HISTORIC STRUCTURE REPORT

PORTER-PHELPS-HUNTINGTON HOUSE

HADLEY, MASSACHUSETTS

Adams & Roy Consultants, Inc.
Portsmouth, New Hampshire

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INTRODUCTION

This report is the result of a five-month investigation of the Porter-Phelps-Huntington House in Hadley, Mass., conducted in late 1987 and early 1988. The house has long been recognized as one of the great eighteenth-century farmhouses of the Connecticut Valley, and presently operates as an historic house museum under the direction of a non-profit foundation. Though the story of the building's inhabitants is well documented and has been chronicled in at least one published work, the house itself had never before been subjected to a rigorous physical examination, and much of its interpretation has relied upon oblique documentary references combined with oral tradition. The Porter-Phelps-Huntington Foundation commissioned the present report both to clarify the physical and documentary record and to suggest strategies for the building's preservation.

Brief History of Inhabitants

The histories of the Porter, Phelps, and Huntington families are related in detail in Forty Acres by James L. Huntington, and in an unpublished MA thesis by Margaret Fitzpatrick.(1) The following outline will mainly review information from these two sources. Readers with a serious interest in the house's social history should also consult the annotated finding aid to the Porter-Phelps-Huntington papers recently prepared by Kari Federer.

The Porters were among the seven or so inter-related families often referred to as "River Gods", who constituted a highly insular gentry in western Massachusetts from the mid-17th century until about the revolution. Moses Porter constructed the earliest portion of the present house in 1752, as a farm seat on 111 acres of land north of the village of Hadley. Porter's house is believed to have been the first constructed outside the village proper, and beyond the safety of its stockade. Though his father was a prominent local trader, Moses Porter seems to have eschewed commerce in favor of farming. At least a portion of the land on which the house was built had been farmed by small shareholders since the later seventeenth century.

Porter lived for only three years after building the house. As a captain in the local militia, he joined a contingent sent from Hadley in 1755 to engage the French and Indians in the Lake Champlain region. The group was surprised in ambush near Lake George in Sept., 1755 and Porter was killed. His widow and daughter, both named Elizabeth, continued to live in the house with two slaves, and perhaps a small number of

servants. Management of the farm was given over to a male relative until 1770.

Moses' daughter was married in 1770 to Charles Phelps, Jr., who forthwith took over the management of both house and farm, though he did not purchase the property from his mother-in-law until 1794. Phelps began almost immediately to expand and remodel the house and increase the productivity of the farm, a process which proceeded steadily through the early 1790's, and then rapidly intensified in the years after he gained title. By 1799 Phelps had increased the size of the property to about 600 acres and was among the wealthiest men in town. In the 1790's-1810's, he served on the General Court, was town selectman, justice of the peace, and deacon of the local court. His membership in the Massachusetts Society for Promoting Agriculture is not surprising, given that he had created a model farm. Visiting Hadley in the late 1790's, President Timothy Dwight of Yale rewarded Phelps' efforts by describing his property as "the most desirable possession, of the same kind, and extent, within my knowledge".

Phelps was not born into the same caste as the Porters, and his marriage to Elizabeth Porter and purchase of her mother's farm is quite extraordinary given his family background. His father, Charles Phelps, Sr., had started life as a bricklayer, though he had risen to the rather exalted office of justice of the peace by 1759. Such rapid social mobility went against the grain in western Massachusetts, however, and the senior Phelps was actively shunned by the Hampshire County gentry. On Phelps' appointment to the bar by the governor, eleven other Hampshire County justices - all of "River God" families - resigned en masse rather than subject themselves, as they put it, to "such company as [we] never inclined to keep". The following year, Phelps was read out of the local church, ostensibly for not taking communion. In 1764, the year after his first son, Solomon, had graduated from Harvard, Phelps left Hampshire County for good to settle in newly-opened lands in Vermont, taking his younger son, Charles Jr., with him. Despite his father's treatment - or, perhaps, in some way, because of it - Charles Phelps, Jr. returned to Hadley only four years later, in 1768, to temporarily manage the Porter farm, and in 1770 married into a "River God" family.

The rate and extent to which Charles Phelps expanded and remodeled the house and increased its property, particularly in the 1790's, may evidence an extreme will to succeed, produced by the tensions inherent in his situation. By the late 1790's, he had clearly achieved the status in the community which his father had coveted. Not only did he play host to Timothy Dwight - a member of whose family had refused to share the bench with his father forty years before - but was deacon and chairman of the building committee at the church from which his father had been expelled. The influence of most of the "River God" families had by this time evaporated, so that the Porters, for their part, also benefitted by having invited Phelps into their fold.

Charles Phelps and Elizabeth Porter Phelps raised only two children. The son, Charles Porter Phelps, became a lawyer and then merchant in Boston. His parents hoped he would return to Hadley and live with them after marrying in 1800, and the addition to the house of a gambrel roof in 1799 - which Charles Porter Phelps helped supervise -was specifically intended to accommodate an enlarged family. The younger Phelps did not return to Hadley until 1817, however, the year of his wife's death, and by that time had built his own house across the street from his father's. Two years after Charles Phelps died in 1814, his daughter, Elizabeth Phelps Huntington, moved back to live with her mother, bringing her husband and nine children. She and Dan Huntington, a Congregational minister, occupied the house until their deaths in 1848 and 1865 respectively.

Dan Huntington was of entirely different cloth than Charles Phelps. A Yale-educated minister, Huntington was little inclined toward farming, and never actually purchased the property from his wife's family. Though the property continued to be farmed, the family's holdings were steadily reduced during his occupancy, standing at 89 acres in 1850. Both Elizabeth and Dan were intensely involved in theological questions - their conversion to Unitarianism and her dramatic expulsion from the local Congregational church are well documented. Very few changes were made to the house during their tenure, with the exception of painting, wallpapering, the addition of stoves, and some plastering over of early vertical-board partitioning. The christening of the house "Elm Valley" in the early 1830's well-expresses its shift in character from model farm to "country house".

Each of the Huntington's eleven children was well-educated, and only one remained permanently in Hadley - Bethia, an unmarried daughter, who stayed at the house with her widowed father in the 1850's and 60's, and lived on there until 187_, was the house's last permanent resident. Only one of the Huntington children - Frederic Dan, the youngest - had a real interest in owning the house, and was able to purchase all of his sibling's shares at the death of their mother in 1847. Frederic Dan, a cleric like his father, made his career in Boston and then Syracuse, and used the house strictly as a summer home from around the time of his father's death until his own demise in 1904. Continuing the family tradition of theological controversy, he left a position teaching Unitarian theology at Harvard in 1860 to become an Episcopal priest, eventually being chosen Bishop of Central New York in 1869.

During Frederic's ownership the property was farmed by tenants, for whom he built a small cottage (since burned) in the late 1870's. He thus permanently severed the house from the operation of the farm around it. The property had been reduced to less than 50 acres by the end of the Bishop's life, though he inherited the Phelps farmstead across the road in the 1880's. As during his father's lifetime, little change accrued to the house during Frederic's tenure beyond changes in interior paint colors and wallpaper.

Frederic and Hannah Huntington had two sons and three daughters. Like the previous generation, all found lives outside of Hadley, though only one, George, married and raised children. The two sons became clerics, in the family tradition. By a remarkable coincidence, both Bishop Huntington and his eldest son George died within a few hours of each other in 1904, both quite unexpectedly, and many miles apart. The Bishop's widow continued to summer at the house with her unmarried son and daughters until her death in 1910, when ownership of the house went in equal parts to George's six children, all of whom, again, had permanent residences elsewhere. The oldest, Henry Barrett Huntington, continued to use the house as a summer residence until 1918, even reviving farm activities to a limited extent and carrying out a few long-overdue repairs. A professor at Brown University in Providence, Henry's attention to activities there and, perhaps, his inexperience in farming soon frustrated his attempts to revive a dairy herd and bring the house up to his own standards of livability. His brother James later described one aspect of Henry's disillusionment:

> During my grandfather's (Frederic's) lifetime it was perfectly respectable and quite taken for granted that the summer months should be spent without running water in fly-infested abodes. But in my brother's generation such was not the case and naturally with earth closets, the swarming flies brought illness to the household.

James L. Huntington, a medical doctor, had had a romantic attachment to the house since summering there as a child, beginning in the 1880's-90's. His grandmother, Hannah Huntington, had instilled in James a strong sense of his paternal ancestry; it was from her that he inherited a rich oral tradition regarding rooms and pieces of furniture, which would later influence the house's interpretation as a museum. After visiting the house in its abandoned condition in 1919 - his brother Henry having spent his last summer there the year before - James resolved to make it into "a suitable summer home for my mother", and soon enlisted his five siblings in the venture. With the others providing a limited amount of financial support, James and his brother Frederic - a New York silk merchant - began a protracted campaign of repair and "restoration" work in 1921. Frederic hired a tenant farmer, supervised the purchase of new livestock and the running of the farm, and also oversaw most of the early structural work, such as the digging of a cellar under the main portion in 1921-22. James, by his own admission, was initially interested in maintaining, arranging, and cataloging the house's furniture and other objects.

A certain tension among the siblings was inherent from the start of the project. Each could spend only a few weeks or days at the house during the summer months, and as there was constant remodeling and repair work being planned and conducted in the 1920's, the lack of coordination sometimes gave

way to frustration and suspicion. In a letter of about 1921, Frederic warns James that:

> It is most important to be full of tact in all we do or say because you and B. (Henry Barrett Huntington), each having children and a love for the old place, will spill the beans if you get jealous of each other.(2)

Letters between the five brothers - the sister, Catharine, seems to have been indifferent to their project - reveal disagreements and calls for votes about the most minor of issues. James generally wanted to spend money while the others cautioned restraint. A good deal was nevertheless accomplished, but with the death of their mother in 1926, the tensions between the brothers became more acute. James bought out the interests of Paul, Barrett and Catharine before 1929, and apparently reached a tacit agreement with the other two that he would have primary use of the house and make most of the repair-related decisions. James and his family were the major summer tenants from this point on, and moved into the attached guest-house permanently in 1943. Frederic Huntington paid only occasional visits to the house; on a trip in the winter of 1940, Frederic walked with his dog to the entrance to the old family cemetery, shot the animal, and then took his own life. The obituaries suggest no motive.

With his financial sources dwindling after he left his medical practice in Boston, James Huntington formed the Porter-Phelps-Huntington Foundation in 1955 in an effort to encourage local support for his continuing restoration plans. Huntington signed over the house to the Foundation, but served as its director and continued to live in the attached guest house until his death in 1968. The Foundation maintained the house as a museum in the summer months with Huntington himself leading most of the tours. Small restorative projects - mostly involving the renewal of early paint finishes and the skim-coating of plaster - continued throughout this period.

Physical History (Drawings 8, 9, 11, 15)

The attraction of the house as a museum has traditionally relied upon the following three characteristics, all of which are complementary and are not necessarily listed in order of importance:

a.) Architecture. The building is a large, elaborate, and well-preserved example of an eighteenth-century New England farmhouse -more particularly, a farmhouse of the Connecticut Valley gentry. Though the house has experienced some physical change since 1799, the nature and quantity of its surviving eighteenth-century material is extraordinary given its large size. The main portion and its ells enclose 30 separate rooms or spaces, not counting numerous cupboards, closets, staircases, and small passageways, as well as a two-story woodshed and

rear veranda. Its most remote ancillary spaces are as replete with early hardware, woodwork, and finish as are its major rooms.

b.) Setting. A farmhouse from 1752 until the late nineteenth century, the building survives in an agricultural landscape of great beauty. Fields on three sides of the house are still farmed, and only a few other buildings - all either outbuildings or other farmsteads - are visible from its windows. The town of Hadley also remains largely agricultural, though its landscape is increasingly affected by commercial development.

c.) Family Association. The house was occupied by successive generations of the same family from its construction in 1752 until the death of James L. Huntington in 1968. Early family members are representative of the eighteenth-century Connecticut Valley gentry, while the nineteenth-century owners were notable New England clerics. The shift from permanent farm-seat to summer home represents an important regional trend, as does the transition from summer home to house-museum.

Though each of these factors has endeared the house to visitors, the last has been interpreted most thoroughly, given the huge cache of surviving family documents, and Dr. Huntington's interest in making the house a memorial to family members. The house's architecture has been interpreted less thoroughly only because it has been less understood. The following report will correct that imbalance, and demonstrate that the house's architectural history is not only exceedingly rich, but, in some instances, virtually unique.

The detailed picture of the house's physical history which emerges from recent investigation contradicts many previously-held assumptions. The house built by Moses Porter in 1752 corresponds to the main, 2 1/2 story section of the present house, although its earliest pitched roof was replaced by the present gambrel in 1799. The original house did not include the north ell, as has previously been thought, and seems to have been without appurtenances of any kind. Its earliest kitchen was probably located in the southwest quarter of the first floor, a room which disappeared in Federal-period remodelings. This kitchen must have been served by a corner cooking fireplace, an unusual feature, but one not without precedent. Physical evidence clearly indicates that the original south chimney stack, replaced by the present chimney in 1799, was triangular in cross-section, like the north chimney. These end chimneys and the central hall they accommodated appear to have existed from 1752; there is no basis for the oft-repeated claim that the house was constructed with a central chimney stack. Neither is there evidence to support the legend that the house was moved - this story seems to have resulted from a misreading of documents.

Moses Porter's house was so thoroughly remodeled by Charles Phelps in the period 1771-1799 that only a few small fragments of the original building remain uncovered. Fortu-

nately, however, Phelps' remodeling strategy was to make as few structural changes as possible and apply new layers of material over older fabric. Large sections of the original interior partitioning and almost all of the exterior siding was literally entombed behind late eighteenth-century plaster, woodwork, or clapboards. Carefully removing small areas of this late material has revealed much earlier fabric in near-pristine condition. The survival of so many untouched eighteenth-century wall finishes - some of them rare or unprecedented - is certainly one of the house's most remarkable characteristics.

The house's 1752 exterior remains exactly as it was when covered over by clapboarding c. 1799. Its appearance is extraordinary. A hewn overhang 3 1/2" deep exists on all four walls between the first and second stories, and a similar overhang seems to have stood between the second and third stories on the gable ends. The north, south, and east (facade) walls are completely covered with wooden rusticated siding - 1" boards scored vertically and beveled on their long edges to resemble stone coursing. The rear wall is sided with flush boards. At an early date - perhaps as early as 1752 - the "blocks" of the siding were covered with a red/brown paint layer, onto which fine sand was thrown or blown to further the effect of stonework. The "joints" between blocks were then over-painted white in imitation of mortar. Though the siding weathered for a considerable time before being covered with clapboards, it was never repainted, so that weathered portions of this original paint layer remain well-preserved beneath the present siding.

While almost twenty other eighteenth-century buildings with rusticated siding have been documented in New England, the Porter-Phelps-Huntington House is among the very earliest. Its rustication is pre-dated only by similar siding on the Isaac Royall House in Medford, Mass. (1747-50) and the Redwood Library in Newport, Rhode Island (1748). The noted series of rusticated houses in and around Newport, Rhode Island, some of which have been attributed to Peter Harrison, and in Essex Co., Mass. all post-date the Porter-Phelps-Huntington House. No other houses with rusticated siding are known to have been built in the Connecticut Valley in any decade of the eighteenth-century. While sanded paint is suspected to have been applied over many of the other examples, only on the Redwood Library in Newport has its use been proven.(3) Outside New England, sanded paint has also been found on the columns and a small rusticated section of Monticello, which is believed to date from c.1793. The Porter-Phelps-Huntington House paint layer is particularly unique for combining two colors - one imitating the local sandstone and the other lime mortar - and for never having been painted over.

The house's rusticated siding is all the more eccentric for having been combined with an overhang. While the choice of siding was extremely progressive, the overhang was a vestigial first-period feature, and was already being abandoned on large contemporary houses in the same region. The overhang

is so obviously a carpentry feature that it belies the otherwise painstaking attempt to make the siding appear stone-like. Was this extreme naivete, or were the builders perfectly aware of the contradiction?

While the exterior of Porter's house is strikingly dissimilar from other extant examples of its type, one must hesitate before calling it unique for its time and place. Other of the house's progressive features - notably the central hall and end chimneys, which constitute one of the earliest extant examples of this arrangement in the Connecticut Valley - are known to have been copied from houses elsewhere in the region, few of which survive. Porter may have borrowed the concept of rustication from the same source, though proof is so far lacking. Conversely, the existence of rusticated siding on the Royall House in Medford and "The Lindens" in Danvers, Mass (1754) suggest that there may have been more early examples in eastern Massachusetts, to which Hampshire County also had close cultural ties.

Despite the pretensions of its exterior, the interior of the Porter House appears to have been quite simple. A large quantity of early feather-edged vertical board partitioning has been found beneath plaster and Georgian woodwork on both floors of the main section. Except for their simple moulded edges, most of the boards appear otherwise undecorated. The partitioning which formerly divided the two south bedrooms on the second floor was covered with a simple whitewash layer before being masked by Georgian work in the 1770's or 1780's, but those other early partitions which can be examined show no sign of having ever been painted or whitewashed. This observation is only preliminary, as comparatively few wall cavities could be accessed, and only small areas of each partition examined. The survival of so much early material behind the plaster certainly invites further study. The evidence collected to date, however, reinforces the claim made by other scholars that interior simplicity and exterior elaboration was characteristic of houses of the eighteenth-century Connecticut Valley gentry.(4)

The Porter House began to be transformed soon after the arrival of Charles Phelps in 1770. Phelps' work can be divided into three distinct remodeling campaigns. The first, in 1771, resulted in the construction of the original ell, which constitutes the southerly 2/3's of the present north ell. This accommodated an enlarged kitchen and related ancillary spaces, including an extra bedroom (the "Pine Room") at its rear. All or most of the ell spaces were finished with the same vertical-board partitioning as existed in the main portion of the house, and the ell's south wall was rusticated in the same manner as the earlier structure. The "Pine Room" and the vestibule between the present dining room and south kitchen are the only spaces in this first ell to retain their original dimensions and character, though sections of an early pantry area are also discernable. Much of the ell's early partitioning was finished with blue sponge decorations dabbed onto whitewash; large areas of this finish are preserved in good or excellent condition beneath Federal-

period boarding in what was formerly the pantry area. Sponge decorations are another vestigial first-period feature, and appear here much later, and preserved over much larger areas, than in other extant examples.

Phelps' second phase of remodeling began around 1775 and continued until about 1786. Local joiner Samuel Gaylord, Jr. was commissioned to refinish nearly every space in the original house, covering the early vertical-board partitioning with plaster, wainscot, cornices, and other Georgian woodwork. Gaylord did the work in a number of widely spaced visits which lasted from two weeks to two months; his work rhythm was doubtlessly effected by the revolution. The removal of the kitchen area to the newly-constructed ell provided an opportunity to expand the living space at the south end of the old house. While there is no evidence that partitions were moved in this period, the functions of certain of the rooms - particularly the old kitchen - were probably upgraded through their refinishing. Most of the present Georgian woodwork seems to have been completed by 1786, when documents record a number of extended visits by room-painters. The first paint layers on most of the house's Georgian woodwork are covered with a verdigris-based glaze, and likely date from this episode. Fragments of painted finish from certain of these rooms were used as nailers during Federal-period remodelings before they could be painted over, and are quite accessible in a number of closets and crawlspaces. These surviving fragments of early glazed finishes are rare and valuable records, and will doubtless be of permanent interest to scholars of early paints and glazes. At least one room - the southwest bedroom on the second floor - preserves areas of unusual graining or marbelizing from the same period, which also invite further study.

The third, most intensive phase of Phelps' remodeling occurred in the five years after he had purchased the property from his mother-in-law in 1794. His initial emphasis was on expanding the house's work and service-related areas. In 1795 he constructed a detached carriage house with distinctly Federal design features considerably south of the ell. This was modeled after another in the neighborhood which Phelps had admired. In 1797 he demolished an early woodshed which had projected from the south wall of the north ell, and constructed in its place a four-stage series of sheds, in the form of a long 1 1/2 story ell, which connected the north ell with the carriage barn. The extant section of this "south ell" - the present south kitchen and woodshed - were erected as a unit, along with at least one of the two now-demolished sheds. Like the carriage barn, the separate facades of each of the ell's sections incorporated some Federal-style design features. The rear (west) elevation, facing the fields, was crudely boarded, and included a long semi-open verandah which was used in conjunction with farm activities.

Phelps turned his attention from the sheds to the house itself in 1798-99. In the previous decade, Phelps' stature in the community and the commitments which it involved had

grown immeasurably and, at least by early 1799, he was expecting that his Harvard-educated son would return to Hadley to begin a law practice, bringing his future bride to live at the house. While the recently-completed carriage house and ells were extremely up-to-date, the house itself must have appeared increasingly archaic as the new century approached, particularly given its badly-weathered paint scheme. With all of these factors in mind, Phelps again transformed the house in just one or two building seasons, replacing its pitched roof with a gambrel to increase bedroom space, building out the walls of its first story to mask the overhang and entirely covering the exterior with clapboards, replacing all of the early windows with new 9/9 sash, replacing the front doors and constructing a new surround and portico, extending the small parlour at the south end of the house into a much larger formal space or "long room", remodeling the north ell kitchen as the family's sitting room, and building a new kitchen in a shed addition to the north side of the same ell. Barring the gambrel roof - a feature long associated with the best Connecticut Valley houses - each of Phelps' remodelings incorporated Federal-style elements, the portico and long room being particularly strong statements of fashion. This work occurred on the very heels of Asher Benjamin's style-setting commissions in Suffield, Conn. and Greenfield, Mass., which are generally considered to have introduced Federal design to the Connecticut Valley.(5)

Little physical change occurred to the house between about 1799 and the early 1920's. Dan and Elizabeth Huntington were better educated than Charles and Elizabeth Phelps, and were more inclined to reading than remodeling. Their son Frederic shared this predilection, and, with the conversion of the house to a summer residence after the death of Bethia Huntington in the late 1870's, rationales for physical change became even less pressing. This is not to say that the appearance of the interior remained static. Stoves were installed in nearly every major room beginning in the 1830's, with fireplaces being systematically blocked up. Rooms were re-wallpapered and painted, light fixtures updated, and new floor coverings laid down. What we know of these cosmetic changes comes only from documents and a reference or two by Dr. Huntington as to how the interior appeared prior to his own remodeling work. Huntington carefully and thoroughly stripped away all of this nineteenth-century material in the 1920's and 1930's. Virtually every scrap of wallpaper was removed and the house's ample collection of nineteenth-century furniture put into storage and eventually sold. The stoves suffered the same fate. The absence of this material makes the house appear to have been uninhabited for a century or more, when in fact it was probably made as comfortable and perhaps stylish in the nineteenth century as its age would allow.

Excepting this stripping away of nineteenth-century material, Huntington's approach to restoring the main portion of the house was quite light-handed. Most of the work that he and Frederic performed in the 1920's were simple repairs to

structural elements and the addition of bathrooms in the least-important ancillary spaces. They also installed electrical and heating systems, but were careful of their impact on existing finish. James Huntington's attempts to restore original colors through paint scrapings were successful in a number of instances, but wide of the mark in others. A few pieces of "period" hardware were brought in from other buildings or ordered from catalogs, and some minor repairs were made using wrought nails and reused boarding. The only instance in which Huntington removed or altered finish material was the stripping of nineteenth-century plaster from the walls of the pine room in 1943, which he felt was justified by the rarity of the material beneath.

