An Investigation of the South Side Landing Area of Mount Independence, Orwell Township, Addison County, Vermont

by Ronald F. Kingsley and John P. Chiamulera

Preface

Since 1986, the German incursion along the east side of Lake Champlain to Mount Independence during the Revolutionary War and their brief occupation have been under investigation in conjunction with the German Auxiliaries Project (GAP). A report of the entire incursion is in preparation by the principal investigator, ~~Dr.~~ Ronald F. Kingsley.

The objective of this investigation is to locate and document archaeological evidence about the historic past within the study area., which is located at the base and south side of Mount Independence and on the west side of the town road that leads up to the state historic site. The 2.3-acre property is bound on the west by the shore of Lake Champlain, on the east by an unpaved road (Route73A, the historic Mount Independence-Hubbardton Road), on the north by Mount Independence Historic Site, and on the south by a small section of a farm (Figure 1). This investigation was undertaken at the request of the owners who recognized that the property may hold pertinent undocumented evidence about the military history of the Mount and the Vermont's post-Revolutionary War development. They wanted to know about archaeologically sensitive areas and to use the information in future decision-making that may threaten or destroy any remaining evidence.

The investigation was guided by the following lines of inquiry:

1. What is known about the history of the study area?
2. What historical and archaeological information is available about the design of mid-18th-century inland wharfs, military store houses, and guard houses that might have been constructed within the study area below Mount Independence?
3. What documentary and archaeological evidence exists to examine whether a wharf, store house, and guard houses, as ordered by Colonel Baldwin in August 1776, were built within the study area?
4. What evidence exists about how the property was developed over the next two or more centuries, and what impact has settlement had upon any evidence of a former military presence?

This article focuses on discoveries made in the study area during 1996 -1997. Documents of the period reveal that the Americans began fortifying Mount Independence in mid-July 1776 and continued until their engagement with General Burgoyne in July 1777. A connecting road was constructed from the summit and down the steep south side of Mount Independence to form a link to the bay below, known as the "Batteau Landing from Skeensborough." A wharf, a large store house, and one or more guardhouses were constructed in the vicinity of the landing on the south side, and in September 1776, a crude road was started through the dense forest along the narrow peninsula to Hubbardton.

Fortifications and buildings were also being constructed on Mount Independence and in the environs in preparation for the British attack that would come in July 1777. Following the American retreat on 6 July, the British briefly occupied the fortifications at Ticonderoga and Mount Independence. Except for an unsuccessful attempt in September by the Americans to recapture their former positions, no further military encounters took place on or around Mount Independence.

Over the next two centuries the land was settled and developed by many unknown persons. The historical importance and study of the Mount Independence and its environs have become the focus of interest by researchers and preservationists during the past four decades (Kingsley 1997:57-71; Murray 1967:109-111; Wheeler and Wheeler 1968; Williams 1967:89-108).

Historical Background and Setting

Mount Independence had a brief but important role in the American rebellion against British rule in the northern colonies of North America. The fort at Carillon, or Ticonderoga, had been held by the British for fifteen years after being abandoned in 1759 by the French during the French and Indian War. In 1775, Fort Ticonderoga was captured by a group of Americans, and it served as a base for an unsuccessful invasion of Canada during the summer of that year. Ticonderoga was recognized by Congress for its strategic importance along the water route between Canada and the United States. Work was begun that year to repair and expand the defenses of Fort Ticonderoga, which became the center of operations for the Northern Department of the Army under the leadership of Maj. Gen. Philip Schuyler. During the summer of 1776 the Americans began to develop and fortify a wooded and rocky height across Lake Champlain southeast of Fort Ticonderoga. Maj. Gen. Arthur St. Clair took command on 12 June 1777 and General Schuyler returned to Albany to coordinate the American effort.

Several engineers were assigned to develop the location

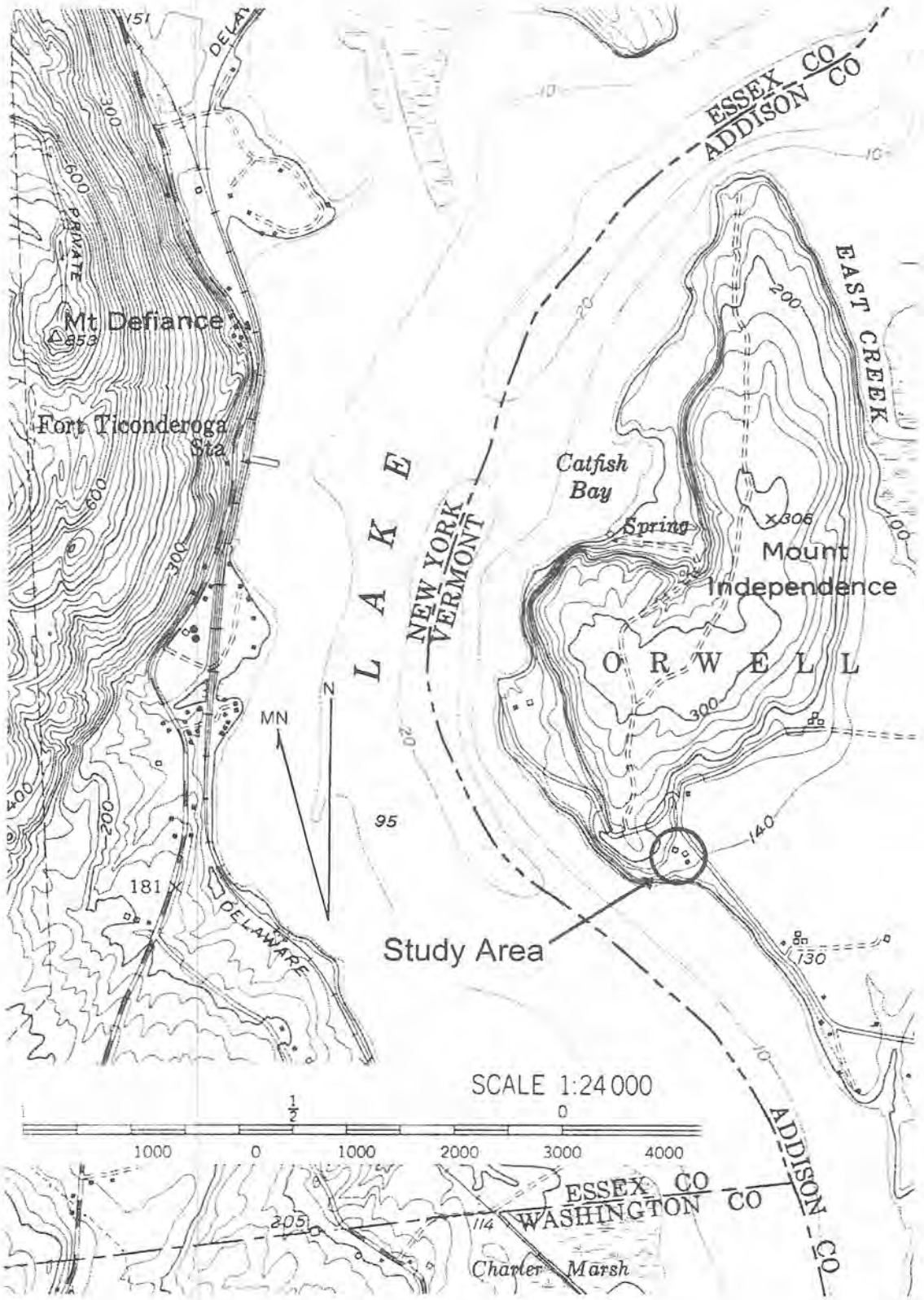

Figure 1. *Section from USGS Topographical Map, 1950, Ticonderoga, N.Y.-VT., 7-5-minute quadrangle, showing location of the study area.*

as a defensive position for the American settlements to the south. Lt. Col. Jeduthan Baldwin began serving as the fort'schief engineer upon his arrival on 8 July 1776 after a brief service in the American invasion of Canada in 1775. On 3 September he was promoted to full Colonel. Baldwin was supported by several notable engineers, among them John Trumbull, Christopher Pelliser, and Thaddeus Kosciuszko. Col. John Trumbull was appointed in July 1776 as deputy to Maj. Gen. Horatio Gates, who was George Washington's adjutant. During Trumbull's stay at Mount Independence he maintained notes and correspondence about events, stated his opinion about the military importance of Sugar Loaf Hill, and drew one or more maps of Ticonderoga in 1776 (Trumbull 1841:29-34). Colonel Pelliser was a Canadian who supported the American cause. He left Canada and was appointed an engineer (Force 1848 I:466, 725, 1593, 1597). Among Pelliser's contributions was his evaluation of the Jersey battery, located north of Fort Ticonderoga along the west side of the lake. It was part of the outer defensive works of Fort Ticonderoga (Force 1848 2:1970). Lt. Col. Thaddeus Kosciuszko was a Polish volunteer and engineer. He joined the team of engineers on 12 May 1777. Kosciuszko evaluated defenses, made recommendations, and supervised the construction of additional works (Baldwin 1906:94-104). These engineers, together with assistants and men under their command, undertook to construct defenses, structures for communication and delivery of resources, and buildings that would enable the Americans to resist the British response at Mount Independence.

Both Baldwin and Trumbull gave accounts of development of works on the south side of the Mount. Colonel Baldwin states in his journal for 17 August 1776: "Laid out a wharf at the South side of Independent point & ordered a large stoer [sic] House to be built & also 2 guard housen [sic]. . . ." And on August 26 he records on the progress: "I went a Crosst [sic] Independent Point to McDaniels to See the Store & Wharf & other works going on there." (Baldwin 1906:70, 77).

