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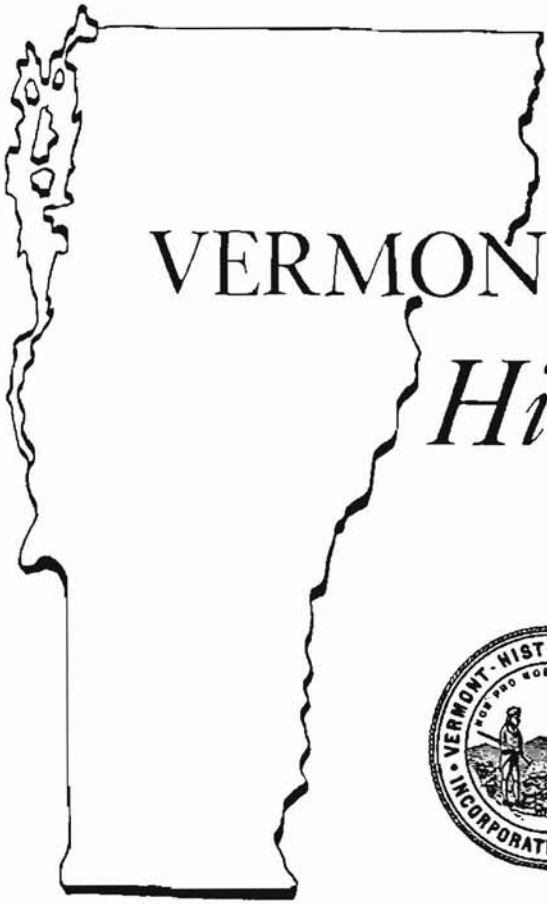

VERMONT *History*

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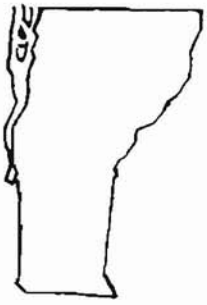


"Recently, the hypothesis that the chambers are remnants of an ancient civilization has gained popular support," but "it is proper to conclude that most of Vermont's stone chambers were built as root cellars . . . some were built for other purposes such as chimney supports."

Vermont's Stone Chambers: Their Myth and Their History

By GIOVANNA NEUDORFER

Introduction

Since at least the 1940's, distinctive stone structures in the Northeast variously called "chambers," "huts," "caves," "beehives," and "root cellars," have provoked questions about their age and cultural origin.[1] Recently, the hypothesis that the chambers are remnants of an ancient civilization has gained popular support. Widespread publicity has contributed to the uncertainty and added a degree of sensationalism to the discussion.[2] It became evident that the structures needed to be studied and evaluated to determine their origin and to provide a basis for deciding the desired level of protection and preservation. Although the relative significance of the chambers would increase with a demonstrated antiquity, the structures deserve study regardless of who built them. Along with being architecturally distinctive, the stone chambers are significant archeological sites because of their potential for yielding data on the behavior, cultural patterns, and traditions of past peoples either in the recent past or in antiquity.

In the summer of 1977 the Vermont Division for Historic Preservation undertook a study of these stone chambers found in many areas of Vermont. While the study was limited to Vermont, structures of this type have a widespread distribution, having been identified in all of the New England States, New York, Pennsylvania, New Jersey, Ohio, Virginia, West Virginia, and Kentucky.[3] The structures exhibit a number of common features, although construction details of individual chambers vary widely. In context and in construction these stone structures differ from typical New England stone burial vaults, usually associated with cemeteries, as well as from better documented stone facilities such as charcoal and lime kilns, potash burners, and iron furnaces.[4]

Intense public interest in Vermont's stone structures began in 1975 when, at the request of several individuals, Professor Barry Fell, retired marine biologist from Harvard University, undertook an examination of several areas in Vermont. At that time Fell first stated that he had identified inscriptions in an early form of Ogam script dating from 1000 B.C. to 300 B.C. carved in stone by "Celts from the Iberian Peninsula."[5] Fell wrote that "both on-site investigations and historical research" demonstrated "that Celts from the Iberian Peninsula were responsible for the Ogam inscriptions we find on ancient stone buildings in New England. In all probability," he continued, "the same Celts were the actual builders of the structures on which their inscriptions occur" and "that Celts in considerable numbers did in fact settle here, particularly in New England."[6]

To Professor Fell "it became clear that ancient Celts had built the New England megalithic chambers and that Phoenician mariners were welcome visitors, permitted to worship at the Celtic sanctuaries and allowed to make dedications in their own language."[7] Fell explained the upland location of the Celtic settlements as the result of migration from their first settlements near the mouths of New England rivers.

