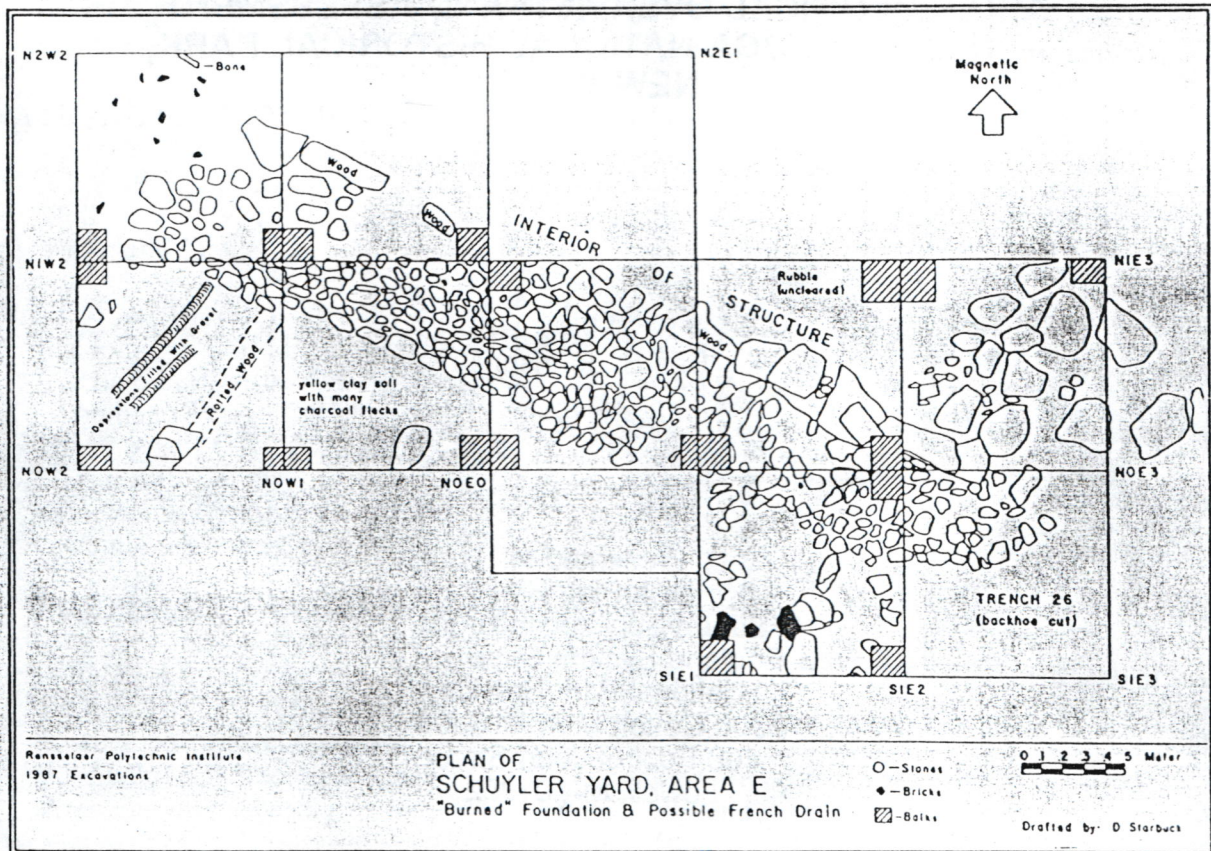


ARCHEOLOGICAL OVERVIEW AND ASSESSMENT OF THE SARATOGA NATIONAL HISTORICAL PARK NEW YORK

DRAFT

by:
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DRAFT

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18	Presented to:
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YHAMN ABSTRACT YHAMN

Previous archeological and relevant documentary research at the Saratoga National Historical Park is reviewed and evaluated. The Park includes several separate units, the most archeologically significant of which are the Battlefield and the Schuyler House. The Battlefield Unit, located in Stillwater, New York, is an area of rolling topography with steep bluffs overlooking the Hudson River on its eastern side. Here, in the summer and fall of 1777, one of the major military engagements in American history was fought. An invading British force led by General John Burgoyne was defeated by an American army under the command of General Horatio Gates. This American victory is widely believed to have been the turning point in the war for independence.

One of the principal American generals, General Philip Schuyler, had a large estate a few miles north of the battlefield, in what is now the village of Schuylerville. His house was burned by the retreating British, and was rebuilt soon after. This house, and some of the surrounding land, comprises the Schuyler House Unit of the Saratoga National Historical Park.

Archeological research began at the Battlefield in 1940, soon after it was acquired from the State of New York. Archeological research efforts spanning nearly sixty years have unearthed the remains of both British and American fortifications, searched for and sometimes found the locations of eighteenth-century farmhouses and other buildings that served as headquarters, hospitals, and quarters for both sides, investigated camp sites from various regiments, and discovered several burials associated with the battle. In the course of this research, developments in archeological methods were brought to bear on the Battlefield Unit, sometimes successfully, sometimes not. These included the use of aerial photography and magnetometry to search for indications of buried features, and the use of metal detectors to investigate encampments.

Archeological research at Saratoga has, throughout its sixty-year history, faced the challenge of integrating historical documents (including maps, narratives, and photographs), oral histories, and archeological data to create a richer, more accurate picture of the events of 1777. This challenge, when successfully met, has helped to create a more valuable experience for the Battlefield's many visitors. Future archeological research here should focus on using the archeological data, including collections, for research on and interpretation of the battle as well as of eighteenth through nineteenth-century rural life. Future undertakings at the Battlefield that involve ground disturbance should be preceded by archeological reconnaissance beginning with assessments of sensitivity based on geology and soils, the events of the battle, more recent land use and disturbance, and previous archeological research within and around the project area.

Archeological research at the Schuyler House began in the late 1950s. It has largely focused on locating and confirming the site of the house that was burned in 1777. Initial efforts to determine whether the present house was built on the foundations of the previous house yielded ambiguous results. Excavation focused on the area inside and immediately surrounding the house. There were some traces of burning, but no definitive evidence that this had been the house in question. More recently, archeologists returned to the site using remote sensing and extensive backhoe trenching over much of the yard. A large precontact Native American site was found in the yard. Little evidence for eighteenth-century occupation was found, however, leading the researcher to suggest that the burned Schuyler House was located outside of the present property. Although materials or outbuildings associated with the eighteenth-century Schuyler House may exist within the property, archeological research and interpretation of archeological findings at this Unit should focus on its Native American and nineteenth-century occupations.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

Why
DITTO
#

Somewhat unclear -
The house burned in 1777
appears to have been built
in the 1740's. The current
house was definitely built
in 1777. There is evidence
of 18th c. occupation

MANAGEMENT SUMMARY

The author has completed an overview and assessment of the Saratoga National Historical Park in New York. The Battlefield Unit of the Park contains a variety of archeological resources related to the Saratoga Campaign of 1777. These include remains of fortifications, encampments, battlefields, burials, and of structures that were used as quarters and hospitals. In addition, there are abundant archeological resources related to eighteenth through twentieth-century domestic, agricultural, and commercial activities of the rural upper Hudson Valley. A few finds of Native American artifacts have been made at the battlefield; none appear to reflect significant archeological sites. There is potential, however, for more substantial Native American archeological sites along the streams, the river bluffs, and the Hudson River floodplain portions of the Unit. Future archeological research at the Battlefield Unit should focus on using the archeological data, including collections, for research on and interpretation of the battle as well as of eighteenth through nineteenth-century rural life. Future undertakings at the Battlefield that involve ground disturbance should be preceded by archeological reconnaissance beginning with assessments of sensitivity based on geology and soils, the events of the battle, more recent land use and disturbance, and previous archeological research within and around the project area.

The Schuyler House contains a significant Native American site in its yard. The yard also contains remains of outbuildings, features, and activity areas associated with the present house as well as a few earlier components possibly associated with the house that was burned in the aftermath of the battle, although the remains of that house have never been positively identified and may, in fact, be located outside of the Schuyler House Unit boundaries. Although materials or outbuildings associated with the eighteenth-century Schuyler House may exist within the property, archeological research and interpretation of archeological findings at this Unit should focus on its Native American and nineteenth-century occupations. Future undertakings at the Schuyler House that involve ground disturbance should be preceded by archeological reconnaissance beginning with assessments of sensitivity based on and previous archeological and archival research within and around the project area.

that's not our period strictly speaking
I think we need to carefully evaluate
the proposed notion that we interpret "nineteenth century
rural life" & "occupations." The problem w/ the SA
has been its lack of connectedness to the battle
site as a whole. I do think the Native American
story is salient, particularly given the participation
of Native people in the Rev. War.

→ **WITH THE LIMITED RESOURCES AVAILABLE
THE PARK CAN NOT AFFORD TO INTERPRET
NINETEENTH CENTURY RURAL LIFE! J**

ACKNOWLEDGMENTS

JUN 17 1996

The author would like to thank the following individuals for their assistance. I was greatly assisted by National Park Service staff on my visit to Saratoga National Historical Park in June 1996. In particular, Richard A. Beresford, Debbie Gorman, Gina Johnson, and S. Paul Okey helped me access an enormous quantity of useful information in the Park's archives. Dick Ping Hsu, Supervisory Archeologist for the New England System Support Office, introduced me to the Saratoga Park personnel, conducted me on a tour of the Battlefield and other Units of the Park, made Robert Drinkwater's manuscript available to me, and offered useful comments and advice based on his extensive knowledge of the Park. Elizabeth Chilton and David Schafer extended their hospitality to me on one of my trips to Saratoga National Historical Park, and provided me with valuable information regarding the area's precontact archeological resources. Jennifer Quinn, Librarian, and other staff members of New England Museum Services Center helped me find important materials. I have also benefitted from discussions with Mitchell T. Mulholland of University of Massachusetts Archaeological Services, and Claire Carlson, Amy Gazin-Schwartz, Rita Reinke, and Angèle Smith of the Department of Anthropology at the University of Massachusetts-Amherst. Jan Whitaker of University of Massachusetts Archaeological Services provided editorial assistance, and Maureen Manning-Bernatzky and Cheryl Stiasowski of University of Massachusetts Archaeological Services provided important technical and logistical support.

Most of the manuscript appeared to have been prepared or revised in 1983 and a partial draft report was submitted in that year. The draft consisted of project area descriptions, regional history, and review of archeological research projects through the early 1980s. The present author's research was begun in May 1996, and the draft report was completed in June 1997. My written contribution was focused on but not limited to regional history, precontact culture history, review of the most recent archeological research, summaries of known and potential archeological resources, research potential of known archeological resources, and recommendations.

Project Area Description

FOUR

Saratoga National Historical Park is located on the west side of the Hudson River approximately 22 miles north of Albany, New York (Figure 1). The Park consists of five units or sites (Figure 2). The largest, the scene of the September 19 and October 3, 1777 battles, is the Town of Saratoga (Figures 3 and 4). Four considerably smaller units, the Schuyler House, the Victory Woods, the Battlefield, and the Saratoga Monument, are in the following Table.

Table 1

(Continued Table)

Acres of the Five Units of the Saratoga National Historical Park

| UNIT | ACREAGE |
|---------------------------|----------|
| Battlefield | 2,773.46 |
| Schuyler House and Lot #8 | 26.00 |
| Victory Woods | 22.70 |
| Saratoga Monument | 2.22 |

NO
THING
DONE

52.00
1.30
1.82

INTRODUCTION

Project Objectives and Description

This report presents the results of an Archeological Overview and Assessment of the Saratoga National Historical Park. The purpose of such a project is "to describe and assess the known and potential archeological resources in an area" (NPS 1985:Chapter 6:5). This study includes background information in sections describing the area's natural environment, its culture history from the earliest human occupation to the most recent past, and its ethnographic occupation. The report describes and evaluates past archeological research, and summarizes present archeological knowledge of the site. It notes the location of relevant resources such as archives, field records, and collections. It also suggests future research priorities and research topics. An Overview and Assessment is intended to provide a basis for evaluating the significance of archeological resources within the site and formulating research designs for other studies (NPS 1985:Chapter 2:14).

This document is one product of a cooperative agreement between the New England System Support Office of the National Park Service and the University of Massachusetts Archaeological Services (UMAS). This project began with a draft report that appeared to contain contributions of a number of individual including Francis P. McManamon, Robert Drinkwater, and W. Glen Gray. Most of the manuscript appeared to have been prepared by Drinkwater. Their research was conducted in 1983 and a partial draft report was submitted in that year. The draft consisted of project area descriptions, regional geology, culture history of the seventeenth through twentieth centuries, and review of archeological research projects through the early 1980s. The present author's (Johnson's) research was begun in May 1996, and the draft report was completed in June 1997. My written contribution was focused on but not limited to regional natural history, precontact culture history, review of the most recent archeological research, summaries of known and potential archeological resources, research potential of known archeological resources, and recommendations.

Project Area Description

Saratoga National Historical Park is located on the west side of the Hudson River approximately 25 miles north of Albany, New York (Figure 1). The Park consists of five tracts or Units (Figure 2). The largest, the scene of the September 19 and October 7, 1777 battles, is in the Town of Stillwater (Figures 3 and 4). Four considerably smaller units, the Schuyler House, Lot #8, Victory Woods, and the Saratoga Monument are in the Town of Saratoga (Figure 2). The acreage of each unit is given in the following Table.

(GARDEN TRACT) Table 1

Acreage of the Five Units of the Saratoga National Historical Park

| UNIT | ACREAGE |
|---------------------------|----------|
| Battlefield | 2,773.46 |
| Schuyler House and Lot #8 | 26.00 |
| Victory Woods | 22.70 |
| Saratoga Monument | 2.82 |

NO
SUCH
THING.

DOUG

26.00
1.30
1.86

29.16

F04R



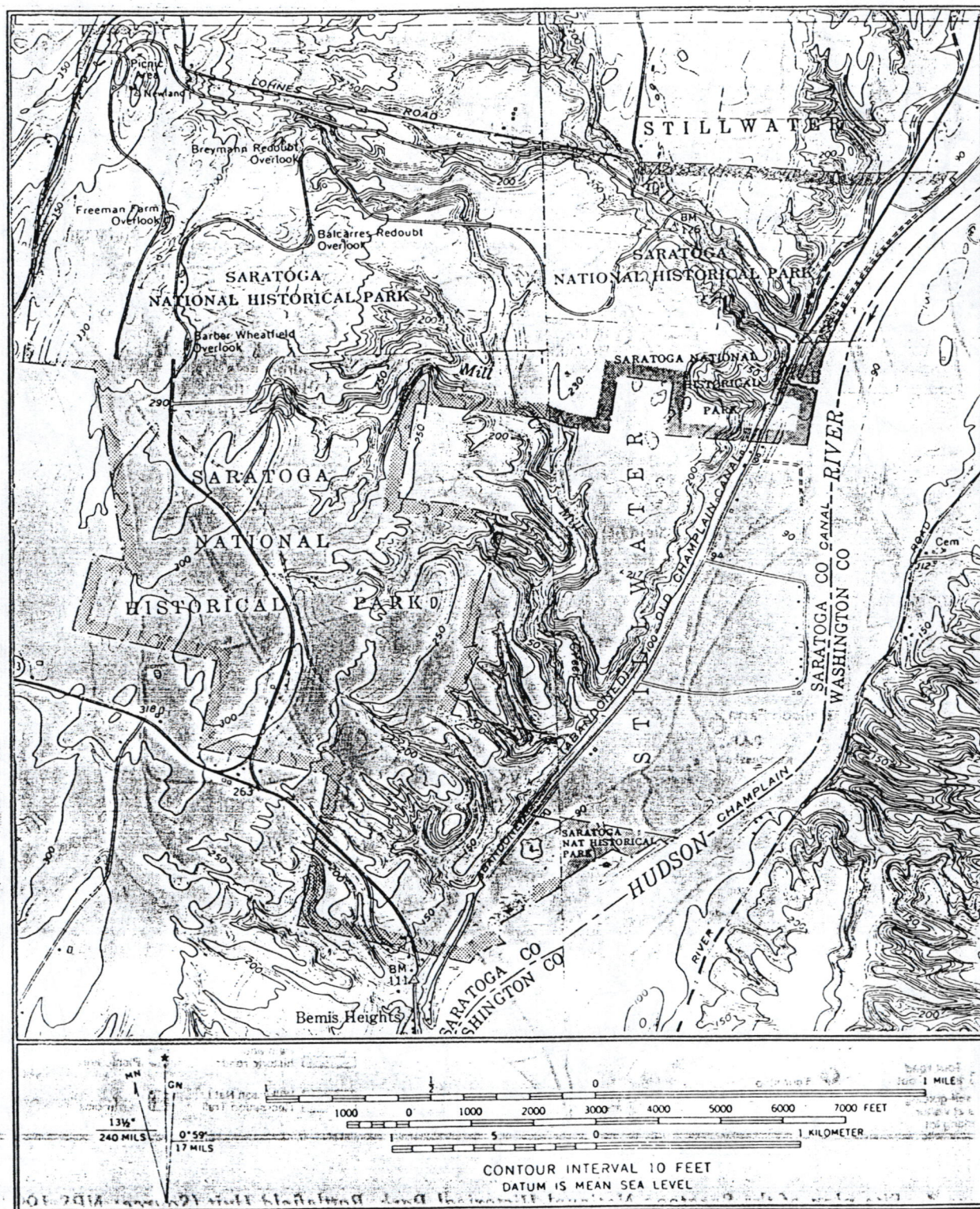


Figure 3. Location of the Saratoga National Historical Park, Battlefield Unit, on the Mechanicville, Quaker Springs, Schaghticoke, and Schuylerville, N.Y. USGS quadrangles.



Figure 4. Site plan of the Saratoga National Historical Park, Battlefield Unit (Source: NPS 1993).

The towns of Stillwater and Saratoga are predominately rural with dairy farming the main agricultural activity. Parts of Saratoga County are among the fastest growing sections in New York State, but these two towns have not yet experienced large population growth. The area around the Battlefield Unit is either in agriculture or in woods with a few residences, especially along the northern and southern boundaries. Although the battlefield area has escaped heavy development, an increase in residential use is expected. If individual farms are made available for development, such use would significantly impact the historic scene and archeological resources.

The Saratoga Monument and Victory Woods Units are surrounded by residences from the villages of Victory and Schuylerville. At the south end of Schuylerville, east of Fish Creek, the Schuyler House and the Units. To the south, the land is in agricultural use; to the west, across US Route 4, is undeveloped land owned by a public utility.

In general, the region is characterized by great variability in many aspects of its natural environment. This is because the upper Hudson is a transition between the southern coast of New York and the lower Hudson valley and the Northeastern interior. Slope, climate, soils, fauna, and flora in and near the valley bottoms may be similar to those to the south, in coastal New York, while the surrounding uplands may show affinities to the Adirondack region to the north. This environmental diversity would have made the area attractive to people from earliest precontact times until the present (Bender and Curtin 1990:14-15).

West of the Hudson, where the Park properties are located, tributary streams tend to flow through more level landforms. The two major streams in the Battlefield Unit are Mill Creek, whose tributaries and ravines separated American and British lines, and Krome Kill, whose Great Ravine divided the British positions at Brexeyman and Balauntes Redoubts from their easternmost fortification, the Great Redoubt (Figures 4 and 5). These streams and others like them encounter few rapids steep enough to block the migration of anadromous fish, and they are surrounded by areas of alluvial soil. In general, such streams (e.g., Fish Brook) form extensions of the valley bottoms, and they exhibit similar patterns of land use and development (Bender and Curtin 1990:15).

The geology of the Saratoga National Historical Park includes two basic formations: those that are consolidated or bedrock, and those that are unconsolidated and overlie bedrock. The park consists primarily of the Normanskill Shale and Snake Hill formations. These formations have been tightly folded and broken by faults and joints. Folds are generally overturned toward the west in the eastern part of the county. These formations may be up to 1,000 feet thick. At some points bedrock is exposed on the surface. Outcrops appear in stream valleys and on some hills. Shale layers, which are blue-black to gray, are usually a few inches to several feet thick. On the exposed bedrock surface areas the potential for archeological sites is certainly limited. In most places, however, the bedrock is buried beneath one to a few hundred feet of unconsolidated deposits.

The oldest unconsolidated deposits in the Park date from the last (Wisconsin) glaciation and especially from its last phase, 10,000-12,000 years ago. As the ice sheets advanced they carried

NATURAL ENVIRONMENT

Topography and Drainage

The Saratoga National Historical Park is located in the Glaciated Allegheny Plateau physiographic region of the northeastern United States. This is a large region of steep-walled, deep, wide valleys separated by broad ridgetops of gently undulating terrain. A short distance to the north is the Adirondack physiographic region, an upland rising 2,000-3,000 feet above the Mohawk and Hudson River valleys to the south and west (Lull 1968:11).

The dominant feature of the Saratoga area is the upper Hudson River, which flows south through the region towards Albany. The river has cut a steep-sided valley whose high blufftops would have been desirable places to its Native American residents, since they would have provided well-drained living areas with access to both upland and riparian environments and panoramic views of important transportation routes (Bender and Curtin 1990:16). Although the valley lowlands are often wide here, they do narrow in places. One such constricted area is in Stillwater. Here, the high blufftops overlooking the narrow valley at Bemis Heights provided a defensive opportunity for American Revolutionary forces to block the southward advance of Burgoyne's British army in 1777. When the British advance through the valley was blocked, they moved west in an attempt to outflank the American defenders. The two forces clashed west of the valley. Here, amid the region's characteristic gently undulating upland terrain, the major engagements of the Saratoga campaign were fought.

In general, the region is characterized by great variability in many aspects of its natural environment. This is because the upper Hudson is a transition between the southern coast of New York and the lower Hudson valley and the Northeastern interior. Slope, climate, soils, fauna, and flora in and near the valley bottoms may be similar to those to the south, in coastal New York, while the surrounding uplands may show affinities to the Adirondack region to the north. This environmental diversity would have made the area attractive to people from earliest precontact times until the present (Bender and Curtin 1990:14-15).

West of the Hudson, where the Park properties are located, tributary streams tend to flow through more level landforms. The two major streams in the Battlefield Unit are Mill Creek, whose tributaries and ravines separated American and British lines, and Kroma Kill, whose Great Ravine divided the British positions at Breymann and Balcarres Redoubts from their easternmost fortification, the Great Redoubt (Figures 4 and 5). These streams and others like them encounter few rapids steep enough to block the migration of anadromous fish, and they are surrounded by areas of alluvial soils. In general, such streams (e.g., Fish Brook) form extensions of the valley bottom environment, and should exhibit similar patterns of land use and settlement (Bender and Curtin 1990:17-18).

The geology of the Saratoga National Historical Park includes two basic formations: those that are consolidated or bedrock, and those that are unconsolidated and overlie bedrock. Bedrock in the park consists primarily of the Normanskill Shale and Snake Hill formations. These formations have been tightly folded and broken by faults and joints. Folds are generally overturned toward the west in the eastern part of the county. These formations may be up to 1,000 feet thick. At some points bedrock is exposed on the surface. Outcrops appear in stream valleys and on some hills. Shale layers, which are blue-black to gray, are usually a few inches to several feet thick. On the exposed bedrock surface areas the potential for archeological sites is certainly limited. In most places, however, the bedrock is buried beneath one to a few hundred feet of unconsolidated deposits.

The oldest unconsolidated deposits in the Park date from the last (Wisconsin) glaciation and especially from its last phase, 10,000-15,000 years ago. As the ice sheets advanced they carried

soil and rock debris with them. The debris, or till, was deposited as a blanket of unsorted material during both the advance and the retreat of the ice. Some reworking of this till occurred as streams from melting ice sheets caused erosion, sorting, and redeposition. Unconsolidated deposits vary in thickness from a few inches to more than 100 feet on the Hudson River floodplain. Generally, these deposits include till as the oldest, followed by sand and gravel, clay, sand, and alluvium on the surface. However, local patterns may differ in stratification.

Till, a combination of rock and clay, occurs only in the western part of the park where surface elevation is above 300 feet (Figure 5). Sand and gravel deposits of glacial outwash are normally found above the till. These deposits average 25 feet in thickness and are evident in the eastern part of the park in the bluffs overlooking the river floodplain (Figure 5).

Silts and clays resulted from deposits laid down on the floor of glacial Lake Albany, which formed as the glaciers retreated. These deposits usually underlie the sand and gravel, but in the western part of the park, sand and gravel apparently was never deposited. In some places, the clay forms a hardpan through which archeological excavation has proved difficult if not impossible. Much of the area along the Hudson River is underlain primarily by clays that extend westward to the 300-foot surface contour line. Above the clay on the eastern terrace of the Park is a sand deposit up to 25 feet thick. The western portion appears to have no sand deposits. Alluvium is the youngest material and occurs in the Hudson River floodplain, where the river has deposited sediments in geologically recent times (Figure 5). Unlike the bedrock formations where few if any archeological sites can be expected, the rest of the land surface may contain archeological resources. Any areas that have not been cultivated would, other things being equal, offer the most archeological potential.

Climate

The climate of the upper Hudson valley has changed over the last 10,000 years as glaciers have retreated, sea levels have risen, and global patterns of air and water circulation have shifted. At the close of the ice age, summers might have been warm, but the winters would have been much more severe than today. Winters gradually ameliorated and overall climate warmed, reaching maximum warmth between 9000 and 5000 B.P. (Davis et al. 1980). A period of gradual cooling began at about 700 B.C. and reached a low point at about A.D. 1000, after which it warmed once more to its present pattern (Snow 1980:284). This overall warming was interrupted by the Little Ice Age, which lasted between about A.D. 1550 and 1880 (Ceci 1990; Grove 1988). Climate in the most recent decades has been characterized by moderate summers, moderately cold winters, and ample, fairly evenly distributed precipitation. Average January temperatures range between a maximum of 30-32°F and a minimum between 10 and 14°F. Average July temperatures range between 82-84°F and 60-62°F. Average yearly precipitation is between 36 and 44 inches (Lull 1968:19-31).

Soils

In the Saratoga region, soils exhibit considerable variability. Much of the region consists of limy soils on glacial lake bottom deposits, especially in the Hudson lowlands and low hills to the west. West of this area is a zone of coarse-textured soils on sands and gravels. Acid soils on glacial till over hilly terrain dominate the far western part of Saratoga County (De Laubenfels 1966a:Figure 33). Well-drained soils are widespread throughout the region, while soils with excellent potential for growing corn are limited in extent (Bender and Curtin 1990:21-24). In general, soils in the area of the Park are considered to possess fair to poor agricultural potential

Figure 2. Surficial geology of the Saratoga Battlefield Unit (Source: DeLa 1978; DeLa 1977; Hanson 1977; Heath et al. 1963)

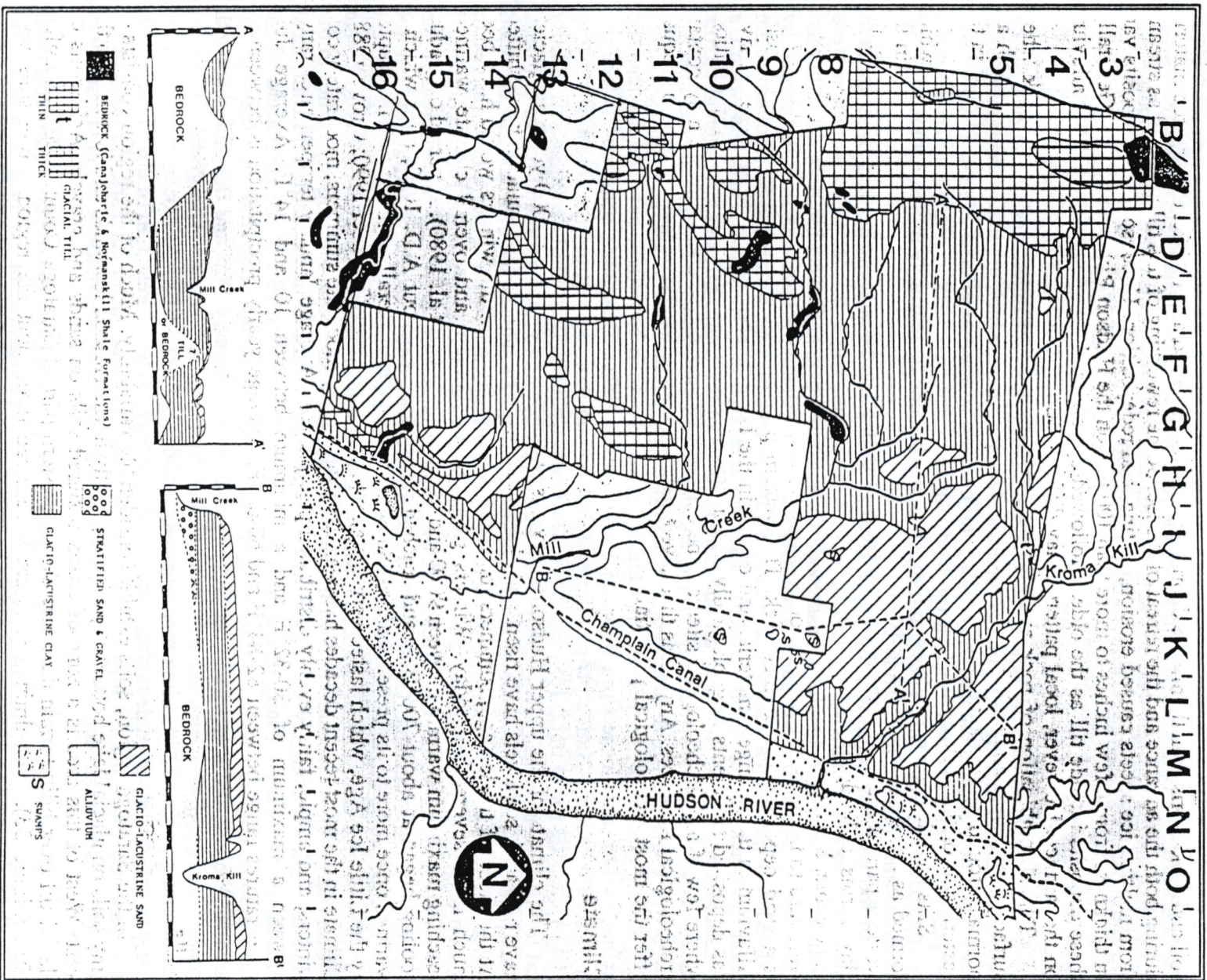


Figure 5. Surficial geology of the Saratoga Battlefield Unit. (Sources: Dahl 1978; Desimone 1977; Hanson 1977; Heath et al. 1963)

(De Laubenfels 1966a:Figure 34). However, the rich, alluvial soils of the Hudson River and some of its tributaries have been well suited to farming and have been cultivated by both indigenous and Euro-American peoples (Bender and Curtin 1990:25).

Flora and Fauna

Forest composition and fauna of Saratoga County have changed during the last dozen millennia. Glacial melting left a mixed tundra and spruce forest, which gradually changed as soils developed, new species entered the region, and climatic conditions altered. By ca. 11,000 years ago, spruce forests covered much of the land. Spruce forest gave way to pine-dominated forests by approximately 9000 B.P. These, in turn, gradually became increasingly mixed with hardwoods (Bernabo and Webb 1977; Davis 1983).

In the past few centuries, the upper Hudson Valley has been characterized by a northern hardwood forest, dominated by beech, yellow birch, and sugar maple. Other common trees include elm, red maple, hemlock, basswood, white ash, red oak, and sweet birch. In cut or burned areas, aspen, pin cherry, and paper birch may take over. Abandoned pastures may be invaded by red cedar, white ash, hawthorn, and locust. Swampy areas may be dominated by northern white cedar or black spruce (Lull 1968:5). The Saratoga National Historical Park lies within a transitional zone between this forest and the oak forest of the south. Microenvironmental factors such as aspect, slope, moisture, soil variety and depth, and disturbance influence whether specific areas will contain northern hardwoods or oaks (De Laubenfels 1966b:92-95).

Recent studies of the vegetational history of the Saratoga battlefield have emphasized the impact of humans on the flora (Gordon 1987; Russell 1991). Beginning sometime before the seventeenth century, Native people altered forest composition by burning the forest understory and by clearing forest tracts for planting fields. These would be used until declining soil fertility led to insufficient yields, after which fields would be allowed to regenerate and return to forest. This practice would have promoted edge environments, tree species such as oak and chestnut, which grow well under conditions of understory burning, and white pine, which thrives in abandoned fields. The seventeenth-century epidemic diseases and depopulation that accompanied European contact would have increased the amount of abandoned fields and decreased the intensity of forest burning (Gordon 1987) and thus increased the amount of white pine but not oak or chestnut.

Forest clearance intensified again when Euro-American settlers cleared forests to create farms, beginning in the mid-eighteenth century in the Battlefield Unit and slightly earlier in the Hudson Valley bottom. By 1777 there were several small clearings in the Battlefield Unit, most of which was forested. Many of the clearings were in the western part of the Battlefield where the till soils, although rocky, afford better moisture conditions than the sands and clays of the areas to the east and south. Between the end of the Revolutionary War and the mid-nineteenth century more and more forested areas were cleared for farms and pastures. Deforestation reached its maximum about 1870, when more than 90% of the Battlefield Unit had been cleared. In the early twentieth century, a declining agricultural economy led to reforestation of abandoned fields and pastures. Since the establishment of the Saratoga National Historical Park, portions of the Battlefield Unit have been allowed to reforest in order to better approximate the environment of 1777 (Russell 1991).

Common fauna in the upper Hudson Valley have included large and medium-sized mammals such as white-tailed deer, elk, black bear, and wolf, with moose present but more common in the Adirondacks to the north. Of these, only deer and moose are still found locally. Small to medium-sized mammals such as raccoon, beaver, otter, bobcat, fox, chipmunk, grey squirrel, woodchuck, fisher, muskrat, bats of various species, and several varieties of rodents and insectivores may still be found in the area. Bird species include turkey, various ducks, small

birds, hawks, and egrets. Also inhabiting such an environment are numerous small reptiles, especially turtles and snakes, amphibians (frogs, toads, and salamanders), fish, countless insects, and other invertebrates (Funk 1976:7). The mosaic quality of the region has permitted its human inhabitants easy access to a wide variety of plant and animal resources (Bender and Curtin 1990:25).

The Hudson River and its tributaries have been home to fresh water and anadromous fish. Among the former are brook trout, small-mouth bass, pickerel, and wall-eyed pike; the latter include shad, herring, striped bass, and Atlantic salmon. These were important food sources in both precontact and postcontact times (Brumbach 1986; Funk 1976:7). The area around the mouth of Fish Creek contains both floodplain lakes and waterfalls and would have been ideal for both spring and summer fishing (Bender and Curtin 1990:30).

In the past century, the upper Hudson Valley has been characterized by a pattern of land use change. The region was once a vast expanse of forest, but by the late nineteenth century, much of this forest had been cleared for agriculture and settlement. The remaining forest was often fragmented and of lower quality than the original forest. The Hudson Valley National Historical Park is a result of this process, preserving the remaining forest and the cultural landscape that developed around it. The park is a mosaic of different land uses, including agriculture, settlement, and forest. The park is a result of the process of land use change, which has shaped the region's landscape and its natural resources.

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Common fauna of the Hudson Valley include large and medium mammals, birds, and insects. The region is home to a variety of plant and animal life, including many species of birds, mammals, and insects. The region is also home to a variety of plant life, including many species of trees, shrubs, and herbs. The region is a mosaic of different land uses, including agriculture, settlement, and forest. The park is a result of the process of land use change, which has shaped the region's landscape and its natural resources.

CULTURE HISTORY

The upper Hudson River valley has been home to humans for at least 10,000 years. Of those millennia, only the last four centuries are documented through written records. The history of the years preceding can be constructed only through the study of material remains of human behavior (archeology) and through Native American oral traditions. The following brief narrative of culture history focuses on the general vicinity of the upper Hudson Valley as well as the particular area that constitutes the Saratoga National Historical Park. General cultural trends are emphasized for each segment of the area's history. Also noted are sites, events, or persons of particular importance to the Saratoga National Historical Park and its surroundings. This overview of culture history uses many of the chronological periods generally employed by Northeast archeologists (e.g., Dincauze 1990; Funk 1976; Ritchie 1980; Snow 1980).

Archeological research in the upper Hudson Valley grew out of antiquarian pursuits and historical research of men like William Beauchamp, O.C. Auringer, Dwinel F. Thompson, and Nelson Bennet in the late nineteenth and early twentieth centuries. In the first three decades of the twentieth century, Arthur C. Parker, the New York State Museum's first professional archeologist, published an inventory of archeological sites for the state of New York (1922) and worked to establish professional standards and practices in the field of archeology. Archeological research in the upper Hudson Valley went through a lull between 1925 (when Parker moved to the Rochester Museum) and mid century. When William Ritchie arrived at the New York State Museum in 1949, he began an energetic program of archeological research with the goal of working out regional chronological sequences. He presented his results for the Hudson Valley in 1958, when he published *An Introduction to Hudson Valley Prehistory* (W. Ritchie 1958). Since the 1970s, much archeological research in the upper Hudson Valley has been cultural resource management archeology. Significant sites have been located and excavated, systematic surveys have been conducted, and new research questions have been formulated. (Bender and Curtin 1990:35-58). Precontact culture history in New York State has been summarized by Ritchie (1965, 1980). A more specific summary of the Hudson Valley has been produced by Funk (1976).

The upper Hudson in particular has been the subject of a recent overview by Bender and Curtin (1990). Much of the information in the following pages is drawn from this source. Bender and Curtin (1990:59-60) suggest four broad goals for precontact archeological research in the area. These are: (1) to collect *systematic* data on site locations; (2) to collect data on site formation and site occupation sequences in order to understand the variety among sites; (3) to reevaluate the existing cultural histories (e.g., W. Ritchie 1958; 1980; Funk 1976); and (4) to recover subsistence and seasonality data using modern data recovery techniques such as flotation.

In the Saratoga area, known Native American archeological sites cluster along Fish Creek and the Hudson River floodplain (Figure 6, Table 2). In addition, a few finds of Native American artifacts have been reported from the Battlefield unit and a significant precontact Native American site exists in the yard to the north and east of the Schuyler House (see Known and Potential Archeological Resources at the Saratoga National Historical Park, this report).

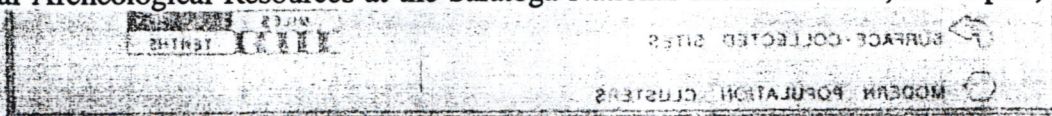


Figure 6. Known Native American archeological sites in the Saratoga area (sources: Brumbach 1972a, 1972b, 1977; Brumbach and Bender 1980; Funk 1976; Funk and Funk 1977; Starbuck 1989a; Walsh 1977) locations approximate.

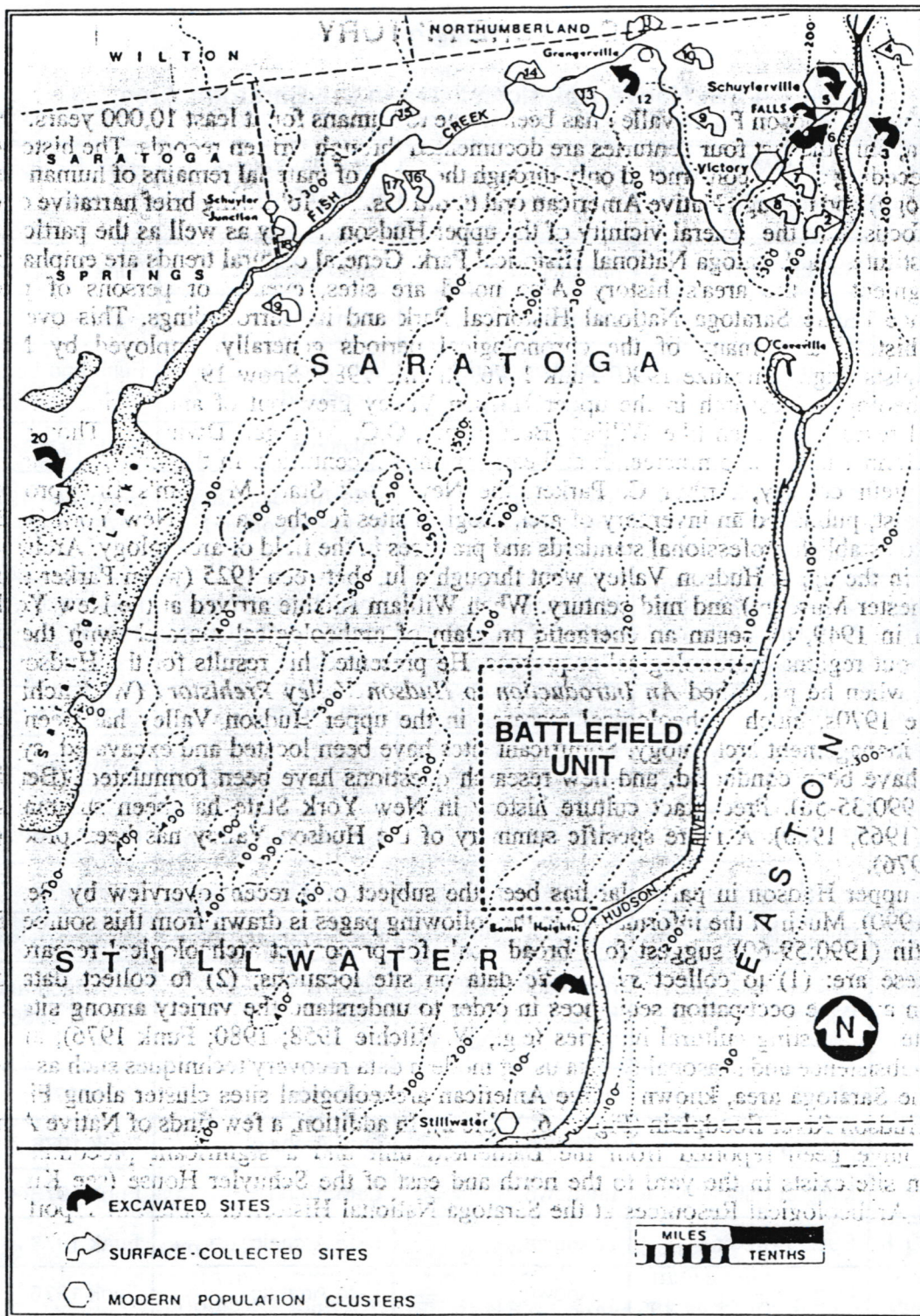


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Table 2

Known Native American Sites in the Saratoga Area

| SITE NO.
FIGURE | SITE NAME | SITE TYPE | CULTURAL/TEMPORAL
AFFILIATION(S) | REFERENCES |
|--------------------|--|-----------------------------------|--|---|
| 6 | Church | habitation | Late Archaic | Funk and Lord 1972 |
| 2 | Germain | unknown | unknown | Funk 1976 |
| 3 | Coffin | habitation, burial | Late Archaic, Late
Woodland | Funk and Lord 1972 |
| 4 | Barton | unknown | unknown | Funk 1976 |
| 5 | Schuylerville
Pollution Control
Facility | habitation;
anadromous fishing | Late Archaic, Early-
Middle Woodland | Brumbach 1975a,
1975b, 1977
Denn 1991; Duncan
and Quinn 1983 |
| 6 | Schuylerville
Mansion | habitation | some Late Archaic,
mostly Middle-Late
Woodland | Funk 1976; Starbuck
1989a |
| 7 | Gannon Field | unknown | Late Archaic | Funk 1976 |
| 8 | Evergreen | unknown | Late Archaic;
Middle Woodland | Funk 1976; Funk 1976 /
Funk 1976 |
| 9 | Haskins | unknown | Late Archaic | Funk 1976 |
| 10 | Wood | unknown | unknown | Funk 1976 |
| 11 | Bullard | unknown | Late Archaic | Funk 1976 |
| 12 | Lewandowski
Winney's Rift | habitation, fishing,
burial | Late Archaic-
Contact | Brumbach and
Bender 1986; Funk
1976 |
| 13 | Mzera | unknown | unknown | Funk 1976 |
| 14 | Szekely | unknown | Late Archaic | Funk 1976 |
| 15 | Milligan Hill | unknown | Late Archaic | Funk 1976 |
| 16 | Sucker Brook | unknown | Late Archaic | Funk 1976 |
| 17 | Hughes | unknown | Late Archaic | Funk 1976 |
| 18 | Stafford Bridge | unknown | Late Archaic | Funk 1976 |
| 19 | Fitch | unknown | unknown | Funk 1976 |
| 20 | Arrowhead Casino | habitation | Late Archaic | Walsh 1977 |

what is
WS?
Schuylerville
Mansion

Paleoindian Period (ca. 12,000-9000 B.P.)

The first inhabitants of the area now known as the upper Hudson River valley were women, men, and children who lived in small, mobile groups and gathered and hunted in a land that had only recently been freed from the grip of a massive continental ice sheet. They were New York's first pioneers (see Dincauze 1990); archeologists call them Paleoindians. They were descendants of the first people who, between 15,000 and 20,000 years ago, crossed the Bering Land Bridge to North America and gave rise to almost all of the indigenous peoples of the Americas.

The Paleoindians of the upper Hudson Valley inhabited an environment quite different from that of today. It was an environment that was rapidly changing as glacial margins retreated north, new species entered the region, soils and landforms matured and stabilized, climate warmed, and sea levels and land both rose. Forests were dominated by spruce, birch, and alder. Soils were younger, thinner, and less developed, and wetlands, some of which were remnants of large proglacial lakes, may have been much more extensive. Fauna were also different, and may have included animals now extinct (mastodon) or found far to the north (caribou). Although some archeologists have suggested that eastern Paleoindians were specialized hunters of these now-vanished big-game animals (Ritchie 1980; Snow 1980), others have argued for a generalist subsistence strategy based on ecological principles and archeological and paleoenvironmental data (Dent 1991; Dincauze and Curran 1983).

Sites of these original pioneers have been found at several locations in eastern New York, especially in the lower portions of the Hudson Valley. Perhaps the best known Paleoindian sites in the region are the West Athens Hill site, a quarry and workshop site near Catskill, Dutchess Quarry cave, a small, short-term habitation or hunting camp in Orange County, and the Kings Road site, a small, short-term habitation site near Coxsackie (Funk 1976:205-228). Surface finds of Fluted points attributed to Paleoindians have been found at several other sites in the valley. A Fluted point has been identified in a collection from the town of Crescent in the southern part of Saratoga County (Levine 1989:6-7).

Archaic Period (ca. 9000-3000 B.P.)

During the next several millennia the environment of the upper Hudson Valley, and of the Northeast in general, changed and became more similar to that of the present. During this period, known as the Archaic, people developed patterns of subsistence and settlement, elements of which persisted into the seventeenth century. The Archaic period witnessed the growth of native populations and the development and florescence of several cultural traditions. Archeologically, the period provides evidence of an increase in the expression of ritual, particularly in the burial of the dead.

Archeological traces of the Early Archaic (ca. 9000-8000 B.P.) and Middle Archaic (8000-6000 B.P.) periods were once thought to be scarce in or absent from the upper Hudson Valley and rare in the Northeast in general (e.g., Fitting 1968). This idea has been changing since the 1970s, when excavations, (e.g., Snow 1977a; Starbuck and Bolian 1980), collections analyses (e.g., Dincauze 1976) and paleoenvironmental and archeological studies in the Northeast (e.g., Dincauze and Mulholland 1977; Nicholas 1988) revealed a rich archeological record for these periods and evidence of environmental conditions favorable for human settlement. Recent analysis of archeological collections has identified Early Archaic components in the form of diagnostic projectile points recovered at a number of unspecified locations in the region, and within Saratoga County, including the town of Crescent (Levine 1989:7-8).

Many more sites are known from the eighth and seventh millennia B.P. (Middle Archaic) than are known from the ninth millennium B.P. (Early Archaic). This increase probably reflects the rise in sea levels and loss of earlier coastal sites as well as a gradual increase in population.

By this time, if not earlier, large sites at prominent waterfalls along major rivers (e.g., Dincauze 1976; Thomas 1980) suggest that anadromous fish had become important in the yearly subsistence cycle. Middle Archaic projectile points have also been noted in collections from sites in Saratoga County (Levine 1989:7-9).

The Late Archaic period (sixth through fourth millennia B.P.) is characterized by an increase in both the number of sites and the diversity of site locations. These continuations of trends begun millennia earlier, are interpreted as reflecting population increase and more intensive exploitation of environments and resources that were less important in earlier periods (Dincauze 1975). Some intensification of subsistence activities is suggested by evidence of the increasing use of shellfish and nuts, the construction of fishweirs (e.g., F. Johnson 1942, 1949), the use of controlled burning to promote important food plants and animals (E. Johnson 1994), and in some parts of the eastern Woodlands, experimentation with the cultivation of indigenous plants (Yarnell 1993). Although an increase in the diversity of site locations appears to characterize the Late Archaic, favored site locations from earlier periods continued to be used. Sites at waterfalls, or river confluences for example, continued to be occupied during the spring for the taking of anadromous fish. An example of such a location in the Saratoga area is the Schuylerville Water Pollution Control Facility site, located at the confluence of Fish Creek and the Hudson River (Figure 6), where excavations uncovered extensive deposits of black midden typical of anadromous fishing locations. This site was dated to the Late Archaic through Middle Woodland periods (Brumbach 1975a, 1975b, 1977).

The increase in population and intensification of subsistence was accompanied by an intensification of ritual; presumably part of an intensification of social relations in general. In the Northeast this trend is evidenced by mortuary ceremonialism involving ritual interments of human bone (both cremated and uncremated), tools, red ocher, and other materials. Investigation of Late Archaic mortuary ceremonialism and reconstruction of Late Archaic society through the study of mortuary features has long been an important focus of research in the Northeast).

The Late Archaic also exhibits considerable variation in its archeological record—in artifact styles and assemblages, in mortuary behaviors, in subsistence and settlement patterns, and in the geographic and temporal distribution of these variations. Archeologists have spent decades describing, classifying, explaining, and contesting the nature of these variations. In the upper Hudson region, three of these traditions are especially significant: The Laurentian, the Narrow Point, and the Susquehanna. The Laurentian tradition is probably the earliest of the three. Projectile points affiliated with the tradition date from as early as the sixth millennium B.P. Laurentian projectile point styles include Otter Creek, Brewerton, and Vosburg types. Although it has been characterized as reflecting a culture adapted to interior environments (Snow [1980] refers to it as the "Lake Forest Archaic") Laurentian tradition points have been found in coastal regions as well. Sizeable Laurentian components have been identified at a number of sites along Fish Creek including the Gannon Field, Evergreen, Haskins, Bullard, Szekely, Milligan Hill, Sucker Brook, Hughes, Stafford Bridge sites (Funk 1976:27). These are all located about 6-7 miles north to northwest from Saratoga National Historical Park (Figure 6). Laurentian tradition materials have been recovered from the Schuylerville Water Pollution Control Facility site (Brumbach 1975a, 1975b, 1977) and near the shores of Saratoga Lake at the Arrowhead Casino site (Walsh 1977).

The Narrow Point tradition is characterized by a broad-spectrum subsistence pattern, a settlement pattern reflecting the use of a wide range of environments with sites in a great variety of settings, small, triangular, narrow-stemmed, or notched projectile points often made of quartz or other local materials (Cross 1997:69-70). Archeological components from the Sylvan Lake rockshelter and other Hudson Valley sites dating between the fifth and third millennia B.P. have been described as local manifestations of this tradition (Funk 1976:156-172, 247-254). Sites on Fish Creek (e.g., Haskins, Bullard, Szekely, Milligan Hill, Sucker Brook, Hughes, Stafford

Bridge) and Saratoga Lake (Arrowhead Casino) contain numerous projectile points affiliated with this tradition (Funk 1976:27; Walsh 1977).

The fourth millennium portion of the Narrow Point tradition has been classified as the River Phase in the Hudson Valley area by Funk and Ritchie based on their work at the Bent site and at the River site, which is located a few miles south of the Saratoga National Historical Park (Funk 1976; Ritchie and Funk 1973). This phase is identified with Normanskill projectile points. These points are found in small numbers at several of the sites along Fish Creek including the Gannon Field site (Funk 1976:27).

Also in the fourth millennium, archeologists identify what is known as the Susquehanna tradition. This is manifested as a spread of material culture, perhaps other cultural practices, and perhaps people as well, from the Southeast into the Northeast. In addition to the tradition's characteristic broad, thin bifaces, the Susquehanna tradition may also be characterized by its mortuary ceremonialism and settlement and subsistence patterns (Cross 1997:80). Although archeologists do not agree as to the nature of the Susquehanna tradition, it is generally agreed to have entered the region, including the Hudson Valley, by the beginning of the fourth millennium B.P. and to have persisted, with various changes in biface technology, into the third millennium B.P. Locally, the earliest expression of the tradition is the Snook Kill phase, the type site for which is located on the west side of the Hudson River about 20 miles north of the Saratoga National Historical Park. The Henderson Site, located just south of the Snook Kill site, has also yielded a sizeable Snook Kill component. Snook Kill points are also present in low numbers at most of the sites along Fish Creek. Later Susquehanna tradition biface types such as Susquehanna Broad and Orient Fishtail are concentrated in the Grangerville section of Fish Creek (Funk 1976:27). The Church site—located on the Hudson River floodplain just south of the Battlefield unit (Figure 6)—contained Susquehanna tradition components including Susquehanna Broad and Orient Fishtail projectile points. This site was interpreted as a seasonal habitation, possibly occupied during the autumn months, to which people returned over a period of perhaps more than 1,000 years (Funk and Lord 1972:39-60).

Near the confluence of Fish Creek and the Hudson River, the Coffin site (Figure 6) contained Susquehanna tradition components including Susquehanna Broad and Orient Fishtail points. The latter component was radiocarbon dated to the beginning of the third millennium B.P. This site was also interpreted as reflecting repeated short-term habitations (Funk and Lord 1972). Near the Coffin site, the Schuylerville Water Pollution Control Facility site contained Susquehanna Broad and Orient Fishtail components, presumably associated with that site's apparent focus on spring anadromous fishing (Brumbach 1975a, 1975b, 1977).

