Twin-Porch versus Single-Porch Stairwells: Two Examples of Cluster Diffusion in Rural Meetinghouse Architecture

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Despite a reputation for social stability, the colonial experience in New England was probably characterized by the same compulsive expansion that has come to be associated with nineteenth- and twentieth-century America. We are reminded of this always in the demographic statistics. Between 1720 and 1820 the annual population increase in New England fluctuated between three and five percent, meaning that at least some communities doubled in size every twenty years. But we see it, too, in our study of material culture. New England meetinghouses, conventionally regarded as timeworn symbols of order and traditionalism, in fact were the architectural expression of a society whose single most pervasive characteristic was its rapid growth. Except in those rare instances where a town or precinct actually became extinct, the pressures of an expanding population prompted communities to raise and tear down their meetinghouses constantly—amid public quarrels over whether to enlarge them, to move them, to replace them, or simply to leave them alone.[1] Fortunately, most communities enlarged, altered, or redesigned their meetinghouses several times before they demolished them. More important, they kept a record of their decisions when and where to do so, thereby providing much of what is known of the complex history of these structures today.[2]

I

The most common method of enlarging a meetinghouse was to build one or two tiers of galleries. Besides reinforcing the larger role of the Puritan religious service as a sacramental theater, galleries allowed all members of the congregation to hear the minister's sermon equally well, and could—if the original stud height was sufficient—almost double the seating capacity of a given building without altering its external shell. Virtually every meetinghouse built before 1800 was provided with at least one tier of galleries, or was built with sufficient stud height to allow a gallery to be added. An alternate method of increasing seating capacities was to add lean-tos—creating, in effect, an ecclesiastical variant of the seventeenth-century domestic lean-to dwelling house. Glastonbury, Connecticut allowed its building committee in 1706 to "enlarge by galleries or lean toos as the committee should judge best." However, lean-tos were sometimes integral to the original structure, such as the forty-five-by-six-foot flankers that were made part of the first Hadley meetinghouse, built in 1662.[3]

A more radical method—used by hard-pressed New England communities in the eighteenth century—was to split the meetinghouse in two sections, haul one half of it a few yards away with oxen teams, and frame in the gap. Dorchester, Massachusetts enlarged its fifty-two-year-old

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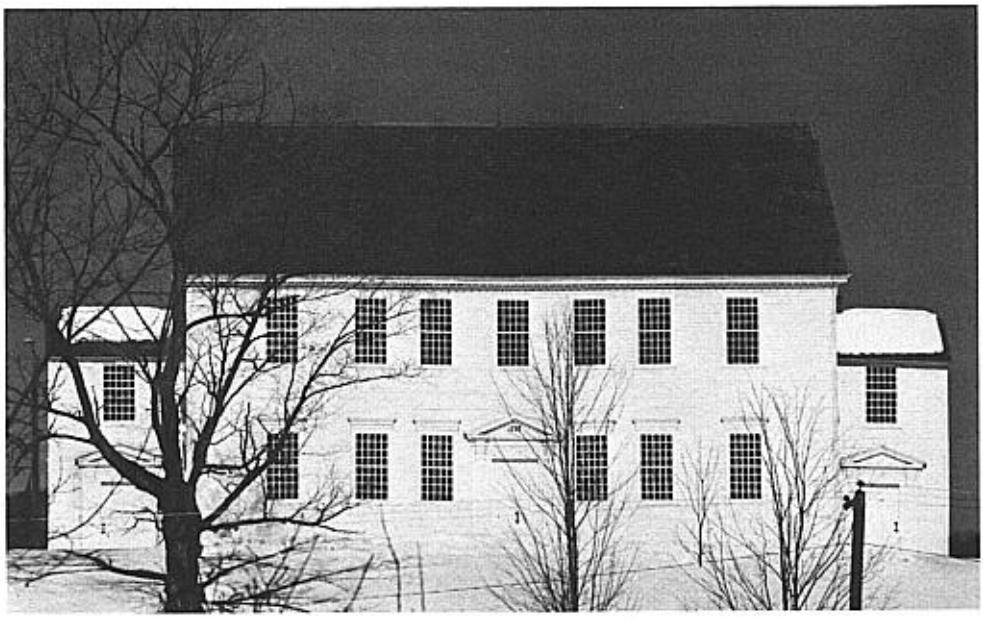

FIG. 1. TWIN-PORCH MEETINGHOUSE IN ROCKINGHAM, VERMONT, 1787. (Photograph by the author.)

meetinghouse in 1795 by dividing it lengthwise along the ridgepole and separating the two halves by fourteen feet. In this instance, the standing belltower was moved half this distance, or seven feet, so as to be again aligned centrally. More commonly, a building was cut crosswise along the "broad alley," the halves separated, and one or two additional bays added. So frequently was this technique used that, when the town of Westborough decided to expand its meetinghouse in 1772, it named a "Committy to Vue sum meeting houses that have ben Cut in two & a pece put in ye meedel."[4]

When all other reasonable means[5] had been exhausted, communities began to jam pews wherever there was—or was not—room, sacrificing stairs, stairwells, and alleys in the process. Walpole, Massachusetts allowed one of its church deacons in 1749 to "change" (presumably shorten) the stairs on the "westerly end of the meeting house and to build a Pew at his own Cost." Four years later in 1753, the town

> voted to build one Pew over the Men's stairs and another over the Women's stairs, and another at the foot of the Women's stairs.

This still being insufficient, the town voted to "shut up the Alley" and to "close the Body of seats."[6]

As pew spaces came to be increasingly in demand, New England communities took to adding exterior entrance porches or vestibules to their meetinghouses, additions which also served to house stairwells—in effect placing on the outside of the building

FIG. 2. "THIRD HOUSE OF WORSHIP: 'THE OLD BRICK.' " From George E. Ellis, *History of the First Church in Boston*, 1630-1880 (Boston: 1881), p. 171.

those architectural components that took up valuable space inside. When Holliston, Massachusetts enlarged its sixty-two-year-old meetinghouse in 1787 by splitting the building and adding fourteen feet to the center, it attached a stairwell porch on the front (meaning long) end. By eliminating the two flights of interior stairs, the town thus created two large pew spaces on the ground floor and two more smaller ones in the gallery. (The town also voted to paint the exterior of the structure "an orange color" and the interior a "stone color.")[7] Similarly, when Milford, New Hampshire completed its first meetinghouse in 1786, it gained additional pew space by building twin stairwell porches on opposite gable ends of the structure.

Just how much pew space was gained by these measures varied according to the design and location of the interior stairwells. According to a surviving 1729 pew plan, the two interior stairwells of the west meetinghouse in Watertown occupied the equivalent of 120 square feet, or fourteen percent of the space allotted to pews on the ground

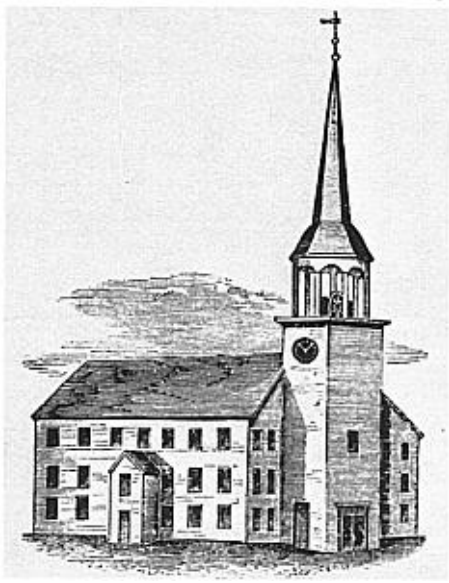

FIG. 3. "NORTH MEETING-HOUSE IN PORTSMOUTH . . ." From Rev. Lyman Whiting, *Dedication Sermon preached in the North Meeting-House in Portsmouth* (Portsmouth, N.H.: 1856), p. 19.

floor. The elimination of these stairwells might have increased the number of ground floor pews in this structure from twenty to twenty-two or twenty-four. A 1760 pew plan of the meetinghouse in Salem, New Hampshire (which survives today as a town house), reveals that each of the two interior stairwells occupied a floor area of six by eight feet—the equivalent of thirteen percent of the existing pew space.[8] Some stairwells occupied much less space, particularly if they were narrow and steep. Nevertheless, the value of stairwell porches in alleviating overcrowded conditions was considerable, and is revealed unequivocally in the language of the contract signed by the builders of the Milford porch additions in 1786. In exchange for furnishing the materials and labor for their construction, the builders were to

> Have, as a consideration, the ground said porches will save in the house, and fifteen pounds to be paid by the parish when the whole is finished.

Exterior stairwells had one other advantage, which was to allow younger or recently arrived men in the parish, who were wealthy enough to afford a pew (but whose short tenure in the community did not qualify them for this privilege), to build a stairwell porch at their own expense in exchange for being given the pewground recovered by the elimination of the stairs. We see this in a vote taken in Brookline, Massachusetts concurrent with the town's decision to build a "spire" (standing belltower) in 1772. On June 9 of that year, the town voted

> To graint the Spot of Space on which the Weomans Stares Now Stands, to Capt. Benja'n White to Build a Pew thereon, in Consideration that the Sd Benjamin, Build a Porch at the East End of Said Meeting-house and Carry the Weomans Stares into the Same, and Finish Said Poarch at his own Cost.

