.

(continued)

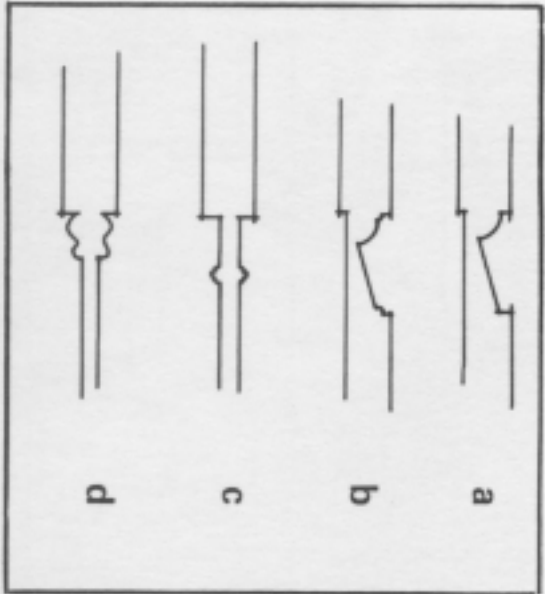


FIGURE 3

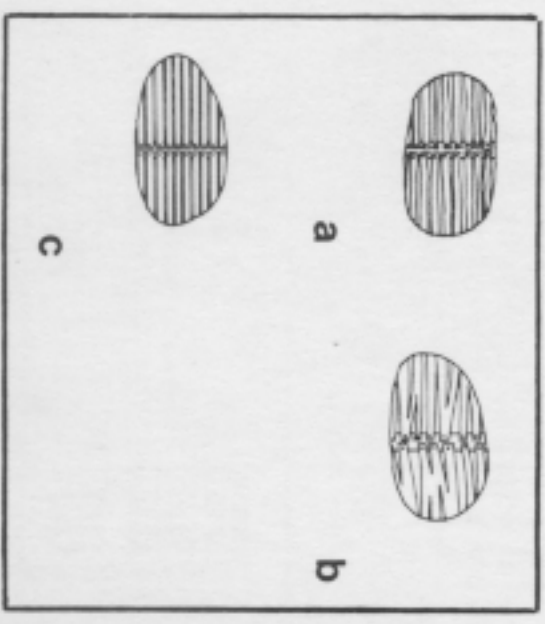


FIGURE 4

"The width of floor boards has more to do with economics than style in New England. Wide knotty boards were inexpensive to produce...."