Woodland Period (3000 B.P.-A.D. 1500)

This period is defined by the beginnings of ceramic technology in the Northeast. Although ceramics themselves may not have brought about a substantial change in the lives of the Native people of the upper Hudson Valley, the presence of ceramics serves as a convenient time marker. In the Northeast, ceramics appear to have been introduced sometime during the third millennium B.P. The Early Woodland Meadowood and Middlesex phases are characterized by the earliest ceramics (Vinette I), and thin, ovate, sometimes side-notched cache blades (Meadowood). They appear to have some affiliation with the Adena culture of the midwest. These phases also are associated with elaborate and varied mortuary ceremonialism, exemplified by the Boucher site in northwestern Vermont (Heckenberger et al. 1990). Early Woodland materials are most commonly, though not exclusively, found along the main rivers of the Hudson drainage, rarely in upland areas or along smaller streams (Funk 1976:278). In general, settlement patterns appear to reflect small, mobile residential units subsisting by hunting, gathering, and fishing, with

perhaps some tending or cultivating of indigenous plants, but without maize farming (Shaw 1997:75; Smith 1992).

In much of the Northeast, site frequencies appear to fall during the Early and Middle Woodland. This has been tentatively attributed to cultural and social changes correlated with changes in subsistence and settlement systems, including an increase in the use of coastal resources and a concentration of settlements in coastal areas. Alternatively, it may reflect biases in data collection or misidentification of the temporal components of prehistoric sites (Dincauze 1990). Certainly, many of the sites that do have Early or Middle Woodland components also have Archaic period materials, suggesting continuity rather than change at least in settlement patterns. For example, the Schuylerville Water Pollution Control Facility and Lewandowski-Winney's Rift sites (Figure 6) contained Woodland in addition to Late Archaic components (Brumbach 1975a, 1975b, 1977; Funk 1976). Three other Middle Woodland sites are known from the immediate vicinity of the Saratoga National Historical Park; one is the Schuyler Mansion site, located on a terrace overlooking the Hudson River floodplain near the Schuyler House, south of the mouth of Fish Creek (Figure 6). Close by, possibly part of the same site, is a Middle Woodland site located in the northern and eastern parts of the Schuyler House yard (Starbuck 1989a:19-21). A third is the Evergreen site, located on the south side of the lower part of Fish Creek (Figure 6) (Funk 1976:27,296).

During the Late Woodland period (approximately the last thousand years of precontact history), maize farming was introduced to and adopted by the Native people of the Northeast (Bendremer et al. 1991; McBride and Dewar 1987; Ritchie 1980:xxv). Archeological evidence suggests that, despite its early introduction, farming may have been more of an adjunct to hunting and gathering than an economic staple until around the time of European contact (Ceci 1990; Demeritt 1991; McBride and Dewar 1987). However, it is likely that a sophisticated form of "wildlife management," involving the encouragement of important wild plants and animals through controlled burning (Day 1954; E. Johnson 1994; Martin 1973; Patterson and Sassaman 1988), transplanting, and tending, was practiced for many years prior to the expansion and intensification of maize horticulture. These techniques are difficult to document because their impacts on the landscape were subtle, and the changes in human lifeways they may have caused are poorly understood and, at present, less easily recognized archeologically.

The Lewandowski-Winney's Rift site near Grangerville (Figure 6) contains a particularly large Late Woodland component including hundreds of Levanna projectile points, associated with the Late Woodland period, pit features, and burials, as well as some Contact period trade items. The site is located near an ideal fishing spot where a bedrock sill crosses Fish Creek and produces rapids just above a large pool (Funk 1976:27-28).

Settlement patterns appear to reflect increasing permanence or sedentism in the Middle and Late Woodland periods. In the Fish Creek area, Middle-Late Woodland settlement appears to have become increasingly focused at the Lewandowski-Winney's Rift site at the expense of other loci along the Creek. Faunal data suggest that the site was occupied during both cold and warm seasons (Brumbach and Bender 1986:3-5).

The Coffin site also contained a Late Woodland component including a number of pit features which, it was suggested, were used for food storage. One such pit had been used to hold a human burial (Funk and Lord 1972:36). Late Woodland components have also been recovered from the Schuyler Mansion sites (Funk 1976:27-28; Starbuck 1989a:19-21).

By the sixteenth century, and almost certainly earlier, the upper Hudson Valley was the country of the Mahican (or Mohican) Indians. The Mahicans were farmers who also hunted, gathered, and fished. They spoke an Algonquian language (Goddard 1978:72). The Mahicans lived in multifamily dwellings that were less rigidly organized than were the longhouses of the Hodenosaunee (Iroquois) to the west. Mahican settlement probably followed a semi-sedentary pattern in which much of the year was spent in dispersed farmsteads with time also spent at more

temporary habitations, for example, spring fishing and fall hunting camps. Settlements may have been organized along matrilineal lines as well as by clans. Kinship ties among different communities would have meant that communities interacted regularly and shared not only kin but also such material culture traits as ceramic styles and house styles (Bender and Curtin 1990:3-11; Brasser 1974:6-7, 65-66). Additional information on the Mahicans is available in Brasser (1974, 1978) and Snow (1980). The Lewandowski-Winney's Rift site has been affiliated with the Mahican people on the basis of trace element analysis of ceramics vessels and pipes which showed them to be locally derived or made from Hudson Valley clays rather than from clay sources to the west, in Mohawk country (Brumbach and Bender 1986:5).

Based on ethnohistoric information on the Mahicans, Bender and Curtin (1990:3-13) have inferred hypothetical Late Woodland settlement patterns and household and social organization. Although it has been assumed that Mahican communities lived in stockaded settlements, as they are known to have done after European contact, it seems more likely that dispersed farmsteads were the pattern until as late as the seventeenth century. To date there is no archeological evidence of precontact fortified settlements in the upper Hudson Valley, and the model of dispersed farmsteads is in closer accord with the archaeological evidence (Bender and Curtin 1990:4-7). Indeed this pattern appears to characterize most if not all of the Algonquian-speaking peoples of the Northeast (Johnson 1993:31,244-253; Kraft 1986:122; McBride 1990:101; Salwen 1978). Bender and Curtin (1990:12-13) have recommended that research focus on the nature of late precontact house structures, residential units, and hamlet or village settlements, the chronology of and reasons for fortified settlements, evidence for the Mahican three-clan system, the intensity and character of interactions among settlements, the significance of anadromous fish and horticulture in subsistence and settlement, and the strengths and limitations of ethnohistoric models.

By the end of the Woodland period, Europeans were beginning to visit the rich fishing waters of the Grand Banks. English, Basque, French, Spanish, and Portuguese fishermen probably landed along the shores of eastern Canada and New England. John Cabot, sailing for England, may have reached the coast of Maine in 1498. Direct European contact in the upper Hudson Valley did not begin, as far as is known, until early in the seventeenth century.

Seventeenth Century

Henry Hudson, in 1609, was the first known European traveler to explore and report on the upper Hudson River. Hudson described the region's Mahican people and their villages, and prepared the way for Dutch trade and settlement. The Mahicans occupied a number of what had become by this time fortified villages, sometimes referred to as "castles," along the Hudson River valley. Such villages are known from around present-day Castleton, near the Dutch settlement at Fort Orange, and around the confluence of the Mohawk and Hudson Rivers (Brasser 1974:65). Other settlements undoubtedly existed, but their locations are not as precisely documented. Snow (1980) and Cook (1976) have estimated Mahican population at contact to have been around 5,500 people. On Fish Creek, north of the Saratoga National Historical Park, Contact period components associated with the Mahicans have been recovered from the Lewandowski-Winney's Rift site (Brumbach and Bender 1986; Funk 1976:27-28).

The establishment of trade relations intensified hostilities between the Mahicans and the Mohawks. In 1628, the Mahicans abandoned their lands on the west side of the Hudson River, including, presumably, their settlement on Fish Creek. Soon after, the Mohawks began to use that territory for spring fishing, perhaps with the Mahicans using it for fall-winter hunting (Brumbach and Bender 1986:5-7).

The earliest European settlement on the Hudson River was Fort Orange, now known as Albany. It was established in 1624-26 by the Dutch for the purpose of trade with the local Native

The American Revolution and the Saratoga Campaign

The year 1777 brought Saratoga into the center stage of American history, when it became the battleground for what was arguably the turning point in the American Revolution. Here in the late summer and fall of the year, American revolutionary forces commanded by Horatio Gates and Benedict Arnold defeated an invading British army commanded by John Burgoyne. Details of the campaign have been recounted by a number of authors, among them Luzader (1975), Cook (1973), and Fumeaux (1971). In addition, a well-known historical novel has been written about the campaign (Roberts 1940).

Schuyler was in England by 1760 settling from the French + Indian War. Construction on the Albany House began late that year + continued through 1764.

The war was more than two years old when the second British invasion down the Lake Champlain-Hudson River corridor was launched. The American colonists had driven the British out of Boston but had lost New York City for the duration of the war. During the early months after Lexington and Concord, the gathering American army tightened its lines around Boston. In the west, Crown Point and Fort Ticonderoga, strategic points on Lake Champlain, fell to the American Forces in May 1775. In Boston the Americans occupied Breeds Hill and Bunker Hill, uncomfortably close to the British forces. In a short bloody battle, the British drove the colonial forces off the commanding heights. In the late winter of 1776, the British position in Boston became untenable. The colonists had occupied Dorchester Heights south of Boston, and with the use of captured cannons carried overland from Fort Ticonderoga, forced the evacuation of Boston on March 17, 1776. In late 1775, American forces moved into Canada and captured Montreal. Failing in their attack against Quebec City, the army conducted an ineffective siege operation during the winter and spring.

With the loss of Boston, British strategy turned to New York City. In a series of battles in August and September 1776, General Washington gradually withdrew from Long Island and Manhattan moving southward into New Jersey and Pennsylvania. This unexpected move (the British had anticipated a retreat into New England) helped to shape the Saratoga Campaign of the following year.

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The news from the north was slightly more favorable to the Americans. After spending the winter and spring outside of Quebec, the American forces withdrew in the face of the first major British move down the Champlain/Hudson corridor. Anticipating the British army's invasion by way of Lake Champlain, General Gates, commander of the American forces, built a fleet and sent it northward under command of General Benedict Arnold. Fortunately, the British move southward was very slow as it was not until early October that the American fleet sailed up the lake. The opposing fleets met at Valcour Bay. After a fierce battle, the remnants of the defeated American fleet slipped south. Although the American force was defeated, it had slowed the British advance so that the season was too late for a continued offensive. Withdrawing to the north end of the lake, the British army encamped for the winter intending to renew their drive toward Albany in the following year.

The Champlain-Hudson corridor, a known prehistoric travel route, had been used as a military and trade route since before colonial days. Algonquian and Iroquoian-speaking native travelers made extensive use of the corridor as did the later French, Dutch, and English soldiers during their attempts to control the region. From Albany northward, fortifications were built by the British and French to protect their various interests — forts or blockhouses such as Saratoga, Edward, George, William Henry, Ticonderoga, and Crown Point. As the events of 1776 had shown, the British saw this corridor as an invasion route to the south. In the spring of 1777, at the north end of Lake Champlain, the British army, commanded by General Burgoyne, poised for a second invasion.

The goals of the Burgoyne campaign were ill-defined and subject to modification as the campaign progressed. At a minimum, the British expected to fully control Lake Champlain and at least strategically isolate New England from the southern colonies. The invasion of 1777 was to be along two historic routes. While Burgoyne moved southward along the Champlain/Hudson route, a second force was to move eastward through the Mohawk River valley. Burgoyne expected some form of action from General Howe, the British commander in New York, but this action was never clearly communicated and was subject to differing interpretations. Although a union was planned with Howe at Albany it was not expected that General Gates would be faced with a two-front action.

Burgoyne headed south in mid-June. Under his command were 8,000 soldiers (British troops, German mercenaries, Native Americans, and American loyalists), at least 42 field artillery pieces, thirty armed boats with 282 cannon, and a large assortment of longboats, bateaux, and wagon

(Luzader 1975:17). The first major obstacle, Fort Ticonderoga, was captured with unexpected ease in early July. Burgoyne now had two natural corridors to the Hudson River from which to choose. A broad, swampy depression led from the south end of Lake Champlain at Skenesboro to Fort Edward on the Hudson. The second corridor was Lake George. For a variety of geographical, military, and political reasons, Burgoyne chose the Skenesboro route. This low, swampy, and heavily forested area could be traversed by only one road. The route was to prove costly in terms of time. Harassed by American rear-guard actions and slowed by felled trees and destroyed bridges, Burgoyne did not reach the Hudson River until the end of July. The next month was spent moving very slowly southward. On August 16, a German foraging party was defeated at Bennington. A week later, Burgoyne heard that his Mohawk Valley force had turned back toward Canada, after their siege at Fort Stanwix was abandoned. Very short of supplies and on his own, Burgoyne was still waiting for news of actions south of Albany.

American Forces had been concentrating in the Stillwater area. On September 12, General Gates moved northward a few miles to a better defensive position on the river bluffs at Bemis Heights. The next day, Burgoyne crossed the Hudson River about two miles north of the small village of Saratoga. The long, difficult march southward, diminishing supplies, the defeat at Bennington, the failure of the Mohawk Valley invasion, and the lack of any news from General Howe were all taking a toll on Burgoyne and his army.

Unknown to General Burgoyne, he would not be receiving any assistance from the south. Difficult communications, ill-defined and conflicting military goals, the unexpected success of General Washington's army in New Jersey and Philadelphia and perhaps the belief that a trained British field army fighting new ill-trained colonial forces might need a diversion to relieve some pressures but would certainly not need to be rescued, doomed any real aid for Burgoyne. He was left to his own resources.

On September 18th and 19th, the British Army encamped about four miles north of Bemis Heights, where the American Army was waiting. Burgoyne knew little of the strength, composition, and disposition of American forces except that their fortifications commanded the river road, the easy way south. On the 19th, Burgoyne attempted to outflank the American position and moved west and south in three columns. Approximately one mile in front of the American lines, the British center column was engaged in battle by American General Daniel Morgan's forces. After a fierce fight, the Americans were driven from the field of battle but Burgoyne was unable to pursue. Neither commander had committed their full forces. Gates kept to his fortified lines. Burgoyne reserved his left column to protect his artillery and to be ready to exploit any opening found in the American lines.

Although victorious for the day, Burgoyne still knew little about the enemy disposition. Still expecting, or perhaps hoping, for help from General Howe, Burgoyne decided to entrench and wait. For two and one-half weeks, the situation remained stable. Both armies improved their fortifications, but while the British gradually lost strength, the American Army grew with the addition of thousands of men. Burgoyne placed his army on short rations in early October. He was now faced with two poor choices. He could attempt a retreat northward with very low rations and a numerically inferior army, or he could resume his advance southward by attacking the American position.

On October 7, he sent out a strong reconnaissance force to see if the enemy lines could be breached. If this failed, he was prepared to retreat. The reconnaissance force, observed by the Americans, was attacked in the vicinity of the Barber Farm. The British were forced back into their fortified positions. Continuing the attack in front of the Balcarres and Breymann redoubts, the Americans suffered heavy losses, but overran the right side of the British front of the Breymann redoubt. Burgoyne's position became precarious; during the night he fell back to the Great Redoubt area. The next night, in a heavy rain, the British Army retreated northward. On October 9, unable to continue his retreat, Burgoyne made camp on the heights above Saratoga.

Surrounded, out of supplies, and with no communications from General Howe, Burgoyne surrendered his army on October 17. The British Army finally moved south past the American positions at Bemis Heights, but as prisoners being marched to Boston. A broad swampy area on the Hudson River was the only place where the British could rest for a variety of reasons.

Aftermath of the Campaign

The agricultural character of the Stillwater-Saratoga area was only briefly interrupted by the events of September-October 1777. The landscape on the battlefield itself was, of course, altered considerably. Long and often deep remains of the fortifications scarred the fields. Large areas of forests had been cut for constructing defensive works and for fuel. Soil compaction in the area was significant. However, recovery was fairly rapid. Agriculture was quickly reestablished and remained predominant until the battlefield preservation movement began in the early twentieth century.

The Schuyler House and grounds were greatly transformed. On October 10, 1777, three days after the second battle of Saratoga, General Burgoyne ordered his retreating troops to burn the Schuyler house. Schuyler quickly rebuilt. The new house was a smaller, two-story frame structure. (This house was used primarily as a summer house by the General.) Agriculture and industry were also resumed. Mills that had been destroyed by the British were rebuilt, quarters were built for slaves and tenant farmers (Larrabee 1960:3-4).

Nineteenth Century

The Stillwater-Saratoga Area

After the Revolution, between ca. 1780 and 1855, extensive commercial exploitation of forest and mineral resources began. Major expansion occurred from 1785-1825. By 1825 there were no large blocks of unsold farm land publicly held in the Hudson Valley or the immediate vicinity. By this time, the pattern of farms and villages observable during the twentieth century was set. Between 1835 and 1855 there was rapid economic and population growth attributable to the introduction and expansion of various transportation systems (Figure 7).

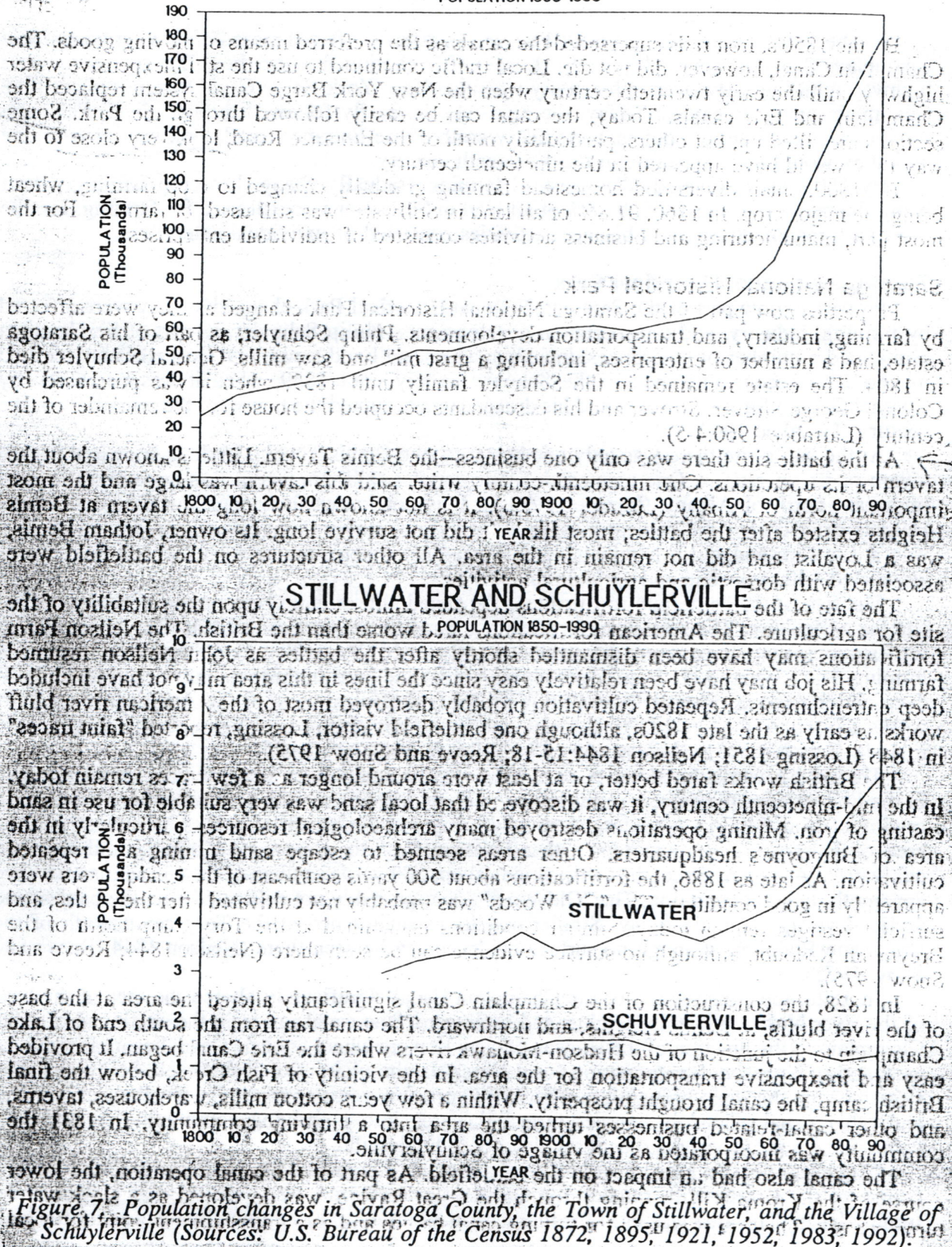
From approximately 1850 to the present, railroads, federal highways, and barge canals have served as the main transportation avenues. Yet, throughout all historic times, the Hudson River has remained the principal route for all major economic activities. Turnpike construction in the early nineteenth century increased commerce and trading. Turnpike routes followed natural pathways, principal among these being the Hudson and Mohawk Valleys. The canal era began about 1800 and was virtually over by 1855. There were many canals and feeder canals, such as the Champlain Canal in Stillwater. Canals strengthened the economy in some areas and weakened it in others. Competitive economic advantage was held by those in immediate proximity to a canal. This was a principal reason for the construction of the many feeder canals. Canals also increased the use of natural waterways. Due to increased trade from canal traffic, the Hudson River carried more material than at any previous time. By the time canal transport was dropping off, railroads were becoming widespread. They were less limited by terrain and climate than were canals. By 1855, main rail lines were linked with local lines in a statewide system (Meinig 1966b:142,162).

On October 7, he sent out a strong reconnaissance force to see if the enemy lines could be broken. If this failed, he was prepared to retreat. The reconnaissance force, observed by the British, was attacked in the vicinity of the Battle of Red Bank. The British were forced back into the river. Continuing the attack, the British defeated the American forces. The British then moved on to the Hudson River, where they defeated the American forces. The British then moved on to the Hudson River, where they defeated the American forces. The British then moved on to the Hudson River, where they defeated the American forces.



SARATOGA COUNTY, NEW YORK

POPULATION 1800-1990



By the 1850's, iron rails superseded the canals as the preferred means of moving goods. The Champlain Canal, however, did not die. Local traffic continued to use the still inexpensive water highway until the early twentieth century when the New York Barge Canal system replaced the Champlain and Erie canals. Today, the canal can be easily followed through the Park. Some sections are silted up, but others, particularly north of the Entrance Road, look very close to the way they would have appeared in the nineteenth century.

By 1800, small diversified homestead farming gradually changed to crop farming, wheat being the major crop. In 1860, 91.8% of all land in Stillwater was still used for farming. For the most part, manufacturing and business activities consisted of individual enterprises.

Saratoga National Historical Park

Properties now part of the Saratoga National Historical Park changed as they were affected by farming, industry, and transportation developments. Philip Schuyler, as part of his Saratoga estate, had a number of enterprises, including a grist mill and saw mills. General Schuyler died in 1804. The estate remained in the Schuyler family until 1839, when it was purchased by Colonel George Strover. Strover and his descendants occupied the house for the remainder of the century (Larrabee 1960:4-5).

At the battle site there was only one business—the Bemis Tavern. Little is known about the tavern or its operations. One nineteenth-century writer said this tavern was large and the most important north of Albany (Luzader 1973:5). It is not known how long the tavern at Bemis Heights existed after the battles; most likely it did not survive long. Its owner, Jotham Bemis, was a Loyalist and did not remain in the area. All other structures on the battlefield were associated with domestic and agricultural activities.

The fate of the battlefield fortifications depended almost entirely upon the suitability of the site for agriculture. The American fortifications fared worse than the British. The Neilson Farm fortifications may have been dismantled shortly after the battles as John Neilson resumed farming. His job may have been relatively easy since the lines in this area may not have included deep entrenchments. Repeated cultivation probably destroyed most of the American river bluff works as early as the late 1820s, although one battlefield visitor, Lossing, reported "faint traces" in 1848 (Lossing 1851; Neilson 1844:15-18; Reeve and Snow 1975).

The British works fared better, or at least were around longer as a few traces remain today. In the mid-nineteenth century, it was discovered that local sand was very suitable for use in sand casting of iron. Mining operations destroyed many archaeological resources, particularly in the area of Burgoyne's headquarters. Other areas seemed to escape sand mining and repeated cultivation. As late as 1886, the fortifications about 500 yards southeast of the headquarters were apparently in good condition. The "Old Woods" was probably not cultivated after the battles, and surficial vestiges remain today. Similar conditions maintained at the Tory camp north of the Breymann Redoubt, although no surface evidence can be seen there (Neilson 1844; Reeve and Snow 1975).

In 1828, the construction of the Champlain Canal significantly altered the area at the base of the river bluffs, at Bemis Heights, and northward. The canal ran from the south end of Lake Champlain to the junction of the Hudson-Mohawk rivers where the Erie Canal began. It provided easy and inexpensive transportation for the area. In the vicinity of Fish Creek, below the final British camp, the canal brought prosperity. Within a few years cotton mills, warehouses, taverns, and other canal-related businesses turned the area into a thriving community. In 1831 the community was incorporated as the village of Schuylerville.

The canal also had an impact on the battlefield. As part of the canal operation, the lower course of the Kroma Kill, running through the Great Ravine, was developed as a slack water turning basin. The area was used for turning canal barges and as a transshipment point for local

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produce. At least one mill was built on the Kroma Kill and it is probable that smaller, canal-related enterprises were also built.

To commemorate the centennial of the battles of Saratoga, the Saratoga Monument was erected in Victory Mills. The monument was a granite obelisk, 154½ feet tall, designed by Jared C. Markham. Construction began on October 17, 1877. The monument was completed 1895. It was acquired by the State of New York in 1897. In 1887, the Benedict Arnold monument was erected by John Watts de Peyster.

Twentieth Century

While farming continued to be important, there was a 50% county-wide reduction in farming acreage between 1925 and 1959 (Thompson 1966: 510-511). Farming remained important at the battlefield site well into the twentieth century. Except for canal-related structures, nineteenth and twentieth-century structures on the old battlefield were homes or farm buildings. The population of Stillwater, which had remained relatively unchanged since the late nineteenth century, grew rapidly after World War II, following the trend for Saratoga County as a whole. At the same time, the village of Schuylerville peaked at over 16,000 in the first three decades of the twentieth century and thereafter remained at a fairly stable level of between 12,000 and 15,000 (Figure 7).

The 1777 road system in the battlefield area evolved to a more complicated system by 1927. Some road corridors remained essentially unchanged although it is not known if they were used continuously between 1777 and 1927. Sections of the 1927 New York Route 32, the Phillips Road, and the lower part of Lohnes Road (today's lower Entrance Road), follow the same alignments as some of the roads in 1777 (Snow 1976).

For a relatively brief period—1901-1928—an electric railroad ran along the river flats. Early visitors to the state park used this trolley line for access. The long abandoned railroad embankment can still be seen east of U.S. Route 4. The canal and railroad construction, road relocations, and farming activities on the flats probably destroyed archaeological resources and altered the lower courses of the three streams draining the battlefield (Snow 1977b:10).

Until residential development destroyed most of the works, remains of the British final encampment above old Saratoga fared well. In 1919, one writer reported Morgan's breastworks northwest of the Saratoga Monument were still visible and in the woods south of the monument were "hundreds of feet of British breastworks in an excellent state of preservation" (Brandow 1919:504). Today, only archaeologically unverified "rifle pits" remain in these woods.

Finally, there are numerous indications of past activity on the battlefield. Low ridges and ditches may be the remains of military activity or may be field lines and drainage ditches. Other "remains" may be linked to activity while the area was a state park.

The Saratoga Battlefield Association, Inc., organized in 1923, campaigned in earnest for the preservation of Saratoga Battlefield. In 1926 the state of New York authorized a temporary Advisory Board to study Battlefields and Historic sites. New York also authorized funds to purchase sites and/or make improvements on state owned lands.

The following year, New York appropriated \$150,000 for the commemoration of the Sesquicentennial of the Burgoyne Campaign. That same year the state also acquired the Freeman Farm, the Sarle Farm, the Neilson Farm, and the Gannon Farm, totaling nearly 655 acres for the Battlefield. In 1928, New York appropriated what was eventually nearly \$90,000 for the purchase of an additional 2,084 acres. The total additional acreage was apparently never fully purchased.

State operation continued until 1941 when the United States accepted the donation of approximately 1,430 acres from New York. This transfer or donation had been authorized by New York in 1938.

During the period of State administration—1926-1941—many thousands of visitors toured the battlefield. For example, in 1936 there were more than 33,000 registered visitors, with the

number of actual visitors estimated at eight times that figure (letter from J.F. Gannon to A.S. Hopkins 11/16/36). Also during this time, considerable change occurred to the Park. Grounds were cleared up and undesirable buildings were removed. Three miles of gravel roads were completed, a highway bridge was constructed across the Middle Ravine, and extensive parking lots were prepared near the Block House. A memorial pavilion was erected at the cemetery near the Block House, and the General Benedict Arnold headquarters building near the Block House was constructed. The house on Freeman Farm was repaired by the DAR. Six field comfort stations were built at various points. The American powder magazine southeast of the Block House was constructed. Picnic areas with fireplaces were laid out. Evergreen trees were set out around the cemetery plot. Over 3,000 forest trees were planted in the vicinity of the Middle Ravine. The Neilson House was restored, and new monuments, memorials, and markers were erected. By August 1938, the Conservation Department had spent an estimated \$186,000 for land purchase and \$63,000 for development.

While the disposition of some of the features and developments undertaken by the state is known, the location and disposition of others are not known. No comprehensive inventory or investigation on the ground by archaeologists has been done. The extent of disturbance to the archaeological features needs to be systematically studied, documented and analyzed. Potential for gaining twentieth-century information would seem good. For example, a letter from J.F. Gannon to A.S. Hopkins dated 6/24/36 mentions a five-day encampment by the second battalion of the 26th infantry on the battlefield, after which trash was collected and burned, and "all pits which had been dug for fireplaces were filled in." Such pits may still remain as archaeological features.

In 1926, Congress approved a study of battlefields that included Saratoga. Before the United States actually acquired the Park lands, New York State and the National Park Service cooperated in studies carried out at the Battlefield. Congress, in 1930, authorized \$4,000 for a study and survey of the Battlefield for commemorative purposes (46 Stat. 490). By an act approved June 1, 1938, Congress authorized the establishment of Saratoga as a National Historical Park (52 Stat. 608). In that year, New York passed reciprocal legislation to transfer the lands to the United States. Later that year the Secretary of the Interior approved a boundary containing 2,600 acres. In 1941, the United States accepted the donation or transfer of nearly 1,430 acres from New York. The park was then officially established by an Act approved June 22, 1948 (PL 734).

The Civilian Conservation Corps (CCC) conducted a topographical survey, and assisted with studies and projects in the late 1930s and early 1940s. CCC crews obliterated old foundations, fence rows, and hedges, hauled dirt fill to obliterate road scars, removed brush, straightened monuments, built and realigned trails, planted trees and shrubbery, built sewers and culverts, and painted structures. The CCC also provided laborers for Robert Ehrich's archaeological excavations which were the first conducted at Saratoga under the auspices of the National Park Service.

The Schuyler estate continued to be owned by the descendants of George Strover. The last private owner was Strover's grandson, Mr. George Lowber. In March of 1950, the United States acquired the Philip Schuyler House and 26 acres of land as an additional unit of Saratoga National Historical Park in Schuylerville. A cooperative agreement between the Secretary of the Interior and the Old Saratoga Historical Association was concluded on January 21, 1953 for the operation of the Philip Schuyler House.

Additional property was acquired during the 1970s and 1980s. On December 23, 1974, the United States accepted as a donation from the A.L. Garber Company, a tract of 22.70 acres in Victory Mills. In 1975, the Nature Conservancy purchased a 147-acre tract next to the eastern sector of the Battlefield Unit of the Park. By an act approved March 5, 1980, Congress authorized the National Park Service to acquire the tract (P1 96-199). This was decided to the

United States on June 29, 1982. On July 23, 1980, New York deeded to the United States the Saratoga Monument and 2.82 acres in Schuylerville. VICTORY F

The Saratoga Monument has not fared well during the present century. Moisture problems plagued the structure from the outset. It required frequent repairs and refurbishing. Even these efforts were not enough to keep the structure safe. It was closed to the public for safety reasons in 1970. In 1980, the monument was acquired by the National Park Service, and was reopened the following year after extensive repair and maintenance. However, the structure was again closed in 1987, after it was again determined to be unsafe. Extensive rehabilitation work has begun with the goal of stabilizing and restoring the structure so that it can once again be opened to the public (NPS ca. 1992).

By an Act approved January 12, 1983, Congress authorized the acquisition of tracts in the southern sector of the Battlefield Unit deemed essential to effective management (PL 97-460). Funds not to exceed one million dollars were authorized to be appropriated after October 1, 1983 to carry out the purpose of the Act. By the Act approved November 4, 1983, (PL 98-146) Congress directed the National Park Service to reprogram \$500,000 for Saratoga National Historical Park acquisitions. Then in the Act approved November 30, 1983 (PL 98-181) Congress appropriated that amount as part of a larger appropriation from the Land and Water Conservation Fund.

The National Park Service has conducted archaeological investigations at selected sites on the Battlefield Unit, the Schuyler House Unit, and at the Saratoga Monument. The most recent, by Rensselaer Polytechnic Institute (RPI) on a newly acquired parcel, has located the site of General Gates' headquarters during the American military occupation of Bemis Heights. Together with CCC work in the early days and SUNY Albany work in the 1970's the RPI studies have added to the data base for historic scene restoration, interpretation, research, and archeological resource management.

The Battlefield Unit contains an archeological record associated primarily with farmers of Anglo-American ethnicity, with some Dutch-American and Irish-American as well. The Schuyler House may contain evidence relevant to the lives of the estate's owners—the Schuyler and Stuyvesant families. It also has the potential to contain evidence of the work and living conditions of the various workers and servants employed by the Schuyler family.

Revolutions cause Saratoga, in particular, bears testimony to "the genius of engineer Thaddeus Kosciazko," which was made clear only through archeological reconstruction of the American position (now 1981:20). The eighteenth through nineteenth century battle site at what is now the Battlefield Unit contains an archeological record associated primarily with farmers of Anglo-American ethnicity, with some Dutch-American and Irish-American as well.

ETHNOGRAPHIC OCCUPATION

The Saratoga area has been home to a wide variety of cultural and ethnic groups, most prominent among them: Native Americans of the Mahican and Mohawk communities, Dutch settlers and their descendants, and English and Anglo-American residents. Native Americans have lived in and around what is now Saratoga National Historical Park for perhaps more than 10,000 years. Native people settled along the Hudson River, its tributaries, and around Lakes and wetlands and other areas where abundant wild plants and animals could be gathered and hunted. By the Late Woodland period they were also cultivating crops here in the valley's fertile alluvial soils. By the seventeenth century, the Mahicans inhabited the area. These were the people who met the English traveler Henry Hudson in the first decade of the seventeenth century, and they established trading relations with the Dutch for whom Hudson was employed. Later in the seventeenth century, the Mohawks drove the Mahicans from the west bank of the Hudson and took up what was at least a seasonal residence in the Saratoga area. Descendants of these Mohawk and Mahican communities live today in New York State, Massachusetts, Wisconsin, Canada, and elsewhere.

Dutch traders and settlers arrived in the area during the seventeenth century. Although their numbers were never large in the Saratoga area they included some of the regions first European landowners. English settlers followed in the eighteenth century and established farms in what was soon to become the Saratoga battlefield. The Battlefield Unit contains archeological remains associated with a diverse groups of soldiers and camp followers including Native Americans, British, Hessians, and Americans of various origins including African-Americans. The soldiers of 1777 included many British, Anglo-American, and Hessian soldiers. They also included Native Americans of the Mohawk, Stockbridge, Oneida, and other Nations, as well as people of Irish, Scottish Highlander, Scots-Irish, African, and Dutch descent. The battlefield also has relevance to Polish Americans, who note with pride the contributions of several Polish officers who volunteered their services for the Revolutionary cause. Saratoga, in particular, bears testimony to "the genius of engineer Thaddeus Kosciuszko," which was made clear only through archeological reconstruction of the American position (Snow 1981:20). The eighteenth through twentieth-century domestic sites at what is now the Battlefield Unit contain an archeological record associated primarily with farmers of Anglo-American ethnicity, with some Dutch-Americans and Irish-Americans as well.

The Schuyler House may contain evidence relevant to the lives of the estate's owners,—the Schuyler and Stover families. It also has the potential to contain evidence of the work and living conditions of the estate's various tenants and enslaved workers, among them African-Americans.

WHAT
ABOUT
FRENCH
CANADIANS
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Wouldn't some
of this evidence
have surfaced by
now?

PREVIOUS ARCHEOLOGICAL RESEARCH AT SARATOGA NATIONAL HISTORICAL PARK: BATTLEFIELD UNIT

Evaluation of Archeological Research

Archeological research is evaluated based on reports prepared for the National Park Service or other published reports. These reports are on file at the New England Museum Services Center, Marine Barracks, Boston National Historical Park, Charlestown Unit, Charlestown, Massachusetts and/or at the Saratoga National Historical Park library.

Archeological research for Saratoga National Historical Park has taken a variety of forms and has focused on a variety of topics. In the years immediately preceding and following the establishment of the Park, several reconnaissance surveys were conducted in search of traces of fortifications and other military features and structures. These kinds of projects, small-scale testing in various parts of the Park in order to locate specific structures, fortifications, graves, and battlegrounds associated with the battles, have been pursued over more than 40 years. Their overall goal has been to provide information for interpretation, although some (e.g., Cotter 1957) also investigated areas in order to assess the effects of proposed construction on potential archeological resources. More recently, archeological research has focused on testing areas that have been slated for development, where the National Park Service has proposed undertakings such as the installation of utilities and landscaping, or in newly acquired parcels.

The first criterion in evaluating archeological research projects is research objectives. Research goals may be specific or general, simple or complex, site-specific or regionally oriented. Whatever the project goals may be, they must be clearly stated, logical, and appropriate to the site or study area. If research objectives are informed by anthropological and/or archeological theory, the theoretical foundations of the research should be made clear.

Project goals are the principal determinant of project methods. Choosing the appropriate methods, or constructing a research design, may also depend on factors such as preservation, previous disturbances, and conditions at the site. This relationship had often been clearly illustrated in the archeology at Saratoga National Historical Park. Archeologists must decide which data are to be collected, how data are to be recorded, how horizontal and vertical controls are to be maintained, how precisely and accurately measurements are to be taken, how features, sites, or regions are to be sampled, which artifact attributes are to be analyzed and recorded, how data are to be recorded, and how artifacts are to be curated. Evaluating methods includes assessing their appropriateness to research goals, the skill and competence with which the chosen methods were employed, and the thoroughness with which methods were reported, explained, and justified.

Within the Battlefield Unit, the locations of archeological research projects are given according to their block designations. These are based on the master map in Dean Snow's *Archaeological Atlas of the Saratoga Battlefield* (Snow 1977b:11) which shows the Battlefield Unit as it existed in 1977, divided into grid squares—or "blocks"—1,000 feet on a side, each of which is designated by an alphanumeric coordinate (Figure 8). For example, the Park Headquarters and Visitor's Center are located in Block 3B. This gridded map was originally developed by Park Historian Charles Snell in the 1950s (Snell 1951a).

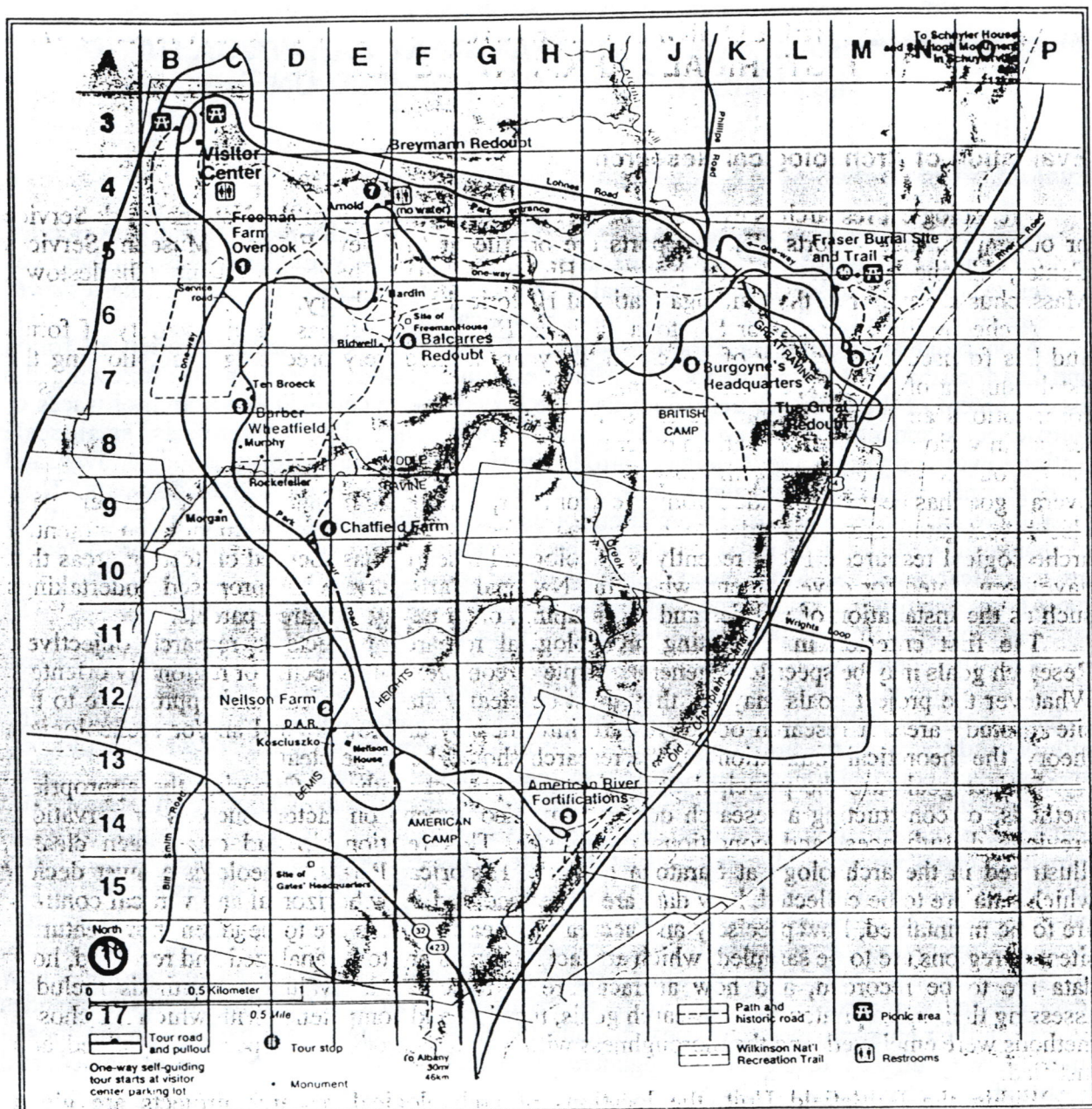


Figure 8. Map of the Battlefield Unit, Saratoga National Historical Park, divided into blocks on a 1,000-foot interval grid (Sources: NPS 1993; Snow 1977b:11).

Archeological Reconnaissance of Saratoga National Historical Park (1941)

The first archeological research at Saratoga National Historical Park under the auspices of the National Park Service was conducted under the direction of Robert Ehrich. Ehrich investigated five areas:

1. American Lines, West Flank
2. American Lines, East Flank
3. British Lines, East Flank
4. Balcarres Redoubt (British Lines, West Flank)
5. Breymann Redoubt (British Lines, West Flank)

in order to locate and assess any archeological remains associated with the battle within the proposed boundary of the Park. Following the completion of his report on the reconnaissance survey (Ehrich 1941a), Ehrich also made recommendations for additional archeological research in a report (Ehrich 1943) he prepared in his spare time while serving in the armed forces in World War Two.

REPORT TITLES:

1. *Progress Report on the Archeological Program of Saratoga National Historical Park*. On file at Saratoga National Historical Park, Stillwater, New York. (1941)
2. *Proposed Archeological Program for Saratoga National Historical Park*. On file at Saratoga National Historical Park, Stillwater, New York. (1943)
3. Ehrich also prepared monthly progress reports, several of which (e.g., Ehrich 1940a, 1940b, 1941b, 1941c, 1941d) are on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Robert W. Ehrich

DATE OF REPORTS: The first report is dated 1941. The second is dated 1943

DATES OF FIELDWORK: Field work began August 26, 1940 and was halted at some point during the autumn. Work resumed on April 16, 1941 and continued through the late spring, summer, and autumn of that year (Ehrich 1940, 1941a).

PROJECT GOALS: The general goal of the archeological reconnaissance was to determine the quantity and quality of extant Revolutionary War-period archeological remains within the proposed boundary of the Park. Ehrich's survey was also designed to assess the feasibility of a more comprehensive archeological program (Ehrich 1943; Hamilton 1944). Further, it was hoped that his survey might yield data pertinent to development of historic properties—i.e., restoration or reconstruction of specific battlefield features.

Ehrich identified five objectives for his archeological "campaign:"

1. To check topographical identifications made on the basis of early maps and historical data;
2. To define precise locations of fortifications and positions of which all surface traces have disappeared;
3. To learn about the nature of the fortifications and other historic features and the technical challenges involved in their excavation;
4. To acquire information needed to develop a comprehensive archeological program; and
5. To acquire information needed to plan for future restorations and/or reconstructions (Ehrich 1941a:1). These goals were to drive much of the archeology at Saratoga National Historical Park for the next 30+ years.

METHODS: Ehrich excavated in five areas, each of which were tested with large excavation units. The five areas and their respective Blocks (see Figure 8, this report) are listed below:

| AREA | Block(s) |
|---|-----------------------|
| American Lines, West Flank | 13D |
| American Lines, Center and East Flank | 13E, 13F, 14F |
| British Lines, East Flank | 9L, 9K?, 7I and/or 7J |
| Balcarras Redoubt (British Lines, West Flank) | 6E, 6F, 7E, 7F |
| Breymann Redoubt (British Lines, West Flank) | 4E |

Ehrich's survey consisted of background research, problem-oriented surface reconnaissance, and relatively large-scale subsurface sampling. Material provided by Putnam (1777), Wilkinson (1777a), Varick (1777), Neilson (1844), and Brandow (1919) served as models for the British zone. Test excavation was undertaken: (1) to field check possible correlations between features suggested by the current landscape surface with battlefield features depicted in the above models; and (2) to establish locations of features which, though depicted in one or more of the above models, could no longer be recognized as surface features.

Compared with the test trenches dug by subsequent investigators, Ehrich's test trenches were massive; some were as much as 200 feet in length. Standard width appears to have been 6 feet (Ehrich 1941a:46). Trenches were expanded laterally whenever subsurface archeological features were encountered since Ehrich's primary objective was to locate and define features. Although excavation procedures were not described in much detail, it seems possible that trenches were dug with shovels and the dirt was not screened.

Wherever vestiges of fortifications were observed, feature restoration/stabilization measures were taken. Fortification ditches were partially backfilled, restoring what was presumed to be the original grade. Remaining backdirt was banked to simulate earthworks. Postholes were lined with hay before being backfilled (Ehrich 1941a:5,22-23).

RESULTS AND INTERPRETATIONS: At the American Lines, West (Block 13D), parallel to the northeast-southwest trending ridge, Ehrich intercepted and completely excavated a continuous 200-foot segment of what he interpreted to be a refilled Revolutionary War fortification ditch. He noted both partially decomposed and charred wood in the ditch fill and suggested this might constitute evidence that the earthwork that paralleled this ditch may have been supplemented by

an abatis. At its southwestern end, he found that the ditch terminated. A series of postholes and a round-bottomed subsurface depression (perhaps an artillery emplacement) extended for an additional 19 feet, beyond which no evidence of fortification structures was observed. To the south of the ditch, in the presumed vicinity of Poor's Brigade's encampment, no evidence of Revolutionary War-period military occupation was observed (Ehrich 1941a:3-6).

Artifacts recovered from the ditch fill included animal bones, square-sectioned (possibly handwrought) nails, a brass buckle, both halves of a brass button, and fragments of an iron vessel (Ehrich 1941a:4). These might date from the American military occupation.

From the purported position of the American Lines, Center and East Flank (Blocks 13E, 13F, and 14F) Ehrich recovered ambiguous traces of activity. Within the present tour road loop, (Block E13, probably in the vicinity of the projected site of Lincoln's Brigade's encampment) Ehrich noted no evidence of American east flank fortifications. With a series of trenches he intercepted several subsurface features that included a number of "dead furrows" and two shallow pits. Whether these pits, which contained "square-sectioned" (handwrought?) nails and charred wood, derived from the American military occupation could not be determined (Ehrich 1941a:7). These were the only artifacts reported from the series of trenches dug within Block 13E.

East of the present tour road loop, within Block 14F, Ehrich intercepted and excavated a 50-60-foot segment of what he believed to be a fortification ditch. He suggested that this segment was part of a zig-zag stretch of the American line (this supposition was later confirmed by Snow [1974]). Features created by U.S. Army maneuvers conducted here in 1936 were observed in three of the four trenches dug within Block 14F. Within this Block, all artifacts recovered appear to have been attributable to the 1936 U.S. Army encampment (Ehrich 1941a:9-13).

With one of the three test trenches dug within Block 13F, Ehrich intercepted a crescent-shaped ditch approximately 40 feet long. He concluded that this ditch was a "lunette outwork"—a remnant of one of several outworks constructed in advance of the American east flank. During excavation of the lunette outwork, three items were recovered that according to Ehrich may have been directly associated with that feature; those items were a small iron chain and two small iron fittings to which the chain was presumed to have been attached (Ehrich 1941a:18-20).

At the British Lines, East Flank (Blocks 9L, 9K?, 7I and/or 7J), background research suggested that nineteenth-century sand quarrying may have destroyed much of the remains of British fortifications. In a long north-south test trench paralleling the river bluffs (Block 9L?), Ehrich intercepted an east-west trending ditch which he determined to be about 65 feet in length. The trench fill was reported to be rich in organic matter, notably decomposed wood. From its relative location and orientation, Ehrich concluded that the ditch was a remnant of a detached fortification (shown in Wilkinson's map [1777a]) manned by Hesse-Hanau Artillery, which marked the eastern terminus of British east flank fortifications (Ehrich 1941a:20-21).

Approximately 300 feet to the west of the ditch described above (i.e., probably on the east side of Block 9K), Ehrich observed a cluster of postholes. He reported that these were irregularly spaced, and that they seemed to form no recognizable pattern. Although he found no evidence to attribute this feature to the British, Ehrich tentatively identified the cluster of postholes as a remnant of the most southerly segment of the British east flank (Ehrich 1941a:221-22).

All artifacts reportedly recovered during Ehrich's investigations of the British east flank appeared to have been recovered from the series of trenches dug in Block 9L. Among the items recovered were a quantity of "square-sectioned" nails, several unidentified iron fragments, a few projectile points (types not specified), and a relatively large quantity of flint chips. The flint chips were reportedly recovered from both the humus layer and the ditch fill. None of the chips appeared to have been reworked. Ehrich suggested that some of the chips may have been gun flints, possibly from the British military occupation. However, he considered it equally plausible that all may have been byproducts of projectile point manufacture, originally deposited during precontact occupation of river bluffs (Ehrich 1941a:22).

During the course of his investigation, local residents had informed Ehrich of a series of ditches with flanking embankments in a heavily wooded tract immediately east of the north fork of Mill Creek (Block 7I). According to local tradition, these ditches and embankments were remnants of British fortifications (Brandow 1919:498). Although these features were located in the vicinity of the most westerly segment of the British east flank (Wilkinson 1777a), Ehrich concluded that they were more likely to have been associated with a sand quarrying operation. He recommended limited scale test excavations in open stretches flanking the woods. Whether he carried out these excavations was not mentioned and actual locations of these trenches were not reported. Ehrich failed to find any evidence of British fortifications in this area (Ehrich 1941a:23-24). Thirty years later, Stuart Reeve and Dean Snow (1975:38-43) reached a very different conclusion. They believed the woods were the more intact area and the open fields the more disturbed. Their tests and later tests by other researchers in the "Old Woods" (Browne 1986, 1987) identified segments of fortifications and portions of encampment areas.

In the area of Balcarres Redoubt (British Lines, West flank; Blocks 7E, 7F, 6E, and 6F), Ehrich was able to establish the locations of the eastern and western walls of the southern half of the Redoubt in three or four test trenches extending eastward from the east side of the former Freeman Farm road. In the southernmost of the four trenches, Ehrich intercepted north-south trending ditches which he interpreted to be the eastern and western walls of the redoubt. From the postholes in the western ditch, he suggested that the western wall had consisted of a timber cribwork barricade, probably banked with dirt from the ditch. A double burial occurred within both the eastern and the western ditches; six hearths were found between the eastern and western ditches. Just inside the eastern wall Ehrich observed subsurface evidence of a possible artillery emplacement (Ehrich 1941a:25-37).

A considerable quantity of Revolutionary-period military artifacts was recovered, all from the four trenches extending from the east side of the former Freeman Farm road eastward, and all from within the projected limits of the redoubt. Among the items were lead bullets, an iron canister, uniform hardware, and ball clay pipe fragments. Unidentified uniform buttons were recovered from both of the double burials (Ehrich 1941a:35-38).

Approximately 120 feet north of the projected southeast corner of the redoubt, Ehrich intercepted a ditch he interpreted to be a remnant of the east wall of the structure. Within the ditch, he observed vestiges of what he believed was the bottom log of a timber cribwork barricade. Finding no evidence of the western wall, Ehrich suggested there may have been an embrasure at the point where he intercepted the projected alignment of the western wall (Ehrich 1941a:39-41).