> At some time they ascended the Connecticut River, sailing as far north as Quechee, Vermont, where a western branch of the river joins the main stream through a precipitous gorge. Attracted doubtless by the seclusion of the uplands beyond the gorge, the Celts turned westward and colonized the hanging valleys of the Green Mountains . . . In the secluded valleys and on the hilltops, the priests (or Druids) erected the temples and circles of standing stones required by their religious beliefs, using, like their European cousins, the great stone boulders left upon the land by the retreating glaciers at the end of the ice age.[8]

In addition to inscriptions and stone chambers, Fell and others cite further evidence in support of the ancient European settlement thesis including rocks carved into the shape of male and female genitals and deity and animal figures;[9] stone piles, perched and standing stones, some with symbolic markings;[10] Celtic place names;[11] various kinds of artifacts;[12] and archeoastronomical data suggesting that some of the stone chambers "had been carefully selected for prominent horizon features that would align with the sunset and sunrise during the [solar] solstices and equinoxes."[13] The stone structures, therefore, are simply one of many kinds of evidence which allegedly reflect an ancient European culture in Vermont and elsewhere in New England. Even Fell's supporters agree that some of the evidence of ancient settlement is equivocal: "sometimes because of the extensive weathering, it is indeed impossible to tell whether stone markings are truly man-made, although they may seem suggestively so."[14] The stone chambers, on the other hand, are without any doubt man-made. Of all the components of the hypothesized ancient European culture, the stone chambers are the most readily studied.

The controversy over these structures focuses on two primary theories about their age and origins: the historic origin theory and the ancient origin theory. Some have also suggested that native Indian cultures built the stone chambers. Although there is abundant evidence that prehistoric Indian groups in the Northeast had traditions of stone utilization,[15] absolutely no archeological or ethnological evidence exists at present which suggests that prehistoric or historically known Indian groups undertook the level of stone construction represented by the stone chambers. Furthermore, the concentration and distribution of stone chambers precludes construction by Indian populations, either in the remote or recent past. Native American subsistence and settlement patterns, both documented historically and known archeologically, indicate that native groups limited their use of upland areas, where the vast majority of the chambers are located, to hunting and other short-term activities. Intensive and long-term occupation, as implied by the concentration and stone construction of the chambers, was invariably associated with river or lakeside environments.

The historic origin theory attributes the structures to colonial or post-colonial farmers of the eighteenth and nineteenth century and considers numerous original functions with varying adaptive uses including temporary settlers' quarters, smoke houses, sheperds' shelters, animal pens, whiskey storage facilities, slave quarters[16] and hunting or trapping enclosures.[17] Most observers, supported by strong local oral tradition, call them root cellars. The general absence of reference to the stone structures in records and accounts of the early settlement period and town histories[18] lends support to their construction within the recent historic period, since the absence of references to these structures implies that they were routine, not worthy of discussion. Failure to find primary documentation on various kinds of buildings is, in fact, quite common.[19]

Anthropologists and historians concerned with the stone chambers have for the most part attributed them to the historic period. They base their opinion less on what they know or do not know about the chambers but rather on intimate acquaintance with New England's archeological record and regional ethnology and on their knowledge of cross-cultural studies and general anthropological theory.[20] The primary anthropological concern relating to the possibilities of long-term ancient European settlement in the Northeast centers around the nature of the ancient settlements as implied by Professor Fell and others. The theory of pre-Columbian European settlement in the Northeast is based on a broad and widely scattered range of purported evidence which describes *not* a single, accidental landing or contact episode by a group of explorers or lost seafarers, but rather major, deliberate, repeated and on-going voyages and settlements by groups of Celtiberians and Phoenician traders.[21] These