Much the same is found in Gilmanton, New Hampshire, where the town voted in 1774 to allow Joseph Badger and Antipas Gilman

> the privilege in the meeting-house for pews, which the stairs would occupy, provided they build two stairwell porches, one on the East and the other on the West end of the House.[9]

II

Whether erected singly, in combination with a belltower, or in opposed pairs, exterior stairwell porches were a common architectural feature of eighteenth- and early nineteenth-century meetinghouses in Massachusetts, Maine, and New Hampshire. Examples of each of three basic types and their several variants can still be found today. Meetinghouses built on the single-porch plan survive in Alna, Maine (1789), and in Amesbury (1785) and Cohas-

set (1767), Massachusetts; a standing belltower was added to the Cohasset example in 1799, in effect creating a transverse porch-and-belltower plan. Meetinghouses built on an opposed porch-and-belltower plan can be found in Farmington (1771) and Brooklyn (1771), Connecticut. A rare porch-porch-and-belltower plan survives in greatly altered form in Dedham, Massachusetts (1761). Meetinghouses built on a twin-porch plan have survived in Rockingham, Vermont (1787; see figure 1),[10] and in Fremont, New Hampshire (1800), the former with gable-ended porch roofs, the latter with hipped porch roofs; a rare triple-porch variant of the twin-porch plan survives in greatly altered form in Shrewsbury, Massachusetts (1766).

Because communities tended to adopt only those architectural innovations which were already in use in their immediate neighborhood, specific stairwell types tended to become dominant in certain areas. This was true of the single-porch, triple-porch, and porch-and-belltower plans, each of which to a greater or lesser extent was favored in some areas and excluded from others. It was particularly true of the twin-porch plan, which had an unusually concentrated distribution in the uplands of central and north-central New England, but which was rare or nonexistent elsewhere.

Exterior stairwell porches date to the first decades of English settlement. In 1631, Dorchester passed an order "to build stairs on the outside [of the meetinghouse], and the loft to be laid, and a window in the loft."[11] In 1641, Hartford added a porch to the north doorway of its pyramidical-roof meetinghouse "with stayrs upe into the Chambers;"[12] these stairs probably offered access to the gallery built in 1644. Stairwell porches appeared on the meetinghouses built in Newbury in 1661; Boston Third Church, in 1669; and Stratford, Connecticut, in 1680.[13] Roxbury, Massachusetts, built a porch on its meetinghouse in 1699, and two more porches in 1708.[14] Londonderry, New Hampshire ordered in 1728 that the stairs "that go up to our galleries for the meeting house . . . shall be brought to the inside."[15]

Clearly, then, exterior stairwells and stairwell porches were part of the New England meetinghouse of the seventeenth century. The first exterior stairwell porch of which we have any knowledge, however, is the "Porch" that was located at the head of "The Maine Alley" in the Old Brick meetinghouse of the First Church in Boston shortly after its erection in 1712. That this porch contained a stairwell can be inferred from the absence of corner stairs on an early seating plan,[16] and from its dimensions as seen on a crude sketch of this meetinghouse on John Bonner's 1722 map of Boston.[17] These dimensions were probably the same as those of the two-storied pilastered porch that replaced it in 1784 (fig. 2). On the basis of a nineteenth-century illustration, we know that a stairwell similar to this was attached to the front of the meetinghouse in Portsmouth, New Hampshire (fig. 3), probably the same year (1730) that a belltower and spire was added to this structure.[18] Comparable front stairwell porches were part of the meetinghouses built in Pelham (1743), Bradford (1751), and Rockport (1753), Massachusetts, and the second parish in Wells, Maine (1752).

Except for the Old Brick, the dates of none of these single-porch stairwells are reliably known.[19] The first confirmed date of a single-porch addition is 1755, the year that Weston, Massachusetts voted to provide room for additional pews in its meetinghouse by building a front stairwell porch paid for by the proceeds from the sale of the new pews.[20] In the decade that followed, seven more such stairwells are known to have been erected. By 1770, single-porch stairwells similar to the Boston, Portsmouth, and Barnstable models were relatively common, and were to remain one of two principal stairwell plans

FIG. 4. "OLD UNIVERSALIST MEETING HOUSE." From John S. Barry, *A Historical Sketch of the Town of Hanover, Mass.* (Boston: 1853), p. 80.

found on New England meetinghouses of the late eighteenth and early nineteenth centuries (fig. 4).

On the basis of survivals, historic photographs, descriptions, and illustrations based on oral tradition, and contemporary documentary sources such as building contracts and town records, we know that at least fifty-two single-porch meetinghouses or single-porch additions were built in the New England area during the eighteenth century.[21] (The actual figure may have been two or three times this number.) While we have difficulty distinguishing the

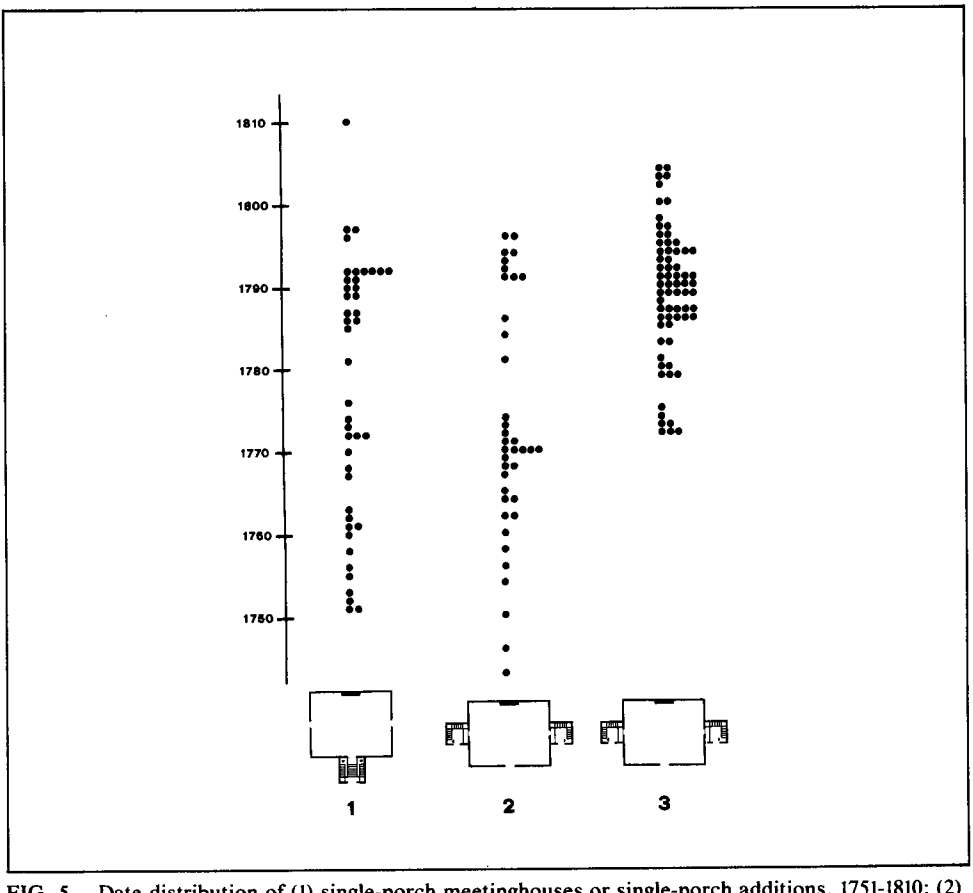

FIG. 5. Date distribution of (1) single-porch meetinghouses or single-porch additions, 1751-1810; (2) porch-and-belltower meetinghouses, 1743-1796; and (3) twin-porch meetinghouses or twin-porch additions, 1772-1804.

date of the porch from the date of the building, the plan apparently reached the height of its popularity in the years 1770-1774 and again in the years 1785-1792 (see figure 5). The geographic distribution of the plan identifies it as a coastal phenomenon: of the fifty-two known examples, thirty-eight were located in towns along the eastern New England seaboard (see figure 6), the majority being concentrated on Cape Cod, along Massachusetts Bay, and in coastal Maine and New Hampshire. Cape Cod alone had thirteen such porches standing before 1810, and this out of a total of fifteen Congregational meetinghouses and six Baptist and Quaker ones. If all the Cape data were known, this percentage would probably be much higher, a supposition in part confirmed by a nineteenth-century Cape Cod historian who noted that the single-porch Harwich meetinghouse built in 1792 "was in the uniform style in nearly all the towns of the Cape."[22]

The coastal distribution of the single-porch plan is inferentially confirmed by a watercolor mourning picture painted in New England after 1812 which depicts an eighteenth-century meetinghouse with a front-mounted single-porch stairwell.[23] The provenance of this watercolor is not known, but its topographical features (harbor, anchored ship, and sea horizon) clearly suggest a maritime or coastal community. Appropriately, perhaps, it has a belltower much like those attached to survivals at Cohasset and West Barnstable, Massachusetts. While we do not know this conclusively, we might reasonably infer that the young artist who painted this mourning picture (probably a daughter in the family of Joseph Joy) lived in a coastal town in Maine or Massachusetts and used as her model the single-porch building with which she was familiar.