Approximately 320 feet north of the projected southwest corner of the redoubt, Ehrich again observed subsurface evidence of the western wall. As was the case to the south, what he observed was a north-south trending ditch and seven postholes within the ditch. The ditch fill was rich in organic matter, primarily decomposed wood. Ehrich inferred that here, too, the redoubt wall probably consisted of a timber cribwork barricade banked with a dirt from the ditch. Other features observed included a possible gun base, plow scars (in the shale bedrock) and what were presumed to be recent fence postholes. Approximately 500 feet north of the projected southwest corner, Ehrich observed more ambiguous evidence of what may have been the western wall. This was a furrow cut into bedrock that appeared to be more or less in line with the two segments of the western wall observed to the south (Ehrich 1941a:41-43).

One test trench was extended west of the former Freeman Farm Road in an effort to (1) intercept a westward jog in the western wall, and/or (2) locate the "Bloody Knoll" outwork. The trench uncovered two domestic refuse pits, but located neither the western wall nor the outwork (Ehrich 1941a:47-48).

Domestic refuse and building debris presumed to date from the post-Revolutionary War period were recovered from within the projected limits of the redoubt, as well as from the two refuse pits (Ehrich 1941a:45-48).

Ehrich's efforts to locate the Breymann Redoubt (British Lines, West Flank; Block 4E) were confined to the former site of the Arnold Monument (i.e., to the knoll shown near the west side of Block 4E). Vestiges of Revolutionary War-period fortifications were observed in one of the three test trenches (Ehrich 1941a:49-55). Within that one excavation unit, Ehrich was able to distinguish two sides of an approximately 10 x 12-foot cut and leveled occupation surface. He noted less clearly defined traces of a smaller but otherwise comparable feature immediately to the west. Within the limits of the larger occupation surface, he observed two refilled pits (one apparently a hearth, the other a Revolutionary War-period refuse pit), an arc-shaped line of three evenly spaced postholes, and an artillery emplacement. Parallel to the south side of the larger occupation surface, Ehrich observed subsurface evidence of a possible fortification ditch (Ehrich 1941a:50-55).

Ehrich reported observing possible vestiges of fortifications within his second test trench, an east-west trench about 150 feet south of the first. He observed a refilled, north-south trending linear depression. Although nothing indicated the depression had been a part of a fortification system, he speculated that it could have been used to hold the footings of a timber cribwork barricade (Ehrich 1941a:55-56).

Ehrich recovered probable Revolutionary War period artifacts from all three test trenches. He recovered a lead bullet, lead drippings, brass wire, and unidentified iron fragments from the apparent refuse pit. From elsewhere within the same excavation unit, he recovered lead bullets, lead drippings, canister shot, musket parts, uniform hardware, and what appeared to be post-Revolutionary War period bottle glass. Canister shot and a lead bullets were recovered from the second trench, two lead balls were found in the third trench (a north-south trench transecting the south side of the knoll) (Ehrich 1941a:50-57).

RECOMMENDATIONS: Ehrich developed a proposal for an ongoing archeological program at Saratoga while he was serving in World War II. When the Civilian Conservation Corps Camp, through which his excavations had been funded and staffed, was abolished in the spring of 1942 (Hamilton 1945:14), the ongoing archeological work was halted and his recommendations for further work were not carried out. It was not until the late 1950s that archeological research was resumed at Saratoga National Historical Park.

Ehrich's proposal was ambitious. Its goal was to determine the exact location and nature of the fortifications, works, and other features in order that they might be restored to their appearance at the time of the battles. He also expected the archeological research to reveal new evidence about the events of 1777, as the archeological data could complement, contradict, or comment on the documentary evidence, and contribute to knowledge of such specialized fields as military history and eighteenth-century technology (Ehrich 1943:1).

Ehrich (1943) proposed a ten-part prioritized archeological research program. The ten parts were: (1) Balcarres Redoubt; (2) American Lines, West Wing; (3) Breymann Redoubt (4) British River Redoubts; (5) American Lines, Center and East; (6) American Lines, Miscellaneous (e.g., powder house, Gates' headquarters, hospital, camps); (7) British Lines, Center and East; (8) British Lines, Miscellaneous (including the Taylor House site); (9) British and American Outposts; and (10) American and British Cemeteries and Burial Trenches. For each category, Ehrich discussed reasons for excavating and reconstructing, recommended procedures, listed expected features, and estimated time and personnel requirements. For categories where the location of the targeted features was uncertain (e.g., outposts, cemeteries, and burials), he suggested likely locations or topographic features that might be associated with the features.

In his initial progress report, Ehrich (1941a:23) noted that excavation in sandy areas of the battlefield presented problems that would have to be solved. In particular, he noted that when sandy soils dried, excavation walls slumped and color differences among strata became invisible. He recommended that some form of treatment and stabilization procedure be developed before further excavations. In his later proposal, he specifically recommended that when archeological trenches encountered fortification trenches, that the archeological trench be backfilled to the edges of the excavated fortification ditch, that the surplus soil be piled on the appropriate side as an earthwork, and that the result be sodded and seeded to prevent erosion (Ehrich 1943:3-4).

EVALUATION: Ehrich was successful in locating many important features relating to the battle even though his field crew consisted of untrained Civilian Conservation Corps laborers. He cited fluctuating crew size and high personnel turnover as additional factors influencing the quality and quantity of work done. Unfortunately, map(s) showing locations of his test excavation units have been lost. Recently, Snow (1973, 1974) and Reeve and Snow (1975) relocated and mapped a number of Ehrich's test excavation units. Ehrich's success is all the more remarkable in light of the fact that on several occasions, later researchers were unable to locate some of the fortifications that he uncovered (e.g., Cotter 1960). This fact also makes the disappearance of Ehrich's maps that much more of a loss.

Ehrich's recommendations were ambitious and well argued. Unfortunately, World War II appears to have interrupted the development of the archeological program at Saratoga. When archeological research began again, beginning in the late 1950s, many of the areas he recommended as priorities for investigation finally were re-examined. For example, lead drippings, canister shot, musket parts, uniform buttons, and what appeared to be post-Revolutionary War period bottle glass. Canister shot and a lead bullet were recovered from the second trench two lead balls were found in the third trench (a north-south trench intersecting the south side of the knoll) (Ehrich 1941a:20-27).

RECOMMENDATIONS: Ehrich developed a proposal for an ongoing archeological program at Saratoga while he was serving in World War II. When the Civilian Conservation Corps Camp, through which his excavations had been funded and staffed, was abolished in the spring of 1942 (Hamilton 1942:14), the ongoing archeological work was halted and his recommendations for further work were not carried out. It was not until the late 1950s that archeological research was resumed at Saratoga National Historical Park. Ehrich's proposal was ambitious. Its goal was to determine the exact location and nature of the fortifications, works, and other features in order that they might be restored to their appearance at the time of the battle. He also reported the archeological work of the 1940s as evidence about the battle of 1777 as the archeological work of the 1940s was conducted in accordance with the documentary evidence, and conducted in accordance with the archeological methods as military history and eighteenth-century technology (Ehrich 1942:1).

Ehrich (1943) proposed a ten-part prioritized archeological research program. The ten parts were: (1) Historical Research; (2) American Lines; (3) American Lines; (4) British Lines; (5) River Research; (6) American Lines; (7) American Lines; (8) American Lines; (9) American Lines; (10) American Lines. Ehrich discussed reasons for excavating and for the importance of the research. He suggested likely locations of topographic features that might be associated with the battle.

Archeological Investigations at the Neilson House and American River Lines (1957)

In the late 1950s, John L. Cotter, then Regional Archeologist for the North Atlantic Region, conducted subsurface testing at two parts of the American lines—the Neilson House and the American River Lines. Cotter was assisted by Park Historian John Luzader and other Park personnel.

REPORT TITLE: Result of Archeological Tests, Saratoga National Historical Park: 1. The Neilson House location; 2. The American River Lines. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: John L. Cotter

DATE OF REPORT: October 1957

DATES OF FIELDWORK: Field work was conducted in September and October of 1957.

PROJECT GOALS: Cotter's first objective was to relocate the original site of the Neilson House, built in 1777 and moved to a more southerly location in 1927. His investigation constituted one phase of a more comprehensive investigation (Gjessing 1958; Luzader 1957, 1958a) which culminated in restoration of the structure. His second objective was to determine whether proposed construction of Tour Stop 3 facilities would impinge upon archeological remains of the American fortifications overlooking the Hudson River.

METHODS: Cotter's investigations focused on two areas (Figure 9):

I. Neilson House (Block 13E)

II. Tour Stop 3 (American River-Overlook Fortifications, Blocks 14H and 15H)

Cotter designed his field investigation of the Neilson House based on documentary research conducted by Park Historian Luzader (Luzader 1957, 1958a). Photographs taken of the house and grounds in 1902 and 1925 served as models for approximating the locations of the house and adjoining structures. Three areas were selected for subsurface sampling on the basis of inferences derived from the above models and informal reconnaissance.

In his reconnaissance of Tour Stop 3, Cotter appears to have used Snell's (1951a) Historic Base Map as a model for the location and alignment of the American river lines. The degree to which Cotter's survey strategy may have been contingent upon that model is not clear. It appears that subsurface sampling (six test trenches located within a 60-acre tract) was preceded by informal surface reconnaissance. The six trenches were 3 feet wide and varied from 18 to 90 feet in length. They were laid out in such a manner as to intersect the route of the proposed roadways (Cotter 1957:3-7).

Details of the test excavation procedure were not reported. Probably at both the Neilson House and Tour Stop 3 test trenches were dug with shovels and backdirt was not sifted. Cotter's report contains no reference to recovery of artifacts at either location. Field notes on file at the Museum Support Services Center indicate a quantity of artifacts were recovered during subsurface sampling of the Neilson House site. Horizontal provenience was recorded by reference to 10 x 10-foot squares and vertical provenience by reference to arbitrarily designated strata.

RESULTS AND INTERPRETATIONS: The Neilson House area exhibited a complex history of alterations. The original Neilson House, which stood in 1777, was moved some 200 feet south in 1927. A second Neilson House was built in the nineteenth century and was later destroyed. A headquarter house was constructed by the State of New York after the original house had been moved and the later house destroyed (Cotter 1957:1).

At the Neilson House, Cotter's investigation initially focused on a visible depression. Here, a building foundation and a deposit of building debris were unearthed. These were located north and northeast of the current Neilson House restoration. The foundation—Structure A—was determined to date from the last half of the nineteenth century, and was therefore most likely associated with the later Neilson House, which had been situated to the east (Cotter 1957:1). Park Historian Luzader subsequently located a second foundation west of Structure A and north of the current Neilson House (Figure 10). Noting that the form and dimensions of this second foundation were more compatible with the surviving Neilson House superstructure, Cotter concluded that this second foundation was that of the 1777 Neilson House. The first foundation was presumed to be that of an outbuilding shown in photographs noted above.

Excavations at the American river lines (Figure 11) yielded no artifacts of any kind. Stratigraphic evidence of earthworks was recovered in three places. Trench A revealed a ditch and embankment feature at its eastern end which the author felt was "strongly suggestive of a Revolutionary War defensive earthwork" (Cotter 1957:4,6). Trenches B, C, and D revealed no evidence of earthworks. Trenches E and F showed a ditch and bank feature below the crest of the slope facing the river (Cotter 1957:6-8).

RECOMMENDATIONS: The author noted that the original Neilson House foundation was somewhat smaller than the frame structure. Therefore, when the house was to be replaced on its original foundation, its clapboard sides should extend several inches beyond its foundation walls (Cotter 1957:1-2).

Since none of the identifiable traces of the American river lines would be threatened by the construction of either the roads or parking areas, no recommendations were offered for the protection of these features. It was suggested that the traces of the lines that do remain could be easily marked on the ground for interpretation (Cotter 1957:8).

EVALUATION: Cotter's identification and description of the Neilson House appear supported by such evidence as was presented. However, no artifactual evidence was presented that might either support or call into question his assertion that this was the eighteenth-century Neilson House. In fact, no artifact finds were discussed at all. In addition, the description of the locations and relationships between the various structures was confusing and apparently in error. The report read that the original foundation was located "east of the east corner of the present headquarters house," when the map and other parts of the text indicate that it was located west of the west corner. In such a potentially confusing situation, it is very important to make sure that all directions and distances are accurate.

The description and interpretation of ditch and bank features was thorough and well illustrated. Cotter also was careful to consider alternative explanations for these features (e.g., differential erosion around fence lines and plantings) and to consider post-depositional processes in his interpretations. Although the test did establish that the roads and parking area were unlikely to encounter and disturb the earthworks, it did not demonstrate that the proposed construction would not disturb any significant archeological resources other than the American river lines themselves. The potential for other resources (e.g., activity areas, encampments, burials, Native American sites, etc.) was not considered in the research design for the investigation.

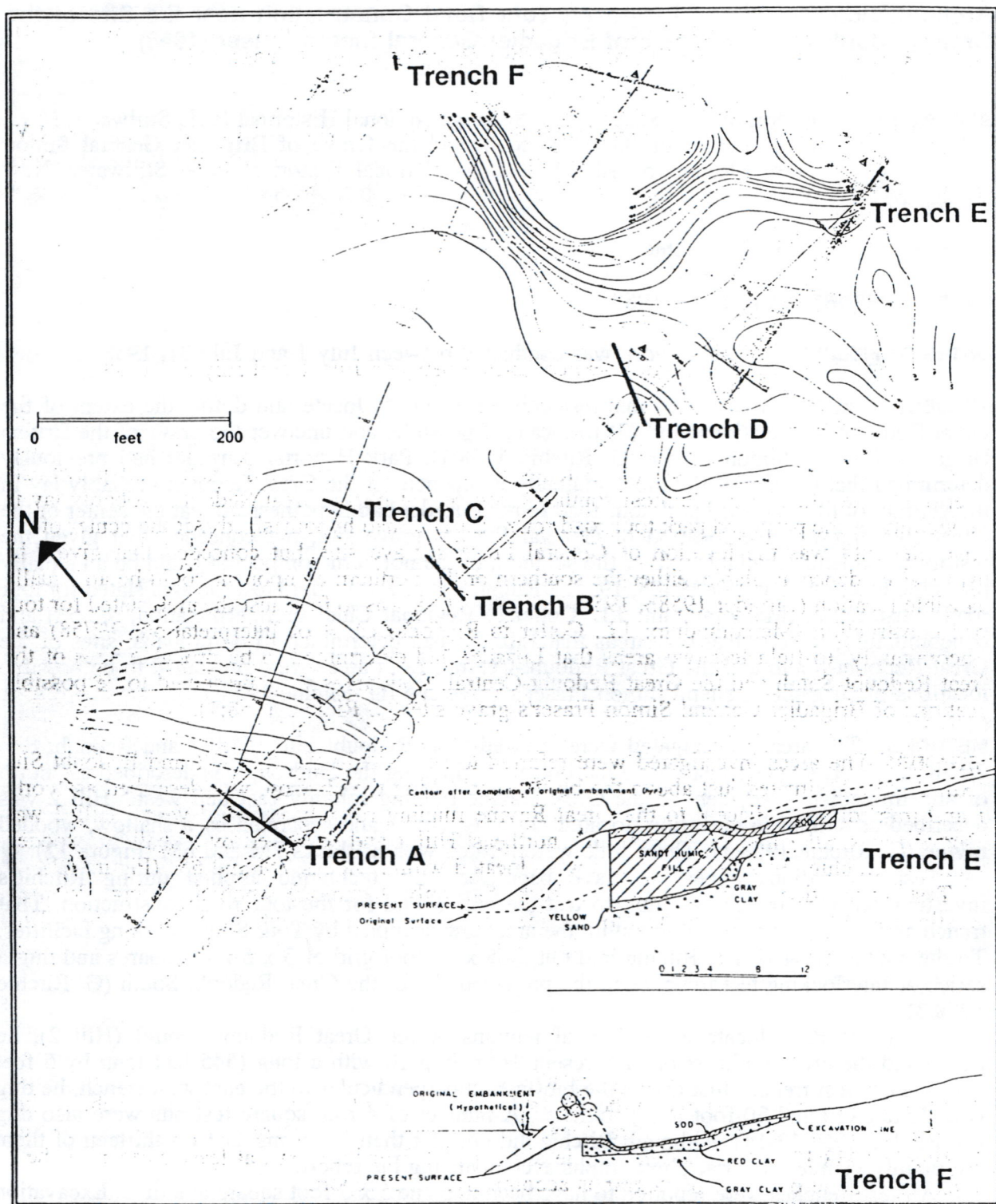


Figure 11. Plan of test trenches and profiles of ditch and bank features at American River lines, Saratoga National Historical Park, Battlefield Unit (Source: Cotter 1957).

Archeological Testing of Proposed Tour Road Construction near the Site of the Great Redoubt and the Grave of Brigadier General Simon Fraser (1958)

REPORT TITLE: Report of the Excavation at Saratoga National Historical Park, Stillwater, N.Y., in Search of the Great Redoubt and the Grave of Brigadier General Simon Fraser. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Galen B. Ritchie

DATE OF REPORT: August 14, 1958

DATES OF FIELDWORK: Field work was conducted between July 1 and July 31, 1958.

PROJECT GOALS: The goals of this research were: (1) to locate and define the extent of the Great Redoubt fortifications; and (2) to locate, if possible, and uncover the grave of the British Brigadier General Simon Fraser (G. Ritchie 1958:1). Park Historian Luzader had previously determined that the site of the most southerly component of the Great Redoubt probably lay in the vicinity of the proposed park tour road route. Luzader had hypothesized that the center of the Great Redoubt was the location of General Fraser's grave site, but conceded that given the historical evidence available, either the southern or the northern component could be an equally plausible location (Luzader 1958b, 1958c). Ritchie's task was to field test the area slated for tour road construction (Memorandum: J.L. Cotter to Regional Chief of Interpretation, 9/3/58) and concomitantly, to field test two areas that Luzader had determined to be probable sites of the Great Redoubt-South and the Great Redoubt-Central. Both areas were presumed to be possible locations of Brigadier General Simon Fraser's grave site (G. Ritchie 1958:1).

METHODS: The areas investigated were referred to as Redoubt Site 1/Hill 1 and Redoubt Site 2/Hill 2. Hill 1, situated just above the bluffs overlooking the Hudson, was described as "north of and immediately adjacent to the Great Ravine running roughly east and west." Hill 2 was described as similar in elevation, located northeast Hill 1 and separated by a shallow, wooded ravine (G. Ritchie 1958:1). These hills were located within Blocks 7M and 6M (Figure 12).

Test excavations appear to have been the only technique applied during Ritchie's investigation. One trench was dug to test the area slated for the tour road construction. That trench appears to have been dug within the area now occupied by Tour Stop 9 parking facilities. To the southeast, at Hill 1, Ritchie laid out a 65 x 15-foot grid of 5 x 5-foot squares and dug a series of interlocking test trenches in the projected site of the Great Redoubt-South (G. Ritchie 1958:3).

In an effort to locate archeological remains of the Great Redoubt-Central (Hill 2), he transected the area southeast of the present Tour Stop 10 with a long (545 feet long by 5 feet wide), east-west trench. Just above the bluffs, and perpendicular to the east-west trench, he dug two shorter (30 and 70-foot long) trenches. A number of 4-foot square test pits were also dug (G. Ritchie 1958:13-14). Although Ritchie did not plot their locations, at least thirteen of them are plainly visible on aerial photographs accompanying his report.

All test trenches were reported to have been dug one 5 x 5-foot square at a time. Excavation of each 5 x 5-foot square proceeded until underlying glaciolacustrine clay was reached. Further details of excavation procedure were not reported, however, photographs which accompany the report indicate that most excavating was done with shovels and the dirt was not screened.

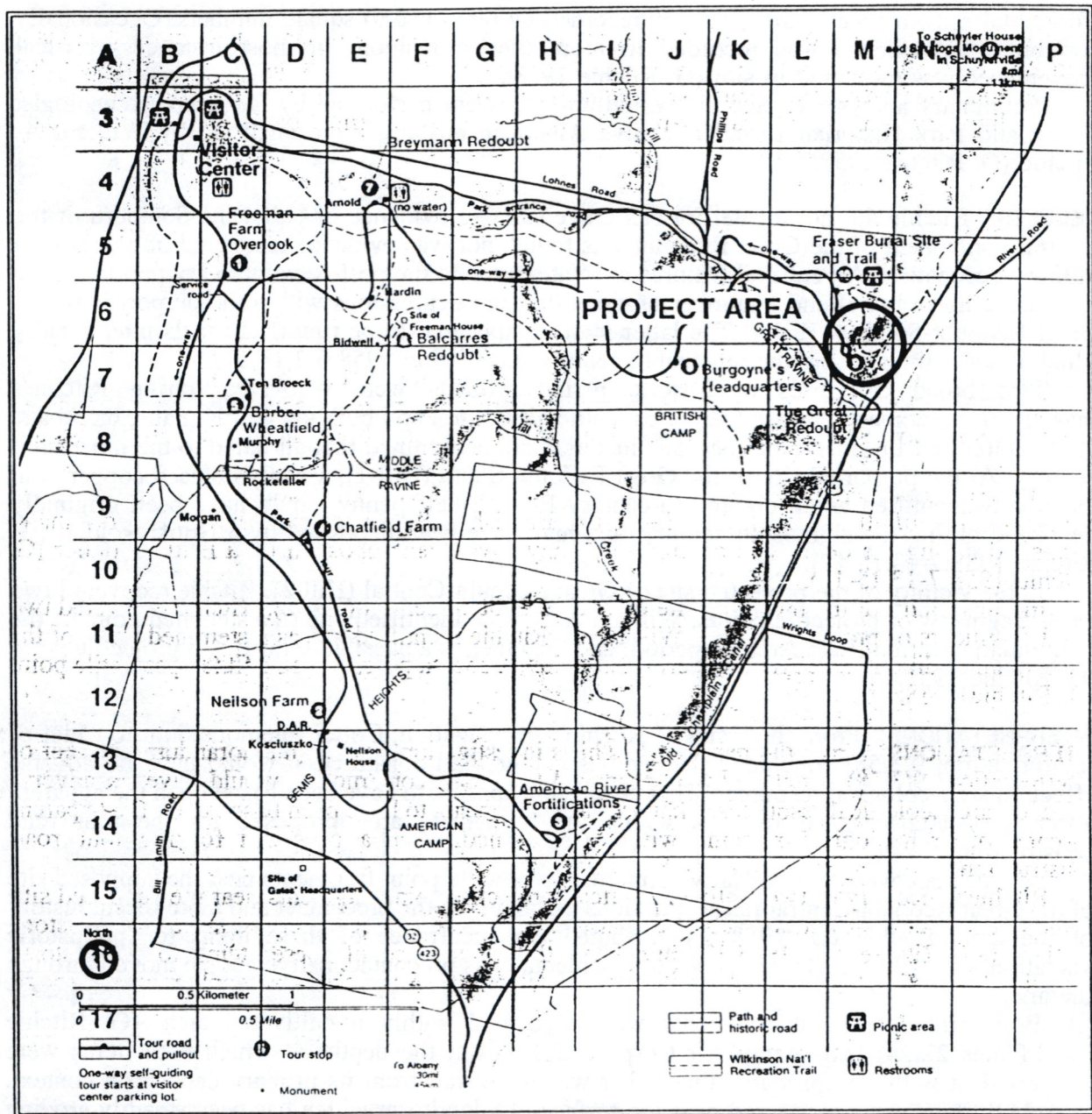


Figure 12. Location of archeological tests in the vicinity of the Great Redoubt, 1958, at the Saratoga National Historical Park, Battlefield Unit (Source: G. Ritchie 1958).

Horizontal provenience of artifacts was recorded by reference to square numbers. Occasionally horizontal provenience was recorded in more precise fashion. In most instances, vertical provenience was measured in situ (G. Ritchie 1958:3).

Preliminary analyses of historic-period artifacts were performed by Regional Archeologist Cotter and Park Historian Luzader. Native American artifacts were analyzed by William A. Ritchie (G. Ritchie 1958:2,7,15).

RESULTS: Ritchie did not locate Fraser's grave site. No evidence of either the Southern or the Central component of the Great Redoubt was found, nor was evidence recovered of any British military occupation. All cultural features were attributed to the post-Revolutionary period. These included a horse burial and a number of slope-oriented depressions within the purported site of Great Redoubt-South at Hill 1. The latter features appeared to be runoff channels intentionally filled at some time during the nineteenth century (G. Ritchie 1958:6-7,13,17).

Two broad categories of historic period artifacts were recovered during Ritchie's investigation: domestic refuse (ceramics, bottle glass, etc.) and building debris (nails, brickbats, etc.). Cotter and Luzader examined this material and determined that all dated to the nineteenth century. At the purported site of the Great Redoubt-South (Hill 1), a badly defaced copper coin tentatively identified as an eighteenth-century English half penny, could have been originally deposited during the eighteenth century, and may have been deposited by a British soldier (G. Ritchie 1958:7-13,15-17).

In the vicinity of the projected site of Great Redoubt-Central (Hill 2), Ritchie recovered two basal fragments of projectile points. William A. Ritchie identified one as a stemmed point of the Laurentian tradition (Late Archaic period) and the other as a possible semi-fluted projectile point (G. Ritchie 1958:15).

INTERPRETATIONS: From the result of Ritchie's investigation, Cotter (memorandum to Chief of Interpretation, 9/3/58) concluded that proposed tour road construction would have no adverse effect on archaeological resources. That conclusion appears to have been based upon the apparent absence of archeological remains within the immediate area proposed for the tour road construction.

Ritchie's recovery of two Native American projectile point fragments near the supposed site of the Great Redoubt-Central raises questions pertaining to the precontact and more recent history of the area. Ritchie (G. 1958:17) attributed the occurrence of these items to "prehistoric visitation"—i.e., the items were deposited incidentally as precontact native people moved through the area.

Both projectile point fragments were recovered within a cultivated area. (G. Ritchie 1958:Plates 22-24; U.S. Army Air Corps 1927). Given the depths at which both items were recovered, it is thus improbable that either was recovered from its primary deposition context. Also both items were recovered near the surface of a landform which has been steadily eroding since the draining of Glacial Lake Albany. Erosion may have been accelerated by historic-period agricultural practices. Park personnel (personal communications, August 8, 1978) have indicated that surface erosion continues to be a problem in this area. Given the inherent instability of the landform upon which these projectile point fragments were deposited, it seems equally plausible that:

- (1) as Ritchie suggested, they were indeed, members of sparsely and/or randomly distributed populations of artifacts, incidentally deposited as native people moved through this area; or

(2) they were peripheral elements of more concentrated distributions of artifacts deposited during actual occupation of the area where they were recovered, all but these peripheral elements having been incorporated within Hudson River floodplain sediment as the landform upon which they were deposited receded.

RECOMMENDATIONS: In his memorandum of 9/3/58, Cotter suggested that further attempts to locate the Fraser grave site and the remains of the Great Redoubt might be made: (1) atop the promontory immediately north of the two that Ritchie sampled; and (2) in an area east of the proposed tour road route, but northwest of the areas that Ritchie sampled.

ADDITIONAL MATERIAL: The 18-page report includes a 1:1200 topographic map showing locations of excavation units, 24 black and white plates, including 3 aerial views of areas excavated, and a catalog of artifacts recovered.

EVALUATION: Despite extensive excavations, Ritchie's investigation failed to achieve its goals. In 1973, Snow resumed the search for the Fraser Grave Site (Snow 1974). Immediately north and south of the trench with which Ritchie transected the projected site of the Great Redoubt-Central, Snow found what he interpreted to be Fraser's grave, and a number of other subsurface features which may have been associated with the British military occupation. It does not appear that Ritchie's negative results at the project site of the Great Redoubt-South can be attributed to insufficient sampling. If any vestiges of fortifications existed within the area sampled, it seems improbable he could have missed them purely by chance. All of Ritchie's test trenches appear to have been dug to a sufficient depth to intercept any vestiges of fortifications. Although improbable, it is nonetheless conceivable that if Fraser were buried within the southern component, Ritchie could have missed the grave site purely by chance.

Preliminary Testing at Freeman Farm and Balcarres Redoubt (1960)

REPORT TITLE: Freeman Farm -- Balcarres Redoubt Preliminary Tests, June 15-29, 1960, Saratoga National Historical Park. Report on file at Saratoga National Historical

AUTHOR: John L. Cotter

DATE OF REPORT: 1960

DATES OF FIELDWORK: Field work was conducted between June 15 and June 29, 1960.

PROJECT GOALS: Cotter's objectives were: (1) to locate the site of the original ca. 1777 Freeman Cabin; (2) to locate archeological remains of Balcarres Redoubt; and (3) to locate and map test trenches that Ehrich had dug nineteen years earlier (Cotter 1960:1,5).

METHODS: Cotter, assisted by Jackson Moore and several laborers, excavated in the area of the Freeman Farm/Balcarres Redoubt (Blocks 6F and 7E, see Figure 13). Cotter's investigation consisted of background research, surface reconnaissance, and subsurface sampling. Sources consulted were not cited, however it was apparent that Ehrich's (1941a) report was consulted. Since the map showing the locations of Ehrich's earlier work had been lost, Cotter could not at the outset base his strategy upon some prior estimate of the location and alignment of Balcarres Redoubt. In his report, there were a number of references to historical markers erected by the New York State Parks Commission. Although the surface reconnaissance procedure was not reported, it was apparent that some sort of walkover survey had been carried out at some point in the investigation.

Cotter dug sixteen test trenches, designated Test 1-Test 16, all 5 feet in width. Two of these (Figure 14:Test 10 and 11) were relatively short trenches extending from the east and west foundation walls of the extant Freeman House. Built ca. 1820, this Freeman House appeared to have stood 50-75 feet northeast of the present Freeman Cabin reconstruction. Another relatively short trench (Figure 14:Test 12) extended northward from the north wall of a foundation adjoining the north side of the Freeman House (Cotter 1960:4).

Eleven of the remaining 13 test trenches were dug within an area approximately 100-300 feet south and southeast of the Freeman House (i.e., within an area extending no less than 200 feet south of and no less than 200-250 feet west of the present reconstructed Freeman Cabin (Figure 14:Test 1-9,13,14). Cotter's fifteenth test trench (Figure 14:Test 15) was an east-west trench that transected "Balcarres Redoubt Hill," the prominent bedrock ridge which rises about 225 feet to the south of the Freeman Cabin reconstruction. The sixteenth trench (Figure 14:Test 16) was a north-south trench with which Cotter hoped to transect the south end of Balcarres Redoubt and/or one of Ehrich's test trenches (Cotter 1960:5).

Details of excavation procedures were not reported. From photographs in the report, it appeared that sod was removed in large chunks, excavation was done with spades and shovels, and the dirt was not screened. From the text of the report and field notes on file at the Museum Support Services Center, artifact provenience was generally recorded only with reference to excavation unit numbers, although occasionally it was recorded with reference to soil horizon.

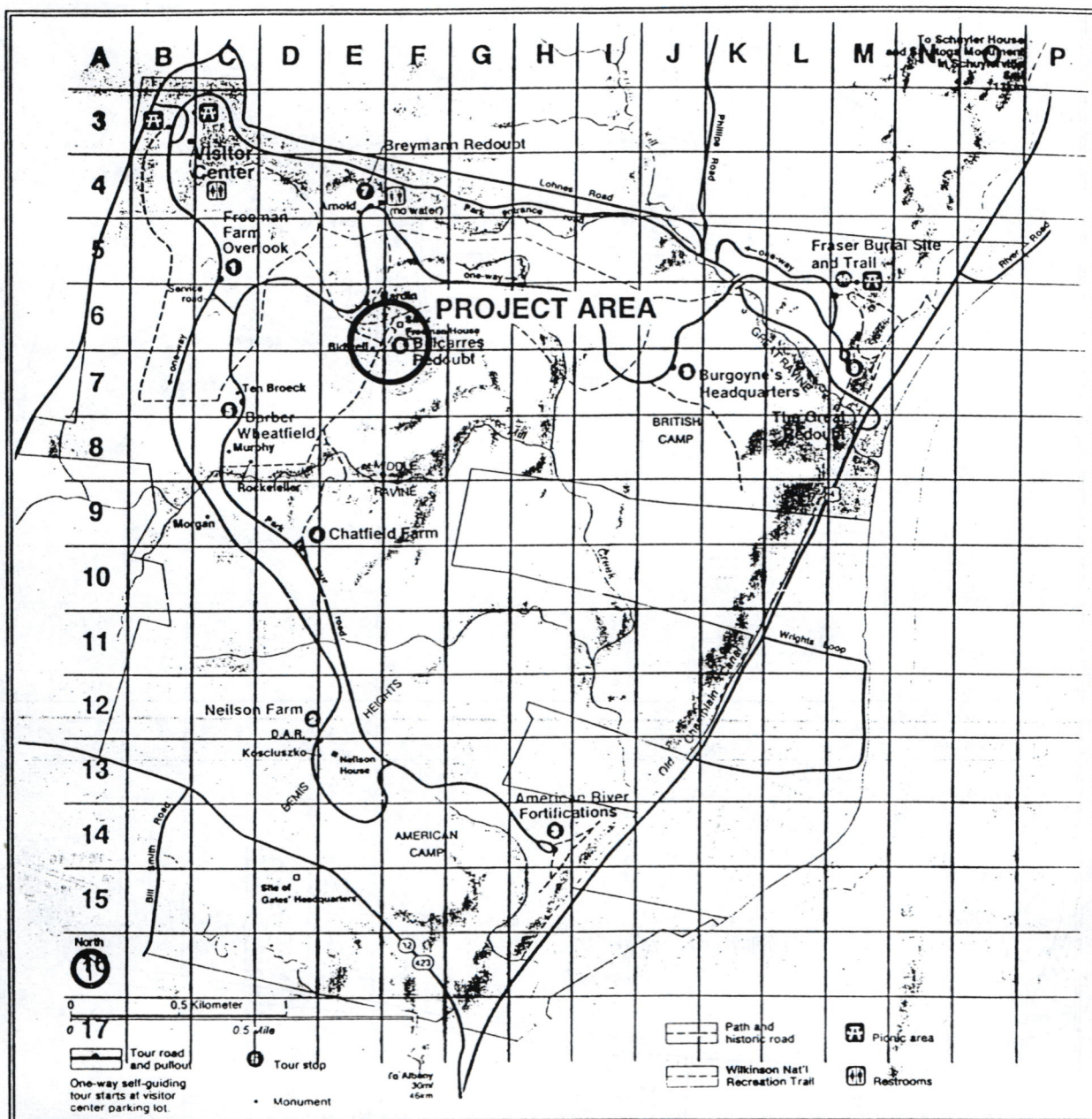


Figure 13. Location of archeological tests at Freeman Farm and Balcarres Redoubt, 1960, Saratoga National Historical Park, Battlefield Unit (Source: Cotter 1960).

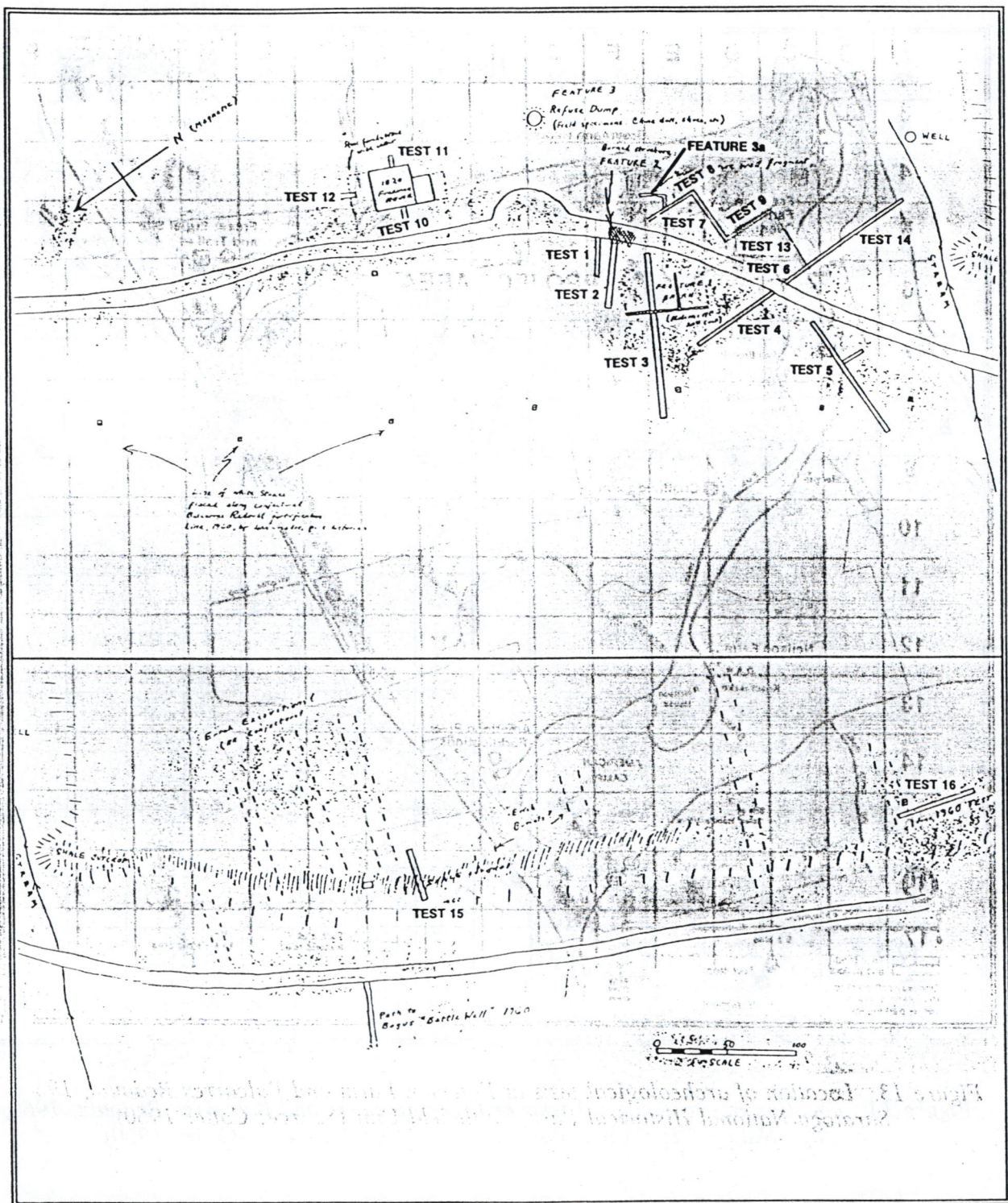


Figure 14. Location of excavation units and features at Freeman Farm (top) and Balcarres Redoubt (bottom), 1960, Saratoga National Historical Park, Battlefield Unit (Source: Cotter 1960).

RESULTS AND INTERPRETATIONS: Cotter concluded that there was no evidence that any of the observed features were from any earlier than the nineteenth to early twentieth century. The features were a **barn foundation** (Figure 14:Feature 1), **stone footings** of a smaller outbuilding (Figure 14:Feature 3a) and a domestic **midden** (Figure 14:Feature 3). The stone footings were designated Feature 3 in the text of the report, but were not labeled so on Cotter's map. The midden was not given a feature number in the text but was designated "Feature 3" on Cotter's map. Figure 14 shows the stone footings labeled "Feature 3a" and the midden with Cotter's original "Feature 3" label. **Stone foundations** with a cellar were also reported adjoining the north and south foundation walls of the ca. 1820 Freeman House (Figure 14). Cotter interpreted a localized, near-surface deposit of charcoal and building debris which was observed as the former Freeman Farm road was being graded as remains of a **burned structure** (Figure 14:Feature 2). South of the reconstructed Freeman Cabin, Cotter observed a more diffuse scattering of charcoal and building debris at the sod/bedrock interface (Cotter 1960).

The only physical evidence that might have been a vestige of Balcarres Redoubt was a slight increase in topsoil thickness to the east of the barn foundation in Test 3 (i.e., within an area 20-80 feet south of the Freeman Cabin reconstruction). No evidence of the redoubt could be discerned in the trench dug across "Balcarres Redoubt Hill." There, bedrock occurred within a few inches of the surface. In the one trench dug to locate the south end of the redoubt, no evidence of the redoubt and no evidence of Ehrich's excavations were encountered (Cotter 1960:2-3,5-6).

Domestic refuse and building debris recovered were presumed to derive from nineteenth to early twentieth-century Freeman Farm occupation. Building debris, particularly brick chips and nails, were widespread, although highest densities of those items appear to have occurred within the immediate vicinity of former structures. Cotter reported that the distribution of domestic refuse was more localized, one domestic midden (Figure 14:Feature 3) was observed about 80 feet southwest of the Freeman House. No artifacts were reported to have been recovered from the trench dug to locate the south end of Balcarres Redoubt (Cotter 1960).

EVALUATION: Cotter failed to achieve his goals of locating either the original Freeman Farm, or Balcarres Redoubt, or Ehrich's excavations. Preparatory to his subsequent, more intensive search for the site of the Freeman Cabin, J. Duncan Campbell (1963) determined from documentary sources that this structure was indeed a log cabin (Luzader[1958d] found evidence that there were two log structures, presumably a dwelling and a barn). Campbell therefore postulated that any archaeological remains of the cabin would have been deposited near surface and may have been thinly distributed. In short, it seems quite possible that the subsurface sampling technique that Cotter employed would have been too imprecise to assure recognition of archeological remains of the Freeman Cabin.

Further assessment of the results of Cotter's investigation has been hampered by the lack of compatibility between his map and Snow's (1973, 1977) more precisely oriented maps of Balcarres Redoubt. Although locations of Cotter's excavation units have been projected into Snow's 1973 maps, the potential error inherent in these projections is sufficient to preclude independent verification that Cotter's negative results indicated that all traces of the cabin have been destroyed. In sum, not only was Cotter unable to verify the presence of the features for which he was searching, he was also unable to verify that they were absent.

Archeological Investigation of the Neilson Barn (1960)

At the same time that Cotter was searching (in vain) for traces of the original Freeman Farm and Balcarres Redoubt, archeologist Jackson Moore was investigating the Neilson Barn, near where Cotter (1957) had previously searched (successfully) for the original Neilson House (Figure 15). This investigation was done as part of the Neilson House restoration.

REPORT TITLE: Archeological Exploration of the Neilson Barn Site, Saratoga National Historical Park. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Jackson W. Moore, Jr.

DATE OF REPORT: 1961

DATES OF FIELDWORK: Field work was conducted over a nine-day period in the summer of 1960.

PROJECT GOALS: Moore's goals were: (1) to locate the Neilson Barn, which he believed was somewhere in the approximately 250-foot stretch between the Neilson House and the present parking lot, within which was located a reconstructed blockhouse; and (2) to determine the size and shape of the barn.

METHODS: Moore excavated four trenches, designated T-1(a and b), T-2, T-3, and T-4 (Figure 16). No information was given concerning excavation methods, but it is presumed that digging was done with shovels and that soils were not screened. Stratification was observed in the trench walls and was recorded and interpreted.

RESULTS AND INTERPRETATIONS: Moore found no evidence of the Neilson Barn. Stratigraphy in T-1 was interpreted as reflecting considerable landscaping. Examination of photographs from 1928 showed that the area had been occupied by a parking lot which extended to within 20 feet of the blockhouse. Trench T-2 encountered a concrete silo foundation between the blockhouse and the parking lot. A possible intact land surface was noted in the southeast corner of T-1b at 1.9 feet below grade and extending into T-3. This stratum yielded no artifacts (Moore 1961:3-4). No features that might have been associated with the Neilson Barn were encountered. Artifacts generally dated from the nineteenth century. A single clay pipe bowl was the only possible eighteenth-century piece (Moore 1961:5-6). Moore concluded that if the Neilson Barn had been located in the area between the Park Headquarters and the Block House, then traces of it would have been destroyed.

EVALUATION: Moore failed to meet the goals of his research. However, this failure may have simply been due to the destruction of the Neilson Barn foundation at some earlier time. The trenching method, especially when procedures are not detailed, was inadequate to demonstrate conclusively that the site had been destroyed. It is entirely conceivable that the trenches as excavated could have missed the barn foundation, especially if portions of the foundation had been disturbed or destroyed. The evidence of disturbance in T-1 certainly suggested that it was unlikely the barn foundations had survived intact at least in this immediate area.

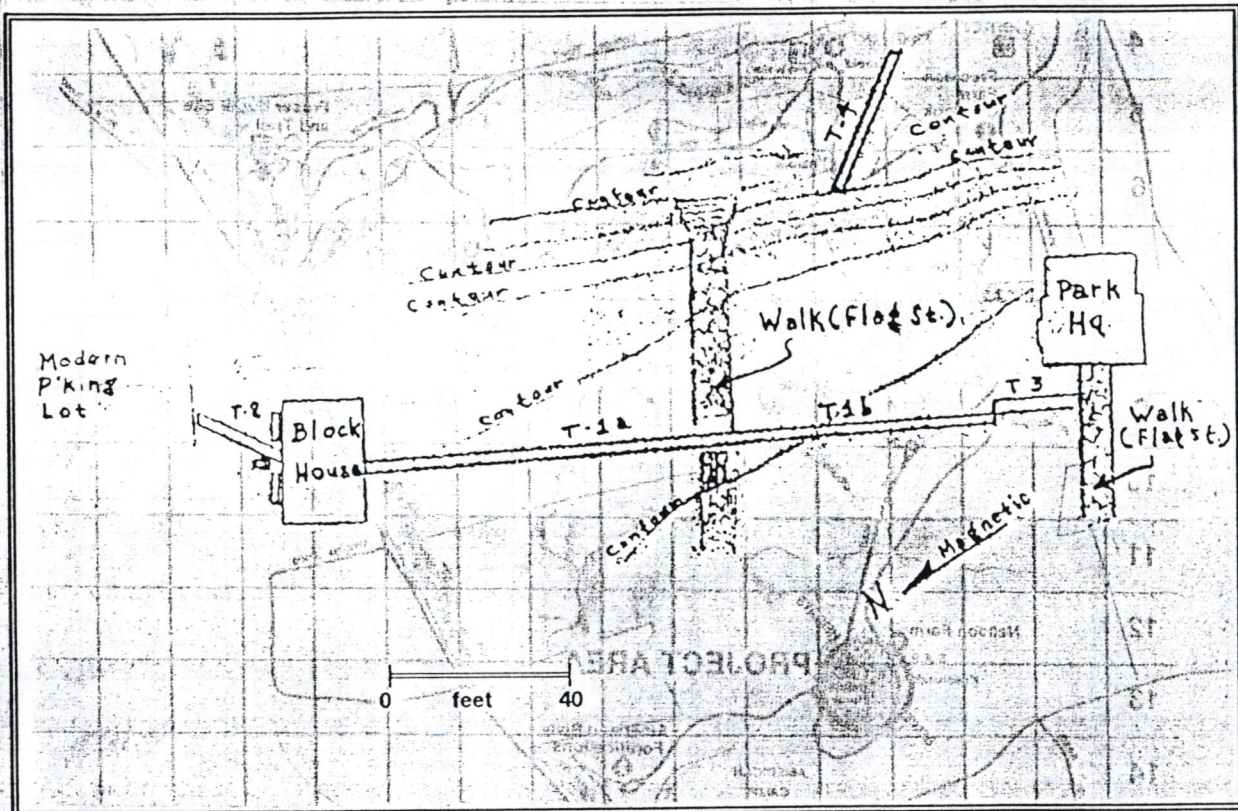


Figure 16. Plan of excavation units at the Neilson Farm area in search of the Neilson Barn, 1960, Saratoga National Historical Park, Battlefield Unit (Source: Moore 1961).

Archeological Testing at Freeman Farm (1963)

REPORT TITLE: Archeological Investigation, Freeman Farm House Site, Saratoga National Historical Park, 9-16 September, 1963. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: J. Duncan Campbell

DATE OF REPORT: 1963

DATES OF FIELDWORK: Field work was conducted September 9-16, 1963.

PROJECT GOALS: Campbell's investigation of Freeman Farm/Balcarres Redoubt (Block 6F, see Figure 17) was designed to follow up Cotter's 1960 reconnaissance survey. As in Cotter's survey, the primary objective was to locate the site of the 1777 Freeman Cabin. From the results of Cotter's survey and other background data, Campbell postulated that archeological remains of this structure were unlikely to have survived the effects of post-Revolutionary War land uses. Campbell applied this postulate as an informal null hypothesis. If he succeeded in locating the Freeman House site, that hypothesis would be clearly refuted. If he failed, the viability of the hypothesis would in large measure be a function of the rigor with which it had been tested.

METHODS: Campbell's investigation began with background research. Among sources consulted were Wilkinson (1777a) and former residents of the ca. 1820 Freeman Farmhouse. The Wilkinson map provided Campbell with one means of projecting the location of the cabin. He reported that the location thus projected was in fact the traditional location as recalled by Mr. Gurney. Gurney reported that a barn had been built upon that site in 1906 and rebuilt in 1916 (Campbell 1963:2,6).

On the basis of sources not cited, Campbell determined that the ca. 1777 Freeman Cabin was indeed a log house or log cabin. Since construction of a log cabin required little surface preparation, Campbell expected that archeological remains of the structure would be near the surface and thinly distributed (Campbell 1963:7).

Since the Wilkinson map location and the oral tradition location of the cabin were essentially the same, Campbell assumed that area to be the most probable location of the cabin site. That area, designated "Area C," and two other areas, one to the north of and one to the southwest of the ca. 1820 Freeman House, were selected for intensive subsurface sampling (Campbell 1963:1).

Where Cotter had used trenches in his 1960 excavations, Campbell excavated a checkerboard pattern of 1.5 x 1.5-foot squares at 5-foot intervals (Figure 18). The estimated areal coverage for each of the three areas investigated was as follows.

Area A consisted of two groups of excavation units, one approximately 30-50 feet, the other approximately 90-120 feet southwest of the ca. 1820 Freeman Farmhouse. Areas sampled were estimated at 10.7-13.5 and 55.2-69.8 square feet, respectively;

Area B was tested with one group of excavation units, approximately 50-100 feet north of the ca. 1820 Freeman Farmhouse; the area sampled was 62.3-78.8 square feet;

Area C was judged to be the most probable site of the Freeman Cabin. It was sampled with one group of excavation units, approximately 185-240 feet southwest of the ca. 1820 Freeman Farmhouse. The area sampled was 53.4-67.5 square feet.

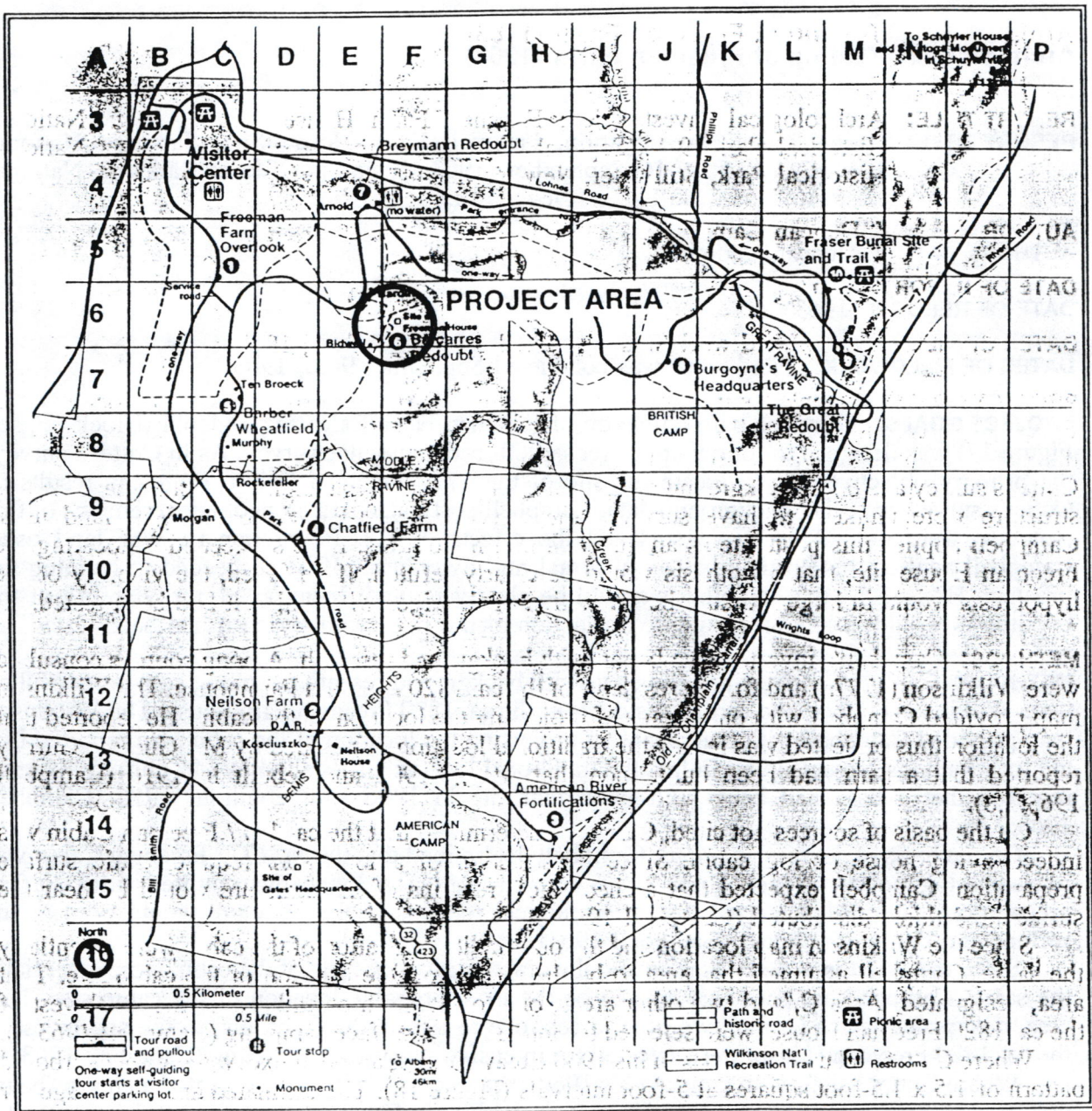


Figure 17. Location of archeological tests in search of the Freeman Farm House, 1963, Saratoga National Historical Park, Battlefield Unit (Source: Campbell 1963).