Huntington consulted a number of experts during his years of restorative work. On a visit to the house in 1922, Sumner Appleton of the S.P.N.E.A. taught Huntington how to do paint scrapings in the long room and advised him to paper most of the interior. Huntington thereafter chose his room colors on the basis of scrapings but, instead of papering, stripped every room of its existing wallpaper and applied calcimine paint to the plaster. Appleton declared on the same trip that the north ell, and not the main house, was probably the building which Moses Porter raised in 1752, an opinion which Huntington, wisely, never accepted. Huntington hired the Boston architectural firm of Coolidge, Shepley, Bulfinch, and Abbott to prepare drawings for the new south ell apartment, the rebuilding the back porch, and the addition of bathrooms in the early 1920's. Harry Shepley personally oversaw some of this work. Homer Eaton Keyes, editor of Antiques magazine and a college friend of Huntington's, spent a few days at the house in 1931, dating the furniture and helping to arrange the rooms. In 1962, Huntington solicited advice on the restoration of the south kitchen from Abbott Lowell Cummings, then assistant director of the S.P.N.E.A. Cummings convinced Huntington to abandon plans to tear out the kitchen's north wall, which Huntington erroneously believed to be a nineteenth century addition. The restored kitchen only partially reflects Cummings' advice, however. Huntington was always eager for other opinions but never abdicated his decision-making authority.

Given his sensitivity to early material within the house, it is surprising that Huntington was less sensitive in regard to the sheds of the south ell, large sections of which he demolished. Though they were certainly in poor structural condition, Huntington made every attempt to repair similar problems in the house and north ell. A number of outbuildings were also destroyed in the 1920's and 1930's, and Huntington allowed a large, decrepit, but early barn, which formed the southern boundary of the dooryard, to be moved to Hadley village in 1931 and remodeled as a farm museum. Pressured by the tasks to be accomplished in the main house, Huntington probably considered the weak condition of the service buildings too great an additional burden. The two barn sections of the south ell were replaced by a balloon frame structure of identical dimensions and roughly similar character - though its doors were made symmetrical for aesthetic reasons.

The chaise house was replaced by a 2 1/2 story house for Huntington and his family, which also shared the dimensions of the earlier structure, but made no attempt to mimic it.

A Note on Sources (Drawing 16)

A number of manuscripts are cited so repeatedly in the following text that they have not been footnoted. One is Elizabeth Porter Phelps' diary, kept between 1763 and 1817, and now part of the Porter, Phelps, and Huntington family papers at the Amherst College Library. Though many of its passages offer the only record of important physical changes, nearly all are so brief or oblique that they have been misinterpreted as often as they have illuminated. Elizabeth was only peripherally interested in her husband's remodeling campaigns; extensive work episodes only found their way into her diary when they approached the character of celebration, or caused excessive "confusion" within the household. Her entries are typically one sentence long and often do not specify the particular area of the house in which work is being performed. Only when accompanied by physical evidence of change do Elizabeth's descriptions begin to form understandable patterns and prove important as a dating tool.

Equally important is an anonymous, roughly-executed plan purporting to show the first floor of the house in 1820, which also forms part of the Porter-Phelps-Huntington collection. Accompanying annotations, which reference specific remodeling episodes in the late eighteenth and nineteenth centuries, clearly indicate that the author was a family member, and that the plan was drawn in the last quarter of the nineteenth century. Physical and documentary evidence confirms the overall accuracy of the plan, though a few details have proven in error. An important aspect of the plan is its assignment of names to each of the house's rooms, a number of which differ from those assigned by Dr. Huntington many decades later.

A third invaluable source of information has been Forty Acres, a short book about the house written by Dr. Huntington in the late 1940's. Forty Acres presents Huntington's picture of the building most fully, and its last chapter discusses his own restorative efforts through about 1946. I have also made frequent reference to a typewritten tour of the house prepared by Dr. Huntington for docents in 1960, which rounds out many of his conclusions about the building's physical history.

Notes

1. Dr. James L. Huntington, Forty Acres (New York: Hastings House

2. PPH Coll., Frederic Dane Huntington. Letter Frederic Dane Huntington to Dr. James L. Huntington, 1921?

3. Antionette Downing, The Architectural Heritage of Newport, R.I. 1640-1915, 2nd ed. New York: Clarkson N. Potter, 1967, pp. 80-81.

4. See Sweeney, p. 249 and Robert St. George, "Artifacts of Regional Consciousness in the Connecticut River Valley, 1700-1780" in the The Great River, pp. 35-36

5. Hosley, pp. 115-121

MAIN HOUSE (Photos 1-5; HP 1; Drawings 1-9, 15)

The main portion of the Porter-Phelps-Huntington House has a hewn post and beam frame, with outer walls of sawn 2" plank. Except for its gambrel roof, which replaced the original gable roof in 1799, the frame shows every evidence of having been erected in a single episode. Subsequent repairs have been restricted to the first-floor framing, about a quarter of which has been replaced since the early nineteenth century.

In a diary entry of May 27, 1752, Moses Porter's sister Sarah wrote, "Lt. [Moses] Porter raised house and barn." Seven months later she noted that her brother's family had moved into their new home, and recorded a visit paid to them in December.(1) This house was certainly the main portion of the present building. Both its frame and the character of its original interior and exterior finish are consistent with a mid-eighteenth century date. The quantity of furnishings recorded in the inventory of Moses Porter's estate made in 1756, six months after his death, clearly reflect a large two-story house.(2) A complete, if often imprecise record of the house exists from 1763, when Moses' daughter, Elizabeth Porter (Phelps) began her own diary entries. Though the period 1756-63 is a "dark age" in the building's documentary history, it is unlikely that these years saw significant physical change. Mother and daughter lived alone in the house until 1771 (though perhaps with one or more slaves or servants), and management of the farm was given over to a male relative.

The frame was raised on a marginally-excavated foundation of rubble stone. Dr. Huntington and his brothers had the cellar dug and the present concrete foundation walls poured in 1922, probably using some of the earlier foundation-stone in the concrete mix.(3) This work was accomplished without jacking up the house, which would have required detaching it from its ell. Nineteenth-century photographs indicate that the building has not changed its relationship with the surrounding grade.

First Floor Frame (Drawing 12)

The house's first-floor framing (i.e. the deck of large timbers and joists which constitute the floor structure and support the walls above) is visible in its entirety from the cellar, and is the only portion of the building's frame which can be fully examined without removing material. The framing has been much repaired, and many of its older members are

badly rotten or have had sections replaced. The majority of timbers, however, appear to be integral components of the original frame, and maintain a discernable pattern despite later repair work.

The hewn sills are of a uniform size (8" x 9") and are mortised and tenoned at each corner. The girts and summers are mostly hewn timbers, and vary in dimension from 8" x 8" to 9" x 9 1/2". Summers and girts divide the frame into thirds, both in the north-south and east-west directions. The two lines of summers, running north-south, form three 9' bays. This allowed the original floor joists - all 5" diameter logs - to be pre-fabricated to 9' lengths. The joists are the only elements of the floor frame which were obviously prefabricated.

The three east-west bays formed by the first floor girts vary in width as much as 2 1/2'. The joists are spaced roughly the same distance apart within their respective bays, but their number and spacing changes markedly from one bay to the next. This suggests that the joist pockets were cut into the sills and summers only after these timbers had been laid, perhaps by three teams of workers, one to each bay, who roughly estimated measurements as they went along. The joist pockets also vary somewhat in size and type.

Because the house was designed with no internal posts, and with light interior partitions of 1" board, the builders of the first floor frame did not have to align its cross-members with those of the superstructure above, but were free to space them at whatever intervals were convenient. Thus none of the floor's original cross members anticipate the house's floorplan, and its girts are not in line with the two middle bents of the superstructure. Investigation of similar buildings might shed light on whether this lack of integration between first-floor frame and superstructure was common practice.

At least three later repair episodes are traceable in the floor frame. Each was probably occasioned by rot, the natural outcome of constructing a floor over an unventilated crawlspace. Charles Porter Phelps noted that in 1814 he "assisted in repairing the floor of the front entry over the cellar, the timbers having become rotten, and the floor sunk several inches."(4) This explains the presence of sawn 5" x 5" joists under the east end of the central hall, and closely-laid sub-flooring in 11"-15" widths. Most of the subflooring atop older joists varies from 5" to 16" in width and is widely spaced. The hewn girt which now supports the hall's northern partition was probably introduced during the same repair episode, to keep the partition from sinking. The forward section of the southern hall partition was also resupported, but with a 5" x 5" joist. The staircase may have interfered with attempts to resupport the entire south partition in the same manner as the north, or its condition may have been judged not as serious. Nonetheless, some sec-

tions of the south partition between the staircase and the long room had sunk low enough by the early nineteenth century to penetrate the crawlspace, and are still visible in today's cellar. Even had this wall been resupported, it could not have been jacked back into place; the c.1799 woodwork in the long room was fitted to compensate for the considerable angle in the room's floor, which was caused by the partition's sinking.

The sawn 3" x 4" joists under the back third of the hall are also replacements, though their date is uncertain. They may have been part of the work described above, as there is no record of repairs to the hall floor after 1814.

The sub-flooring beneath the long room is uniformly wide and closely-spaced, and probably replaced earlier sub-flooring when the long room was created c. 1799. The remodelers undoubtedly inspected the floor frame when the original sub-floor was raised, and may have replaced the two eastern-most summers as well. These summers are the only major framing members which are unhewn logs.

The last major repair episode occurred in 1921-22, when Dr. Huntington had the basement excavated. The first floor framing was inspected from below for the first time, and a number of members were found to be badly rotten. Some sections were replaced outright with sawn timbers of the same dimension. These are easily identified by their circular saw marks and the crude method by which they are joined to the earlier frame. Much sistering and shimming was also accomplished, and the whole frame was supported by a forest of iron lally columns. Though comprehensive, Huntington's work did not alter the existing pattern of the floor frame.

Superstructure (Photos 17, 18, 19; Drawing 13)

The house frame which stands above the first-floor decking incorporates four bents - i.e. separate two story trusses - aligned in the east-west direction. The two end bents form the north and south walls of the house, while the two middle bents correspond with the long walls of the central hall. The second and third floor girts of the middle bents span the entire width of the house, supported only by the boards and plaster of the interior partitions.

The bents are connected in the north-south direction by four lines of girts and summers, which shadow the sills and summers of the first-floor frame. The summers do not cross the central hall, however, as this space is narrow enough to be bridged by floor joists. The joists, which were inspected by selectively removing attic floorboards, are all sash-sawn, measure approximately 3" x 4", and are spaced about 21" on center. The joist pockets are perfectly uniform in shape and are very regularly spaced, unlike those of the first-floor frame. Because the latter was constructed almost at

grade, its builders could chisel out pockets after the cross-members were laid, with little or no advance measuring. The superstructure, on the other hand, had to be entirely planned, and its mortises, tenons, and pockets cut out before it was raised.

A number of framing members and their joints were closely examined by prying up attic floorboards and removing siding on the south and east elevations. All were found to be hewn. The four intermediate posts are 8 1/2" wide and flare to a depth of 14" to catch the tie beams with blade tenons. This gradual flaring, which begins at second floor level, is easily observed in three of the upstairs bedrooms. The corner posts are straight. The 10 1/2" x 6" plates appear to extend from corner to corner, and the tie beams seem to be connected to the plates by housed dove-tail joints. There is no bracing in the traditional manner as the walls are plank-framed.

One of the most interesting features of the frame is its 3 1/2" hewn overhang, which has been concealed on three of its four elevations since the Federal period. The overhang is still visible on the west (rear) wall of the house, but was masked on the other elevations c. 1799 by building out the first floor wall with vertical 2" plank and re-siding over these planks with clapboards (see below). The planks are supported by a sill system separate from that of the house. The west elevation was never built out because of its relative invisibility from the public way. The overhang can still be examined on the north, east, and south elevations by selectively removing clapboards, and can also be detected in the joint between the west wall of the main portion and the later north ell.

The overhang was formed by hewing 3 1/2" from the face of each post on the first story. As the overhang extends to all four elevations, the corner posts had to be hewn back on two sides. The plank walls of the first story were then set flush with the hewn surfaces of the beams, and the siding applied over both.

There is evidence that another overhang existed between the second and attic stories on the original gable ends, which were removed in 1799 when the gambrel roof was added. This overhang was not created by hewing timbers, however, but by manipulating the planes of the 2" plank wall structure above and below the plate (see below).

Overhangs were a "First Period" architectural feature which survived later in the Connecticut Valley than in other regions of New England. The Thomas Danforth House in Rocky Hill, Conn. was built with first and third-story overhangs, similar to those on the PPH house, in 1783.(5) Virtually all of the earliest overhangs, however, such as those on the Thomas Bliss House in Springfield (1695-1700) and Capt. John Sheldon House in Deerfield (1696) were "framed" as opposed to hewn, meaning that the effect was created by actually fixing

the framing members at various planes.(6) The less complicated method of hewing back the posts seems to be a late development (post-1725), though research in this area is not complete.(7)

Exterior Wall Structure (Photo 14)

The exterior walls of the main portion are plank-framed. Instead of the more usual arrangement of regularly-spaced studs, the walls consist of vertically-aligned sawn planks, set edge-to-edge, forming solid screens between the posts. Each plank extends unbroken from sill to girt or, on the second floor, from girt to plate, except where interrupted for door or window openings. The connection of the planks to the horizontal members of the frame could be examined at only a single point - just above the overhang between the first and second stories on the west elevation, in the vicinity of the northerly intermediate post. The planking on the south side of this post was found to be rabbeted into the outside face of the rear girt, though its method of attachment to the girt was unclear. As no nail-heads were visible, it is possible that the planks are housed and pegged into the plate above, and merely wedged into the rabbet at the girt level, though this detail could not be verified. The planks to the north of the intermediate post are not rabbeted into the girt, but this area is within the angle of a brace, and is not typical of the rest of the wall. The further removal of siding in this area might prove fruitful, particularly below the overhang.

The same excavation revealed a diagonal plank brace to the north of the intermediate post, extending between post and girt. The brace is of the same 2" plank as the wall frame, and is let into the girt's outer face so as to be flush with the rest of the wall. Its connection to the post could not be observed. An identical brace was discovered to the east of the southwest corner post when a section of rusticated siding was briefly removed from that area. At least one vertical plank had been cut to accommodate this brace, though most of the area within the angle of the brace was not filled with planking.

Plank frames were not uncommon in mid-eighteenth century New England, though more research will be necessary to determine their degree of incidence in the Connecticut Valley. The use of diagonal plank braces within a plank frame is more unusual, though also not unprecedented.

While the overhang between the first and second stories was created by hewing back the posts, a similar overhang was created between the second story wall and the building's original gable ends by fitting their planking to two different planes. The planking of the second story was either rabbeted or housed into the bottom face of the plates, bringing it flush with their outer surface. The top edge of the plate

bears neither rabbet nor nail holes, however, suggesting that the planks of the gable end were laid over the outside face of the plates. When covered with 1" board siding, the walls of the gable ends would have overhung the second story by about the same amount that the second story overhung the first.

Siding (Photos 9-16; HP 8-9; Drawings 14-15)

The earliest siding material on the north, south, and east elevations of the main section was rusticated boarding - i.e. 1" thick wooden boards cut to uniform widths (10") and beveled horizontally and vertically to resemble stone coursing. This siding remains in good condition beneath the present clapboards, and areas of the material were exposed and examined at diverse points on the south and east elevations. These rusticated boards are nailed directly over the plank frame, posts, and girts on both stories. The temporary removal of a section of the siding on the south elevation confirmed it to be the building's earliest siding material, as there were no earlier nail-holes in the planking beneath.

The top edge of each rusticated board is feathered or beveled to a sharp taper on the side which faces outward, while the bottom edge is beveled both forward and back, so that it overlaps the tapered edge of the board below while creating the effect of a v-shaped mortar joint. The boards are scored vertically every 24" so as to resemble stone blocks of a uniform length. The lengths of the boards themselves vary, as they had to be fit around door and window openings. The siding is mitred at the building's corners and was butted against the early window casings, which were raised slightly beyond the wall-plane.

A number of fascinating details occur at the overhang, a section of which was exposed above the door and adjacent window on the south elevation. The bottom rusticated board of the second story has a 1/2" wide bead along its lower edge. This abuts a 1" deep cove moulding which fills the angle of the overhang; the lower edge of the cove projects about 1/2" beyond the face of the rusticated siding on the first story. Where the bottom board on the second story crosses above the south door, the score-marks turn diagonal in imitation of a flat arch. This confirms that the south door opening is an original feature. Similar "flat arches" occur in the siding above other of the house's doors. When Dr. Huntington removed the original portico on the east elevation in 1939, he photographed the area of rustication previously hidden by the pediment. These photographs reveal that another "flat arch" - perhaps two boards high rather than one - stood over the original front entry doors. A similarly tall flat arch was created above the south door of the north ell when that feature was added in 1771, and remains visible in the joint between the north and south ells.

The first-story window opening beside the house's south door is capped by a "segmental arch" also scored into the siding just above the overhang. The arch is approximately 5" in height and as broad as the early window casing. It was chiseled into the bottom piece of siding on the second story with the same "v"-shaped instrument used to create the vertical joints. Because the arch is only half as tall as the piece of siding it is carved into, the vertical joints continue around and above it without breaking their two-foot spacing. It is likely that identical arches occur above each of the house's window openings.

The siding is covered with a single, badly-weathered, two-color paint scheme. The "blocks" retain areas of red/brown paint, a color which mimics that of Longmeadow sandstone. To further the effect of stone, this layer was heavily sanded, and is still quite gritty to the touch. The "joints" of the siding were also painted red/brown, but were then over-painted white in imitation of lime mortar. This white paint-which is not sanded - has survived on more areas of the joints than the red/brown has on the blocks; the white paint is perhaps held by the grit of the red/brown layer below. The cove moulding in the angle of the overhang was also painted red/brown and, having been better protected from weather, retains a greater quantity of paint than any of the blocks. The dual color scheme seems to have continued onto the flat arch above the south door and the segmental arch above the adjacent window. Limited paint sampling and analysis using a 40x microscope suggests that this was the only scheme applied to the siding - no primer layer is discernable. Its badly weathered condition indicates that it was executed many years prior to being covered with clapboards about 1799, perhaps as early as 1752.

On the west elevation, which did not face the public way, the boards were simply surface-planed in their original widths and fitted together with tongue and groove joints. The effect was to create a flat, uniform surface both above and below the overhang. The only relief was created by the slightly raised window casings. This siding is still visible in the attic of the north ell, which was built against the rear wall before the house could be clapboarded. The boards here are more weathered than the rusticated siding on the other elevations, and bear no paint evidence.

Each wall of the house is presently clapboarded, except that portion of the west wall covered by the north ell. Virtually all of the clapboarding is scarfed, and attached with wrought nails, suggesting a date no later than the first quarter of the nineteenth century. The clapboards on the bottom 2' of the west wall are butt-jointed and attached with wire nails, and probably represent a repair by Dr. Huntington or the Foundation.

Though most of the clapboarding is early, it appears to date from more than one episode . The clapboards on the west ele-

vation, which was never built-out, appear to be more loosely nailed and slightly more weathered than the rest. Nail-holes in the earlier, flush-board siding in the attic of the north ell reveal that the wall was definitely clapboarded before the late 1790's, when the attic of the ell is presumed to have been extended. The wall may have been clapboarded even earlier, however, possibly when the north ell was first raised in 1771. The planed siding beneath the 1790's addition is weathered to the same degree as that which was covered by the north ell in 1771, suggesting that the west wall was first clapboarded shortly after the north ell was raised.

The remainder of the house could not have been clapboarded as early as 1771, as the north ell was rusticated that same year. The three "public" elevations - north, south, and east - were not clapboarded prior to the first floor being built out, as the rusticated siding on the first story is bereft of nail holes. The most likely date for these walls' being built out and clapboarded is 1799, when the pitched roof was exchanged for the gambrel. The gable ends of the gambrel were clapboarded from the start, so the alteration could not have occurred any later. It also would have made little sense to clapboard the earlier gable ends just prior to their removal. The creation of the long room, the gambrel roof, and presumedly, the portico all at the same time suggest that Charles Phelps turned his attention from the building of ells to the remodeling of the house itself in the late 1790's.

The clapboards on the south and east elevations are extremely similar, and may be the original clapboards of the c.1799 remodeling. Most are of 4' - 4' 3" lengths, though a significant number of shorter clapboards (2 1/2') exist on the south wall. The two walls have different clapboard reveal patterns, (3" on the south elevation and 3 1/2" - 3 3/4" on the east), though this may be an original design feature.

The clapboarding on the north wall is extremely varied in length and reveal, which may reflect one or more partial re-siding episodes in the early nineteenth century. The reveal between the windows on the first floor varies from 3" - 3 3/4", and then switches to a range of 2" - 2 1/2" just above the foundation. These narrow clapboards at the base of the wall were probably leftovers in a lot of otherwise regular widths, and may have been reserved for the north wall because it was least visible. Similarly narrow clapboards perhaps existed at the base of the west wall before that area was re-sided in the twentieth century. This could be verified by removing the present clapboarding and examining nail-holes in the sheathing.

Paint scrapings show the clapboards to be covered with multiple layers (at least seven) of white and off-white paint. The clapboarding was clearly painted a shade of white from its earliest date. Comparatively dating different sections of clapboarding by counting their paint layers is nearly impossible, given the extreme similarity of each coating.

Front Door and Portico (Photos 2, 20; Drawings 1, 4-5)

The house's present front door, surround, sidelights, and portico are all Federal in design, and probably date to c.1799. This is also the period in which the house was clapboarded, the window sash replaced, the gambrel roof added, and the long room created at the south end of the house. The door and portico are one of the most self-consciously stylistic elements of Charles Phelp's overall Federal remodeling.

The present portico is actually a reconstruction of the original, completed under Dr. Huntington's direction in 1939 after the hurricane of 1938 had damaged the original portico's roof. A HABS photo of the early 1930's shows a considerable amount of rot on the earlier portico, exacerbated, no doubt, by heavy vines which crept over its columns and pediment, and almost completely covered its roof. These vines first appear on photographs of the 1880's and 1890's, disappear in the first decades of the twentieth century, but reappear on the HABS photo, by which time they were clearly out of control. Huntington had his carpenters save as much of the original portico as possible, including sections of at least two columns. Photo comparison shows the reconstructed portico to be an exact replica of the original.

Though the portico was referred to by Huntington as "Greek", it is actually an eighteenth-century interpretation of Roman forms, and is well within the standard vocabulary of the then-current Federal style. A very similar portico graces Charles Porter Phelps' house across the road, which was completed in 1817. In New England, the grouping of the four columns into two pairs is rather peculiar to Federal houses of the Connecticut Valley, and can be traced to certain style-setting designs of Asher Benjamin, who executed a number of large commissions in Springfield, Greenfield, and other valley towns in the 1790's, before gaining a national reputation through the publishing of pattern books. The William Coleman House in Greenfield, Mass., for instance, which was completed in 1798, has a portico with the same intercolumnation as that of the Porter-Phelps-Huntington House, though it lacks a pediment.