John Trumbull recorded his observations of the Mount on 24 August 1776 upon his return from Crown Point. "There [Ticonderoga] my first duty was, in company with Colonel Wayne, to make a second examination of Mount Independence. He joined in the opinion before expressed by Col. Wynkoop and myself, that the ground [Mount Independence] was finely adapted for a military post . . . ." On the fourth and eastern side of the position ran a morass and deep creek at the foot of the rock, which strengthened that front, leaving room only, by an easy descent for a road to the east, and to the landing from the southern end of the lake (Sizer 1953:28). Trumbull records in his orderly book on 29 August 1776 about work on the guardhouses: "The Field Officers who command the Guard upon the Isthmus of Mount Independence, and the Captains who command the Guard upon the redoubt above the Lines, are to see that those under them are vigilant in finishing the two Guard-Rooms directed by former orders to be built by those Guards." (Trumbull 1933:56).

Meanwhile, the Americans continued to enhance their positions on both sides of the lake. General St. Clair and his officers met on 5 July and decided to retreat from their fortifications that night and into the early morning hours of the next day. They recognized that they were faced with an inevitable encirclement by an army composed of British soldiers, hired German auxiliaries from Braunschweig and Hessen-Hanau, and some Canadian volunteers and Indians. While the retreat was successful, accounts given by officers during St. Clair's general court-martial the following year describe the undertaking as on of "confusion and disorder." The Americans were ever hopeful that the enemy did not know of the evacuation, for they knew Burgoyne would surely cut off the retreat. Between 9 P.M. and 4 A.M. the American army mobilized and left by land and water. The landing area served as a loading area for the Americans and their supplies. From there vessels would proceed to Skeensborough. On the night of 5 July, however, a hard wind made maneuvering vessels and loading impossible at times. Confusion and disorder led officers to resort to threats and/or promises of rum to unload stores, ammunition, cannon, and baggage from wagons and put them on board the batteau. Oxen were found to be unfit, and officers and soldiers alike disobeyed orders. Some carriages for cannon and wagon were left on the hill just as the British came into the works and the Americans were fired upon as they pushed off their boats. At the last house, "not more than a quarter of a mile from the landing upon the south side of the Mount," four American soldiers were discovered partly drunk. They were made to run until they caught up with the retreating American troops (Collections of the New-York Historical Society 1881:52-55, 57, 88-89, 91, 111-112, 116).

Colonel von Gall of the Hesse-Hanau infantry regiment wrote a letter to his Serene Highness, with the notation "Near Wood Creek river in the wood, July 11th 1777." He recalled his observations of the Germans' arrival on 6 July, "We took two fine vessels at the mouth of the river, one carrying sixteen and other ten guns, and the rebels [Americans] set fire to three smaller ones and burnt many batteau, as well as a large storehouse there, that had stood near some houses, and then ran away." (Gall 1777: U.U.72). The Americans were pursued as they retreated south on land and water to Stillwater, where they were successful in defeating Burgoyne. Prominent engagements also occurred during the interim at Hubbardton, Fort Ann, and near Bennington. Over the next four months, Fort Ticonderoga and Mount Independence served as supply posts and were manned by a contingent of German auxiliaries and British troops. On 18 September 1777, a force of Americans made an unsuccessful attempt to recapture the forts, but they did free some American prisoners. Following Burgoyne's defeat at Stillwater in October, the posts were destroyed and the defenders returned to Canada (Hille 1993; Kingsley 1997:57-71; Kingsley and Doblin 1999:5-26).

Figure 2. *Section of the Beers 1871 Map of Orwell, showing settlement south of Mount Independence.*

Early Settlement to the Present

After many centuries of occupation by Native Americans, the town of Orwell was chartered in the name of King George III on 8 August 1763 by Benning Wentworth, Royal Governor of the Province of New Hampshire. The 27,000 acres of land was to be surveyed and distributed among sixty-four grantees. About this same year, however, unknown to the grantees, a squatter named John Charter and his family came from Canada and settled on a plot of land, believed to have been in the vicinity of Mount Independence. Apparently displeased with the presence of Americans on Mount Independence, he left briefly prior to Burgoyne's attack. The family was discovered in 1783 when the town first began to survey and lay out properties. They were given permission by the grantees to remain on a 100-acre plot.. They remained until 1808 when Charter sold the farm and moved to the West. The survey led to a rapid settlement of the town (Bottum 1881:5-9; Murray 1967:111).

None of the original grantees resided on their plots and few showed any initial interest (Bottum 1881:14). While their names appear on the survey map and town records, the land was assigned to settlers. Errors were discovered in the 1783 survey that led to disputes and claims, which led to another survey in 1799. The town was found to contain approximately 27,570 acres, exclusive of ponds and streams.

The 1799 survey map shows a section of the study area being within Lot 250 with the name of Thomas Brookman Jr. (Town of Orwell 1799). Of the American soldiers who were garrisoned on Mount Independence during 1776-1777, four are known to have returned and settled there: John Pepper, Jonas Rice, Col. Azel Abell, and Ephraim Blood (Orwell Historical Society 1988:16). An early 19th-century unscaled map shows the study area settled by an unidentified person on a sizeable plot on which two buildings are indicated (Roberdeau 1816).

Euroamerican settlers of Orwell found the soil fertile for growing grains and grasses and the lake and stream a source of wildfowl and fish. The forests contained an abundance of white pine and oak. The settlers first grew wheat and later raised cattle. Around 1825, the national demand for wool led many farmers to a change from beef cattle to sheep, but a decline in wool prices in 1840 caused many to shift to dairying and the production of butter and cheese (Bottum 1881:5-10, 14, 19-21, 38-39). Orchards emerged as a business opportunity, particularly with the availability of railroads after the 1840s. Lake Champlain and the Champlain Canal became important links for commercial transportation during the 19th century and they offered residents on both sides of the lake opportunities for other employment (Astmann, Kingsley, and la Pointe 2000).

A wall map of Addison County for 1857 identifies F. [Franklin] Ward as owner of the study area and property (Walling 1857). The 1871 Map of Orwell identifies him still located on the lot and J. [John] Buttolph living across the town road on the northeast corner of a new road leading toward East Creek (Beers 1871:47-48) (Figure 2).

Over the following years the size of the lot containing the study area changed, as did the families. Deeds and census records over the past 200 years show about 20 different property owners to the present time. While most owners engaged in farming, other occupations included a canal boat builder and retired persons. Unlike more than two centuries ago, the historic setting today offers the visitor and residents of the property a tranquil setting and a scenic view of Lake Champlain from the bay.

Analysis of Maps

Some maps of Mount Independence and its environs for 1776-1777 have survived. While maps provide some information, they, as other forms of documents, have differences in what and how they represent information, likely influenced by time, perspective, circumstance, and purpose. They also have omissions, distortions, incompletions, and errors. Scale, orientation, the key, and symbols are among some of the issues that influence interpretation. Four early maps are American, and three are British-German. Five provide information before 6 July 1776, and three until late October 1776 when Mount Independence was abandoned by Burgoyne's small garrison.

"Ticonderoga & its Dependencies August 1776," drawn by John Trumbull, shows some of the first works constructed by the Americans, south and below the Mount following the orders of Col. Baldwin. This map shows the road descending the Mount, two large buildings at right angles to each other along a road to the lake, and the location of the bay as the "Landing from Skeensborough." (Trumbull 1841: recto, 33) (Figure 3).

Six maps of Mount Independence are dated to 1777. Three are American, and three are British-German. They were compared for the presence, location, number, and shape of buildings and structures in the vicinity of the study area:

1. "Plan of Carillon or Ticonderoga which was quitted by the Americans in the night from the 5th to the 6th of July 1777" and "Position of the Enemy's the 24th October 1777." This map presents conditions associated with two different dates and interpretative keys. It was drawn by Michel Capitaine du Chesnoy, the Marquis de Lafayette's cartographer. His map was not made from a first-hand reconnaissance but compiled from other sources (Cohen 1998:172). The key for the map identifies the location of a wharf "**r**," a storehouse "**b**," and Piquets of Germ chasseurs of de 32 men - from the Dove's camp to the Right of chasseurs is all Breast Work of Wood and Stones and below the hill is an abbatis [sic] "**t**"; the American works "**f**" on the Mount above the storehouse, and the ship - *Lady Marie* - with 16 cannons "S." On east side of the "Road to hubbard town" are two small unidentified buildings within the bokager (*bocager*, French, a wooded area) (Figure 4).