A noticeable exception to the coastal distribution of the single-porch stairwell is an intrusion of three such examples into the southern Winnepesaukee and Cocheco River area of eastern New Hampshire. The town of Middleton voted for a single-stairwell porch in 1789; Wolfeborough voted to imitate Middleton in 1792; that same year, New Durham, without reference to either town (but in all probability copying their example), added a single front porch complete with two doors and two sets of stairs. New Durham's local perception of fashion can be measured by its vote that the new "pulpit and canopy" of its 1792 meetinghouse "be built according to that in Mr. Power's meeting house in Gilmanton" located approximately seven miles distant.[24]

Two tendencies within these larger patterns can be noted: the number of single-porch stairwells that are additions, and the frequency of such additions in the early rather than in the middle or late phases of its use. In sixteen of the fifty-two examples the porch is known to have been added to an existing, relatively old, meetinghouse, often attached at a time when the meetinghouse frame was split and the building lengthened. In 1760 when the Cape Cod town of Harwich needed to enlarge the seating capacity of its 1723 meetinghouse, it added a front stairwell porch approximately ten feet square. Similarly, when nearby Chatham enlarged its 1730 meetinghouse in 1773 by the addition of a seventeen-foot section in the middle, it built a nine-by-ten-foot front stairwell porch.[25] Since the redesign of the meetinghouse in both cases was brought about by a need for more room, we can assume that the stairwell porches were added in order to create additional pew space by the removal of the interior stairwells. This suggests that the stairwell was a mode of enlarging the building rather than part of a pre-conceived architectural form. More important, the increasing number of meetinghouses built after 1775 in which the porch is part of the original design suggests that an architectural innovation introduced initially for the purposes of increasing the seating of meetinghouses from 1750 through 1760 had, two decades later, be-

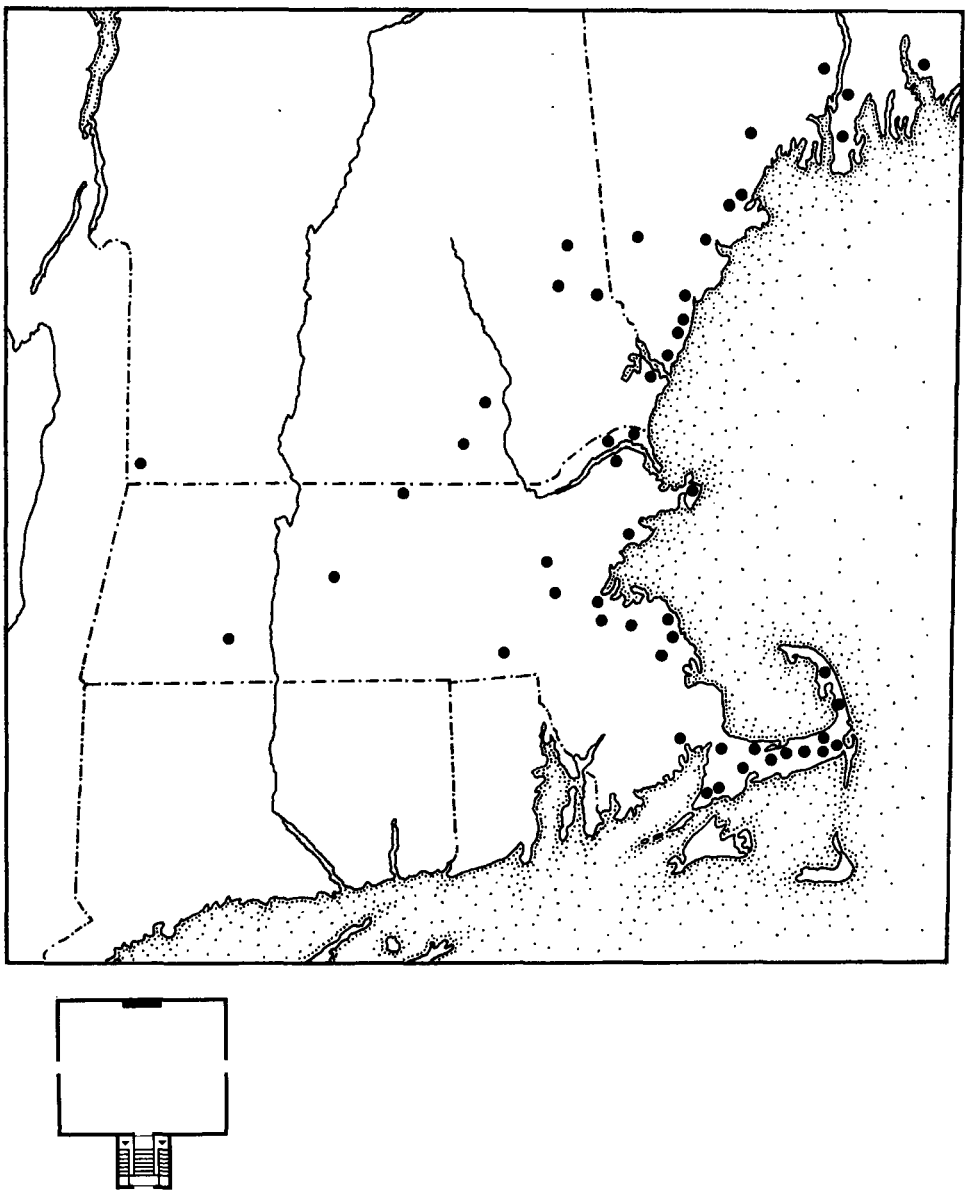

FIG. 6. Geographical distribution of 52 known single-porch meetinghouses in New England, 1712-1810.

come a local or regional building *style*. We can see this specifically in the same Cape Cod community of Harwich which had added a stairwell at the time it enlarged its meetinghouse in 1760. When the town built a large new meetinghouse in 1792, a two-floor stairwell porch completed with a pedimented gable roof was made part of the original structure.

III

The coastal dispersal of single-porch stairwells can be understood more clearly when contrasted with the interior dispersal of the porch-and-belltower and twin-porch plans. End porches were a relatively late innovation in New England meetinghouse architecture. According to the *Annals* of James Blake, who as town clerk kept a log of all the notable occurrences in that town, the third meetinghouse built in Dorchester in 1743 had a 104-foot steeple at one end and a stairwell porch at the other, both fourteen feet square.[26] This is the first known use of an end porch built to serve as a stairwell. Three years later in 1746, neighboring Roxbury rebuilt its 1743 belltower meetinghouse which had just burned, this time adding an opposed stairwell porch privately paid for by Judge Paul Dudley. Within fifteen years, Chelsea, Groton, Hamilton, and Topsfield, Massachusetts, and Litchfield, Connecticut had all built new meetinghouses with similar stairwell arrangements. The plan was common in eastern Massachusetts by 1765 (see figure 7).[28]

Because end porches appeared only in conjunction with an attached tower, they were clearly an architectural function of the increasing frequency of belltowers in New England after 1730. By placing the stairwell on the end, rather than front, of the meetinghouse, builders created what appears to have been a seemly balance in which the belltower was complemented by a porch at the opposite end of the building. Interior symmetry and convenience may have been more important considerations, however. Hanover, Massachusetts voted to add a "women's porch" on the east end of its 1764 meetinghouse after the "men's" stairwell had been enclosed in the belltower on the western end.[29] Implied here is the expectation that the men's and women's staircases should be architecturally similar. That same year (1764) Wethersfield, Connecticut, which built a brick meetinghouse with a belltower and steeple similar to that of Trinity Church in Newport, voted to add an end porch "so that the congregation may not be interrupted by such as go into the galleries in time of worship, and that there may be more room in the house."[30]

If it made good architectural sense to build a porch at *one* end of the meetinghouse, it was not long before it made equal sense to build *two* such porches in those instances where a belltower had not yet been built. The first proposed use of the twin-porch plan in its pure form, that is, unaccompanied by a third stairwell porch,[31] or by an opposed belltower, is found in Hardwick, Massachusetts in 1767. On October 21 of that year, a town meeting voted to raise whatever additional money was necessary to substitute a belltower and steeple for the "convenient porch for stairs into the galleries" then under construction.[32] Since belltowers were almost always attached to the end of a meetinghouse, a fair presumption is that the town voted to convert what had been proposed as a twin-porch plan into an opposed porch-and-belltower plan. The first actual use of the plan is found in 1772 when New Braintree, Massachusetts added a pair of stairwell porches on either end of a fifty-by-forty-foot meetinghouse it had built in 1752.[33] The details surrounding the town's decision to do this are not known, but we can assume that the town needed to increase the seating capacity of its meetinghouse and was selling rights to the pew

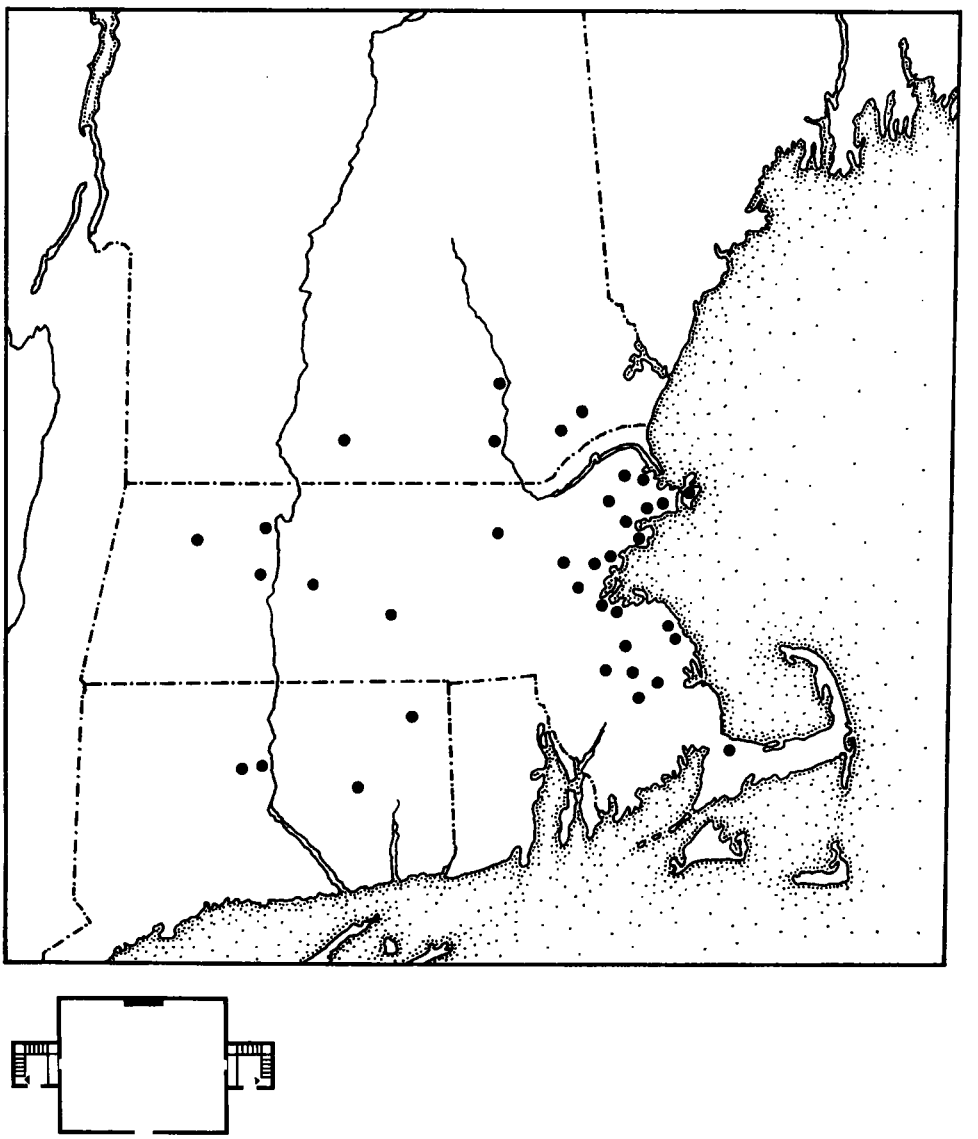

FIG. 7. Geographical distribution of 42 known porch-and-belltower meetinghouses in New England, 1743-1796.