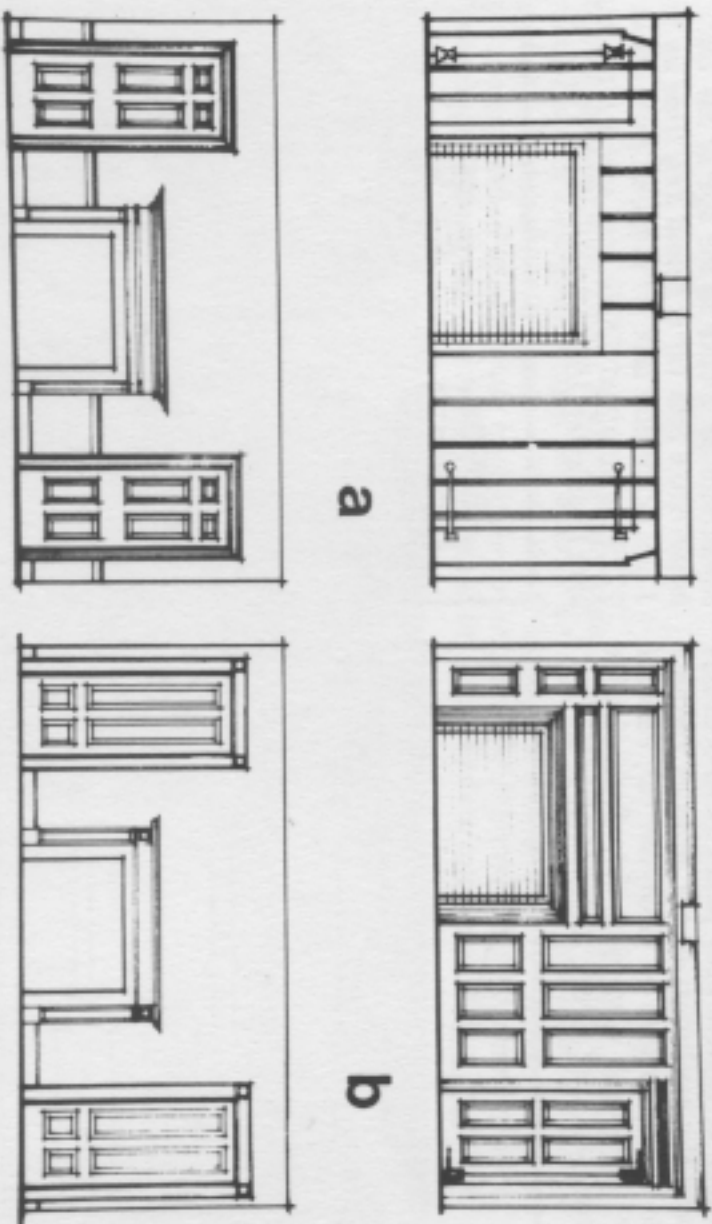
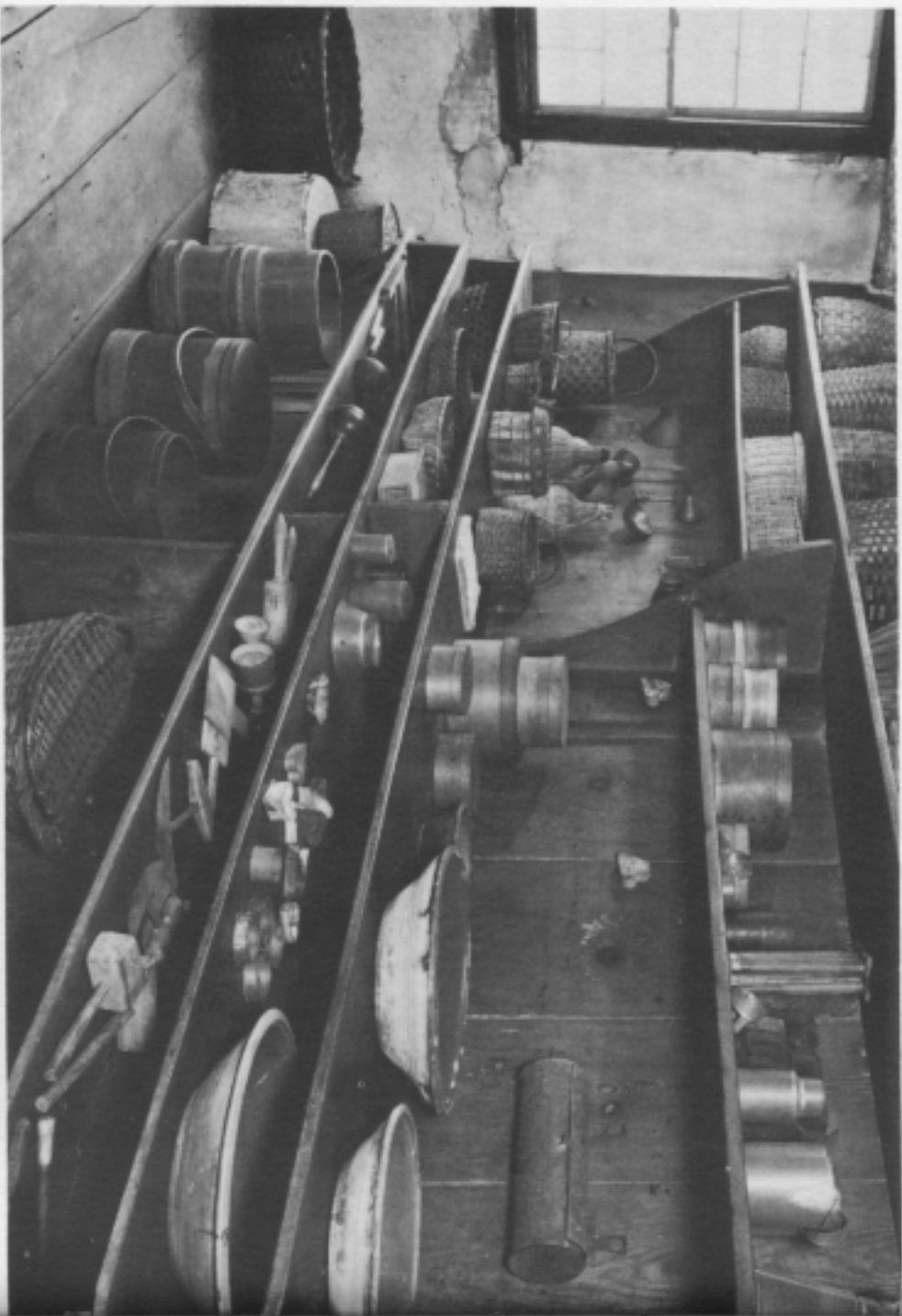