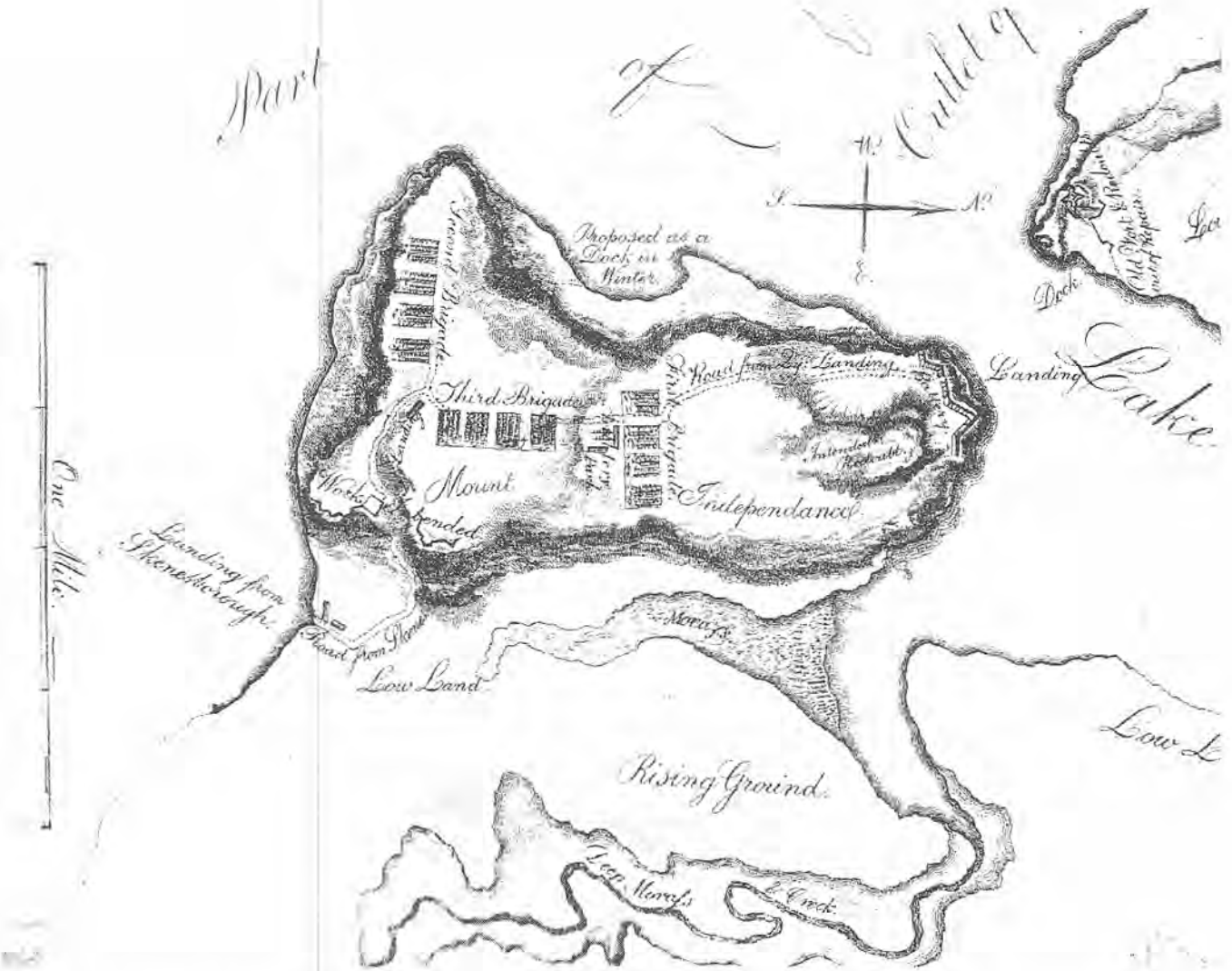

Figure 3. *A section of the map, "Ticonderoga & its Dependencies August 1776," from John Trumbull's Autobiography.*

2. "PLAN of TICONDEROGA and MOUNT INDEPENDENCE, including MOUNT HOPE, and showing the Rebel Works and Batteries, as they were when His Majesty's Troops took Possession of them on the 6th July 1777." This map was drawn by Charles Wintersmith. The map key locates and identifies "g" as a "New Wharf not finished." but no symbol near the wharf.

3. "Plan of Carillon or Ticonderoga which Was quitted by the Americans in the night from the 5th to the 6th of July 1777." The cartographer is unknown and the original is in France. The map appears to be the one copied by Michel Capitaine du Chesnoy. However, Chesnoy's drawing did not include two additional buildings located along the road and less than a quarter of a mile from the Mount. This may be the house referred to in a the testimony by Colonel Baldwin during the court proceedings of St. Clair (Collections of the New-York Historical Society 1881:91; Kingsley 1997:59).

4. "Plan of Fort Carillon or Ticonderoga with Mount Independent [sic]." This map appears in the appendix to a letter by Lt. Ernst Christian Schroeder to Maj. Gen. Friedrich Adolph von Riedesel dated September 26, 1777. The map does not show any wharf or buildings to the lake but does show the presence of the alarm battery above (Hille 1993; Kingsley and Doblin 1999:12).

5. A manuscript map was drawn by Lt. John Stark to accompany "Remarks on Affairs at the Portage between Ticonderoga and Lake George, and at Mount Independence, in September 18, 1777." The sketch illustrates the position and action taken by British vessels during the American attempt to recapture Ticonderoga and Mount Independence (Kingsley

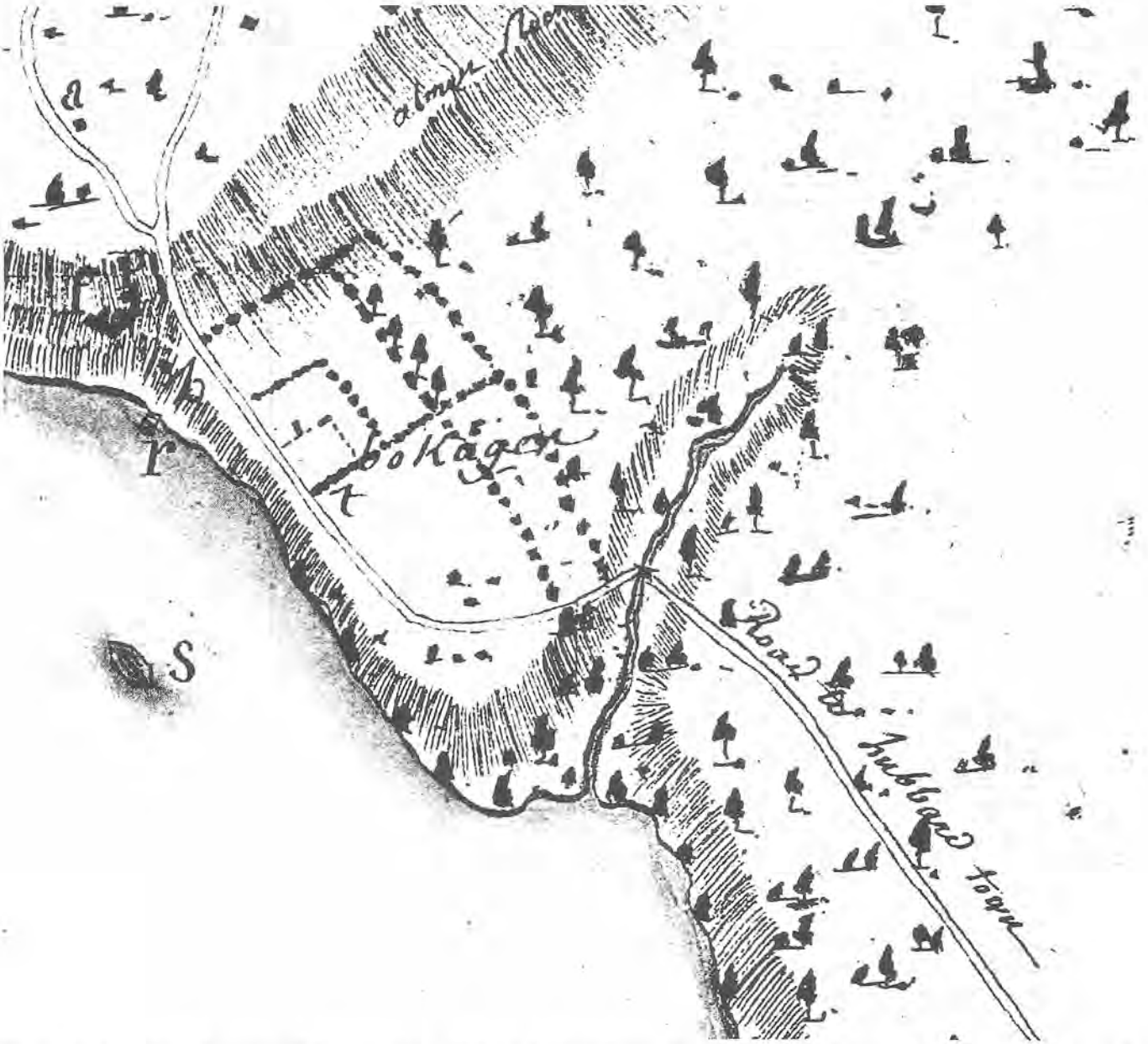

Figure 4. *An enlarged section of the south side of Mount Independence, drwan by Michel Captaine du Chesnov* (Library of Congress, Geography and Map Division).

and Doblin 1999:10). The key identifies number 3 as "Two Gunboats with a 6 pounder in each commanded by Lt. Monat, their guns pointing in the direction of the lines." A symbol of a building and a wharf perpendicular to each other, however, is keyed.

6. The Map of Ticonderoga and Mount Independence was prepared for Maj. Gen. Arthur St. Clair's court martial proceedings in 1778. Only a symbol of a building below the Alarm Battery is shown (Collections of the New-York Historical Society 1881: n.p.).

The information from these maps shows inconsistencies that limit their use for interpretation. Only Trumbull's 1776 map clearly shows the presence of two rectangular-shaped buildings along a road to the lake. One could be a large store house and the other a single building with two guard rooms, which would be in agreement with Baldwin's order and Trumbull's remark. The inconsistencies among the maps for the study area in 1777 render them of little value in determining the number and size of the buildings and when they might have been destroyed. The wharf apparently was

never completed, according to the key on two maps. When the Americans reoccupied Mount Independence in November 1777, however, they found that everything of value had been destroyed by Burgoyne's small garrison.