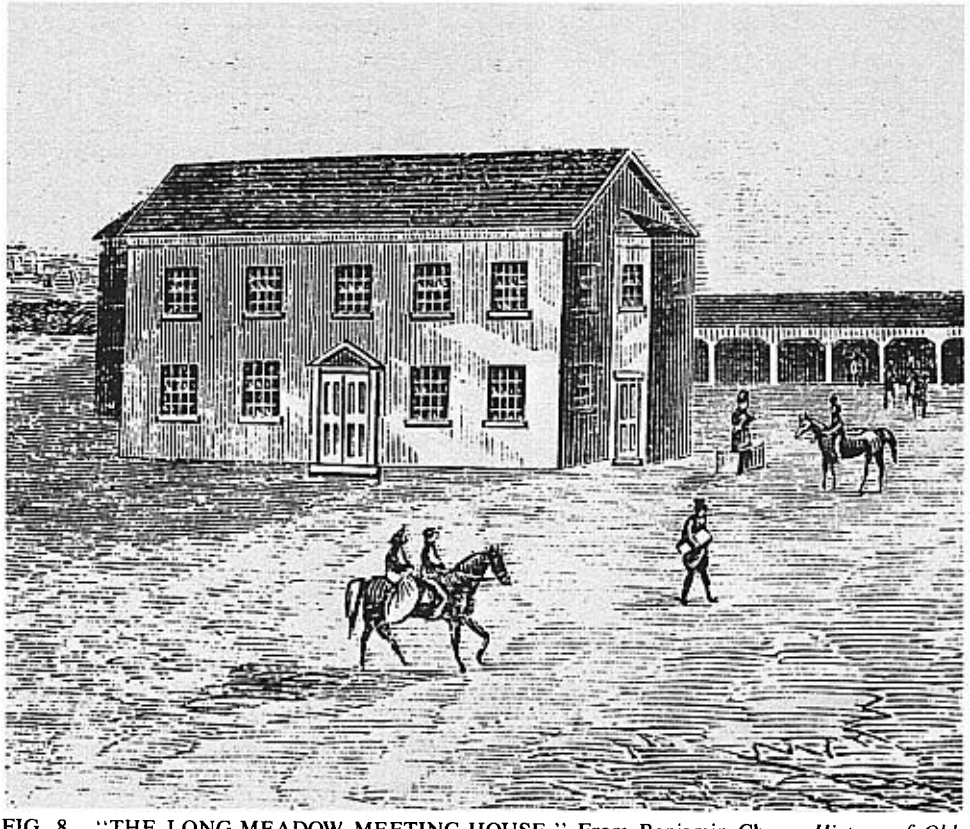

FIG. 8. "THE LONG-MEADOW MEETING-HOUSE." From Benjamin Chase, *History of Old Chester, from 1719 to 1869* (Auburn, N.H.: 1869), p. 158.

ground gained from a removal of the interior stairwells. This "half-way" strategy, as we might term it, in which private individuals assumed the cost of building porches (but not the belltower), has already been seen in the 1774 example of Gilmanton, New Hampshire cited earlier; a comparable strategy was probably behind the vote taken by the second parish in Boxford, Massachusetts, in 1774, which ordered a new meetinghouse "according to the same plan by which the [opposed porch-and-belltower] meeting-house in New Rowley [Georgetown] was built,"

> Excepting a steeple, instead of which we are to have a porch built as at the other end of the meeting-house.[34]

To these examples we might add the vote taken in Concord, New Hampshire in 1779, at the time the town added a belltower,

> to relinquish the pew ground [recovered by the removal of interior stairwells] to any number of persons who would add a porch and the value of another porch.[35]

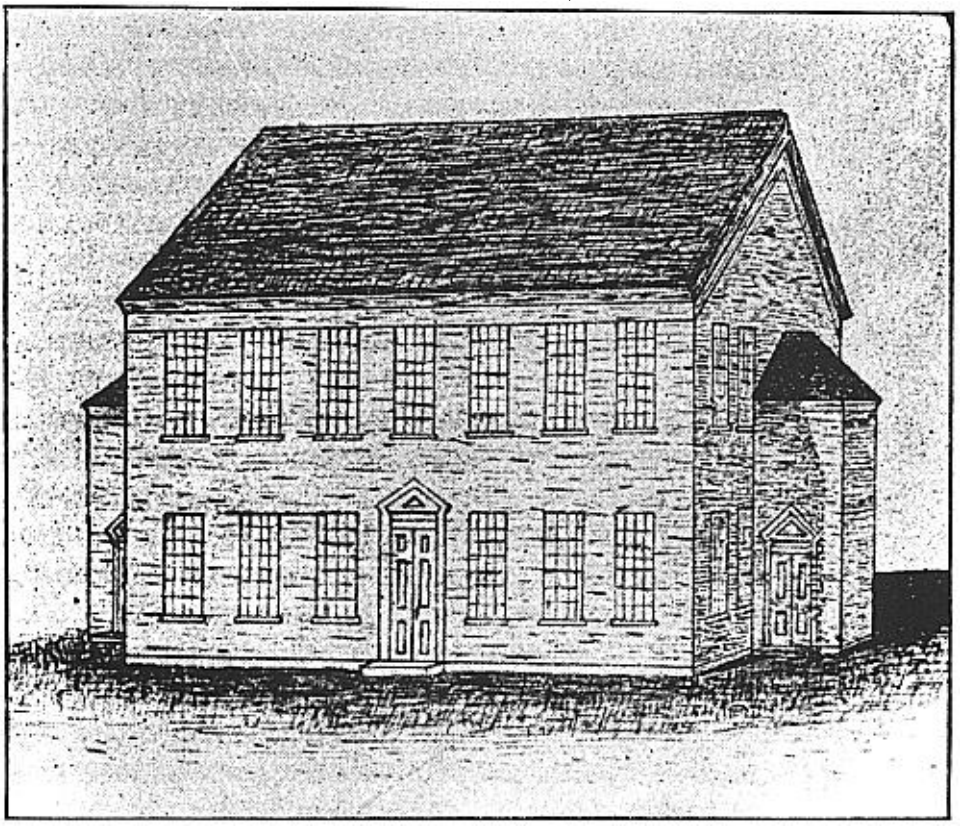

FIG. 9. "THE BRIDGEWATER MEETING-HOUSE." From Richard W. Musgrove, *History of the Town of Bristol, New Hampshire*, 2 vols. (Bristol, N.H.: 1904), 1:265.

Whatever the reason for its sudden popularity, the twin-porch plan spread rapidly in central New England after 1770. Following the New Braintree addition in 1772, twin-porch meetinghouses or twin-porch additions were built that same year in Spencer (1772), and in the following year in Leominster (1773). The plan was soon appearing in more distant towns: Cornish (1773), Gilmanton (1774), and Jaffrey (1775) in New Hampshire; and the second parish in Boxford (1774) in Massachusetts. By the time the twin-porch plan reached Loudon (1778), Westmoreland (1779), Northwood (1780), and Goshen (1780), in New Hampshire, it was probably common in both Worcester County and southern New Hampshire. In the following decades the plan was adopted in almost every town in southern New Hampshire which either enlarged or built a new meetinghouse 1780 to 1805. Like their single-porch counterparts, twin-porch roofs were designed with gable or hipped ends. On the basis of survivals, as

well as documentary and photographic evidence, we know that gable-ended porch roofs of the Rockingham, Vermont type were found on twin-porch designs in Cornish (1773), Washington (1789), Hillsborough (1789), Mason (1786), and Brookline (1791), New Hampshire. Hipped-roof porches of the Fremont, New Hampshire kind were built on meetinghouses at Antrim (1784), Bridgewater (1804), Chester (1793), and Claremont (1785), New Hampshire (figs. 8, 9).

The diffusion of the twin-porch plan appears to follow a cluster pattern of cultural transmission more closely than the single-porch plan. A total of seventy-one twin-porch meetinghouses or twin-porch additions are known to have been erected in New England 1772-1804.[36] Of these, sixteen were located in Massachusetts, four in Vermont, and fifty-one in New Hampshire (fig. 10). Even within New Hampshire itself, however, its distribution was chiefly confined to an area approximately sixty miles wide and which lay just within the crescent formed by the Masonian grant, but which excluded eastern portions of the state and all of western and central Vermont. The type was particularly concentrated in a "twin-porch" zone located in the Contoocook River Valley of southern New Hampshire and the surrounding hill country of Hillsborough County, with significant numbers located in adjacent highland areas of Worcester County, Massachusetts and Cheshire County, New Hampshire. So densely concentrated was the style within the Contoocook zone that at the beginning of the nineteenth century it was possible to ride north from Brookline to Bridgewater and pass through seventeen contiguous towns and see sixteen twin-porch meetinghouses. In chronological terms, the twin-porch plan was grouped just as closely. Thirty-eight twin-porch examples—better than half of those known—were built during a ten-year period (1785 to 1795), when the plan was at the high point of its use. Even the earliest and latest examples were separated by little more than thirty years, a narrow time span by cultural or anthropological measures.