FIGURE 5

The illustrations above provide a comparison among typical fireplace wall elevations for different periods: First Period 1620-1725 (a), Georgian 1725-1790 (b), Federal 1790-1830 (c), and Greek Revival 1820-1860 (d).

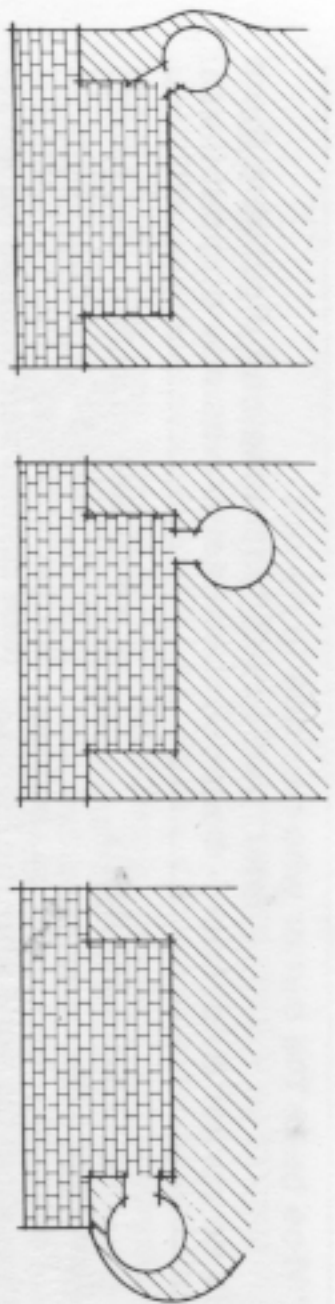


FIGURE 6

The drawings above show three ways in which the bake oven was commonly positioned in the kitchen fireplace prior to the mid-18th century, by which time the oven had moved out to one of the fireplace jambs, as shown in Figure 7, at left.

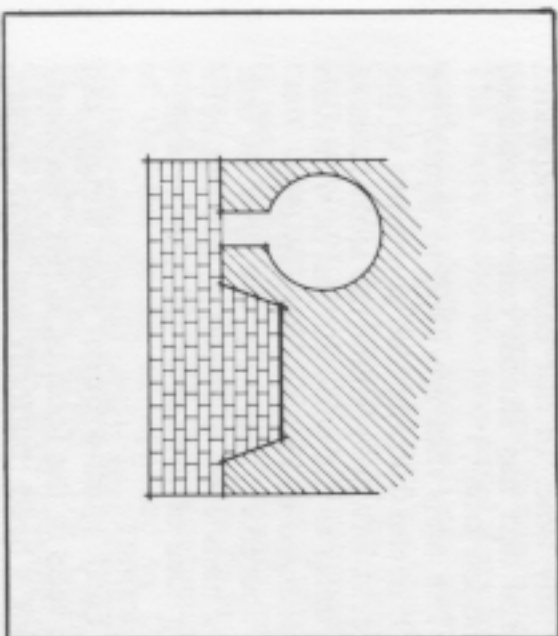


FIGURE 7

Below is a good example of a First Period fireplace in the Coffin House in Newbury, Massachusetts. Finding the bake oven within the fireplace wall dovetails with other evidence supporting the dating.