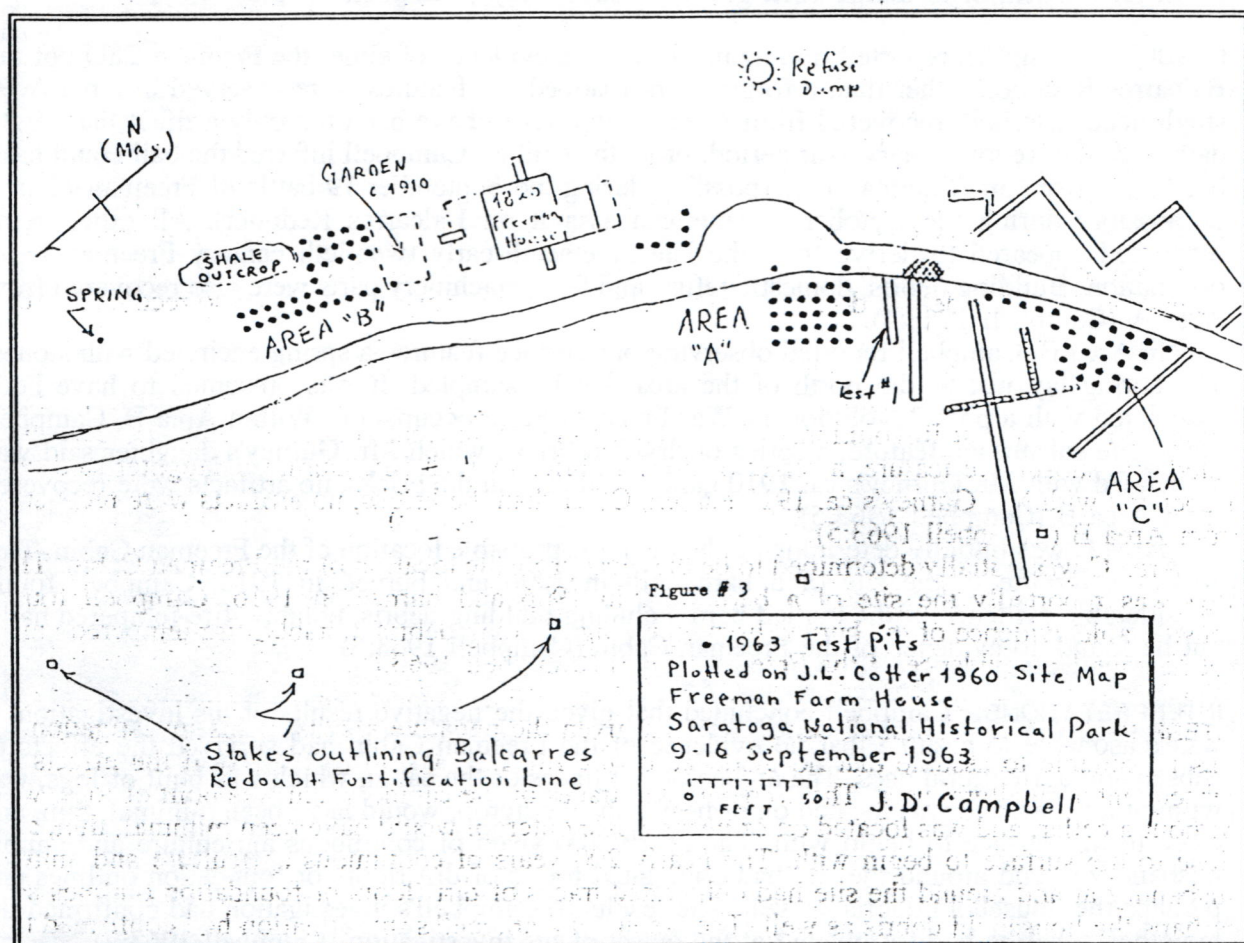


Figure 18. Plan of excavation units at the Freeman Farm area, 1963, Saratoga National Historical Park, Battlefield Unit (Source: Campbell 1963:Figure 3).

The range of areal coverage reflects the range of excavation unit dimensions reported by Campbell. In total, Campbell's test pits represented approximately a 4-5 percent sample of the area investigated.

Excavation procedures began with removal of sod, after which each square was trowelled down to bedrock, or to undisturbed glaciolacustrine clay (Campbell 1963:3).

RESULTS: Campbell reported finding no conclusive evidence of either the Freeman Cabin or the Balcarres Redoubt. Other than a former park roadbed, no features were observed in Area A. A single lead rifle ball, recovered from Area A, appears to have been the only artifact that might date from the Revolutionary War period. From the caliber, Campbell inferred the ball could have been fired from an American rifle (possibly during the September 19 battle of Freeman's Farm, or possibly during the October 7 American assault on Balcarres Redoubt). All other items recovered appeared to derive from the late nineteenth-early twentieth century Freeman Farm occupation. Building debris, domestic refuse and farm machinery parts were also recovered from Area A (Campbell 1963:4).

In Area B, Campbell reported observing one surface feature—a spring encircled with stones. The spring lay just to the north of the area that he sampled. It was presumed to have been associated with a post-Revolutionary War Freeman Farm occupation. Within Area B, Campbell noted one subsurface feature, a series of dry-laid bricks which Mr. Gurney's daughter said was associated with Mr. Gurney's ca. 1910 garden. Other than the bricks, no artifacts were recovered from Area B (Campbell 1963:5).

Area C was initially determined to be the most probable location of the Freeman Cabin. This area was reportedly the site of a barn built in 1906 and burned in 1916. Campbell found considerable evidence of the burned barn including building debris, notably, fire-tempered nails, but he found no evidence of the Freeman Cabin (Campbell 1963:6).

INTERPRETATIONS: Campbell concluded that given the negative results of his investigation, it was reasonable to assume that no evidence of the Freeman Cabin had survived the effects of subsequent agricultural uses. The archeological traces of the cabin, which was built of logs, was without a cellar, and was located on or near a shale outcrop, would have been minimal, thin, and close to the surface to begin with. The nearly 200 years of continuous agriculture and animal husbandry at and around the site had obliterated traces of dirt floors or foundation outlines and perhaps the household debris as well. The results of Campbell's investigation had confirmed the hypothesis that he had formulated at the outset of his investigation (Campbell 1963:7).

RECOMMENDATIONS: Based on his conclusion that the remains of the Freeman Cabin had not survived, Campbell recommended that the cabin be reconstructed solely on the basis of documentary evidence (Campbell 1963:7). His recommendation has since been carried out.

EVALUATION: Although Campbell failed to locate the Freeman Cabin, his attempt was admirable in several respects. First, he used an alternative testing strategy that complemented and built upon the archeological testing that preceded his. Second, he used documentary research and oral histories to inform his research strategy and his interpretation. Third, he constructed a very plausible argument as to why the cabin could not be found. It seems unlikely that Campbell's failure to locate archeological remains of the Freeman Cabin could have been the result of deficiencies in his subsurface sampling procedure. Given the number and spacing of test pits, it appears improbable that Campbell (and Cotter before him) could have missed it purely by chance.

Even though the results of Snow's (1973) survey tend more to support than refute Campbell's conclusions regarding the Freeman Cabin site, Campbell's investigation should not be construed as a definite test of his hypothesis. There remains the possibility that archeological remains of

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the cabin lie somewhere beyond the area that Campbell and Cotter sampled and somewhere beyond the area that Snow (1973) subsequently sampled. On the basis of present information, the areas that Campbell sampled cannot be precisely located. Campbell plotted locations of his sampling units upon Cotter's (1960) map; that map cannot be readily correlated with more recent maps of the Balcarres Redoubt/Freeman Farm area. To date, the areas which Campbell investigated in relation to (1) the present Freeman Cabin reconstruction, or (2) the alternative Freeman Cabin site which Snow (1973) has projected, have not been determined. These are technical problems. They can probably be resolved by firmly establishing the location of the site of the ca. 1820 Freeman House relative to current landmarks.

Archeological Testing at Balcarres and Breymann Redoubts (1972)

After Campbell's 1963 testing of the Freeman Farm site there was no archeological research at the Saratoga National Historical Park during the remainder of the 1960s. When research began again in the early 1970s, with investigations at the Balcarres and Breymann Redoubts, it was conducted by the State University of New York at Albany under the direction of Dean R. Snow, an associate professor of anthropology. Although Snow's research focus had been (and remains to this day) the archeology of precontact Native American peoples, he expanded his research interests into the field of historical archeology when he undertook a series of projects at Saratoga National Historical Park in the early-mid 1970s. Much of this testing took place in areas that had already been investigated by Cotter and others in the late 1950s and early 1960s. Snow's research employed innovative methods such as use of aerial photography in searching for Revolutionary-period sites. Unlike his predecessors, Snow produced important syntheses of archeological findings including a detailed and comprehensive set of maps of the Battlefield Unit (*Archaeological Atlas of the Saratoga Battlefield* [Snow 1977b]) and an article in the popular archeology journal *Early Man* (Snow 1981).

REPORT TITLE: Report on the Archeological Identification of the Balcarres and Breymann Redoubts, Saratoga National Historical Park, 1972 Investigations. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Dean R. Snow

DATE OF REPORT: 1973

DATES OF FIELDWORK: Black and white aerial photography was flown in March 1972, and field work was carried out during the summer of 1972.

PROJECT GOALS: Snow's reconnaissance survey was undertaken with the primary goal of establishing the locations of archeological remains of Balcarres and Breymann Redoubts. In addition, Snow hoped to define the extent and determine the method(s) of construction of these relatively complex field fortifications. In 1941, Ehrich had located archeological remains of both redoubts; unfortunately his map showing the locations of the features had been lost. Investigation of the sites of the Canadian Cabins was not one of the objectives specified in Snow's 1972 contract, but rather was an outcome of fortuitous circumstances (Snow 1973:2-4).

METHODS: Three areas were investigated:

- I. Balcarres Redoubt (British West Flank; Blocks 6E, 6F, 7E, 7F)
- II. Breymann Redoubt (British West Flank; Block 5E)
- III. Canadian Cabins (British West Flank; Block 5E)

Snow's investigation consisted of documentary research, aerial reconnaissance, magnetometer survey, soil coring, and test excavation. Documentary research appeared to have been quite limited in scope. Other than Ehrich (1941a), the only sources that appear to have been consulted were Wilkinson (1777a), and Snell (1949a:28). In the case of Balcarres and Breymann Redoubts, Snow used the Wilkinson map as a predictive model.

Panchromatic aerial photographs, taken at low altitude, were used to prepare 1:480 scale topographic maps of the areas under investigation. Viewing the photographs through a stereoscope, Snow discerned small-scale variations in surface relief which he tentatively correlated with features depicted in the Wilkinson map. In some aerial photographs taken just after a light snowfall, differential melting was used to indicate locations of features. Snow was able to project locations of vestiges of Balcarres Redoubt, the site of one of the two Canadian Cabins, and several of Ehrich's test trenches. Surface reconnaissance was undertaken to examine closely the features discerned on aerial photographs (Snow 1973:7-8).

Additional remote sensing of the presumed sites of Balcarres and Breymann Redoubts was carried out using an audio-output cesium magnetometer. The instrument was a portable model developed by Varian Associates of Palo Alto, California, for use in archeological surveys. Snow hoped to detect subsurface anomalies (e.g., refilled pits and ditches) and iron artifacts from the British military occupation. Details of the remote sensing survey were not reported. It appears that subsurface features were located by this instrument only within the northern half of Balcarres Redoubt (Snow 1973:8-9).

Soil coring was done (1) selectively, in order to further investigate features detected by remote sensing technique(s), and (2) systematically, at regular intervals along assigned transects, to locate features depicted on the Wilkinson map but not detected or inferred by other means. Soil cores up to 18 inches in length were obtained with the coring instrument used. By using an extension rod, deeper cores could be obtained. When soil cores were taken along transects, an alidade was used to record the surface elevation of sampling points. The sampling intervals employed during systematic soil coring were not reported (Snow 1973:9).

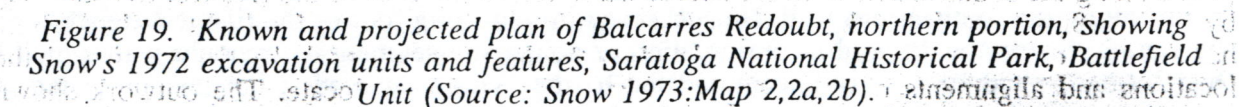
Snow's survey strategy employed test excavation as a means of confirming or rejecting positive results obtained with one or more of the above techniques. In doing so, Snow hoped to secure data on the current condition as well as on the original construction of these British fortifications. Test excavations confirmed the site of Balcarres Redoubt and one of the Canadian Cabins; it was the principal method used to locate the Breymann Redoubt (Snow 1973:10).

Locations and lateral dimensions of all test pits and test trenches dug during Snow's surveys of Balcarres and Breymann Redoubts were indicated on maps accompanying the report. Snow neither plotted nor reported the number, locations, or dimensions of test excavation units dug during his investigation of the Canadian Cabin area.

Details of excavation procedure were not reported. However, in telephone conversations, Snow explained that the excavation procedure used in a given area was largely a function of soil texture. Where soils were rich in clay, test pits and test trenches were dug with trowels and the dirt not screened. Otherwise, pits and trenches were dug with shovels, and the dirt was sifted through 1/2-inch mesh screen.

Mapping Services of Elnora, New York did the aerial photography and photogrammetric mapping. Snow's field crew consisted of 25-27 students enrolled in the SUNY, Albany archeological field training program. Historic period ceramics and glassware were analyzed by Alvin Blaise, with assistance from Paul Huey of the New York State Parks and Recreation Department.

RESULTS AND INTERPRETATIONS: I. Balcarres Redoubt (Figures 19 and 20): Snow reported observing surface evidence for most of the western wall of Balcarres Redoubt. Intensive excavations along the southwestern portion of the redoubt yielded subsurface evidence of the wall and an interior trench (Figure 21). Snow also encountered subsurface evidence of at least three points along the southeastern wall. He succeeded in relocating four of the five test trenches dug by Ehrich. Snow noted that the configuration of points and segments of redoubt wall which he had located could be readily accommodated to the Wilkinson model; he then projected the locations and alignments of those segments he was not able to locate. The outwork shown



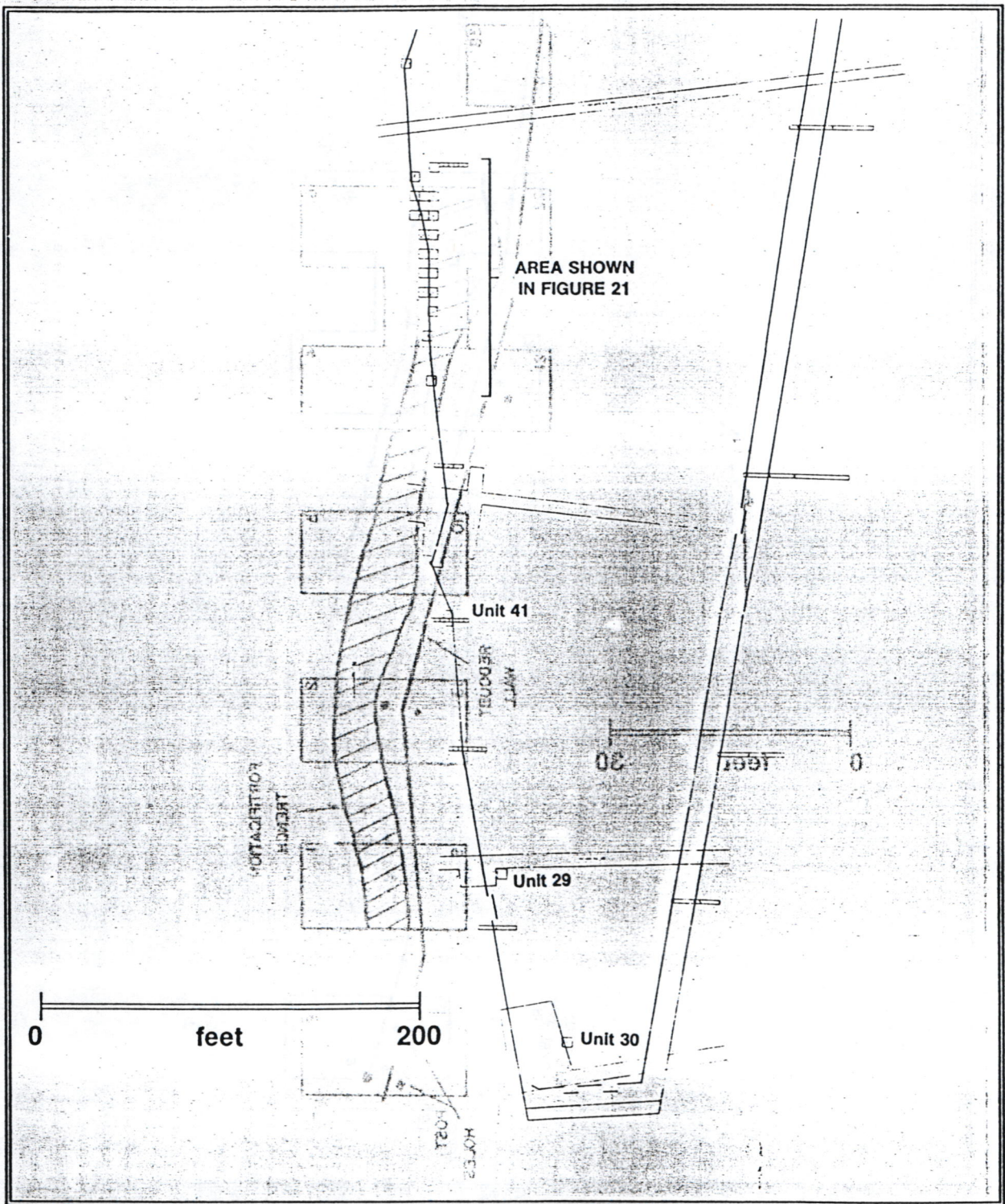


Figure 20. Known and projected plan of Balcarres Redoubt, southern portion, showing Snow's 1972 excavation units and features and some of Ehrich's 1941 excavations, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1973:Map 2,2a,2b).

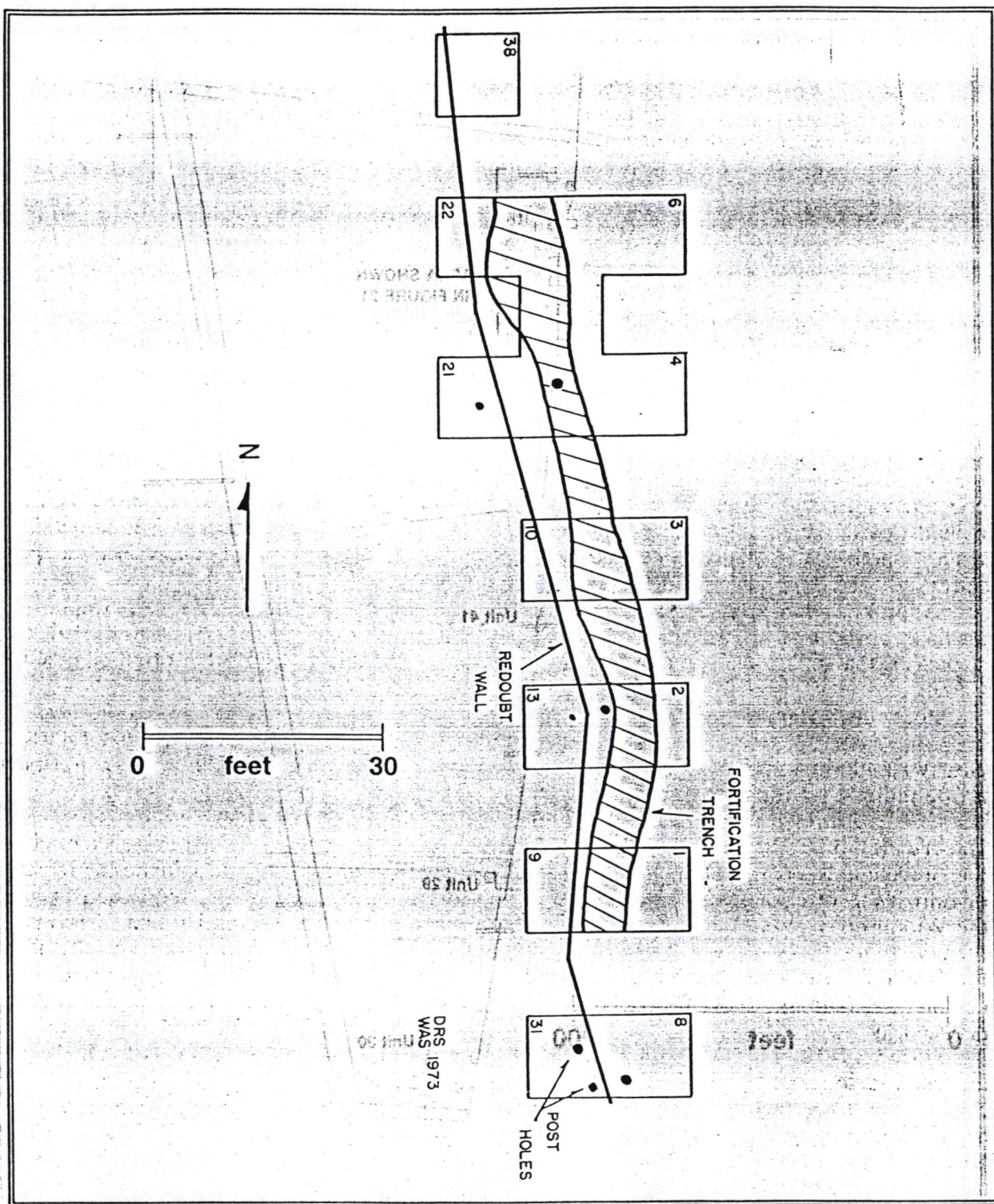


Figure 21. Plan of 1972 excavation units, redoubt wall, fortification trench, and postholes in southwestern portion of Balcarres Redoubt, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1973: Map 3).

immediately north of Balcarres Redoubt (Snow 1977b) was projected from Wilkinson; it was not verified by excavations (Figure 19) (Snow 1973:10-20).

Snow did observe some evidence that the southeast wall of the redoubt was of double-wall construction, as Wilkinson had indicated. Around the projected northern end of this southeastern wall, he observed that bedrock lay within a few inches of the surface. He conjectured that here the redoubt wall had probably been of timber cribwork, constructed entirely above grade. Although he was not able to determine the precise location of the southern wall of Balcarres Redoubt, Snow used the Wilkinson map, limited soil core data, and amorphous surface evidence to estimate the limits within which this wall was likely to have been located (Snow 1973:14-15).

Snow, like Ehrich (1941a), reported that, in general, the archaeological evidence of the redoubt and associated features became less distinct from south to north, between the eastern and western walls. Within 150-200 feet north and south of the reconstructed Freeman cabin, artifacts were more representative of nineteenth-century domestic activities than of Revolutionary War-period military activities (Snow 1973:6,17-20).

Within the presumed limits of the redoubt, Snow located a number of smaller features. These included a burial (Figure 20:Unit 41), presumed to be of an American soldier killed during the October 7 American assault, and two hearths (Figure 20:Units 29 and 30), presumed to be from the British military occupation (Snow 1973:13-14,16-17). The burial (Figure 22:upper part) was covered with decomposed logs. The body had been placed in a shallow pit, face down and extended with the head to the northwest. Several buttons were present, and a shot was recovered from around the legs, head, and right arm. Osteological, and histological analysis indicated a fairly old (40-60 years) individual of slight stature (Snow and Wilkinson 1986).

Approximately 150 feet south-southwest of the reconstructed Freeman Cabin, the southeastern corner of a foundation was discovered (Figure 19:Unit 34). Snow (1973:18) suggested that this foundation may have been the barn associated with the original Freeman Cabin.

Four broad categories of historic period artifacts were recovered: ceramics; glassware; ball clay pipe stems; and ironware (mostly machine-cut nails). Two-thirds of the ceramic collection clearly dated to the nineteenth-century occupation of the Freeman Farm. Buckshot, buttons, and a rifle bullet were found in direct association with the burial (Snow 1973:16,28-31).

II. Breymann Redoubt (Figure 23): Although Snow did not discern surficial evidence of either the Breymann Redoubt or the outworks that flanked it, he was able to approximate the location of Ehrich's test trenches within which vestiges of the works were observed. When he projected the Wilkinson map onto the current landscape, Snow thought the area Ehrich had investigated seemed more likely to be the location of the northwest outlook rather than of the main fortification. Based upon this premise, his survey strategy succeeded in locating evidence of what he interpreted to be the main fortification, the north outwork, and an encampment area in between (Snow 1973:20-25).

Historical evidence (Wilkinson 1777a) and contemporary descriptions cited by Snell (1949a) indicated that the main fortification and probably the north outwork were similar in form and construction to a worm or a zig-zag fence. Where he projected the main fortification to have been, Snow reported finding a linear series of postholes and a feature he interpreted as an artillery platform (Figure 23). Comparing the post-hole pattern to Wilkinson's representation of the main fortification, Snow concluded that he had located both the northern and southern ends of the structure. He encountered a shallow burial north of the gun platform (Figures 22 and 23), and possibly a sally port (Figures 23 and 24), approximately 80 feet north of the south end (Snow 1973:21-23). The burial (Figure 22:lower part) had been placed in a shallow pit in an extended, supine position with the head to the west. Cranium, hands, and feet were missing. This burial was of a robust individual estimated to have been about 30 years old (Snow and Wilkinson 1986).

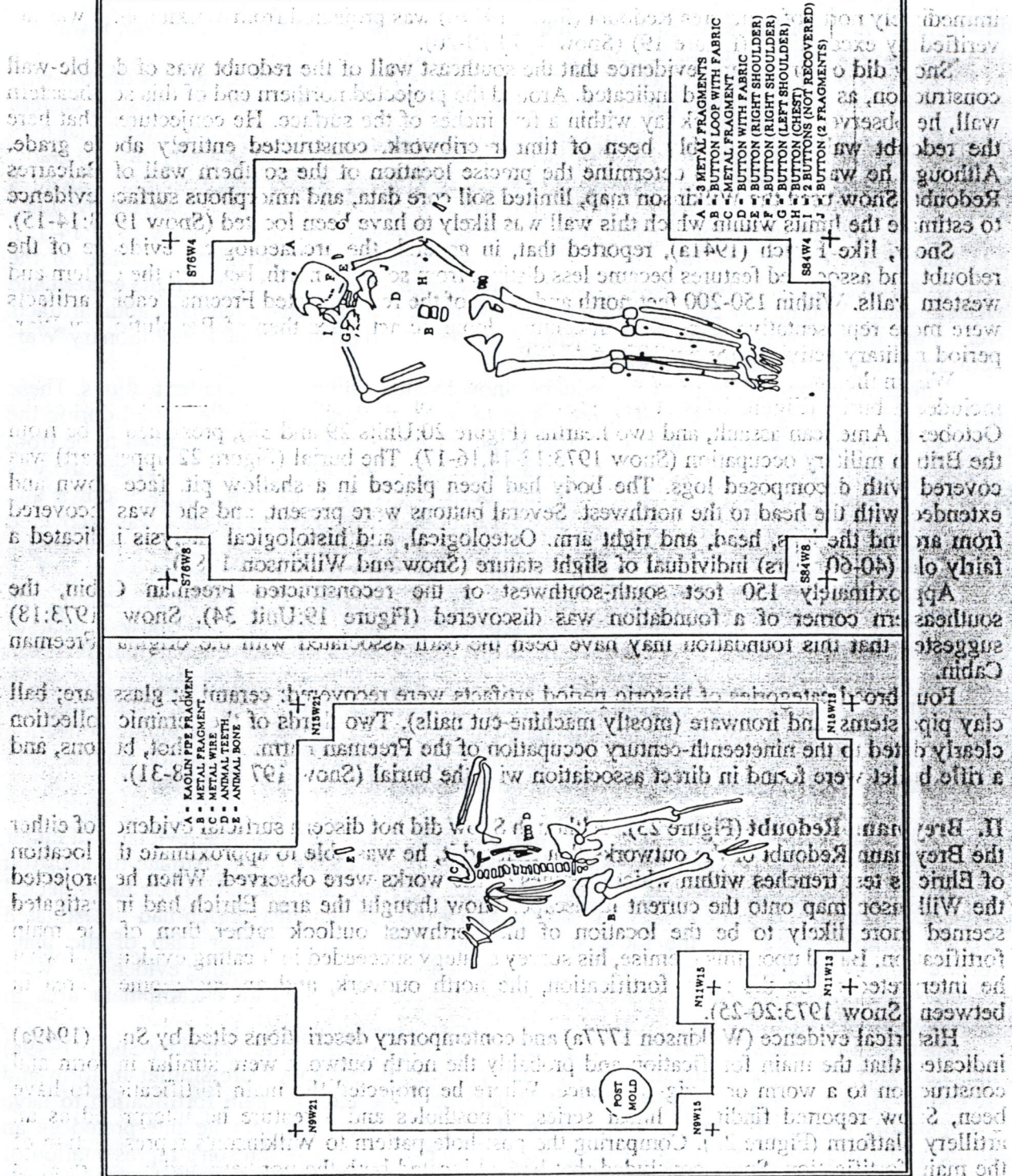


Figure 22. Plans of burials recovered from 1972 excavations at Balcarres Redoubt (upper) and Breymann Redoubt (lower), Saratoga National Historical Park, Battlefield Unit (Source: Snow and Wilkinson 1986 Figures 2 and 4).

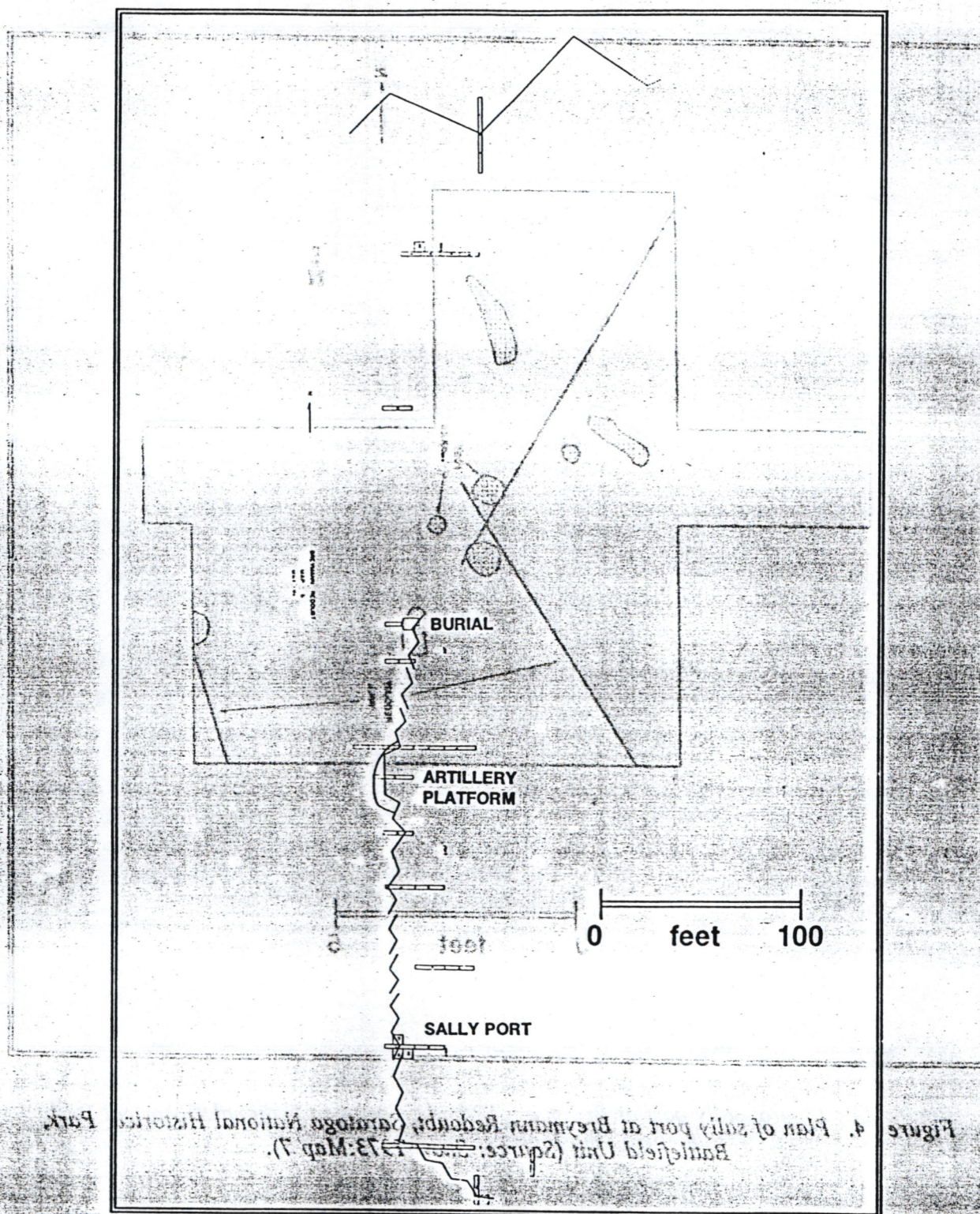


Figure 23. Plan of 1972 excavation units and features at Breymann Redoubt, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1973:Map 6).

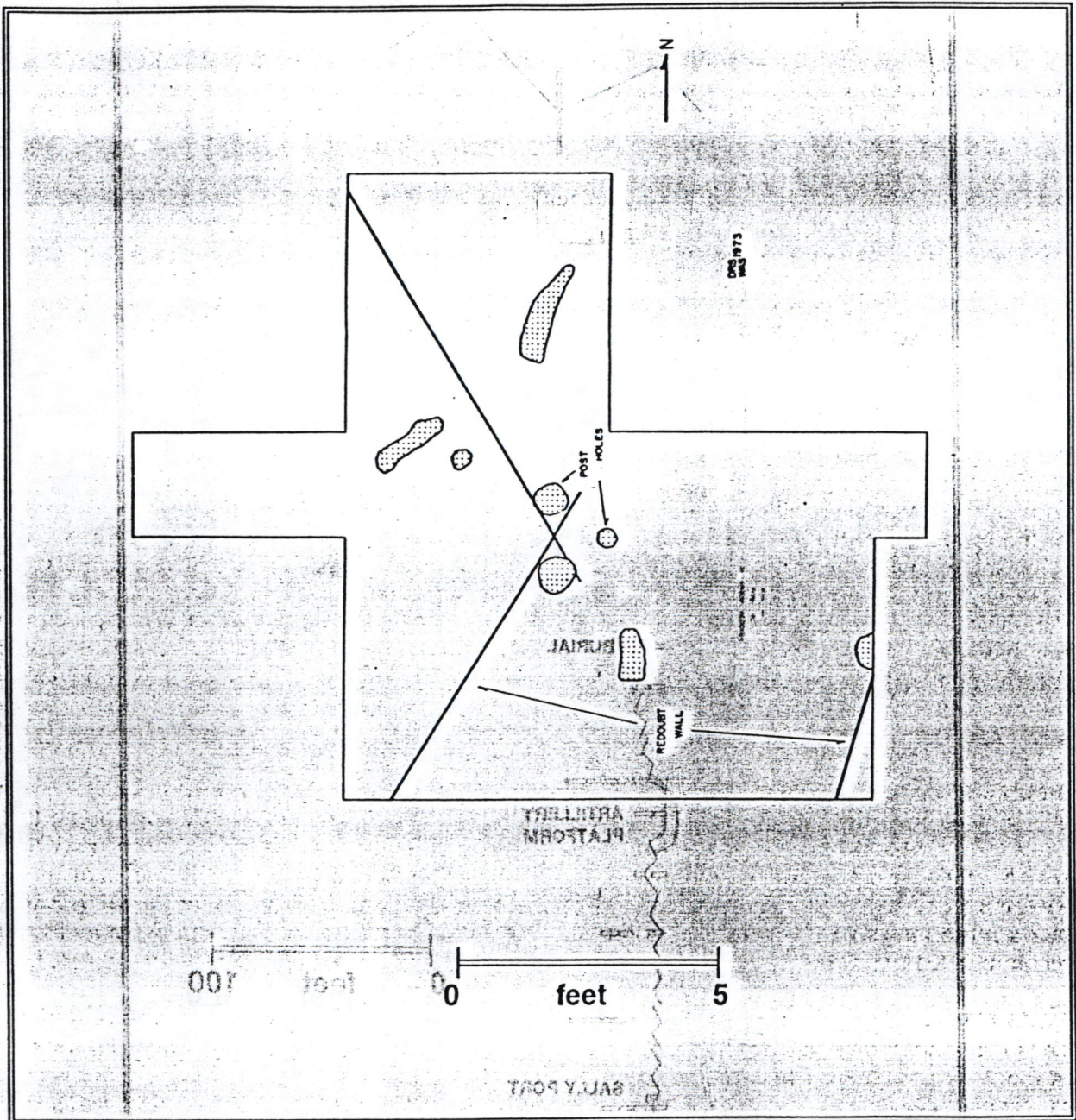


Figure 24. Plan of sally port at Breymann Redoubt, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1973:Map 7).

Figure 24. Plan of 1973 excavation units and features at Breymann Redoubt, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1973:Map 6).

Snow's projection of the location and alignment of the north outwork was based upon unspecified evidence observed in a single test trench (Figure 23:Units 1 and 2). The location and form of the northwest outwork indicated in Figure 23 was derived from Ehrich's sketches and Wilkinson's map (1777a). Snow appeared to have made no effort to test directly his reinterpretation of Ehrich's findings (Snow 1973:23-25).

Between the projected sites of the main fortification and the north outwork, Snow encountered a number of hearths and a quantity of camp refuse. He concluded that the refuse was a vestige of the German and Tory encampments (Snow 1973:24).

Two broad categories of historic period artifacts—glassware and ironware—were reported recovered in the Breymann Redoubt area. The only items specifically noted were several glass bottle fragments presumed to be from the British military occupation (Snow 1973:30).

III. Canadian Cabin (Figure 25): On the aerial photographs, Snow observed, south of the Breymann Redoubt, a rectangular outline produced by differential melting of the recent light snowfall. He reasoned that the most plausible explanation for this phenomenon was some patterned deviation from natural soil processes, and it might be an indirect expression of the presence of archeological remains. This area proved to be the easternmost of the two Canadian Cabins. Snow also detected what he thought to be traces of a Revolutionary War-period road. He further noted that the location of the rectangular outline relative to this road corresponded to that of the easternmost of two fortified cabins depicted by Wilkinson (1777a) (Snow 1973:25-26).

Test excavations exposed post molds, charred fragments, and patches of discolored soil. However, nothing corresponding to the outline detected from the photographs could be discerned. One post mold and a charred log were discovered to the south of the cabin site. Their location relative to the presumed cabin site, suggested that they might be remnants of a pentagonal fortification shown on Wilkinson's (1777a) map. No traces were found of a second cabin indicated by the map. Snow suggested that a former road may have obliterated them (Snow 1973:26-27).

RECOMMENDATIONS: Snow recommended that area around the southern wall of Balcarres Redoubt be investigated further. He also recommended additional investigation in the part of Breymann Redoubt between the projected sites of the main fortification and the north outwork, where evidence of German and Tory encampments was encountered. Noting that post-Revolutionary War period land use had made little impact upon this area, Snow recommended that a more intensive investigation of the encampments be undertaken. Beyond these areas, he recommended that future research focus on other parts of the battlefield (Snow 1973:24,32).

EVALUATION: The outlines of Balcarres and Breymann Redoubts and the easternmost of the two Canadian Cabins shown in Figures 19, 20, 23, and 25 represent the results of Snow's efforts to fit the Wilkinson map to the archeological evidence. It should be kept in mind that some features shown on these maps have been established on the basis of test excavation, soil-coring, and aerial reconnaissance; others were projected from Wilkinson's (1777a) map without benefit of archeological evidence.

I. Balcarres Redoubt: Snow secured sufficient physical evidence of Balcarres Redoubt to establish the general validity of Wilkinson's (1777a) representation of this complex fortification. Of the 1,168 square feet of surface area tested, all but 100 square feet were within the area that Ehrich had previously investigated. Within that area, Snow directed more attention to the western than to the eastern wall of the redoubt. Although within the framework of Snow's survey, such biased sampling was justifiable, one should nonetheless keep in mind that the results of his

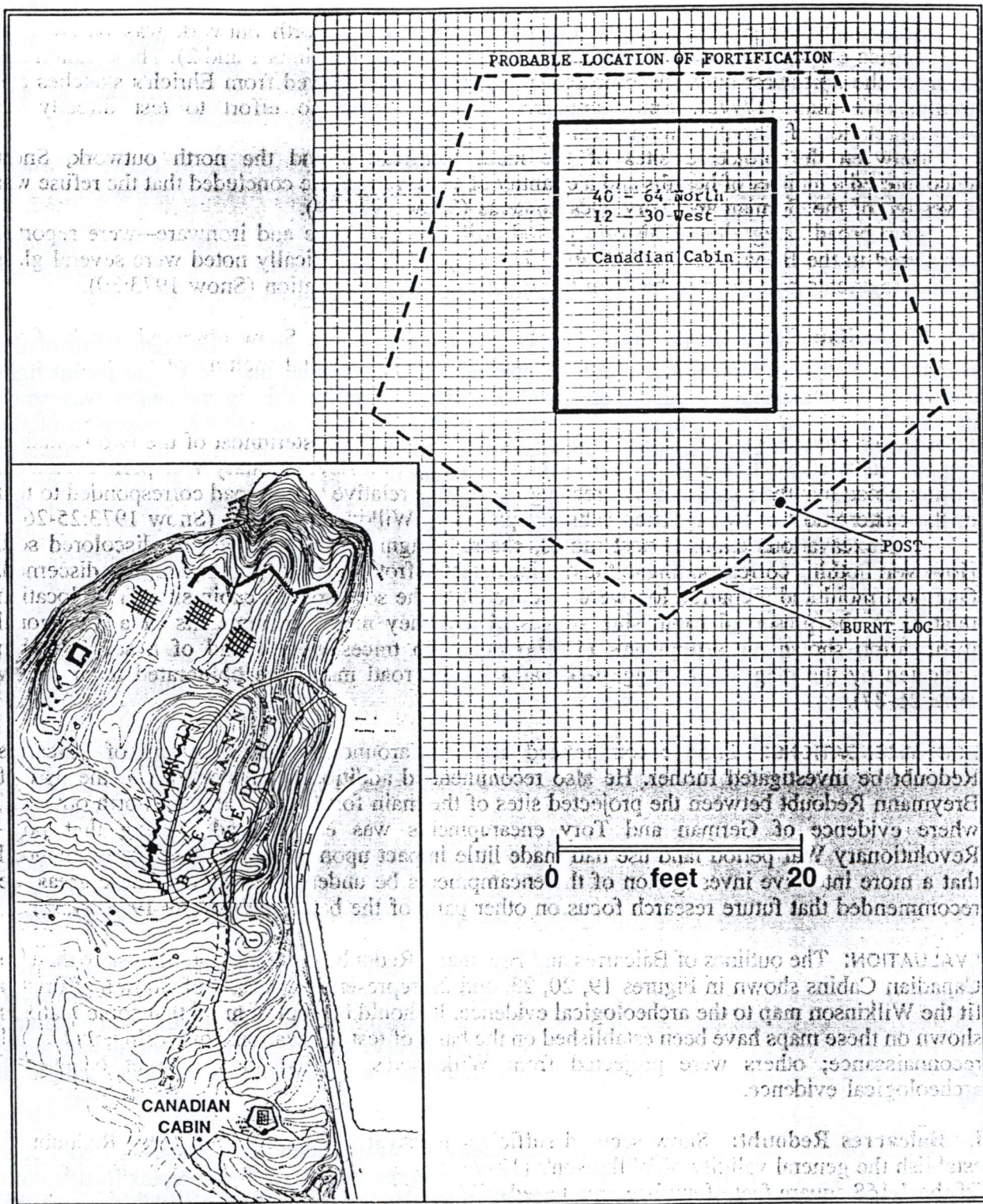


Figure 25. Location map and plan of Canadian Cabin, 1972, Saratoga National Historical Park, Battlefield Unit (Sources: Snow 1973:Map 8, 1977 Maps 4E and 5E).

investigation were products of biased sampling. In general, Snow's evidence of Balcarres Redoubt seemed to be generally consistent with Ehrich's previous findings.

Snow made no reference to Cotter's (1960) and Campbell's (1963) investigations at Freeman Farm. As previously noted, it is, at present, not possible to compare directly the results of Snow's investigations with those of Cotter and Campbell. If Snow's projected location of the Freeman Cabin lies outside the areas investigated by Cotter and Campbell, it may be worthwhile to resume the search for the site. If Snow's and Cotter's maps can be more precisely correlated, it may also be possible to evaluate more thoroughly Snow's suggestion that the barn foundation he observed was associated with the Revolutionary War-period Freeman Farm.

Although remote sensing techniques proved effective in Snow's research, his results, primarily in the vicinity of the reconstructed Freeman Cabin, also demonstrated the limitations of these techniques. In one instance, evidence of the fortification ditch and embankment was observed in a soil-core transect (Figure 19) where evidence from both aerial photography and magnetometer survey were negative. Within the area of the northern half of the redoubt, four anomalies detected by the magnetometer scanning proved to be nineteenth-century refuse deposits. In two of the cases, the refuse appeared to have been deposited in vestiges of fortification ditches (Snow 1973:17-20).

II. Breymann Redoubt: Snow apparently succeeded in establishing both location and the alignment of the main fortification. The observed postholes appeared to be in direct line with what Snow interpreted as an artillery platform. This alignment seemed to substantiate Snow's argument that the postholes were from the British military occupation. From the limited data presented in Snow's report, it is difficult to compare the posthole pattern Snow observed with the pattern expected from Wilkinson's (1777a) representation of this structure. The only area within which Snow indicated the observed locations of postholes was the area of the sally port (Figure 24). Snow's projection of the location and the alignment of the north outwork (Figure 23) was based upon evidence observed in one test trench. Although Snow argued that what he observed was consistent with Wilkinson's representation of this structure, within his single test trench he could not have observed more than a 2-foot segment of the structure. Given the limited amount of archeological evidence observed, Snow's projection of the location and alignment of this structure appears premature.

III. Canadian Cabins: Snow concluded that the results of his investigation at the site of the easternmost cabin provided sufficient basis for reconstructing both the cabin and the pentagonal fortification that surrounded it. He suggested that the second cabin might be reconstructed entirely from Wilkinson's representation (Snow 1973:27). The results of Snow's investigation provide little more than a blueprint for locating the reconstructions. Snow failed to define clearly the limits of his test excavations or to substantiate his conclusions with a more detailed description of the physical evidence. These deficiencies ought to be remedied whether the cabins are reconstructed or not.

Archeological Investigations of the American Line, the Great Redoubt and the Taylor House (1973)

The summer following his investigations of the Balcarres and Breymann Redoubts, Snow returned to Saratoga to investigate several other sites that, like the first two, had been investigated before in the 1940s (American Lines [Ehrich 1941a]) and 1950s (American Lines [Cotter 1957] and Great Redoubt [G. Ritchie 1958]). The Taylor House had never been investigated, although it was one of the areas recommended for testing by Ehrich (1943).

REPORT TITLE: Report on the Archeological Investigations of the American Line, the Great Redoubt and the Taylor House, Saratoga National Historical Park, 1973-1974. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Dean R. Snow

DATE OF REPORT: 1974

DATES OF FIELDWORK: Black-and-white aerial photographs were taken in March 1973. Field testing was conducted during a six-week period in June and July of 1973 (Snow 1974:1,4).

PROJECT GOALS: The project involved the examination of four areas:

I. American Lines, east flank (Blocks 13E, 13F, 14F, and 14G)

Snow's objective was to establish the location, alignment and construction of the American east flank fortifications between and to the east and west of points which Ehrich had previously established. Of particular interest were the portions of the lines between the river bluff at Bemis Heights and the Neilson Farm area (Snow 1974:4).

II. Great Redoubt (Blocks 5M, 6M, and 7M)

Here, the goal was to resume the search for the Fraser Grave Site and the archeological remains of the Great Redoubt. It appears that the central component of the Great Redoubt was investigated primarily to locate the Fraser Grave Site. Reconnaissance of the northern and southern components appears to have been of secondary concern.

III. Taylor House Site (Block 6N)

Another objective was to locate and sample the site of the Taylor House, one of the few discrete landmarks referenced in the literature concerning the death and burial of Brigadier General Fraser.

IV. Champlain Canal (Block 6N)

Observation of a limited stretch of the eighteenth-century Champlain Canal was incidental to work done at the Taylor House site.

METHODS: Investigations of the American east flank, the Great Redoubt and the Taylor House site consisted of background research, aerial photography, and subsurface sampling. For details of aerial photography procedures, see Snow (1973). Aerial photography and photogrammetric mapping were done by Mapping Services of Elnora, New York. Dr. Dwight T. Wallace served

as field director; the field crew consisted of twenty students enrolled in the SUNY Albany Archeological Field Training Program (Snow 1974:1-2).

The survey strategy proposed for these investigations was comparable to that which Snow had applied during his investigation of the British west flank (Snow 1973). Once field work had begun, specific procedural decisions were left to the discretion of the field director. Survey procedures employed during this investigation were described in considerably less detail in this report than in Snow's previous and subsequent reports. The type of coring instrument and soil core intervals were not reported. Excavation procedures were not described.

In the investigations of the American east flank, the subsurface sampling strategy was based upon the analysis of the aerial photography. Here, subsurface sampling was confined to six areas where anomalous surface features had been detected on aerial photographs. Systematic soil coring was reportedly done between the two artillery platforms. It appeared that selective soil corings and test excavations were applied elsewhere along the American east flank (Snow 1974:4-6).

The Great Redoubt could not be detected on aerial photographs; thus Snow projected the location of the Fraser Grave Site using bearings indicated in Johnson's (1834) Champlain Canal Survey Map. In an effort to locate the grave, sod and humus were stripped from the area Johnson had indicated as the grave site. Features exposed in this fashion were examined and recorded; a bulldozer was used to continue the search for deeply buried, subsurface evidence. Excavation proceeded in this fashion until undisturbed glaciolacustrine clay subsoil was reached. An area west of the projected location of the central component of the Great Redoubt was sampled by means of an unspecified number of soil core transects (Snow 1974:13-15,18-19).

The Taylor House Site was first detected on an aerial photograph. The field check confirmed a topographic depression noted on aerial photographs. This proved to be a partially filled house foundation. Two test trenches diagonally transected the foundation. Two 5 x 5-foot test pits were dug to further sample areas of relatively high artifact densities (Snow 1974:20).

RESULTS AND INTERPRETATIONS: I. American Lines, East Flank (Figure 26): Snow and his associates succeeded in reestablishing the locations of the seven test trenches that Ehrich (1941a) had dug to the east of the present tour road loop. They were able to approximate the locations of the two trenches Ehrich had dug within (west of) the tour road loop. In a number of instances they reported finding substantive evidence of fortifications where Ehrich had reported finding less-than-definitive evidence (Snow 1974:5).

On the basis of surface and subsurface evidence, two of six anomalies detected on aerial photographs were identified as artillery platforms (Figure 26). The zig-zag segment located immediately west of the eastern artillery platform was also detected on aerial photographs, but the results of subsurface sampling were negative. Efforts to identify vestiges of the American east flank fortifications between the two artillery platforms using soil samplers were complicated by the high clay content of the soil and the presence of features from the 1936 U.S. Army maneuvers, a problem that Ehrich had previously encountered (Snow 1974:5-7).

A fourth anomaly proved to be the lunette outwork which Ehrich had excavated and restored (Figure 26). Snow also reported possible remnants of fortifications to the southeast of the lunette, along the neck of high ground northeast of and parallel to the projected line of American east flank fortifications. This feature was not investigated further nor was it mapped (Snow 1974:4,9).

Results of the investigation of two anomalies noted within the present tour road loop appear to have been negative. Much of the area within the tour road loop had been extensively developed during the post-Revolutionary War period (Snow 1974:5).

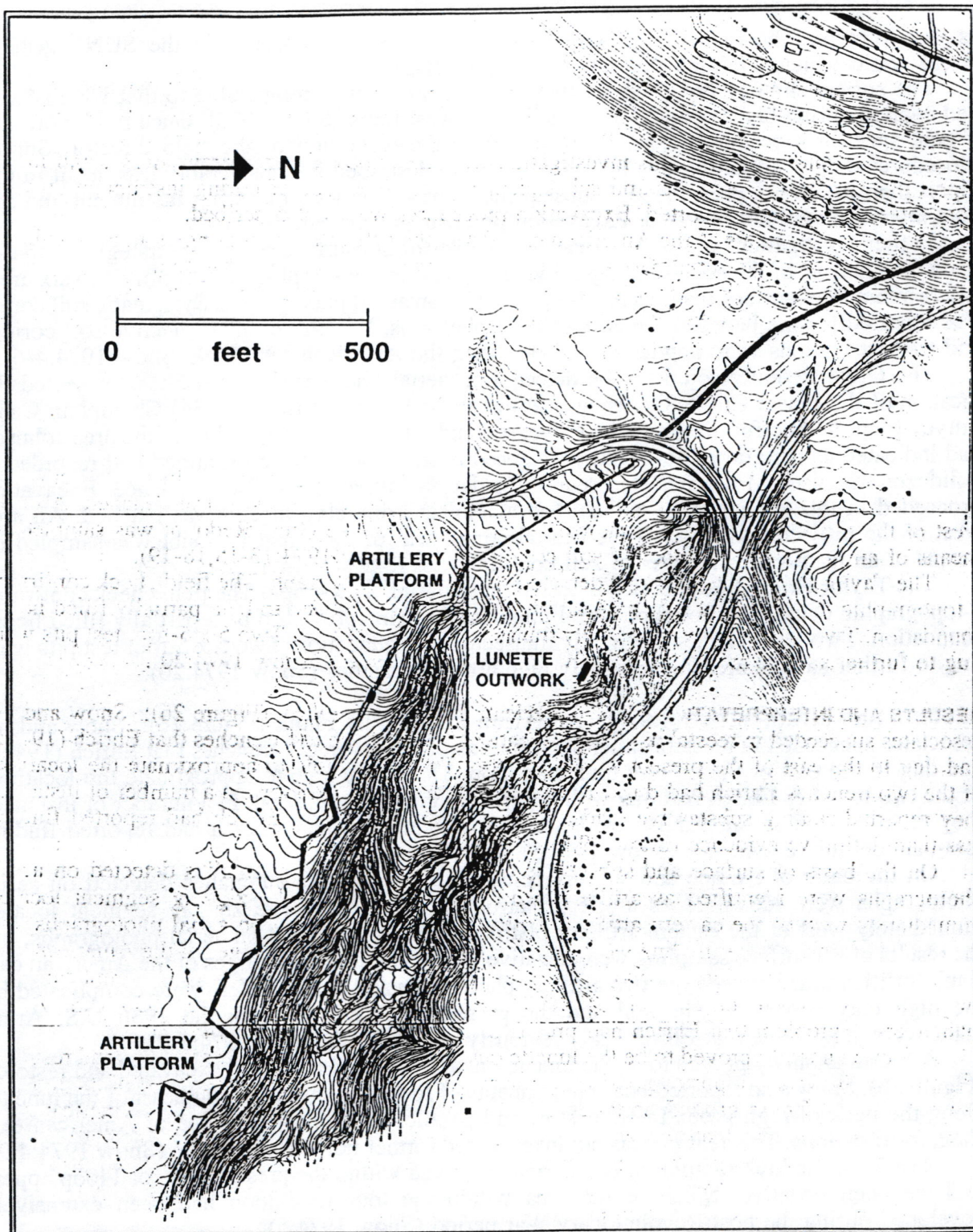


Figure 26. Known and projected plan of American lines, east flank, 1773, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1977:Maps 13E-F,14F-G).