Although the data are far from complete, at least one difference emerges between the diffusion of single-porch and twin-porch plans. Proportionately, the number of known twin-porch additions appears to be far less than the number of single-porch additions. Of sixty-eight known twin-porch structures, the porches of only five were additions; by way of contrast, sixteen of the fifty-one known single-porch structures were additions. This suggests, perhaps, that the twin-porch plan was perceived as a "style" much more quickly than the single-porch plan. Nevertheless, the same shift from being used as an architectural solution to being perceived as a local fashion apparently does take place, albeit evidence is incomplete. Such twin-porch additions as are known tend to have early dates (1772, 1779, 1789); none occurs after 1791. In other words, what had begun as a necessity for one group of towns in central Massachusetts and southern New Hampshire, building meetinghouses between 1770 and 1790, may have emerged as a preferred architectural mode among a second, more remote, group of towns building meetinghouses from 1790 to 1805.

How deeply the twin-porch style had become ingrained in the rural consciousness of New Hampshire is suggested by several unusual variations it assumed shortly before it went out of use. In 1800 Hopkinton added a two-story portico or facade porch on the long side of its twin-porch meetinghouse, presumably in imitation of the long-side portico that had appeared in Exeter, New Hampshire in 1798. The result was a curious distortion or juxtaposition of rural and urban architectural modes that ranks as one of the most curious meetinghouse designs known to have existed in New England. (In 1809 Hopkinton erected a tower and belfry over the portico, thus completing its imitation of Exeter, but it did not remove the flanking

porches.) If a sketch of the Hopkinton twin-porch-and-portico structure (fig. 11) made prior to another major alteration in 1839 had not come to light, knowledge of it would no doubt have been lost.[37] Three years later in 1803, the town of Milton, New Hampshire built what in effect was an "integral" twin-porch-and-portico meetinghouse, presumably in imitation of the Hopkinton model or one similar to it. Here, too, the twin-porch plan was wedded to the church-plan facade, but without abandoning the location of the pulpit on the long side and without abandoning the porches.[38]

Both these variations raise the question of how the twin-porch plan was perceived. We might indeed interpret the twin-porch concept as a degraded, rural adaptation of the Georgian twin-piazza introduced into domestic New England architecture from Philadelphia in the mid-eighteenth century. Superficially, the Hopkinton and Milton meetinghouses resemble a twin-piazza courthouse found in New Castle, Delaware at the time of the Revolution.[39] At least one tavern house in New England (the Coburn Tavern in East Pepperell, Massachusetts),[40] a brick eighteeenth-century structure built in a provincial Georgian style, has a pair of flanking bays that resemble the hipped-roof porches found on the meetinghouse survival at Fremont. The curiously naive cultural mentality of eighteenth-century rural New England may have emulated such opposed-bay or piazza designs in much the same way it emulated "Tuscan" or "Ionic" architectural orders. We have no evidence for this, however, and must therefore assume that if the twin-porch design was regarded as a fashionable innovation, it was regarded so in a wholly different sense from the facade porches later introduced by architect-builders such as Isaac Damon, Asher Benjamin, and Elias Carter.

IV

Having identified these patterns, our task now is to isolate the forces that shaped them. Like other vernacular architectural innovations that appear on New England meetinghouses—among them exterior colors, roof trusses, pew designs, and framing techniques—exterior stairwells followed a cluster model of diffusion in which one community after another imitated its nearest neighbor. From its presumed origin in Boston and Portsmouth, the single-porch plan spread freely along the northern and eastern New England coastlines, into communities tied together by trade and packet routes, maritime occupations, and a common dependence on major eastern port towns such as Boston, Salem, and Portsmouth. Its northernmost limit was the extent of settlement along the Maine coastline; its southernmost limit was Cape Cod. Significantly, the plan was not picked up in major seaport towns on the Rhode Island or Connecticut coastlines (Newport, Norwich, Guilford, New Haven) which had earlier picked up the standing belltower concept, a highstyle Atlantic-Anglican innovation that jumped from Boston to Newport to Guilford in a matter of three years (1723-1726). To use a simple metaphor, the single-porch plan was not "loud" enough to be "heard" across the maritime barrier of the outer Cape.

The unusual concentration of single-porch plans along the inner Cape and the Maine coastline reveals the special circumstances of these two areas of New England which functioned as a single cultural region. Knit by settlement and genealogical patterns and by an active maritime sector, Maine and Cape Cod formed the cultural "backwater" of New England. Each was isolated from the more densely populated and culturally sophisticated coastal areas that lay between them, but each was drawn to the other by the water that separated them. Their retention of Boston forms paradoxically reflects their isolation from that city as well as their economic dependence on it. Here we have at least one ecclesiological parallel: Both Cape Cod and Maine showed a marked preference for

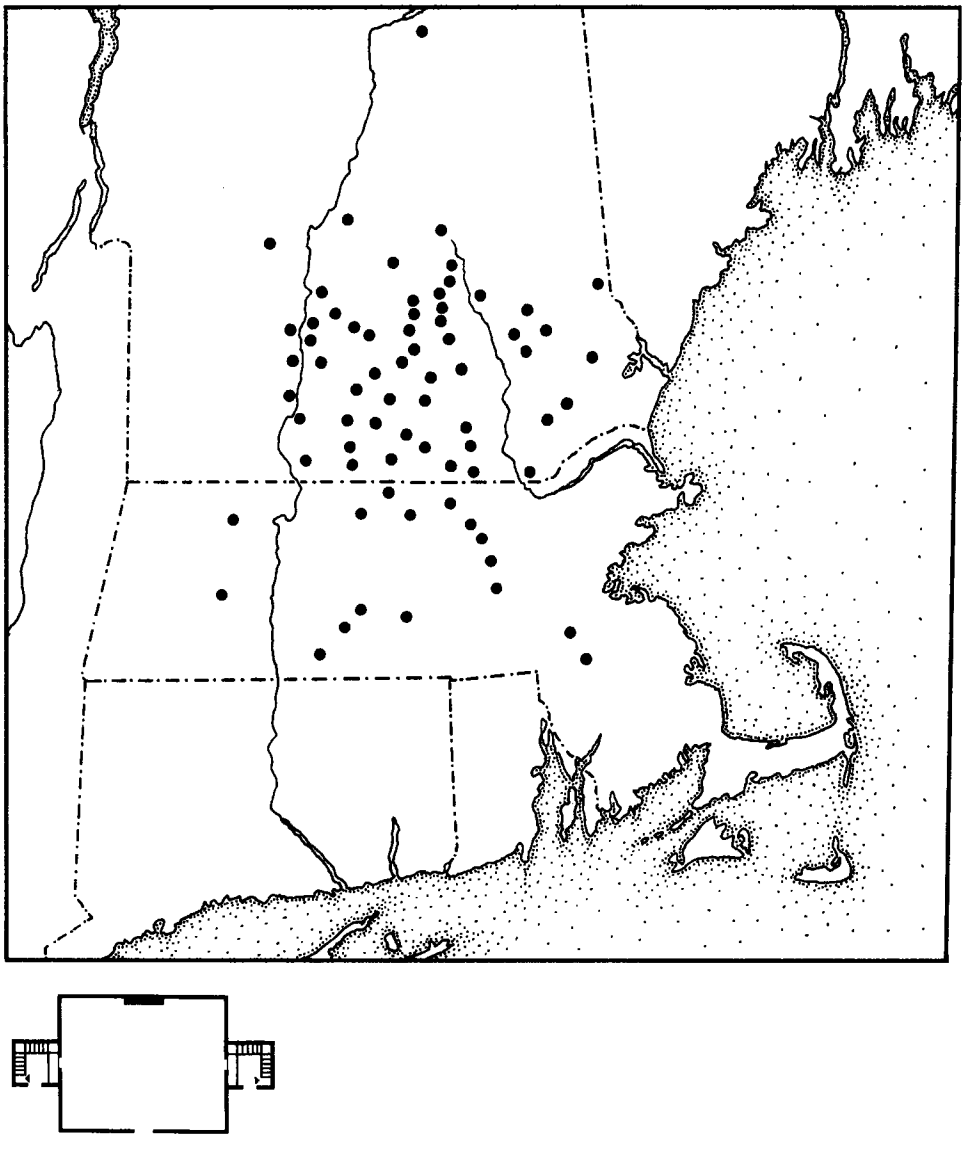

FIG. 10. Geographical distribution of 71 known twin-porch meetinghouses in New England, 1772-1804.

the winged skull on grave stones—a decorative motif that had gone out of style elsewhere in New England forty years earlier, but which was still available in the inventory of designs offered by Boston carvers from 1790 to 1810.

Occasionally an isolated example of the single-porch plan made its way inland—to Pelham in 1743, Bennington in 1763, Huntington in 1790. We do not know what carried the plan this great distance, but we might note in passing that the founding of each town was accompanied by a substantial movement of people inland. In the other instance where the single-porch plan made a substantial inland intrusion, we may be witnessing the collective transplanting of coastal forms inland. Wolfeborough being the summer home of the governing Wentworth family of Portsmouth, the Winnepesaukee and Chocheco River areas may have been closer in cultural terms to coastal Maine and to Portsmouth than to the interior regions immediately surrounding them.