"Woe be to the owner who decides to rip out

'later' portions of his house and discovers there is no earlier evidence — because there never was any original finish!"

INTERIOR FINISHES

Plaster and Lath

Plaster has been used in building throughout the world since the Egyptian era, if not before. Basically, plaster is composed of varying mixtures of lime, sand and water, with or without the addition of a fibrous binder such as animal hair or vegetable fiber. When used, this fiber served as a reinforcing web to hold the particles together to reduce the possibility of cracking and separating from the base. The components of plaster do not vary greatly, although one is apt to find local variations such as differences in sand particles and the use of burned pulverized marine shells as a substitute for mined lime. One- and two-coat hair plasters are very common even up until the 20th century, so the plaster itself is not a very reliable indicator of age. Appearance is not a reliable indicator either. The craftsman usually applied the plaster very carefully, and for this reason if we examine early work we find smooth surfaces common throughout all of America's history. Bumpy plaster is more likely the result of repeated patching and layers of paint that have fallen off unevenly in spots, rather than deliberate attempts on the part of the installer to create a rough finish.

The lath which is used as a plaster base is a better indicator of age, as it went through a more or less definite chronology. Until about the second quarter of the 18th century (about 1725) lath was generally made of wood riven, or split, on all four sides. After this time it is also quite common to see thin boards that have been sawn on two sides, split on the ends and then partially pulled apart in an accordion-like fashion; thus the term "accordion lath." One is apt also to see the same type sawn board split into individual laths. These practices continued until about 1825 or so, at which time individual strip lath, of constant thickness and width, manufactured

of boards sawn on all four sides, became popular because of innovations in sawmill technology. (Fig. 4.) Notice that these customs were common but not absolute, and one is able to see practically any style lath being used as an exception, at any time. In our century, expanded metal lath has almost entirely replaced wooden lath.

The nails that are used to attach the lath to the framing also give clues to the age, as lath nails follow the same rules as to dates as the wrought, cut or wire nails discussed in Part I of this article.

Therefore, knowing the type of lath and nails used to attach it, one can get a fair idea of the age of the plaster wall.

Hardware

Early hand-wrought door hinges can be seen in the form of H, HL, elaborate cock's head, butterfly and strap hinges. These were used through the interior of a house until about 1790, when cast-iron butt hinges were introduced and began to be popular. These early wrought hinges generally followed a pattern of H and HL hinges used on the better doors, butterfly hinges used on light-weight doors, and strap hinges on simpler exterior doors. These types were commonly used throughout the region, although there were a few wrought-iron butt hinges in use during the 1700s. The more reliable cast-iron butt hinge was patented in England in 1775, and became prevalent in the United States after about 1790. This cast-iron hinge continued in use until the introduction of the stamped steel hinge in the mid-19th century. (Fig. 1-a, b, c, d, g.)

Door Latches

Simple wrought-iron thumb latches were common and used extensively until about 1840, when cast-iron latches displaced most of this type. The more elaborate and expensive Norfolk latch was also used in the United States between 1800 and 1840, when it too was

HOW TO DATE A HOUSE: PART TWO

replaced by cast-iron latches. The iron box lock was introduced in the mid-1700s, and thus one is apt to see any one of these three basic types in use up until 1840. In 1840 Blake patented the famous cast-iron latch, which continued in use right up through the 20th century. (Fig. 1-e, 1-f.)

EVOLUTION OF DOOR STYLES

The first period (to 1725) doors usually were of board and batten types. The more elaborate two-panel door was used in the better houses from about 1700-1725. The Georgian period (1725-1790) is characterized by either four-panel or six-panel in the approximate configuration shown. The Federal (1790-1830) six-panel door usually had small panels at the top. Some Federal period doors exhibited the introduction of the flat panel, as opposed to the feather-edge panel which predominated in the Georgian period. The Greek Revival period (1820-1860) saw the re-introduction of the four-panel door, except that the lower panels tended to be smaller, and the moldings were decidedly wider. (Fig. 2-a to 2-f.)