The house's Federal door and portico were preceded by a set of double doors, which now stand at either end of the small "bedroom" in the north ell's extension. Family legend has always remembered these doors as having originally stood in the front entry, and this story is confirmed by comparative paint analysis. The outside face of each door has a brick-red color as its earliest layer, which corresponds to the color on the "blocks" of the house's rusticated siding, and the frames of its surviving early windows. Both doors are fitted with norfolk latches, which probably date to c.1799, when the doors were moved to the newly-completed extension of the north ell. Paint lines indicate that their original hardware was a large suffolk latch, whose flat portions were triangular.

The design of these doors is quite typical of the better mid-eighteenth century houses in the Connecticut Valley. Characteristic features of this door type are a paneled diagonal cross at the base and two or three lights at the head. The Porter-Phelps-Huntington doors have three lights. The Eleazer Porter House in Hadley village, built by a relative of Moses Porter's in 1713 but remodeled in the mid-eighteenth century, has very similar double doors still in place, the only difference being the arrangement of their center panels. Most houses which feature this door type also have a raised door surround, which Moses Porter's house appears to have lacked. Photographs of the area immediately over the present door, taken when the original portico was removed in 1939, show a flat arch simulated in the rusticated siding, similar to the arch discovered over the door of the north ell. The arch existed just above the overhang, at the head of the original doors, and was flush with the rest of the siding. Given that the arch was not raised, it is probable that the strips of siding flanking the door opening simply butted against its jambs, though the opening may also have been framed by a raised moulding. The material flanking the original door opening was removed when the present door was added, and the new portico completely covers the flat arch.

Roof Frame and Attic (Photos 21-23; Drawing 13)

The tall gambrel roof which surmounts the main portion of the house replaced an earlier pitched roof contemporary with the house's frame. The construction of the gambrel in 1799 was a conspicuous feature of Charles Phelps' complete remodeling of the house in the last decades of the eighteenth century. Instead of merely covering the earlier fabric, as he had done in other restorative changes, Phelps entirely removed the earlier roof above the level of the plates. This pitched roof and its gable ends are the only major features of the original house which have been entirely lost.

The character of the earlier roof can be reconstructed from evidence in the original plates, which were unaffected by the gambrel. The east and west plates contain seats for the original rafters, which measured 5" x 5" and were spaced approximately 3' on center. The roof was entirely of common rafters, all of which sprung from the plates; the ends of the tie beams have no seats for principle rafters. The angle of the seats indicates that the roof pitch was 1/1 (1 ft. of run for 1 ft. of rise), making for fairly steep slopes and a peak about level with that of the present gambrel. The interior of the original attic was quite lofty, and the gable ends could have accommodated two windows of the same size as those in the present gable ends. Given the short distances between rafters, the roof may have lacked purlins and been boarded horizontally.

Elizabeth Porter Phelps' diary notes on April 28, 1799: "The latter part of this week a great deal of business here - the new roof raised on the old house May 2, 1799." The gambrel was added not just for aesthetic purposes, but to create additional living space. Charles Porter Phelps explains in his memoirs:

> I closed my law office and business on the 1st of April 1799 and removed to Hadley, where I was occupied till late in the autumn superintending the alterations and repairs of my father's home to render it convenient for the accommodation of two families, as I proposed to bring my wife there in the early spring.(8)

Charles' mother, Elizabeth Porter Phelps, wrote her son's fiance in July, 1799, stating her hope that "you will soon make it [the house] your dwelling".(9) It seems clear that the "two families" which were to occupy the house from 1799 were those of Charles Phelps and his son. The gambrel was designed as an apartment for one of them, though which is unclear.

The new roof could not have been raised with the old still in place. The "deal of business" which Elizabeth describes in April was probably the dismantling of the old roof and the preparation of the frame for the new. The old roof was most likely stripped of its boarding and then taken down rafter by rafter. Its plates and the attic flooring were left undisturbed.

The gambrel roof frame is entirely distinct from the older house frame, having its own plates, tie beams, and summers. These lay across the original third floor deck, shadowing the older timbers beneath the flooring, and supported by pieces of 2" plank nailed on top of the posts. The house-frame and roof-frame do not make direct contact at any point. This construction method was probably driven by the necessity of erecting the new roof as quickly as possible after the old one was dismantled. Using new plates, tie beams, and summers allowed the new roof to be entirely pre-fabricated, and its timbers merely hoisted into place as soon as the old rafters were taken down. Mortising the older timbers to accept new uprights would have consumed time as the house stood unprotected from weather. The old floor was left in place merely to provide a surface from which the carpenters could work.

Unlike the house and, presumedly, the original roof, the gambrel frame is composed entirely of sash-sawn lumber. Some of its sawn timbers are larger in cross-section than the largest hewn beams below the plate. The new plates, tie beams, and summers are all 10" x 9" in dimension, while the same timbers of the earlier roof are 8" x 8" and 10" x 8". The queen posts, collar ties, and purlins which support the gambrel rafters are all approximately 7" x 8" and are braced diagonally in every direction. There is no ridge pole, the rafters

being jointed and pegged at the apex of the roof. The north and south plates and tie beams overhang the house's posts to support new east and west plates beyond the plane of the earlier ones. This was done to maintain the existing eaves profile. These east and west plates are actually four separate plate sections, each tenoned into the transverse members in the manner of girts. Overall, the gambrel frame is a tighter and more precise piece of construction than the house frame below, and represents an increased level of both workmanship and technology.

The new attic was intended to be finished into a series of large rooms, the plan of which is still discernable. The plates, tie beams, and summers of the floor platform were pre-cut to accept floor joists, and the two collar ties which connect the purlins are similarly notched for ceiling joists. Some 2" x 4" studs were also installed between major members. The south chimney, rebuilt later in 1799, contains an ample fireplace at attic level, but lacks hearth, mantel, or other finish. It is certain that dormers were also intended, given that some of the projected spaces could not otherwise have been lit.

The space was left unfinished because it had no tenants. Charles Porter Phelps writes that after his marriage to Sarah Parsons in 1800:

> ...the plan of life which I had been the last year preparing to carry out was now changed, and arrangements were made to form a connection in business [in Boston] with Edmund Rand...who for a year or two past had been in Mr. Parsons' employ abroad.(10)

The letter which Elizabeth had written to Sarah in July, 1799 revealed that the young couple had been hesitant about moving all along, though Charles Jr. was heavily engaged in the rebuilding. Charles Phelps had offered his son a place in his house "some time ago" wrote Elizabeth, but had never received a definite reply.(11) Given Charles Jr.'s lifelong attachment to Hadley, it was probably Sarah who, in the end, objected to setting up house with her in-laws so far from her own home and family in Newburyport.

The attic story remained unfinished until the late 1870's, when Bishop Huntington had a room created at the north end for his son James.(12) This room probably corresponds in size and location to one of the suite of rooms laid out in 1799. It is architecturally unpretentious, consisting of simply plastered walls and ceiling over sawn lath. The baseboards and door and window frames are simple planed boards, and a hole has been poked through the north chimney stack to accommodate a stove. There is no evidence to indicate whether the walls were historically calcimined, whitewashed, or papered. The present wall finish is mid-20th century wallpaper in poor condition.

Chimneys (Photos 24-25)

There are two chimney stacks in the main section of the house - one at either of the end walls. The north chimney appears to be contemporary with the building's frame (1752), though each of its fireplace openings has probably been altered. The stack at the south end of the house dates from 1799, when minor alterations were made to the floorplan on all three stories. It replaced an earlier, probably original chimney, which was similar or identical to the present north stack. Both the north and original south chimneys incorporated corner fireplaces, a relatively rare eighteenth-century feature.

Dr. Huntington's assertion that the house was built with a central chimney is without foundation. The house's basic floorplan - a central hall with rooms to either side - shows every evidence of being early, and could not have co-existed with a central chimney. The first and third floor frames - the later of which can be inspected by removing floorboards - also show no evidence of having accommodated a central stack. Huntington probably assumed that 1752 was too early a date for end chimneys and a central hall. We now know that the arrangement was not without precedent in the Connecticut Valley when Moses Porter raised his frame, though his use of it was still very progressive (see Central Hall section below).

The north chimney is triangular in cross-section, having been built to accommodate corner fireplaces. The stack has two flues, which appear to have always served the fireplaces in the east first-floor bedroom and Bishop's Study. Its foundation was encased in concrete in 1922 and cannot be examined, but probably consists of a shallow stone crib. The stack is not connected to the frame of the house, which is fortunate given its degree of settlement. Both flues are laid up in a clay-based mortar, similar to the mortar in the chimney of the north ell.

The small fireplace in the northeast chamber of the second floor is an addition, having been inserted into the original flue of the fireplace below. The bricks at the back of its firebox are laid on their narrow sides so as not to fully block the flue. The throat of this fireplace joins with the existing flue just above its smokeshelf. The later work is also laid in clay-based mortar, but of a slightly different color and composition than the mortar in the flue. The lime-sand parging which covers the firebox and forms the hearth is probably an original or early feature, though it may have been renewed in the nineteenth century. This was probably the fireplace Elizabeth Porter Phelps referred to in a diary entry of Jan. 11, 1782: "Mr. Billings here to build chimney in Mother's Room". "Chimney" is eighteenth-century parlance for "fireplace".

The fireplace in the east first-floor bedroom is original to the stack, though the workmanship of its jambs suggests that the firebox may have been relined; the fireplace

would have to be excavated to confirm this observation. If a relining did take place, it was probably in conjunction with the room's Georgian remodeling of c.1775-86, when the present surround was added. The fireplace's arched lintel could date from the same episode. The bricks of the firebox are laid in a clay-based mortar similar to that of the stack, and its joints have been tooled with a "u"-shaped instrument. There is no evidence that the firebox was ever parged, though the outer face of the jambs and lintel is parged with a lime-sand mix, covered with a single coat of black paint. This parging is probably contemporary with the Georgian remodeling work, though the present material could represent a renewal.

The fireplace in the Bishop's Study is also original to the chimney, though it too appears to have been relined. The present firebox is laid up in a lime-based mortar, which is at least as deep as the first whythe of brick. This alteration probably occurred when the room was remodeled in 1840 (see Bishop's Study section below); the plaster walls extend to the lip of the opening on all sides, perhaps covering evidence of a larger opening.

Evidence of the earliest south chimney can be seen beneath attic floorboards just east of the present stack. The end of the summer beam on this side of the chimney still retains a Georgian casing, cut on an angle to receive a similarly angled fireplace wall. The angled end of the casing was isolated from the southeast bedroom below by the construction of a cupboard beside the new chimney in 1799. The rest of the casing still covers the summer inside the room. The angle of the casing indicates that the earlier south stack was of roughly the same size and shape as the north stack, though located slightly more to the east. Like the north chimney, the south stack was probably built with two first-floor fireplaces, though later fireplaces on the second-floor, in the manner of the north-east bedroom fireplace, cannot be ruled out. The fireplace in the southwest room on the first floor was most likely a cooking fireplace, as this is the logical location of the house's first kitchen (see Long Room and Back Hall section below).

In perhaps her clearest diary entry, Elizabeth Porter Phelps recorded on June 2, 1799 "Satt. pulled down our chimney at the south end of the old house". The chimney was not "pulled down" in the literal sense, but probably taken apart brick by brick, a process made easy by the presence of clay-based mortar. The south end of the first floor was undergoing a major remodeling at the same time, which involved the taking up of its floor and subfloor, so that the bricks were probably dropped into the crawlspace and then re-assembled as the present chimney. The new chimney reflects the changes that were simultaneously occurring in the house's floorplan. The stack holds three fireplaces, one to each floor, and each having its own flue. All are flush with the house's south wall, the transverse partitions on the first and second floors having been moved farther west to create the long room and an

enlarged southeast bedroom. Like the earlier chimney, this stack is laid up in clay-based mortar, though its second and third-floor fireboxes are composed of a harder brick laid up in lime. The back wall of the long room's firebox is also laid in lime, but its two jambs are lined with dressed slabs of Longmeadow stone, which support a lintel of the same material.

Central Hall (Photos 26-33)

The house's central 2-story hallway appears to have existed in its present dimensions since 1752. The decision to construct two separate chimneys at the house's end-walls was certainly made to provide for a through hall with a straight-run stair. The house-frame also anticipates the space, its two middle bents defining the hall's long north and south walls. Examination of the third-story floor frame has clearly ruled out the possibility of an early central chimney (see "Chimney" section above). The hall's woodwork and finish scheme appears to incorporate work from three distinct periods; the predominant Georgian-style material likely dates from the general remodeling of the house's interior in the 1770's-80's.

Moses Porter's house was among the first generation of Connecticut Valley dwellings with central hall plans. Research published by Kevin Sweeney in 1984 indicates that the central-hall house first appeared in the valley c.1750, some of the earliest examples being the Dr. Thomas Williams House in Deerfield, Mass. (c.1748, extant), the Seth Wetmore House in Middleton, Conn. (c.1750, extant), the Rev. Eliphalet Williams House in East Hartford, Conn. (1751), and the Joseph Webb House in Wethersfield, Conn. (1752, extant). All were very high-style houses in which the central hall was among a number of innovations. Central halls remained rare in this part of New England, even as a feature of large houses, until the last two decades of the eighteenth century.(13)

There is some evidence that the hall, like many or all of the rooms to either side of it, was originally finished with vertical, moulded, feather-edged boards. These have been discovered beneath the plaster and woodwork in three of the interior walls of the main house, including the partition separating the hall from the long room (see "Long Room" section below). Of this last partition, only the side which faces the long room could be fully examined - from the utility closet beneath the stair - but its cross-section reveals a second layer of 1" boards standing beneath the plaster and wainscot on the hall side. More wall material would have to be removed in the utility closet to confirm that these hall-facing boards are also planed and moulded.

The feather-edged boarding which still separates the hall from the Bishop's Study is identical to the board partitioning found facing the long room. Though a few of these boards

were pieced in from elsewhere when a door was closed up in the nineteenth century, the majority are certainly early, and may be the only section of the house's original (c.1752) wall finish to survive exposed. Paint analysis is not helpful in dating this partition. Its earliest paint color -blue with a verdigris glaze - is also the first color of the Georgian woodwork, which only establishes that the hall was first painted when the last of the Georgian work was executed. The same partitioning elsewhere in the house is either unpainted or whitewashed.

The door which presently leads from the hall to the Bishop's Study originally opened into a large closet on the room side, according to the "1820" floorplan of the first story. A letter written in 1840 by Elizabeth Whiting Phelps to Frederic Dan Huntington describes the remodeling of this "bedroom" (Bishop's Study) into a multi-purpose family room, mentioning that "The closets are taken away, the old entry door closed up, and the closet door used as an entrance into the room".(14) The location of the original entry is signaled by two vertical paint lines to the east of the present door. The paint lines mark the outer edges of the original door mouldings. The feather-edged boarding which infills the early door opening is identical to the surrounding material, but has a different paint history, indicating that it did not come from elsewhere in the hall. Neither did the infill boards come from the demolished closet, as the closet shared the hall's paint history (see "Bishop's Study" section). The two earliest paint layers on the infill boards - green/yellow with verdigris pigment particles followed by a bright salmon - do not appear elsewhere in the house. The first color which the infill boards share with the rest of the partition - the color which must have been applied to the hall in 1840 - is light grey.

Documentary evidence suggests that the house's Georgian interior was created incrementally over a period of at least a decade, though under the direction of a single joiner. Elizabeth Porter Phelps' diary records that a "Mr. Gaylord" and apprentices were engaged to "finish up part of our house" by doing "joiner work" during two-month periods in both 1775 and 1780. This was Samuel Gaylord, Jr., a noted local joiner and furniture maker, whose account book is preserved at the Historic Deerfield Library, and records a number of billings for work on Charles Phelps' house. Phelps retained Gaylord and his crew for a variety of carpentry tasks over a fairly long period; in addition to the day-work on the house, Gaylord billed Phelps for making sash and window frames in 1781 and 1786, and for framing a smoke house in 1788. Phelps also purchased six banister chairs from Gaylord in 1775, at least three of which survive, and show the joiner to have been an accomplished turner and carver as well.(15)

In addition to the work recorded by Elizabeth in 1775 and 1780, Gaylord's account books indicate that he worked at the house in 1786 as well, billing Phelps for 15 days of his own

and 16 days of his apprentices' labor. All told, Gaylord and his apprentices logged at least four and a half months at the house executing interior joinery, though this labor was spread over a period of eleven years.(16) This is certainly enough time to account for all of the Georgian finish work in the main house - the north ell had been finished in the early 1770's, according to Elizabeth, and the Federal-style building and remodeling campaign was not to begin until the 1790's.

Most of the Georgian woodwork in the central hall was probably executed by Gaylord as part of this general remodeling of the main section. The Georgian work consists of crown mouldings, raised-panel wainscot, moulded baseboards, chair-rail, four-paneled doors, door and window mouldings, and plaster. The hall's crown moulding, wainscot, and baseboards are identical to those in the east first-floor bedroom and (excepting the wainscot) the three early bedrooms on the second floor. The east wall on the hall's second story is also built out in the same fashion as the east wall of the first-floor bedroom. Only the chair rails of these two rooms are markedly different, the hall chair rail being much narrower and less complex.

The doors leading off the hall into the first-floor bedroom, Bishop's Study, and the four second-floor bedrooms are all four-paneled and have (or had) similar hardware. The door panels are framed by the same ovolo mouldings used on the raised-panel wainscot. The mouldings which frame the hall side of each door, however, are very idiosyncratic. Those around the two south bedroom doors on the second floor have a different profile than those around the north bedroom doors. A third type of moulding frames the door of the first-floor east bedroom, and a fourth outlines the door to the Bishop's Study. This variety in the hall door mouldings is not linked to any change in mouldings from room to room.

Though Gaylord was almost certainly responsible for the hall's Georgian finish work, it is far from certain whether his labor included the hall's staircase - i.e. its treads, risers, balusters , rails, and newels. The hall was certainly graced with a stair of some sort from 1752, and no evidence has been located to suggest that the present stair is not original, and did not coexist with the vertical boarding. Newels and balusters of this type were being executed in the 1750's, though Gaylord's surviving "baluster" chair of 1775 shows he was also capable of producing them.(17) Paint analysis throws little light on the problem - the stair's first paint layers are shared with the Georgian woodwork, which would be the case whether the stair was Georgian, or part of the unpainted 1752 scheme. More evidence might be gathered toward this question by exposing the framing of the stair and its interface with the wall from the utility closet below.

The earliest paint layer on most of the hall's Georgian woodwork is a bright blue coated with a green glaze. The glaze contains undissolved chunks of a translucent emerald-green pigment, which is probably verdigris (copper acetate). Pieces of the same pigment can be found in the earliest paints and glazes on most of the house's Georgian woodwork. The paint also contains small pigment particles of a very dark blue color, undoubtedly Prussian blue, one of the few blue pigments available in the eighteenth century. This glazed blue is the earliest color of the hall's raised-panel wainscot, baseboards, chair rail, most door and door mouldings, crown moulding, and the stair balusters and newels. It also covers the early vertical-board partitioning outside the Bishop's Study, though this probably pre-dates the Georgian work.

A number of hall features show an additional paint color beneath their blue layer. Most of these can likely be accounted for as primer coats, or evidence that the feature was relocated in the hall from some other area of the house before the blue paint layer was applied. The features with deviating paint histories are:

1. The paneled wall beneath the staircase, or outside the utility closet, including the section of smooth-planed boards. This wall has a thin layer of light green paint beneath the blue. This color appears nowhere else in the hall, and was likely applied as a primer for the blue. The paneling is so wedded to the configuration of the stairs that it could not have been relocated from another space.

2. The narrow hinged door within the above paneled wall. This door and its hinges have a glazed yellow paint layer beneath the glazed blue. The yellow and its glaze are filled with pieces of undissolved verdigris pigment. This glazed yellow is identical to the first color on some of the wainscot panels in the back hall, which seem to have been part of an earlier south-west room (see "Long Room" section). The door and its hinges were likely moved to this location when the south-west room was converted into the long room and back hall (1799). The door and was then painted blue to match the surrounding woodwork.

3. The moulding around the door to the east first-floor bedroom, and the sections of wainscot between this door and the east wall of the house. These features have a thin beige paint layer beneath the blue. This may also be a prime coat, or may indi-

cate that these features were relocated from elsewhere in the house. The relocation would had to have happened quite early - before the hall was unified by the glazed blue scheme. No similar beige layer has been found on the Georgian woodwork of other rooms.

4. The stair treads and risers. These were painted a red/brown before they were painted blue. A small amount of this color was lapped onto the bottoms of the balusters before these features were painted blue, indicating that both colors were part of the same scheme. The same red/brown was used as a baseboard color elsewhere in the house, and a piece of finish woodwork serving as a nailer under the main stair actually features a glazed blue scheme with a strip of red/brown painted at its base to imitate a raised baseboard. Shades of dark red were quite typically used on baseboards in eighteenth century rooms irrespective of the general woodwork color.

This evidence of differing primer coats and/or relocated woodwork features, most pre-dating the first general painting of the hall, might be related to the incremental pace at which Gaylord finished the house. While he likely finished most of the house room-by-room, the hall may have been worked on in pieces over a long period due to its larger area. This might explain the diversity in the hall's door mouldings as well as the deviations in its paint history.

We know from Elizabeth's diary entries that the house's Georgian woodwork was painted in at least two episodes, which straddled the last recorded visit by Gaylord and his crew. Elizabeth wrote on Dec. 19, 1785 "Mr. Prescott and Mr. Bartlett from Northampton came this evening to paint some of our rooms", and on Jan. 14, 1786 "Satt. the painters finished to my joy." Gaylord billed Phelps in early September of that year for work he had likely done over the summer, and later that same month Elizabeth records another two-week visit by the painters. The casual pace of Gaylord's remodeling work apparently gave way in 1786 to a sustained effort to finish the project. The total of four weeks which the painters spent at the house in 1785-86 was certainly long enough to account for all of the Georgian rooms.

The hall underwent a number of changes during Charles Phelps' second great remodeling campaign of the 1790's. The door leading from the hall to the long room, together with its deep jambs and Federal-style moulding, is clearly part of the long room work of 1799. The door's panel mouldings differ from those of the Georgian doors in having a small quirk next to the half-round. Its brass door hardware is also a notch

above the crude iron hardware in the rest of the hall. The wide door jambs were created by building out the long room's walls a few inches in front of the earlier partitioning. There was certainly an earlier, Georgian door in this location, but no evidence of it remains.