Snow cited two reasons why the fortifications to the east of the eastern artillery platform did not show up on the low altitude photographs. First, Snell (1950a), suggested this stretch of the American east flank had consisted of an extensive abatis, a form of fortification unlikely to leave any surface evidence. Second, high-altitude aerial photographs (Tactical Air Command 1959) indicated this area had been recently logged (Snow 1974:7-8).

Very few artifacts were reported to have been recovered. One gunflint was recovered from the eastern artillery platform area, an unspecified number of nails were recovered from the western gun platform area. A quantity of "modern refuse" was reported recovered from both areas. Snow limited his discussion to artifacts that might have dated from the Revolutionary War period (Snow 1974:5).

The delineation of American east flank fortifications (Figure 26) was a composite representation of Snow's efforts to fit documentary sources (presumably, Neilson 1844 and possibly Putnam 1777) to archeological evidence. Noting that his surface and subsurface evidence seemed generally compatible with Ehrich's, Snow pointed out that the actual alignments of particular segments, especially in the vicinity of the two artillery emplacements, appeared to differ from those projected by Ehrich (Snow 1974:7).

Snow reported in sufficient detail to suggest that the Putnam and Neilson representations of the American east flank fortifications were highly diagrammatic. Putnam's representation of the American east flank fortifications appeared to be consistent with the archeological evidence. The precision with which Putnam represented a given segment of the American Line may have been a function of his familiarity with that segment. Colonel Putnam, an assistant military engineer, commanded a regiment of General Nixon's Brigade. Nixon's Brigade was stationed at the eastern end of the American east flank (Snell 1950a; Varick 1777). Snow (1977b:14G) placed Putnam to the east of the eastern gun platform, presumably for the duration of the American occupation of Bemis Heights. Thus Putnam's representation of American east flank fortifications east of the eastern gun platform should be the most reliable. Snow probably projected the alignment of this segment from Putnam's sketch.

Snell (1950a) postulated that rather than terminating at the western edge of the ravine, the American line jogged to the south paralleling the American river-overlook fortifications. Putnam's sketch did not indicate such a jog.

II. Great Redoubt (Figure 27): On aerial photographs of the area surrounding the projected sites of the Great Redoubt-south and the Great Redoubt-central, Snow noted a number of surface features which he attributed to the post-Revolutionary War period. These included two sand pits, a nineteenth-century access road (Snow 1977b:6M,7M) and a long, east-west trench excavated by Galen Ritchie in 1958. To the west of the projected site of the Great Redoubt-central, he noted a series of parallel north-south trending depressions. Neither soil cores nor test trenches yielded evidence that these depressions were vestiges of Revolutionary War period fortifications; thus Snow presumed them to have been related to subsequent agricultural land uses (Snow 1974:14,16,19).

At the projected site of the Great Redoubt-central a 3 x 6 x 3-foot pit was observed as sod and humus were being stripped (Snow 1977b:6M). The dimensions of the pit suggested a shallow grave, however, neither artifacts nor skeletal remains were recovered. Snow concluded that the pit was Brigadier General Simon Fraser's grave. In support of this conclusion, he cited long-standing local tradition (Luzader 1958b, 1958c) that Fraser's body was exhumed shortly after burial. Other features included an unspecified number of hearths and postmolds exposed by the bulldozer (Snow 1974:13-16).

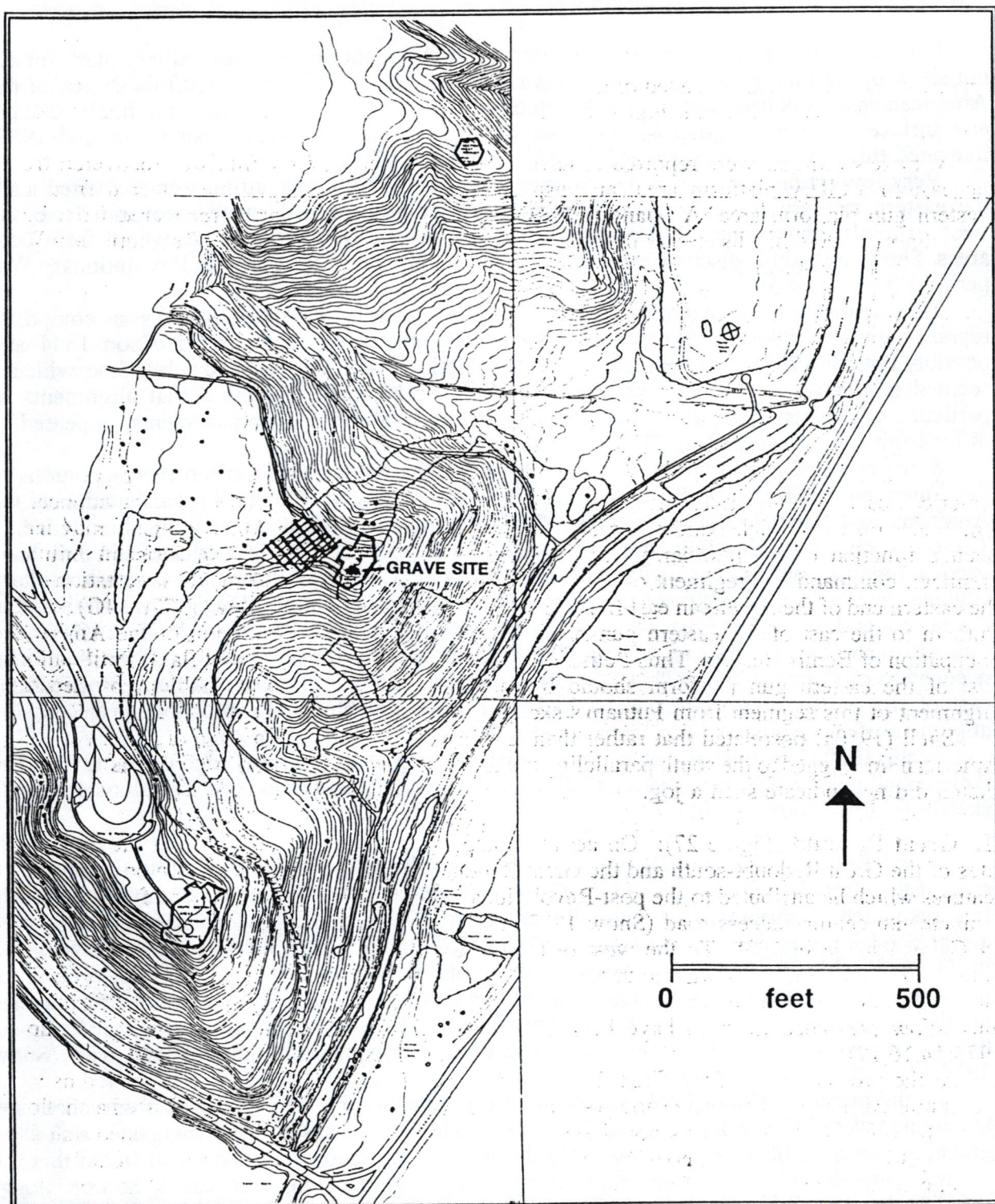


Figure 27. Known and projected location of fortifications and Fraser grave at the Great Redoubt, 1973, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1977:Maps 5M,6M-N,7M).

Snow's investigation of the northern and southern components of the Great Redoubt was limited to studying the aerial photographs. Surficial evidence was lacking for both components. The location and layout of all three components as indicated in Snow's maps were projections. Dimensions indicated were Snow's estimates of maximal dimension, based on Wilkinson (1777a) (Snow 1974:16-19).

Snow claimed that despite the lack of results, the Great Redoubt area did have considerable archeological potential. He based this interpretation on the absence of evidence of massive sand quarrying which would have destroyed the archeological remains of the fortifications, and the potential fit of the three small knolls or spurs with the structures depicted in the Wilkinson map (others had concluded that these knolls were too small) (Snow 1974:16-19). At the same time, however, he noted that the fortifications could easily have been above-ground log cribworks, and that "an empty grave and a dozen scattered hearths may well be the best archaeological evidence available in the Great Redoubt" (Snow 1974:19).

The only artifacts reported were an unspecified quantity of hand-wrought nails. They were recovered in the sod and humus levels (Snow 1974:14). Precise provenience of these items was not reported.

III. Taylor House Site (Figure 28): Relatively intact vestiges of a dry-laid stone foundation were observed at four points. Neither the dimensions of the foundation nor its depth below grade were reported. Large planks, possible vestiges of the cellar floor, were observed at an unspecified depth within the foundation. Snow interpreted the large quantity of bricks and brick fragments to be remnants of a fireplace and chimney, or possibly remnants of the above-grade portion of the house (Snow 1974:20,22).

Building debris, eight items of metal, an unspecified quantity of ball clay pipe fragments, and a large collection (1,580 sherds) of historic-period ceramics were recovered. Ceramics were analyzed to determine the period of occupation; 98.5 percent of the ceramics appeared to fall within the ca. 1740-1780 range (Snow 1974:21-23). From documentary evidence (Luzader 1958c), Snow determined the Taylor House site was occupied ca. 1760-1820.

IV. Champlain Canal: Snow (1974:23-25) reported observing relatively well-preserved remains of canal walls, tow paths, and at least one bridge abutment east of the Taylor House site.

RECOMMENDATIONS: Snow recommended that future archeological research should include the excavation of the two artillery platforms at the American Lines, preferably using a machine to strip the 4-6 inches of sod and humus, followed by hand excavation of the remaining overburden which would allow the recovery of artifacts and posthole patterns. Elsewhere in the general vicinity of the American lines, he recommended archeological searches for Gates' headquarters, the hospital, and Bemis' tavern. Finally, he made recommendations regarding interpretation of the American lines, specifically, the removal of trees that blocked the view between the eastern gun battery and the river bluff battery and the clearing of the central American line to open the approach to the bluff battery (Snow 1974:11-12).

Snow also recommended development of the Great Redoubt site without further archeological investigation. Reconstruction of the redoubt should be based on the Wilkinson map according to Snow's own estimate of the size range of the fortifications (Snow 1974:16,18).

For the Taylor House, Snow recommended complete excavation followed by restoration and, where needed, reconstruction. Snow also suggested that portions of the Champlain Canal within the Park boundaries be restored. He cited increased security as one possible benefit of the canal restoration (Snow 1974:23-25).

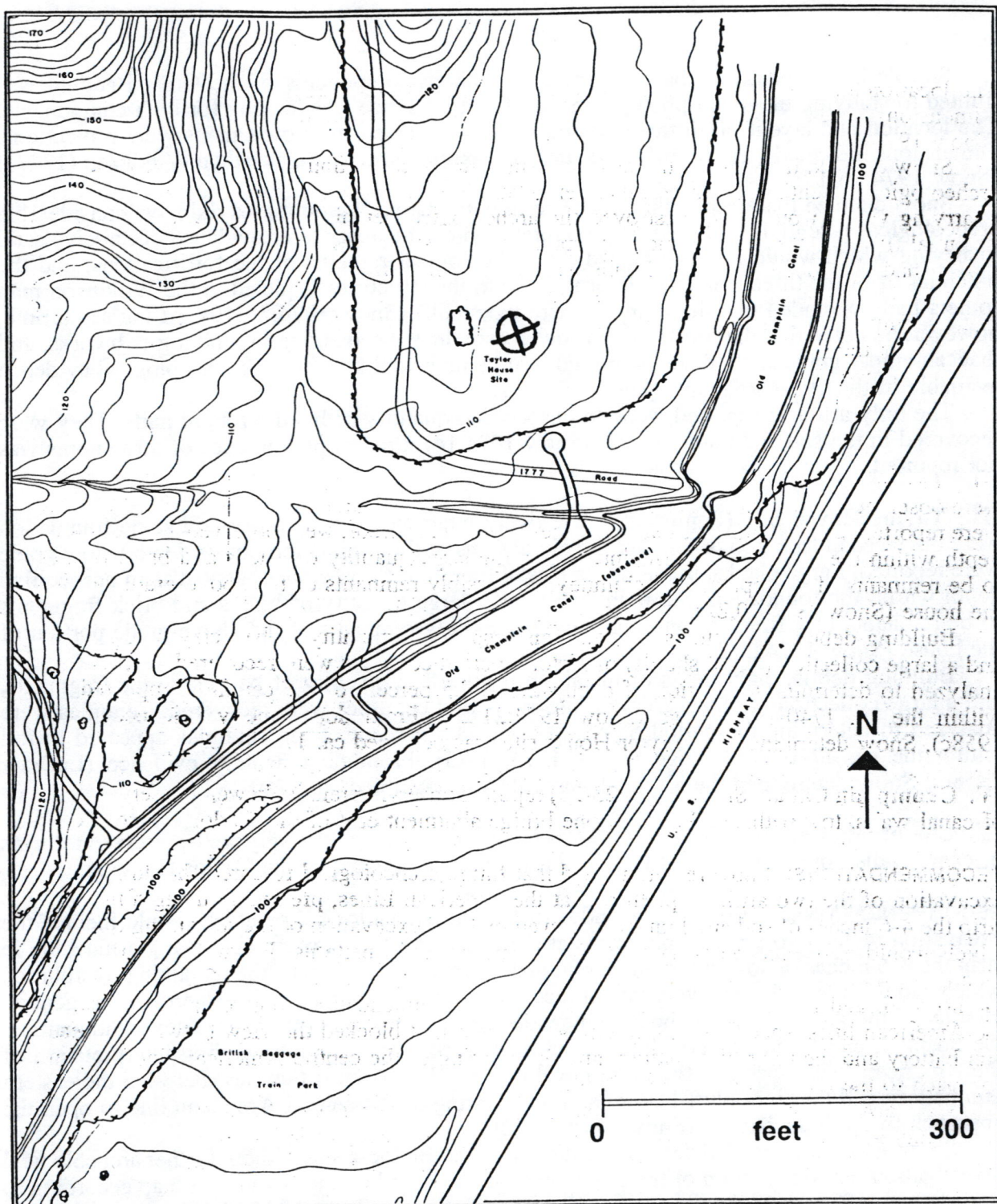


Figure 28. Location of Taylor House site, Saratoga National Historical Park, Battlefield Unit
(Source: Snow 1977:Map 6N).

EVALUATION: From data presented in Snow's report, it is impossible to make precise distinctions between what was observed and what was projected. Also it is not possible to determine if the small quantity of recovered Revolutionary War-period artifacts at the American east flank was a function of locations of excavation units, artifact recovery procedure, or low artifact density. Field notes and sketch maps may answer this question.

Snow marshalled considerable historical evidence to formulate a cogent argument that the 3 x 6 x 3-foot pit was the empty grave of Brigadier General Simon Fraser. However, the location and layout of the Great Redoubt-central could not be established because evidence was absent or excavation units were placed in the wrong locations. The excavation procedure provided an adequate means of assessing the occurrence and distribution of subsurface features (e.g., pits, postmolds, hearths). However, the procedure did not maximize artifact recovery, or record artifact provenience with great precision. Snow noted the possibility that components of the Great Redoubt were constructed entirely above grade. If so, patterns of artifact distribution might have constituted the only surviving evidence of the location and layout of these structures.

One critical point in Snow's observations at the projected site of the Great Redoubt-central was his contention that the landform on which this fortification was constructed had not been substantially altered during the post-Revolutionary War period. Of the two land modifying processes which could have had measurable effects—erosion and sand quarrying—Snow chose to address the latter. He reported that in the vicinity of the Great Redoubt, nineteenth-century sand quarrying had been of modest rather than massive scale (e.g., the two small sand pits noted above), and that at the projected site of the Great Redoubt-central an absence of any surficial evidence of quarrying and the presence of subsurface features (the pit, hearths, post-molds) would seem to preclude quarrying. However, none of the features observed could be positively dated to the Revolutionary War period.

Of the two land modifying processes, sand-quarrying would be the most readily detectable. Over a short time period the localized effects of erosion can be readily observed, the long-term effects need not be readily apparent. Whether erosion might have consumed the archeological remains of the Great Redoubt may be better answered by an engineering geologist working with an archeologist than by an archeologist alone.

Snow's identification of the Taylor House site provides a known point for projecting the location of the Great Redoubt-north as the most probable location of the Fraser grave site. Baroness von Riedesel witnessed Fraser's death and the funeral ceremony. She reported that Fraser was buried behind the house where he died (i.e., Taylor House [Luzader 1958c]). The north component of the Great Redoubt was the only component which seems to fit her description. This component had yet to be adequately surveyed.

The identification of the Taylor House site is very convincing. Available historical evidence showed that no other house ever stood within this area. The temporal range of the ceramics recovered provided sufficient basis for linking this house site with the period during which the Taylor House is known to have been occupied. Furthermore, the location of the house site relative to traces of a former access road are quite consistent with Wilkinson's (1777a) map.

The only possible alternative explanation might be that the foundation was instead the foundation of a Taylor outbuilding. Wilkinson (1777a) indicated that at the time of the British occupation, the farm consisted of three structures north and east of the road. Presumably, one of the three was the Taylor House and two were outbuildings. Wilkinson's map did not indicate which was which.

Snow (1974:23) reported that the site was one of a very few relatively undisturbed late eighteenth- early nineteenth century domestic sites in the upper Hudson Valley. This site has been protected under provisions of the National Historical Preservation Act.

Snow's investigation clearly suggested that the Taylor House site may be of exceptional significance. The association of the house with one of the more celebrated events of the

Burgoyne Campaign establishes its national significance. The exceptional scientific value is a bit more subtle. The site appears to be relatively undisturbed, and Snow's report suggests that this site may prove particularly well suited for study of local and regional economic processes.

Although the house appears to have been occupied from ca. 1760-1820, nearly all of the recovered ceramics were manufactured between 1740 and 1780. Three possible explanations for this apparent incongruity might be: (1) sampling bias; (2) idiosyncratic behavior on the part of the Taylors; and (3) the location of the Taylor House relative to the main arteries of the marketing system.

With the exception of the test pits and test trenches dug at the Taylor House Site, neither the location, numbers, nor dimensions of excavation units were adequately reported. The manner in which test pits and test trenches were dug could not be determined.

Archeological Investigations and Excavations at the Neilson Farm, American River Fortifications, British Lines between Balcarres Redoubt and the Great Redoubt, Balcarres Redoubt, and the Tory Camp at Breymann Redoubt (1974-1975)

During the summers of 1974 and 1975, Dean Snow again directed excavations in various parts of the Saratoga Battlefield Unit. In these two years his team of experienced archeologists affiliated with SUNY Albany explored some areas that had been initially tested in earlier decades (e.g., Neilson Farm), other areas that he himself had investigated earlier in the 1970s (e.g., Balcarres Redoubt), and some areas that had not yet been tested archeologically (e.g., British Lines between Balcarres Redoubt and the Great Redoubt).

REPORT TITLE: *Report on Archaeological Investigations and Excavations of Revolutionary Sites, Saratoga National Historical Park, New York, 1974-1975.* State University of New York, Albany. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Stuart A. Reeve and Dean R. Snow

DATE OF REPORT: 1975

DATES OF FIELDWORK: Fieldwork was conducted between June 16 and August 9, 1974. Some additional work was conducted in the fall (Reeve and Snow 1975:1). More specific dates for each area are given in the following table:

Table 3

Dates of Fieldwork for Investigations of Saratoga Battlefield Unit Sites, 1974 (Source: Reeve and Snow 1975)

| <u>AREA</u> | <u>DATES OF FIELDWORK</u> |
|---|---|
| Neilson Farm | June 17-June 21 (Reeve and Snow 1975:6). |
| American River Fortifications | June 24- July 6 (Reeve and Snow 1975:17) |
| British lines between Balcarres Redoubt and the Great Redoubt | July 8-July 23 (Reeve and Snow 1975:29) |
| Balcarres Redoubt | July 24-July 30 (Reeve and Snow 1975:52)* |
| Tory Camp at Breymann Redoubt | July 31-August 9 (Reeve and Snow 1975:62) |

*The report states that the investigations at Balcarres Redoubt took place June 24-June 30. This appears to be an error.

PROJECT GOALS: The project focused on five areas. In general, the project objectives included identifying features, increasing understanding of preservation conditions within the Battlefield Unit, and formulating priorities for future archeological research (Reeve and Snow 1975:1). At each of the five areas, the investigations also had specific goals. These are summarized in the following table:

Table 4
Project Goals for Investigations of Saratoga Battlefield Unit Sites,
1974 (Source: Reeve and Snow 1975)

| <u>AREA</u> | <u>GOALS</u> |
|--|---|
| Neilson Farm
(American lines,
west flank) | Locate fortifications and Revolutionary-period road; assess archeological potential and impacts of later cultivation and construction on archeological resources (Reeve and Snow 1975:6). |
| American River
Fortifications
(American lines,
east flank) | Verify accuracy of contemporary accounts, especially Col. Rufus Putnam's 1777 map; assess archeological potential and impacts of later cultivation and construction on archeological resources (Reeve and Snow 1975:17). |
| British Lines
between Balcarres
Redoubt and the
Great Redoubt | Locate points along the British line to guide an artistic reconstruction for a display (Reeve and Snow 1975:29). |
| Balcarres Redoubt | Test and elaborate on Ehrich's (1941a) and Snow's (1973) reconstructions showing four artillery emplacements at the south end of the redoubt, which was a double wall with three entry points in the interior wall (Reeve and Snow 1975:52-53). |
| The Tory Camp at
Breymann Redoubt | Begin describing the form of the camp and aspects of camp life (Reeve and Snow 1975:62). |

METHODS: Since goals differed among the different areas investigated, so did methods of investigation. In general, large-scale, rapid survey techniques such as aerial photography and "soil samplers" (soil coring) were used to locate and identify the Park's large, shallow, widely scattered, and variably preserved archeological resources. Aerial photography, including photographs taken in different years and at different times of year, as well as infra-red photography, continued to be a useful tool in locating archeological features. Differential plant growth and species distributions as indicated in aerial photographs were often accurate indicators of archeological features (Reeve and Snow 1975:1-2).

"Soil samplers" were soil cores 15 inches long and 3/4-inch diameter. These were used extensively to recover, plot, and compare stratigraphic profiles over large areas. Cores were taken systematically using grids or transects with varying intervals. Although the method was difficult in areas with stones, droughty soils, or clay hardpans, it was deemed especially valuable in the Saratoga situation because of its speed and the single-component nature of the sites under investigation (Reeve and Snow 1975:4).

Excavations were used sparingly in this project because they were time consuming and expensive. For large features such as fortifications, systematic soil coring was considered an adequate search technique. For locating and identifying more subtle features, such as post molds, post-mold patterns, or other features associated with camp sites, excavation was necessary (Reeve and Snow 1975:5).

Neilson Farm: Documentary sources regarding the American fortifications here (on the American left or western flank) are very vague and somewhat contradictory as to the locations, extensiveness, and kinds of fortifications, and whether or not there were entrenchments and/or breastworks. The authors suggested that after the battle, any remaining fortifications would have been dismantled so that farming could resume unimpeded by breastworks or trenches (Reeve and Snow 1975:6-9).

Aerial photographs were also examined for clues to the locations of Revolutionary-period and more recent features. Several areas were investigated with soil cores and excavation units. A baseline was extended from the Neilson House to the northeast. From a point located 300 feet northeast of the Neilson House three transects of cores were taken in three directions at two-foot intervals. Some randomly placed cores were also taken. Another series of soil cores was taken along a 100-foot transect extending east from a point 375 feet northeast of the house. Two 10 x 2-foot trenches were excavated where the base line intersected two field lines (at approximately 400 feet northeast of the house). East of the house, a 20 x 2-foot trench was excavated and some short soil core transects were taken through a series of rodent burrows, which were known to have sometimes been associated with subsurface features (Reeve and Snow 1975:9-12).

A second baseline was laid out between the blockhouse and the former park headquarters building, parallel to and east of the trench excavated by Moore in 1961. A soil core transect was laid out running east from the base line, 100 feet south of the block house with the goal of intercepting a Revolutionary-period road that ran east of the Neilson House. Below the terraced slope east of the Neilson House a small 5 x 2-foot trench (Trench 3) was excavated and two soil core transects were taken in order to provide information on the distribution of artifacts around the house site (Reeve and Snow 1975:13).

American River Fortifications: Documentary sources here were contradictory as to the number of fortification structures and the relative size and importance of each. The area consists of six knolls located along the bluff overlooking the Hudson River lowland. These were designated Knoll #1- Knoll #6 (from north to south) and a 1,360-foot baseline was laid out that intersected the crest of each knoll, with its north end near the base of the reconstructed North Redan. Aerial photographs were examined for signs of old fortifications (Reeve and Snow 1975:17-20).

East-west transects of soil cores were taken along Knolls #1 through #4. Cores were taken at 2-foot intervals to a depth of 15 inches. An east-west 10 x 2-foot trench was excavated along Knoll #4 where a layer of ash, charcoal and reddened sand had been noted in soil cores. West of the baseline at Knoll #4, random soil sampling was conducted in order to intercept and explore a dark area noticed on the aerial photograph. This was further explored with two trenches (one at each end of the feature) and six soil core transects (Reeve and Snow 1975:21-23).

Soil cores, including two transects, were also taken at Knoll #5 and across Knoll #6. South of here, at the purported location on the South Redan, a second baseline was established from which four soil core transects were taken in order to intersect the east edge of the bluff (Reeve and Snow 1975:23-25).

British Lines between Balcarres Redoubt and the Great Redoubt: In this area, Wilkinson's (1777a) map was used as a guide to the features that might be found. Aerial photographs proved less useful here because full low-level coverage was lacking. Local informants also provided valuable information about the nature of features, recent disturbance,

and past findings of artifacts. The area was subdivided into three sections in order to test for feature locations projected from Wilkinson's map (Reeve and Snow 1975:29).

Investigations began at the projected location of Burgoyne's Headquarters (Block 7J), where random soil cores were taken in search of stratigraphic anomalies that might indicate the site of the headquarters. Two fortified knolls indicated on Wilkinson's map near the headquarters were tentatively identified in the field and were tested with transects of soil cores. A low-lying area west of the knolls was tested with random soil cores. Evidence of burning found in the cores led the archeologists to excavate three trenches to investigate this area further (Reeve and Snow 1975:30-31).

At the eastern flank of the British lines, Wilkinson's map again was used to project the locations of features which were then searched for using excavation trenches. Aerial photographs provided information regarding past land use and the likelihood of feature preservation (Reeve and Snow 1975:34).

Approximately 500 yards southeast of the projected location of Burgoyne's headquarters, a fortified hill and adjacent knoll, which, according to Wilkinson (1777a) had been occupied by the Specht Brunswicker Battalion, were examined using aerial photographs, surface walkover, and unspecified excavations. From here, the British lines extended east towards the bluffs overlooking the Hudson. In this area four trenches were excavated in order to locate the British line, occupied by the Hanau Artillery, the von Rhetz Regiment, and the von Specht Regiments (Reeve and Snow 1975:33-35).

The western segment of the British line was investigated by first examining aerial photos for areas where post-Revolutionary cultivation had been minimal and where surface anomalies suggested the presence of old fortifications. An area known as the "Old Woods" was selected for testing because it had been less intensively cultivated than the surrounding open fields. Here, remains of the British line were visible on the surface. Subsurface testing consisted of three narrow (1 foot wide) trenches that intercepted the fortifications and from which profiles were taken. One of these (Trench #3) was expanded when remains of a log platform were encountered. Soil cores were taken at various points on either side of the fortification and within the exposed log platform feature as a way of recording the soil profile beneath it (Reeve and Snow 1975:38-43).

Investigations of features in nearby fields employed soil coring, and possibly excavation, as well as surface inspection. These procedures were not described in detail (Reeve and Snow 1975:45-49).

Balcarres Redoubt: Testing was confined to the south end of the redoubt. Nine 2-foot wide trenches, ranging from 12 to 20 feet in length, were excavated to subsurface clay layers which were very difficult to dig through and which seemed unlikely to yield artifacts or features in any case. Excavation, rather than soil coring, was undertaken here in order to reveal patterns of postholes such as would indicate the location and configuration of the artillery emplacements (Reeve and Snow 1975:52-53).

Near the reconstructed "Bloody Knoll" fortification was a well, known as the "Battle Well," which was cleaned out and investigated in order to determine whether it in fact was affiliated with the battle and whether it contained Revolutionary-period artifacts. The great quantities of silt which filled the well were screened for artifacts (Reeve and Snow 1975:61).

The Tory Camp at Breymann Redoubt: This area was tested with twenty 5 x 5-foot excavation squares in order to recover features such as hearths, tent-peg holes, and artifact clusters. When it became clear that all artifacts were to be found at the sod-subsoil interface, excavation was replaced by cutting the sod back, beating it, and clearing the floor. Metal detectors were used over the entire site to locate and recover clusters of metal artifacts. Recovery of metal objects was estimated at close to 100 percent. In addition, soil cores were taken at

higher elevations, where tent sites were more likely to have been situated, in search of charcoal or reddened soils (Reeve and Snow 1975:63).

RESULTS AND INTERPRETATIONS: Neilson Farm: Aerial photographs of the Neilson Farm showed several Park-related features such as an old parking lot, but no Revolutionary-period features. Several east-west field lines were observed. These were thought to postdate the battle. No discontinuities, such as might have been caused by the presence of a Revolutionary-period road, were observed (Reeve and Snow 1975:9-10).

Soil cores taken north of the Neilson House revealed little evidence of disturbance beyond the old parking lot, but revealed no features either. Neither did the trenches excavated at the intersection of the field lines or in the area of rodent burrows (Reeve and Snow 1975:10-12).

The east-west soil core transect that was intended to discover traces of the Revolutionary-period road east of the Neilson House yielded no evidence of such a feature. Trench 3 yielded a large number of early nineteenth to twentieth-century artifacts and was assumed to have encountered a portion of the house midden. The midden appeared to exhibit some stratification with evidence of changes in material culture from one stratum to the next. The midden area appeared to extend approximately 100 feet north-south along the base of the terraced slope, and approximately 30 feet east-west (Figure 29) (Reeve and Snow 1975:13-16).

In general, the results of the archeological research at the Neilson House were disappointing. No certain evidence of the reported fortifications or the old road was encountered. At the same time, the authors admitted they were unable to refute documented descriptions of "Fort Neilson" and the American fortifications in this area. The crest of the ridge extending northeast from the Neilson house was judged to "have been totally disrupted, with very poor potential for preservation" (Reeve and Snow 1975:13). The extensive Neilson House midden was also judged to have little potential for informing about the Revolutionary era. Because the house was occupied for only two years before the battle, only a very small portion of the midden would be associated with that period (Reeve and Snow 1975:15).

American River Fortifications: Aerial photographs showed a dark streak of lush vegetation oriented east-west between Knolls #3 and #4. This vegetational difference was caused by a series of trenches (Feature #1). These trenches provided the most convincing evidence for the accuracy of Putnam's map. West of the baseline on Knoll #4, soil cores revealed an abrupt drop in the level of topsoil with charcoal, ash, and decayed wood at the topsoil-subsoil interface. This feature proved to represent a series of contiguous trenches designated Feature #1. Feature #1 began 60 feet east of the ravine that divided Knolls #4-#6 from the American lines to the west. From here, the fortification ran about 200 feet east. After a 5-foot gap, the line turned northeast for another 200 feet, then ran east along the northern edge of the knoll (Figure 30). Test excavations revealed an entrenchment at least 7 feet wide and containing some well-preserved pieces of wood, two of which displayed axe-cut and sharpened bases. This was interpreted as reflecting a complex earthwork. A Madison style projectile point of grey chert, found in the eastern end of the feature, was the only military-related artifact recovered (Reeve and Snow 1975:20-27).

On Knoll #5, a second entrenchment feature, similar to Feature #1 was encountered. This was designated Feature #2 (Figure 30). It was much smaller than Feature #1, measuring 2-5 feet wide and containing similar mottled fill, charcoal, and ash. Feature #2 appeared to have been disturbed by cultivation so that its northern and southern ends could not be distinguished (Reeve and Snow 1975:24).

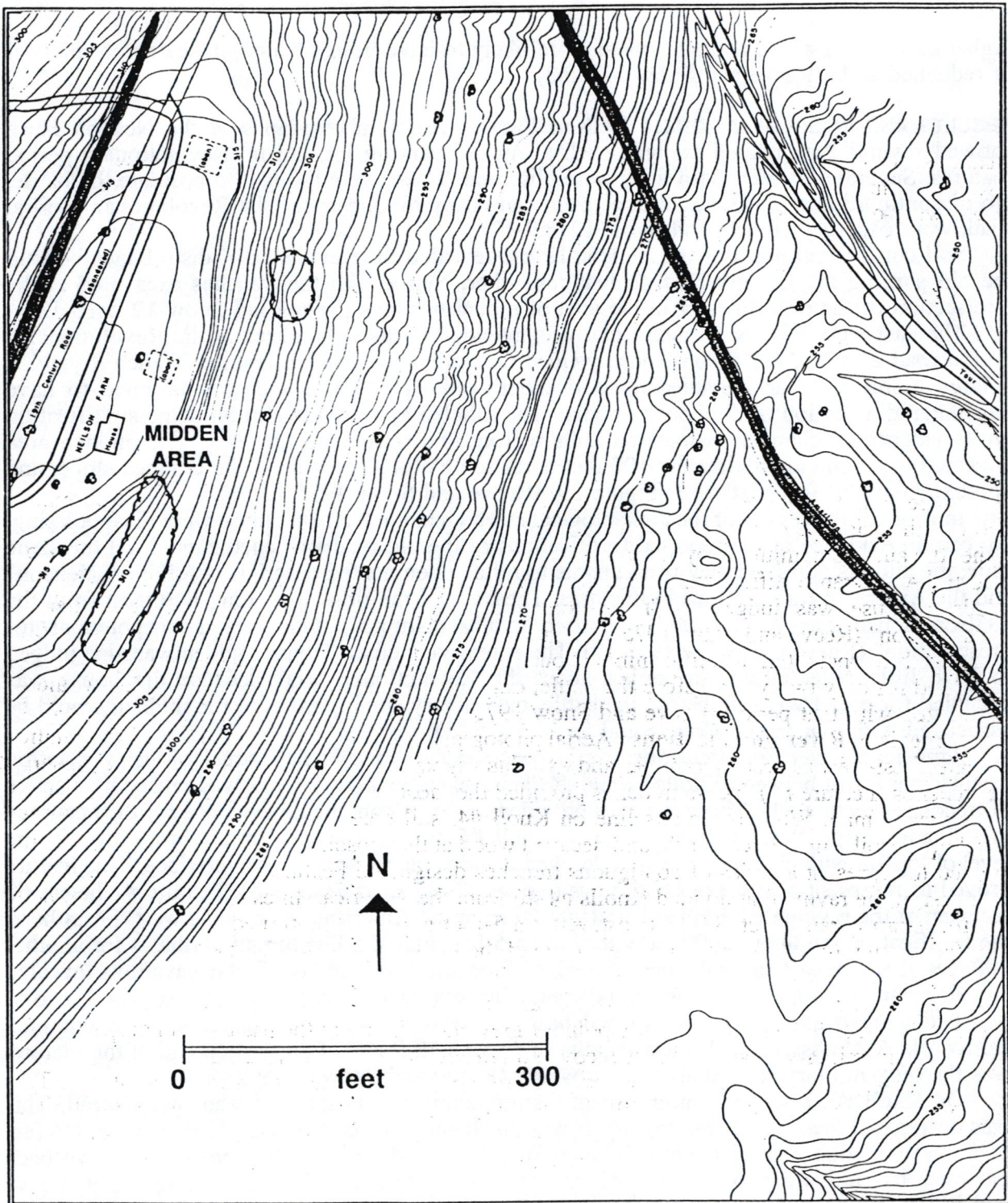


Figure 29. Neilson House area showing location of midden, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1977:Map 13E).

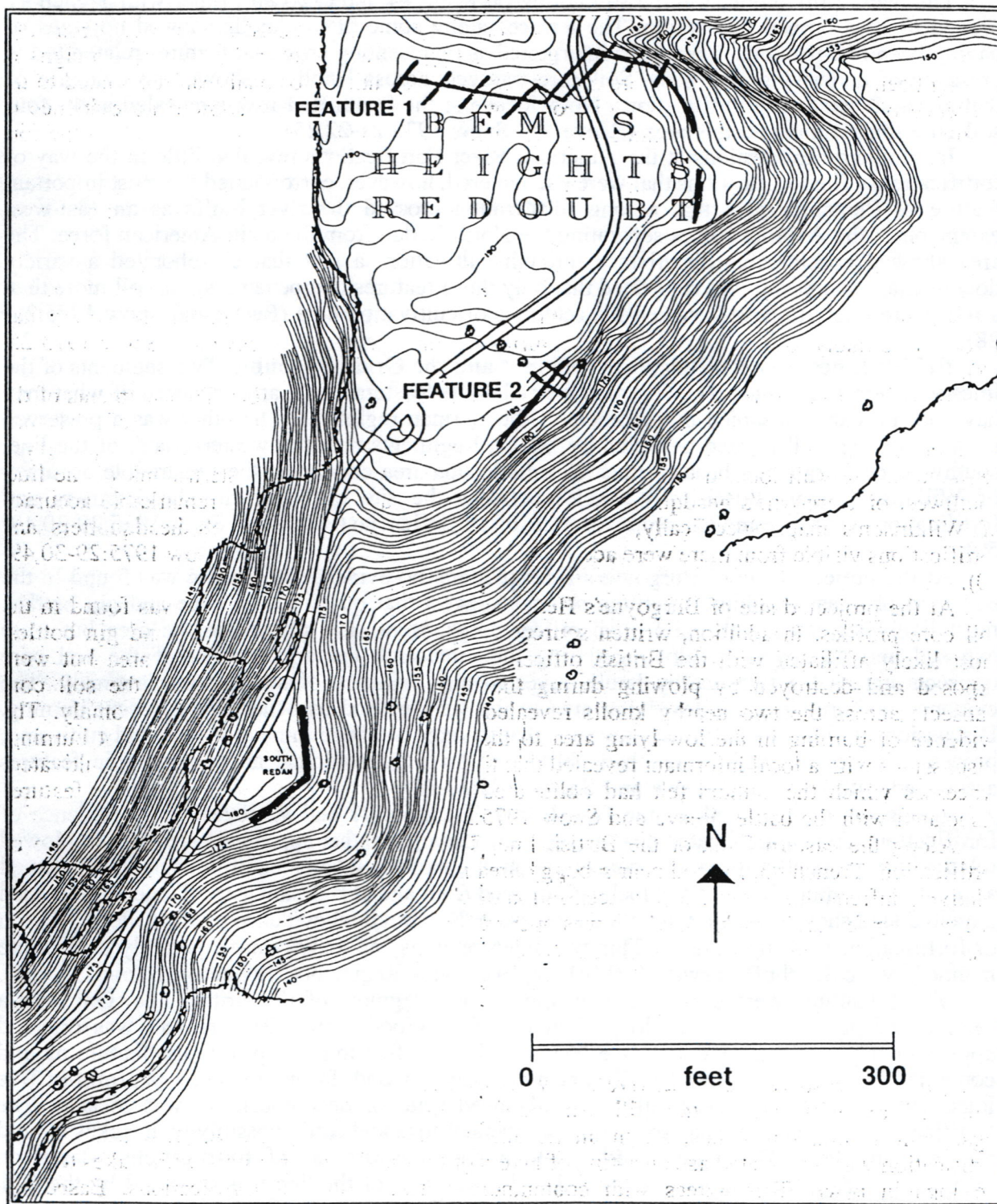


Figure 30. American river lines area showing location of Features 1 and 2, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1977:Map 15H).

The feature first noticed in the soil coring on Knoll #4 and exposed further with Trench #1 proved to be a burned tree stump. The terraces along some of the knolls showed no signs of having been fortifications. They were interpreted as representing erosional features related to the presence of underlying clay beds. Soil core transects across Knoll #6 showed no evidence of features associated with fortifications. No evidence of the South Redan was revealed in the four soil core transects across this area (Reeve and Snow 1975:21-22,25).

In summary, excavations at the American River Fortifications revealed little in the way of fortifications. The fortifications that were encountered, however, corroborated the most important feature of Putnam's map: that a long fortification crossed the river bluffs as an east-west extension of the American lines separating the North Redan from the main American force. The area showed considerable disturbance through cultivation, a fact that corroborated a variety of documentary sources. It was suggested that only those features that penetrated the soil more than a foot were likely to have survived the centuries of cultivation here (Reeve and Snow 1975:25-28).

British Lines between Balcarres Redoubt and the Great Redoubt: Two segments of the lines were located (Figure 31). One was located on the eastern flank, and consisted of what may have been a camp occupied by members of the German regiments. The other was a preserved segment of log wall located occupied by British Regiments near the western flank of the line, southwest of Burgoyne's headquarters. Results in this area confirmed the remarkable accuracy of Wilkinson's map. Specifically, angles between the site of Burgoyne's headquarters and fortifications visible from there were accurate, distances less so (Reeve and Snow 1975:29-30,49-50).

At the projected site of Burgoyne's Headquarters, no evidence of the site was found in the soil core profiles. In addition, written sources suggest that quantities of wine and gin bottles, most likely affiliated with the British officer corps, were once present in the area but were exposed and destroyed by plowing during the nineteenth century. Neither of the soil core transects across the two nearby knolls revealed any evidence of stratigraphic anomaly. The evidence of burning in the low-lying area to the west proved associated with recent burning. Discussions with a local informant revealed that the area had been mined for sand and cultivated, processes which the authors felt had obliterated both archeological and topographic features associated with the battle (Reeve and Snow 1975:30-32).

Along the eastern flank of the British line, Trenches #1 and #2 revealed no evidence of fortification. Trench #3, located near a boggy area in a place that appeared to have been plowed relatively infrequently, revealed a concentration of charcoal and an area of reddened soil, as well as a cut deer femur. Trench #4, which was opened from and at right angles to Trench #3, yielded a melted lead shot in association with the red stain. No structural evidence of an artillery position or fortification was encountered. This was interpreted as "an activity area, possibly a campsite manned by the Specht Brunswick [or] [Rhetz] Brunswick Regiments" (Reeve and Snow 1975:36).

Three features were encountered in the western segment of the British line. One was a segment of preserved log wall located in the "Old Woods" area. This feature was oriented approximately east-west and was five feet wide by 260 feet long. In profile the feature mound contained layers of sand, mottled fill, ash and decayed wood. In one trench, a platform of five logs, with several cut stakes, all in an advanced state of decomposition, was located. The fortification was interpreted as consisting of layers of logs and earth, possibly with stakes to hold the logs in place. This agrees with contemporary descriptions of fortifications. Based on Wilkinson's map, the authors estimated that this segment of the line was occupied by the 62d, 9th, and 21st regiments (Reeve and Snow 1975:38-43).

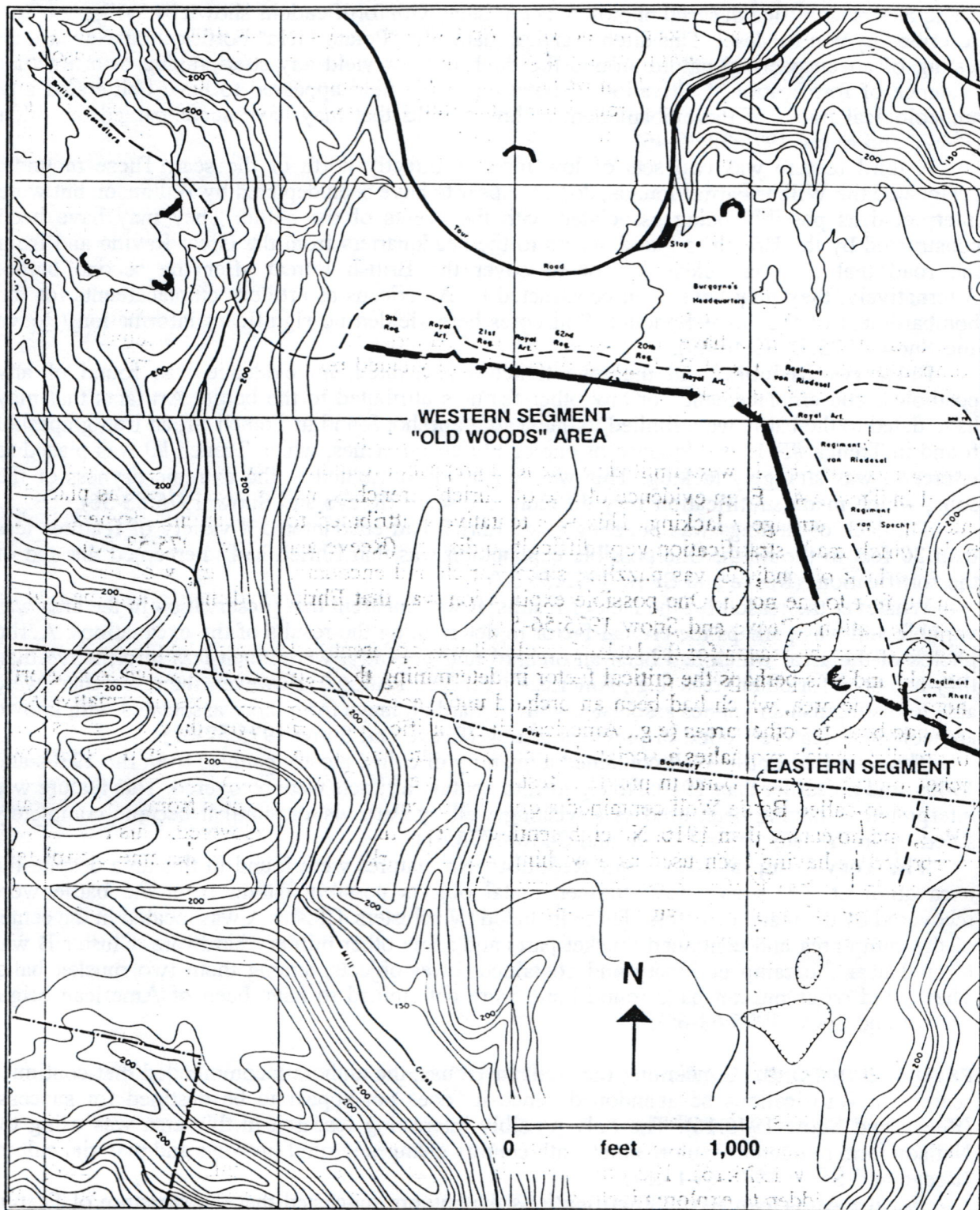


Figure 31. British lines showing locations of segments discovered in 1974 excavations, Saratoga National Historical Park, Battlefield Unit (Source: Snow 1977: Maps 8K, 9K, 7I).

Another feature was a scar in the field west of the projected location of the Burgoyne headquarters identified in aerial photos and consistent with fortifications shown by Wilkinson and described by von Riedesel. This ditch was designated the "Potato Field" Fortification. Subsurface testing of an unspecified nature around the ditch did not yield any stratigraphic or artifactual evidence of fortification. Cultivation of potatoes in the field appeared to have obliterated any archeological traces of the embankment or breastworks that may have accompanied the ditch (Reeve and Snow 1975:38,45-46).

A third feature was two sets of low mounds directly north of the scar. These mounds, designated the Wilbur Farm Mounds, do not appear to have been depicted by Wilkinson but were interpreted as possibly being associated with the events of the battle. They may have been constructed by the British to guard access to the headquarters from the Great Ravine and from the road that then ran close by, or to cover the British retreat after the second battle. Alternatively, they may have been constructed by Americans as artillery emplacements for the bombardment of the Great Redoubt. Soil cores here yielded no significant information (Reeve and Snow 1975:38-39,46-49).

Balcarres Redoubt: In the nine trenches excavated, no evidence was found of any postholes, gun emplacements, or any other features attributed to the battle. Artifacts that may have dated to the battle were limited to one lead grapeshot found in Trench #1, an iron grapeshot found in Trench #5. Even evidence of one of Ehrich's trenches, which Trench #9 was placed to intercept, was strangely lacking. This was tentatively attributed to the extreme dryness of the soils, which made stratification very difficult to discern (Reeve and Snow 1975:53-56).

The lack of findings was puzzling since Ehrich had encountered a variety of features less than 30 feet to the north. One possible explanation was that Ehrich had intercepted the end of the fortification. (Reeve and Snow 1975:56-57)

Whatever the reason for the lack of results, it was apparent that preservation in the area was variable and was perhaps the critical factor in determining the results of the excavations. Aerial photos of the area, which had been an orchard until recently, were much less informative than they had been for other areas (e.g., American river fortifications). However, the researchers were able to distinguish anomalies associated with orchard drainage from those associated with known archeological features found in previous testing (Reeve and Snow 1975:57-61).

The so-called Battle Well contained a quantity of coins, mostly pennies from the 1930s and 1940s, and no earlier than 1916. No eighteenth-century artifacts were recovered. This feature was interpreted as having been used as a wishing well by Park visitors until it became completely silted up in the late 1950s (Reeve and Snow 1975:61).

The Tory Camp at Breymann Redoubt: No features were found in this area despite the excavation of 500 square feet. Sixteen metal objects possibly dating from the battle were recovered by the metal detectors. These included two clusters. Cluster A was located in the center of the camp area and contained musket parts and some other military hardware. Cluster B was located near the camp periphery and contained fewer objects, among them two musket balls. These, and other musket balls found here, were determined to have been of American origin (Reeve and Snow 1975:63-65).

RECOMMENDATIONS: Concerning the Neilson House, the authors recommended that continued search for fortifications be abandoned, since it "does not appear to be destined for success" (Reeve and Snow 1975:16). The only possibly interesting research in this area was using the Neilson farm midden to explore nineteenth-century changes in rural lifeways and material culture (Reeve and Snow 1975:15-16,67).

For the American River Fortifications the authors suggested that the structure of Feature #1 could be better ascertained with additional excavation, although they questioned the value of such a project since it would involve considerable expense and large-scale excavations. Testing

sufficient to establish the existence of postholes at the South Redan and south of the main ditch might be completed with an excavation of limited scale. Since a Native American projectile point was found in Feature #1, it was suggested that further excavation might reveal whether a group of Native allies (Oneida Iroquois or Stockbridge Mahicans) might have encamped in this area. East of here, on the Hudson River flats below Bemis Heights, the authors recommended archeological investigation of an American earthwork that has been identified but not tested (Reeve and Snow 1975:25-28,66-67).

The authors made recommendations for separate elements of the **British Lines between Balcarres Redoubt and the Great Redoubt**. They recommended that further sampling in the vicinity of the red stain feature on the British east flank might be informative since the area seems to have been less disturbed by plowing than other portions of the British line. They also recommended further testing of the fortified knoll at the east end of the British line and soil coring south of the British lines to search for a ditch feature that may have survived cultivation (Reeve and Snow 1975:36-37,66-67).

The authors recommended testing in the Old Woods area for remains of encampments north of the fortification wall. They suggested that metal detectors and soil cores be used to locate encampments and artifact concentrations which could then be investigated further through excavation. Such excavation should be considered if the area is threatened in any way (Reeve and Snow 1975:41,50-51,67).

No further archeological investigation was recommended at the site of Burgoyne's Headquarters or the area immediately surrounding it. In general, it was felt that searching for patterns of postholes with large area excavations was too time consuming to be worth the expense in terms of the information that could be recovered (Reeve and Snow 1975:31-32,37). No further testing was recommended at the Wilbur Farm Mounds, where agricultural disturbance was judged to have been significant and where further work "does not promise to provide significant answers" (Reeve and Snow 1975:49,51,67).

The authors made no specific recommendations for future research at the south end of **Balcarres Redoubt**. Instead they made recommendations regarding the use of aerial photos as predictive models. They recommended using a variety of photos taken during different years and at different times of year, mapping patterns of known recent disturbances, and, after eliminating these, looking for consistently dark areas which often mark the location of subsurface features. Any testing in this area should be done with the goal of testing the predictive value of this technique (Reeve and Snow 1975:58-61,67).

The authors recommended no further work at **The Tory Camp at Breymann Redoubt**. This area had yielded little information despite extensive excavation. It was suggested that collectors had removed many of the artifacts over the years and that the camp's archeological potential was low (Reeve and Snow 1975:65,67).