Designs of Wharfs, Storehouses, and Guardhouses

Men seeking a military career in the American colonies had to obtain their education in the military arts and engineering from European models in books known as a *Treatise* or by personal instruction under an experienced person. While books were scarce during the 17th and 18th centuries, the use of military texts from Europe was encouraged for obtaining knowledge, skills, and discipline. Many Americans had to be self-taught by necessity. The manuals that emerged in colonial America contained material that was often selected for his ability to be learned quickly and to be applicable in the wilderness (Stanley 1964:1, 10-11). The design and construction of military buildings and structures proposed for the European landscape were modified for use in the colonies but basically followed the models and styles of the mother country.

In this research, a documents search was undertaken to obtain historical and archaeological information on the design of the structure (wharf) and buildings (store houses and guard houses) to recognize and interpret them. Both archival source material and archaeological findings were found to be scattered and very limited in number, as reported by other researchers. These results are summarized below.

Wharfs

A wharf is a structure built from shore into a body of navigable water by which vessels can load and unload cargo and people. Wharfs built during the colonial period have been the subject of a study (Heintzelman 1985:8-15) that reports that they were constructed of timber, timber and stone, or stone. A wharf's design was related to socio-economic conditions, availability of raw materials, intended permanency, size of ships, water activity, direction of wind, and soil conditions. The appearance of the structure may include a variety of forms, among them those employing a crib, possibly formed by timbers, being filled or open, having a floor, and walls constructed of stone.

Underwater archaeology has been conducted in Lake Champlain between Ticonderoga and Mount Independence by the Lake Champlain Maritime Museum. Art Cohn and his colleagues were able to document the remains of twenty-one wooden caissons that had been built, filled with rocks, and sunk into Lake Champlain during 1776-1777 to construct a bridge between the two military installations. The Americans then laid a wooden walk between the caissons (Starbuck 1999:181-186). The Great Bridge was only one of other lake-related engineering achievements during the American occupation of the fortifications. The others, including the wharf by the batteau landing, have not as yet been investigated.

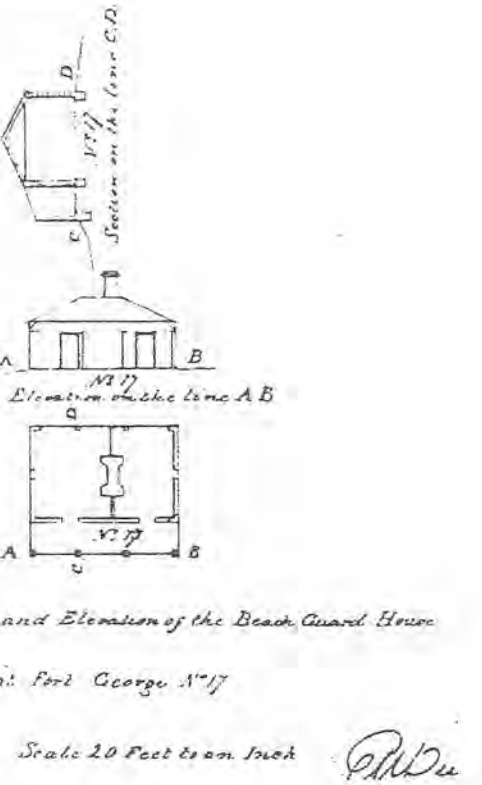

Figure 5. *Drawing of a Guard House at Fort George, Canada* (Mead 2002:166).

Guardhouse and Storehouse Buildings

The design, size, and type of construction of military stores and guardhouses are obviously influenced by available building material and local needs. Guardhouses function with other buildings as barracks and gateways, or separately to house a guard for sentry duty. Separate quarters or buildings were constructed for officers and soldiers. In some cases a small porch or portico was attached to the building to provide cover. A cell might be located in part of the building in a hole beneath the floor. Floors were generally wood, rather than cobble, and the quarters were heated by either a fireplace or brick stove. According to Muller's *Treatise*, a guard house contained two rooms, one 10½ by 14 feet for the officer, and the other 20 by 14 feet for the soldiers. Attached was a piazza, supported by five pillars, where the sentry could walk (Muller 1764:193-194).

John Mead located and included in his 2002 report on Fort Montgomery a photocopy of a drawing that shows the

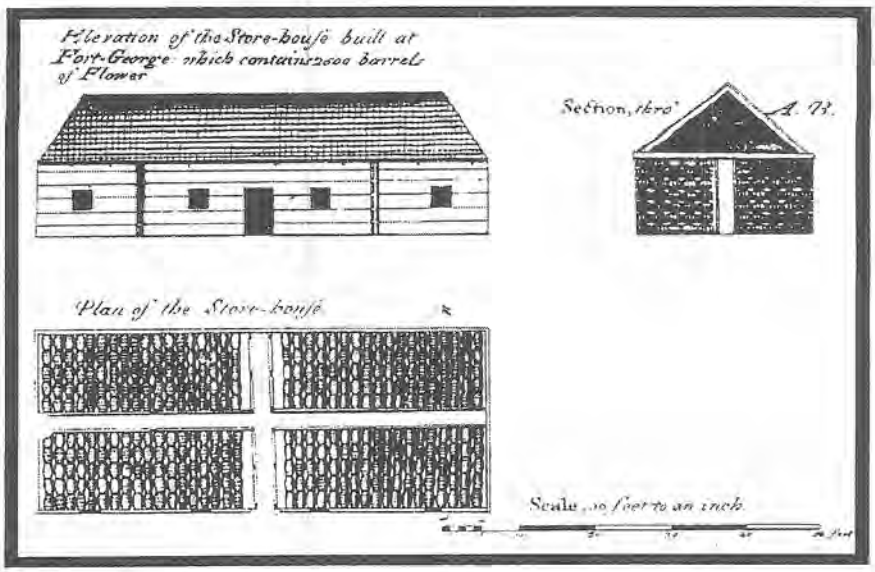

Figure 6. *A military storehouse for flour at Fort George, New York* (Miscellaneous Collections, No. 15456, Courtesy of The Henry E. Huntington Library, San Marion, Calif.).

plan, section, and elevation of a guard house built by the British in Canada . He remarked that it was almost identical to one he had excavated (Figure 5).

Store houses were found in towns, along waterways (canals, lakes, rivers, and seaports) and at military fortifications. In some cases they served multiple purposes or were later converted for another use, such as a barrack. The ground level was generally used for the storage of heavy or large objects and a first or upper floor or loft was left for lighter items. Floors were generally covered by wood, and the building had one or more doors and windows. The roof was often covered by cedar shingles or slate. According to the *Treatise*, the shed or store should be rectangular and large. There could be three gateways in front and one in the sides. While military store houses provided space to store objects such as artillery, carriages, and ammunition, maritime stores served as a location for the fitting or repair of ships and storage (Muller 1764:225-227).

An idea of the general design of a mid 18th-century store house is represented in an engineering sketch of a building constructed at Fort George (erected 1759) in New York. The drawing is among documents in a miscellaneous collection at the Henry E. Huntington Library. The estimated size of the building, based on the scale provided, is 60 by 25 feet. The sketch appears in the doctoral dissertation of King Lawrence Parker (1970:199) (Figure 6).

No drawings or records appear to have survived that give the precise location and design of the store house, guard houses, and the wharf at Mount Independence as ordered by Colonel Baldwin in August 1776. A letter was found, however, that was written by Christopher Yates, an engineer at Cheshire on Wood Creek near Fort Ann, to Maj. Gen. Philip Schuyler, the same month and year. In his letter of 13 August 1776, Yates provides information on his plan to construct a storehouse with a guardhouse adjacent to it, perhaps an idea not unlike the one represented in Trumbull's map of the landing area (Schuyler n.d.):

> I have the Pleasure to acquaint you that our saw Mills Turn out Board finely I have sent down to Skeensborough Near 2000 Boards and about 150 Oak Planks of 2 Inch Tick [sic] and from 10 to 24 feet Long the Barracks and Store House is Just finished Except the upper floor of the Store House and Gutters to the Barracks the Next thing I Intend is to Build a Gaurd [sic] House at the end of the Store. I don't Mean to Join the Store but to Leave about 40 to 50 feet Between the two and if Your Honour thinks proper shall prepare wood and make a Block House at the Mill the Brick making I Cant Get along with or the weder [sic] is and has been so very unsettled we have had a Vast Deal of Rain two Large fushets [sic] so that the flats below the store was all Covered with water.

Christopher Yates was a captain in the New York 1st Continental Line until January 1776. He was appointed Lieutenant Colonel on January 13, 1776, and from the fall of 1776 to July 8, 1777 he was in command of the 2nd Albany County Militia at Fort Ann. Yates is believed to have served as a deputy quartermaster general and later promoted to Colonel when he was stationed at Saratoga (Copestake 1934:32-37).

Selected private, state, and federal facilities were contacted where reconstruction or research of 18th-century forts and buildings was an objective. A surprising number of designs used for the reconstruction of some fort buildings had to be based on limited archaeological data and documentary evidence. In other cases only a crude map or carving on a

powder horn were all that were available. Unfortunately, no plan, sketch, or map can be trusted implicitly for its details. Relevant information from six locations for guardhouses and storehouses is briefly summarized.

Colonial Williamsburg, Virginia. E.M. Frank conducted an archaeological investigation of a mid-18th-century magazine guard house. He reported finding only fragmentary evidence. The brick foundation of the building was 19 feet 3 inches wide and 27 feet 9 inches ["32 feet 6 inches" crossed out] long. A 20-foot lean-to portico was attached.