In their initial phase, the opposed porch-and-belltower and derivative twin-porch plans followed a similar cluster dispersal. Originating in "The Bay" (Dorchester, Roxbury, Chelsea) in the 1740s and 1750s, the porch-and-belltower plan gradually spread into eastern Massachusetts, occupying an area of coastal and lowland New England roughly corresponding to the Atlantic-oriented (seventeenth-century-settled) region in which Tate and Brady's translation of the Psalms replaced the *Bay Psalm Book* between 1740 and 1770. As soon as the twin-porch plan was distinguished as a new form, however, an unusual reversal took place in which the new vernacular variant of the plan appeared simultaneously in communities located many miles distant from known opposed porch-and-belltower examples, and subsequently "filled" the area in-between. Prior to the Revolutionary War, twin-porch meetinghouses or twin-porch additions were built in Spencer and New Braintree, Massachusetts, and in Chesterfield, Cornish, Gilmanton, and Jaffrey, New Hampshire. These towns were located on the outer periphery of the twin-porch area at distances of up to eighty or ninety miles. At the height of the style's use (from 1785 to 1792), however, eighteen out of twenty-nine known twin-porch meetinghouses were built in a pocket of use about forty miles long and twenty miles wide. This narrowing-down and concentration in distribution (rather than the normal spread) represents a special reverse diffusion, one which defines its parameters in its early phase and subsequently fills in the spaces in-between. Clearly something other than straightforward cluster diffusion based on "nearest neighbor" imitations was at work, something that might approach what European folk scholars call "independent invention."[41]

While this phenomenon is not yet fully understood in its New England context, in this instance we are probably looking at architectural and demographic events taking place simultaneously. Communities which adopted the twin-porch plan at a relatively early date (Spencer and Leominster, for example) apparently regarded it as a temporary expedient which allowed the later adoption of a belltower by substituting a standing belfry for one of the porches (the move Hardwick had made in 1767). We saw evidence of this when the second parish in Boxford voted to build "according to the same plan by which the meeting-house in New Rowley was built," excepting the steeple which was replaced with a second porch.

At the very same time, communities in central Massachusetts and southern New Hampshire, whose second-generation meetinghouses (usually fifty by forty or fifty-five by forty-five feet in dimension) were becoming overcrowded, adopted a scaled-down version of the porch-and-belltower plan in order to create pew space. Unwilling or unable to assume the cost of the large third-generation sizes

such as were being built at Rindge (sixty-six by fifty-two feet) or Concord, New Hampshire (sixty by sixty-four feet), towns passing the 1,000 and 1,500 population mark after 1770 found that twin-porch additions—in some instances the porches were paid for privately by individuals desiring pew space—relieved the pressure of an expanding population while simultaneously imitating (more accurately half-imitating) a coastal style. In both cases, the fact that porch-and-belltower plans were common in those areas of eastern Massachusetts from which New Hampshire settlers had originated would explain the simultaneous appearance of the twin-porch plan in communities eighty or ninety miles apart.

A still different reason motivated newer towns such as Bradford (1795), Hopkinton (1789), Rockingham (1787), Canaan (1792), Packersfield (1794), and Lempster (1799), which were building substantial twin-porch meetinghouses of sixty by forty-five or sixty by fifty feet. These towns were no longer waiting for a natural increase in their population before adding twin exterior stairwells. Rather, they were including the porches in the original contract,[42] because that was the architectural practice they commonly observed about them. The frequency of adoption of the plan had, in other words, reached a certain critical mass and was perceived as a desired, albeit vernacular, style. Towns began to adopt the design more because their immediate neighbors did, than because of a compelling need for space. Thereafter the twin-porch plan began to diffuse in the conventional cluster pattern, "filling in" the spaces in-between. We have at least some evidence of this. When Milford added stairwell porches to its one-year-old meetinghouse in 1786, it specified the size and shape of its next-to-nearest neighbor:

> Voted to accept the plan of the porches of the Temple meeting-house to have the porches of this meeting-house built by.[43]

The inward diffusion of the twin-porch plan thus appears to have been shaped by the combination of several unrelated circumstances. These were: the rapidly expanding population of north-central New England after the 1763 settlement with France; the prior distribution of opposed porch-and-belltower plans in the Massachusetts towns from which pioneers of the interior highlands emigrated; the acceptance of the idea that "half" a belltower was better than none; and the willingness of private individuals to pay the cost of porches in return for the pew ground gained by the removal of interior stairs. Still left unanswered, however, is why the concentration of single-porch and twin-porch stairwells in relatively small geographical ranges of coastal and central New England was reinforced by the emphatic exclusion of both the twin-porch and the single-porch plans from Connecticut, the Connecticut Valley, western Massachusetts, and Rhode Island. Perhaps the single best illustration of this exclusion (and it reveals how readily architectural fashion cut across denominational lines) is the absence of stairwell porches on any of the surviving two-story Quaker meetinghouses in Rhode Island. By way of contrast, the 1706 wood frame Quaker meetinghouse at Pembroke, the 1776 brick one at South Uxbridge, and the 1810 wood frame one at East Sandwich, Massachusetts, all have the eastern coastal-type single stairwell porch.[44] Connecticut, particularly, stands out because evidence of exterior stairwells of any kind is noticeably absent, despite the extensive data available about meetinghouses in this area. Of an estimated 250 meetinghouses built in Connecticut from 1700 to 1800, only the one in Montville (1772) is known to have had opposed twin exterior stairwells,[45] this one an architectural anomaly whose porches are described as having been higher than the gable roof itself. Only four Connecticut meetinghouses, Lebanon (1758), Wethersfield (1764), Brooklyn

(1771), and Farmington (1771) were built on an opposed belltower-and-porch plan.[46] By way of contrast, thirty-five Connecticut meetinghouses built from 1700 to 1800 are known from surviving pew plans, period illustrations, and other sources to have had interior stairwells located on the southeast and southwest corners opposite the pulpit. Connecticut, in other words, was closely wedded to the interior stairwell concept, and either did not need to expand the seating capacities of meetinghouses or found other ways of doing so.[47]

A partial answer to this question might be found in the stud heights preferred by builders in Connecticut and the Connecticut Valley (where the twin-porch plan failed to take root), as opposed to those in the central highlands area (where the twin-porch plan proliferated). Referred to in town and parish records as the distance "between joints" or "between the sill and the plate," stud heights differed according to region, and either restricted or left open the option to add galleries. Of twenty-six second-generation meetinghouses built in Connecticut between 1712 and 1766 whose plate height is known, the three most common stud lengths are twenty-four, twenty-five, and twenty-six feet. Assuming that a minimum of eight feet was necessary for each tier of galleries, the "average" or "typical" meetinghouse in Connecticut probably had two tiers of galleries, or at the least was capable of receiving a second tier if it was needed. This may have been what the town of Norfolk, Connecticut had in mind in 1759 when it specified that the dimensions of its first meetinghouse be "40 feet wide, and 50 feet long, (and) a suitable height for gallering."[48] Available data in fact indicate that second-tier galleries were common among Connecticut coastal towns (for example Guilford) building their third or fourth meetinghouse, and it might fairly be termed a Connecticut meetinghouse characteristic. If the first meetinghouse in Bristol and the second Quaker meetinghouse in Newport are any indication, Rhode Island, too, was inclined toward second-tier galleries.[49] By way of contrast, second-generation meetinghouses in the highlands of central Massachusetts and southern New Hampshire were typically built with plate heights initially four or five feet shorter than those in Connecticut, allowing the use of only one gallery. When pressed for added seating capacity, these communities had to look to solutions such as exterior stairwells in order to find space.

A partial answer, too, might be found in the declining growth rate of southern Nw England late in the eighteenth century. Because Connecticut and Rhode Island were hemmed in by their larger Massachusetts and New York neighbors, new towns were no longer granted in either of these colonies after 1770. Neither the single-porch nor the twin-porch concept was likely to originate—let alone flourish—in areas where high growth rates that accompany pioneer settlement no longer existed or no longer could exist, and where second-tier galleries in any event were a possible option. Wealthy newcomers, who in the interior highlands were building stairwell porches at private expense to allow them pew privileges they might otherwise not have had, in Connecticut were still able to buy pews outright. This is revealed pointedly by the offer made in 1808 by the town of Litchfield, Connecticut, to exchange with any private individual willing

> to remove the west stairs into the Steeple so as to enter the Gallery . . .

and

> to erect a [stairwell] porch at the East end of the Meeting house[50]

the use of the pew ground thereby gained. Neither was built because no one accepted the offer. The same was true of newly-formed towns of western Massachusetts (Berkshire, Hampden, and Franklin counties), though for a different reason. In this

FIG. 11. "CONGREGATIONAL MEETING-HOUSE, HOPKINTON, N.H. 1826." Ink on paper. (Original at the New Hampshire Historical Society.)

case the adoption of exterior stairwells was quarantined by the existence of a Connecticut River Valley subculture which had developed its own regionally idiosyncratic architectural traditions. Like those in Connecticut itself, the typical plate height of meetinghouses in the Connecticut River Valley were twenty-five and twenty-six feet, allowing for a second tier of galleries. Massachusetts towns such as Colrain, Cummington, Chesterfield, Howley, Charlemont, and Hinsdale—all of which built their first or second meetinghouses 1770-1805, and all of which were experiencing a growth rate comparable to central New Hampshire—kept their stairwells within the meetinghouse.

V

The evidence offered by the distribution of meetinghouse stairwell types in New England in the eighteenth and the early nineteenth centuries suggests three general principles governing vernacular culture. The first principle is that competing vernacular forms tend to repel each other: Single-porch stairwells are not found in the

twin-porch zone; conversely, twin-porch stairwells are not found in the single-porch zone. The only known area where a significant overlap is found to exist is in the Merrimack valley of southern New Hampshire where single-porch and twin-porch meetinghouses were built in adjacent towns. A corollary to the first rule is that where an overlap in competing forms does appear, the coastal form apparently intrudes on the inland one. No twin-porch plans came within twenty miles of the Massachusetts or New Hampshire coastlines. On the other hand, individual single-porch examples penetrated long distances into the interior highlands. This should remind us, once again, that any barriers or regions generated by short-range or cluster diffusion can be and indeed were penetrated by the movement of people.