The authors also concluded that, in general, strategies for future archeology should be based on past land use as much as on the location of original Revolutionary-period features. Environmental analysis and remote sensing techniques would be most useful in identifying areas where archeological preservation might be sufficient to make testing informative rather than a waste of time. In cases where Park development or other factors may cause the destruction or disturbance of features, even those with little potential for preservation, salvage archeology was suggested (Reeve and Snow 1975:37,67).

EVALUATION: This project met with varying success in achieving its many and varied goals. Its greatest successes were:

1. the discovery of elements of the American fortifications at Bemis Heights which support Putnam's account of their configuration and suggest a rethinking of the strategy underlying their construction;
2. the debunking of the myth of the "Battle Well;"
3. the discovery of remains of the British line in the "Old Woods;"
4. the discovery of a component of the British line south of Burgoyne's Headquarters (Reeve and Snow 1975:66),
5. the successful use of the Wilkinson map to predict direction of features from the site of Burgoyne's Headquarters,
6. additional insights into the use of aerial photography and land use records in predicting archeological sensitivity.

In other respects, the project was less successful. No traces were recovered of the south end of Balcarres Redoubt and the Neilson Farm fortifications, and very little was found at the site of the Tory encampment. In some cases, the lack of success in locating features may have been due to the extensive use of soil cores. This strategy provides a very limited sample of artifacts. In areas where cultivation has destroyed stratigraphic remains of features, artifact distributions may be the only remains by which the general plan of fortifications can be traced. Whether the extensive and expensive excavations necessary for the recovery of such artifact distributions is justified is a question that must be asked for any specific area under investigation. Certainly where soil core transects or narrow trenches have intercepted what appear to be fortifications, expanded subsurface testing may be the best way to confirm the identity of the intercepted features and provide additional information on their configurations.

Archeological Reconnaissance of the Barber Wheatfield (1974)

REPORT TITLE: Appendix F. In *Historic Resource Study—Barber Wheatfield, October 7, 1777; Saratoga National Historical Park, New York*, by Louis Torres, Denver Service Center, Denver, Colorado. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Stuart A. Reeve

DATE OF REPORT: 1974

DATES OF FIELDWORK: Aerial photographs were taken August 31, 1974. Field work was conducted on September 13, 1974.

PROJECT GOALS: Reeve's reconnaissance survey was designed and executed as an adjunct to Torres' Historic Resource Study. While Torres attempted to reconstruct the Revolutionary War-period landscape from documentary evidence, Reeve endeavored to discern vestiges of that landscape through archeology. Reeve's specific objective was to ascertain the possibility that archeological evidence of the Revolutionary War-period roads and structures, presumed to have been located within the vaguely defined limits of Barber Wheatfield, had survived the effects of subsequent land uses.

METHODS: The survey focused on the area of the Barber Wheatfield (Blocks 7A-D, 8A-D, and portions of Blocks 6A-E, 7E and 8E). Reeve's survey consisted of limited documentary research, aerial and surface reconnaissance, and limited subsurface sampling. Wilkinson's map (1777a) and U.S. Army Air Corps aerial photographs (1927) appear to have been the only documentary sources Reeve consulted. Reeve used Wilkinson's map more as a reference model than as a predictive tool. The 1927 U.S. Army Air Corps high-altitude panchromatic aerial photographs provided Reeve with a ready means of assessing the mode and extent of landscape modification prior to the period of extensive park development. Using this source, Reeve charted field boundaries in the hope that he might be able to discern a configuration comparable to routes or roads indicated by Wilkinson (Reeve 1974:67).

Low-altitude aerial photographs in August 1974 were examined in an effort to differentiate areas of relatively high moisture retention. In all areas where surface features existed (i.e., field lines, stream channels, etc.), Reeve postulated the occurrence of subsurface cultural features. He reasoned that such features could be vestiges of Revolutionary War-period structures (Reeve 1974:67).

During his brief field investigation, Reeve made first-hand observations of surface features he had noted on aerial photographs. In three areas where he could not attribute high moisture retention to existing surface features, he did nonsystematic soil coring (i.e., soil cores were taken at selected points rather than along transects). The approximate limits of areas sampled in this fashion were indicated on the map that accompanies Reeve's report (Figure 32). Details of soil coring procedures were not reported (Reeve 1974:68).

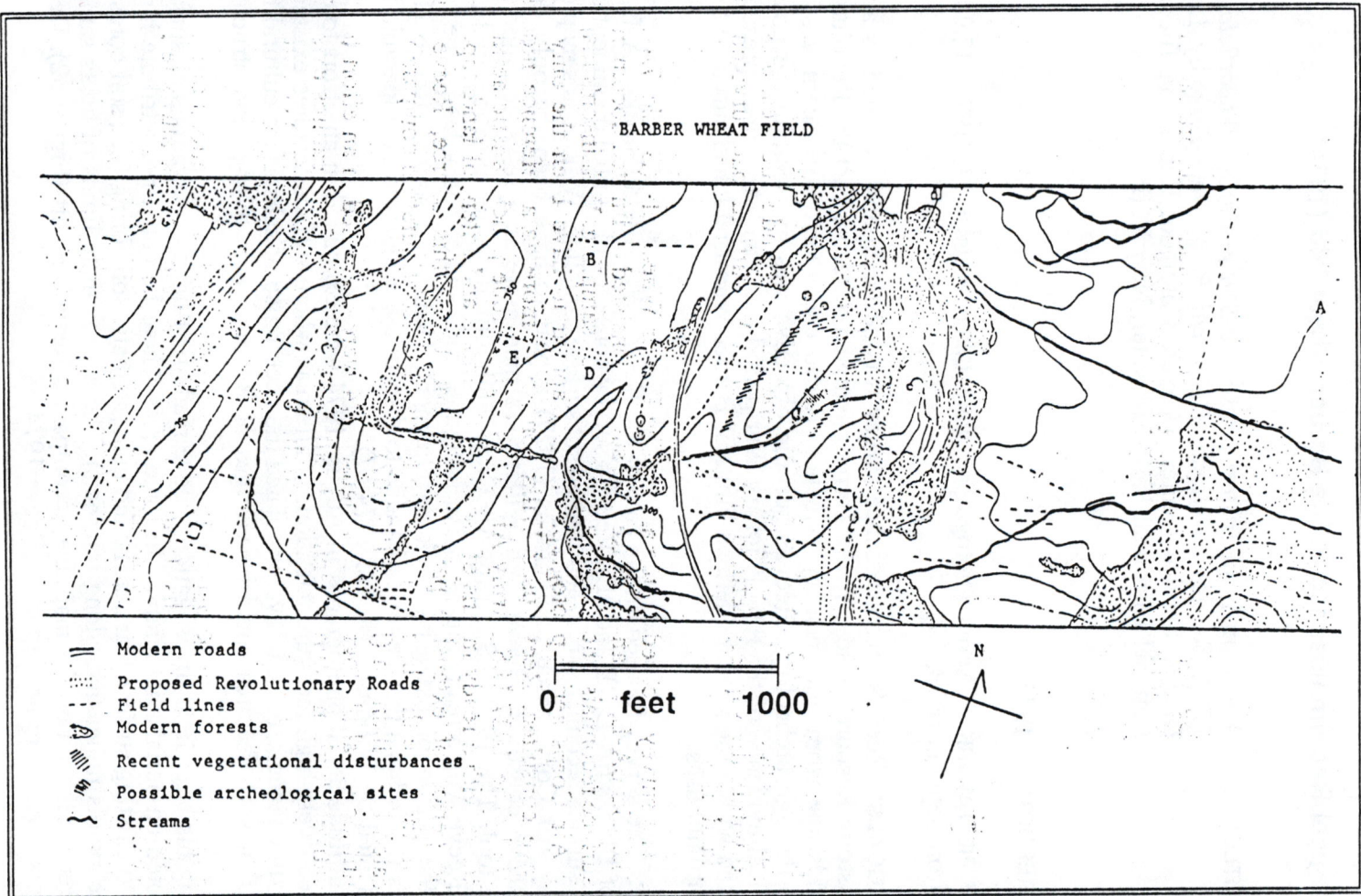


Figure 32. Areas examined and features projected or identified by Reeve in the Barber Wheatfield, 1974, Saratoga National Historical Park, Battlefield Unit (Source: Reeve 1974:70).

RESULTS AND INTERPRETATIONS: Reeve reported finding no conclusive evidence of either Revolutionary War-period structures or roads. In the three areas where he had postulated the occurrence of Revolutionary War-period structures based on dark spots or "soil marks" on the aerial photos (Figure 32:C,D,E), he reported no features which might have been associated with structures (e.g., charcoal deposits). He did note that in all three of these areas the soil appeared to be less compacted and less stony than in other areas. Though these differences seemed to indicate some sort of human activity, Reeve found nothing to suggest the time or the purpose of such activity (Reeve 1974:68).

Reeve did observe what he believed might be indirect evidence of two segments of the Revolutionary War-period road network. Southwest of Bloody Knoll (Figure 32:A) he noted a line of trees which roughly corresponded to a stretch of Revolutionary War-period road shown on the Wilkinson Map. Due west of Tour Stop 5 (Figure 32:B) Reeve noted an east-west stone field wall which seemed to correspond to a Revolutionary War-period road. Noting that soils in the Barber Wheatfield area were not especially stony, he speculated that the stone used to build the wall might have been salvaged from the foundation of a Revolutionary War-period structure (Reeve 1974:68). Using these bits of rather tenuous, indirect evidence as reference points, he projected routes of other segments of the road network from the Wilkinson map onto a current map of the Barber Wheatfield area. Routes of Revolutionary War-period roads indicated on Figure 32 of this report are Reeve's projected roads.

Reeve concluded that given what he could infer of post-Revolutionary War-period land uses, the prospects for finding substantial archeological evidence of Revolutionary War-period roads and structures seemed remote. Citing U.S. Army Air Corps aerial photographs (1927), he noted that the entire area was under cultivation at that date. He intimated that the area had probably been under cultivation for some time. Thus, he argued, any features dating from the Revolutionary War period would likely have been disturbed beyond recognition. He noted that construction of former U.S. 4/N.Y. 32 and of current park tour roads might well have obliterated vestiges of roads and structures that had survived the effects of 100 or more years of cultivation (Reeve 1974:67).

EVALUATION: As Torres (1974:iii) stated, Reeve's investigation was indeed a "superficial" one, but superficial in the technical rather than in the popular sense. Reconnaissance surveys by definition, are superficial surveys. Torres' documentary research and Reeve's reconnaissance survey were not tightly integrated. It may be worth noting that Torres concluded that Wilkinson's map (1777a) was the most reliable representation of the Revolutionary War-period landscape of Barber Wheatfield. This was the one documentary source that Reeve consulted.

In light of the limited scope of Reeve's reconnaissance survey, Reeve's and Torres' assessments of the archeological potential of Barber Wheatfield may be a bit too pessimistic. Although the types of features that can be detected via aerial and surface reconnaissance may no longer be evident, this need not imply that no vestiges of the Barber Farm or of the October 7th battle have survived. First, the reliability of these survey techniques has yet to be adequately tested. Although they can locate features, they do not necessarily locate all features and negative evidence from such a survey cannot be considered definitive. Second, it seems quite possible that artifact distribution rather than features may be the most definitive archeological evidence one might expect, given what is currently known of the Barber Farm and the October 7th battle.

In 1985, a magnetometer survey of the Barber Wheatfield was initiated under the direction of David Starbuck of Rensselaer Polytechnic Institute. After two days, when approximately 2,000 readings had been taken, it became apparent that no magnetic anomalies could be detected and the effort was aborted. The failure of the method was not necessarily attributed to a lack of subsurface features, rather, it was suggested that the soil (a clay hardpan) gave off a background magnetism that drowned out the signals of buried objects and features (Howe 1986:12).

Archeological Investigations of Revolutionary Roads (1972-1975)

REPORT TITLE: *Report on Archeological Investigations of Revolutionary Roads, Saratoga National Historical Park, New York.* Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Dean R. Snow

DATE OF REPORT: 1976

DATES OF FIELDWORK: Snow's reconstruction of the Revolutionary War-period road network represented the results of reconnaissance surveys carried out between 1972 and 1975 (Snow 1973, 1974; Reeve 1974; Reeve and Snow 1975) and fieldwork conducted between June and August of 1975. Artifacts were collected from the German and Tory encampment and from the British 21st Regiment encampment between June and November of 1975 (Snow 1976:1).

PROJECT GOALS: Snow's objectives were to project, field test, and stake out routes of Revolutionary War-period roads within the limits of the Battlefield Unit of Saratoga National Historical Park. Special attention was devoted to roads along which British fortifications were presumed to have been constructed (Snow 1976:1-2,4-5). During the summer of 1975, Park Service construction crews began the redesign of Tour Stop 7 (Breymann Redoubt) visitor facilities. This project posed a threat to near-surface remains of the German and Tory encampments located by Reeve and Snow (1975). Another objective of this project was to collect artifacts from this area that might be destroyed or displaced by this undertaking. Similarly, artifacts were collected from the projected site of the British 21st Regiment encampment in an effort to substantiate Reeve's and Snow's (1975) interpretation of the "Old Woods" fortification (Snow 1976:5-6).

METHODS: For the investigation of the Revolutionary-period road system, Snow made extensive use of background data and aerial photographs compiled during his earlier surveys. Documentary sources consulted were reports prepared by NPS Historians Snell and Luzader (specific reports were not cited) and Wilkinson (1777a). Snow used the Wilkinson map to project routes of roads beyond the British zone. Other sources were not cited, although it appears that Neilson (1844) was one of the principal sources (Snow 1976:1).

Low altitude aerial photographs taken in 1972, 1973, and 1974 were used to locate traces of former roads. A high-altitude aerial photograph (U.S. Army Air Corps 1927) was used to differentiate traces attributable to post-Revolutionary War-period roads from abandoned nineteenth-century roads and former park roads. Road scars that could be attributed to the Revolutionary War period were located in the field, then staked out. No further details of survey procedure were reported. The field crew consisted of field supervisor Eric Parsons and three students enrolled in the SUNY Albany archeological field training program (Snow 1976:1).

Under Snow's supervision, George Juno used a metal detector to collect artifacts from the German and Tory encampments and the projected site of the British 21st Regiment encampment. Few details of field procedure were reported. Neither the manufacturer, model, nor sensitivity range of the metal detector used were specified. Neither the manner in which scanning was conducted nor the limits of the areas scanned were reported. The manner in which artifacts were unearthed was also not reported. With few exceptions, horizontal provenience of artifacts was recorded via reference to existing base lines and/or datum markers. Specific vertical provenience

was not recorded since almost all artifacts were recovered within a few inches of the surface (Snow 1976:6).

RESULTS: It does appear that some traces of the network of roads, shown extending from Block 9M, westward along the British lines to Balcarres and Breymann Redoubts were observed. Snow (1973) had reported observing traces of the southeast-northwest access road shown extending from Block 6N, north to Block 4M. Reeve (1974) had reported observing what he interpreted to be indirect evidence of Revolutionary War-period roadways in the vicinity of the Barber Wheatfield. All other roads appear to have been projected, either from Wilkinson (1777a), or from sources not specifically cited. Parenthetically, Snow (1976:5) reported that north of the current boundary (west of Phillips Road), embedded in the bank of Kroma Kill, might be remnants of a Revolutionary War-period bridge.

Approximately 241 artifacts were recovered from the German and Tory encampment area. All but two were metal items. An inventory of this collection accompanied Snow's report. The bulk of the collection consisted of ammunition (musket balls, etc.), about 42 percent, and nails, about 25 percent. Among other items recovered were musket parts, uniform accouterments, and two English pennies. Probably 60-70 percent of the items recovered date from the Revolutionary War period (Snow 1976:5, Appendix).

Approximately 154 metal artifacts were recovered from the British 21st Regiment encampment area. Nearly 60 percent of the collection consisted of ammunition (musket balls, etc.). Here, nails comprised only 4-5 percent of the items recovered. An inventory of this collection accompanied Snow's report. Most, if not all, of the items inventoried date from the Revolutionary War period. The most noteworthy items were seven 21st Regiment buttons; no other regimental buttons were recovered. The results of Juno's survey thus confirmed Reeve's and Snow's prior identification of the "Old Woods" fortifications (Snow 1976:6).

RECOMMENDATIONS: Snow endorsed a proposal to develop the old roads as hiking and/or biking trails. This, he suggested, "would do much to add authentic perspective to the battlefield without the distractions of motorized traffic" (Snow 1976:2).

Snow also urged that efforts be made to use metal detectors to recover metal artifacts from Saratoga and other battlefield sites, since objects of iron and other perishable metals were rapidly decaying and would soon be unidentifiable or undetectable, their informational value lost forever (Snow 1976:6-7).

EVALUATION: Snow's map for this report formed the basis of his *Archaeological Atlas of the Saratoga Battlefield*, published the following year by the State University of New York at Albany (Snow 1977). The atlas summarizes in largely graphic form his research at the battlefield between 1972 and 1976. He also presented a summary of his research in a report in the popular archeology journal *Early Man* (Snow 1981). Some years later, he and Richard Wilkinson published a study of two of the burials recovered from the British zone (Snow and Wilkinson 1986).

Snow reported that vestiges of Revolutionary-period roads actually observed in the field were staked out. However, in his report he did not clearly distinguish between verified roads and those projected without benefit of archeological evidence.

It is unlikely that the road network of 1777 can be recreated. Through continued effort, closer approximations of the locations and alignments of particular roads might be achieved. Snow's reconstruction may be the closest approximation of the actual routes of Revolutionary War-period roads yet achieved. It is almost certain that the reliability of this reconstruction varies appreciably from one area of the park to another. The reconstructions would seem to be most reliable within the British Zone, less reliable within the Barber Wheatfield area, and least reliable

within the American Zone. Since Snow did not explicitly describe his procedure for determining that observable traces of former roads are in fact traces of Revolutionary War period roads, it is impossible to make more definite statements concerning the validity of his conclusions.

Road systems do not remain static, but evolve in response to changing land ownership, land use patterns, traffic patterns, and transportation systems. One problem inherent in Snow's survey procedure was that he monitored development of the road system at only three points in time—ca. 1777, ca. 1927, and 1976. Snow assumed that one could differentiate all roads constructed during the post-Revolutionary War period simply by comparing ca. 1777 maps with a 1927 map and contemporary aerial photographs. To assess the validity of this assumption, an examination was made of a series of nineteenth century maps of the area now within the Park's boundaries (e.g., Burr [1828], Geil [1856], Beers and Beers [1866], Anon. [1890]). Burr's (1828) map was of little use as its representation of roads appeared to be highly diagrammatic; only stage roads and county roads were shown. In order to compare the 1856, 1866, 1890, and ca. 1927 maps it was necessary to assume that whenever a road shown on one map approximated the route of a road shown on another map, the same road was being represented. Consistent with Snow's assumption, it appeared that, at least between 1856 and 1927, there were no appreciable changes in the road network.

Comparing maps of the Revolutionary War-period road system with the Geil (1856) and Beers (1866) maps indicated that by the mid-nineteenth century, virtually all Revolutionary War-period roads within the southern half of the British zone appeared to have been abandoned, as had the east-west road across the Barber Wheatfield area. From 1856 to 1927, no new roads appeared in these areas. Except for the river road, all of the roads shown on Neilson's (1844) reconstructed plan of the battlefield appeared to be roads that still existed in 1856. This may indicate that roads shown on Neilson's map were extant roads when he drew his map, so that the routes indicated need not have been the Revolutionary War period roads.

It appears that Snow projected routes of Revolutionary War-period roads within the American zone from Neilson's map. If routes of roads shown on the Neilson map differed appreciably from the actual routes of Revolutionary War-period roads in the American zone, our current conception of the relative location and alignment of the American lines may be incorrect.

With the aid of a metal detector, Juno retrieved a sizable collection of artifacts and simultaneously demonstrated the potential value of a relatively simple, inexpensive survey technique. With adequate controls, this technique may provide a feasible means of surveying several areas of the battlefield where surface features are no longer evident and where more conventional archeological artifact recovery techniques would prove too costly.

Detailed analysis of this collection and analysis of the distributional patterns of particular classes of artifacts, may yield valuable insights concerning troop positions, troop movements, and camp locations. Distribution patterns of other classes of artifacts may provide insights into post-Revolutionary War-period uses of the area.

Obviously, the collection of artifacts represents a biased sample of the total population of artifacts associated with the German and Tory encampment. Using data from Reeve and Snow (1975), an attempt has been made here to estimate the possible extent of this bias. In 1974, Reeve and Snow excavated 20 test pits in the area in an attempt to locate evidence of the German and Tory encampment. They recovered seven possible Revolutionary-period artifacts: four metallic and three nonmetallic items. It is risky to lend too much credence to such a small sample. However, if we assume this sample to be representative, then for every four metallic items which Juno recovered, there may be three nonmetallic items yet to be recovered. If this estimate is anywhere near accurate, it is impossible that the collection of items which Juno retrieved with a metal detector can provide a representative picture of the archeological remains of military camp life.

Most of the points raised about the German and Tory encampment area also apply to Juno's metal detector survey of the British 21st Regiment encampment area. Since no test excavation was done prior to Juno's survey, no estimate of potential sampling bias can be made. However, there is no reason to suspect that the proportion of nonmetallic to metallic items would be radically different here than at the German and Tory encampment area. Although this area lies well to the east of the actual battleground, the bulk of the collection consisted of musket balls and other forms of ammunition. Here the relative frequency of nails was considerably lower than in the vicinity of Breymann Redoubt. It seems improbable that large quantities of nails would have been used in the construction of field fortifications and camp facilities. Probably the difference in nail frequencies reflects differences in the post-Revolutionary War period uses of these two areas.

Archeological Investigation for Screening of Lohnes Road (1978)

To preserve the integrity of the historic scene, Park Service personnel proposed to screen a recent residential subdivision adjacent to the park's northern boundary (Figure 33). This would be done by planting five rows of eastern white pine along the south side of Lohnes Road. In compliance with Section 106 of the National Historic Preservation Act, Regional Archeologist McManamon surveyed the area to determine whether significant archeological resources would be affected by the project. At the same time, McManamon took steps to increase the likelihood that results of this investigation might be applicable to assessment of the archeological potential of yet-to-be-surveyed areas.

REPORT TITLE: Archeological Investigation for Screening of Lohnes Road, Saratoga National Historical Park. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Francis P. McManamon

DATE OF REPORT: September 19, 1978

DATES OF FIELDWORK: Field work was conducted July 18, 1978. On July 19, McManamon measured the approximate distances between the project area and nearest neighboring water sources.

PROJECT GOALS: McManamon's objective was to determine whether significant archeological resources would be affected by the project. Another goal was to make the results of the investigation applicable to the assessment of the archeological potential of areas that had not yet been examined archeologically (McManamon 1978a:2).

METHODS: The area investigated was the south side of Lohnes Road (Figure 33), just south of the current park boundary. McManamon's investigation consisted of background research, surface reconnaissance and systematic subsurface sampling. Assistant Archeologist Drinkwater supplied notes on historic period cultural landscape development. Results of background research suggested an absence of archeological resources within and adjacent to the project area. However, since: (a) neither the project area nor areas adjoining it had been surveyed during previous archeological investigation; (b) prehistoric and historic period archeological resources were known to occur within similarly situated areas of the park; and (3) the project area appeared to lie within 0.75 mile of a former eighteenth-century road, McManamon determined that a field survey was in order (McManamon 1978:1).

To ensure even coverage of the project area, McManamon devised a systematic subsurface sampling strategy. He bisected the project area with a series of shovel test pits (STPs). Fifteen STPs, approximately 45 cm in diameter and 25-30 cm in depth were dug at 20-meter intervals. Each pit was assumed to provide a representative sample of the 20 x 25-meter area surrounding it. In addition to the fifteen STPs, McManamon dug one test pit to investigate a low, linear mound located about 12 meters south of his sampling transect (Figure 34) (McManamon 1978a:2-3).

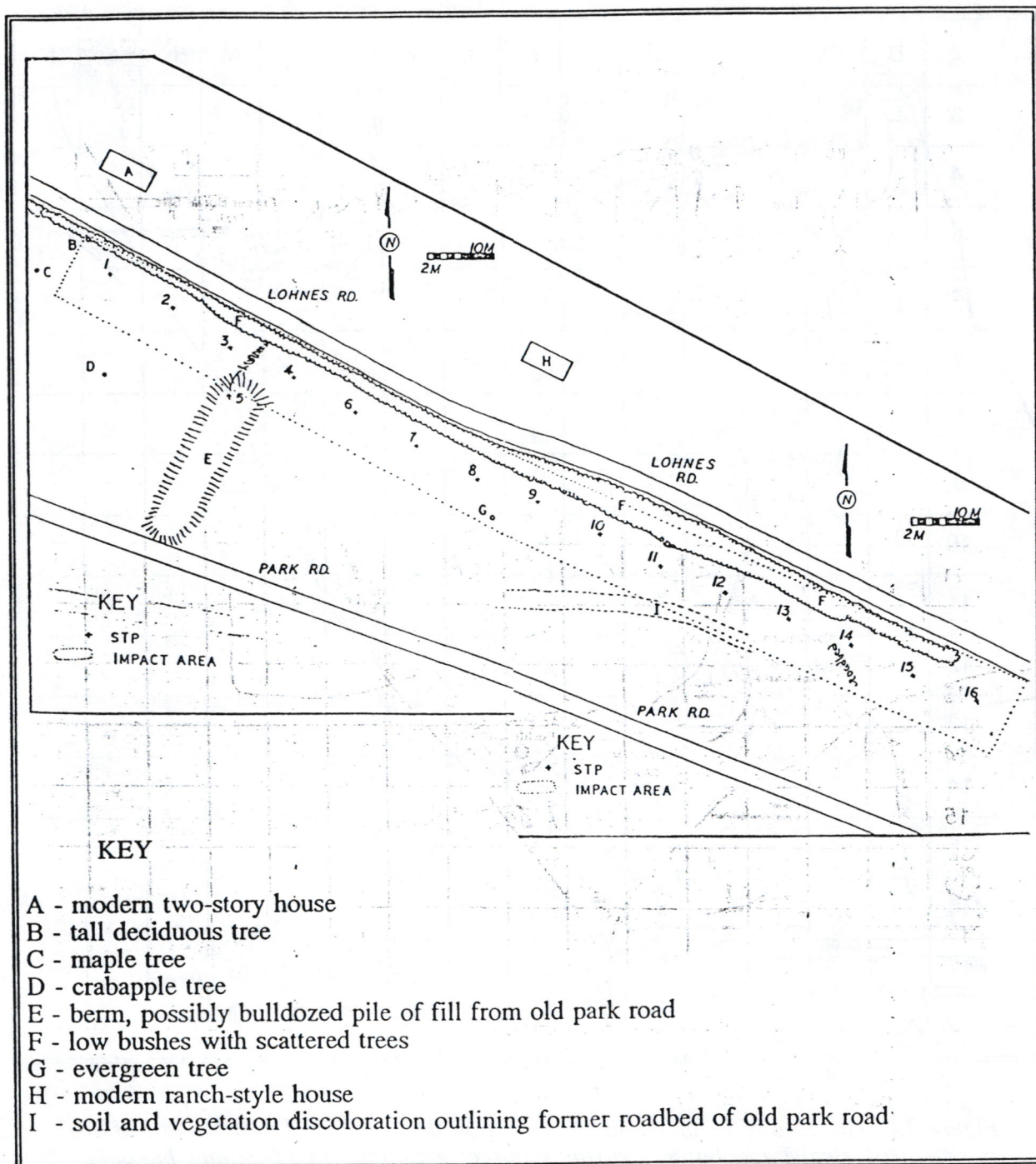


Figure 34. Plan of shovel test pits in the Lohnes Road screening project area, Saratoga National Historical Park, Battlefield Unit. (Source: McManamon 1978:Maps 3 and 4).

From information in historical documents relating to the project area, McManamon did not expect that subsurface features had survived post-Revolutionary period land uses. He thus employed an excavation procedure to maximize recovery of artifacts. Test pits were dug with a shovel and the dirt was screened through ¼-inch mesh. After completing the field survey he located and measured the distance of the nearest potential water sources (McManamon 1978a:3).

RESULTS AND INTERPRETATIONS: The only cultural features McManamon observed were features associated with a former park road. Along his sampling transect, McManamon recovered crushed traprock from two STPs. After consultation with Park Superintendent Gray, he concluded that this material to be former park road fill. There was a greater concentration of the same material scattered on the surface of a northeast-southwest oriented mound just south of the project area. In STP 5, dug atop the mound, a road bed was encountered approximately 20 cm below grade. From the mound profile, McManamon inferred that the mound consisted entirely of redeposited road fill (McManamon 1978a:3-5).

The only artifact recovered was a shank fragment of a machine-cut nail. The nail occurred in association with road fill. McManamon thus inferred that the occurrence of this item within the project area was incidental (McManamon 1978a:4-5).

No year-round surface water sources were found in the immediate vicinity of the project area. McManamon (1978a:6) did report finding three possible seasonal sources; one approximately 160 meters to the southwest, a second approximately 200 meters to the southeast, and a third approximately 20 meters to the northeast of the project area.

RECOMMENDATIONS: McManamon concluded that no significant archeological resources were present within the project area. He therefore recommended that the screening project proceed as planned (McManamon 1978a:6).

EVALUATION: In an effort to ensure even coverage of the project area, McManamon devised a systematic sampling strategy, that is, he placed his subsurface sampling units at regular intervals along a preassigned transect. He ran his sampling transect down the middle of the project area as one means of reducing sampling bias. If, for example, he had chosen to run his transect along the southern limit of the project area, there would have been some chance that he would fail to discern evidence of sites that extended less than 25 meters into the project area. By centering the sampling transect, the sites that might have been missed were reduced to those 12.5 meters or less in width.

To justify his choice of a 20-meter sampling interval, McManamon cited his previous study of the lateral dimensions of precontact sites (McManamon 1978b). Using a small body of data compiled during archeological surveys in south-central New York State, he had estimated the average minimal horizontal dimension of precontact sites to be about 20 meters.

McManamon's survey strategy appears to have been commensurate with the intended scope of the screening project. Inherent in the very notion of sampling is a risk of sampling error and/or sampling bias. He could have exercised greater control over potential sampling error; there is no reason to suggest his results would have been any different.

McManamon carried out his survey of potential water sources in order to document the relationship between his environmental variable and the presence/absence of archeological resources. Distance to nearest neighboring surface water sources has, in the past, proved to be one of the more reliable indicators of the presence or absence of precontact archeological resources.

Archeological Investigation at the Proposed Fire Pump and Alternate Water System (1980)

In the early 1980s, health and safety considerations required the construction of a new well and pump house, fire pump, reservoir, and reservoir drain. Before these undertakings were completed, archeological investigations were conducted to evaluate the areas where the installation of these systems could disturb archeological resources.

REPORT TITLE: *Archeological Investigation for Proposed Fire Pump and Alternate Water System Saratoga National Historical Park, New York.* Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Dana C. Linck

DATE OF REPORT: 1981

DATES OF FIELDWORK: Field work was conducted in late October of 1980.

PROJECT GOALS: Linck's objective was to determine if there were any archeological resources in the project areas.

METHODS: Two areas were investigated. The first was located in an open field between the probable site of Burgoyne's Headquarters and the Royal Artillery's defensive position. This was the site of the proposed well and pump house. The second was an area immediately west of the Visitors Center, where the fire pump, reservoir, and drain were to be installed (Figure 35). Test pits spaced 25 feet apart were dug in both areas (Figures 36 and 37). Both shovel and trowel were used to dig the test pits, all soil was passed through a ¼-inch mesh screen. After the test pit phase was completed, a metal detecting device was employed to survey each area again. All metal anomalies detected were investigated (Linck 1981:1-2).

RESULTS: No significant archeological resources were discovered in the construction areas. In a corn field near the Burgoyne Headquarters area, a pedestrian survey discovered a precontact Native American site consisting of a small quantity of lithic debitage. The metal detecting survey only produced recent artifacts; all were found within the plowzone (Linck 1981:3-4).

RECOMMENDATIONS: Since no significant resources were recovered in the construction areas, it was recommended that construction proceed as planned. In addition, it was concluded that the precontact site was not endangered by this project but could be endangered by any additional undertaking that might involve leveling field contours or extending the plow zone beyond its present depth. Linck further recommended that all cultivated fields in the Battlefield Unit should be subjected to a thorough archeological walkover during the coming spring, and that sites identified at that time should be mapped, described, and protected (Linck 1981:4-5).

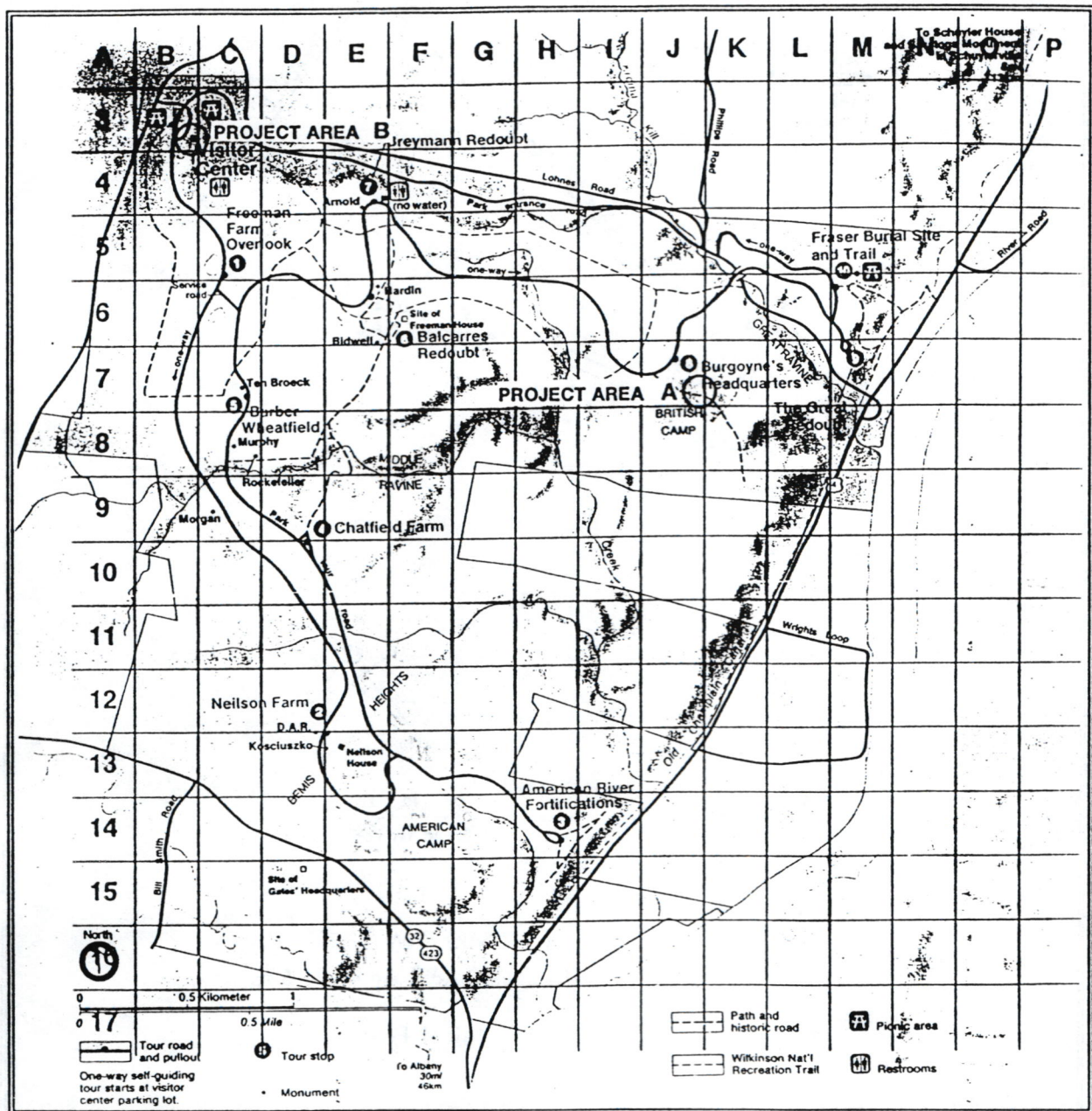


Figure 35. Location of areas investigated in advance of installation of (A) well-pump house and (B) fire pump-reservoir-drain, Saratoga National Historical Park, Battlefield Unit (Source: Linck 1981).

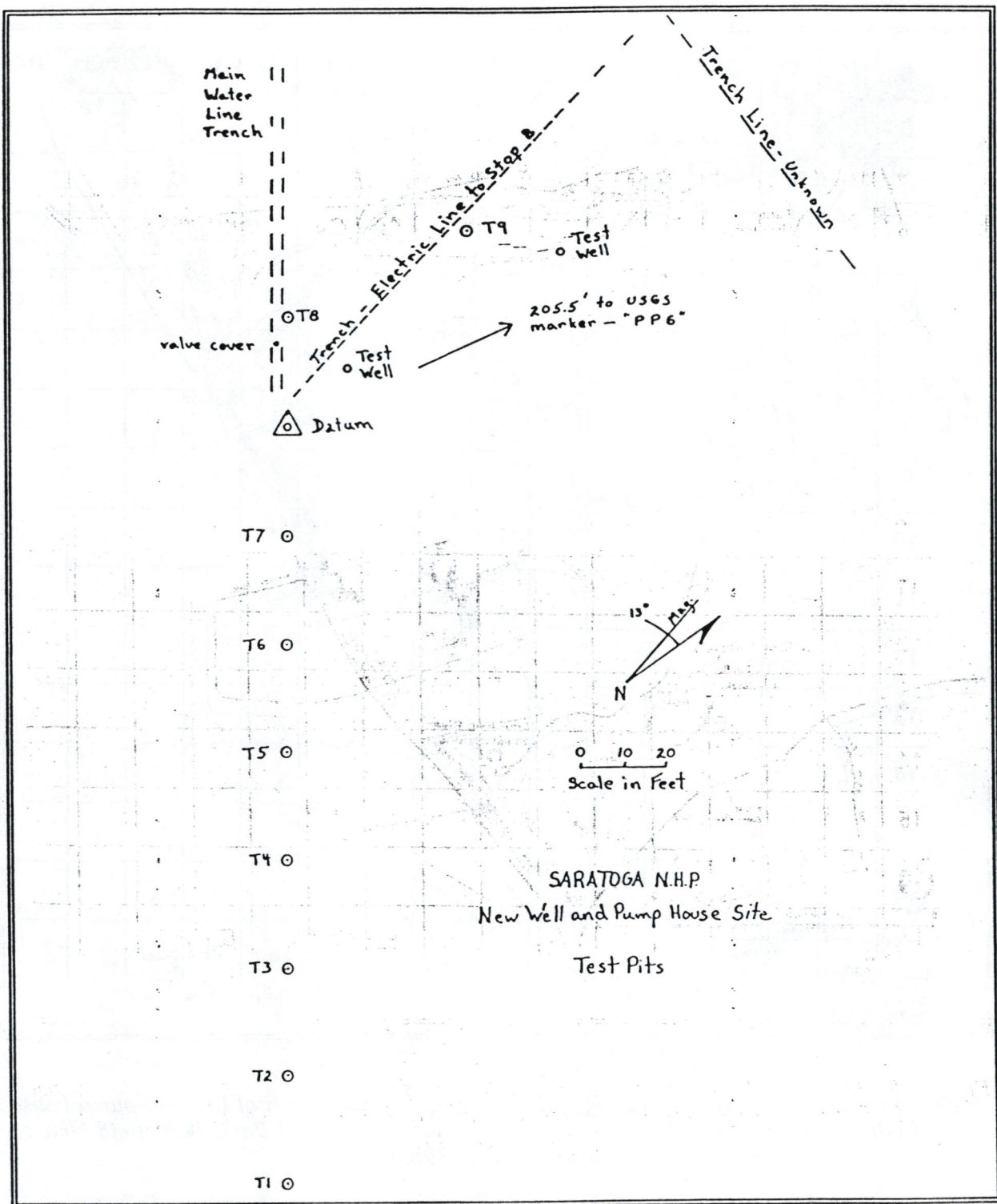


Figure 36. Plan of shovel test pits in the well-pump house area, Saratoga National Historical Park, Battlefield Unit. (Source: Linck 1981:Figure 3).

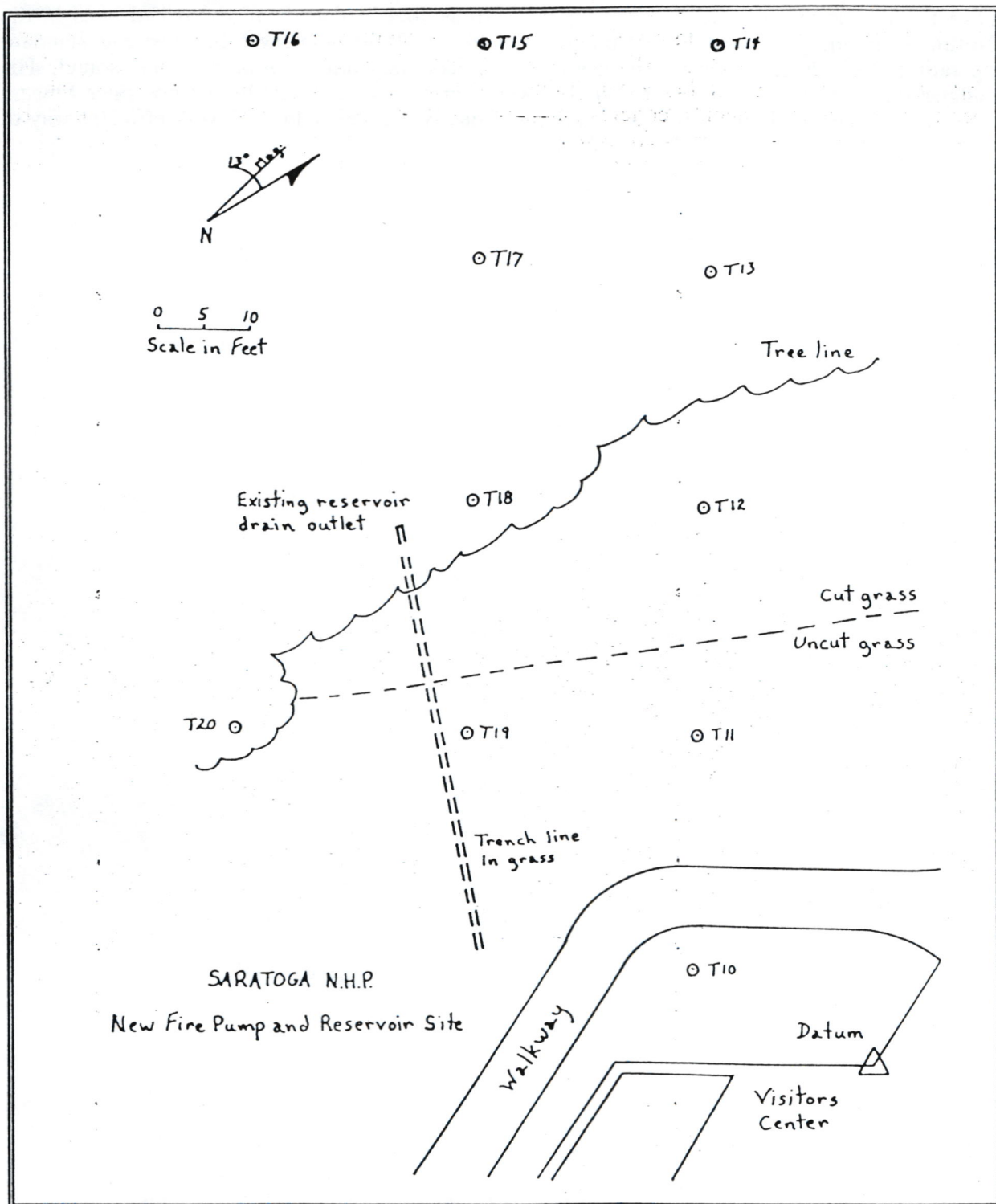
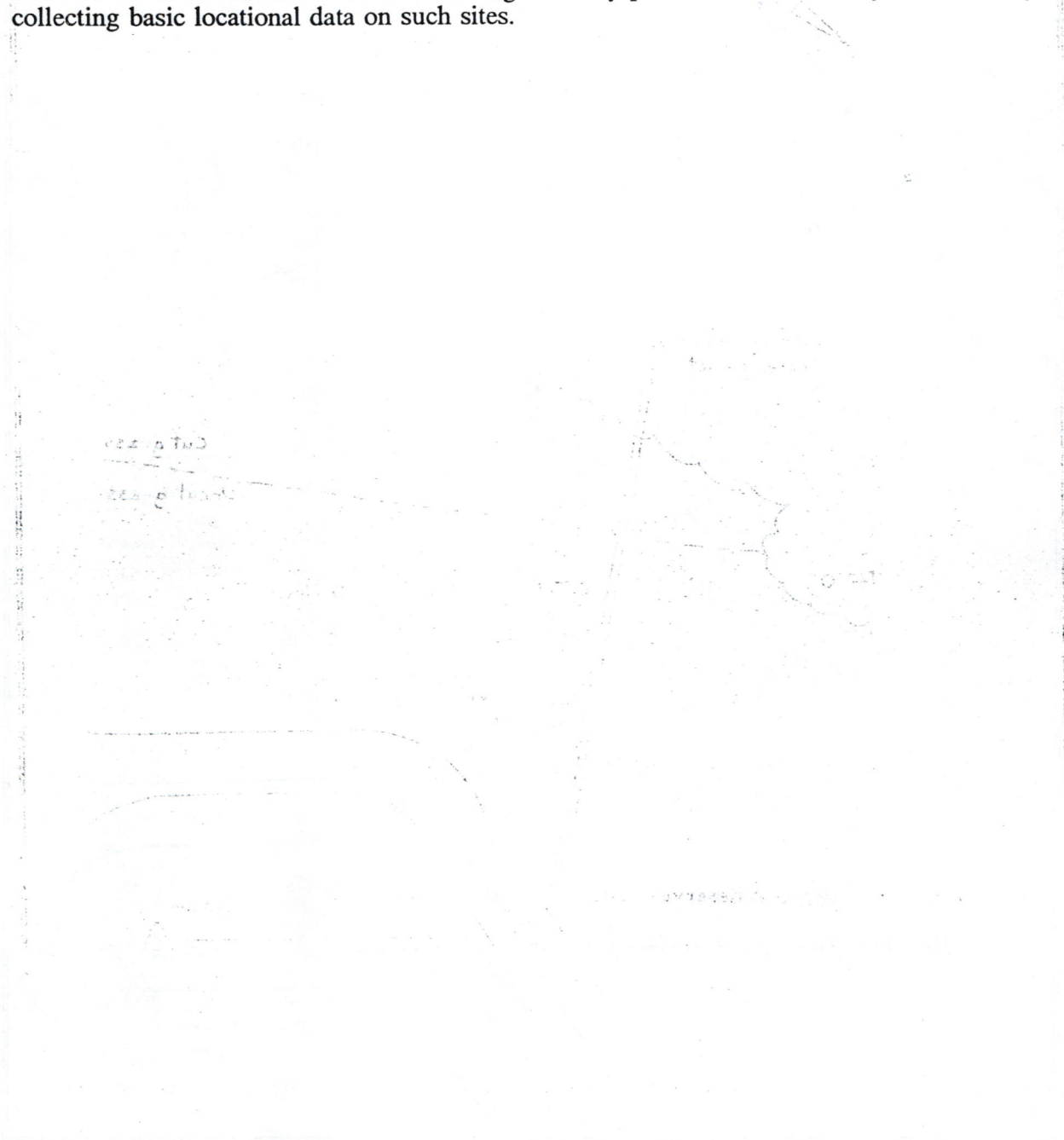


Figure 37. Plan of shovel test pits in the fire pump-reservoir-drain area, Saratoga National Historical Park, Battlefield Unit. (Source: Linck 1981:Figure 5).

EVALUATION: Linck and others have assumed that any significant archeological resource would have spatial dimensions greater than 25 feet. Archeological data from excavated sites in the Northeast strongly support his assumptions, and the 25-foot interval has become standard operating procedure. Linck's conclusions and recommendations appear to be sound. His suggestion for pedestrian survey for Native American sites is particularly apropos since few are known from the Battlefield Unit and walking of newly plowed fields is a very efficient way of collecting basic locational data on such sites.



Archeological Investigations in the "Old Woods" (1985)

Beginning in 1985, another period of archeological activity began at Saratoga National Historical Park. Under the direction of David R. Starbuck, archeologists from Rensselaer Polytechnic Institute investigated Revolutionary-period sites in the "Old Woods," at the American Headquarters, and at the Schuyler House. The Old Woods area had been recommended for further testing nearly a decade earlier by Dean Snow. It was felt that this wooded area was relatively undisturbed compared to the surrounding cultivated fields. Snow's research further suggested that the area contained a segment of the fortified British lines as well as the campground of some of the regiments.

The investigations were reported in an interim or "progress" report and a final report.

INTERIM REPORT TITLE: Progress Report on Excavations in the British Old Woods. In *Saratoga National Historical Park Archeology Progress Report—1985*, edited by David R. Starbuck, pp. 32-46. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: Sylvie C. Browne

DATE OF REPORT: July 1986

FINAL REPORT TITLE: *Final Report on the 1985 Excavations in the Old Woods, Saratoga Battlefield: the Archaeology of a Small Campsite*. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Sylvie C. Browne

DATE OF REPORT: May 1987

DATES OF FIELDWORK: Most of the field work was conducted between July 22 and August 30, 1985 (Starbuck 1986a:iv). Excavation Unit S10W16 was dug in September and October of 1985 (Browne 1986:42).

PROJECT GOALS: The original goal of the investigation was to explore the area north of the defensive wall identified by Reeve and Snow (1975). Here, the metal detector survey had recovered artifacts associated with a military camp, but had not investigated any features. The researchers intended to examine the camp layout and to compare this with contemporary British military protocols (Browne 1986:33).

METHODS: The Old Woods (Figure 38) was the projected site of the British 21st Regiment between the first and second battles of Saratoga. This area, measuring approximately 400 x 300 feet and containing a number of prominent ditches and linear mounds, was the focus of the 1985 investigations (Browne 1987:8-9). After clearing the area of underbrush and establishing a datum and baselines, nineteen shovel test pits (STPs) averaging 45 cm diameter and 40 cm depth were excavated along the baselines at 10-meter intervals. An additional five STPs were placed in and around the linear mound that had been tested by Snow (Figure 39). Upon encountering patches

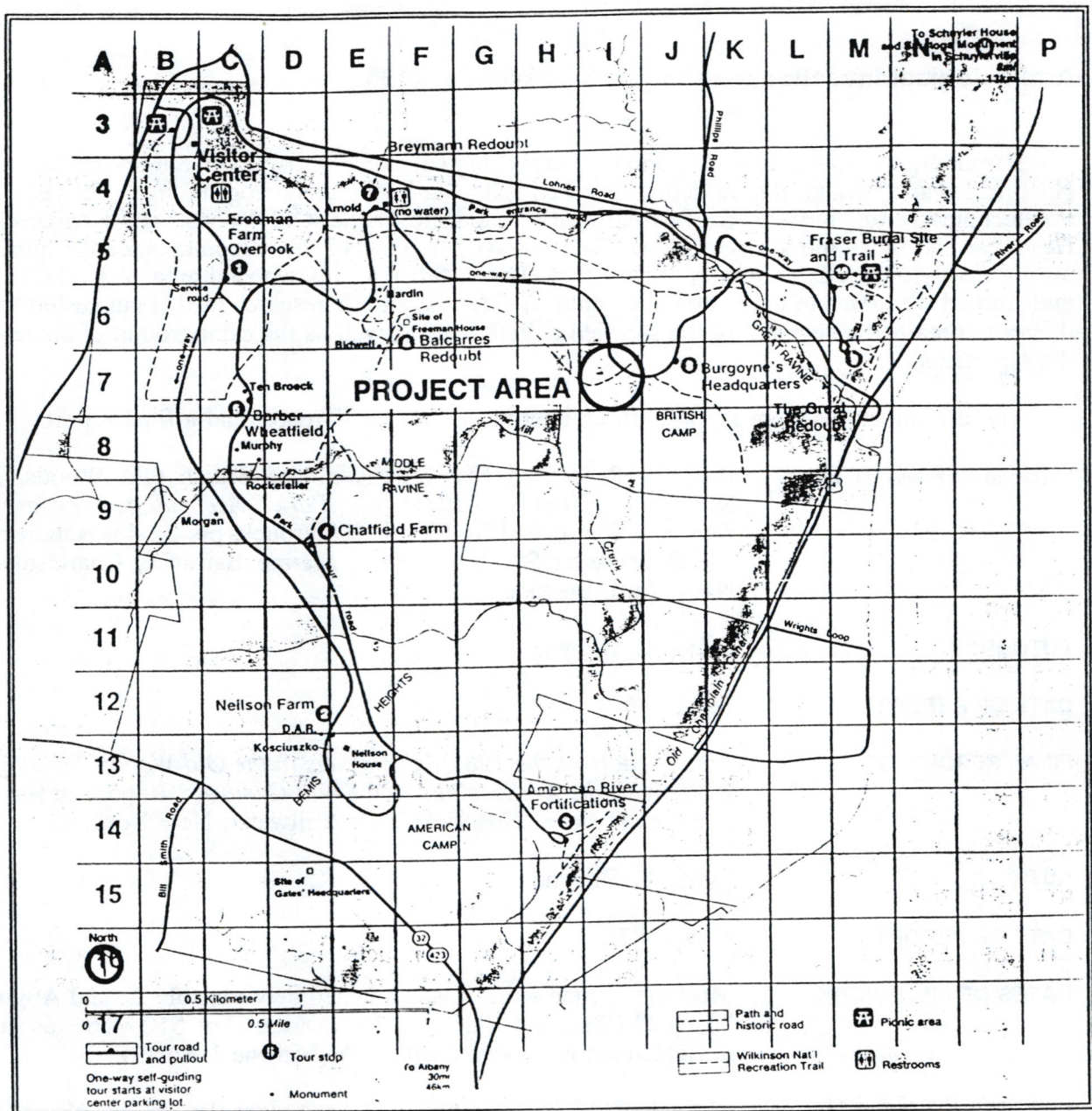


Figure 38. Location of the Old Woods area, Saratoga National Historical Park, Battlefield Unit (Source: Browne 1987:Figure 1).

of grey and ashy soils, some of these STPs were expanded into 1 meter square excavation units (EUs). Additional EUs were placed north of, south of, and in the wall. EUs were designated by the grid coordinates of their southwest corners (Figure 39) (Browne 1986:34-38). North of these EUs a possible road bed was transected with three shallow trenches (Figure 39) (Browne 1986:40-42).