Frank commented that the length, but not the width, conformed to Muller's design. Each had a fireplace and no basement. Frank believed that during the mid-18th century, a magazine guard house functioned with an officer and 12 soldiers as a guard. The house was not a barracks but merely a shelter. Sleeping benches would be present for the relief either on ground or second floor. The officer's room would have been similar but more refined (Frank 1946:6, 10-11).

Constitution Island, West Point, New York. Two store houses appear represented at this Revolutionary War site. One building was identified in 1971 as being an 80- by 20-foot storeroom and commissioners room. Another store, 60 by 20 feet, appears on a list of works "finished and yet to be finished." (Jelks 1971:51; Sheffield 1969:6).

Fort Montgomery, Orange County, New York. John Mead was a major investigator of this Revolutionary War site since 1935. A 20- by 14-foot guard house was found. It had a platform and a back-to-back fireplace made of brick that divided the building into two rooms. Two-thirds of a 50- by 34-foot storehouse was excavated by Mead. The building was found to have a dividing wall inside extending the length. More than 300 cast iron lath nails were found in the southeast corner. Fireplaces were also discovered in the west and south walls. A very useful and comprehensive annotated bibliography on the Fort Montgomery State Historic Site was recently prepared by Paul Huey (Huey 1970:10; Huey 2002; Mead 1969:21; Mead 1992:160, 164).

Fort Ligonier, Ligonier, Pennsylvania. This fort served the frontier between 1758 to 1766 and was excavated and reconstructed in the 1960s. It contains two log-constructed storehouses, designated as A and B. The buildings have chinking between the logs. Storehouse A was found to be 77 feet 3 inches by 16 feet; B was 76 feet 10 inches by 16 feet. They rest on a stone foundation and have peak and saddle corners. Storehouse A was divided into two 1-story sections with separate roofs and a breezeway through the building. Building B had a masonry chimney added toward the southern end when it served as a soldiers' barracks. Local field stones were used for the chimney of the back-to-back double fireplaces. The floor is believed to have been dirt (Grimm 1970:42; Stotz 1974:27-28).

Fort Niagara, Youngstown, New York. Kathryn Leacock (2002) undertook a study of two guardhouses that had been constructed during the British occupation of the fort from 1759 to 1796. She sought to determine if there was archaeological evidence to show a distinction between officers and enlisted men's status. Documentary evidence suggested that the structures were identical. At this setting the guardhouses protected the entrance to the palisade and provided protection and shelter for the occupants. A difference in the interior was found while the rooms maintained outward similarities. A chimney was present in the mens' house, whereas the officers had a stove.

Fort Michilimackinac, Mackinac City, Michigan. This fort was occupied between 1715 to1781. Two features, 21 and 22, were identified as storehouses. Feature 21 was built upon Feature 22. The latter was a provision storehouse and found to have a sloping-sided pit that was floored with white-washed stones. The pit was 9 feet 6 inches long and 11 feet 3 inches wide and centered 4 feet south of the center of Feature 21. Feature 22 was 53 feet long and 35 feet wide; Feature 21 was 10 feet shorter and 5 feet narrower. The investigators interpreted Feature 22 to be one of the original guardhouses built by the French in 1715, and the basement was used for disciplinary purposes. Sometime later the building was converted to a storehouse until it was demolished for a new provision storehouse, Feature 21, which was built ca. 1773 and constructed of squared cedar logs. The floor was planking and there were at least two windows. This building was dismantled in 1781 and moved to Mackinac Island when the fort was abandoned (Maxwell and Binford 1961:38-48). Stone (1974) includes some grid drawings: Feature 60, a French guardhouse 1751-1769 or later; Feature 21, a British period provisions storehouse 1772(73)-1781; and Feature 22, a Late French period provisions storehouse 1750(60)-1772(73).

The Archaeological Investigation

During the summers of 1996 and 1997 evidence of one or more storage buildings was found in the study area, which we designated the "Storage Building" site (identified VT-AD-948 in the Vermont Archeological Inventory). This site was systematically investigated archaeologically as part of GAP while an on-going documents search was occurring. The principal investigator was assisted at this site by several local Vermont avocational archaeologists, namely John P. Chiamulera, John L. Chiamulera, Craig Hanson, and James Rowe Jr. Artifacts continue to be recovered by the property owner while plowing his gardens, which confirms the importance and significance of the location.

Past Study, Reports, and Documentation

This property was first recognized during a Vermont Division for Historic Preservation (DHP) survey of East Creek in 1977. The beach area was identified in the report as containing a mixture of historic and prehistoric artifacts and chert flakes, and they were believed to have been washed up onto the beach area (Rosencrantz 1977).

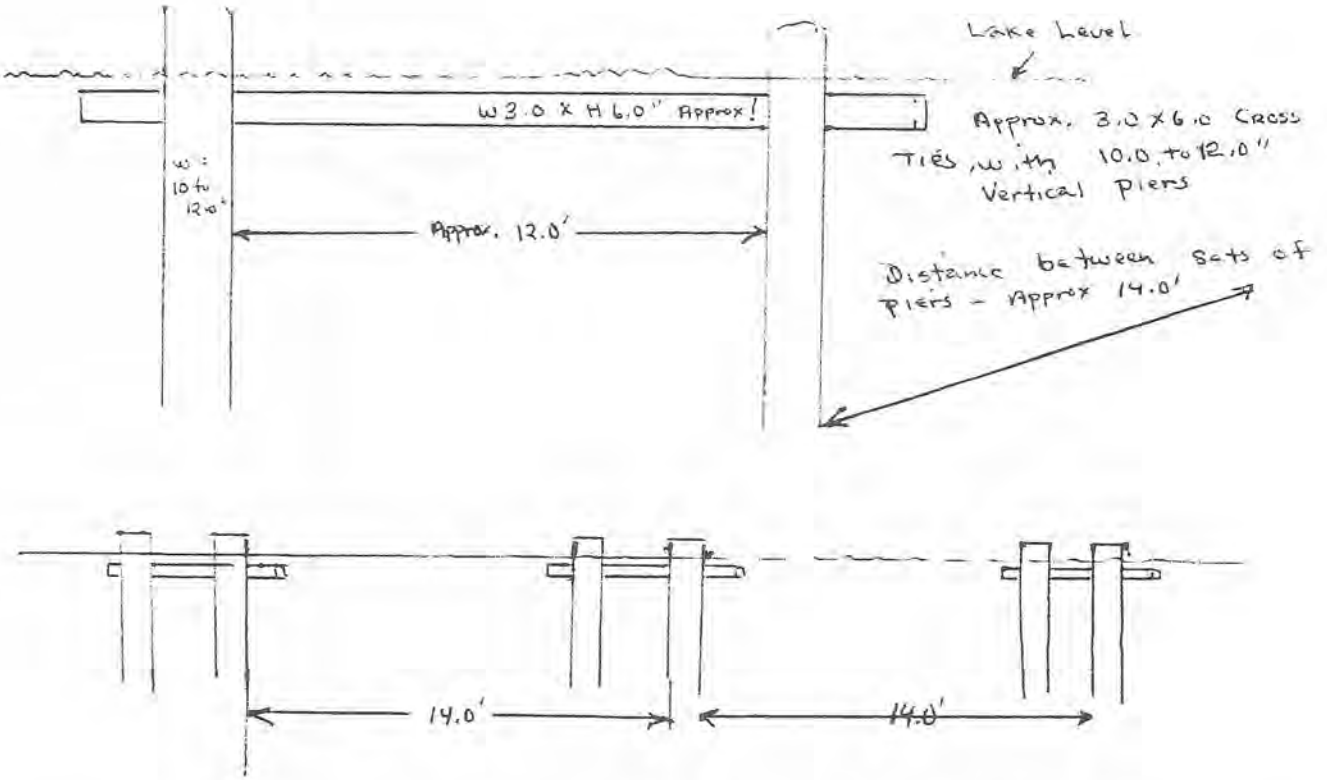

Figure 7. *Measured drawing of exposed underwater feature located west and adjacent to the study area* (courtesy John P. Chiamulera).

During 1992-1995 an archaeological survey under GAP was conducted on the land approach to Mount Independence (Kingsley 1997). The report presents both prehistoric and historic findings found along the peninsula and summarizes past investigations, namely those conducted on Mount Independence by various parties and the search for the Hubbardton-Mount Independence Road. The landing area for batteau, a small flat-bottomed boat with raked bow and stern and flaring sides, had not been studied at the time of the DHP survey. A discussion of the events and additional findings of the survey surrounding the German-British occupation of Mount Independence appear in *Vermont History* (Kingsley and Doblin 1999).

The co-investigator made a scaled drawing of the cellar that rests below the west wing of his present late-19th -century house in the study area. In the 33- by 26-foot space was a 20-foot-long section of a former foundation stone wall that extended from the north wall. Also there was a 3- by 12-foot stone support protruding from the southern wall. This structure may have supported a former fireplace. The co-investigator and property owner also observed three sets of cross-tie posts and a single post during a low water period between 1981 and 1984. The posts were seen protruding above the surface of the water from an approximate depth of 6 feet. Measurements were taken and a sketch was drawn to document the feature offshore in the bay facing the channel. The tie-posts were seen to be aligned with an atypical collection of rocks on the shoreline approximately 80 feet west from the property boundary of the study area. The feature appears to have been evidence of a former pier or wharf (Figures 7 and 8).