two kinds of contact differ not only in the amount and character of residual material which is found archeologically, but also in the cultural consequences of the contact with native groups. While one or several isolated landings would leave behind little physical evidence and make a negligible impact on the native populations, on-going and long-term contact, as hypothesized by Fell, would result in a significant transmittal of ideas, material objects, technologies, customs, language, genetic traits, and diseases from the newcomers to the native inhabitants.[22] While the possibility of transatlantic travel to eastern North America prior to 1492 is generally accepted (at least one landing episode has been documented archeologically),[23] Fell's concept of long-term and repeated settlement significant enough to leave in its wake a widely distributed and broad range of evidence is open to question or has been dismissed on anthropological grounds. First, there is the problem of missing archeological and physical anthropological evidence. "Why did ancient voyagers leave behind nothing but inscriptions and religious structures? Where are the habitation sites and tools and pottery one would expect from the many centuries of claimed Old World colonization?"[24] Scholars such as John R. Cole contend that "significant colonization should yield . . . domesticated animal bones [such as horses, sheep, cows or pigs] in pre-Columbian times . . . , but they do not appear. Artifacts of subsistence and not just ideology should have been left behind."[25] According to what is known "about cultural and biological processes, any significant pre-Columbian contact (that is, not just a possible stray boat or very temporary settlement such as the Vikings') would simply have had to leave evidence other than religious artifacts."[26] Peter Reynolds, a British Celtic scholar, commented that the question of ancient European settlement should include discussion of "postholes, potsherds, house foundations, field systems and trackways that would belong to a Celtic culture B.C."[27] Many decades of archeological work provide no evidence that Northeastern Native American populations were affected by anything but contacts with other Native American groups.[28] Similarly, there is no evidence of linguistic borrowings.[29]

The frequently repeated idea that physical similarities between New England and ancient Old World structures imply direct cultural and temporal connections also runs into vehement criticism on anthropological grounds. Physical similarities in methods of building construction do not prove a direct relationship between the builders: "people living in similar kinds of environments, having similar needs for protection from the elements and possessing comparable degrees of technological skill and comparable availability of raw material, are likely to stumble upon similar methods of solving problems of survival."[30] That is, based on the precept of "limitations of possibilities," "ways of doing things are limited or

Chamber No. 6. Hillside chamber (Type B), Windsor County. This is the lone circular structure and the only fully corbelled one.

channeled by biological, psychological, sociocultural, and physical environmental possibilities (or demands) and by limitations or efficiencies intrinsic in the materials used or in the functions of the objects or practices, and that a trait may therefore have a fairly high probability of arising more than once."[31] For example, similar stone structures of widely varying age and function have been documented from Britain, Scotland, France,[32] northern Canada,[33] and southeastern Italy[34] without claim of common ancestry.

The proponents of the ancient theory perceive physical similarities between New England stone chambers and Bronze Age "megalithic," or large stone, structures in Europe as direct evidence of cultural and chronological connections.[35] The proponents of this theory also perceive the stone chambers as but one aspect of a vast complex. Claims for their antiquity thus rely on many kinds of corroborative data relating to the ancient complex as well as on attributes of the chambers themselves. Labeling the apparent variety of data as "serious cracks in the reigning paradigm, the 'root cellar' mind set," Professor Warren Cook of Castleton State College cites such factors as "solar and lunar orientations, associated inscriptions, adjacent huge stones with inscriptions allegedly translatable as

relating to fertility practices, and repetitive patterns of field walls in seemingly unfunctional shapes near stone chambers."[36]

Although Fell's thesis pertains generally to New England slab-roofed chambers, most of his detailed examples focus upon several Vermont chambers. Largely on the basis of inscriptions found on or near some of the structures and on the basis of their astronomical orientations, Fell attributes the chambers to Celts in the first millennium B.C.: "it is obvious that most slab-roofed chambers are temples" used, among other purposes, as lunar and solar observatories.[37] To Fell, the "absurdity" of the root cellar interpretation is demonstrated by several generalizations which, he claims, characterize the slab-roofed chambers: 1) they nearly always face east; 2) their long axis almost invariably lies due east, or along "some other well-defined astronomical axis such as due south;" and 3) "inscriptions" are frequently found on lintel stones inside of the chambers or on the ceiling slabs. "To assert that these megalithic buildings are merely 'root cellars' built by the colonists," Fell reasons, "is unjustified. Even supposing that by some unexplained means the colonial farmers were able to inscribe Ogam and Phoenician dedications on their 'cellars,' this would by no means explain the systematic orientation of the cellars with respect to the ancient rites of the Celtic solar year."[38]

In another attempt to refute their use as root cellars, Salvatore Michael Trento computed that the chambers were far too large for use for food storage. According to his calculations, 10 New York chambers identified on a one and one-half mile stretch of roadway could have fed 1,755 people, a number greater than the total population of the entire region.[39] Another observer commented that "Vermonters traditionally built root cellars near the south inner sides of cellars underneath their houses, rather than outdoors in a hillside."[40]