In addition to the STPs and EUs, 150 test pits were dug using a power auger, which excavated 50-cm diameter pits up to 1 meter deep (Figure 40). Details about procedures (e.g., screening) during this phase of the excavation were not given. After most of the excavations had been completed, a topographic map of the site was made (Browne 1986:42).

RESULTS: None of the STPs excavated along the baselines contained any artifacts or exposed any stratigraphic anomalies. EUs in and around the wall yielded stratigraphic anomalies and evidence of burning. Here a thick layer of dark, charred soil and ash was encountered beneath the yellow sandy loam that underlay the humus throughout the site. This layer thinned out to the north of the wall. Rotting logs like those that Reeve and Snow (1975) had reported were not encountered, although some pieces of wood were found, including what appeared to be the end of a cut stake (Browne 1986:34-38).

A large burnt area, which included pieces of fire-cracked rock (the area has no naturally occurring stones) was identified north of the wall in the four EUs excavated around S10W15. A second burned area, designated Feature 1, was found in the cluster of EUs to the west, directly behind an opening in the wall (Browne 1986:38, 1987:54).

Few artifacts were found in and around the wall. Among those that were found was a Native American projectile point. A musket ball was found on the surface (Browne 1986:40,42).

Testing in the possible road bed revealed traces of ruts and a thin layer of grey soil that may have been a surfacing. A scatter of lithic debitage was also found (Browne 1986:42).

INTERPRETATIONS: The author was unwilling to associate the evidence of burning (e.g., Feature 1) with the British occupation or events of the battle, since there was no conclusive evidence for such association. The road bed was interpreted as almost certainly a road, but not necessarily one that was in existence at the time of the battles (Browne 1986:38-40,42, 1987:55-56).

The lack of results from the 1985 excavations led the author to question some of the interpretations made a decade earlier by Reeve and Snow (1975). There were no artifacts or features to suggest that this was a campsite. Based on the earlier results it does seem likely that there was a camp in this area; however, it appeared that the 1985 EUs were too close to the wall to have intercepted the camp, which may have been set back at some distance from the fortification line (Browne 1986:44-45). In any case, the camp was occupied for less than three weeks by infantry who did not carry very much equipment, and it was suggested that the metal detector survey of 1975 had recovered about all there was to find (Browne 1987:58-60).

Feature 1 was interpreted as a fire pit for the soldiers guarding the wall. This may have been associated with a gun emplacement. A broken piece of "lithic" (flint?) found here was interpreted as a strike-a-light (Browne 1987:54).

The platform of logs and soil described by Reeve and Snow (1975) was not found in any of the 1985 excavations in the wall. Although this linear mound was judged to be a deliberately built wall, it was suggested that Reeve's and Snow's interpretation of the fortification as a solid wood and earth structure forming a long wall broken only by sally ports was a hasty extrapolation, and that the actual fortification was mostly a ditch and earthen wall, perhaps with some logs. It was also suggested that fires left burning by the British to cover their retreat or set by the Americans when they overran the British camps may have been responsible for some of the charcoal deposits and charred wood in and around the wall, and that the Americans may have destroyed parts of the wall to prevent its being used in a counterattack. Several weeks of

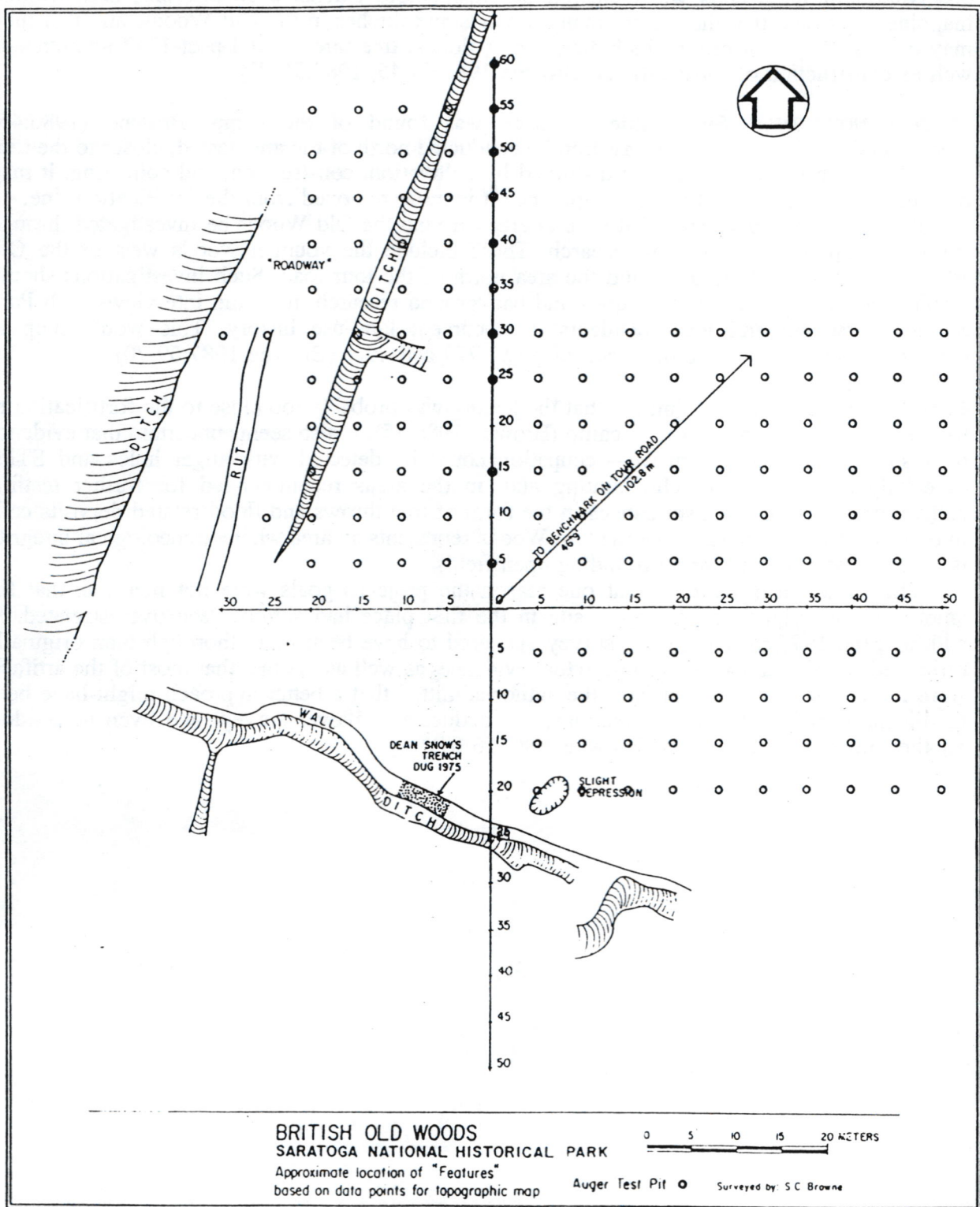


Figure 40. Plan of auger test pits and surface features in the Old Woods area, Saratoga National Historical Park, Battlefield Unit (Source: Browne 1986:Figure 9).

observation of the woods when cleared of brush, more extensive excavations, and detailed mapping suggested that there were many mounds and ditches in the Old Woods, and that they may have a variety of origins including spring floods, tree throws, and post-1777 activities as well as construction of fortifications (Browne 1986:44-45, 1987:51-52).

RECOMMENDATIONS: Since little evidence was found of the camp, Browne (1986:45) recommended that additional excavation be conducted north of the area tested, closer to the tour road. Although this area has been disturbed by cultivation, construction, and collecting, it may be a more likely location for the camp, since it is more removed from the fortification line.

It was also recommended that several areas around the Old Woods be investigated through surface mapping and historical research. These include the younger woods west of the Old Woods, the Wilbur Farm area, and the area north of the tour road. Such investigations should emphasize non-destructive techniques and background research including interviews with Park Service personnel and local residents to document land-use history. This would help to distinguish features that are the result of post-1777 activities (Browne 1987:69-70).

EVALUATION: The author admitted that the testing was probably too close to the fortification to have encountered evidence of the camp (Browne 1986:45). It also seems uncertain that evidence of a short-term—albeit intensive—occupation could be detected with auger holes and STPs, especially after intensive relic hunting and, in the areas recommended for further testing, cultivation. Evidence of disturbances in the form of tree throws and flood-related deposits calls into question the hypothesis that the Old Woods represents an area where archeological integrity is much greater than in the surrounding open fields.

The author also admitted that one reason the project's goals were not met was that the amount of material that was at the site in the first place had simply been overestimated. In addition, the 1975 metal detector survey appeared to have been more thorough than originally estimated. Given the paucity of artifactual evidence, as well as the fact that most of the artifacts were found just below the surface, the author admitted that a better approach might have been to dig more and shallower excavations, to conduct a walkover survey, and even to conduct another metal detector survey (Browne 1987:66-67).

Archeological Investigations at the American Headquarters (1985-1986)

The headquarters of General Gates, originally known as the Woodworth Farm and later as the Price Farm, included a farmhouse in which Gates and his staff lived and worked around the time of the battles, as well as a field hospital in an adjacent barn (Figure 41). These structures had been razed by 1830, and later buildings came and went before the property was acquired by the National Park Service in 1984. The following year, archeological testing began to try to find the locations of the two battle-related buildings (Starbuck 1986b:3).

The investigations were reported in an interim or "progress" report and a final report.

INTERIM REPORT TITLE: The American Headquarters. In *Saratoga National Historical Park Archeology Progress Report—1985*, edited by David R. Starbuck, pp. 17-31. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: David R. Starbuck

DATE OF REPORT: July 1986

FINAL REPORT TITLE: *The American Headquarters for the Battle of Saratoga: 1985-1986 Excavations*. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: David R. Starbuck

DATE OF REPORT: May 1987

DATES OF FIELDWORK: Two seasons of fieldwork were conducted at the site. Although specific dates were not given, the work was carried out during the summers of 1985 and 1986.

PROJECT GOALS: The principal objective of the research was to locate the sites of the Woodward farmhouse, where General Gates' headquarters were located, and the nearby barn, which had been used as the field hospital. In addition, the investigation was designed to locate burials which were reported to have been placed near the hospital. A larger concern was whether any evidence for the military activity here could be separated from the 220 years of farm life with which it was mixed (Starbuck 1987:7).

METHODS: Initial methodology was intended to find outbuildings and other outlying features such as trash pits and privies which might be associated primarily or solely with the military occupation. No traces of the former Woodworth farm and barn were visible on the surface. Consultation of historic maps, plans, historic descriptions of the site (e.g., Lossing 1851), and research reports such as those of Luzader (1973) preceded and informed the fieldwork (Starbuck 1987:7-8).

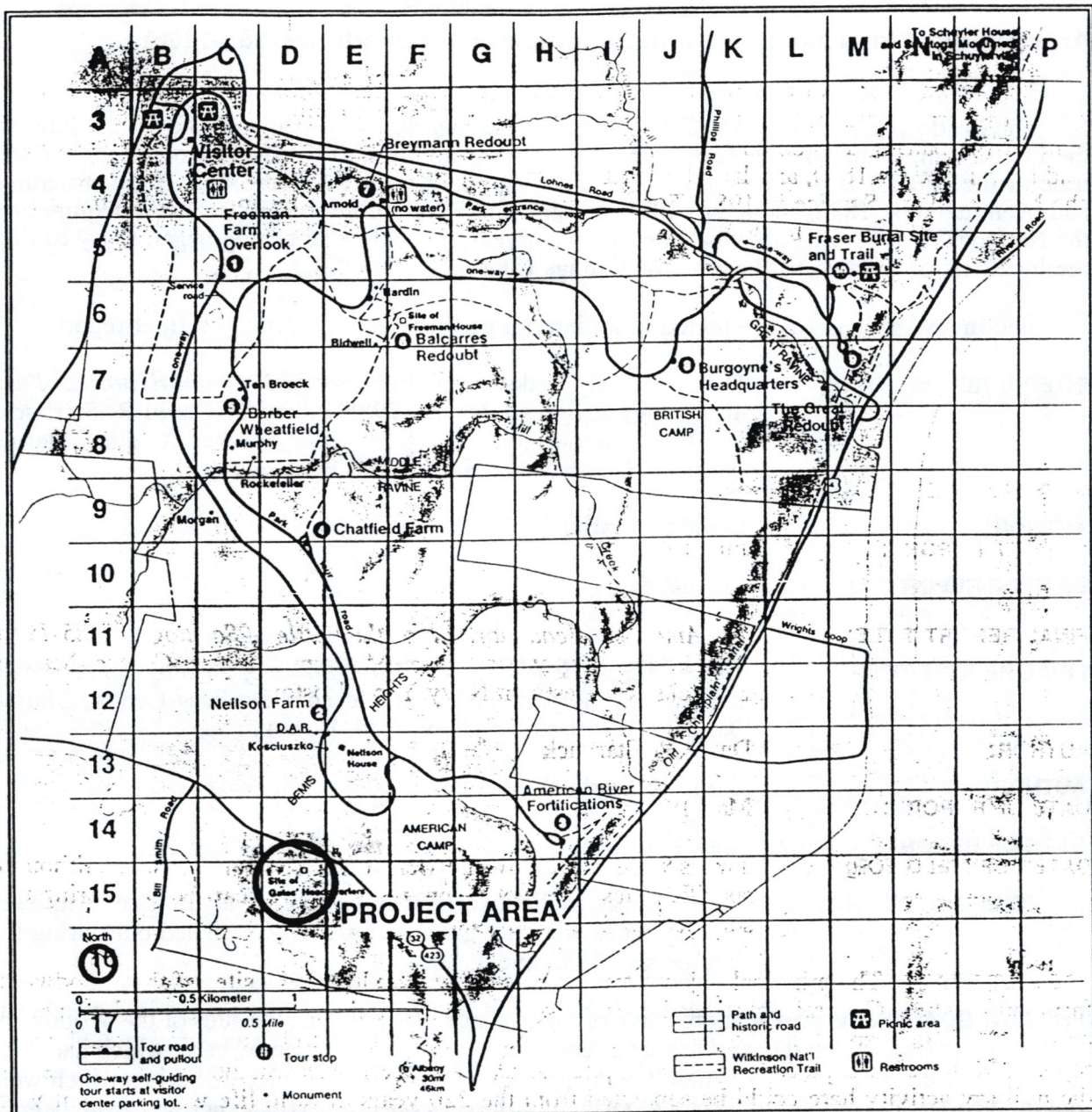


Figure 41. Location of the Woodworth Farm/American Headquarters, Saratoga National Historical Park, Battlefield Unit.

The first stage of the field testing consisted of a magnetometer survey of the area. In this survey readings were taken at each point on a 5-meter grid; more than 1,000 such readings were taken. The magnetometer was unable to detect subsurface anomalies at the site. While surface inspection identified several features, none of these could be detected by the magnetometer. It was concluded that the site's soils contained ferro-magnetic material that overwhelmed the magnetic signals from cultural features (Howe 1986:11).

At the same time, attempts to dig STPs were abandoned when it proved impossible to dig through the clay hardpan that underlay the surface. Finally, a power auger was used to excavate 119 test units on a 5-meter grid. Meanwhile, visual inspection of the surface revealed numerous woodchuck holes, some of which had unearthed bricks, foundation stones, and artifacts. Places where concentrations of such artifacts were recovered or observed were then tested with 1 x 1 meter excavation units and backhoe trenches (Figure 42). Meter-square units were excavated around what proved to be a well and around the foundations of what proved to be the Woodworth farmhouse/American headquarters. These were initially encountered in a backhoe trench (Starbuck 1986c:20, 1987:8-9).

The 1986 field season focused on backhoe trenching with the goal of locating the field hospital and burials. By the end of the field season more than 24 trenches had been excavated. At the same time, more meter squares were excavated in and around the Woodworth farmhouse foundations. Eventually 30 meter squares were excavated in the vicinity of the headquarters—18 within the cellarhole itself (Figure 43). Finally, the excavation of the well was completed (Starbuck 1987:9,12).

RESULTS: The excavations succeeded in locating the foundations of the Woodworth farm (American headquarters), the Woodworth barn (the field hospital), and other features in the immediate area. Despite the extensive trenching, no burials were found.

The top of the **stone foundation of the Woodworth farmhouse/American headquarters** was encountered at the base of the plowzone. The foundation measured approximately 20 feet on a side. Individual wall measurements varied between 18 and 23 feet. Precise measurements could not be made because of some slumping of the walls. No definite evidence of a fireplace or chimney was found. Few bricks were recovered from the cellarhole. Approximately one half of the cellarhole was excavated (Figure 44). Within the area enclosed by the foundations was a layer of fill containing many animal bones, ceramics, clam shells, pipes, other small finds, and architectural debris. The base of the fill was a sterile clay hardpan between 1 and 1.2 meters below surface (Starbuck 1986c:26, 1987:12-17).

Most of the artifacts recovered from the site were found in the cellarhole; this is also where most of the excavation took place. At the time of the final report (Starbuck 1987), artifact analysis was still incomplete and only preliminary results could be presented. Very few military-related artifacts were found. Of these finds, only one, a canister shot, could be construed as most likely associated with the battle. The most abundant ceramics were creamware and pearlware. Preliminary analysis suggested a mean ceramic date of ca. 1800 and a date range between 1790 and 1810. Most of the few hundred kaolin pipe fragments appeared to be late eighteenth century. Glassware was extremely rare at the site; most of the glass was from windows. Metal items included building hardware (including hundreds of hand-wrought nails), buttons, buckles, kitchen implements, and coins. The latter ranged in date from 1787 to 1809. More than 7,600 bones were recovered from the cellar hole. Much of the bone had been butchered. Cow and pig dominated the assemblage; very few wild animals were represented. Most of the bones were from immature animals, suggesting fall butchering. None of the artifacts postdated 1829 (the year that the building was razed), and many dated 20 years or more earlier. (Starbuck 1986c:26, 1987:12-17,28-40).

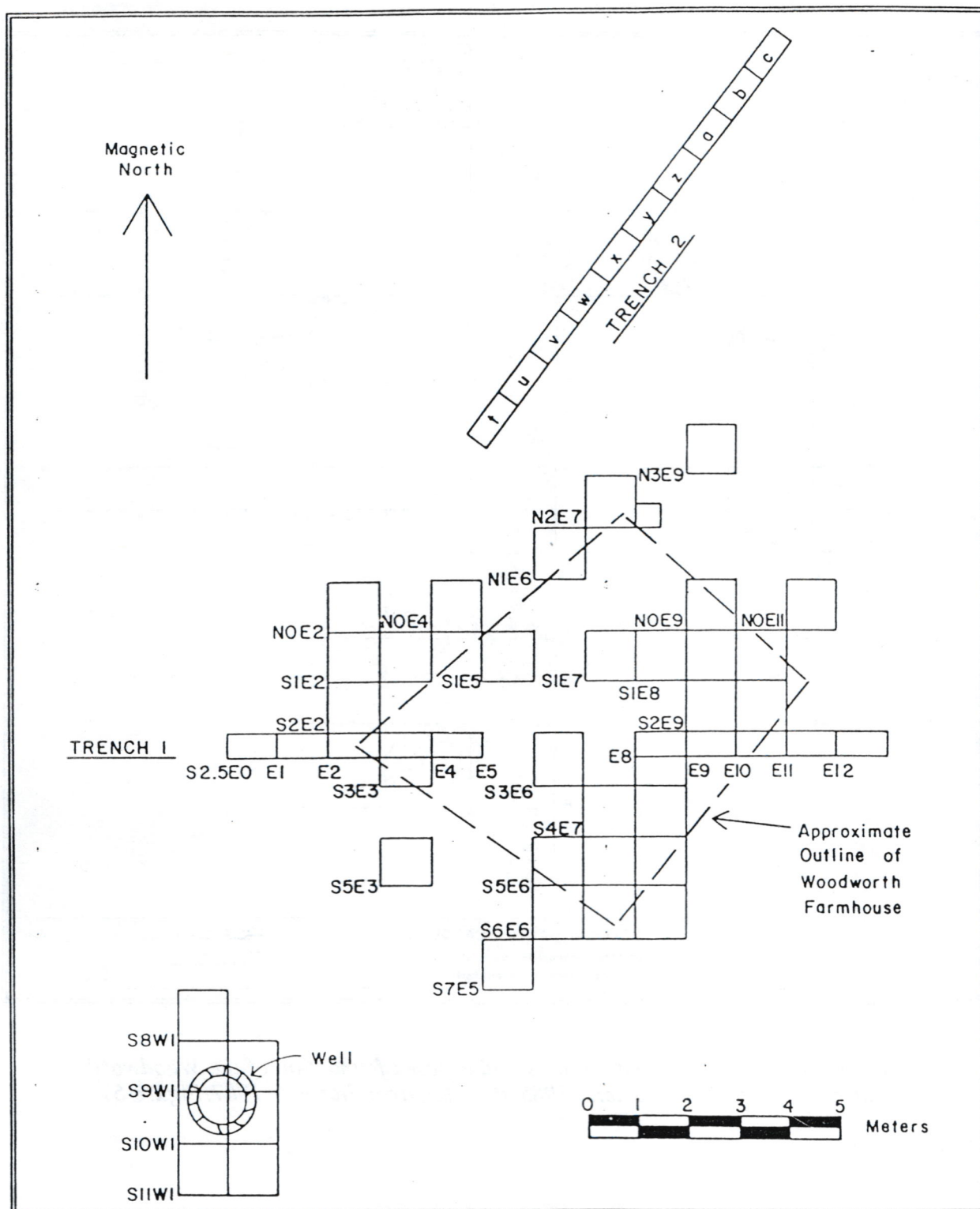


Figure 43. Plan of excavation units, foundation, and well at the Woodworth farm/American headquarters, 1985-1986 (Source: Starbuck 1987:Figure 4)

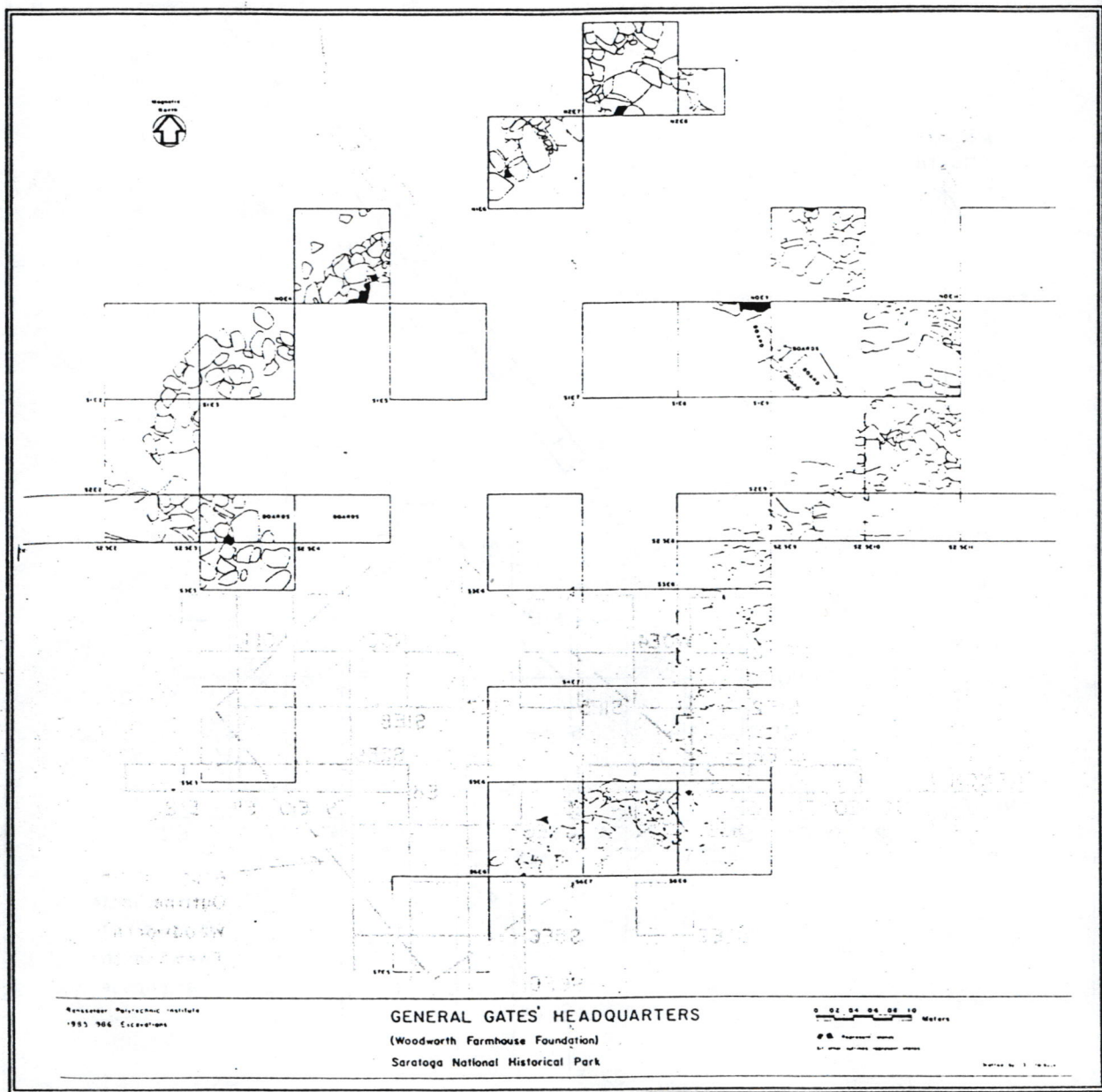


Figure 44. Plan of excavation units and exposed foundation of the Woodward farm/American headquarters, 1985-1986 (Source: Starbuck 1987:Figure 5)

The remains of the **Woodworth barn/field hospital** were found by consulting historic maps to determine the most likely location of the structure and trenching that area intensively. Eventually, four small clusters of stones were exposed in Trenches 21, 22, and 23 that appeared to mark the four corners of the barn. No evidence of foundation walls was found apart from these four corners. The stone piles defined a rectangle approximately 20 feet north-south by 16 feet east west, about 36 feet east and downslope from the farmhouse/headquarters (Figure 42). Artifacts were found inside the rectangular outline formed by the stone piles, but ended abruptly outside the perimeter. No artifacts were found that could be specifically connected to the American field hospital or to a barn (Starbuck 1987:11,17-22).

The first 1 x 1 meter excavation units began at a woodchuck hole where artifacts were observed in the backdirt. Here, excavation exposed a **well**, about 30 inches in diameter (Figures 42 and 43). The well fill contained fieldstones, some ceramic sherds, and smoking pipe fragments in the first few feet, beneath which was found a quantity of charred timbers and squirrel bones. At this point—about 8 feet—the water table was reached. Below this, preservation proved excellent. The most common kinds of remains found here were the bones of small animals who had presumably fallen into the well. Artifacts included a few ceramic sherds, mostly small pieces of redware and whiteware, large quantities of cherry pits and squash seeds, grass, other floral remains, stones, pieces of a wooden bucket, part of a red earthenware bottle, a whetstone fragment, and part of an eyeglass frame (Starbuck 1986c:20, 1987:22-24).

A large **French drain** was discovered north of and partially encircling the house and barn (Figure 42). This was more than 200 feet long and consisted of a ditch filled with stones measuring 4-8 inches in diameter, 2-3 stones deep and 2-6 wide (Starbuck 1987:26).

Among the artifacts found were three Native American bifaces. Two were found in the cellar fill, the third in the hospital area. All appeared to be of precontact date. It was not certain whether any of these was found anywhere near its original context (Starbuck 1987:28).

INTERPRETATIONS: The stone foundation was interpreted as the Woodworth farm/American headquarters based on its location compared to historic maps and descriptions and the artifacts found in the fill. None of these postdated the demolition of the house (1829). Since many artifacts predated the event by 20 or more years, it was suggested that the cellar was filled before the house was abandoned, perhaps during its final years when only part of the house was occupied. The paucity of bricks was interpreted as the result of salvaging the bricks for reuse at the time the house was razed. Because there were slightly higher numbers of bricks inside the western wall it was suggested that a fireplace and chimney may have been located there (Starbuck 1987:12-17).

The identification of the area defined by the four clusters of stones as the Woodworth barn/field hospital was based on its size, location, and context. It was nearly as large as the house, was placed exactly as indicated by Lossing (1851), and constituted the only foundation debris found anywhere near the farmhouse (Starbuck 1987:22).

The contents of the well suggested that this feature was not filled in rapidly or in a single episode, but rather was filled in gradually with much of the material coming in naturally from the surrounding fields. At some point, perhaps within the last century, the top portion was filled with stones in a single episode, most likely so that it could be safely driven over with farm machinery (Starbuck 1987:24).

The lack of military artifacts was attributed to the years of collecting that followed the battle (Starbuck 1987:28).

RECOMMENDATIONS: Starbuck recommended that the next step should be the creation of an interpretive plan. Further testing for burials was also recommended. Specifically, more distant places with relatively high ground (nearby ones had been tested with backhoe trenches) were

EVALUATION: This research project achieved its goals of locating the site of the American headquarters and field hospital. No burials were found and no evidence of military activity was found that could be separated from the site's domestic and agricultural components.

The author and his staff should also be credited with a creative and flexible approach to the methodological challenges presented at this site. New testing strategies had to be developed and implemented when the initial magnetometer and STP surveys proved useless or impossible. The failure of the magnetometer to identify any of the site's anomalies was a particularly valuable lesson in the limitations of remote sensing methods, especially reliance on a single method.

Other any of these was found anywhere near the accident context (Struback 1987:82).

Archeological Investigations at the Taylor House (1987)

The Taylor House had been discovered and identified by Dean Snow in 1973. In 1987, Starbuck's RPI team, under the supervision of Paul Demers, returned to the site to expand on Snow's excavations.

The investigations were described and discussed in two reports.

REPORT 1 TITLE: Archaeological Investigation of the Taylor House Site, Saratoga National Historical Park, Stillwater, New York, June-July 1987. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Paul A. Demers

DATE OF REPORT: 1988

REPORT 2 TITLE: The Taylor House. In *Saratoga National Historical Park Archeology Progress Report—1987*, edited by David R. Starbuck, pp. 61-67. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: David R. Starbuck

DATE OF REPORT: March 1989

DATES OF FIELDWORK: Fieldwork was conducted during June and July of 1987.

PROJECT GOALS: The goal of the investigation was to find the two outbuildings indicated in historical documents, delineate the form of the foundations, and acquire a larger sample of artifacts with which to interpret dates and activities associated with the site, especially from the time it was occupied by Major General von Reidesel, his family, and British officers (Starbuck 1989b:61-64).

METHODS: Backhoe trenches were excavated in order to search for outbuildings. Trenches and meter squares were excavated in the area of the house in order to locate the corners of the foundation.

RESULTS AND INTERPRETATIONS: Backhoe trenching failed to locate the outbuildings. It was suggested that these may not have had substantial foundations or may, in fact, have been missed. The corners of the foundation were located with precision. The foundation was built of unmortared stone. It measured approximately 20 feet on each side and was oriented northeast-southwest. The foundation was in a disturbed condition, with stones and bricks scattered and little structural integrity. No fireplace base and few whole bricks were found. This was interpreted as evidence of scavenging for building materials (Starbuck 1989b:64,67).

Aside from brick fragments, relatively few artifacts were found. Those that were found dated to the late eighteenth and early nineteenth centuries. This agrees with historical accounts that the house was moved some time before 1820 (Starbuck 1989b:64,67). The ceramic assemblage of

more than 1,000 sherds was dominated by creamware, with smaller amounts of pearlware, redware, delft, white salt-glazed stoneware, jackfield, and porcelain. Mean ceramic date was calculated at 1793.88. Other artifacts included hand-wrought nails, window and bottle glass, charcoal, cow and pig bones, buttons of bone and of copper alloy, a buckle, clay tobacco pipe fragments, and a gunflint (Demers 1988:32; Starbuck 1989b:64,67).

RECOMMENDATIONS: Although additional backhoe trenching might locate one or more of the outbuildings, it was suggested that there was no need to pursue this search. Further digging in the foundation was also not recommended since its disturbed condition made recovery information about doors, windows, or other internal structure unlikely (Starbuck 1989b:67).

It was recommended that further research could be done with the collection of recovered artifacts. This could be compared with material excavated from the Woodworth Farm and several other excavated farm sites in the region in order to learn more about eighteenth-nineteenth-century rural life in the Bemis Heights area or in the upper Hudson Valley region in general. The collection's interpretive value was also noted and it was recommended that "a modest exhibit" be prepared using the excavated material (Starbuck 1989b:67).

EVALUATION: The project achieved its goal of acquiring more precise information about the foundation of the Taylor House. The exact location of the foundation corners was determined and the sample of artifacts augmented the site's research and interpretive potential. The recommendations for the use of that material were appropriate; archeological collections such as this offer a useful source of information for researchers studying patterns of material culture and the other aspects of life they reflect within a region. While the investigators failed to find evidence of the outbuildings, this was perhaps a very difficult task since they were small structures that may have had little in the way of substantial foundations and may, like much of the house itself, have been removed and/or recycled.

March 1989

DATE OF REPORT

Fieldwork was conducted during June and July of 1987.

DATE OF FIELDWORK

PROJECT GOALS: The goal of the investigation was to find the two outbuildings indicated in historical documents, determine the corner of the foundation, and acquire a larger sample of artifacts which to interpret along with artifacts associated with the site, especially from the collection acquired by Major General von Rottschill, his family, and British officers (Starbuck 1989b:64).

PREVIOUS ARCHEOLOGICAL RESEARCH AT SARATOGA NATIONAL HISTORICAL PARK: SCHUYLER HOUSE UNIT

Archeological Reconnaissance at the Schuyler House (1958)

Initial Archeological Reconnaissance at the Schuyler House began eight years after the National Park Service acquired the property. After touring the site with Historical Architect Henry Judd and Assistant Historical Architect Douglas Schroeder, Regional Archeologist John L. Cotter supervised excavations, with the assistance of Park Historian John Luzader in July of 1958.

REPORT TITLES:

1. Preliminary Archeological Observations at the Schuyler House Grounds. Report on file at Saratoga National Historical Park, Stillwater, New York.
2. Report of Archeological Work Observed and Conducted at Saratoga NHP by Regional Archeologist, July 24-31. Report on file at Saratoga National Historical Park, Stillwater, New York.
3. Report of Schuyler House Archeological Investigations, July 23-29, 1958, Inclusive. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: John L. Cotter

DATES OF REPORTS: All 1958

DATES OF FIELDWORK: Cotter toured the Schuyler House and grounds July 1-2, 1958. Field work was conducted between July 23 and July 29, 1958 (Cotter 1958a, 1958b, 1958c).

PROJECT GOALS: Cotter's investigation was carried out in conjunction with the Schuyler House restoration program already under way. His investigation of areas adjoining the kitchen was undertaken to examine thoroughly a complex of structural remains partially exposed by Historical Architect Judd's workmen. These included structures east of the kitchen adjoining the northeast corner of the main house, a presumed root cellar located 50 feet beyond the southeast corner of the main house, and possible structures located beneath the main house's front porch. Investigations immediately east, west, and north of the Main House were carried out in an effort to test Park Historian Luzader's hypothesis that the present (third) Schuyler House had been constructed upon the foundations of the second, which had been destroyed by order of General Burgoyne in 1777 (Cotter 1958a, 1958b, 1958c). The rationale for Cotter's investigation of the root cellar was unclear.

METHODS: Cotter excavated in the following three areas:

- I. Kitchen: Kitchen-associated features immediately north and east of the kitchen proper.
- II. Main House:
 - A. area adjoining the east wall and southeast corner (beneath the former rear addition)
 - B. area adjoining the west wall and southwest corner (under the former front porch)
 - C. area 10-20 feet northwest of northwest corner
- III. Root Cellar: about 60 feet southeast of southeast corner of Main House (Cotter 1958a, 1958b, 1958c)

Cotter's investigation consisted of a continuation of an excavation begun by Historical Architect Judd to the east of the kitchen. Limited test excavations were conducted at the root cellar and in areas adjoining the Main House. These were followed by a preliminary analysis of the recovered artifacts. Depth, stratigraphic context, and feature association for several lots of artifacts were provided in Field Specimen Tables. Test trenches adjoining the southwest and northwest corners of the Main House were dug in order to test Park Historian Luzader's hypothesis. Wilkinson's (1777b) representation of the second house showed wings projecting from the southwest and northwest corners. Trenches adjoining the east wall and southeast corner of the Main House constituted a more indirect test of Luzader's hypothesis. Test excavations of areas adjoining the Main House were extended downward until "undisturbed rocky subsoil" was reached (Cotter 1958a, 1958b, 1958c). It appears that historical details were obtained through consultation with Park Historian Luzader and Historical Architect Judd since no documentary sources were cited.

Profiles and a plan of excavations conducted in areas adjoining the kitchen and Main House accompany Cotter's report (see also, Larrabee 1960, Figures 45 and 46, this report). Within the area immediately east of the kitchen, Cotter excavated a former privy in arbitrary stratigraphic levels, to a depth of at least 6 feet. Cotter excavated the root cellar to a depth of 8 feet ([Cotter 1958a, 1958b, 1958c] see Larrabee [1960:59] for the location of Cotter's test trench). Few details of excavation procedure were reported. Judd's photographs indicate that excavations were done with shovels and that the dirt was not screened.

RESULTS: I. Kitchen area: Immediately east of the kitchen, Cotter observed what he presumed to be the original (i.e., ca. 1780-1781) chimney footings. Under the chimney footings, separated by a layer of fill, he observed vestiges of an earlier structure. Upon returning to the site, he observed: (1) the foundation of a former privy, its southeast corner overlain by the northwest corner of an existing privy; (2) vestiges of two overlapping brick structures between the former privy foundation and the footings of the existing chimney; and (3) a brick-lined cistern adjoining the northwest corner of the privy foundation (Cotter 1958a, 1958b, 1958c). These and additional structural features in the same area, exposed in 1958, but not described in Cotter's report, were described in considerable detail by Larrabee (1960:9-31).

The fill between the chimney footings and the underlying structure contained a quantity of historic period artifacts. As excavation progressed, Historical Architect Judd recovered an unspecified quantity of this material, including ceramics and a ball clay tobacco pipe. Although historic period artifacts occurred throughout the area adjoining the east wall of the kitchen (see Cotter's Field Specimen Table), only the material recovered from the former privy was discussed in the text. The privy fill was reported to be particularly rich in artifacts, notably ceramics and metal items. Cotter estimated the temporal range of this material to fall between the first and third quarters of the nineteenth century. Elsewhere, building debris and domestic refuse recovered

appeared to date from the late eighteenth and early nineteenth centuries (Cotter 1958a, 1958b, 1958c).

II. Main House: In test trenches dug around the perimeter of the Main House, Cotter reported finding no evidence to confirm Luzader's hypothesis that the third house had been built upon the foundations of the second. Adjoining the southwest corner and along the east wall, no structural features were observed, but building debris and charcoal were present (Cotter 1958a, 1958b, 1958c).

Along the west wall of the Main House foundation, Cotter observed the presence of three or four basement windows below grade. During this investigation he observed what appeared to be remnants of a porch foundation adjoining the front entrance. In his first report, he noted that between the time that the Main House foundation and the front porch were constructed, 16-18 inches of fill had been introduced, burying the basement windows. In this report, he indicated the presence of a buried A horizon at the base of the fill (Cotter 1958a, 1958b, 1958c).

Building debris and domestic refuse were recovered from areas adjoining the east and west walls and the southeast and southwest corners of the Main house. Along the west wall and at the southwest corner, densities of both categories of material appeared to have been relatively low. Among the items recovered (by Cotter and/or by Judd) were ceramics, nails, a ball clay pipe bowl, and pipe stem fragments. Cotter reported that the pipe fragments appeared to date from the late eighteenth century (Cotter 1958b, 1958c).

Along the east wall and at the southeast corner, both domestic refuse (ceramics and ball clay pipe stem fragments) and building debris (notably brick and mortar) fragments were recovered. Cotter noted that brick fragments increased in frequency nearer the east foundation wall (Cotter 1958b, 1958c).

III. Root Cellar: Cotter reported this structure to be about 12 feet in length. The dry-laid stone walls of the structure began about 3¾ feet below grade and extended to approximately 8 feet. The structure appeared to have been intentionally filled. The fill was inorganic matter; included among its historic-period artifacts was a near-mint condition 1801 U.S. one cent piece and a quantity of English or Dutch delft (Cotter 1958b, 1958c).

In addition, Cotter noted that the extant tenant house, built ca. 1840, overlay a foundation of considerably smaller dimensions. He inferred that the foundation was of an earlier tenant house; he further postulated that some timbers from the earlier structure had been reused to frame the later structure (Cotter 1958b, 1958c).

INTERPRETATIONS: In the kitchen area, Cotter estimated from the artifacts that the fill between the chimney footings and the underlying structure had been deposited during the early nineteenth century, or possibly, during the last two decades of the eighteenth century.

Cotter concluded that the lack of observable evidence of wings formerly adjoining the southwest and northwest corners of the Main House provided sufficient grounds for rejecting Luzader's hypothesis that the third house was built upon the foundations of the second. However, along the east side of the Main House, Cotter did observe what could be construed as evidence that the third house was constructed upon the foundations of the second. He observed what could have been interpreted as the residue left after remains of a burned structure had been cleared away; but as Cotter appears to have realized, this material could also have been incidentally deposited at any point in the history of the Schuyler House (Cotter 1958b, 1958c; Larrabee 1960).

ADDITIONAL MATERIAL: The report included eleven black and white photographs by Historical Architect Judd, architectural plans and profiles by Assistant Historical Architect Schroeder, and a four-page field specimen table summarizing 32 lots of artifacts recovered by Judd and Cotter.

In fact,
they were able
to re-construct
a barn-like
structure from the
numbered timbers
when they took
down the tenant
house.

RECOMMENDATIONS: From his observations during his initial visit, Cotter recommended that formal archeological investigation of the Schuyler House and grounds begin as soon as possible (Cotter 1958a). Between July 1958 and March 1964, a series of archeological investigations were carried out (Cotter 1958b, 1958c, 1959, 1964; Larrabee 1960; Moore 1960).

EVALUATION: Cotter's conclusion that there were no wings, and therefore no evidence to support Luzader's hypothesis, would seem warranted only if (1) one could convincingly demonstrate that these wings were constructed in such a fashion that subsurface evidence would have remained after the superstructures were gone, and (2) that Cotter's test trenches were of sufficient length to reveal such evidence. Cotter assumed that these wings had foundations below grade. He provided no documentary evidence to support this assumption. Whether Cotter's test trenches were of sufficient length to intercept subsurface remains of these wings remain an open question. The only known plan of the second Schuyler House was that of Wilkinson (1777b). Given the small scale of Wilkinson's map, one can do no better than estimate the dimensions of the projecting wings. Cotter appears to have relied upon Assistant Historical Architect Schroeder's transcription of the Wilkinson plan (see Cotter 1958a).

Artifacts recovered during Cotter's investigation of the Main House and other areas of the Schuyler House and grounds (e.g., the kitchen, the root cellar) might provide some means of determining how these areas figure in the historical development of the Schuyler property. The manner in which Cotter and Judd retrieved and recorded artifacts restricts the research potential of those artifacts. More carefully controlled sampling of areas not affected during restoration work could provide a means of testing inferences derived from the existing artifact collections.

Cotter observed that a 16 to 18-inch layer of fill was deposited between the time that windows were installed in the Main House basement and the time that the former front porch was constructed. The artifacts included in this fill deposit could have provided some basis for determining whether the third house could have been constructed on the foundations of the second. At the very least, artifacts contained in this layer of fill could provide further documentation of the evolution of the Schuyler House.

Larrabee made an interesting point re: the 1777 Schuyler House —
When house #2 was torched by the British it was done during a period of wet/raing weather. He felt that even feeding the flames, a building such as house #2, supposedly made of brick, would not have burned totally to the ground. This could further substantiate points made above in TP#1, especially if wings were built on grade.

My interpretation of Cotter's findings was that house #3 was built on an existing foundation, though it was never positively identified as house #2. The point about the awkward basement fenestration in relation to the house (1777) plus the wet weather seemed to support that point. 127

Ym.
further
analysis
of these
materials
could
be quite
helpful

Archeological Reconnaissance at the Schuyler House (1959)

In June of 1959, Edward McMillan Larrabee conducted archeological investigations on the grounds of the Schuyler House. These investigations were reported as part of a Historic Structure Report on the Schuyler House.

REPORT TITLE: Report of Archeological Excavations Conducted at Saratoga National Historical Park, Schuylerville, New York, From June 8 through June 29, 1959. *Historic Structure Report Part II Schuyler House, Saratoga National Historical Park*. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Edward M. Larrabee

DATE OF REPORT: February 1, 1960

DATES OF FIELDWORK: Fieldwork was conducted from June 8 through June 29, 1959. The report also discusses Cotter's work of 1958.

PROJECT GOALS: This research was an extension of that directed by Cotter in 1958 and was guided by the same general goals.

METHODS: Larrabee's excavations focused on the areas south and north of the Main House kitchen. He also investigated a number of other areas (Figure 45). Areas investigated included:

- (1) Main House;
 - (a) behind, inside, east of, north of and inside Kitchen (Complex of structural features [Figure 46]);
 - (b) basement (Figure 47);
- (2) Grounds (including attached outbuildings);
- (3) "Burned Structure" (Figures 45:18 and 48);
- (4) Vegetable Cellar (Figure 45:16);
- (5) Ash Pit (Figure 45:15); and
- (6) Garden Area.

In the Main House area behind and inside the kitchen, most of the work had already been done (though not all reported) by Cotter and/or Judd in 1958. Features encountered here were cleaned, drawn and/or photographed, and to some degree, interpreted and/or re-identified. In the basement, floor planks were taken up and excavations were made in several areas (Figure 47). The foundations of the "burned structure" had already been excavated in 1958; Larrabee excavated three additional test trenches here, one inside the structure, and two outside (Figure 48). The vegetable cellar was likewise cleaned out, measured, drawn, and photographed. The ash pit was tested in 1959. A large, irregular area containing the feature was excavated to a depth of 8 inches. A smaller area within the foundation walls was excavated to 6½ feet to obtain a profile (Figure 49). The garden area was tested with four trenches excavated in a cross pattern (Figure 45:6). These varied in width from 5 feet to 1½ feet in width and were excavated to sterile subsoil, not more than 2 feet below surface (Larrabee 1960:56,61,68).

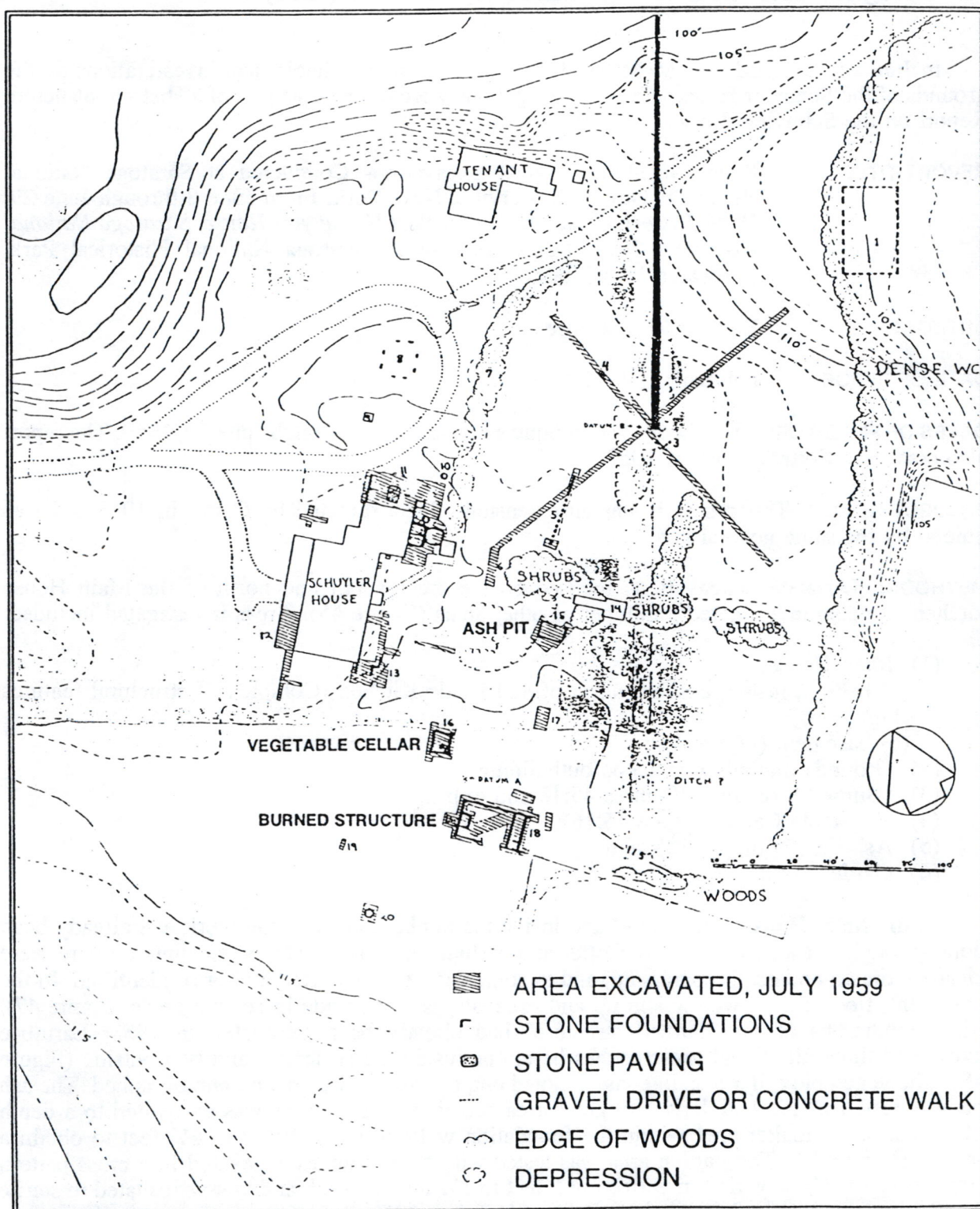


Figure 45. Archeological testing at the Schuyler House, 1958-1959 (Source: Larrabee 1959a)

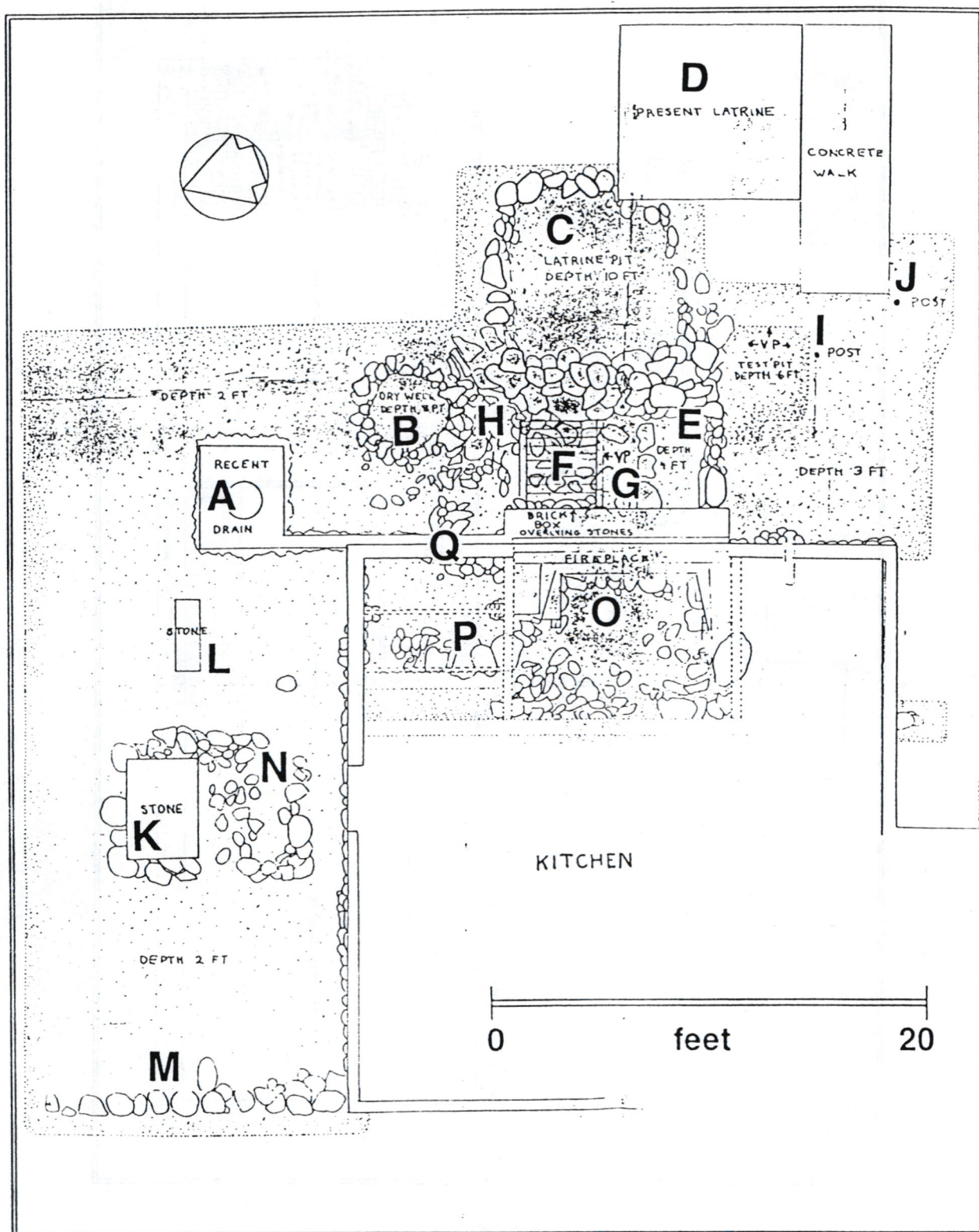


Figure 46. Features from the Kitchen Area at the Schuyler House (Source: Larrabee 1959b).