Study Methodology

Information obtained from documents provides *what* might be found archaeologically, but not necessarily *where* located, and so, field work is typically needed. The property was first subdivided into four manageable quadrants using a transit: northeast quadrant (NEQ), southeast quadrant (SEQ), northwest quadrant (NEQ), and southwest quadrant (SWQ). The surface of each quadrant within the study area was mapped and recorded on grid paper. Grid paper was used for establishing location. On each quadrant, the buildings, boundaries, and numbered identified surface and subsurface

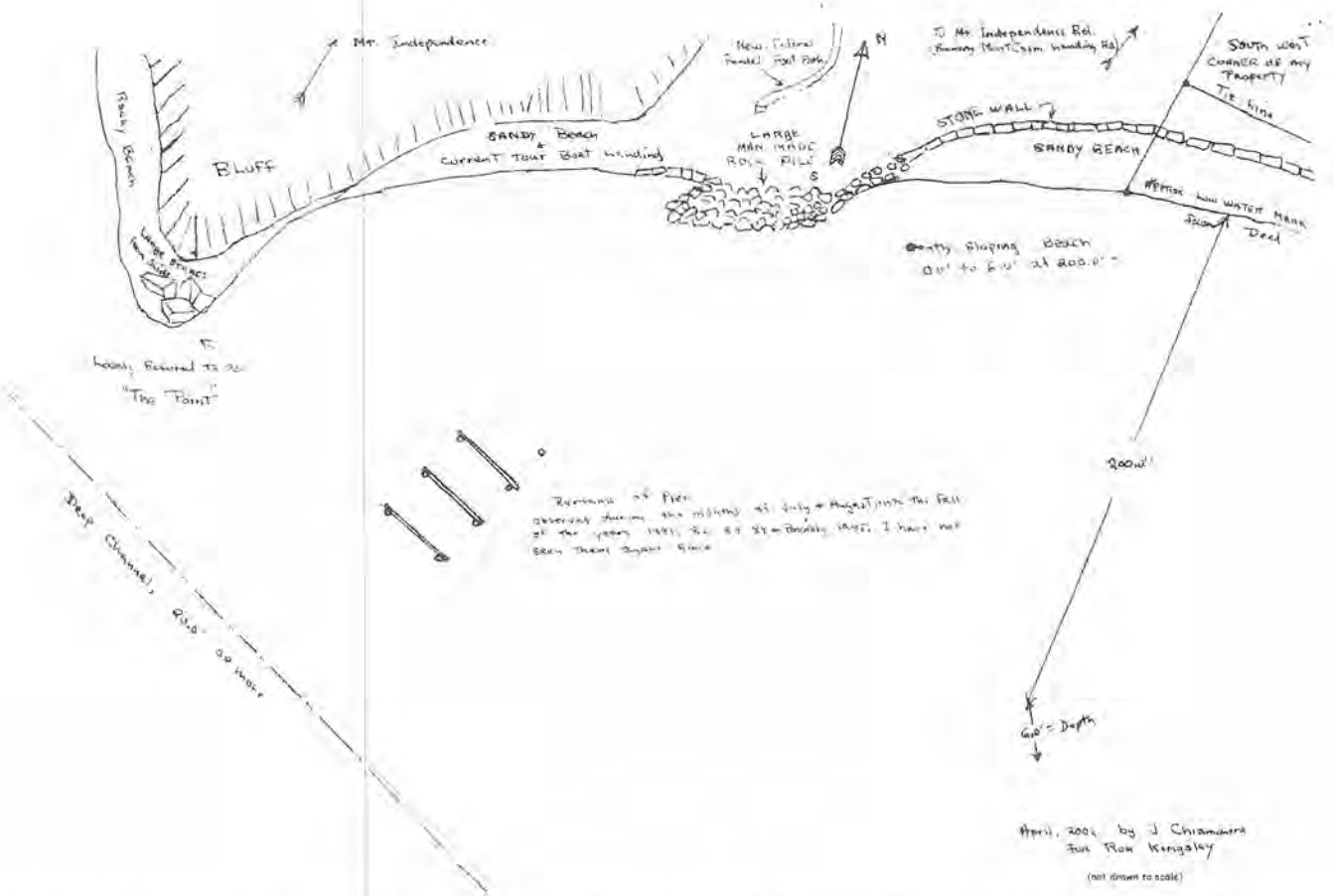

Figure 7. *Sketch of the shoreline west of the study area showing exposed offshore underwater feature (middle left of center) and potion of rock pile (top-center)* (courtesy John P. Chiemulera).

features were recorded. The drawings were then combined to show the study area as a whole (Figure 9).

Reconnaissance, probing, and metal sensing were used for detecting distributions, patterns, types, and density of all artifacts, along with evidence of surface and subsurface features within the plow zone layer. The entire surface of the property was walked in a six-foot row pattern. Artifacts were located and recovered by reconnaissance and metal sensing. All artifacts found within an approximately 3-inch-diameter hole at a 5-inch-depth at a location were removed, bagged, and their provenience on the grid within the quadrant recorded. The locations were given a number and their position recorded on the grid within their quadrant. Any associated artifacts or other pertinent information - charcoal, soil change, etc., located by metal detecting - were recorded and bagged under the same number. Only two subsurface features on the property were examined further by use of a 2- by 2-foot test square unit. The position was designated with a number as an Excavation Registry (ER).

Findings and Analysis

Artifacts recovered during surface recovery by reconnaissance and metal sensing were identified and placed into a functional category in their quadrant in which they were found. The organization of the surface finds were used for making an interpretation about the possible activities or functions within the quadrant. This information is presented in Table 1. The location of each recovery was recorded as a dot within the quadrant to present a visual distribution. This information is presented in Figure 10, which includes outlines of surface and subsurface noted during the investigation.

Southwest Quadrant. This quadrant has three identifiable physical locations around which the evidence is discussed: (1) a level *terrace* above Lake Champlain that is bordered by the northwest quadrant where the house and outbuilding are located: (2) a steep but landscaped and terraced *embankment* approximately 50 feet high; and (3) a large section lake *shoreline* composed of pebbles, sand, shale, and rocks. This

Figure 9. *Drawing of the study area, showing buildings, boundaries, and features within the four quadrants. Note location of northeast quadrant (NEQ) in upper right, northwest quadrant (NWQ) in upper left, etc.*

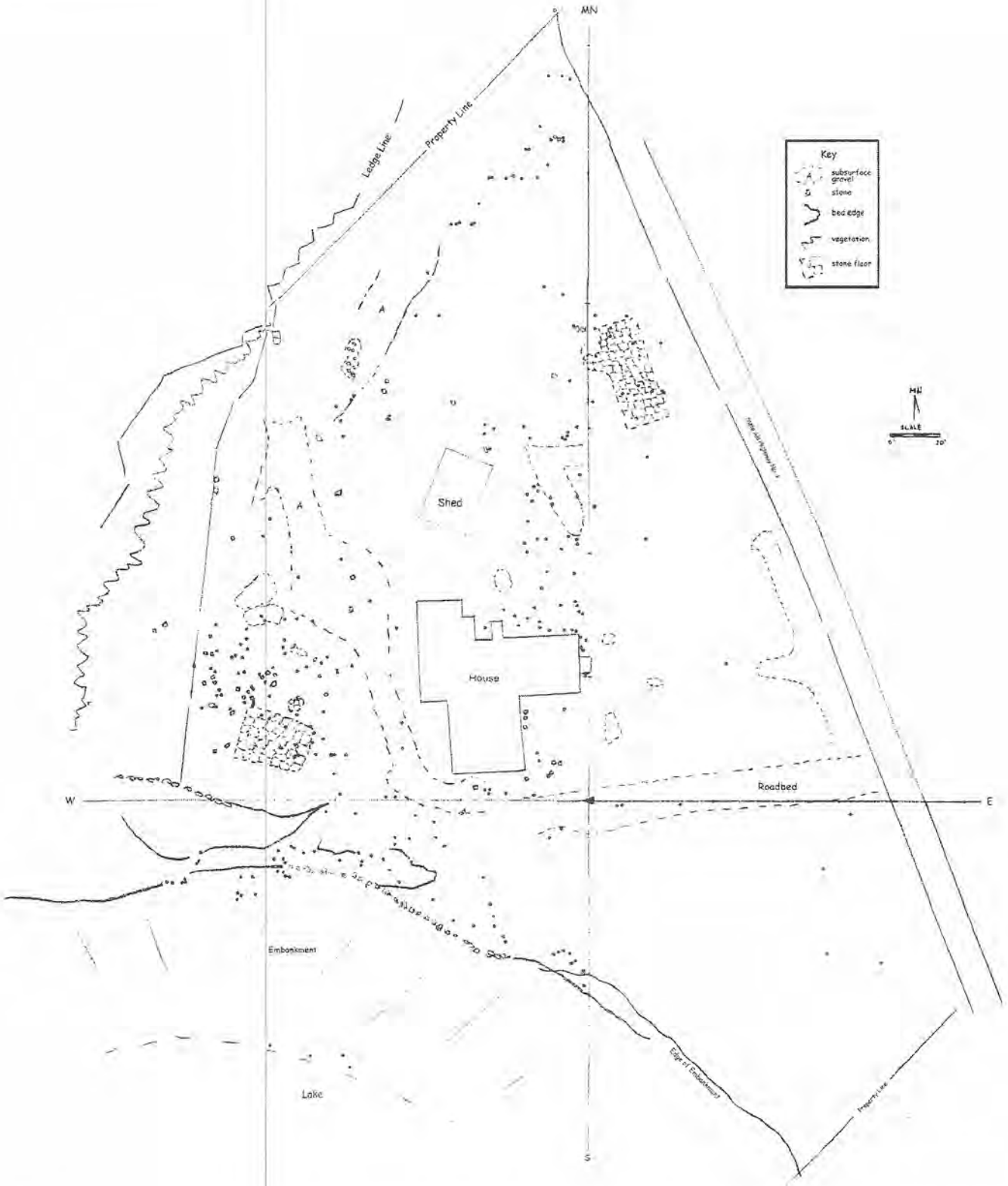

Figure 10. *Locations and distribution of recovered artifacts by surface reconnaissance, metal sensing, and probing of the four quadrants.*

quadrant contains the second highest density by location (16.1%) of the artifacts recovered during reconnaissance and sensing of the surface (Table 1).