A second principle is that the cultural pockets in which given vernacular forms circulated with relative ease were shaped in part by topographical features: The outer Cape was just such a feature, and served as a barrier to coastal cluster diffusion. A corollary to this second rule is that the movement of hybrid vernacular forms follows a different topographical "road map" than the movement of pure highstyle or pure vernacular forms. The opposed porch-and-belltower plan, a vernacular hybrid of the belltower concept, was propagated neither along a coastal run (like the belltower), nor along a coastal cluster (like the single-porch plan). Instead it occupied eastern and central Massachusetts by a gradual overland route, remaining compatible with both the twin-porch and the single-porch plans, and even reaching the "no-porch" zone in Connecticut.

Lastly, the simultaneous appearance of specific cultural practices in a given zone may in part have been triggered by the existence of common demographic characteristics. Twin-porch plans proliferated "independently" in an area of central New England that was experiencing an extremely high rate of growth from 1770 to 1810. The likelihood that this proliferation was linked to the need for increasing the seating capacities of first-generation meetinghouses should teach us to distinguish carefully between the behaviour of demographically defined cultural regions and those that are defined by transportation—rivers, coastal routes, and post roads—by settlement patterns, or by genealogical connections.

Regardless of how we account for these patterns, we are left with an unusually high concentration of single-porch meetinghouses on the Massachusetts and Maine coastlines, and of twin-porch meetinghouses in the uplands of southern and central New Hampshire. So clearly were the geographical lines drawn defining these concentrations that a New Englander living in the first decade of the nineteenth century might be known by the manner in which he reached the gallery of his meetinghouse. The hypothetical existence of a "backwater" coastal zone or a "hill country" pocket as distinct cultural entities is yet to be demonstrated, but it does raise the question by what other architectural manifestations such pockets might be measured. If the single-porch stairwell was an informal architectural emblem of the "backwater" coastal areas of Maine and Cape Cod, and if opposed twin-porch stairwells were a characteristic of the upland or "hill" culture of the Contoocook, Ashuelot, and upper Connecticut and Merrimack valleys, we can look for comparable differences in framing and roofing techniques, pew design, belltower construction, and interior or exterior coloring. As we go about our task, we should not be surprised to uncover comparable regional emblemism and motif-making in each region's folk furniture, overmantel and wall painting, sampler work, quilting, and barn and outbuilding architecture.

APPENDIX A

A list of single-porch meetinghouses or single-porch additions erected in New England 1712-1830. Towns are in Massachusetts unless otherwise indicated. Figures indicate precinct. (Q=Quaker; L=Lutheran; U=Universalist; B=Baptist in all three lists.)

(1712 Boston "Old Brick")
1751 Hingham (addition)
1751 Bradford
1752 Wells, Me. 2 (addition)
1753 Rockport
1755 Weston (addition)
1756 East Barnstable (addition)
1758 Bath, Me.
1760 Harwich 1 (addition)
1761 Yarmouth 2 (addition)
1761 Amesbury: Sandy Hill
1762 Yarmouth, Me. (addition)
1763 Bennington, Vt.
1763 Arrowsic, Me.
1767 Cohasset (addition)
1768 Yarmouth (addition)
1770 Wareham
1772 Wells, Me. 2
1772 Waldoborough, Me. (L)
1772 Lyndeborough, N.H.
1773 Chatham (addition)
1774 Harpswell, Me. (addition)
1776 South Uxbridge (Q)
1781 Barnstable (B)
1785 Amesbury: Rocky Hill
1786 Winthrop, Me.
1786 Warwick
1787 Middleton, N.H.
1787 Boston "Old Brick" (addition)
1787 Holliston (addition)
1789 Alna, Me.
1789 Dunbarton, N.H.
1790 Windham, Me.
1790 Huntington
1791 Falmouth (addition)
1791 Wolfeborough, N.H.
1792 Harwich 2
1792 New Durham, N.H.
1792 Wellfleet (addition)
1792 Scituate (U)
1792 Bridgton, Me. (addition)
1796 Braintree
1797 Falmouth
1797 Gorham, Me.
1810 East Sandwich (Q)

Uncertain dates:

Kittery, Me.
Pelham
Pembroke (Q)
Portsmouth, N.H.
Truro
West Barnstable

APPENDIX B

A list of opposed porch-and-belltower meetinghouses or opposed porch-and-belltower additions erected in New England 1743-1796. Towns are in Massachusetts unless otherwise indicated.

1743 Dorchester
1746 Roxbury
1750 Chelsea
1754 Groton
1756 Sandwich
1758 Lebanon, Conn.
1760 Topsfield
1762 Bridgewater
1762 Hamilton
1764 Kingston
1764 Wethersfield, Conn.
1765 Hanover
1767 Waltham
1768 Deerfield (addition)
1768 Hardwick
1769 Georgetown
1770 Scituate 2
1770 Beverly
1770 Salem 2 (additions)
1770 Gloucester (addition)
1770 Amherst, N.H.
1771 Brooklyn, Conn.
1772 Brookline
1773 Chester, N.H.
1774 Scituate 2
1781 Concord, N.H.
1784 Keene, N.H.
1786 Danvers
1791 Lancaster, N.H.
1791 Plainfield
1791 Amherst (addition)
1792 Ipswich
1793 East Bridgewater
1794 Brighton
1794 Easton (addition)
1796 Candia, N.H.
1796 Conway

APPENDIX C

A list of twin-porch meetinghouses or twin-porch additions erected in New England 1772-1804. Towns are in New Hampshire unless otherwise indicated.

1772 New Braintree, Mass. (addition)
1772 Spencer, Mass.
1772 Chesterfield
1773 Leominster, Mass.
1773 Cornish
1774 Gilmanton

1775 Jaffrey
1779 Westmoreland (addition)
1779 Temple
1779 Berlin, Mass.
1780 Goshen, Mass.
1780 Northwood
1781 Mont Vernon
1783 Walpole, Mass.
1783 Henniker
1785 Claremont
1785 Antrim
1786 Gardner, Mass.
1786 Deering
1786 Keene
1786 Salisbury
1786 Milford
1787 Rockingham, Vt.
1787 Franklin, Mass.
1787 Plymouth
1787 Hancock
1787 Westminster, Mass.
1788 Barnstead Parade
1789 Royalton, Vt.
1789 Loudon (addition)
1789 Hopkinton
1789 Canterbury (addition)
1789 Washington
1790 Winchendon, Mass.
1790 Hillsborough
1790 Orford
1790 Westminster, Vt.
1790 Foxborough, Mass.
1791 Springfield, Vt.
1791 Ashburnham, Mass.
1791 Surry (addition)
1791 Brookline
1791 Salisbury (B)
1792 Canaan
1792 Marlow
1792 Lebanon
1793 Chester
1793 Buckland, Mass.
1794 Northborough, Mass. (addition; voted but not built)
1794 Packersfield
1794 Sutton, north
1794 Sutton, south
1794 Lempster
1795 Palmer, Mass.
1795 Bradford
1795 Mason
1796 Charlestown
1796 Swanzey
1797 Andover
1797 Newport (B)
1798 Hudson
1800 Ware, Mass.
1800 Sullivan
1802 Langdon
1803 Bristol
1803 Milton
1804 Bridgewater
1804 Littleton

Notes

1. New England communities in the eighteenth century as a rule increased the breadth and height of their meetinghouses by approximate increments of ten feet. The most common first-generation dimensions were 40′ × 30′, 40′ × 35′, and 45′ × 35′ (sixty-two known examples); the most common second-generation size was 50′ × 40′ (sixty-six known examples); the most common third-generation sizes were 60′ × 40′ or 60′ × 45′ (thirty-seven known examples). The six sizes cited here represent a little less than half (approximately 45 percent) of the known dimensions of meetinghouses built in the eighteenth century. (Data drawn from town, parish, and church votes culled by nineteenth- and early twentieth-century New England town historians.)

2. For population data, see Kenneth Lockridge, "Population of Dedham, Mass." *Economic History Review* (1966) 19: 318-44; also James A. Henretta, *The Evolution of American Society, 1700-1815* (Lexington, Mass: Heath, 1973), table 1.3. The use of town, parish, and church records in architectural studies is described in Peter Benes, "The Templeton 'Run' and the Pomfret 'Cluster': Patterns of Diffusion in Rural New England Meetinghouse Architecture, 1647-1822," *Old-Time New England* 68: 3-4, pp. 1-21. The present study of stairwells develops two examples of cluster diffusion in the late eighteenth and early nineteenth centuries, the theoretical model for which was laid out in the earlier article. The author is indebted to Barry W. Eager, Philip D. Zimmerman, Frederic

C. Detwiller, Kevin Sweeny, and John Kendall for their invaluable assistance.

3. Alonzo Chapin, *Glastenbury for 200 Years* (Hartford: Chase, 1853), p. 58; Sylvester Judd, *History of Hadley, Mass.* (Northampton, Mass.: Metcalf, 1863), p. 42.

4. Dorchester Antiquarian and Historical Society, *History of Dorchester, Mass.* (Boston: Clapp, 1859), p. 307; Edward C. Bates, *History of Westborough, Mass.* (Westborough: Town, 1891), p. 154. Thirteen examples of this kind of enlargement have been so far uncovered: Rowley (two [1742]); Sandwich (1755); Falmouth, Me. (1759); Plympton 1 (1768); Yarmouth (1768); Sherborn (1769); Londonderry, N.H. (1769); Salem (two [1770]); Westborough (1772); Chatham (1773); Lynnfield (1782); Holliston (1787); Dorchester (1795).