The small study at the east end of the hall's second story is also a Federal-period remodeling. The partition which creates the study was obviously inserted at a late date, as it bisects the hall's crown mouldings. The moulding around the study's glazed door has an ovolo profile, identical to the door and window mouldings in the Federal-period sitting room (present dining room). The muntins on the glazed door are identical in profile to those of the house's Federal-period window sash, and the door itself is similar to the door leading from the south kitchen to the dooryard, which dates to 1797. The graining on the room side of the door is the original finish layer, and is the best of the house's few extant examples. Dr. Huntington referred to this room as "Charles Phelps' Office", a plausible description, but one unsupported by documentation.(18)

East First-Floor Bedroom (Photos 34-37; HP 10)

This room has a completely unified Georgian design scheme, seemingly the product of a single construction episode. Its woodwork is clearly linked to that of the hall and the three Georgian bedrooms on the second floor, though it is more highly ornamented than the upstairs rooms. There is no doubt that the room itself dates to 1752. Accepting the central hall and the north chimney as original to the house establishes the front bedroom as equally early. The Georgian woodwork, however, appears to be the room's second design scheme. Like most or perhaps all of the spaces in the main portion of the house, this room was originally finished with vertical, feather-edged boarding, which still survives beneath the plaster and woodwork on at least one of its walls.

The partition which separates this room from the Bishop's Study - the bedroom's west wall - was accessed from above by cutting into the flooring and subflooring of a second-floor closet. Though only a small portion of this partition could be exposed, it was enough to establish that the lath and plaster on the bedroom side is supported by a wall of vertical 1" boards, which are smooth-planed on their western faces. Whether this boarding was painted, whitewashed, or unfinished could not be determined, as it could not be examined below the room's ceiling level. The bottom edge of the partition was also exposed from the basement by removing a small area of subflooring. This excavation, which occurred at a joint between two of the vertical partition-boards, established that the boards are moulded and fit together with feather-edged joints. Similar feather-edged partitioning

still separates the hall from the Bishop's Study, and exists beneath the plaster and Georgian woodwork in a number of other rooms.

The present Georgian woodwork was probably executed by Samuel Gaylord, Jr. in the period 1775-86 (see "Central Hall" section). The room's two outer walls are built out beyond the face of its beams to allow for special window treatments. The east wall is built out most thickly to accommodate splayed window jambs housing folding shutters, and deep splayed window seats. The area between the two front windows houses small built-in drawers, and the two corners have full-sized closets. The north wall was made just thick enough to accommodate a sliding shutter for its single window - the carpenters did not have the option of splayed window jambs here because of the corner fireplace. The south wall is not built out, but its shallowness allowed a full cornice of traditional crown and bed mouldings to be developed around its cased beam. This wall, the north wall of the southeast bedroom, and the south wall of the northeast bedroom on the second floor are the only three walls in the house with bed mouldings in addition to crowns.

A fairly complex, 2 1/2" wide chair rail tops raised-panel wainscotting on the north, south, and west walls, and continues onto the east wall between doors and window jambs. The window mouldings, door moulding, and baseboard mouldings follow an ogee pattern. Much of this woodwork is identical to that in the hall, and some mouldings are shared with the upstairs bedrooms. Unique, however, is the 5" thick bolection moulding around the corner fireplace opening, probably the earliest fireplace surround in the house.

The woodwork shows no sign of having been repaired or altered, and the visible nail-heads in the two closets are all wrought. Nearly all of the room's hardware is also early, and appears to be contemporary with the woodwork. The H-hinges of the shutters are attached with wrought nails, and are covered by the same number of paint layers as the shutters and jambs. The same is true of the H-L hinges on the room's door, though a paint line on the door's room side indicates that the present Norfolk latch was preceded by a box-lock. The box-lock was original to the door, and was removed before the first white coat of paint was applied to the room, probably in the later half of the nineteenth century. Box-locks of identical size exist or existed on the doors to the four upstairs bedrooms.

Paint cross-sections were examined in situ on over twenty pieces of the room's woodwork, including the doors, door mouldings, wainscot, chair rail, window mouldings, shutters, window seats, baseboards, bolection moulding, fireplace surround, and some hinges. All of the room's woodwork was found to have the same first paint layer - a yellow/brown with a clear green glaze - confirming that each woodwork feature is contemporary. The room's successive paint schemes are:

from the wood:
yellow/brown with a clear green glaze
light blue/green
white/beige/yellow (3 to 4 layers)
green (present color)

The yellow/brown color was not found elsewhere in the house, though the glaze layer above it is consistent in character with early glazes in other rooms. Both the yellow/brown paint and its glaze are filled with large particles of a transparent green pigment, which is most likely verdigris (copper acetate), a common eighteenth-century glazing pigment. Identical particles are found in the earliest paint and glaze layers on most of the house's Georgian woodwork. The glazed yellow/brown layer probably dates to the first general painting of the house's Georgian woodwork in 1785-86.

The light blue/grey color is similar in tone to the present green. Their similarity suggests that the green color was intended by its applicator - probably Dr. Huntington - to mimic the blue/grey. The most recent paint colors in many of the house's rooms are known to have been based on earlier colors exposed through limited paint scraping.

Only two of the room's woodwork features deviate from the schemes described above. The sliding shutter against the north wall has a dark grey layer with a greenish glaze between its yellow/brown and light blue/green layers. This glazed grey color covers both the frame and panel of the shutter, but appears nowhere else in the room. The deviation is not easily explained, especially as the shutter's first color scheme is shared by all of the surrounding woodwork features.

The other piece of woodwork with an additional paint layer is the bolection moulding around the fireplace, which features a pink color with visible red pigment particles between its yellow/brown and light blue/green layers. The bolection was probably painted pink as an afterthought immediately following the room's first painting and glazing, though it may just as well have been done after the yellow scheme had stood for a number of years.

The room has a two-coat plaster system - a very sandy brown coat next to the lath with a chalky white finish coat on top. Some of the animal hairs in the brown coat are imbedded in the finish coat, indicating that both are contemporary. The surface of the finish coat is somewhat striated.

A photograph of the room taken in the 1930's shows the walls covered by a later nineteenth/early twentieth century patterned wallpaper, no trace of which remains. Huntington probably removed the paper soon after the photograph was taken, and covered the walls with a pink calcimine paint or

colored whitewash, traces of which survive - in powdered form - beneath the present white paint layer.

This room is the backdrop for a family legend, related in Forty Acres, concerning how Elizabeth Porter learned of the death of her husband in 1754:

> Capt. Porter's sword was brought back to Hadley [following the massacre] by his Indian body servant who passed it through one of the north windows of the house. Mrs. Porter, hearing a knock as she was putting her little girl to bed, pushed back the heavy shutter and the sword was handed to her. She understood the significance. This sword, minus the hilt, but in its original scabbard, remains in that room today.(19)

A photograph published elsewhere in the book shows this sword on the room's fireplace mantel. No corroborating account of the incident can be found in family papers, and we can only trust that it was a well-established item of family folklore. The "heavy shutter" of the story of course conforms to the single sliding shutter on the north wall, which likely did not exist in 1754, given its similarity to the rest of the Georgian woodwork. There may indeed have been a sliding shutter over this window when Elizabeth went to receive the sword, but it was probably a much cruder feature.

There are no direct references to this room in early family documents, though its location beside the front hall, its two closets and built-in drawers, its ample fireplace, and the general quality of its woodwork certainly bespeak a master bedroom. The room is merely labeled as a "bedroom" on the "1820" plan of the first floor. A general discussion of the house's bedrooms occurs in two letters written by Elizabeth Porter Phelps to her husband Charles in the spring of 1802, when she was away and he was at home. In advising him where to locate keys to certain of the house's "chambers" (bedrooms), she refers at various points to the "two front chambers", the "southwest chamber", and "my bedroom" so as to indicate these were all separate spaces. The "two front chambers" and "southwest chamber" are certainly three of the four second-floor bedrooms. Elizabeth's bed was thus in either the northwest chamber on the second floor, the "Bishop's Study" - which was used as a bedroom prior to 1840 - or the east first-floor bedroom. The last is the most likely candidate, as the first has no fireplace, and the "Bishop's Study" room is the crudest in the main section of the house.(20)

Elizabeth's reference to "my bedroom" rather than "our bedroom" suggests that Charles may have slept elsewhere by 1802. If we can presume that none of the rooms Elizabeth mentions in her letters were Charles' - he would likely have had a key to his own room - the only leftover bedrooms are the

"Bishop's Study" and the unheated northwest chamber on the second floor.

Bishop's Study, or West First-Floor Bedroom (Photos 38-40)

The "Bishop's Study" was clearly part of the 1752 floorplan - its corner fireplace, hall partition, and the partition separating it from the east bedroom are all early features. The room is presently one of the simplest, even crudest in the house, having narrow, unmoulded baseboards, no window or door mouldings, a crown moulding along only one beam, and a small corner fireplace framed only by a thin wooden band. Of its few significant woodwork features - window shutters, a narrow cupboard beside the fireplace, and paneled doors - only the shutters and cupboard were built for the space. The room seems to have been largely passed over by Gaylord during the house's Georgian remodeling of the 1770's-80's.

The crudeness is deceiving, however, for the room is much changed from the mid-eighteenth century. The presence of moulded feather-edged boarding on the hall side of its south partition and the east side of its east partition strongly suggest that the room was finished with similar vertical boarding at an early date, some of which may survive beneath the plaster. This could only be verified by removing small sections of the room's baseboards. We know that the room was extensively plastered in 1840 - perhaps for the first time - when a large walk-in closet occupying its south-west corner was removed. The "1820" floorplan of the first story indicates that the closet served the hall rather than the room. The room's original entrance door, which stood about two feet to the east of the closet door, was eliminated as part of the same remodeling, and the closet door henceforth used as the entrance to the room. None of these alterations register in the plaster of the room's south and west walls, indicating that neither surface pre-dates 1840. The plastering over of the vertical boarding in the pine room between 1833 and 1840 may have served as the precedent for a similar alteration here.

The boards used on the hall side of the south partition to infill the early door opening are identical to the partition's other feather-edged boards, but have two unique early paint layers - green/yellow next to the wood, followed by a bright salmon. As the 1840 remodeling work was entirely centered on this room, these boards might well have been salvaged from the walls of the Bishop's Study before it was plastered. They were not taken from inside the closet, as the post casing in the room's southwest corner, which stood within the closet prior to 1840, has the same paint history as the central hall (glazed blue/green, etc.).

The 1840 remodeling converted the room from a bedroom - which it is labeled as on the "1820" floorplan - to, in the words of Elizabeth Phelps Huntington, "a sort of keeping-room, sit-

ting-room, dining-room, parlour, or whatever you want to call it". It was apparently intended as a private space for Theodore Huntington - Dan's son - and his new bride, whom he brought to live in the house in the winter of 1841. Theodore directed the work himself just prior to his marriage. In a letter to her son Frederic in March, 1841, Elizabeth writes that the couple's furniture has just arrived and "the little parlour is fitted up in very pretty style". She goes on to say that the women of the household had woven a carpet to complete the space.(21)

Elizabeth conveys this information to Frederic in an almost consoling tone, summing up by writing "What strange things happen! everything taken away, nothing is enduring but the favor of God's goodness..." Earlier in her letter she introduces the room as "the old bedroom which you took so much comfort in last summer as a study and wardrobe".(22) There was apparently some competition for the room between the two brothers, Theodore deciding the matter through the act of remodeling. Frederic never lost his attachment to the room, however, and had it back as his study in the latter half of the nineteenth century, when he took up permanent summer residence. We have this on the authority of Dr. Huntington, who visited the house regularly from 1883, and later named the room after his grandfather Frederic, the Bishop.

The door leading from the Bishop's Study to the pantry in the north ell is almost certainly one of the house's original (c.1752) front entry doors, and was relocated here when the north ell was extended in the later 1790's. Its earliest, red paint layer does not match any of the painted woodwork in the Bishop's Study, but does resemble the red on the rusticated siding and some of the exterior window casings. Atop the red is a thin, muddy yellow/green layer, which probably corresponds with the muddy yellow on some of the room's other woodwork features. The paint on the door is too discolored for the match to be certain.

The window shutters and the small cupboard beside the fireplace are similar to the Georgian woodwork in other rooms, the shutter panels having the same ovolo mouldings. Both shutters and cupboard door have early H-hinges attached with wrought nails. The first paint layer on each of these features and their hardware is a muddy yellow filled with verdigris pigment. A glaze layer could not be detected. The paint's yellow tone and the presence of verdigris link it to the earliest colors in some of the house's other Georgian spaces, particularly the back hall (formerly kitchen), east first-floor bedroom, and southwest bedroom on the second floor. The shutters, cupboard, and post and beam casing probably date to Gaylord's remodeling, and were painted with the rest of the house's woodwork in 1785-86.

Though the room must always have had a fireplace - given the presence of two integral flues in the chimney - the present fireplace appears to be a reconfiguration. The bricks in the

firebox are laid up in lime mortar, while those in the flue and the adjoining fireplace in the east first-floor bedroom are laid in clay. The lime mortar in the firebox extends to the back of the first wythe of bricks, ruling out the possibility that the early firebox was simply repointed. The present fireplace probably fills what was a slightly larger cavity, and may date to the remodeling of the room in 1840. The plaster on the room's north and south walls seems to continue unbroken onto the face of the opening, covering, perhaps, evidence of the larger fireplace. The narrow bandmoulding which frames the present opening has probably been relocated, as its first paint color is blue/green, which does not appear elsewhere in the room.

Long Room and Back Hall (Photos 41-46)

Both the long room and the section of hall behind it were created in 1799 by eliminating two existing rooms on the south side of the house. The date of the remodeling is based upon an entry in Elizabeth Porter Phelps' diary (June 2, 1799) describing the pulling down and rebuilding of the house's south chimney. The earlier chimney is known to have had corner fireplaces, while the present stack has only one fireplace on each floor, flush with the south wall. The long room fireplace bisects the line of the earlier partition, making it certain that the partition was removed in 1799. The first specific reference to the "long room" is in a letter of 1802 from Elizabeth Porter Phelps to Elizabeth Phelps Huntington, in which she writes "I have just got shut up in the long room to have a good visit with my daughter Eliza".(23)

The existence of the two earlier rooms was confirmed by the discovery of a wall of vertical, moulded, feather-edged boards behind the north partition of the long room. The wall cavity was accessed from behind by removing some boards in the utility closet beneath the staircase. The long room's north partition was built a few inches in front of the earlier wall, probably so as to clear the girt above and allow a fashionable sharp corner between the new wall and the ceiling. It also allowed for deep jambs at the door leading into the long room from the hall.

The vertical-board partitioning extends from a point in the utility closet to the jamb of the long room's door, and probably beyond. The wall is actually two separate partitions - the north walls of two different rooms. The boards are broken a few feet beyond the utility closet by a narrow rough board or plank flush with the partition, which constituted the point of intersection of an early north-south wall. It corresponds almost exactly with the center-line of the earlier south chimney stack, as calculated from evidence in the attic, and with the partition that originally separated the south bedrooms on the second floor. These two south rooms were not exactly symmetrical with those on the north side of

the hall; the southwest room was distinctly larger than the southeast, while the two north rooms are much closer in size.

The vertical boarding bears no evidence of paint or whitewash, though it could only be examined from an oblique angle, and most of it remains covered by a layer of dust. Similar or identical vertical-board partitioning exists behind plaster in other rooms, constitutes a section of the central hall partitioning, and appears throughout the house in the form of re-used lumber. It almost certainly represents the house's original (c.1752) wall finish.

Neither of the earlier rooms appears in the documentary record, except in a small first-floor plan, labeled "Supposed plan of the Original House" which appears on the same sheet as the "1820" floorplan. The plan is schematic only and the rooms are unlabeled. The rooms can reasonably be assigned functions, however, in the context of the overall floorplan. The house clearly had a kitchen prior to the raising of the north ell kitchen in 1771, and this room is its likely location. The room was the largest on the first floor and had direct access to the dooryard through the house's south door. Evidence in the rusticated siding indicates that the present south door opening, though not the door itself, is an early feature. The house was without a basement and shows no evidence of appurtenances prior to 1771.

Corner cooking fireplaces were not common in the mid-eighteenth century, but neither were corner fireplaces in general. There is at least one documented other example of an early corner fireplace being used in a kitchen, at the Short House in Newbury, Mass. (c.1732). Given the known dimensions of the south chimney, the kitchen fireplace could not have been as large as was common at the time, and its inadequacy may explain the erection of a kitchen ell in 1771. A small kitchen fireplace may have sufficed before Elizabeth Porter Phelps' marriage in 1770 when the house had few occupants.

Though the back hall was created in 1799 - by the erection of the long room's west partition - the bulk of its woodwork is Georgian. Most of this woodwork appears to have been reused from an earlier space, very likely the southwest room. When the back hall was appended onto the central hall in 1799, the later was already painted a glazed blue (see Central Hall section). The first paint layer on much of the back hall's woodwork, however, is a glazed yellow/brown, the glazed blue being its second color (actually its third, if one counts a thin plum-colored layer, which is probably a primer). The few back hall features which lack the yellow/brown layer are Federal in design or are obvious alterations. The back hall was thus created with reused Georgian woodwork from a yellow room, a room likely remodeled by Gaylord in 1775-86. The space was then painted a glazed blue to match the existing color scheme of the central hall, which had been applied almost fifteen years earlier, in 1785-86.

Virtually all of the woodwork on the west side of the hall from one post casing to the other (though not the northerly post casing itself) has the glazed yellow/brown as its first layer. This indicates that the wall has survived almost entirely intact from the earlier southwest room; it was simply left in place when the back hall was created. The yellow/brown paint is very similar in character to the light brown in the southeast bedroom on the second floor, and both paint and glaze display undissolved particles of verdigris pigment, as do most of the earliest paint layers throughout the house. The flat portions of the baseboards were originally painted red/brown, which is also the scheme in the southeast bedroom. The one feature which lacks the yellow or red paint layer, as well as the glazed blue which follows it, is the door leading to the dining room; this probably replaced an earlier door in the first half of the nineteenth century, judging from its subsequent paint history. The door moulding shares the paint history of the surrounding woodwork, indicating that the door opening was an original feature of the Georgian room. The wall's yellow/red paint scheme stops at the northerly post casing, which marked the original room's northwest corner.

The hall's east partition, by contrast, is a conglomerate of both new (1799) and reused woodwork. The wainscot between the doors of the long room and the utility closet is clearly two reused pieces butted together. Both pieces share the glazed yellow/brown paint layer of the west partition, and were probably reused from one of the other three walls of the southwest room. Their chair rail is a replacement piece, much thinner than the rail on the west side of the hall, and lacking yellow/brown paint beneath the blue layer. The baseboards appear to be original, but were lowered somewhat in the course of the remodeling; a paint line across the bottom of the wainscot marks their original position. The wainscot panels available to the remodelers must have been insufficiently dimensioned to cover the entire length of wall; a short section of planed board with its own baseboard and chair rail had to be inserted between the wainscot and the utility closet door, and a new wainscot panel was made to fit between the long room door and the south wall. Both features show blue as their first paint layer, as do the long room door and its moulding. Though the carpenter who created the new wainscot panel was consciously mimicking the earlier woodwork, he could not keep from adding the same quirk to his panel mouldings as appears on the panels of the adjacent Federal door.

The quality of the back hall's Georgian woodwork suggests that the southwest room ceased to function as a kitchen after Gaylord's remodeling of 1775-76. The building of a new larger kitchen in the north ell in 1771 must have rendered the original kitchen redundant. Its Georgian woodwork scheme of a few years later converted it to a more formal space, perhaps a dining room or combination dining room/sitting room. Whether the southeast room was similarly "Georgian-

ized" by Gaylord can only be speculated upon, but it would have been odd to bypass so prominent a space, especially if it served as the family's parlour.

By creating the long room in 1799, Charles Phelps was in one sense repeating an earlier remodeling plan. In the 1770's-80's, he had moved the house's kitchen into the ell, and had converted the former kitchen into a dining and/or sitting room. In 1799, he moved the kitchen still further into the north ell's addition, brought the sitting room into the former kitchen space, and expanded the parlour well into the former dining/sitting room. The common theme in both remodelings was the migration of the kitchen to the rear of the house to make way for an expansion of the house's formal (parlour) and living (sitting room) spaces. That the process was conducted in two stages instead of one testifies to either a lack of proper planning, or reaction to changing conditions. Charles was also greatly expanding his farming activities in the 1790's, and was anticipating that his son and future daughter-in-law would take up residence in the house by 1800. Both of these must have contributed to his decision by 1799 to greatly increase the space devoted to entertainment and family gathering.

The long room is the most thoroughgoing Federal-style space in the house, though it reflects a wider use of Federal design in most of Charles Phelps' work of the 1790's. The plaster walls have been built out beyond the face of the beams to achieve sharp corners at the ceiling line. The wainscot is plain rather than paneled, and is capped by a thin band with recessed ornament rather than a raised chair rail. The door and window mouldings have a small half-round element, and the door panel mouldings have a quirk in addition to the ovolo of the older doors. The windows are fitted with double sliding shutters - a separate panel and track for each sash - rather than the folding variety. The room's most striking features are a Federal-style mantel piece which repeats the wainscot's band decoration, and a broad arch which isolates its east wall from the rest of the room. The arch seems to have been positioned so as to give the fireplace the appearance of being centered on the south wall.

Random paint analysis reveals that all of the room's woodwork is contemporary. Its earliest paint layer is an unglazed grey/green, followed by white (perhaps a primer), light yellow, and the present light green. The most recent paint layer - applied under Dr. Huntington's direction in 1939 - deliberately mimics the first, and was certainly informed by paint scrapings.(24) The match is a very good one; the two colors are almost identical in tone and shade, though the original was grayer, with perhaps only a hint of green.

The room's floorboards are attached with clinched wrought nails, and are probably contemporary with the room. Dr. Huntington gave the floor its present "walnut" paint finish in 1939, according to his own record. The floor in the west end

of the room is considerably bowed,(25) arching down toward the fireplace hearth on one side and the room's northwest corner on the other. The sinking of the floor near the fireplace is related to the settling of the south chimney, which seems to have occurred after a considerable period of flooding in the first half of the twentieth century (see Maintenance and Repair section). In the northwest corner, however, the floor was actually laid with a dramatic tilt. According to measurements taken against the wainscot of the room's west wall, the floor drops 2 1/2" from the southwest to the northwest corner. The upper edge of the wall's wainscot remains level, however, and its earliest paint layer hugs the floor undisturbed for the entire distance. This indicates that the long room was created after the first floor framing had already sunk, the wainscot being kept level to compensate for the floor's tilt. Charles Porter Phelps' Memoir records that in 1814 he helped his father replace rotten framing beneath the front hall, "the floor having sunk several inches".(26) The front hall framing was apparently jacked back up to its previous level after the rotten members had been replaced, but the framing in the northwest corner of the long room could not be lifted without tilting the finish woodwork, so was left in its depressed condition.

The room's walls appear to have been papered from an early date. An early wooden nailer imbedded into the wall over the mantel - probably to hold a large mirror - is still partially covered by a wallpaper of a Federal-period pattern. Other small bits of wallpaper have been recovered from the intersection between the wall and mantel. These fragments are too small to reveal patterns, but do testify to multiple layers. The walls were in fact papered well into the twentieth century; a series of HABS photos of the early 1930's show the room covered with a small-print wallpaper with borders. This wallpaper and all subsequent layers were probably removed by Dr. Huntington in 1939, when he had the room repainted and partially replastered. The HABS photo also indicates that Huntington's replastering filled a number of large cracks, most notable a settlement crack on the fireplace wall. This removal of paper and replastering of walls was consistent with similar work Huntington did throughout the house.