Artifacts on the *terrace* are associated with household living and farming activities of the past 220 years. Metal was a prominent material. While a scatter of household debris was found across the terrace, fragments of wire fencing were located along the ridge of the terrace that marked its former functional importance for a former 19th-century farmstead (a wire fence was not present when the present owner acquired the property). Only three 18th-century artifacts (a grapeshot, a wrought iron rod, and a rose-head hand-forged nail) were found among a collection of 19 artifacts from around the entry of a path leading down the *embankment*. A part of a hand-forged wrought iron hoe, a silver plated buckle, and a shard of green glazed redware were found among numerous prehistoric Native American chert flakes along the *shoreline*. This section of the property was noted in the 1977 survey of the East Creek region as containing prehistoric artifacts, particularly an abundance of chert flakes. It is understandable that no Native American tools, only flakes, were found in as much they are a popular collector relic.

Northwest Quadrant. This quadrant contained the greatest density of artifacts recovered and excludes those found while excavating the two test square units. It was subdivided into four locations for the purpose of analysis and interpretation: (1) the general *terrace* area that includes the house and shed; (2) the *gardens*, of which there are four, designated as north, middle, east, and south; (3) the *northwesterly property boundary*; and (4) the *subsurface stone features*. The northwest quadrant represents the largest area and has the greatest density (75.6%) of artifacts recovered during reconnaissance and metal detecting (see Table 1).

The *terrace* is flat, except for the northern portion where the land begins a gradual rise toward the rocky base of Mount Independence. Scattered across the terrace are irregularities on the surface that were associated with living-support functions (septic field, privies) from over 200 years of historic land use. The present late-19th-century house has several additions that give it an irregular shape. A wing or more of the house will soon be rebuilt due to its deteriorated condition.

Approximately 30 feet to the north of the existing house is a large shed. A gravel covered driveway enters from the northern end of the property and circles around the shed. Two small sheds are situated next to each other along the northern property boundary line and between the north and middle gardens. A scatter of trees is located on the terrace. The former owner had a small windmill, Feature 8, standing approximately 30 feet west of a former well, Feature 7, and located on state land. The windmill served to pump water from the well.

Exploratory probing at one foot intervals revealed evidence of a former subsurface gravel driveway. It led around the western side of the house and north up the slope between

Table 1.

Frequency and Distribution of Artifacts by Quadrants and Possible Function

	Quadrant Location			
Functional Categories:	SEQ	NWQ	SWQ	NEQ
Building Material				
hand forged nail	0	13	1	0
cut nail	0	60	10	4
wire nail	1	58	12	0
roofing nail	0	6	1	1
window glass	4	8	0	0
mortar	1	3	1	0
brick	0	6	0	1
hardware	0	3	1	1
tin roofing	0	2	1	1
heating stove/pipe	0	10	1	0
misc.-other	0	2	4	1
subtotal	6	171	32	9

(Continues on next page)

Table 1 (Continued):

Household Living					
Earthenware Pottery					
Redware	0	0	1	0	
Creamware	0	1	0	0	
Pearlware	0	2	0	0	
Whiteware	0	14	0	0	
Stoneware Pottery	0	1	0	0	
container glass	1	22	0	0	
cooking utensils	0	2	0	0	
lighting	1	4	0	0	
metal containers/caps	3	7	10	1	
clothing	1	4	0	0	
furniture hardware	1	6	1	1	
religious	0	1	0	0	
bone	0	10	1	1	
coal fuel	0	10	0	0	
misc.-other	0	5	3	0	
subtotal	7	89	16	3	
Farming					
equipment	1	15	1	5	
ox & horse shoes	1	4	0	0	
tools (chain, wedges)	0	20	6	1	
misc. (fencing, parts)	2	37	15	1	
subtotal	4	76	22	7	
Military					
artillery & shot	0	7	1	0	
vehicle parts	0	2	1	0	
buckles & hangers	1	5	0	0	
subtotal	1	14	2	0	
Leisure					
smoking pipes	0	1	0	0	
games	0	1	1	0	
hunting shells	0	1	2	0	
subtotal	0	3	3	0	
Coins	0	2	1	1	
Medical					
bottles, vials	1	0	0	0	
Prehistoric					
chert flakes	0	1	0	0	
					Totals
Quadrant Density Totals	19	356	76	20	471
Percent	4.0	75.6	16.1	4.3	100

the garden areas toward the property line and Mount Independence. Pockets of artifacts, predominantly associated with the 19th and 20th centuries, were found around the house and shed. Along the northeast side of the quadrant, evidence of subsurface gravel was found of a small section in the form of a path. In addition, metal detecting produced a buried deposit of farm debris north of the north garden, and 3 hand-forged iron artifacts (fireplace shovel, a mallet ring, and iron hoop) at the northern corner of the property by the road. Evidence of a subsurface rectangular stone floor (Features 1 and 2) was found in the southwest section of the quadrant The functional categories analysis within the quadrant indicates a high density of materials associated with 19th-century domestic living and agriculture, and a low density of military and prehistoric artifacts (see Table 1).

Here, in the terraced *garden area*, there are four planting plots of different sizes. They were named by their positions as north, middle, south, and east, for the purpose of this study. The garden plots are used for growing vegetables and flowers. Some of the many stones at this location have been moved and used to terrace and outline flowerbeds. The middle garden - the large vegetable garden - Feature 6, borders the property line. It is approximately 30 (north-south) by 50 (east-west) feet. The soil of the vegetable (middle) garden has been disturbed over the years during periods of cultivation; extensive quantities of 19th-century cut nails and some wire nails, broken pottery, and some glass were found. Some military artifacts were also located in the vegetable garden when tilling below 6 inches, namely a grape shot, a brass handle, a stirrup, 4 solid cannon shot, and 2 inletting bars; and more recently 7 large hand-forged rose-head nails, a rivet, and a hand-forged attachment eye of a carriage. The assemblage of artifacts suggests that a 19th-century barn had been built upon a former foundation. The building appears to have been located partly within the middle garden area and along the property boundary. Part of a stone foundation, Feature 9, can still be seen on the surface along the west side of the southern garden.

The space of the corridor was only visually inspected along the *northwestern boundary area* and the beginning of historic site property. Here surface and visual evidence was sought for a stone foundation line. Occasional rocks appeared on the surface but in no pattern. The outline of a former well, Feature 7, can still be seen approximately 15 feet west of the property line and the southern garden. The section of land between the property line and rocky base of the Mount varies in width. Large rocks continue to dislodge and fall from the Mount. Recently, a portion of the boat landing trail was built along this side of the Mount. The embankment leading from the lake to the terrace above is steep and would require a sizeable hill cut for a road. There is sufficient space for two buildings to be located at right angles on the terrace, as depicted in Trumbull's 1776 map (see Figure 2).

Two subsurface features were located in the southwest area of the northwest quadrant during reconnaissance that warranted further examination. Their outline is observable during dry periods by discolored grass. Feature 1 is an irregularly shaped and slightly raised area, approximately 6 feet (east-west) by 8 feet (north-south). The other, Feature 2, is approximately 4 feet west from the first, but larger and rectangular. Probing Feature 1 revealed the presence of large subsurface stones at a depth of 5 inches; the scraping sound of gravel was produced using the probe around the margins. Probing Feature 2 at 6-inch intervals resulted in making continuous contact with large stones at a depth from 3 to 5 inches. The technique revealed that stone Feature 2 was approximately 20 feet (north-south) by 30 feet (east-west). The shape was not completely uniform in that approximately 18 feet of the south side was 2 feet narrower. Part of the side had been removed years ago when a septic drainage system was constructed. A scraping sound was also detected when probing on and around the margins of Feature 2. An exploratory 2-by 2-foot test unit, or excavation register (ER) square, was dug along the edge of both features to provide horizontal and 1 vertical information for interpretation and recommendations. Each unit was subdivided into four quadrants to give further qualitative and quantitative information (Figure 11).