In addition to the supportive "data" which could suggest that the chambers *were* of ancient origin, proponents of that position also argue that the chambers could *not* have been built within the recent historic period. For example, Mark Feldman declares conclusively that "there is no record of any construction of this kind occuring during the colonial period. It is inconceivable that hundreds of such structures could have been built by the farmers without any word ever having been recorded about the activity." He finds "the existence of these structures in colonial New England . . . totally without explanation or rationale." In a series of rhetorical questions he further argues: "What were the structures built for? Why was it done in secret? And, most important, *how* was it done in secret? How could all of that construction occur without 'outsiders' hearing of it, seeing it, and finally reporting it for publication in the newspapers of the day? It is quite obvious that they were not built for ordinary mundane use."[41]

Supporters of the ancient origin theory also raise questions about the level of stone working technology required to build the chambers. For example, "why", they ask, "in an environment abounding in trees, would anyone, much less a practical-minded Vermont farmer or an exbondsman, waste such a great amount of effort quarrying great stones and hauling them laboriously into place?"[42] They emphasize "the enormity of the task of emplacing stone roof slabs and the seemingly insuperable difficulty of sliding such stones onto unmortared stone walls."[43] (Why pre-Columbian settlers would have found the task easier goes unasked.)

Several proponents of the ancient origin theory cite documentation suggesting that, at least in some areas of New England, stone chambers already existed when the settlers first arrived. Retired Vermont farmers allegedly "recounted stories of their great-grandfathers' plows uncovering stone huts which 'looked like they'd always been there.' "[44] Specific reference is made to a letter written in 1654 to John Winthrop, Jr., by John Pynchon of Springfield, Massachusetts, who had heard "a report of a stone wall and strong chamber in it, made all of stone, which is newly discovered at or near Pequot; I should be glad to know the truth of this from yourself, here being many strange reports about it."[45]

As with any new theory, caution at the outset should ease the burden of future verdicts, and caution has not generally marked pronouncements from the ancient theory proponents. James Whittall, a notable exception, does not make the mistake of treating all of New Englands' chambers as a single type. He advises that each chamber merits study "on an individual basis and not all lumped together . . . suggestive of one age and origin."[46]

The Project: Philosophy and Methodology

The conclusion that the stone chambers are ancient structures should be independently verifiable and should not ride coattail to inscriptions or other purportedly ancient evidence. That is, the chambers, on their own merits, are demonstrably ancient or they are not. Professor George Carter of Texas A & M University has objected to this line of reasoning. He criticized an earlier study[47] which focused exclusively on the stone chambers, noting that the "discussion of the stone beehives [was deliberately] out of context." He termed it "bad methodology to discuss anything out of context. In this case dolmens, menhirs, and passage graves form a context, and that context is exactly like that of Bronze Age Europe."[48] The basic dilemma remains that more than a single context may be involved. The ancient theory proponents and their critics clearly disagree on what comprises the "proper" context of the stone chambers: the context of the Ogam inscriptions, animal and phallic figures and standing stones or the context of the eighteenth and nineteenth century rural New England

milieu. To accept one context precludes the other. The debate engages two clearly conflicting "particularistic contexts," or observable environments,[49] surrounding the stone chambers.

In theory the on-going circular argument of "proper" context can be avoided by removing the chambers from any context and treating them as a series of artifacts which require appraisal independent of their setting. Henry Glassie, for example, advises that in order "to keep historic goals in focus, one must initially assume that the present context of an old artifact is irrelevant. Once the old thing has been analyzed in its own terms, the scholar can return to look at its modern setting for suggestions to aid in his argument."[50] But how does one look at a set of artifacts, particularly a set of artifacts thought to be directly related, both by culture and age, to ancient European megalithic structures?

Betty Meggers, an anthropologist with strong diffusionist tendencies, outlined three necessary criteria before direct relationships of traits (or artifacts, architectural techniques, etc.) can be considered between two disparate places: "uniqueness of the trait, absence of local antecedents, and absence of functional causality."[51] In terms of the stone chambers, these three criteria translate into three questions. First, what is the geographic distribution of the structures and what factors affected this distribution pattern? Second, can or did the structures develop out of local historical tradition and technologies? Third, did the structures fulfill particular local needs in response to local environmental and social or economic circumstances? The logic of these questions directs that the stone chambers must first be demonstrated *not* to be historic before they can be demonstrated to be anything else. Based on this approach, the question of "proper" context remains moot. The stone chambers must be shown to be architecturally and functionally deviant from the eighteenth and nineteenth century farm setting which surrounds them before they can be examined within the setting of inscriptions and standing stones. Since culture comprises a system of interrelated components or subsystems which cannot exist without each other, verification of one of the components reflects on the validity of the other components. Because the ancient theory proponents maintain that the stone chambers form part of a broader cultural system of ancient European settlement, substantiating or refuting the antiquity of the stone chambers strengthens or discredits the entire system.