South Bedrooms, Second Floor (Photos 47-52)

These two bedrooms have probably existed since 1752, though not in their present dimensions, nor with their current wall finish. The partition which originally divided the rooms ran from the center line of the first south chimney to the hall partition, a few feet to the east of the present dividing wall. This mirrored an identical partition between the two first-floor rooms below. The partitions on both floors were eliminated in 1799, when the original south chimney with its corner fireplaces was taken down, and the present south chimney, with fireplaces flush to the wall, was erected in its place.(27) The new fireplace on the second floor was made to

serve the southeast bedroom, so that the partition separating the two rooms had to be relocated further west. Relocating this partition changed the size relationship between the two bedrooms - the southwest bedroom, which had formerly been the larger of the two, was now made slightly smaller.

The new partition, which can be easily examined from above by removing attic floorboards, incorporated much material from the earlier one. Its core is composed of two rows of planed, vertical, feather-edged boards, arranged back-to-back, which are similar or identical to other early partition-boards found elsewhere in the building. Unlike the other partitions, though, this one was disassembled, moved, and re-erected, with the intention that it be replastered. Its boards are thus not in their original relation to one another, some facing one way and some the other, and none of their joints properly fitting together. They range in width from 10 3/4" to 15", and in thickness from 3/4" to 1 1/4". All are whitewashed on the planed side, the whitewash appearing as bright and fresh as when it was applied, but lacking the blue sponge-decoration that appears on whitewashed work elsewhere in the house.

This early vertical boarding had already been covered over by plaster and Georgian woodwork when the wall was relocated in 1799. A vertical line of disturbance in the plaster of the north wall in the south-east bedroom marks the location of the original partition. The room's Georgian crown moulding, beam casing, and baseboarding is broken along the same line. Paint analysis confirms that much of the woodwork to the west of the line is more recent than that to the east. The room's earlier Georgian woodwork - including the window mouldings, shutters, entrance door and moulding, post casing, and the beam casings to the east of the above line - all share a glazed light brown as their first paint layer. The light brown is similar in tone to the yellow/brown on the earliest wainscot of the back hall - and both paint and glaze are filled with particles of undissolved verdigris pigment. The baseboard mouldings are also painted light brown, but the flat part of the baseboards was first painted the same red/brown which appears on baseboards - and stairs -elsewhere in the house. The baseboards and beam casings on the western portion of the north wall were probably relocated there from the demolished west wall, as they share the same paint scheme. The Georgian woodwork of the present west wall, however, and the western portion of the south wall, has a light green/yellow as its first layer. The light green/yellow is the second layer on the older Georgian woodwork, indicating that it was applied to the room after the partition had been moved. Thus, some of the "Georgian" woodwork in the western third of the room actually dates to 1799.

The south wall of the south-east bedroom also dates to the 1799 remodeling. This partition was built flush with the face of the new fireplace, a few feet in front of the room's original south wall. The area between the two partitions

forms a large cupboard (next to the chimney) and an even larger walk-in closet (between the cupboard and the east wall). All of the woodwork on the new partition, including the fireplace surround, baseboards, the closet door and door moulding, and the cupboard door moulding - though not the cupboard door itself - was first painted light green/yellow, the 1799 room color. The two paneled cupboard door has the same glazed light brown paint next to its wood as appears on the room's earlier woodwork, indicating that it was reused. This door probably connected the southeast and southwest bedrooms, as it is virtually identical to the door which connects the two north bedrooms. The woodwork of the room's original south wall, including baseboards, post casings, beam casings, window mouldings, and even shutters, remains intact within the closet.

The room's Georgian woodwork, glazed paint layer, and plaster walls are doubtlessly contemporary with the same features in the rest of the house (see Central Hall section). Paint analysis on the room's entry door jambs, where the first paint layers of the hall and room overlap, indicate that the room was painted after the hall, though both layers could have been applied in a single episode. The light green/yellow color of 1799 is similar to the first paint layer in the long room below, which was finished at the same time. The full paint history of the room's woodwork reads:

from the wood:
light brown with a green glaze (red/brown on the flat portion of the baseboards)
light green/yellow
light grey
light grey (present color)

The plaster walls of the southeast bedroom are presently covered with a modern oil or latex paint, as are most of the walls in the house. Beneath the present layer is a green paint layer, probably also of modern origin, and beneath this is the residue of a bright yellow calcimine (glue-based) paint. This yellow calcimine paint still covers the walls of the room's walk-in closet. Though its crudeness makes it appear to be quite early, the calcimine layer does not predate 1880, and is probably much later, as it covers the heads of some of the wire nails used to hold in place the wooden support for a line of coat hooks. Wire nails are late 19th/early 20th century in origin.

A very small fragment of wallpaper was recovered from beneath the calcimine paint at the intersection between the room's plaster and one of its window casings. The fragment is much too small to display any pattern, but it explains why the plaster finish-coat is bare of coatings beneath the calcimine layer. The recovered wallpaper fragment likely dates from the later half of the nineteenth century, though the discovery of a Federal-period wallpaper in the long room below hints that this room may have been similarly finished follow-

ing the 1799 remodeling. The careful removal of the earliest, Federal-period coathangers in the walk-in closet - those held with wrought nails - might yield some information as to how the room's walls were finished prior to the remodeling.

The spring latch on the bedroom's entry door was placed there by Dr. Huntington in 1922, according to his own records.(28) The room side of the door exhibits shadow-lines from two earlier box-locks. The first, smaller box-lock was contemporary with the door. This was replaced by a larger box-lock prior to, or in conjunction with, the room's Federal-period remodeling. The Federal box-lock covered a large area of the glazed light brown paint surface, which can still be examined, though its glaze has darkened considerably. The door's H-L hinges are its original hardware.

The southwest bedroom was probably finished much like the southeast prior to the 1799 remodeling, though no evidence of Georgian finish-work remains. Its walls were built out to the face of its beams during the course of the remodeling, resulting in the sharp corner between plaster wall and ceiling that became fashionable in the late eighteenth century. The walls of the long room below were built out to achieve the same effect - that of hiding the house's structural members. Though the room appears spartan today, being almost entirely without finish woodwork, it would have seemed quite modern just after the remodeling. While traveling in 1802, Elizabeth Porter Phelps wrote her husband Charles to tell him where she had placed the key to the southwest chamber because "if you should have smart folks to lodge you may want it".(29) Though she also advises him where to find keys to a number of other bedrooms, the southwest chamber is the only one she mentions in the context of "smart folks". This is despite the fact that it is among the smallest of the house's bedrooms and lacks a fireplace.

Elizabeth refers to another of the house's bedrooms in the same letter as the "parlour chamber".(30) This may have been the southeast bedroom, which had, until the creation of the long room in 1799, been above a small front room which likely served as the house's parlour. The long room is never referred to as a "parlour" in family correspondence, nor is the sitting room in the north ell. The present Bishop's Study became a parlor for Theodore Huntington and his wife in 1840, but was a bedroom at the time of Elizabeth's letter.

North Bedrooms (Photos 53-55)

The two north bedrooms appear to have been part of the house's earliest floorplan though, like those to the south of the hall, their appearance was greatly altered in the last quarter of the nineteenth century. Judging from evidence in other early spaces, these rooms were probably also finished with vertical feather-edged partitioning in the mid-eighteenth century. The rooms' wall cavities could not be

accessed from above or below, so confirmation that pre-Georgian partitioning still existed beneath the present wall finish could not be obtained. Such partitioning might still be discovered by carefully removing small pieces of base-boarding in both rooms.

The Georgian woodwork in the two rooms was probably executed by joiner Samuel Gaylord in the late 1770's or 1780's (see Central Hall section). The rooms' baseboards, cornice mouldings, and window sill mouldings are identical to those in the southeast bedroom and east first-floor bedroom. The door and window mouldings of the two rooms are identical to those in the southeast bedroom and a door moulding in the back hall. Both rooms have folding shutters of the type found throughout the house. Most of the rooms' hardware is also early, and is similar or identical to hardware in the other Georgian spaces.

The northeast bedroom is substantially larger than the northwest, and has the additional amenity of a fireplace. This fireplace was added onto the north chimney stack at an early date, partially co-opting the flue of the east first-floor bedroom below. This is probably the fireplace that Elizabeth Porter Phelps' diary records being added to "Mother's Room" in 1782 (see Chimney section). As Gaylord was also finishing the house's rooms in this period, 1782 is likely the date in which the northeast bedroom received its woodwork. Paint analysis reveals that the first paint layer on the room's woodwork - a bright pink/orange - is shared by the narrow "mantel" of the fireplace surround.

The present pink/orange color on the room's woodwork - applied by Dr. Huntington in the 1960's - is a close approximation of the room's first woodwork color. The original pink/orange was only part of a more complicated scheme, however. The flat portion of the fireplace surround was either grained or marbelized - the areas exposed through microscopic analysis were not large enough to reveal the full decorative pattern, though black feathering over a salmon-colored ground was clearly discernable. A similar but not identical decorative scheme constitutes the first paint layer on the moulding surrounding the room's entrance door. The remainder of the surround was painted pink/orange at the same time. Further analysis might reveal that this graining or marbelizing was used to accent woodwork features throughout the room. The present investigation did not offer time to conduct a thorough search.

The double wall between the two bedrooms - which holds three closets and a passage - may have replaced a single wall when the rooms were remodeled by Gaylord. A section of the partition facing the northeast bedroom was examined from behind by cutting into one of the two closets off the passage. Though only one end of the partition was visible, it appeared to consist of rough-sawn plank, rather than the feather-edge boards which constitute the house's earliest partitioning.

The few visible closet floor joists showed no sign that an earlier partition was centered in the space, but the removal of more closet floorboards might yet reveal signs of an earlier wall.

Like most rooms in the main section of the house, the two north bedrooms were covered with wallpaper in the early twentieth century, and may have been so treated at a much earlier date. Dr. Huntington recorded the stripping of wallpaper in both rooms in 1938. No wallpaper fragments could be located in either room, though diligent searching might still reveal small scraps.

Notes

1. Notes made by James L. Huntington from Sarah Porter's Diary, in the possession of PPH Foundation; diary at Jones Library, Amherst College

2. PPH Coll., "An Inventory of the Estate of Capt. Moses Porter..." (1756), (xerox),

3. Forty Acres, p. 28; Estimate, Frank L. Huxley to J.L. Huntington, Oct. 24, 1921, in "PPH Business" box, PPH Foundation. The contractor proposes in this estimate that the existing foundation stones be added to the mortar mix.

4. PPH Coll., "From the account of his life by Charles Porter Phelps, written 1857", p. 49, (typewritten manuscript, source unknown).

5. William N. Hosley, "Architecture" in Wadsworth Atheneum, The Great River: Art & Society in the Connecticut Valley, 1635 - 1820, Hartford, CT: Wadsworth Atheneum, 1986, pp. 102-04

6. Ibid, pp. 74-75, 80-81

7. The best discussion of overhangs is in Abbott L. Cummings, The Framed Houses of Massachusetts Bay, 1625 -1725, Cambridge, MA: Harvard U. Press, 1979, pp. 72-77

8. Charles Porter Phelps

9. PPH Coll., Phelps & Huntington Correspondence, 1796-1802, Letter, Elizabeth Porter Phelps to Sarah Parsons (Phelps), July 12, 1799

10. Charles Porter Phelps

11. Letter, E.P. Phelps to Sarah Parsons (see "9")

12. PPh Coll., Phelps & Huntington Correspondence, 1814-1830. "The House in 1820" (floorplan and notes). This anonymous document was authored between 1877 and about 1900 by a family member. It includes the line "F.D. Huntington finished the N. attic room in 1877".

13. Kevin Sweeney, "Mansion People: Kinship, Class, and Architecture in Western Massachusetts in the Mid Eighteenth Century", Wintertur Portfolio, v.19, no.4 (Winter, 1984)

14. PPH Coll., Huntington Family Correspondence, 1836-1840. Letter Elizabeth Phelps Huntington to Frederic Dan Huntington, Nov. 30, 1840.

15. Philip Zea, "Furniture" in The Great River, pp. 239-40; Ledger, Samuel Gaylord, Jr., Hadley, 1763-1790, 57, Henry N. Flynt Memorial Library, Deerfield

16. Ibid

17. Ibid

18. PPH Coll., "Dr. James Lincoln Huntington's 1960 Tour through the Porter-Phelps-Huntington Museum, altered June, 1971. DAC/cc Mrs. D. Sessions"

19. Forty Acres, p. 5

20. PPH Coll., Phelps Family Correspondence, 1796-1802. Letters Elizabeth Porter Phelps to Charles Phelps, Jan. 9, 1802 and May 16, 1802

21. PPH Coll., Huntington Family Correspondence, 1836-1840. Letter Elizabeth Phelps Huntington to Frederic Dan Huntington, Nov. 30, 1840, also see letter of Mar. 22, 1841

22. Ibid

23. PPH Coll., Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Elizabeth Phelps Huntington, Aug. 6, 1802

24. PPH coll., Dr. James L. Huntington's Journal/Scrapbook, 1922-1936, p. 114, also see p. 9

25. Ibid, p. 31

26. Charles Porter Phelps, p. 49

27. See EPP diary entry, June 2, 1799

28. Huntington Journal/Scrapbook, Nov. 26, 1922

29. PPH Coll., Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Charles Phelps, Jan. 9, 1802

30. Ibid

NORTH ELL (Photos 1, 3, 6, 56, 74; Drawings 4, 5, 10, 11)

Relation to the House

Most 20th century observers have assumed that the north ell - at least that portion which encloses the dining room, pine room, and prophet's chamber - is contemporary with the main portion of the house. Dr. Huntington's printed tour states authoritatively that "The house that he [Moses Porter] built was the ell that extends to the west from the main house, and the main part of the house..." and subsequent authors have accepted this chronology.(1) The physical evidence clearly indicates, however, that the north ell is a later addition and was constructed in two separate stages. The house Moses Porter built in 1752 appears to have been without appurtenances of any kind.

The weathered siding which entirely covers the west elevation of the house is evidence that this wall stood completely exposed for a long period. These boards are still exposed on both stories in the joint between house and ell, and are punctuated only by later door openings cut to connect the two structures. The siding is markedly weathered, indicating an exposure of years if not decades. The wall's overhang is similarly intact between house and ell.

Raising the north ell necessitated closing up the house's second-story hall window, whose boarded-up cavity now straddles the joint between the two structures. The window was relocated a few feet to the north, where it again interfered with the building of an addition to the north ell in the 1790's, and its bottom sash was encased beneath the new roof slope. Dr. Huntington restored this window to its full length in 1932 by exposing the lower half of the opening and depressing a small section of the north ell's roof.(2)

The frame of the north ell is entirely distinct from that of the house. The ell's easterly bent, including sill, posts, plate, and rafters, stands clear of the siding of the west wall of the house, and is connected to it only by its own sheathing. The distance between the westerly sill of the house and the easterly sill of the ell is 6 1/2", enough to allow the plate and rafters above to clear the house's overhang. The plate of the ell is about level with the middle girt of the house. Were the ell constructed simultaneously with the house, its eastern-most floor joists would have been let into the house's sill and second floor girt. The erection of a bent abutting the frame of the house would have been unnecessary.

Dr. Huntington was cognizant of the weathered sheathing between house and ell, and the separate characters of their frames, but did not see these as conflicting with his own hypothesis that the house had been turned 90 in the 1780's. Predisposed to accept the ell as contemporary with the house,

he believed the above evidence only supported his claim that the north ell was originally connected with the house's south wall, in the vicinity of its present south door.(3) The framing of the ell fails to support his case. If the ell were built integrally with the south wall of the house, its joists would have been pocketed into the house's frame. In disconnecting the two structures, a new bent or similar reinforcement would had to have been constructed to support the east end of the ell, and its character as an alteration would be discernable. The easterly bent of the ell is identical to the rest of the frame, however, and appears to have always been integral. In short, the ell framing bears no evidence of having been previously attached to a larger structure.

The exterior wall structure of the two frames is also dissimilar. While the house is planked, the ell has a more conventional stud wall.

Original Portion and Addition

The north ell comprises both an original section and a substantial addition. The original frame encloses the present dining room, pine room, and the vestibule between them, as well as the prophet's chamber and main section of the attic above. It also encloses a narrow strip of space to the north of the ell chimney, corresponding in width to the outer edge of the hearth-stone in the north kitchen. The addition encompasses most of the north kitchen, the passage connecting the kitchen with the central hall of the house, and the two rooms now used as baths. Its attic was too shallow to be finished into usable space.

The clearest demarcation line between the two sections is in the ell's attic. Both slopes of the roof were originally of the same pitch, and were supported by hewn 5" x 5" rafters. These still remain on the south side. In building the addition, however, the northern hewn rafters were replaced by much longer sawn rafters, creating a broader north roof slope of much shallower pitch. The seats of the removed north rafters are still discernable in the original north plate, which, with the rest of the original north wall framing, was left in place when the ell was extended. A shadow line also marks the pitch of the original north roof slope against the west wall of the house. A series of clapboard nails paralleling the shadow line indicates that the clapboarding just outside the original roof was removed - and perhaps reused - when the roof was extended.

This evidence is mirrored in the ell's first-floor framing. The summer beam which bisects the present floor frame is actually the northerly sill of the original ell. Its dimensions and method of joinery are identical to those of the other three original sills. It also sits directly under the redundant plate in the ell's attic which marks the north wall's original location. While the floor joists to the

south of this timber are 6" diameter logs laid east to west, those to the north of it are a combination of logs and hewn beams of varying dimensions, laid north-to-south.

Most of the studs, sheathing, and siding of the original north wall seem to have been removed when the addition was raised, though some of this material was doubtlessly incorporated into the new north wall. The sash and window casings on the present north elevation, for instance, were probably reused from the earlier wall. The only section of the original north wall which may remain preserved, though encased within later material, is a piece to the west of the north kitchen, which now divides the small shelf-lined room from a short hallway. This partition is over 8" thick.

A section of the original plate on the ell's south wall has been replaced by a partially-hewn log, a repair probably made in this century. The new plate extends from the corner of the north and south ells to the wall of the main house. The original section of plate had probably rotted, as the tenon of the post nearest the house has also been cut away. The brace between this post and the plate has been nailed to the inside of the sheathing boards and no longer serves a structural function. The rafters, roof boards, and dormer above the replaced section of plate were apparently unaffected by the repair, as all are unquestionably early.

Siding

The ell's south and west walls are original elevations, the north wall being integral with the later addition. Half of the south wall is now masked by the south ell, but the joint between the two structures is sufficiently wide that the entire upper portion of the masked section can be examined from the ell's attics. That half of the south wall which is closest to the house is presently covered with clapboards. The south wall can also be examined from behind in the ell's attic, where it constitutes an unfinished knee-wall.

The south wall's earliest siding material is a combination of rustication and flush boarding. This is visible in the joint between the two ells, and at the rear of a closet abutting the wall in the south kitchen. It can also be examined by removing clapboarding. The siding is nailed to a 1" sheathing layer, which in turn is nailed directly to the ell's wall studs. The rusticated siding extends from the ell's joint with the house proper to a point just west of the ell's south door - the door which connects the north ell with the south kitchen - where it abruptly becomes flush boarding. The flush boarding seems to relate to an early shed, which once covered the western third of the ell's south wall (see below). It bears no evidence of having been painted, and is not weathered as deeply as the rustication.

The ell's rusticated siding is identical to that on the house and is on plane with the rustication on the first story of the house's south wall, though a significant joint occurs at their junction. The boards are scored diagonally above the door to the south ell in mimicry of a flat arch. This is similar to the articulation above the front door of the main house. It also serves as proof that this door has always existed in its present dimension.

Sections of rusticated siding which were exposed by removing clapboards have the same weathered paint layer as the siding on the house proper - red/brown on the blocks and white in the joints. The small section of rustication within the south kitchen closet bears the same paint evidence. The rustication visible from the attic however - above and to the west of the ell's south door - is seemingly devoid of all paint. This area may have been partially covered by the early shed addition, and was perhaps never painted.

The clapboarding on the exposed portion of the south wall is nailed directly over the rusticated siding. Some of the clapboards above the windows are 9'-10' long, much longer than those on the south wall of the house, but shorter than some on the south ell. Their reveal is a uniform 3", like that of the house, and all are attached with wrought nails. This elevation was probably clapboarded at about the time that the south ell was raised and the main house re-sided (1797-99).

The early clapboards on the north wall of the ell are necessarily short, as they extend only between windows. The bottom 2' of clapboarding, beneath the windows, is held with wire nails, and is likely a 20th-century repair. The earlier clapboards have a reveal of 4", greater than on any other elevation. All are attached with wrought nails. These clapboards are probably the original siding material of this wall, and date from the ell's extension in the late 1790's.

The ell's short west wall, which faces the stoop, is sided with wide rough-sawn boards, fitted together with tongue and groove joints, and attached with wrought nails. This siding is probably contemporary with the original portion of the ell. Though the west elevation of the south ell is covered with similar boards, there is a clear break in the siding at the joint between the two structures. The boards on the south ell are also fit together with rabbets, rather than tongue and groove joints. Most tellingly, the boards on the north ell are cut to frame an early, but now-missing window casing, which stood between the two present windows of the pine room.

Shed Addition (Drawing 14)

There is ample physical and documentary evidence that a shed

addition existed against the south wall of the north ell, in the location of the present south kitchen, prior to the raising of the south ell. The abrupt ending of the rustication and the lack of either paint or signs of weathering on the flush boarding strongly suggests that the area to the west of the ell's door (and perhaps the door itself) was originally covered. The character of the addition is elusive. A series of vertical chisel-marks in the flush boarding - which suggest the vertical joints in the rustication but are unaccompanied by horizontal joints of the same profile - proceed along a diagonal line to the west of the door. This suggests the line of a pitched roof, whose ridge would have been centered over the present door between the south kitchen and pine room. On the other hand, a large wooden block - actually a segment of a shaped wooden knee - was found attached with wrought nails to the eaves above the flat arch of the ell's main door. This block seems to have been part of a series which stood above the door, and possibly supported a pent roof projecting outward from the south wall of the ell. The weathering on the rusticated siding clearly subsides above the flat arch, just below these blocks, further suggesting that this area was protected from an early date.

The above evidence may pertain to two separate roof structures. The pitched roof may have covered the woodshed, while a smaller pent roof stood over the door, partially supported by the woodshed's roof. The pent roof would have been added - perhaps as an afterthought - to shed run-off from the pitched roofs of the woodshed and north ell.

This shed is probably the one referred to in a letter Elizabeth Whiting Phelps wrote to her mother, Elizabeth Porter Phelps, from Boston in 1797.

> This morning when I awoke and heard the rain and wind beating against our windows - I turned to Mary and began to tell her how I presumed this South wind had wet our shed - before I tho't that it was demolished, and I hope a low building reared in its stead.(4)

While her grammar is somewhat confusing - "tho't" is probably used here as a synonym for "remembered" - Elizabeth seems to be referring to an open shed on the south side of the house which had only recently been demolished and, she hoped, replaced in her absence by a more sheltering "low building". Elizabeth Porter Phelps' diary confirms that a "woodhouse", undoubtedly the present woodhouse of the south ell, was raised on October 13, 1797, two weeks before her daughter's letter.