5. An unusual form of enlargement used only in New Hampshire was to add a "swell" or half-circle extension to the long side opposite the pulpit, and to cover it with a half-circle hipped roof. This was done in 1801 in Concord, N.H., and was imitated by Claremont in 1818. (Otis Waite, *History of Claremont, N.H.* [Manchester, N.H.: Clarke, 1895], pp. 127, 353; Joseph B. Walker, *Our Four Meeting Houses, 1st Congregational Society, Concord, N.H.* [Concord, N.H.: Evans, 1888], p. 10.)

6. Isaac N. Lewis, *History of Walpole, Mass.* (Walpole: First Historical Society, 1905), pp. 94-95.

7. D. Hamilton Hurd, "History of Holliston," in *History of Middlesex County, Mass.*, 3 vols. (Philadelphia: J.W. Lewis & Co., 1890), 3: 439.

8. *Records of the West Precinct in Watertown, 1720-1738* (Waltham, Mass.: Board of Aldermen, 1913); Edgar Gilbert, *History of Salem, New Hampshire* (Concord, N.H.: Rumford, 1907).

9. George A. Ramsdell, *History of Milford, N.H.* (Concord, N.H.: Rumford, 1901), p. 63; *Muddy River and Brookline Records, 1634-1838* (Brookline, Mass.: Farwell, 1875), pp. 233-34; Daniel Lancaster, *History of Gilmanton, N.H.* (Gilmanton, N.H. Prescott, 1845), p. 184.

10. See Lyman S. Hayes, *The Old Rockingham Meeting House* (1915; reprint ed. Bellows Falls, Vt., 1969). Survivals are often the least typical of the architectural type which they represent. In the case of the well-known Rockingham meetinghouse, its survival with the porches intact must be credited to the rapid growth of the southern or mill village in Rockingham, now the city of Bellows Falls, which left the village of Rockingham itself so depopulated that it was unable to keep up with changing architectural styles. Alterations to twin-porch plans usually consisted of substituting a standing belltower for the west porch, removing the east porch, and "turning" the interior arrangements so that the pulpit and main entry faced one another across the long, or east-west axis. The porches were sometimes auctioned off to a builder who converted them into a dwelling house by joining the two ends. This took place, for example, in Francestown, N.H.

11. James Blake, *Annals of the town of Dorchester, Mass., 1630-1753* (1750; reprint ed. Boston, Mass.: Clapp, 1846), p. 79.

12. J. Frederick Kelly, *Early Connecticut Meetinghouses*, 2 vols. (New York: Columbia University Press, 1948), 1: 205.

13. Marian C. Donnelly, *The New England Meeting Houses of the Seventeenth Century* (Middletown, Conn.: Wesleyan, 1968), p. 66.

14. Walter E. Thwing, *History of the First Church in Roxbury, Mass., 1630-1904* (Boston, Mass.: Butterfield, 1908), p. 69.

15. D. Hamilton Hurd, *History of Rockingham and Strafford Counties, New Hampshire* (Philadelphia: J.W. Lewis & Co., 1882), p. 177.

16. George E. Ellis, *History of the First Church in Boston, 1630-1880* (Boston, Mass.: Hall and Whiting, 1881).

17. "The Town of Boston in New England" (Boston, 1722), SPNEA archives.

18. The two-story "portico" shown in John Rubens Smith's 1808 painting of the Old Brick Meeting House was added in 1784 (*The Records of the First Church in Boston*, p. 271), but whether the date of the one it replaced is the same as the date of the erection of the building (1712) is not known. Portsmouth's stairwell porch was probably added at the same time a spire was built in 1730. See Charles A. Hazlett, *History of Rockingham County, New Hampshire, and Representative Citizens* (Chicago: Richmond-Arnold, 1915), p. 162.

19. *Pelham, Mass., Town Records*. Photostat copy at the library, University of Massachusetts, Amherst. The 1743 Pelham contract provided only for a "Compes pediment" over the front door (presumably a half-round pediment) and makes no reference to the stairwell porch that is now part of the surviving structure.

20. Daniel S. Lamson, *History of Weston, Mass., 1630-1890* (Boston, Mass.: Ellis, 1913), p. 31.

21. For a list of single-porch meetinghouses and single-porch additions see Appendix A. This list and others offered in the present study are derived principally from secondary historical sources, in most cases nineteenth-century town histories based on a reading of parish, town, or church records.

22. Josiah Paine, *History of Harwich, Mass.* (Rutland, Vt.: Tuttle, 1937), pp. 256-57.

23. Joseph Joy, d. June 28, 1812. In the collection of the Gore Place Society, Waltham, Ma.

24. Ellen Cloutman Jennings, *History of New Durham, New Hampshire* (New Durham, N.H.: n.p., 1962), p. 44.

25. Paine, *History of Harwich*, p. 157; William C. Smith, *A History of Chatham, Mass.* (Chatham, Mass.: Historical Society, 1971), p. 333.

26. Blake, *Annals of Dorchester*, p. 58.

27. Thwing, *History of the First Church in Roxbury*, p. 250.

28. For a list of opposed porch-and-belltower meetinghouses or porch-and-belltower additions, see Appendix B.

29. L. Vernon Briggs, *Church and Cemetery Records of Hanover, Mass.*, 2 vols. (Boston: W. Spooner, 1895-1904), 1: 8.

30. Kelly, *Early Connecticut Meetinghouses*, 2: 290.

31. In 1764, the town of Shrewsbury, Mass. voted to erect a new meetinghouse with three stairwell porches—a principal porch on the front or long side of the building, and two identical smaller porches on either end. (Frederick W. Thayer, *Historical Sketches of the South Congregational Church, Shrewsbury, Mass.* Shrewsbury, Mass. [Parish: 1924], pp. 5-9.)

32. Lucius Paige, *History of Hardwick, Mass.* (Boston: Houghton-Mifflin, 1883), p. 188. The Hardwick vote was taken at a town meeting in order to modify a building being financed by private subscription, but which was later turned over to the town. It is possible, although very unlikely, that this vote alluded to a single front stairwell porch.

33. "New Braintree," in Abijah P. Marvin, comp., *History of Worcester County, Mass.* 2 vols. (Boston, Mass: C.F. Jewett & Co., 1879), 2: 120-25.

34. Sidney Perley, *History of Boxford, Mass.*, (Boxford, Mass.: The Author, 1880), p. 245.

35. Joseph B. Walker, *History of the Four Meeting-Houses of the First Congregational Society in Concord, N.H.* (Concord, N.H.: Evans, 1888), p. 7. Virtually the same vote was recorded in Candia, N.H. at the time the town was considering a steeple addition to its thirty-year-old meetinghouse in 1796:

> *the question was taken about building a steeple and a porch, and negatived 52-59, but a vote was passed to give up the stairway and sell it for pew ground, to go toward building a steeple and porch providing a sufficient number of men can be found to build the rest of the steeple and porch.*

(Hazlett, *History of Rockingham County, N.H.*, p. 237.)

36. For a list of twin-porch meetinghouses or twin-porch additions built from 1772 to 1804, see Appendix C.

37. Edmund W. Sinnott, *Meetinghouse and Church in Early New England* (New York: McGraw-Hill, 1963), p. 154. The original sketch is at the New Hampshire Historical Society.

38. Sinnott, *Meetinghouse and Church*, p. 232; Hurd, *History of Rockingham and Strafford Counties, New Hampshire*, p. 646.

39. Illustrated on the cover of *Delaware History* 18, No. 1 (Spring-Summer 1978).

40. Illustrated in Jean Lipman, *Rufus Porter, Yankee Pioneer* (New York: Potter, 1968), p. 103.

41. J.T. Smith "The Concept of Diffusion in its Application to Vernacular Building," in *Studies in Folklife*, ed. Geraint Jenkins (London, Routledge, 1969), p. 75.

42. The 1792 contract for the building of the meetinghouse in Canaan, N.H., for example, read:

> *The dimensions of said house are to be as follows: 42 feet in width and 52 feet in length, and the posts to be 26 feet long between joints, & the roof in proportion thereunto.*
> *Also, two porches, one at each end, each porch to be 12 feet square the posts to be 23 feet long.*

(William Allen Wallace, *History of Canaan, N.H.* [Concord: Rumford, 1910], p. 146.

43. Ramsdell, *History of Milford*, p. 64.

44. Portsmouth (1700); Saylesville (1703); Providence (1725); Cranston (1740) (Harold Wickliffe Rose, *The Colonial Houses of Worship in America* [New York: Hastings, 1963], pp. 400-19; Sinnott *Meetinghouse and Church*, pp. 201-203). An apparent exception is the stairwell vestibule that runs almost the entire length of the 1699 Quaker meetinghouse in Newport (Rose, *Colonial Houses of Worship*, p. 409).

45. According to Henry A. Baker, *Montville, Conn.* (Hartford: Case, Lockwood, 1896), p. 652, the second meetinghouse in the north parish of New London (built 1772):

> was about 50′ on each side, front to the east with porches or wings on the north and south sides extended over the peak of the main building several feet, on the top of which was a spire with a vane attached . . . the stairs leading to the gallery were in the porches.

46. Kelly, *Early Connecticut Meetinghouses*, 1: 36, 165, 265; 2: 294.

47. It is entirely possible that the need for additional space in Connecticut meetinghouses was met through the private construction of box

pews in remote or inaccessible places. Tradition informs us that the second meetinghouse in Simsbury, used 1740 to 1830, had installed within it so-called "high pews" located over the corner stairwells near the ceiling (Kelly, 2: 197). Similarly, votes taken in Preston in 1759 and in Killingly in 1773 allowed groups of six men or six women to "Build a Pew over the mens or Womans Gallery Stairs" (Kelly, 2: 140, 147).

48. Kelly, *Early Connecticut Meetinghouses*, 2: 67-69.

49. J.P. Lane, *Historical Sketches of the First Congregational Church, Bristol, Rhode Island* (Providence: Press, 1872), p. 22; Rose, *Colonial Houses of Worship*, pp. 408-9.

50. Kelly, *Early Connecticut Meetinghouses* 1: 278.