EVOLUTION OF ROOM FINISH

First Period Room (to 1725)

Rooms of this type generally had the wood framing members such as summer beams, girts, posts and joists exposed to view, and the chimney wall typically had a large fireplace opening surrounded by beaded or molded board sheathing. Doors in all but high-style houses were usually board and batten and hinged with butterfly, strap or H hinges. (Fig. 5-a.)

Georgian Period Room (c. 1725-1790)

The room of this period generally had the wood framing members covered over with casing boards. Paneling was used extensively, and the fireplace wall was characteristically composed of feather-edge paneling, with a smaller fireplace opening surrounded by a wide projecting bolection molding or architrave. Paneled doors were usually fastened with H or HL hinges. (Fig. 5-b.)

Federal Period Room (1790-1830)

The elaborately paneled fireplace wall of the Georgian period typically gave way to a still smaller fireplace with mantled trim, the use of much wall plaster, and doors fastened with butt hinges. (Fig. 5-c.)

Greek Revival Room (1820-1860)

The trend towards the greater use of plaster on the fireplace wall continued during this period. The profile of the moldings, trim and doors now took on a distinctly different tone, being characterized by complex free-flowing curves rather than the simpler quarter-rounds, arcs and straight lines of the Roman-influenced Georgian style. Notice the characteristic Greek Revival decorative detail at the intersection of the door trim. (Fig. 5-d.)

Window Muntin Bar Profiles

The general trend of muntin bar configuration was from a wide flat profile in the early 18th century to a narrow, deep profile by the mid-19th century. Prior to 1790, the muntin was characterized by a wide (1 1/4") profile which narrowed to about 3/8" about 1790-1805. The bar then typically became deeper and changed configuration throughout the 19th century, as illustrated. Again, the high-style

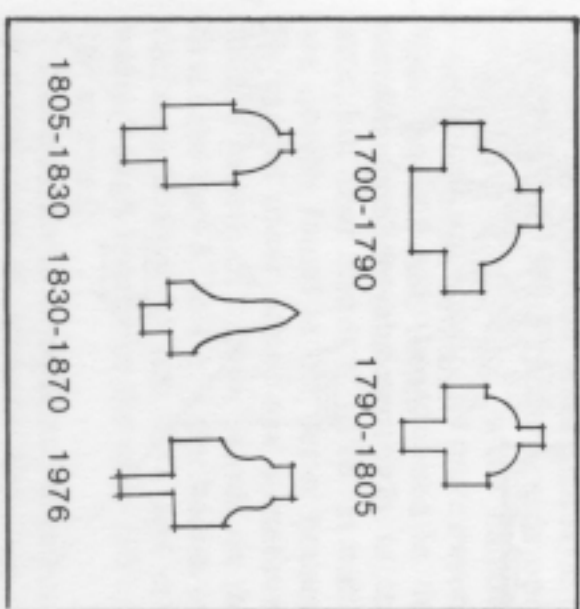


FIGURE 8

Above are cross-sections showing the progression of window muntin bars from a wide, flat profile prior to 1790, to the narrower, deeper profile of the mid-19th century. These can be compared to the profile of the muntin bar commonly available today.

creased her life expectancy! Local customs played a part in this moving of the oven out to the side, so some localities may exhibit the bake oven placed at the rear up until the late 1700s. By 1790 it was almost without exception at the front. (Fig. 6, 7)

The "modern" cast-iron stove was introduced in the colonies as early as the 1730s, but did not seem to be in general use before about 1820. The fireplace became more sophisticated, and in the late 18th and early 19th centuries included roasters and small ovens before they were made obsolete by inexpensive cast-iron stoves.

FLOORS

Perhaps the best clue to the dating of wooden floors will be found by a careful examination of the type of nail that is used to attach the board to the subfloor or joists. Rose-headed wrought nails were commonly used in the 17th and 18th centuries, although one is apt to find the head squashed and the nail driven in to reduce the tendency to split the board. Building practice followed the general trends of technology, and by 1810 one usually finds floors attached with cut nails.

The width of floor boards probably has more to do with economics than style in New England. Wide knotty boards were inexpensive to produce, while narrow, clear boards were obviously more expensive. We find wide boards used in the simpler dwellings and especially in the attic, but clear boards 6" to 10" in width are usually found in the better houses. By careful observation, one sometimes finds a pattern of narrow boards on the first floor (say 6" to 8"), wider boards on the second floor (8" to 12") and still wider, rough boards in the attic (10" to 16" or more).