Given that it was replaced by a woodshed in 1797, the earlier "shed" was probably also used to store wood. This would explain its apparent openness, and its position just outside the ell's south door, which provided direct access to the kitchen (see below). A woodshed would have been an integral

component of the ell kitchen's operation.

Chimney (Photos 57-59)

The north ell chimney is more accessible to investigation than the stacks in the main portion or south ell. Though most of its foundation was encased in concrete in 1922, Dr. Huntington left its west face exposed, probably because it contained two built-in shelves he found interesting. The stack is open to view in the attic of the ell, and its first-floor housing can be accessed by removing attic floorboards. Two of its flues are large enough to allow entry, and both were thoroughly explored from the inside. Lastly, the large, plastered cupboard between the three fireplaces on the first floor allowed some limited excavation into the stack's interior.

The chimney has been greatly altered - only one of its three existing fireplaces, that of the pine room, appears to be original to the stack. The flue of the pine room's fireplace runs vertically from its smoke shelf, and is entirely integral with the main portion of the chimney. Flue and fireplace are laid up in the same clay-based mortar, as are the upper sections of the chimney's two other integral flues. The fireplace is also related to the room's wall structure - vertical boarding which splays back to meet the chimney breast.

The brick floor in the cupboard between the pine room and dining room was removed during the course of the investigation, revealing the base of a large east-facing cooking fireplace. The lower portions of its back wall and south (splayed) jamb are still discernable, though the rest of the fireplace - between hearth and chimney throat - has been entirely removed. Portions of the lower throat, which mark the position of the fireplace's lintel, also survive beneath the plaster in the back corner of the cupboard. The height of the opening between the original hearth and lintel is clearly indicative of a cooking fireplace. The horizontal dimension cannot be measured nor the bake oven located without removing finish material in the dining room.

This early kitchen fireplace was directly behind that of the pine room, and faced the present dining room. Its large flue constitutes another portion of the original chimney stack. Like the pine room flue, it seems to have risen in a straight, vertical line from its smoke shelf. The upper portion of the flue and the base of the fireplace are both laid up in clay-based mortar.

This kitchen fireplace was removed to facilitate the construction of the present dining room fireplace, accompanying a major change in the ell's floorplan. The smaller dining room fireplace with its Federal-style surround and mantel was built on top of the earlier fireplace's hearth. The kitchen

fireplace was completely dismantled, both to salvage its bricks and facilitate the present cupboard, but its flue was left intact to service the new dining room fireplace and that of the north kitchen. The throat of the dining room fireplace angles over the location of the earlier fireplace to co-opt its flue.

There is a third original flue in the ell chimney stack which does not connect to any of the existing fireplaces. This appears to begin in the ell's cellar, and may have serviced a now-missing basement fireplace. At least a portion of the ell's basement was excavated from an early date, given the presence of built-in shelves in the chimney base. A basement fireplace or oven may have existed within one of the three walls of the chimney base which Dr. Huntington covered with concrete in the early 1920's. The flue is too narrow to allow entry.

The fireplace of the north kitchen is clearly an addition, built onto the earlier stack when the frame of the north ell was extended. The dimensions of the original ell preclude the possibility of an early fireplace in this location, only a few feet from its north wall. An examination of the north kitchen flue reveals it to be scabbed onto the side of the original chimney. The later flue is semi-circular in cross-section, its back wall being the north face of the earlier stack. The two are easily differentiated by their mortars - that of the earlier brickwork is clay-based, while that of the north kitchen fireplace and flue is of lime. The later flue terminates just above the attic floor level at a hole punched into the side of the original kitchen flue. Both the north kitchen and dining room fireplaces share the upper portion of this earlier flue. This saved their masons from having to expand the dimensions of the original chimney stack above the roofline.

The face of the north kitchen fireplace is parged with a thin coat of Portland cement. This covers some repointing and re-setting of brick in the fireplace jambs and bake oven which occurred in 1966-67. The curator's report of 1966 credits the severe weather of that year with damaging the fireplace, though a HABS photograph taken in the 1930's also reveals settling cracks beneath the bake oven.(5) Cement was put into the cracks in the hearthstone at the same time that the parging was accomplished, though the hearth has continued to move and has now fragmented the cement. The repair work of 1966-67 was restricted to the fireplace and back oven, as the flue is still covered with nineteenth/early twentieth-century creosote.

A large brick smoke oven is connected to the flue of the original ell kitchen fireplace in the attic story. The smoke oven was obviously added, given it is not integral with the flue; the walls of the smoke oven are also built on top of attic floorboards. Its bricks are similar to those in the main stack and are laid up in similar (but not identical)

clay-based mortar. Some of the mortar joints bear evidence of tooling. The oven's wooden door is secured by H-hinges held with wrought nails, and the door frame is pegged together in the manner of early window casings. At a later date -probably in the mid-nineteenth century - the upper portions of both smoke oven and main stack were covered with a lime parging. This may be the oven which Elizabeth Porter Phelps refers to in a diary entry of Dec. 7, 1783: "Monday Mr. Abraham Billings here to make a new oven".

Dating the North Ell

All of the foregoing evidence suggests that the present north ell was the product of two major construction episodes:

1. The raising of the original north ell frame behind the main portion of the house, and the building of the original chimney. This stack had two fireplaces - one for the pine room, and the other for an early kitchen, which occupied approximately the same space as the present dining room.

2. The expansion of the ell to the north - resulting in the present north kitchen, its pantry, and the two ancillary rooms to its west - and the conversion of the original kitchen area to a sitting room (present dining room). This last change was accomplished without any alteration to the framing, but involved the removal of the original kitchen fireplace and the construction of the present one in the dining room.

The first episode is referenced in the Porter and Phelps family papers, most importantly Elizabeth Porter Phelps' diary. Dr. Huntington's misreading of some of these documents has caused much confusion as to the ell's construction and remodeling dates. In fairness to Huntington, however, Elizabeth's diary entries, on which he based much of his own chronology, are often frustratingly brief and general. Short references to "the kitchen" and "the chimney" in a house with multiple examples of these features are almost useless if unaccompanied by a rigorous physical investigation. Only after a chronology is developed from the physical evidence do these terse diary entries form an understandable and logical pattern.

Elizabeth married Charles Phelps in 1770, and the following year documented the first of the many physical changes her husband would work on the house over the next three decades. In April, 1771, she recorded "Monday our kitchen raised", and that November "Our woodshed raised on Fryday." Believing that the north ell had been constructed in 1752, Dr. Huntington interpreted these as pertaining to the south kitchen, and

the woodshed in the south ell. The south kitchen has ever since been referred to as the "1771 kitchen". The south kitchen and woodshed share an entirely integral frame, and could not have been raised seven months apart (see below). Neither do the Federal-style facades of the woodshed and the original corn-barn, which were also integral, suggest a date of 1771.

The event Elizabeth was describing in 1771 was most likely the raising of the north ell. The "kitchen" she refers to was that in the area of the present dining room, hereafter called the "first ell kitchen". The woodshed erected seven months later was probably the shed structure which covered a portion of the ell's south wall.

Dr. Huntington never assigned a date to the north ell's addition, as he could find no reference to it in Elizabeth's diary or other family papers. Although he realized that the ell had been extended northward at some point, he believed that at least a portion of the north kitchen had always existed within the house. The north kitchen has consequently been referred to as the "1752 kitchen" during most of this century. While a small strip of the present kitchen is indeed within the earlier frame, it is much too narrow to have constituted a separate room. The locations of the north kitchen fireplace and flue clearly indicate that they were built in conjunction with the addition.

The conversion of the ell kitchen to a sitting room and the raising of the north ell's addition are not directly referenced in any family documents. It seems likely, however, that both took place simultaneously, and in conjunction with the remodeling of the long room in 1799. The extension of the original parlour in the main section to create the long room probably eliminated what was an existing sitting room in the southwest corner of the main house (see below). The sitting room thus migrated from the main portion to the 1771 kitchen in the ell, and the kitchen was moved into the new addition at the same time. The north kitchen had to have been erected before the sitting room was created, as the family could not have been without a kitchen for any length of time.

The finish of the three rooms - the sitting room, north kitchen, and long room - also suggests that they are near contemporary. All have Federal-style woodwork which, while executed to different levels of ornateness, is very similar in feeling. Each room features plan wainscotting and a Federal-style fireplace mantel; the sitting room and north kitchen share a number of mouldings on their fireplace walls. The fireplaces in the sitting room and north kitchen, as well as the two upstairs fireplaces in the house's south chimney stack (1799) are all laid up in lime mortar, in contrast to the clay-based mortar used in the house's earliest masonry.

Dining/Sitting Room (Photos 60-64)

The remains of an early cooking fireplace behind the present dining room fireplace establish that this room was originally a kitchen, undoubtedly the one which Elizabeth Porter Phelps recorded raised in 1771. The appearance of this room has been greatly altered by remodelings. As built, the kitchen likely extended to the north wall of the 1771 ell, i.e. into the area occupied by the cellar stairs, the stairs from the back hall to the attic of the ell, and the small passage-way and closet between the cellar stair and chimney. The room's north partition and the stair from the back hall to the ell's attic are both partly constructed from reused lumber. Some of the vertical boards which form the stairwell were originally whitewashed, while others were painted blue/green; these finishes were subsequently jack-planed off, but the material is still visible in some cracks and around nail holes. The adjacent cavity behind the room's north partition can be peered into from the basement, and through an electrician's hole in the stairwell; from both perspectives, the rear side of some of the north wall's wainscotting is painted a glazed blue/green. Both the whitewash and the blue/green paint color are associated with the house's Georgian and pre-Georgian woodwork, including c.1771 work elsewhere in the ell. These alterations - the conversion of a narrow strip of the kitchen space to stairs, passage, etc. - doubtlessly occurred when the kitchen was converted to a sitting room around 1799.

Given that the stair from the back hall to the ell's attic is a later feature, another stair must have connected the two floors of the north ell before c.1799. The existence of the smoke oven in the ell's attic from at least 1783 makes it almost certain that the attic space was functionally related to the early kitchen, and that the two were connected by a staircase. This was most likely a winder in the vicinity of the chimney, perhaps in the space now occupied by the north kitchen fireplace and flue. Unfortunately, none of the early material in this area survived the Federal-period remodeling.

No clear picture has emerged of the kitchen's wall finish. The present plaster and woodwork are certainly related to the c.1799 remodeling. The other spaces in the original north ell were finished with vertical feather-edged boarding, whitewashed, and, at least in the "pantry" and vestibule areas, covered with blue sponge decoration. Elizabeth's diary complicates the issue, however, noting on Nov. 8, 1772 "Monday father Phelps began to plaister (sic) our new kitchen". This "father Phelps" was Elizabeth's father-in-law, Charles Phelps, Sr., a professional mason. The plastering she refers to could have been restricted to the ceiling, though it might just as well signal the construction of a Georgian interior, which would probably have been the earliest in the house, preceding the supposed dates of Gaylord's general remodeling of the main section by 4-5 years. The physical investigation shed little light on the problem, as only the room's west and

north walls could be examined from behind, and both post-date the kitchen. The structure of the south and east walls - both presumedly original - might still be examined by sawing into and removing pieces of baseboarding at certain existing vertical seams.

The room was probably converted from a kitchen to the family's sitting room around 1799. The creation of the long room as a parlour or formal space pushed the family's private area from the southwest room of the main house into the north ell. The kitchen was made redundant about the same time by the construction of the present north kitchen. The room's conversion is first alluded to in a letter from Elizabeth Porter Phelps to her husband dated 1803, in which she directs him to some "cheese cloathes" (sic) in "the press bed place in the sitting room".(6) The "sitting room" in the house's "1820" floorplan is the former ell kitchen, and a "bedpress" is clearly marked in the room's northeast corner. Lines evidencing this press bed are still discernible in the corner's wainscotting and baseboards. Elizabeth made further reference to the room in a diary entry of May 21, 1804, reading "Wednesday began to paint the floors and walls of our sitting room".

Most or all of the present woodwork and plaster probably dates to the room's conversion at the turn of the nineteenth century. The general scheme of the room is Federal - the fireplace surround, the plain wainscotting with thin chair rail, the lack of a moulding on the beam casing, and the sharp corner between wall and ceiling. The mouldings around the doors, windows, and the cupboard against the north wall all have an ovolo profile, unique in the house except for the moulding around the Federal-period door to the small study in the second-floor hall. The moulding around the cupboard door on the west wall is different from the rest, but is related to the mouldings in the long room and north kitchen. The door connecting the room with the back hall is a later (post-Federal) feature, as it shares none of the back hall's early paint history. The room's other two doors are consistent in design with some of the house's Georgian doors, as are the folding window shutters, all of which may be holdovers from the earlier finish scheme.

The room's paint history is extremely complex, and will require much more study before the earliest color schemes can be identified. While the rest of the house's rooms have no more than five or six paint layers and a couple of glazes, most features in this room are covered by twenty or more paint and glaze layers, many extremely thin or muddy, and some of which differ from feature to feature. The room's remarkable paint history has little to do with its age - though some of its wainscotting may have been fashioned from reused lumber, and its doors and shutters may pre-date the room. Even the fireplace mantel, which is obviously Federal in design, carries at least twenty paint layers. The room must simply have been repainted more frequently than the

rooms in the main section of the house.

Such frequent repaintings might be explained by the intensity of the room's use. In a letter to his son of Dec. 8, 1831, Dan Huntington writes:

> We have a Franklin Stove and a new carpet in the sitting room: all together makes it so comfortable, warm and free from smoke, I do not know but we shall inhabit it day and night.(7)

The family may have done just what Huntington predicted through much of the nineteenth century, using the sitting room as a gathering spot at the expense of the long room and the other spaces in the main section. The intensive use of the room for relaxation, and its quite manageable size, may have made it far more the object of changing tastes than the other rooms in the house. This is probably the room which Elizabeth Phelps Huntington refers to in a letter to her son of Sept. 23, 1840, which discusses her fall redecorating plans:

> I will tell you that your sister and I, to drive away dullness, or to improve in some way our own accommodation, have been trying to brighten and lighten our little parlour, and by removing some of the causes of darkness, have endeavored to prepare for ourselves a comfortable and decent apartment for the winter.(8)

Given its depth of paint layers, the repainting of this room might have been a regular ritual at the house through much of the nineteenth century.

Though it is consistently referred to as the "sitting room" in nineteenth-century documents, the room was probably also used for dining from the beginning, given its number of built-in cupboards. In addition to the two surviving cupboards, the "1820" floorplan indicates that a large built-in cupboard occupied its southeast corner, opposite the location of the press-bed. The marks of this cupboard are still discernable in the woodwork. The closet opposite the cellar stair also serviced this room as a walk-in cupboard at some earlier date; paint lines on the closet's walls show the location of missing shelving, and a former door opening facing into the sitting room has been blocked up with split-board lath. The use of this type of lath to fill the opening indicates that the work was probably done prior to 1840.

Dr. Huntington repaired and skim-coated the plaster walls of this room in the 1930's or 1940's, as he did throughout the house. A HABS photo of the room taken in the early 1930's shows a considerable number of cracks and checks in the plaster which had disappeared by the time similar photos were taken after the Second World War. No evidence could be found of early wall finishes, though additional investigation might

still be carried out, particularly around the mantelpiece.

Pine Room (Photos 67-69)

This has been referred to as the "pine room" ever since 1943, when Dr. Huntington discovered finished pine partitioning beneath its plaster. Huntington had the room's plaster and lath entirely stripped away - except on the west wall - and did a small amount of "restorative" work, such as replastering the ceiling, and shutting up two door openings flanking the fireplace with matching vertical boards. He otherwise left the room as he found it beneath the plaster, not even attempting to remove or cover plaster stains. In 1965, he supervised the removal of the remaining plaster from the west wall and, not finding similar partitioning, planed some rough boards from the "sheds" to mimic those on the room's south wall, and nailed them horizontally around the windows.(9)

The room is within the earlier portion of the north ell, and almost certainly dates to 1771. Its north, east, and south partitions are probably original, and are similar in concept to the earliest partitioning in the main house and the vertical partitioning in the adjacent vestibule. The character of its three early walls varies considerably. The fireplace wall is the most novel and ornamental, splaying back to meet the chimney breast and incorporating two raised panels above the fireplace opening. Its boards are otherwise smooth-planed and tightly-jointed. The north wall is a more standard vertical-board partition, its boards being matched or half-lapped together and having small beaded edges. Both the east (fireplace) and north partitions are only one board thick and self-supporting, except for two upright nailers at the outer angles of the splays in the fireplace wall. The south partition is composed of horizontal feather-edged boards, supported by the studs of the ell's original south wall. According to the "1820" floorplan, this was once the back wall of a walk-in closet, which occupied all of the space at the southern end of the room, beginning at the southerly jamb of the vestibule door. The room's original south partition -the outer wall of the closet - was probably similar to the vertical-board north wall.

Bits of whitewash fill most of the cracks, joints, and knots on the three early walls, indicating that the woodwork was at one time completely covered by the material. This whitewashing was probably an early treatment. Elizabeth Porter Phelps' diary records regular spring whitewashings of rooms from at least 1783, and at least one pair of vertical board partitions in the main house were whitewashed prior to Gaylord's remodeling of c.1775-86. Early whitewashed boards can also be found serving as nailers or battened together to form doors in some of the Federal-period work. The board walls in the adjacent vestibule and pantry areas were whitewashed at an early date and covered with blue sponge decorations, which also appear on board fragments elsewhere in the house. Whether the whitewash in this room was similarly decorated is

a matter for speculation.

The door opening connecting this room with the vestibule to its east - which was boarded up by Huntington in 1943 - is undoubtedly early, and probably served as the room's main entry. Huntington moved a mid-nineteenth century door from this opening to the room's door opening with the south kitchen. The door opening to the left of the fireplace was a built-in cupboard in 1943. Huntington discovered that this cupboard was constructed from a bookcase, set into the opening upside down, with its feet just beneath the attic floorboards; he removed the bookcase before covering over the opening.(10) This cupboard may have been an original feature of the room, though it is equally possible that the opening connected the pine room with a stair to the attic, which may have existed in the present location of the north kitchen fireplace.

The room's early function is unclear, though the presence of a fireplace indicates that it was meant for regular habitation. Dr. Huntington occasionally referred to the room as the "kitchen chamber", linking it to an Oct., 1773 reference in Elizabeth Porter Phelps' diary which reads "Wed. joiners began to finish up our old ketching (sic) chamber". This was only two years after the ell was raised, however, so the word "old" would have been inappropriate in describing the pine room. The "ketching chamber" Elizabeth refers to was more likely the bedroom over the original kitchen - the southwest room on the first floor of the main house, which would have been the "old kitchen" in 1773.

The pine room was more likely the "keeping room", which is frequently mentioned in family documents from 1772. The keeping room is usually referred to in tandem with "the kitchen", suggesting that the two were adjacent. In 1811, Elizabeth noted that a Mr. Billings had come to fix the kitchen hearth and "our keeping room jams (sic)", and, two days later, that a Mr. Plumbley had whitewashed the keeping room and kitchen. Again, in a letter of Dec. 1802, Elizabeth described how Pene "has washed all the woodwork in the keeping room and kitching (sic)".(11) The keeping room was also equipped with a fireplace, for, in a letter of Oct. 1, 1814, Elizabeth writes "here by the fireside, in our keeping room, are your father and I sitting".(12) The pine room of course features a fireplace, and was adjacent to all three of the ell kitchens.

The keeping room seems to have performed at least two functions. As an extra parlour - which is suggested in the above passage - it would have given Charles and Elizabeth more privacy than they could enjoy in the family's sitting room. The room also served as an extra bedchamber, probably during family illnesses. Its isolation from the rest of the house and its proximity to the kitchen would have made it an ideal quarantine space. Elizabeth records on Aug. 30, 1772 "I moved out of my room and into the keeping room", and, in a

letter of Mar. 2, 1801, "Judy and Mitte got Mitte's bed into the keeping room and there I lay all day".(13)

The phrase "keeping room" disappears from subsequent family records, but in a letter of 1833, Elizabeth Phelps Huntington notes that her husband will soon be "altering the kitchen chambers".(14) This plural reference is probably to the pine room and prophet's chamber, both of which were flanked by kitchens in 1833, and evidence nineteenth-century alterations. The alterations made to the pine room in 1833 were probably the plastering of its board partitioning and hearth, the replacement of its main entry door, and the substitution of two 6/6 windows for the single window on its west wall. The present windows have a configuration and muntin profile indicative of the second or third quarters of the nineteenth century, and their frames are held together with cut nails. The early, single window they replaced stood directly opposite the fireplace in the center of the wall; its outline can be clearly seen in the wall's exterior sheathing boards.

The "1820" floorplan refers to this as the "milkroom". This may be a misnomer, or the room may have been used as such for a brief period following Charles Phelps' death. The plastering of the room's walls and the expansion of its windows later in the century seen incompatible with a storage-related function. The room was still being used as a bedroom - by Dr. Huntington's cook - when its pine partitioning was discovered and exposed in 1943.(15)

Vestibule (Photos 65-66)

The vestibule or small hall which connects the dining room and south kitchen, and which formerly linked these spaces with the pine room, is probably an original feature of the north ell floorplan. Prior to the construction of the south ell in 1797 (see below), the vestibule functioned as a link between the north ell and its dooryard, the ell's entry door having always occupied its present position. The actual fabric of the vestibule - feather-edged board partitions covered with various decorative finishes, paneled doors, and beam and post casings - shows some evidence of alteration, but is largely original to the space.

The room's vertical feather-edge partitioning is similar in character to that of the pine room and the early pantry area which stood north of the ell's chimney. Sections of this partitioning clearly represents the room's original finish. The vestibule's west wall, which it shares with the pine room, is at least as early as the pine room partitioning. The boards forming the room's north wall are cut horizontally at a line above the cupboard door. The tops of these boards were examined at their connection to the chimney girt above by removing attic floorboards, and were found to support a batten which in turn supports the riven lath of the earliest vestibule ceiling. There was no evidence in the girt of ear-

lier nailings. The lower partition of this wall was likely cut away in the last decade of the eighteenth century to facilitate the alterations to the north ell chimney, and the same (or similar) boards repositioned when the work was completed. The lower partitions of each board are held in place with wrought nails, and seem to have the same finish history as the stubs above. The remodelers could not have removed the entire wall during the chimney alterations without sacrificing the ceiling.

The room's finish history is complex and, like that of the dining room, will require further study. Preliminary analysis indicates that the earliest finish layer is whitewash, covered with dark blue sponge decorations. This same finish scheme covered the pantry area to the north of the ell's chimney and can be found on reused pieces of finish woodwork elsewhere in the house. The existing fragments of this whitewash scheme are very small and scattered; the bulk of the whitewash was removed before the present paint layer was applied, probably before 1800.

The whitewash is covered by a grained paint layer, which also constitutes the present top-coat. This graining is not as well-executed as that on the two doors leading off the second-floor hall (see Central Hall section) and has no close relative elsewhere in the house. The grained layer was covered over by wallpaper in the nineteenth century and is still coated by the darkened residue of wallpaper paste. A small strip of wallpaper bearing a mid to late nineteenth century pattern, and which was preserved behind a batten, survives on the north wall to the left of the cupboard door. The rest of the wallpaper was probably removed by Dr. Huntington in the first half of this century.