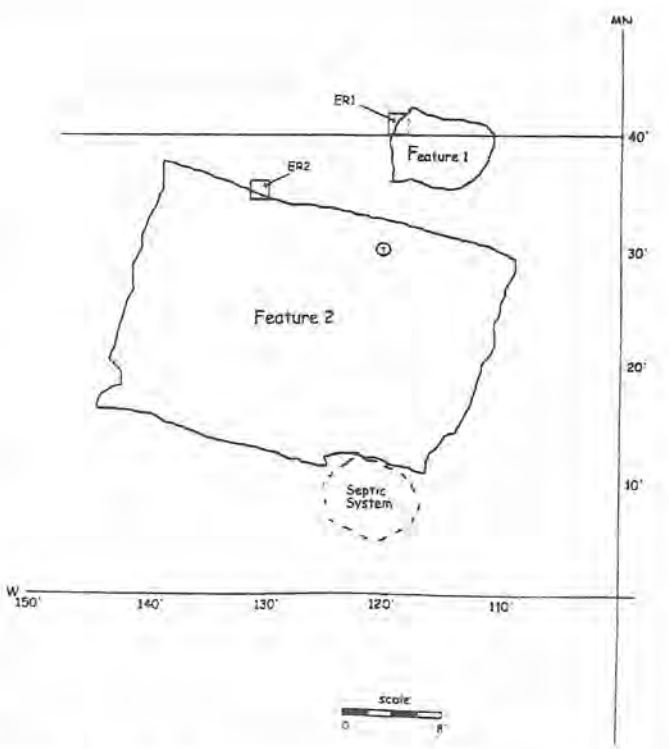

Figure 11. *Sketch of subsurface outline of Features 1 and 2, and the locations of test units.*

Summary of Recovery from Features 1 and 2

A test unit (ER 1) was dug along the edge of Feature 1 to a depth of 25 inches, where there was no further artifacts or soil modifications. Five irregular layers of soil were found to be associated with the feature. The surface of the stones was located 4 to 6 inches below the surface. Burned bone, coal, and charcoal were found around the stone in addition to pottery shards (pearlware, redware, whiteware, and stoneware), pieces of unidentified cast iron, fragments of brick (one molded), and mortar, tar paper, and hand-forged and cut nails. Deeper layers adjacent and outside the stone feature produced more of the same type artifacts, along with roofing tacks, window glass, an unidentified piece of brass, and a portion of a medicine vial.

The second test unit (ER 2) was also dug across the overlapping edge of larger stone Feature 2, in order to expose a possible builder's trench. The stone was found to be covered by a 2- to 7-inch deep layer of soil. Four irregular layers of soil were found within a 16-inch depth, adjacent to the stone, in what was found to be the builder's trench. The laid stone rested on a common soil layer with the builder's trench. The outline of a trench-laid sill was discovered adjacent to the stone that had been formed by two different layers of soil. The top layer of the soil in the unit, which covered both the stone floor and some of builder's trench, contained 22 artifacts. This number accounted for the vast majority of artifacts in the unit. They included unburned bone, cut and wire nails, brick fragments, window glass, a portion of a glass container, a door latch bar, and two pottery shards (whiteware and stoneware). The builder's trench contained cut and wire nails and roofing tacks, window glass, and two whiteware shards. One shard had been burned. Two shards (an olive glazed redware and blue design transfer print earthenware) were also found at the interface of the first layer resting on the base of the builder's trench.

The two small test units were dug in order to acquire some information about the two features found in the northwest quadrant. The findings allow a preliminary interpretation to be made in relation to the research questions and to make appropriate recommendations. Feature 1 appears to be a portion of a stone foundation. The presence of brick debris suggests that a fireplace may have been near this location. The foundation aligns perpendicular to Feature 2 and may have been attached. Feature 2 is interpreted as a rectangular stone floor of a building, perhaps the first home built on the lot. The predominance of cut nails and a few wire nails suggest construction, repair and occupation to have been during the first half of the 19th century. The wood building had windows and at some time a rolled iron sheet and tar paper roof. It was most likely dismantled or left to decay since no sizeable fragments of charcoal were found either on the stone floor surface or within the builders' trench. The location should be preserved for additional study or until such a time when it is in danger of being destroyed.

Southeast Quadrant. This quadrant includes two surface features. Feature 4 is a former roadbed that enters the east side of the study area from State Aid Highway No. 4 (Route 73A), between NEQ and SEQ, and extends into SWQ. A line of a few old trees still mark its presence before its recognizable surface fades as it extends westward toward the lake. The 15-foot-wide roadbed is slightly raised and well constructed. It is composed of some small stones, pebbles, and clay. Reconnaissance and metal sensing of the roadbed revealed a few 19th-century artifacts: window glass, a suspender clip, mortar, wooden bottle stopper, a fragment of container glass, tin can lid, an ox shoe, a fragment of a barrel strap, and an equipment buckle.

Feature 5 is a configuration of mounded soil that has the appearance of rows. It is located southeast of the roadbed and on the terrace. A few recently planted trees are present and appear unrelated to the mounding. There is a winding pathway that extends down the embankment to the shoreline below. Reconnaissance and metal sensing of the small field and Feature 5 revealed only 3 artifacts: a metal base of a modern light bulb, a cast iron bracket, and an unidentifiable cast iron fixture. The mounding may have been created by rows of fruit trees. No artifacts were located on the embankment or along the shoreline.

Northeast Quadrant. This quadrant has a slightly rolling surface with a sandy loam soil. The Munsell color is 10/YR/3/2 (very dark grayish brown). Probing revealed an irregular shaped subsurface stone area, Feature 3, between the shed and Route 73A. It is located in the northern section of the quadrant and it is approximately 14 feet (east-west) by 24 feet (north-south). The stone floor was detectable from 3 to 7 inches below the surface. Probing produced a scraping sound as it passed through pebbles, over the stones, and around the margin of the feature. Nineteen artifacts were recovered in the quadrant, 10 of which were on the stone feature. Seventeen were associated with 19th-century building materials and farming equipment, most of which were located directly on the stone floor. One complete brick (3.4 by 2 by 7.5 inches) was recovered by the feature. Also found in the quadrant were a deer rib bone and a 1796 Liberty copper penny (1794-1803). All nails were the cut style (those prevalent during the first half of the 19th century) and several were associated with tar paper and rolled iron sheet roofing. This feature is interpreted as a floor of an early outbuilding.

Summary, Conclusions, and Recommendations

This study focused on investigating a small piece of land located at the base and along the lake on the south side of Mount Independence. Maps and military records relating to 1776-1777 suggest that somewhere in the vicinity of the study area the Americans, and later the British and Germans, constructed works to protect and support the military

operations of the fortification. Following the war, the Town of Orwell was settled by Euroamericans and grew in population. Its residents developed the land over the years and raised products that contributed to Vermont's growing agricultural economy.

The archaeological field and laboratory component used reconnaissance, mapping, and various methods of locating and recovering artifacts, cataloguing, and analysis. The document component involved obtaining information from maps, reports, testimonies, journals, and books about the study area and environs. This information made possible interpretations and future recommendations about land use.

The multiple lines of inquiry guided this investigation. The study area was found to contain artifacts from both the prehistoric and historic periods. Native American artifacts can still be found along the shoreline. While the documentary sources are unclear where the military buildings and a wharf were specifically located, the evidence from the archaeological investigation suggests that a building was situated on the northwestern side of the property bordering state land, and in the vicinity of the middle garden. Also, an early 19th-century barn appears to have been constructed at the same location. Trumbull's 1776 map shows two rectangular form buildings at right angles to each other. The second building may have been a guard house as Col. Baldwin had ordered be built. Colonel Yates' letter states that he was planning on constructing a similar configuration, a store and guard house near each other at Cheshire on Wood Creek.

Information obtained from military documents and current archaeological studies associated with reconstructed forts confirm that the foundation plan of a store house and guard house would resemble those drawn by Trumbull. If a second building existed, it would have been located on what is now a narrow corridor of land at the base of Mount Independence and within the state historic site. The specific location of the foundation in the garden area is undetermined since no excavation units were dug there. Trumbull's map would place a section of the former roadway within the study area. Archaeological evidence acquired during the study and by collectors supports that the shoreline of the bay was used during the prehistoric and historic periods. The sighting of what appears to be some posts of a former pier and the atypical collection of rocks on the shoreline is evidence worthy of being pursued as an underwater investigation. Cribs may have used for the wharf since that type of construction was used to build the Great Bridge across the lake. Maps of the location for 1777 show differences and inconsistencies. These findings are interpreted as inaccuracies in the works drawn by different cartographers. When presented without a key, they may have been more likely a symbol without representing number, size and type.

After the Revolutionary War, the study area was settled by Euroamericans by the beginning of the 19th century. Robardeau's 1816 map shows two buildings on the property. Deeds and census records reveal that the lot had several owners after that time. The archaeological study of the property did provide evidence where some of the buildings of the farmstead were located and how water was pumped from the well. The study did show that NWQ had the greatest density of artifacts.

This site also provides some valuable information about the impact of two centuries living upon Vermont's historically significant landscape and the importance of public education and stewardship. Additional land and underwater archaeological study is recommended: (1) to investigate and document the sighting of a former pier; (2) to establish the specific location and characteristics of the one or more buildings as depicted on the Trumbull map in the archaeologically sensitive corridor; and (3) to protect the corridor and the location of the wharf from construction and destruction.

Over the last four decades there has been increased interest and research to document the evidence about the British incursion upon Mount Independence and its role in the Burgoyne Campaign of 1777. The story about the events that took place in the historic landscape along the shore of Lake Champlain are now being disseminated in professional journals, popular magazines, reports, public education programs and presentations, and in displays at the recently constructed Mount Independence Visitor's Center (Porsche 1997).

Acknowledgments

This study, as among over a hundred properties investigated during the GAP, was conducted with the interest and cooperation of public land owners. We are most grateful to the many staff and administrators at local, state, and federal and private agencies, facilities, and libraries for their assistance in providing information: the Orwell Free Library, Orwell Town Office, Vermont Division for Historic Preservation, Bailey/Howe Library at the University of Vermont, Vermont Historical Society Library, New York State Library and Archives, Schenectady County Public Library, Schenectady County Historical Society Grems-Doolittle Library, the Henry E. Huntington Library, Saratoga Historic National Park, National Archives, Library of Congress, West Point Military Academy Library, New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), Fort Ligonier, Fort Ticonderoga, Fort Stanwix, Fort Michilimackinac, Fortress of Louisbourg, and Parks Canada.

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