How much research is necessary to demonstrate that the stone chambers are architecturally and functionally *normal within* or *deviant from* the rural American farm setting in which they are found? How much research is necessary to demonstrate that Vermont's stone chambers *are* or *are not* historic? In the behavioral sciences, such as archeology, it is

virtually impossible to *prove* the correctness of an interpretation, particularly when it is an interpretation of past behavior which cannot be linked to written documentation. Even within the historic period, written records infrequently provide unequivocal answers. If the study of the great events and peoples of history presents great difficulties, then study of the lives, activities and thoughts of the average New England farmer is even more difficult. Henry Glassie summarized the problem inherent to historic research when he noted that "the synchronic account of any past era cannot be assembled, because available records concern only a tiny minority of the people and phenomena that existed at any time. A method based on the document is prejudiced: Fated to neglect the majority of people, for they were nonliterate, and, within the boundaries of literacy, to neglect the majority of people, for they did not write."[52] Since it is difficult, if not impossible, to arrive at "proof" of an interpretation, the best one can do is to arrive at a "likelihood of correctness."[53] Rather than presuming to prove who built the stone chambers and why they did so, this study attempts to establish whether these structures are likely to be deviant or normal within their historic context. There are many lines of evidence which need examination, and the convergence of the many lines will suffice to demonstrate the likelihood that the interpretation is correct.

The study of Vermont's stone chambers involved a number of different approaches. First, a field survey of a large sample of the chambers was undertaken for three months in the summer of 1977 to define systematically and as comprehensively as possible their structural characteristics and other environmental and cultural attributes, including topographic location, associated vegetation, dimensions, masonry techniques, structural characteristics, associated markings or graffiti, internal and external temperatures, and the relationship and distance to the nearest cultural features.[54] Second, oral evidence was collected from long-time local residents to obtain information they might have.[55] Third, archival research was undertaken to examine factors such as the deed of properties associated with the chambers, census records, land and proprietary records, road surveys and maps, diaries, and photographs.[56] Far from exhaustive, the archival research nonetheless consumed tremendous time, and yet wills, probate records, tax lists and agricultural records were not examined, nor was a systematic search for diaries belonging to the early settlers of the relevant properties undertaken. Fourth, a search of the pertinent literature was conducted to document and understand the cultural context of the chambers and to determine if the chambers are deviant features of the rural historic landscape or if their origins and functions lie within the two-hundred-year history of permanent European occupation.

The initial inventory of Vermont's stone chambers was acquired primarily through the courtesy of the New England Antiquities Research Association (NEARA), through several NEARA members who have been identifying and recording chambers for a number of years and through other interested individuals who provided information. The final inventory comprised fifty-two stone chambers located in twenty-three towns in five Vermont counties.[57] (See Table 1.)

TABLE 1

DISTRIBUTION OF STONE CHAMBERS IN VERMONT

COUNTY	NUMBER OF CHAMBERS	NUMBER OF TOWNS IN COUNTY WITH CHAMBERS
ADDISON	2	2
CALEDONIA	3	1
ORANGE	10	6
WINDHAM	6	2
WINDSOR	31	13
	52	24

The two-member research staff surveyed only forty-four of the chambers and collected a full set of data on thirty-six of these. Circumstances precluded full data collection on all the structures; some property owners denied access and several chambers had totally or partially collapsed, others were deliberately destroyed, and some were identified too late in the season for a field check. Informants indicated that similar chambers had been frequently torn down. For example, in 1946 Harold Goodwin reported six chambers in a small valley area in which only two chambers now exist.[58]

Because of the documented disappearance of stone chambers over time, the original full distribution of these structures may never be fully known. The study did not include a systematic statewide field survey to locate stone chambers, but in order to identify a broad distribution pattern, inquiries were sent to over one hundred local historical societies throughout the state. These inquiries did not disclose previously unidentified chambers, suggesting that the apparent concentration of the structures in the eastern part of the state, and primarily in Windsor and Orange Counties, may represent a reliable, if not statistically valid, distribution pattern. Since the chambers tend to be located in upland and sometimes remote areas, similar structures may remain unidentified. For the most

part exploration of the structures has focused in a limited eastern part of Vermont, and thus the apparent absence of stone chambers in Bennington County, for example, may simply represent sampling error.