Between the execution of the graining and the first application of wallpaper, white paint was used to imitate simple raised door surrounds and baseboards on the vestibule's east and west walls. An imitation wainscotting - again consisting of a single layer of white paint - was applied to the east wall alone. The singularity of the east wall's "wainscotting" raises the question of whether these particular boards were reused from another room. It is possible, for instance, that the original ell kitchen was finished similarly to the vestibule, but with painted wainscotting, and that these boards were relocated from that room in the course of its 1790's remodeling. This could only be verified by the discovery of similarly wainscotted boards beneath the existing dining room wall fabric.

The cupboard behind the vestibule's north wall dates from the second quarter of the nineteenth century or later, judging from the use of cut nails to secure its shelving. Some of these shelves also bear evidence of paint and even wallpaper on their undersides, indicating that they were manufactured from pieces of finish woodwork. The cupboard door itself appears to be early, and may have been reused from another

location.

North Kitchen and Ancillary Rooms (Photos 70-73)

The north kitchen lies almost wholly within the c.1799 extension to the north ell. This was the third and final family kitchen, it having migrated here - via the present dining room - in response to the enlargement of living space in the south end of the house from 1771 onward. The house's fourth kitchen - the south ell kitchen of 1797 - was probably intended to serve the farm rather than provide meals for the family, though it may have evolved into a family kitchen by the second half of the nineteenth century.

Previous to the extension of the north ell, an oblong storage room or pantry stretched from the original ell's northwest corner - now a small room lined with bookshelves - into the area now occupied by the north kitchen fireplace and hearth. It probably connected with the original ell kitchen near the present closet opposite the cellar stairs. A section of feather-edged board partitioning which faced this early room, and which remains exposed in the passage between the north kitchen and pine room, is covered with blue sponge decorations over whitewash. The whitewash is broken by the shadow-lines of missing shelves, which appear to have extended through the partition's present door opening. The other side of these whitewashed partition-boards constitute the north wall of the pine room, which was also whitewashed at an early date. The two spaces were probably only connected after the pantry had been replaced by the north kitchen in the 1790's. The shelves now in the passage bear no relation to the earlier shelving, and the built-in drawers below them are covered with glazed blue-green paint, associated with late Georgian and Federal work elsewhere in the house.

The small room just west of this passage was created from the western-most portion of the pantry area after the ell was extended. Its four-paneled door and door surround are identical to the others in the north kitchen and share their paint history. The room's walls are lined with horizontal planed boards, which in turn support courses of bookshelves. An early 9/9 window with thick (Georgian) muntins stands in the west wall covered by a crude sliding shutter. All of the lining-boards and shelves are attached with wrought nails, and the ceiling-plaster is held by riven lath, which suggest that the room achieved its present appearance no later than the Federal period. It is illustrated but not labeled on the "1820" floorplan.

Certain of the lining-boards on the north, south, and west elevations of this room hold loose knots which, upon removal, reveal more sponge-decorated whitewash on the board partitioning behind. The finish scheme is identical to that on the adjacent passage. The areas observable through the knot-holes are too small to reveal the shadow-lines of shelving,

but the shelving in the passage can be assumed to have continued at least along the room's south wall, which is also the north wall of the pine room. The whitewash and sponge-decoration on the room's west wall can also be seen from inside the pine room, at a gap in that room's northwest corner, probably created during the mid-nineteenth century remodeling.

The north kitchen itself is consistent in character with the house's other Federal-period spaces. Its planed-board wainscotting, thin chair rail, fireplace mantel and surround mouldings, and door mouldings, are similar or identical to the same features in the dining room and long room. Its walls are also built out beyond the face of its beams in the manner of the late eighteenth century. The room's paint history confirms that nearly all of its woodwork features are contemporary. Most of these have only four paint layers:

from the wood:
light blue/grey
yellow
yellow
light blue/grey

The room's present blue/grey layer is a very good match of the original color, and was undoubtedly based upon paint scrapings made by Dr. Huntington. The floor appears to be early, but the ceiling has been covered by unpainted pine boards, probably another of Dr. Huntington's projects. The early door leading to the adjacent south bedroom was of course moved here from the facade of the main house when the present door and portico were added, also c.1799.

A short passage connects the north kitchen with a door on the ell's west wall, which opens directly into the yard to the west of the house. North of this passage is a bathroom, with its own door through the ell's north wall. Both of these spaces are wholly within the c.1799 addition. They appear on the "1820" floorplan as a single space, the "sinkroom", probably the area where the north kitchen's pump was located and where clothing was washed. The bathroom is one of two added to the house between 1921 and 1924 by Frederic Dane Huntington, Dr. Huntington's brother, who oversaw much early "restorative" work.(16) Its woodwork and fixtures appear to have been untouched since the room was created. The bathroom work seems to have destroyed all evidence of the earlier sink or pump.

A narrow hall connects the kitchen to the central hall of the main house. This is also entirely within the c.1799 addition, and appears to be contemporary with the kitchen. Its planed-board wainscot and baseboards mimic those of the kitchen, and the door connecting the two spaces shares the same paint history - on the kitchen side - as the rest of the kitchen woodwork. The hall side of the door and the rest of the hall woodwork, were first painted a glazed blue/green to

mimic the Georgian-period color scheme of the central hall, which still existed in the late 1790's. In the mid or late nineteenth century, a partition was inserted between this hall and the central hall, which Dr. Huntington later removed, perceiving it to be a Victorian addition.(17) The door linking this hall with the small room to its north is also a nineteenth-century addition, as it lacks the hall's first paint layers.

The small room between the hall, the north kitchen, and the Bishop's Study is also within the c.1799 portion of the ell. Like the rest of these Federal-period spaces, its walls are built out beyond its beams. The room is almost entirely bereft of woodwork. Its one significant feature is a built-in semi-circular cupboard in one corner, which is put together with wrought nails, and is undoubtedly early. The doors leading from this room to the Bishop's Study and North Kitchen were moved here from the facade of the main house when the present door and portico were added, c.1799. The door leading to the adjacent hall is a nineteenth-century alteration. This room is labeled a "bedroom" on the house's "1820" floorplan, though its large cupboard suggests that it originally served a kitchen-related function. Its doors were never affixed with locks, as were those of the other bedrooms, and all have glass panes set into them, which would have allowed little privacy to any occupant. Its windows also show no sign of having had shutters. Nevertheless, the space was converted to a bathroom with full bathtub by Frederic Dane Huntington in 1921-24, one of two bathrooms he placed in the north ell.

Notes

1. "Dr. James Lincoln Huntington's 1960 Tour...", p. 1

2. Dr. Huntington's Journal/Scrapbook, p. 159

3. Forty Acres, p. 15

4. PPH Coll., Phelps and Huntington Correspondence, 1796-1803. Letter Elizabeth Phelps Huntington to Elizabeth Porter Phelps, Nov. 4, 1797

5. PPH Curator's Report, 1966, p. 2

6. PPH Coll., Phelps and Huntington Correspondence, 1803-1806. Letter Elizabeth Porter Phelps to Charles Phelps, May 22, 1803

7. PPH Coll., Huntington Correspondence, 1831-1835. Letter Dan Huntington to J. Whiting Huntington, Dec. 8, 1831

8. Ibid. Letter Elizabeth Phelps Huntington to Frederic Dan Huntington, Sept. 23, 1840

9. PPH Curator's Report, 1965

10. Forty Acres, pp. 65-66

11. PPH Coll., Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Elizabeth Phelps Huntington, Dec., 1802

12. Ibid, Phelps and Huntington Correspondence, 1814-1830. Letter Elizabeth Porter Phelps to Elizabeth Phelps Huntington, Oct. 21, 1814

13. Ibid, Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Elizabeth Huntington, Mar. 2, 1801

14. Ibid, Huntington Family Correspondence, 1831-35. Letter Elizabeth Phelps Huntington to Mary Dwight Huntington, Apr. 17, 1833

15. Forty Acres, pp. 65-66

16. PPH Coll., Frederic Dane Huntington Correspondence, various letters to James L. Huntington, 1921-26

17. James L. Huntington Journal/Scrapbook, Aug. 24, 1933

SOUTH KITCHEN, WOODSHED, AND CORN BARN (Photos 1, 7, 8; HP 1-7, 11; Drawings 1-3)

These structures have long been recognized as post-dating the north ell, though their relation to one another, both chronologically and structurally, has never been clear. Dr. Huntington wrote that Charles Phelps "built a new ell to the south with a deep well underneath it and a huge fireplace...he then added the sheds to the south and [the] barn."(1) Huntington dated the south kitchen to 1771, on the basis of Elizabeth Porter Phelps' diary, but never speculated as to the exact date of the other additions. The framing of these spaces confirms that they post-date the north ell. It also indicates, surprisingly, that the south kitchen, woodshed, and at least half of the original corn barn are a single long structure, erected in one episode, rather than the progressive series of additions they outwardly appear to be.

The northern-most bent of the south ell - as the whole structure will be referred to - stands 8 1/2" - 10" from the wall of the north ell. The two structures are not integral, though the ridgepole and rafter system of the south ell extends onto the north ell's roof deck. This end of the south ell frame was obviously constructed to fit against the north ell, ruling out any possibility that the south ell was moved from another location. By peering into the joint between the two structures from their attics, one can see that that portion of the north ell's wall which is now masked by the south ell is completely sided, and that the south ell was preceded by an earlier shed addition.

The frames of the south kitchen and woodshed are entirely integral, and must have been raised in a single episode. The rafters are evenly spaced along the entire frame, and are identical in size, character, and method of attachment to the ridgepole. Neither of the two breaks in the ridge-pole - at the ell's chimney and half-way into the woodshed - occurs at a bent-line. The northern and southern-most bents - the latter separating the woodshed from the corn-barn - are identical in the size, character, and peculiar joinery of their members. Lastly, the bent which separates the woodshed from the south kitchen/buttery area is covered with loose, butt-jointed boards fastened with wrought nails, which could never have constituted an exterior wall.

The frame of the south ell is more tightly constructed than that of the north ell on the house, and incorporates much more sawn dimension lumber. It is similar in feeling to the gambrel roof frame of the main section, which was probably erected at about the same time. While most of the ell's major framing members are hewn, a few are sash-sawn, such as the rear girt of the woodshed, and the girt between woodshed and buttery. The 3" x 4" studs, wind braces, floor joists, and rafters are likewise sawn. The studs are not only

like those of the gambrel roof, are short segments which extend only between bents, their tenons entering each bent at the intersection between post and tie beam.

The roof frame is equally solid and unusual. The rafters are tenoned into a large hewn ridgepole of pentagonal cross-section. One of each pair of rafter tenons - alternating east and west - is further secured to the ridge-pole by an 8" long peg. The rafters could only be pegged alternately as the ridge-pole is not large enough to accommodate two pegs in the same location. As a final support, sawn wind-braces extend between rafters and ridge-pole at a number of points.

Two barn or shed sections which originally stood to the south of the woodshed were ripped down by Dr. Huntington in 1928, and the present balloon-frame replica raised in their place.(2) Although no record remains of the original sections' frame or plan, their northerly bent was clearly identical with the present southerly bent of the woodshed, indicating that all or a portion of their frame was continuous with the south ell. This bent was never sided on its southern face, as its members are free of nail-holes. The ridge-pole and plates of the south ell continue past the bent, where they were sawn off to facilitate the barn's removal. Pockets for the barn's summer beams are cut into the attic girt.

Siding

All of the clapboards on the east elevation of the south kitchen are early; each is scarfed and attached to the sheathing boards with wrought nails. The selective removal of clapboards revealed no earlier siding material. Some of these clapboards are the longest on the house, measuring 13' -14'. These and the 9'-10' long clapboards on the south wall of the north ell were undoubtedly sawn; the much shorter clapboards on the house proper were produced by the more traditional, handicraft method of riving. This is not to say that the south ell was clapboarded later than the house -the opposite appears to be true.

The clapboards, post casings, and other finish on the facade of the woodhouse are almost all replacement material from the early twentieth century. Dr. Huntington re-sided this elevation in 1938, after replacing the woodshed's front plate and most of the posts which define its arches.(3) "Before and after" photographs indicate that he took no liberties with the original design.

Chimney

The south ell chimney incorporates a single cooking fireplace and flue, serving the south kitchen. The fireplace opening is the largest in the house - 7'10" across and 4' tall -though both a firebox and a bake-oven are housed beneath the lintel. The firebox is similar in size to that in the north kitchen. The lintel, hearthstone, and the smaller lintel and sill of the bakeoven are all of Longmeadow stone. The entire stack is laid up in lime mortar, though much of the firebox has been repointed with cement, probably in this century. The jambs of the bake-oven appear to have been extended out from the original opening in a later alteration; the intention was probably to better shield the bake-oven opening from the flames in the firebox. This alteration was made using lime mortar, and probably occurred quite early. The firebox bears no evidence of having ever been parged or painted.

The iron crane appears to be an original fireplace feature. Its top pintal is driven into a piece of plank which is mortared into the left jamb of the firebox, just below the lintel. The crane of the north kitchen fireplace is attached in a similar fashion.

Like most of the house's fireplace openings, this one was covered over by lath and plaster in the early 1920's. Dr. Huntington and his brother Frederic uncovered the fireplace in 1924, and found the present crane still in place.(4) The partial repointing of the firebox with cement likely occurred some time after. The fireplace was undoubtedly closed up when a stove was added to the south kitchen, probably in the mid or late nineteenth century. A stovepipe hole above the opening is visible in a 1930's HABS photo, by which time it too had been covered over by the present vertical boarding.

Dating the South Ell

Elizabeth Whiting Phelps' letter of November, 1797 to her mother (see above) expresses the hope that a "low building" will be erected in the place of a recently-demolished "shed" before she returns to Hadley. Accepting that the "shed" of Elizabeth's letter was the early structure which physical evidence located against the south wall of the north ell, the "low building" she anticipates is surely the present south ell. Elizabeth Porter Phelps' diary entries confirm that plans to construct a new woodshed had indeed come to fruition about the time of her daughter's letter:

> Oct. 13, 1797: Fryday - this day our woodhouse raised as far as the roof. Satt. finished
>
> Nov. 20, 1797: The workmen finished working upon the woodhouse, etc. this day

The "woodhouse" she refers to is almost certainly the present woodhouse, originally the central unit of the south ell. A date of 1797 accords with the Federal-style facades of the woodshed and adjacent barn, which were probably based upon the design of the Chaise House, erected in 1795. This was also the period when the north kitchen was raised, the old kitchen converted to a sitting room, the long room created, the exterior of the main house clapboarded, the portico built, and the gambrel added; many of these alterations also incorporate Federal-style design elements. The tight framing and heavy reliance on sawn dimension lumber in the ell also relate in character to some of the other physical changes of the late 1790's, particularly the framing of the gambrel roof and the addition of the north ell.

It is less than clear why Elizabeth's diary entries refer only to the woodhouse when the rest of the south ell must have been erected at the same time. It may be that the bents constituting the kitchen and barn frames were raised a few days before or after those of the woodhouse, and that she missed the opportunity to record these other events. The diary typically summarizes long or ongoing construction episodes in one or two short entries. The five-week period spent by the workmen on the "woodhouse, etc." was certainly long enough to account for the entire south ell.

Neither is there any specific reference in Elizabeth's diary to the building of the south kitchen chimney, though she noted on Oct. 26, 1797 "We [are] all in confusion, the hearths laying". This signals the presence of masons at the house two weeks after the raising of the frame, about the time when the chimney would have been building. The specific meaning of "hearths laying" is obscure. The use of the plural and Elizabeth's admittal of "confusion" insinuates that existing hearths were being relaid within the house. The hearth-stones throughout the first floor of the house are of the same Longmeadow stone used in building the south kitchen fireplace. Charles Porter may have procured Longmeadow stone hearths for some of the older fireplaces in the house when ordering the stone needed for the south kitchen chimney.

South Kitchen and Ancillary Rooms

The south kitchen is contemporary with the south ell, and roughly contemporary with the long room, dining/sitting room, and north kitchen. The room is much simpler than these other Federal-period spaces, having almost no decorative woodwork. The large fireplace - whose design was antiquated in 1797 - is the only one in the house without some type of surround, though there is some evidence that the fireplace wall may have been grained at an early date. The room's only concession to Federal design is the multi-paned door with sidelights which connects it to the dooryard. This is also among

the few rooms in the house where the 9/9 window sash are original to the openings.

The "1820" floorplan shows the south kitchen as incorporating all of the ancillary rooms to its west. This is probably a mistake in drafting or of memory, for the woodwork on the kitchen's west wall shares the kitchen's paint history, while all four walls of each ancillary room also have unified paint schemes. The woodwork on this western partition is attached with the same wrought nails used elsewhere in the room. On the strength of the "1820" floorplan, Dr. Huntington was prepared to tear out this wall in 1962, but was dissuaded from doing so by Abbott Lowell Cummings of the S.P.N.E.A., whom he had hire as a consultant.(5)

The paint layers on the kitchen's woodwork are:

from the wood:
burnt orange
light grey
blue (bright)
flesh/pink
light yellow
white grey (present layer)

The burnt orange was not detectable on all samples, but this may be due to its extreme similarity to the color of the wood below. Certain areas may also have been sanded down before the grey layer was applied. Its appearance and absence follow no discernable patterns. The second color - light grey - is almost identical to the present light grey layer. The present layer was doubtlessly meant to mimic this early color, the first layer having been missed in paint scrapings because of its extreme similarity to the wood below. The grey is also quite similar to the first paint layer in the north kitchen, suggesting that it was applied not too long after the north ell's extension was raised c.1799. The third color, a robin's egg blue, is almost identical to the color first applied to the house's central hall in the Georgian period, and extended to the back hall and the hall in the north ell in the 1790's. The hall blue was covered with a green glaze, however, which the kitchen layer lacks. Like the hall color, the kitchen blue seems to have been made using Prussian Blue pigment, undissolved particles of which are still discernable in magnified samples.

The door linking the south kitchen with the vestibule of the north ell is contemporary with the kitchen's woodwork, based upon its paint stratigraphy and that of its jambs. The opening itself pre-dates the erection of the south ell, but must have been originally fitted with a different door. The door opening between the kitchen and the pine room is also contemporary with the south ell, having the burnt orange layer on its jambs, though the present four-paneled door was relocated here by Dr. Huntington. The "1820" floorplan shows a walk-in cupboard just behind this door opening. The cupboard was

probably created soon after the south ell was raised, by partitioning off the southern-most portion of the pine room. The partition was removed and the pine room restored to its full dimensions by about 1833, when its walls were first plastered.

The woodwork in the pump room to the west of the kitchen shares most of the kitchen's paint history, only the comparatively late yellow layer being absent. The built-in pump station is contemporary with the room - judging from the stratigraphy of its backer board, though the present sink and pump were installed by Dr. Huntington around 1962. He apparently found this sink in one of the gardens next to the house, and its very snug fit suggests it may indeed have been removed from the pump room in the nineteenth century. The present cast-iron pump is certainly a nineteenth or early twentieth-century piece - the original pump would likely have been wooden.

The small room to the west of the kitchen chimney is lined with built-in shelves, and seems to have always functioned as a walk-in cupboard. These shelves and the rest of the room's woodwork share the paint history of the south kitchen and pump room. The shelves are all attached to the wall with wrought nails.

A HABS photo of the kitchen's fireplace wall, taken in the 1930's, shows the area above the fireplace and around the head of the adjacent door opening to have been plastered. The texture of the plaster suggests that it was applied over sawn lath. Both fireplace opening and door were framed in the most rudimentary fashion, the door opening having no casing, and only a few narrow, planed boards constituting the fireplace surround. A letter to Huntington written by Abbott Lowell Cummings in 1962, shortly after Cummings had completed an inspection of the room, informs the doctor that the plaster is not the original wall-finish. Cummings discovered painted vertical partition board beneath the plaster above and to the left of the door opening; the letter does not describe its color. An even more exciting discovery pertained to the wall directly above the fireplace opening:

> By good fortune much of the original sheathing of the fireplace wall has survived in the attic of the shed. From this original sheathing and the surviving evidence in the wall itself it can be seen that the area over the fireplace was fitted up with lengths of vertical, unmoulded boards which were nailed to the chimney girt and which were covered at the very top by the plaster; these boards had no moulding whatsoever at the bottom, and they should come down to just that point in the face of the stone lintel at which their length (and a clear line in the lintel) indicates was the original position. On either side of the fireplace the sheathing will

> run from floor to ceiling, and the marks of where it stopped laterally are clearly indicated in the brick jambs of the fireplace. The sheathing which has survived is grain-painted and apparently at an early date.(7)

Cummings goes on to advise Huntington that this grained boarding replace the plaster over the fireplace, and that small areas where the finish has worn away be inpainted to mimic the surrounding scheme.

Huntington indeed "restored" this wall by covering it with vertical planed boards, but not the painted and grained boards which Cummings had discovered. The present sheathing boards are rough boards which have been jack-planed and painted grey. Why Huntington used new boards rather than restore the early ones he had on hand remains a mystery, as does the fate of the grained boards which fit above the fireplace. The grained boards on the fireplace wall probably complemented the room's original burnt orange color scheme; it is more difficult to imagine the graining being executed in conjunction with the grey layer.

The "1820" floorplan shows a rectangular pump station in the center of the south kitchen. Dr. Huntington believed that this pump station was later moved into the adjacent pump room, but paint evidence suggests that the pump room station is contemporary with the early woodwork in the kitchen, and was merely overlooked on the "1820" plan. The two pump stations probably co-existed from an early date, each performing a separate function. The kitchen pump naturally aided in cooking and, perhaps, washing, while the pump room may have existed primarily for the field hands who regularly ate meals and congregated on the adjacent back porch in the summer. The pump room would have given them a place to wash and draw water without disrupting the work that was simultaneously occurring in the kitchen. Both pumps were probably connected to the same well, now buried beneath the concrete floor in the south ell's basement.

The kitchen pump station survived until 1959, by which time it had become a simple kitchen sink. A square hole in the room's flooring marks the sink's location, and corresponds to the location of the kitchen pump on the "1820" floorplan. Dr. Huntington removed both the sink and an adjacent electric stove, the marks of whose legs are still visible on the floorboards.(8) This electric stove must have been preceded by a coal or wood-burning unit, as a blocked-up stove-pipe hole is visible above the fireplace in the 1930's HABS photo. The fireplace opening itself was entirely covered over by lath and plaster prior to the 1920's, when Huntington and his brother restored the opening.

The presence of an electric stove in the south kitchen indicates that it had become the family kitchen by the first half of the twentieth century, if not earlier. When it was raised

in 1797, the south kitchen was probably intended to aid in farm operations rather than provide meals for the family. A family kitchen already existed in the present dining room when the south ell was constructed, and migrated from there to the north ell's extension around 1799. The north kitchen is more ornamented than the south, and is closer and more directly connected to the formal spaces and bedrooms of the main house.

The south kitchen probably served a diverse range of functions during the farm's most productive period - the last two decades of Charles Phelps' tenure. One was certainly the feeding of farm-hands. Elizabeth Porter Phelps noted in a letter of 1801 "Harvest day and there are now on our stoop more than 20 eating supper".(9) The entry suggests that this was an unusual number, but smaller numbers of workmen must have been employed throughout the year given the farm's size, and were likely fed from this kitchen. The size and location of the cheese room on the opposite side of the kitchen chimney suggests that the kitchen was also part of a substantial cheese-making operation.