There seems to be evidence of the use of many types of joints on the edge of boards, such as butt, lap or spline, which were all utilized interchangeably throughout the early and later periods. Research is scant, but these methods probably followed the economic pattern



Above: The Marrett House in Standish, Maine, owned by SPNEA, offers a good example of a Georgian fireplace wall elevation: a small opening surrounded by wide, projecting architrave molding and typical paneling details.

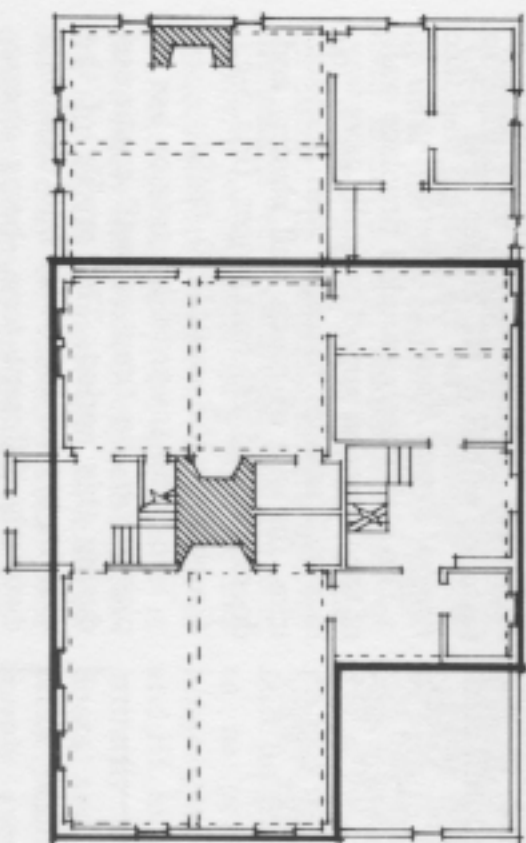


FIGURE 9

Left: The value of a measured floor plan is shown in this illustration. A confusing combination of eight first-floor rooms is greatly simplified by picking out the early portion of the house (dark outline). The same house is shown in a measured elevation below, with dotted lines showing what was probably the original house.

house, especially during the Federal Period, usually had profiles which were more elaborate but still within the general outlines of those illustrated. (Fig. 8.)

EVOLUTION OF KITCHEN FIREPLACE PLAN

The early fireplaces can generally be recognized since almost without exception they had their bake oven at the rear or side of the fireplace itself. Later, sometime before mid-18th century, the bake oven was moved out to the front, to one side of the main opening. This presumably reduced the danger to the housewife tending the chores, and in-