Primary Data

Based on its major land forms, the State of Vermont has five broad physiographic regions,[59] only three of which contain identified chambers. The Vermont Piedmont region, of particular interest to this study, comprises approximately the eastern third of the state. All but three of the stone chambers are located in this region, near two major eastern drainages of the state: the Connecticut River which forms Vermont's eastern boundary and the White River system which flows in a southeasterly direction before joining with the Connecticut River. The topography, soil types, vegetation and temperature ranges of the Vermont Piedmont present great variety. The Green Mountain Region, like a spine running the entire length of the state, and the Champlain Lowland region, comprising a fertile area of generally low topographic relief from the west central part of the state north to the Canadian border, present more uniform characteristics.[60] One chamber in western Windsor County and the easternmost chamber in Addison County are situated in the Green Mountain Region. The only chamber presently identified in the Champlain Lowlands sits in western Addison County.[61]

All the rest of the chambers are in the Vermont Piedmont region, a relatively rocky or stony area resulting from two massive north-south running belts of metamorphic rocks known geologically as the Waits River and Gile Mountain Formations. The Waits River Formation is composed primarily of quartzose and metamorphosed and recrystallized micaceous crystalline limestone, as well as considerable quantities of phyllite and mica schists.[62] The Gile Mountain Formation has a predominance of quartz-mica schists, black phyllites and micaceous quartzites, although crystalline limestones, frequently indistinguishable from those in the Waits River Formation, exist in isolated areas.[63] With the exception of eight chambers located in Addison County and in westernmost, easternmost and southern Windsor County, the chambers were built of stone from these two formations. (See Map 1)

Physical properties of the Waits River and Gile Mountain Formations make these rock types ideal for use in the construction of stone chambers. Primarily, these lithologies are distinguished by a laminated or foliated structure readily subject to natural or induced cleavage, a feature particularly evident in the limestones, schists, phyllites and gneisses which either outcrop in slabs of useable thickness or are easily separated into useable slabs through common splitting techniques. Although the individual lime-

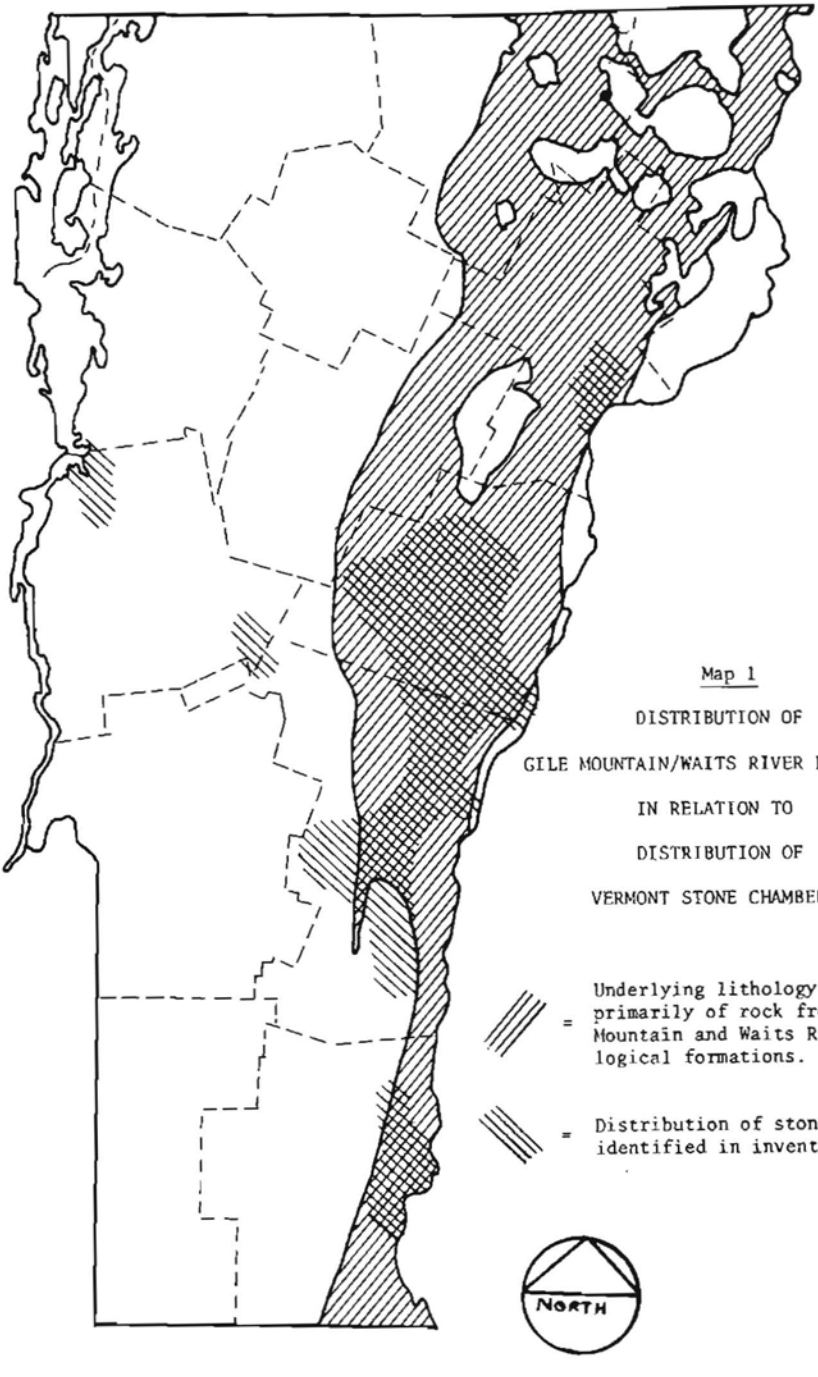
stone beds range in thickness from four inches (0.10m) to over six feet (1.82m), the normal thickness of both the Waits River and Gile Mountain limestones is one foot (0.30m). Quartzmica schist beds range from one foot (0.20m) to five feet (1.52m) in thickness, and the phyllite beds range from less than one foot to several feet.[64] The simplest quarrying techniques can readily take advantage of the weaknesses along these foliation planes.