The earliest reference to cheese-making is in a letter from Elizabeth Porter Phelps to her daughter in 1802: "Churning and cheese and a deal to do in the cheese room". The room now referred to as the "buttery" is labeled "cheese room"(10) on the "1820" floorplan. The room was certainly used to store cheeses if not produce them, being lined with courses of shelving, all of which are held together with wrought nails. Virtually all of the room's woodwork is unpainted, and shows no signs of having been altered. The walls behind the shelves are lined with planed, beaded, tongue and groove boards 15"-20" wide. The plastered ceiling is supported by split-board lath, also attached with wrought nails. The single window on the west wall is coverable by a crude sliding shutter. Among the room's most interesting features are two square wooden bins, each with their own cover, held by early H-L hinges, built against the west wall. These may have been used to age cheeses, though this author claims no expertise in early cheese production. The direct contact of the shelves and bins with foodstuffs may explain why this is the only room in the house which was never painted or whitewashed.

Equally interesting is the cheese-room door, which is constructed from moulded, feather-edged partition boards, battened together. The side facing the room is covered with sponge-decorated whitewash, which appears to have survived from the earlier partition. The sponge decorations are of a deep blue color, and are identical to those discovered in the vestibule and former pantry area of the north ell, and on a board underneath the staircase of the main house. The partition board used to construct the door was probably salvaged from the pantry area of the north ell during the c.1799 remodeling. The door's latch is a pointed suffolk, and its hinges are H-L, both attached with wrought nails.

Notes

1. "Dr. James L. Huntington's 1960 Tour...", p. 2

2. Dr. Huntington's Journal/Scrapbook, p. 92

3. Ibid, pp. 85-87

4. Ibid, p. 27

5. PPH Coll., Letter Abbot Lowell Cummings to Dr. James L. Huntington, Oct. 19, 1962

6. Ibid

7. Ibid

8. "Dr. James L. Huntington's 1960 Tour...", p.15

9. PPH Coll., Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Elizabeth Phelps Huntington, July 5, 1801

10. PPH Coll., Phelps Family Correspondence, 1796-1802. Letter Elizabeth Porter Phelps to Elizabeth Phelps Huntington, Aug. 4, 1802

MAINTENANCE AND REPAIR (Photos P 1-14)

Like many structures its age, the Porter-Phelps-Huntington House has a very unbalanced history of maintenance and repair. Some problems have stymied its owners since the eighteenth century, notably the wet conditions in the crawl-space and (late) basement, and resultant rot in the first floor frame. Other problems which typically beleaguer structures of its age - such as roof leaks - have generally been avoided through good ongoing maintenance. The selective character of the building's maintenance has meant that a number of problems have long been overlooked or only partially corrected. Left unchecked, certain of these are likely to cause expensive structural and/or finish failures during the next decade.

The building's physical problems (and potential physical problems) are listed below in rough order of priority. The problem of the wet basement has so long a history, is so far advanced, and has such wide-ranging consequences for the house that it exists in a category by itself. Given the jury-rigged nature of the first floor frame, structural failure due to rot is simply a matter of time, while the foundation wall of the north ell is being steadily undermined by the entrainment of the adjacent soil.

Problems #2-8 are each in a nascent stage: though damage has occurred in each instance, it is still rather isolated and easily corrected. That is not to say that any of these repairs should be deferred. Each has the potential of becoming far more serious and costly in a single bad season or two. The decay in and around the front portico is particularly worth attending to, as its full extent an only be known once exploratory work is accomplished.

Items #9 and 10 are calls for further monitoring to determine whether past damage is ongoing. Item #11 is insurance against future damage, while #12 pertains to an important feature, but one extraneous to the house.

The price estimates which accompany most items were prepared by Dodge, Adams & Roy, Ltd. of Portsmouth, N.H., a contracting company specializing in historic preservation and restoration. Each figure or range of figures reflect what Dodge, Adams & Roy would charge to do the work in eastern New England (excluding travel costs). Conditions in western New England may vary.

1. Wet Basement

This is, by far, the house's most serious problem, and has been since before 1814, when moisture in the foundation crawlspace was found to have fostered rot in the first-floor frame. The digging of a cellar under the main section in 1921-22 did little to reduce moisture under the house, especially as the floor was left earthen and the new basement windows were too far below grade to allow for good air circulation. Only ten years after he had installed the basement lally columns, Dr. Huntington found them to be "so rusted that they would hardly have given support more than a few years longer". He scraped and painted the lallies, filled them with cement, and supplemented them with chestnut posts, but did nothing to correct the moisture problem. The pouring of a concrete floor in 1959 was certainly a constructive move, but water continued to enter through the older foundation walls in the ells. As the majority of this water - actually water-born silt - was entering through the stone foundation beneath the north wall of the north ell, this wall was completely repointed in 1986. Though this repointing was also a constructive repair, the wet silt continues to find entry points at the joint between wall and floor, and fans out into the basement in all directions. The basement remains critically wet in the spring of 1988, and large areas of the first floor frame remain permanently soaked. This could result in major structural failures over the next decade.

The problem originates on the north roof slope of the north ell, which is extremely broad, and thus collects a huge quantity of snow and rainwater; this is augmented by water over-flowing the gutter on the west slope of the gambrel roof. All of this run-off is directed to a narrow wooden gutter along the north wall of the north ell, which, even if not constantly blocked by leaves and debris, would probably not drain so large an area effectively. A large quantity of water overflows the gutter, runs down the north wall of the ell, destroying window shutters as it goes, and seeps into the very silty ground next to the ell's foundation wall. At the same time, the water from the west slope of the gambrel which has managed to stay within its gutter, pours out of a hole at the end from which the downspout has been disconnected. It pools up around the ceramic drain at ground level - which it cannot penetrate -and, given the grade in this area, finds its way to the foundation wall of the north ell, where it joins the north ell's run-off. As the water percolates into the soil, it entrains the silt, and water-borne silt comes churning up under the adjacent foundation wall into the basement. The huge sink-holes which opened next to the foundation wall in the spring of 1988 testify to the quantity of earth being fed into the cellar.

The wet silt causes a host of problems. As its water slowly evaporates, it rusts lally columns, metal fasteners, pipe, and electrical boxes, and fosters ideal conditions for rot

in the first floor frame. Various types of rot have lived in the frame for over two centuries, but their migration has recently accelerated. The evaporating moisture may also be a contributing factor in the deterioration of paint finishes in the rooms above. The widespread peeling of latex paint on the plaster wall surfaces has much to do with its calcimine substrate, but may be exacerbated by the presence of moisture. The equally widespread chipping away of paint on woodwork is certainly moisture-related. If moisture is adversely affecting the house's finishes, it can be having no less an effect on its furniture and other collections.

There is no simple solution for preventing water from entering the basement, short, perhaps, of replacing the present ell foundation with concrete. A less drastic but still effective strategy might rely on the following:

Gutter System. The performance of the present gutter system at the rear of the house would be greatly improved by regular maintenance. Gutters should be cleaned at least four times a year - once in the spring after the buds are off the trees, twice during the fall, and the last time around the first of November, to ensure that all leaves have been removed before winter. The north ell gutter in particular does not have a sufficient pitch to clean itself of leaves and other debris. The gutter on the west wall of the main section must be re-connected to its downspout. This means that the ceramic drain at the base of the downspout will also have to be inspected, cleaned, and then regularly checked and maintained. The drain exits beside a tree to the northwest of the house. The bottom two feet of the downspout must be made removable so that a hose can be used to flush out the drain line after the gutters are cleaned for the last time in November. The drain line which services the north ell's gutter should be similarly inspected, cleaned, and maintained.

The Foundation may wish to invest in new copper gutters and downspouts - particularly on the north wall of the north ell and west wall of the main house. The present gutters are undersized, and copper gutters are among the few types available in larger dimensions.

Drainage. Even with a well-maintained gutter system, some quantity of water is bound to collect at the base of the foundation wall and penetrate below grade. A swale must be created in this area to divert water away from the north wall of the ell and toward the westerly fields. This should be accompanied by a below-grade drain set in gravel. The drain should ideally connect with the house's downspout system, and incorporate a clean-out at the intersection of house and ell. The cost of swale and drain should be about $2,500.

Air Movement in Basement. The cellar windows are too far below grade to allow the basement to properly ventilate.

Ventilation would be greatly aided by the installation of at least two fans in cellar window openings. Before fans are installed, all cellar openings should be fitted with sound and workable (hinged and lockable) sash and screens. The screens should be screwed on from the exterior and the window wells cleared of leaves and debris. Any wooden features added below grade should be treated with a clear preservative. The replacement of screens and windows alone should cost $1,500 - 2,000.

Heating System. Installing a furnace would have a number of benefits, one of which would be a dryer basement. The most appropriate furnace would be a liquid propane-fired forced hot-air unit; this should be of horizontal type held well off the cellar floor by corrosion-resistant metal supports. The furnace could take advantage of existing grates, though a few new grates - particularly near the cold north wall - might be installed with little adverse visual effect. The cost of such a system would be $6,000 - 7,500.

If the house were heated all winter at a constant temperature of 35 - 45 , basement moisture would evaporate more readily and the materials in the house above would be prevented from locking in moisture through freezing. The regular freezing of paint layers, plaster, mortar joints, and other materials does nothing to increase their lifespans, though its adverse effects are not easily measured. Any heating should be minimal and steady, however, so as not to risk the too rapid drying of damp material.

Minimally heating the house would also allow the museum to lengthen its season and engage in some winter-time activities. It is particularly unfortunate for the museum to be restricted to a summer schedule in a region with so many colleges and universities, and Christmas-related activities provide a major draw at many similar institutions.

First Floor Frame. Despite wide-spread rot, the first-floor frame shows no signs of imminent failure. The worst sections were replaced or reinforced by Dr. Huntington in 1921-22, and the confused overlay of repair work has somehow managed to keep the entire system viable. Failure of the frame is guaranteed, however, if rot is allowed to spread at its current rate. Drying the basement will do much to check the progress of the rot and mildew, and the surviving sections can then be chipped back and the good wood treated with bleach or some other disinfectant to kill the spores. Some additional reinforcement or "sistering" may have to be done after the worst areas of rot are chipped away and the strength of individual members are assessed.

The lally columns can probably be salvaged by simple scraping and painting, though galvanized steel replacement lallies should be substituted for the chestnut posts, most of which are badly rotted on their ends.

One weak area of the floor frame which does require repair is beneath the Pine Room. About six joist ends in this location are rotten, and should be sawn away. New timbers of the same dimension and species should be "sistered" or bolted full length to the remaining joists with suitable anchors. This repair should cost roughly $400.

2. Leaking Drain/Waste Lines

A number of the cast-iron drain pipes in the basement are badly leaking. Some of their rusting may have to do with damp basement conditions, but the major decay is probably occurring from within. The pipes have been observed leaking steadily all winter, indicating that there has been a steady flow of water from inside the house during this same period. The source of this flow should be located and stopped, and the pipes drained before winter as long as the house remains unheated. A plumber should be consulted to inspect the system at basement level and recommend repair strategies. It is very likely that sections of the drainage system will need to be replaced, a job which could cost $500 -1,000.

3. Leaking Skylight

The skylight on the south plane of the kitchen ell roof exhibits a long history of leakage. At a minimum, the upper side of the skylight should be reflashed with 16 oz. copper; close inspection will probably show the need for new flashings on all sides. The frame and glazing should also be inspected and possibly replaced in kind. The exposed wood of the sash and frame should be coated with a clear preservative and painted. These features do not pre-date the twentieth century. Some amount of roofing may also require repair to accommodate the new flashings. The cost for all of this work should be about $200-400.

4. Leaking Gutter at South-east Corner of Two Ells

The connection of the two gutters at this corner is out of alignment and impossible to flash in a water-tight manner. Both should at least be re-pitched, and would best be replaced with a larger-sized copper gutter system. This corner is a major focus of drainage for both slopes, and overflowing water has already done some damage to clapboards below.

5. Decayed Portico and Adjacent Sill Sections

There is a good deal of rot in the deck of the portico, the plinths of the columns, the columns themselves, and adjacent areas of the house's sill. Much of this was probably promoted by the climbing vines which covered columns and pedi-

ment from the late 1930's until the 1960's. Though the vines have since been cut away, water has continued to penetrate and expand older cracks and fissures. The extent of the damage to decking, columns, and the adjacent sill sections will only be fully revealed by the partial disassembly and inspection of the material by a skilled carpenter, after which a reasonable work plan can be developed. Historic material, particularly the original column sections, should be identified and treated with epoxy consolidants rather than replicated. Though the extent of replacement and epoxy work can only be determined after the area is partly disassembled, a reasonable cost estimate for such a project is $1,000 - 2,000.

6. Decayed Brick in North Chimney

An area of brickwork in the north chimney stack between the ceiling of the finished attic room and the peak of the gambrel has entirely decayed away, leaving a large hole and some fractured brick. Though the chimney is not in imminent danger of collapse, the problem should be attended to, particularly as the chimney is uncapped. A qualified mason should thoroughly inspect the chimney from the inside before work begins. The opening should be bricked up, and existing bricks which are missing more than 15% of their mass should be replaced. A small amount of repointing will also have to be done in the general area. The mason should be instructed to use a lime/sand mix of 3 to 1 ratio, and should not be allowed to use a pre-mixed bag mortar and/or one with Portland cement content. This work should cost $500 - 800.

This chimney and the other chimneys in the house should be capped to protect the flue from weather. The best cap consists of sheet copper over a wooden frame, raised slightly above the chimney on 1" wooden blocks and well-secured. This type has the advantage of being light and easily removed, and copper has good longevity. A cap should always sit slightly above the chimney to allow the flue to ventilate.

7. Bird Damage to Siding, South Ell

Birds have exploited what was probably a small hole between clapboards on the east side of the south ell, and created a fairly wide opening. This both invites further nesting and provides a path for rainwater to penetrate the wall cavity. The damaged clapboards should be removed (in whole pieces) and the damaged sheathing boards replaced. The clapboards should be replaced by new clapboards of identical size and character. The wrought nails of the earlier clapboards can be re-used to install the new material. The cost of this project should be about $200.

8. Mildew/Moss Build-up on Roof of South Ell

The two cedar trees which stand close against the south wall of the ell direct a large amount of moisture onto the adjacent roof, while shading it so thoroughly that it never fully dries. The entire area of roofing is covered with moss and/or mildew as a result. Short of cutting down the trees, the roof should be sprayed with a bleach and water solution, which should be allowed to set for two days before being lightly brushed clean. After the shingles have dried, apply a clear sealer, such as Thompson's Water Seal or a hydrozo product. The sealer will prevent moisture from re-entering the shingles and will greatly extend the life of the roofing material. There may be some moss growth after the sealing due to continued shady conditions, but its impact on the roofing will be significantly reduced.

9. North Ell Chimney

This chimney has somewhat settled and cracked, probably due to flooding in the first half of the twentieth century. Though it is not in danger of collapse, the major cracks should be monitored by filling them with wet plaster of paris. This material slightly expands as it dries, so as to tightly fill a crevice. Any subsequent cracking in the plaster or the opening of gaps between it and the chimney will signal that the masonry mass is still in motion and that some brick repair work is needed.

10. South Chimney, Main House

This chimney has settled more markedly than that of the north ell though its settlement seems also related to flooding in the 1920's-30's, and appears to have long since stopped. HABS photographs of the long room taken in the early 1930's show the long room fireplace in the same sunken condition relative to the rest of the room as it occupies now. This chimney might also be monitored, however, using bench-marks attached to the stack on the third floor.

A more serious problem is rising damp - the upward migration of moisture and soluble salts in masonry by capillary action - which has caused a great deal of spalling in the long room fireplace, particularly to the highly porous sandstone jambs. Again, it is difficult to know whether this rising damp is a continuing condition, or if it subsided with the floodwaters in the early twentieth century. What appears to be continuing deterioration in the sandstone jambs could be the continued expansion of soluble salts left behind long ago by floodwater, the re-crystallization triggered by airborne moisture from the basement below. An inconspicuous mark of some sort should be made on the sandstone jambs so as to monitor the vertical progress of the deterioration. If it continues to creep higher, rising damp is probably

continuing, fueled by water in the ground below, and repair or replacement may be called for. If the deterioration seems to have stabilized, the flaking surfaces of the jambs might be treated with a consolidant - a material which strengthens existing masonry - by a professional conservator.

11. Window Well in Roof of North Ell

The well in the north slope of the ell was installed by Dr. Huntington in 1932, so that the adjacent window could be restored to its original length. It is a problematic construction detail at best, and water stains in the ceiling of the room below indicate some leakage, though this may have been temporarily checked. The well is not well-flashed in any case, and should be entirely coated with 16 oz. flat seam copper, either plain or lead-coated.

12. Stone Wall at Base of Stoop

Sections of this wall are failing, probably due to hydrostatic pressure - the build-up of run-off behind it, which is prevented from draining out. These sections should be relaid and the area to the rear filled with 3/4"-1 1/4" crushed stone or pea stone. Also, the wall's drainspout lines should be replaced and cleaned regularly.

RECOMMENDATIONS FOR ADDITIONAL INVESTIGATION AND INTERPRETATION

A number of recommendations for further investigation and/or physical changes which would aid in the building's interpretation have been made in the text. These have been gathered below for purposes of review, and supplemented by other recommendations not previously presented. The following is intended as an agenda for further discussion rather than a work list.

1. Exposure of the rusticated siding and overhang. Given that these are among the house's most unique and important physical features, it would be unfortunate to have them remain ever hidden from view. Exposing a section of the original wall would not only aid in the building's presentation to the general public, but would increase visitorship by scholars. An opening in the form of a "window" through the house's clapboards, flush with or slightly recessed into the existing wall plane. The natural location for such a "window" is the north elevation, where it would not interfere with the main views of the house from the south and east. The clapboards and planking could be removed from a rectangular area between window bays - starting just above the overhang and proceeding down a few feet below it. The rectangle would then be framed out and covered over with one or more pieces of lexan, which would provide a clear view of the original wall while preserving it from the elements. Each piece of lexan would have to be properly vented above and below to prevent the entrapment of moisture. An architect or draftsman should be engaged to prepare detailed drawings of the proposed assembly before any work is attempted. Lexan "windows" in exterior walls have been successfully in place for many years at the Strawbery Banke Museum in Portsmouth, N.H. and other historic building museums throughout the region.

2. Measured drawings of the exterior c. 1752. Equally important to the public's full understanding of the house's physical history are the preparation of exterior measured drawings. The discoveries relating to the house's original exterior appearance are extraordinary, and scholarship alone demands that they be translated into a reliable image. The perspective drawing which we have prepared for this report is intended only to aid the reader, and should not remain as the definitive image of the original house. Only measured elevation drawings prepared to HABS standards will prove acceptable to scholars. Enlarged, they would also be valuable in explaining the house's early appearance to visitors, and could even be reproduced on brochures, signs and other material. Much of the information which would be required by a draftsman has already been gathered, but the exposure of a section of the north wall to create a "window" (see above) would provide an extended opportunity for the study of the rustication and overhang. Evidence exposed on the north wall should also be fully recorded by a professional photographer.

3. Exposure of interior wall fabric. The interpretation of the interiors of the main house and north ell would be greatly aided by access to their original wall material, much of which lies below a single layer of late plaster or woodwork. While all of the early wall material is interesting, some areas - namely the original pantry walls in the north ell, which are covered with blue sponge decorations over whitewash - are almost as unique as the exterior rustication, and would prove of extraordinary interest to scholars and the public alike. The exposure of these surfaces could be done discretely and sensitively; in the main house, squares or rectangles of plaster might be cut out behind paintings or other wall hangings, which could then be hinged to an adjacent batten, so as to swing away during tours. The locations would have to be chosen carefully - some of the walls in the east first floor bedroom and long room might prove most conducive to this treatment, though further investigation of unexamined wall cavities should proceed before any final decisions are reached. Sections of baseboarding in the dining room and Bishop's Study, for instance, should be carefully removed to determine whether these rooms also contain vertical wall-board. The sponge-decorated walls in the small room off the north kitchen should certainly be exposed, perhaps in their entirety. These are covered with planed 1" boards which would have to be pried or cut loose with the greatest care taken not to loosen or damage the whitewash below.

4. Repainting select interior spaces to mimic early paint schemes. This has already been done in a number of rooms by Dr. Huntington with a good degree of success, particularly in the north kitchen, long room, and northeast bedroom. Given the brilliance of the early schemes in the remaining spaces, the Foundation should consider continuing Huntington's program of re-creation. The central hall and east first floor bedroom are the most natural candidates for repainting, as their present colors bear little resemblance to their earliest schemes. The first Georgian hall color - an almost robin's egg blue -would doubtless surprise and delight many visitors, particularly if it was also covered with a verdigris (or imitation verdigris) glaze. Neither the hall nor east bedroom colors should be recreated without their glazes, as the application of the color alone would leave a false impression. Because so few museums bother to recreate glaze layers, their appearance at the Porter-Phelps-Huntington House would register all the more strongly with visitors. Color cards recording the most important of the house's earliest woodwork colors are presented and explained in the appendix to this report.

5. Exposing the decorative painting around the fireplace in the northeast bedroom. The flat area surrounding this fireplace was originally marbelized or grained, and this

finish is still well-preserved beneath later paint layers. Luckily, the layer directly atop the decoration is very loosely attached, and can be easily flicked off using a scalpel. The work must still be done with the greatest care, and preferably by a trained conservator. Before the fireplace surround is exposed, however, the rest of this bedroom should be fully examined by a paint analyst to determine the full extent of the decorative work. Preliminary analysis indicates, for instance, that portions of the interior surround of the room's entrance is also decoratively painted. An additional day or two of microscopy should be sufficient to reveal the extent and character of this work.

6. Preserving the whitewash and sponge decorations under the staircase and on the back of the cheese room door. These valuable finishes are loosening and falling off in both locations. The finish on the board under the stair is being undermined by vibration, while the problem in the cheese room is both vibration and abrasion, the latter caused by the hanging of objects on the back of the door. As vibration cannot easily be controlled in either location, the best preservation strategy may be to consolidate the whitewash - i.e. chemically strengthen and bind it more tightly to the wood. The use of consolidants on masonry-related materials is a specialty of the Consulting Services Dept. of the S.P.N.E.A., who have pioneered in applying these techniques to historic house museums. Morgan Phillips of the S.P.N.E.A. should be consulted as to the possibility of conserving this material and, if possible, hired to do the work. Should he determine that the material cannot be conserved, or should the cost of conservation prove prohibitive, the door, at least, might be removed from its hinges and exhibited elsewhere in the house. The board beneath the stair probably cannot be removed without delaminating the finish, so should be professionally photographed if further damage cannot be prevented.

7. Cleaning the grained paint layer in the vestibule of the north ell. The grained paint layer in the vestibule is covered with a badly yellowed clear coating which is not water soluble. It may be possible to remove the coating without damaging the paint below, though the consistency of both paint and coating must first be identified, and the work carried out by a trained conservator.