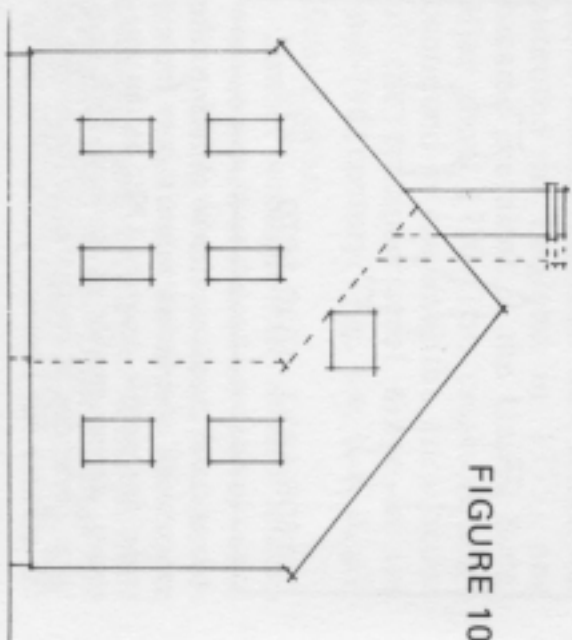
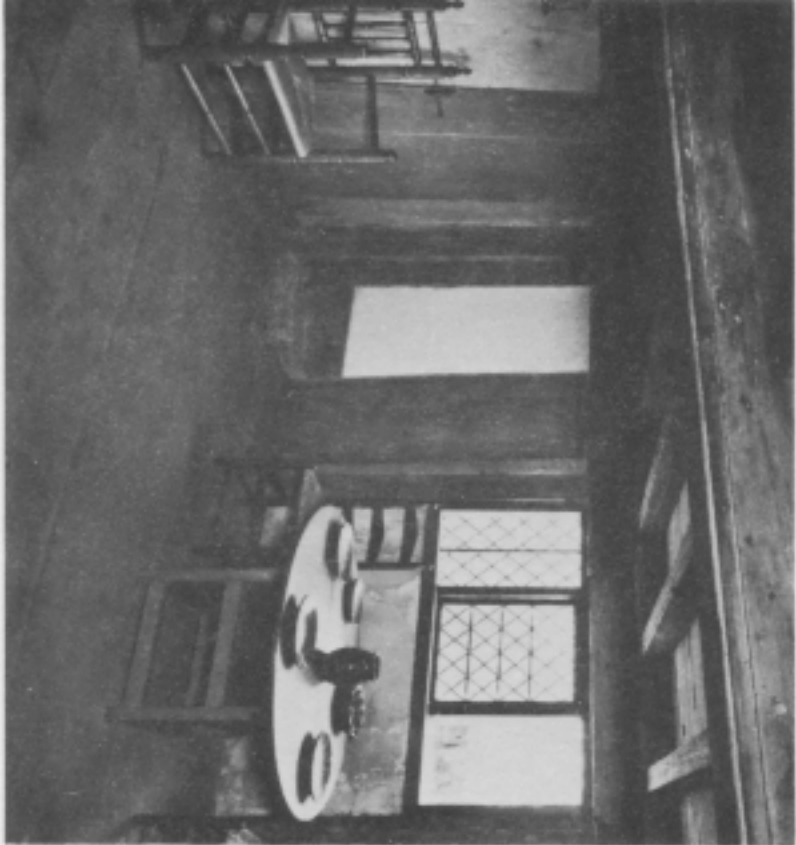


FIGURE 10



Although not always good indicators of age, windows can sometimes give clues. Here is a typical First Period window photographed in the Richard Jackson House, c. 1664. This is the oldest dwelling in the state of New Hampshire.

of the house owner; if he had extra money he could afford a more expensive lapped joint that prevented drafts from blowing up between the first-floor floorboards.

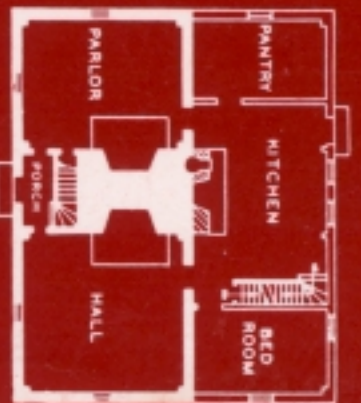
SUMMARY

This two-part article illustrates some of the dating details found in houses in New England and also points out the value of examining documents, deeds, wills, and stylistic appearance in assign-

ing a "date" to a house. While the date of original construction is fun to speculate on and exciting if all evidence neatly dovetails to a specific year, it is equally important to consider that most houses represent a continuum of life and living styles. It is rare, if not impossible, to find a house that was built in a certain year and never changed thereafter. The discovery and documentation of changes are just as exciting as finding the actual date of construction. Certainly it occupies one's efforts for quite a long time!

The importance of an objective viewpoint in examining an old house cannot be overemphasized. As can be seen from the illustrations, there are exceptions and anachronistic details to be found at every turn. If convinced of a certain date of construction beforehand, one can usually find a piece of fragmentary evidence somewhere that seems to indicate that year of construction, even though the preponderance of evidence points to another date. Italianate, Georgian, Greek Revival, Federal, 17th century, or Queen Anne — they are all valid expressions of American architecture and should be seen and enjoyed for what they are.

When one is examining a house, it is important to have a measured floor plan of all floors. One look at the plan can indicate areas to be examined further, and usually gives clues as to construction sequence. These plans, in conjunction with a careful examination of the house and associated documents, should make the construction information much clearer. ■ ■



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