Although the seven chambers in western, southern and easternmost Windsor County and easternmost Addison County are located in areas of much more complex and rapidly changing lithologies, preferences for local outcroppings of laminated schists, gneisses and greenstone prevail in the construction of the chambers. The lone chamber in western Addison County is constructed of dolomite, which outcrops throughout the Champlain Lowland region in beds of useable thickness.[65]

The vast majority of the chambers are found on upland valley slopes, ridges or hilltop areas, and only three have been identified in lower valley areas. From a sample of forty-two chambers, thirty, or seventy-one percent, are located at elevations between 1000' and 2090', the remaining eleven, or twenty-six percent, lie between 500' and 1000', and only one chamber, in western Addison County at an elevation of 200', is in a lowland area.[66]

The type and density of vegetation currently associated with the structures depends on their physical location and degree of current use. Adjacent vegetation thus ranges from cleared fields or lawn areas to dense secondary woodland growth. Several chambers have one or more trees of major size growing on top of or on a flank of the chamber mound. Besides demonstrating the structural sturdiness of these chambers by withstanding the threats from the root growth, these trees provide a minimum date for the chambers' construction. At the same time, tree growth on top of the chambers suggests lack of maintenance and may indicate the date of abandonment of the properties associated with the chambers. Core samples indicated an approximate age range of 40 to 126 years for trees growing out of chamber mounds.[67]

The observable and describable structural attributes of individual chambers are conditioned by their present physical relationship to man-made and/or natural features of their immediate environment. The structural qualities of a particular chamber cannot be described without reference to the fact that it may be a three-sided mound or a chamber located in the basement of a house and shares a common wall with the foundation. Such relationships between the chambers and related terrain or man-made features constitute a single observable whole, and the chronological relationship of natural or cultural features to the chambers themselves



Map 1

DISTRIBUTION OF

GILE MOUNTAIN/WAITS RIVER FORMATION

IN RELATION TO

DISTRIBUTION OF

VERMONT STONE CHAMBERS

= Underlying lithology composed primarily of rock from Gile Mountain and Waits River geological formations.

= Distribution of stone chambers identified in inventory.

is unimportant to the initial descriptive process. Visually the structural qualities of the chambers divide into two broad types.

Type A Integrated into the stonework of an existing building or foundation hole or located within an existing building or foundation hole.

Type B Built into a hillside or sloping bank, freestanding and embanked on one or more sides with earth or simply freestanding.

Of the fifty-two chambers identified, fourteen or about one-third are of the Type A variety and thirty or two-thirds are of Type B construction. (See Table 2.) One example of a Type A chamber is located on the lower level of a barn, its entryway in the back wall of one of the horse stalls. Another Type A chamber, for example, is attached to a foundation wall of a defunct cider mill.[68]

TABLE 2

CONSTRUCTION TYPE A

	WITHIN HOUSE FOUNDATION HOLE	WITHIN EXISTING HOUSE	WITHIN BARN/OUTBUILDING FOUNDATION HOLE	WITHIN EXISTING BARN/OUTBUILDING	EXTENDS OFF FROM BARN OUTBUILDING FOUNDATION HOLE
7[a]				X (Carriage shed)	
8		X			
10				X (Barn)	
11			X (Barn)		
13	X				
22					X (Barn?)
23	X				
24					X (Shed)
28					X (Cider Mill)
30	X				
37	X				
40					X (Shed?)
53			X (Barn)		
54	X				
TOTAL	5	1	2	2	4
%	36%	7%	14%	14%	29%
TOTAL A	14				
%	32%				

a Numbers refer to individual chamber designations. The number assigned to each chamber remains consistent throughout the study.

CONSTRUCTION TYPE B

	BUILT INTO HILL-SIDE MOUNDED	BUILT INTO HILL-SIDE/PARTIALLY MOUNDED	FREE-STANDING/ MOUNDED	FREE-STANDING/ UNMOUNDED	SUBTERRANEAN MOUNDED
1		X			
2	X				
3					X
4	X				
5	X				
6	X				
9	X				
12	X				
14	X				
15	X				
16	X				
17				X	
18		X			
19	X				
20	X				
21			X		
25		X			
26		X			
27	X				
29	X				
31	X				
32			X		
34	X				
35	X				
36	X				
38	X				
39	X				
42	X				
49	X				
50			X		
TOTAL	21	4	3	1	1
%	70%	13%	10%	3%	3%
TOTAL B	30				
%	68%				

Chamber No. 13. Chamber within house foundation hole (Type A), Windsor County.

Chamber No. 16. Hillside chamber (Type B), Windsor County. Note missing lintel stone.

Chamber No. 3. The lone subterranean chamber (Type B), Windham County. Note character of entry hole.

Chamber No. 32. Freestanding chamber, mounded on three sides and top (Type B), Windsor County.

Of the twenty-five Type B chambers built by cutting into hillsides or sloping banks, twenty-one are entirely earth covered on the top and sides leaving only the masonry on the front or entryway side fully exposed.[69] The remaining four Type B chambers built against a hillside or slope have partial earth covering only on their lateral sides and rear leaving the masonry on the top exposed. Three freestanding chambers have been banked over with earth on all but their entryway side, and visually they are similar to those built into hillsides. If construction into a bank or hillside was undertaken to facilitate subsequent mounding (an assumption strongly supported by the large number of mounded hillside chambers), such construction most likely entailed less work than the freestanding type which required greater earth moving effort. This assumption suggests that construction of a chamber on a topographically flat area would require subsequent mounding when a convenient hillside was unavailable, which is the case for three chambers. Only one Type B chamber exhibits no earth covering whatsoever, and one Type B chamber is the only truly subterranean structure.

The presence or absence of mounding characteristics in the Type A chambers indicates several interesting patterns. Of the fourteen chambers located within or attached to another structure or foundation hole, three exhibit mounding only on those portions which extend outside of the limits of the "parent" structure. On the other hand, four Type A chambers which extend off of foundations are all fully mounded. The only chambers in the sample with no earth covering whatsoever are either entirely located within the lower floors of larger structures or situated within the four walls of an abandoned house foundation.[70]

A large majority of chambers have entryways incorporated into their front wall. One chamber exhibits a side entrance; one is entered by a stairway and another [No. 3] has a small triangular entry hole on top of the chamber mound. Regardless of construction types, chamber entryways tend to be oriented towards southerly or easterly exposures (See Table 3). Only two chambers face the north, an exposure which apparently resulted from the lay of the nearest available hillside. Only one chamber faces west. Seven exhibit positive evidence of door framing or hardware, but it is not clear whether or not these are original or later additions. In several cases, wooden doors known to exist have either rotted away or were removed in recent memory. Buttressing walls, predominately associated with Type B chambers, consist of a masonry supporting or reinforcing wall along a chamber's front facade which, besides having a functional purpose, often lends the structures a formidable appearance.[71]

In a number of chambers only the front facade and, where present, the buttressing wall are visible, with the rest of the exterior masonry