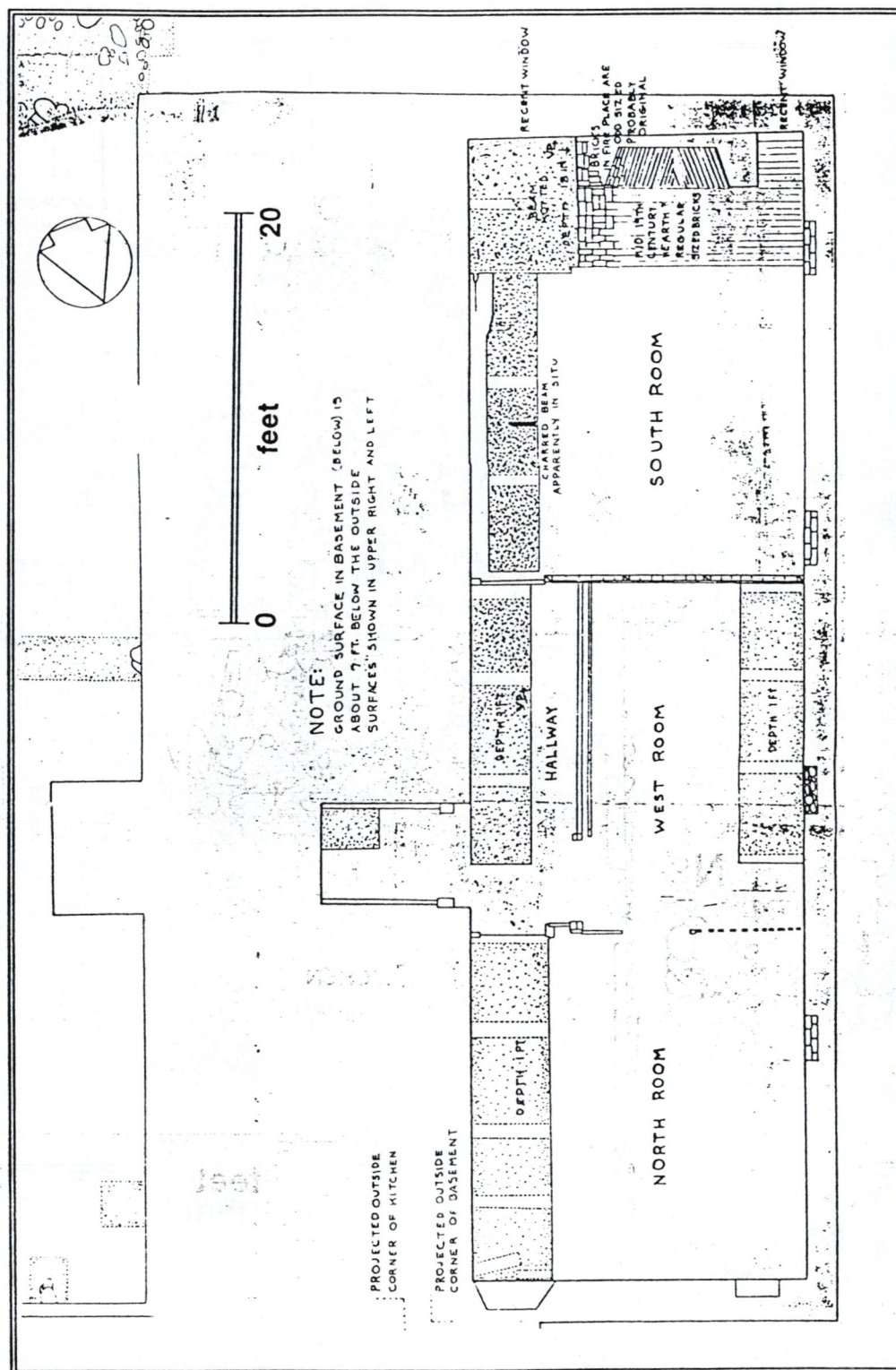


Figure 47. Plan of excavations in the Schuyler House basement (Source: Larrabee 1959b).

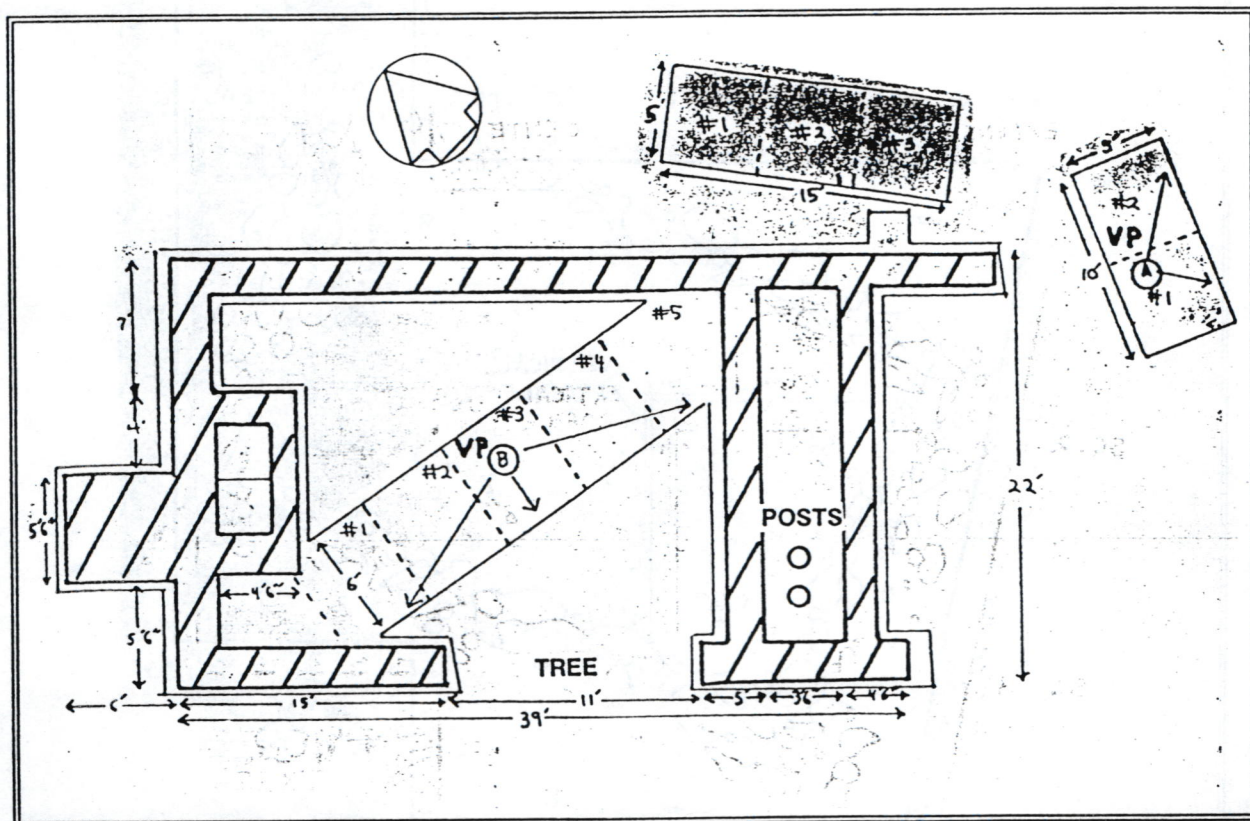


Figure 48. Excavations and features from the Burned Structure at the Schuyler House
(Source: Larrabee 1960:50, Drawing 11).

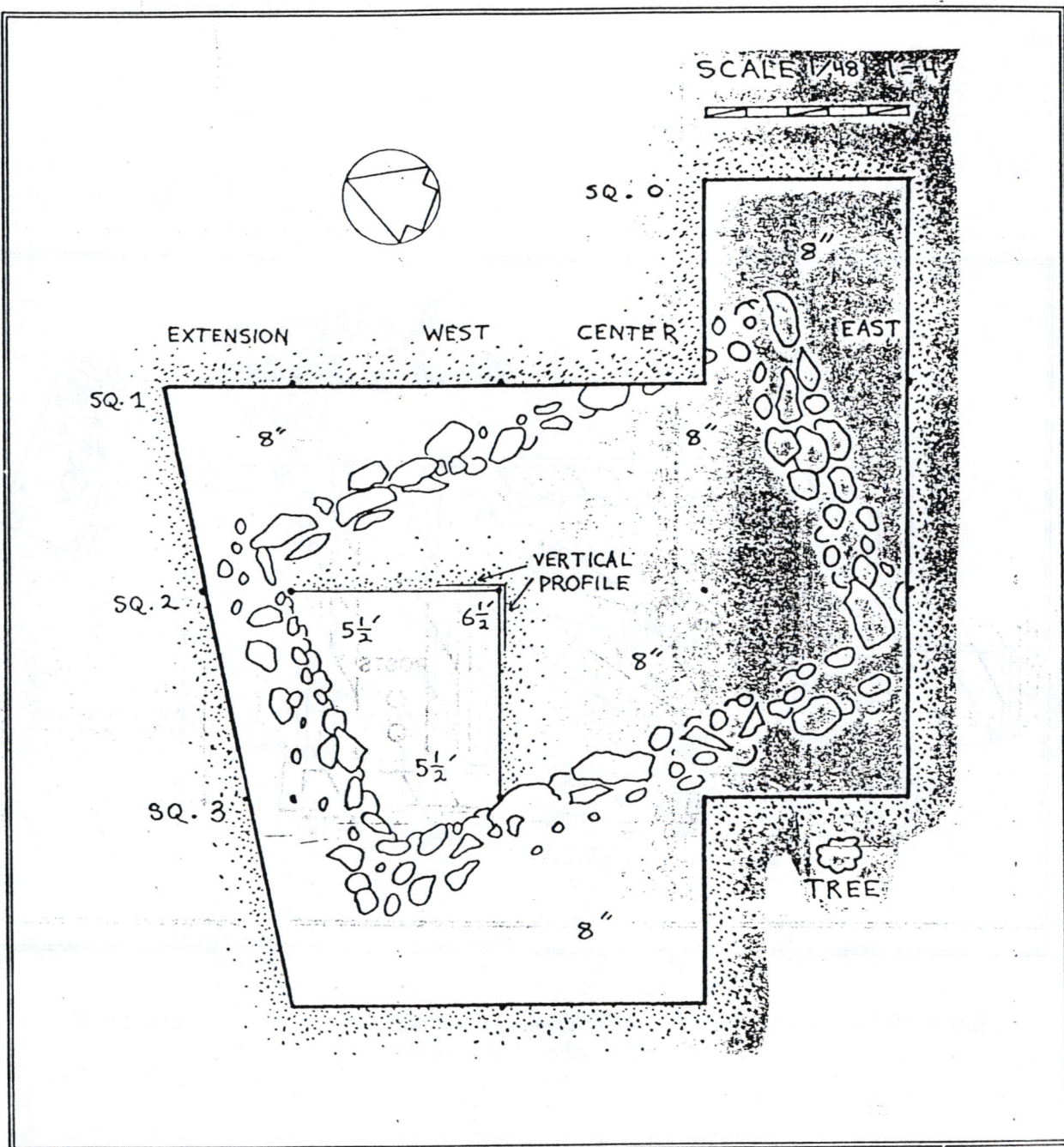


Figure 49. Excavations in the ash pit at the Schuyler House (Source: Larrabee 1960:63, Drawing 13).

RESULTS AND INTERPRETATIONS: In the main area of interest south and north of the Main House kitchen, a number of features were encountered (Figure 46). These included the following:

- (1) a **cistern** (Figure 46:A) This was lined with brick and faced with concrete (Larrabee 1960:9).
- (2) a **possible well** (Figure 45:10) This was found by Larrabee during backfilling, mapped, then reburied. It was cylindrical, stone-lined, and filled (Larrabee 1960:9).
- (3) a **dry well** (Figure 46:B) This had been completely excavated and mapped in 1958. It was filled with coal and ash. An enamel pot was the only artifact recovered (Larrabee 1960:9-10).
- (4) a **latrine pit** (Figure 46:C) Cotter referred to this as a "Privy Pit." He found it overhung by the northwest corner of the present (1958) latrine (Larrabee 1960:10).
- (5) the **extant latrine** (Figure 46:D) This contained two compartments and was probably built before 1900 (Larrabee 1960:10).
- (6) a **"stone structure"** (Figure 46:E) This was situated on the outer part of a complex east of the outside wall of the kitchen fireplace. Its north and south walls emerged from the back side of the fireplace, as if it were a continuation of it. It was rounded on the west by a wall that was apparently overlapped by the west wall of the latrine pit (4 above) (Larrabee 1960:10-11).
- (7) a **brick box** (Figure 46:F) This contained two construction components. The newer component consisted of a north-south line of headers and an east-west line of stringers superimposed on the east and north walls of the stone structure (6 above). The older was a partition wall in the stone structure (no. 6 above). The area between the partition and the north wall of the stone structure was paved with brick (Larrabee 1960:11).
- (8) an **underlying structure** (Figure 46:G) This was located below the brick box. It was a dry laid stone foundation that was filled to a depth of approximately 2.5 feet below the brick paving (Larrabee 1960:11-12).
- (9) a **possible wall** (Figure 46:H) This was found north of the "stone structure." It was described as a "jumble of stones," more or less in line, overlain by the north wall of the "stone structure." It probably represented a continuation of the underlying structure that had been disturbed during the construction of the dry well (Larrabee 1960:12).
- (10) two **posts** (Figure 46:I and J) These were located east of the kitchen (Larrabee 1960:12-13).

North of the kitchen, the architectural evaluation on the north wall of the kitchen indicated that when the kitchen was built, the porch ran all along the north side. Subsequently (after several decades of weathering), a taller porch was built. By 1890, the porch contained two enclosed rooms. By 1906, it was again an open porch. In 1958, the porch was removed and the ground below it was excavated by Cotter and Judd who noted the following features:

(1) **large stones** (Figure 46:K and L) These cut and dressed stones served as the porch steps (Larrabee 1960:25-26).

(2) **an extant cistern** (Figure 46:A) This was located east of the kitchen (described above) (Larrabee 1960:9,26).

(3) **a wall** (Figure 46:M) This was a wall of stones extending north from the northwest corner of the house. Its southern 6 feet comprised the west foundation wall of the latest porch. The wall then extended an additional 7 feet. This could have been related to a milk room that at one time was located in this area (Larrabee 1960:26).

(4) **a small platform** (Figure 46:N) This was a rectangular structure of medium sized stones situated between the north kitchen door and the larger of the dressed stones. This may have been a foundation for a small porch or a small paved area outside the kitchen door at the base of some steps (Larrabee 1960:26-27).

(5) **the present well** (Figure 45:9) This was located about 30 feet north of the kitchen. It included a 10-foot deep stone-lined cylinder over which a small shed had been built (Larrabee 1960:27).

Inside the kitchen, Larrabee excavated the area under the recent kitchen hearth, which had been removed, and the area between the hearth and the northeast corner of the building. Beneath the recent hearth were the remains of an **earlier fireplace** (Figure 46:O). Although little remained of this feature, it was possible to reconstruct its shape and construction. It measured just over 6 feet at the back, with a brick floor that flared out to 9 feet. The hearth area had been covered with brick over a stone foundation (Larrabee 1960:27-28).

North of the hearth, two features were observed. One was a **line of stones** (Figure 46:P) oriented north-south. These were interpreted as waste—rejects from some other construction. The other was a **line of stones** extending part way along the east wall of the kitchen, at a lower, distinct level from that of the kitchen foundation (Figure 46:Q). This may represent part of the underlying structure described above (Larrabee 1960:28-31).

This complex of features proved very confusing and impossible to interpret with great specificity. Cotter's and Larrabee's excavations had established relative chronological relationships between some of the features, however, they were unable to identify the function of the brick box, stone structure, and underlying structure (Larrabee 1960:29-30, Drawing 7).

At the southeast corner of the house, Cotter's excavations had disclosed a set of **shallow stone walls** (Figure 45:13). These were interpreted as supports for a porch that, based on photographic data, must have predated 1900 (Larrabee 1960:32-33).

Excavations in four rooms of the basement revealed a layer of burned material in the south room and the south part of the hallway only (Figure 47). The burned material consisted of small pieces of charcoal, small brick fragments, a few blackened bricks, and some white ash. This material was mixed with hard clay. It occupied a stratum below the uppermost layer (soft brown earth with debris dating from about 1777 on) and a lower layer of hard, undisturbed, gravelly soil. Such material was what would be expected from a major fire if larger pieces had been removed by raking or sifting the ashes prior to reusing the foundations. The relative lack of damage to the foundations led Larrabee to suggest that the earlier structure might not have burned to the ground. However, this evidence, while suggestive, was not conclusive. Furthermore, the lack of burned material in the other portions of the basement suggested that the new house may have been built on only a portion of the old foundation (Larrabee 1960:35-39).

In a final chapter in the report, William Hershey (1960:85-86) cited historic evidence that the original Schuyler house was located east of the present house and that it was destroyed by the construction of the Champlain Canal. He cautioned against assuming that the present house was built upon the foundations of its predecessor but admitted that it may stand on the foundation of some other building that was burned by Burgoyne.

On the grounds, Larrabee observed a number of features that had not been tested archeologically. These included a visible **foundation** (Figure 45:8) that was reputed to have held a large wood house and slave quarters. Another visible **foundation** (Figure 45:1) measured about 30 x 40 feet and its location fit an 1853 description of a barn. The extant mid-nineteenth century **tenant house** (Figure 45) was reputed to have been built on older foundations (Larrabee 1960:40).

A dry, **stone-lined well** (Figure 45:20) was excavated to a depth of 8 feet in 1958. Artifacts were recovered but had not yet been analyzed. Although this well may predate the present well located north of the kitchen (Figure 45:9), its precise dates of use are not known (Larrabee 1960:41).

The foundations of the so-called "**burned structure**" (Figure 45:18) were excavated in 1958 and were cleaned, measured, and recorded in 1959. These foundations were loose field stone, about 2 feet wide and never more than 2 feet (three courses) deep. They formed a rectangle 22 feet wide and 39-43 feet long, oriented northwest-southeast with inner walls near the southeast end and a stone platform and a stone box at the northwest end (Figure 48). The three additional trenches revealed no evidence of extensions of the foundation walls or of additional interior partition wall foundations. The stone platform at the structure's northwest end was interpreted as a doorstep. The stone box inside the structure's northwest end was regarded as ambiguous. Larrabee was reluctant to interpret it as a fireplace because there was no mortar and brick and no underlying layer of sand or reddened soil. Instead, he suggested that it was a support for a stairway or entranceway (Larrabee 1960:43-45).

The structure exhibited abundant evidence of its destruction by fire. A wooden post found between the interior partition walls was charred on its upper portion and many of the foundation stones had been cracked or reddened by fire. A layer of burned material was also recovered below the humus, and many fire-tempered hand-forged nails further suggested that the structure had burned completely (Larrabee 1960:46-47).

Larrabee concluded that the burned structure was not the Schuyler house that was burned by the British, but was a small, frame building. Based on the hand-forged nails, he estimated that the building was built before about 1798, when cut nails came into wide use. Given the fact that buildings in this area would need regular repairs, for which, after 1800, cut nails would have been used, Larrabee dated the building's destruction to before 1840. Ceramics included both eighteenth and nineteenth-century wares. The building was described as having been small, having one story with perhaps a loft, and of indeterminate function (Larrabee 1960:47-48).

The **vegetable cellar** (Figure 45:16), which was located beneath an earthen mound, had been exposed and excavated, but not recorded, in 1958. It was 9 feet deep with walls that still stood over 6 feet high in places. It contained a stone ramp and a stone shelf along the southeast wall (Figure 50). Nails with wood fragments attached were found in the south quarter of the cellar, which suggested that the ramp had supported a set of wooden stairs. An 1801 U.S. penny, found in 1958, dated the cellar fill to the early nineteenth century (Larrabee 1960:56-58).

The **ash pit** consisted of a rectangular stone foundation that contained many strata of fill. Artifacts suggested a nineteenth-century fill date for most of the layers. The uppermost layer of 3-6 inches of ash contained artifacts of much more recent vintage. The date and function of the building that had stood here could not be determined, beyond the fact that it had a deep cellar or pit and was filled relatively quickly during the nineteenth century, with a last layer added at a later time during the twentieth century (Larrabee 1960:61-63).

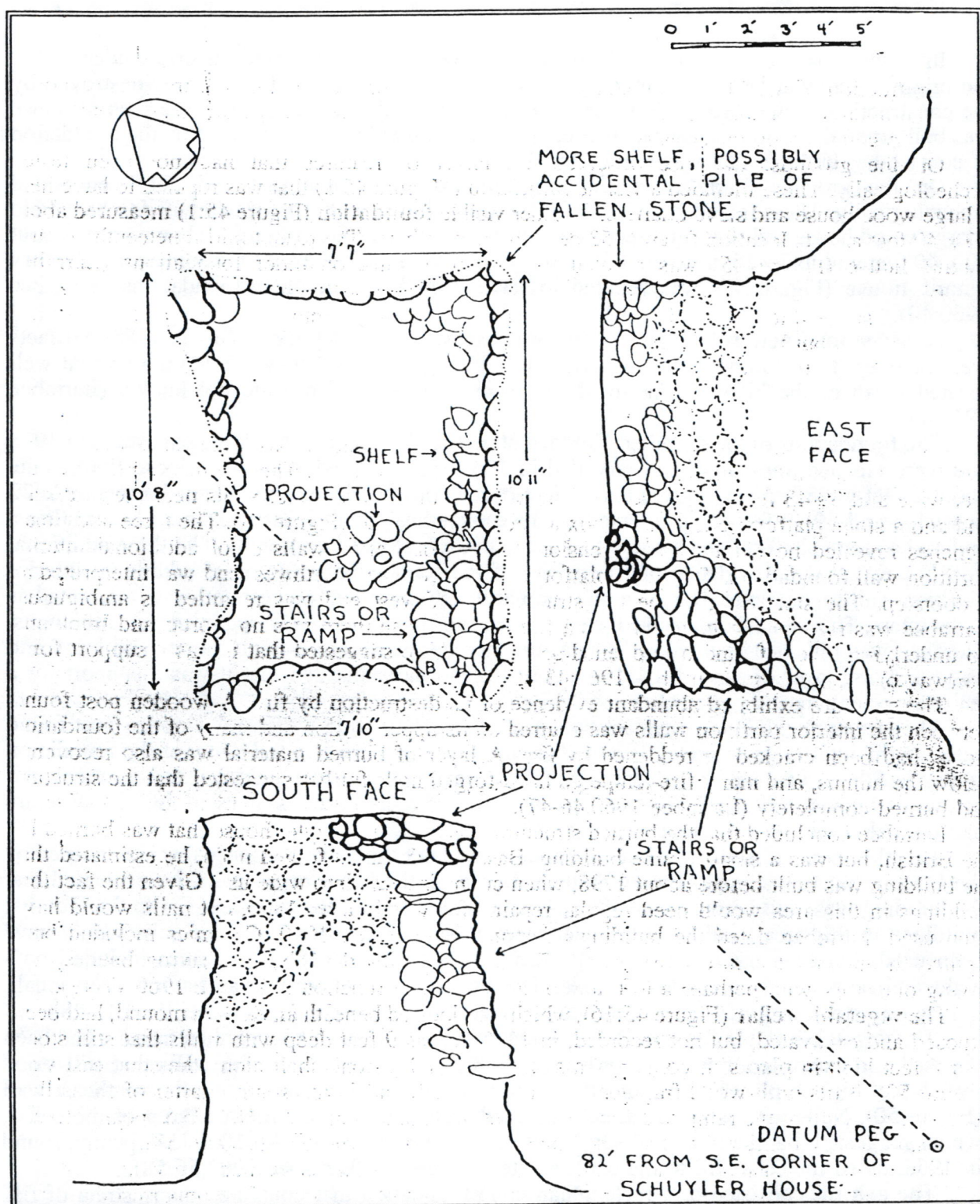


Figure 50. Plan and profile of the vegetable cellar at the Schuyler House (Source: Larrabee 1960:58, Drawing 12).

The garden trenches exposed four features. A wall (Figure 45:5) of dry-laid field stone was encountered which was 18 inches wide and more than 1 foot deep. This was followed by probing and was found to extend about 40 feet. No corners were identified, and its function remained undetermined. Remnants of **two ditches** (Figure 45:2 and 4) were encountered. One of these was packed with stone and appears to have been an extension of the wall, suggesting that the wall may have actually been a walkway. The other appeared to be an extension of a line of grape arbor and bushes 60 feet away. A **stone construction** (Figure 45:3) of mostly dry laid stone with some mortar, was also found. This appeared to be a fragmentary remnant of what may have been a garden structure such as one shown on a ca. 1837 map (Larrabee 1960:68-69).

The areal extent of the garden area was inferred from the extent of a **thick humus layer**. This was present in most of the area, but was absent or present only in traces on the sloping lawn near the woods, beyond the ditch in the northeast trench (Figure 45:2). The humus was also greatly reduced beyond the grape arbor in the southeast trench. Profiles of the southwest and northwest trenches showed regularly spaced deposits of white material which was tentatively identified as burned and crushed shells used as fertilizer. The trench across the ridge top revealed ashes and clinkers which may have been used to surface a path. A nineteenth-century photograph showed a trellis and fence running along this ridge top with the garden on one side. Although the pattern of walks and beds could not be reconstructed, it was thought to be present in the flat 120-square foot area delimited by the above noted features, soil changes, and topography. Few artifacts were recovered from the garden trenches. However, among the finds were two Native American projectile points (Larrabee 1960:69-78).

Larrabee inferred that the site had been intensively used over the years from the fact that fragments of brick were found almost everywhere on the grounds and that there was also much other dispersed construction debris (nails, roof slate, and window glass).

RECOMMENDATIONS: In order to clear up the ambiguities in the basement and to resolve the question of the relationship between the locations of present house and the previous house, Larrabee recommended that trenches be excavated against the foundation walls to their full depths at several locations on all four sides of the basement (Larrabee 1960:38).

In light of the report that the tenant house foundations predate the present tenant house, it was recommended that the foundations "be preserved and studied when the tenant house is torn down" Larrabee (1960:40).

Larrabee (1960:70) also recommended that more extensive excavations in the garden area could produce sufficient evidence to reconstruct the plan of the Schuyler's garden.

The report ended with recommendations for historical research. Unexplored sources of information were suggested and it was generally suggested that the historians, historical architects, and archeologists should strive to work together in a more integrated manner. In addition, it was recommended that greater research effort be focused on the history of the property prior to 1777 (Hershey 1960:81-86).

EVALUATION: Two years of archeological testing failed to determine conclusively whether the present Schuyler house was built over the remains of the house that was burned after the Battle of Saratoga. It is likely that Hershey's complaint of lack of integration of archeological and historical research identifies one of the reasons that this goal was not achieved. In general, Larrabee's interpretations were appropriately cautious, sometimes frustratingly so. He was careful to suggest alternative interpretations and to cite the evidence on which he based his inferences. His interpretations were not always correct. His identifications of the stone platform and box at the burned structure are most likely wrong. It seems more probable that the platform was a chimney support and the box was the support for a fireplace, despite the lack of mortar and fire reddening.

The report made effective use of maps, drawings, and photographs. Especially informative were the photographs accompanied by line drawings that identified the photograph's elements. While this report served to document the features and soils in the excavated areas of the site, there was little in the way of artifact analysis or specific description of field techniques. Although this appears to have been standard practice at the time, it makes assessment of such factors as sample representativeness and artifact recovery rates impossible.

...have already been...
...also found...
...remains of...
...the fact that...
...found almost everywhere on the grounds and that there was also much...
...other dispersed material on debris (not of glass and window glass).

RECOMMENDATIONS: In order to clear up the ambiguities in the basement and to resolve the question of the relationship between the locations of present house and the previous house, further recommendations that trenches be excavated against the foundation walls to their full depths at several locations on all four sides of the basement (Lambert 1960:33).

In light of the report that the tenant house foundations provide the present tenant house, it was recommended that the foundations be preserved and studied when the tenant house is torn down. Lambert (1960:33) also recommended that more extensive excavations in the garden area could produce sufficient evidence to reconstruct the plan of the Schuyler's garden.

The report ended with recommendations for historical research. Unexplored sources of information were suggested and it was recommended that the historical information be used to guide future excavations. The report also suggested that the historical information be used to guide future excavations. The report also suggested that the historical information be used to guide future excavations.

Archeological Reconnaissance at the Schuyler House: East Side of the Main House and Parking Lot (1959)

In the late summer of 1959, Cotter returned to the Schuyler House to conduct additional testing. Once again, he worked closely with Luzader and Judd in a short-term field project of limited scope.

REPORT TITLE: Report on Archeological Investigations and Tests at Schuyler House. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: John L. Cotter

DATE OF REPORT: 1959

DATES OF FIELDWORK: Field work was conducted on September 17 and 18, 1959.

PROJECT GOALS: Cotter's investigation to the east of the Main House was carried out (1) to further test Park Historian Luzader's hypothesis that the present Schuyler House was built upon the foundations of the second house, and (2) to locate General Schuyler's office. Cotter's reconnaissance of the site of the Schuyler House parking lot was undertaken to determine whether a more intensive archeological investigation would be required prior to parking lot construction.

METHODS: Cotter excavated in two areas: (1) on the East side of the Main House, including the projected site of General Schuyler's Office under the former rear addition; and (2) in the Schuyler House parking lot.

Cotter's investigation to the east of the main house examined the below-grade portion of the east foundation wall (exposed under Judd's direction, prior to Cotter's arrival) and excavated a sample of the projected site of General Schuyler's office. He reported that Judd's trench was 3-4 feet in width, about 5 feet in depth, and extended along the foundation wall from the basement stairway north to the kitchen foundation (Cotter 1959:1).

A series of test trenches (number, locations, and dimensions not reported) were dug within the projected limits of the General's office. Judd had previously determined that the office had been built between 1777 and 1837, that it had extended about 14.3 feet along, and 11.75 feet east of the rear wall of the Main House. Later in the nineteenth century, the office was succeeded by an addition that extended along the entire length of the rear wall (see Judd 1959:Appendix A). This addition was extant at the time of Cotter's investigation (Cotter 1959:1).

Cotter's survey of the Schuyler House parking lot consisted of surface reconnaissance and limited test excavation. No documentary research was conducted; historical details were supplied by Luzader (cf. Luzader 1960a; see also Snell 1951b). According to Luzader, the bond servants' and slave's quarters (built 1766, burned 1777) and a number of twentieth-century structures once stood within the proposed limits of the parking lot (Cotter 1959:2).

The Waterford-Whitehall turnpike once followed a northwest-southeast route across the Schuyler property. Although not incorporated as a turnpike until the late eighteenth or early nineteenth century (cf. Meinig 1966b), this road likely followed or paralleled the route of an earlier road (cf. Wilkinson 1777b).

Details of actual test excavation procedures were not reported. Field specimen tables in Cotter's field notes recorded the artifacts in lots; proveniences of lots were recorded in reference to feature association and arbitrary stratigraphic levels.

RESULTS: In the profile of Judd's trench along the east wall of the Main House, Cotter noted that about 2 feet of fill had been deposited on the presumed original grade. He reported the uppermost foot of fill to be rich in historic-period artifacts. All recorded lots of artifacts were recovered from the uppermost 12 feet of the landfill strata. Building debris and domestic refuse were recovered from both of the areas sampled (Cotter 1959:1-2).

Artifacts recovered from the fill strata indicated the approximate period during which the fill had been deposited. In addition to wall plaster, ceramics, clay pipe stem fragments, window glass, and glassware, the fill also contained machine-cut nails. From the time range represented by this material, Cotter concluded that the fill had been deposited during the early nineteenth century.

One item recovered from Judd's trench was a chunk of wall plaster which showed indications of being in a fire. This chunk of plaster and a number of porcelain sherds were the only items which appear to have been recovered below original grade. In addition to the chunk of wall plaster, Cotter (1959:1-2) noted a few lumps of charcoal and the end of a charred timber (all within the uppermost 12 feet of the full deposit).

At the purported site of General Schuyler's office, under the floor of the extant rear addition, Cotter found:

- (a) one relatively large, flat stone located ca. 11 feet east of the rear wall of the Main House and nearly in line with the existing basement stairway; and
- (b) a rectangular unit of rubble masonry located 1 foot below grade and about 15 feet south of the flat stone (a) (Cotter 1959:1).

During his brief survey of the proposed parking lot, Cotter noted that surface deposits had previously been stripped to depths of 1-4 feet, from U.S. Route 4, eastward, 50 feet or more. Elsewhere in the area, he noted a widespread scatter of brick bats. During limited subsurface sampling, he located a concrete footing, possibly a remnant of one of the twentieth-century structures mentioned by Luzader (Cotter 1959:2).

INTERPRETATIONS: Cotter concluded that neither the large, flat stone or the rectangular unit of rubble masonry were associated with General Schuyler's Office (Cotter 1959:1). Judd (1959b:Illustration 4) suggested that the rubble masonry had been a footing for a porch that had stood to the south of the office.

Concerning the question of whether the present house had been built upon the foundations of the second, Cotter observed little evidence to support Luzader's hypothesis. He noted (Cotter 1959:2) that Larrabee (1960) had observed similar, but somewhat more suggestive evidence under the main house basement floor (a charred beam). One point that Cotter never addressed was whether the fill observed along the eastern (and western) walls of the Main House foundation was the product of one, two, or more depositional events. From what Cotter had reported, at least two depositional events occurred. Along the east wall, there appeared to have been an appreciable difference in artifact frequency between the upper 12 feet and the lower 12 feet of fill. This could be interpreted as evidence of at least two depositional events. Whether artifacts within the upper 12 feet were or could have been deposited at the same time or over a considerable period of time cannot be determined from Cotter's data.

RECOMMENDATIONS: Cotter concluded that further investigation of the east side of the Main House would not be required prior to restoration. Following his preliminary survey of the area proposed for the parking lot, Cotter (1959:2-3) recommended that a more intensive survey of areas adjoining the Waterford-Whitehall Turnpike be conducted (see below, [Moore 1960]). This

recommendation was clearly based more upon the results of Luzader's documentary research than upon the results of field investigation.

EVALUATION: No maps accompany Cotter's report. Sketch plans included in field notes indicate that locations of structural features observed during reconnaissance of the parking lot were apparently not mapped. Using the map that accompanies Moore's (1960) report, the locations of features that Cotter observed can be estimated. Whether Cotter's conclusion that neither the large, flat stone nor the rectangular unit of rubble masonry were associated with General Schuyler's office was based on his initial assumption that the office was built upon a continuous foundation, or upon architectural evidence noted by Judd (see Judd 1959), was unclear. Was it mere coincidence that the distance between the flat stone and the rubble masonry (about 15 feet) was approximately the same as the reported length of the General's office of 14.3 feet and that the distance of 11 feet from the flat stone and the rubble masonry to the rear wall of the Main House was nearly the same as the reported width of the office?

Questions about the sequence of deposition of the fill along the east wall of the Main House cannot be addressed from Cotter's data. Given the manner in which Judd and Cotter retrieved and recorded artifacts, it does not seem likely that these questions could be resolved by more rigorous analysis of the existing collection.

Archeological Investigation of the Schuyler House Parking Lot (1959)

Following Cotter's recommendation, a more intensive archeological investigation was conducted in the Schuyler House parking lot in the fall of 1959.

REPORT TITLE: Archeological Investigation of the Schuyler House Parking Lot Area.
Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: Jackson W. Moore

DATE OF REPORT: 1960

DATES OF FIELDWORK: Field work was conducted November 9-14, 1959.

PROJECT GOALS: The primary objective of Moore's investigation was to determine whether vestiges of features associated with Schuyler family activities occurred within the limits of the proposed parking lot. Park Historian Luzader had previously suggested that bond servants' and slaves' quarters (built in 1766 and burned in 1777), postwar military barracks, and a number of twentieth-century structures formerly stood in the immediate vicinity of the project area. Moore's investigation carried out Cotter's 1959 recommendation that portions of the project area adjoining the former Waterford-Whitehall Turnpike be further investigated (Moore 1960:1).

METHODS: Documentary research, surface reconnaissance, and limited test excavation had already been carried out (Cotter 1959). Moore dug four test pits and a series of test trenches (Figure 51). Test trenches were dug to investigate further the area where Cotter had exposed one footing of what he presumed to be a twentieth-century structure. Moore's Test Trench 1 was a continuation of a test excavation begun by Cotter. It measured 28.3 feet by 3.8 feet. Three of the four test pits were dug to trace a partially exposed stone foundation. Moore dug a fourth test pit to obtain a more representative sample of the natural soil profile (Moore 1960:1-2).

Test Trench 1 was dug to a depth of 1.7 feet. Units A and B (each approximately 10 feet by 3.8 feet) of Test Trench 2 were excavated to 3.5 feet. Unit C of Test Trench 2 was dug to a depth of 5.7 feet. Test pit 4 was dug to 4.25 feet (Moore 1960:1-2). Further details of excavation procedures were not reported. Photographs included with the report indicated that most of the excavation was done with shovels and that the dirt was not screened.

RESULTS: In the Test Trenches and in Test Pit 4, Moore observed stratigraphic evidence of relatively recent surface alterations. In Test Pit 4 and in at least two units of Test Trench 2, he noted a series of landfill strata overlying apparently undisturbed fluvial sediments. In Units A and C of Test Trench 2, artifacts dating from the mid-nineteenth century to mid-twentieth century were recovered at a depth of 3.5 feet (Moore 1960:1-2).

In Test Pit 4, Moore observed two fill strata extending 2 feet above a thin stratum of twigs and decomposed wood. Below this he noted another 2 feet of fill. All fill strata contained historic-period artifacts. Plaster, mortar and brick bats were recovered from 1.6-2.0 feet below the surface. Wire mesh screen occurred within the thin stratum of twigs and decayed wood. Machine-cut and wire drawn nails and sherds of ironstone, transfer-printed creamware, parian, and porcelain appear to have been recovered from all strata. What appeared to be undisturbed fluvial sediments occurred at a depth of 4.25 feet (Moore 1960:1-2).

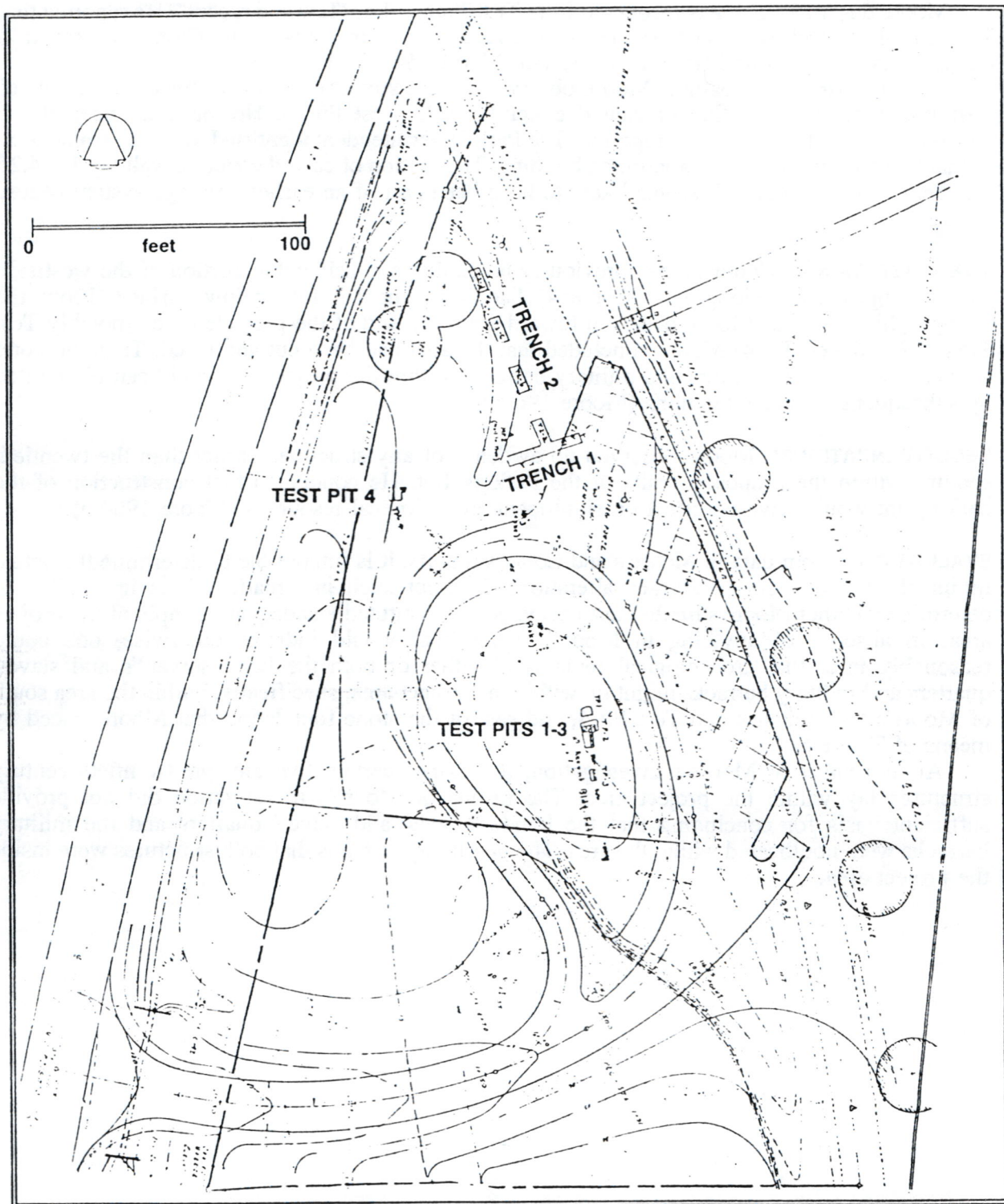


Figure 51. Plan of excavations in the proposed Schuyler House parking lot (Source: Moore 1960:Figure 1).

Moore described artifacts recovered from Test Trench 1 as "few and recent". He reported that "modern glass" and two ironstone sherds were recovered from Units A and C of Test Trench 2. No artifacts were reported from Test Pits 1-3 (Moore 1960:1-2).

The only structural features Moore observed were a **stone foundation** (traced by means of Test Pits 1-3) and a section of canted **concrete wall** (Test Pit 4). He made no note of the concrete footing that Cotter had reported. The Park Superintendent identified the stone foundation as that of a twentieth-century apartment building. The section of canted concrete wall lay 1.5-4.25 feet below grade. This wall seems likely to have been part of an earlier drainage system (Moore 1960:2).

INTERPRETATIONS: Cotter (1959) previously noted that a considerable portion of the west side of the project area (along U.S. Route 4) had been cut 1-4 feet below surface. From the stratigraphic sequence Moore observed toward the north end of the projected area (notably Test Trench 2 and Test Pit 4) Moore concluded that the area had been cut and filled. Thus the bond servant's and slaves' quarters and military barracks within the project area had been obliterated by subsequent surface alterations (Moore 1960:22-3).

RECOMMENDATIONS: Moore observed no evidence of any structures earlier than the twentieth century within the proposed limits of the Parking Lot. He concluded that construction of the parking lot would have no effect on significant archeological resources (Moore 1960:3).

EVALUATION: From data in Moore's and Cotter's reports, it is impossible to determine the actual limits of relatively recent surface alterations. Without such information, it is impossible to determine whether Moore's limited test excavations constituted an adequate sample of the project area. In absence of anything in Moore's report that would indicate otherwise, one could reasonably infer that archeological remains of either or both the bond servant's and slaves' quarters and military barracks might lie within the project area, specifically, within the area south of Moore's test trenches and Test Pit 4, and east of the stone foundation that Moore traced by means of Test Pits 1-3.

At the outset of Moore's investigation, it was not certain that any pre-twentieth-century structures lay within the project area. The results of Moore's investigation did not provide sufficient basis for concluding that the bond servants' and slaves' quarters and the military barracks were not located within the area. The possibility remains that both structures were inside the project area.

Archeological Reconnaissance of the Tenant House Foundations at the Schuyler House (1964)

REPORT TITLE: Archeological Observations, Tenant House Foundations, Schuyler House Grounds. Report on file at Saratoga National Historical Park, Stillwater, New York.

AUTHOR: John L. Cotter

DATE OF REPORT: 1964

DATES OF FIELDWORK: Field work was conducted on March 12, 1964.

PROJECT GOALS: Cotter first inspected the tenant house site in 1958 (Cotter 1958a). At that time he reported that the ca. 1840 extant tenant house overlay a foundation of considerably smaller dimensions. He inferred that the foundation was that of an earlier tenant house and that timbers from the earlier house had been reused to frame its successor. In 1963 the superstructure of the ca. 1840 house was dismantled and the materials were salvaged for use in the Schuyler House Kitchen restoration (Cotter 1964).

In 1964, Cotter noted that the ca. 1840 tenant house appeared to be located in the vicinity of a structure shown on the Wilkinson Map (1777b). The primary purpose of this investigation appears to have been to test that possibility.

METHODS: The Tenant House was located about 160-200 feet north-northeast of the Schuyler House kitchen (see Larrabee 1960; Figure 45, this report). On March 12, 1964, the site lay under a foot of snow, beneath which the ground was frozen to a depth of 5 inches. Nonetheless, Cotter dug three test pits, two within the foundation and one south of the earlier foundation but within the perimeter of the ca. 1840 house (Figure 52). Both test pits within the foundation were relatively shallow; the one near the center of the cellar floor extended to a depth of at least 10 inches. The other was dug inside the southeast corner of the foundation to a depth of 6+ inches. The test pit outside the foundation went to a depth of 51+ inches (Cotter 1964:1-2). Details of the test excavation procedure were not reported.

RESULTS: A sketch plan of the tenant house accompanied Cotter's report (Figure 52). The sketch shows a roughly 25 x 38-foot building with an attached outbuilding on the east side. The basement, or cellar, which Cotter believed to be of an earlier tenant house, lay under the north end of the main building. It is noteworthy that although the cellar was considerably smaller north-south than the overlying structure, east-west it appears to have been similar in dimension.

Near the center of the cellar, Cotter noted three distinct strata below the earth floor. From 0-5 inches, he noted an abundance of ash and organic matter; from 5-6 inches, ash; and from 6-10 inches, a concentration of organic matter. At the southeast corner, Cotter found the base of the foundation to be 6 inches below the existing cellar floor. There, from 0-6 inches he observed what he described as "disturbed earth." Cotter (1964:1) further noted that the foundation rested on "undisturbed rocky earth."

Under the south room of the tenant house (i. e., south of the foundation noted above), Cotter uncovered a cluster of stones. In the test pit just east of this feature, he observed three more or less discrete strata above what would appear to be undisturbed fluvial sediments: 0-12 inches, organic-rich fill; 12-24 inches, darker organic-rich fill; 24-51 inches, clear sand (Cotter 1964:1-2).

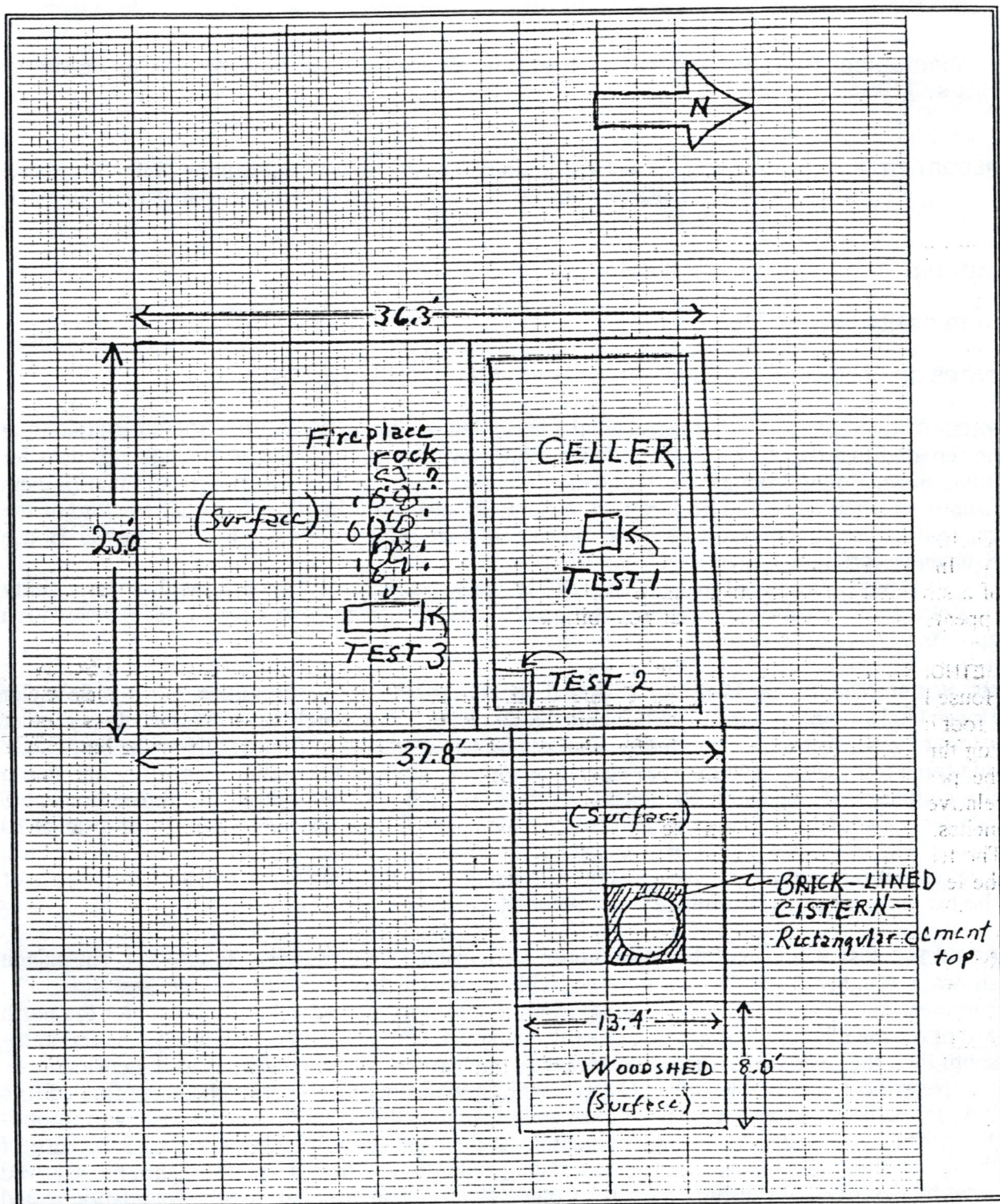


Figure 52. Plan of March 1964 excavations in the tenant house foundations, Schuyler House
(Source: Cotter 1964:sketch map).

During Cotter's 1964 investigation, no artifacts appear to have been recovered from test pits dug within the foundation. Under the south room, from the top 17 inches of fill, Cotter recovered machine-cut nails, two fragments of English Delft tile, a goblet stem, window glass, and ball clay pipe fragments (see field notes: Field Specimen Data/Lot 35).

Cotter (1964:2) also reported that in the summer of 1963, Historical Architect Harry B. Martin collected a quantity of historic-period artifacts from beneath the floor of the south room. Among the items recovered were a quantity of machine-cut nails and ball clay pipe fragments dating from the 1800-1840 period.

INTERPRETATIONS: Based on his own findings and the observations of Martin and Judd, Cotter concluded that the ca. 1840 tenant house site was not the site of the outlying structure shown by Wilkinson (1777b). Cotter interpreted the cluster of stones found under the south room of the tenant house as possible vestiges of a chimney footing. On the basis of the nearby stratigraphic sequence, Cotter suggested that a shallow cellar might have once existed under this south room, and that the cellar was subsequently filled, first with two layers of organic-rich material (Cotter 1964:2-3).

Cotter estimated the temporal range of the material recovered from the upper 17 inches of fill under the south room to be ca. 1790-1840. He further suggested that the items collected by Martin in 1963 were deposited as the ca. 1840 house was being constructed (Cotter 1964:2).

RECOMMENDATIONS: Even though he was not able to demonstrate that the ca. 1840 Tenant House stood on the foundations of an earlier structure, Cotter (1964:3) recommended that the cellar be preserved for future investigation. The measures he recommended included removing the above-grade portion of the foundation and filling the cellar. These recommendations appear to have been carried out (memorandum: Regional Director to Park Superintendent, Saratoga NHP, 5/19/64).

EVALUATION: Cotter's earlier observation of the foundation under the tenant house being considerably smaller than the superstructure appears to have been a red herring. Cotter found no evidence to suggest occupation of the tenant house site any earlier than ca. 1790. One should note that those artifacts which could date from as early as 1790 could also date from as late as 1840. Unless historical architects observed evidence to suggest otherwise, it seems quite probable that the tenant house was originally built with a half-cellar. The east-west dimensions of the foundation and the superstructure appear to have been nearly identical. Although Cotter noted that the tenant house appeared to have been framed with timbers from another structure, that structure need not have stood on the same site.

Intensive Archeological Investigations at the Schuyler House (1985-1987)

After a hiatus of more than 20 years, the grounds of the Schuyler House once again became the focus of archeological research. Beginning in 1985, David R. Starbuck, then affiliated with Rensselaer Polytechnic Institute, conducted an intensive and extensive archeological testing program on the grounds of the Schuyler House.

Different aspects of the investigations were reported in three interim or "progress" reports.

REPORT 1 TITLE: The 1985 Magnetometer Survey. In *Saratoga National Historical Park Archeology Progress Report—1985*, edited by David R. Starbuck, pp. 9-16. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston. This report describes three different magnetometer surveys; the only one of these in which results were obtained was the survey of the Schuyler House.

AUTHOR: Dennis E. Howe

DATE OF REPORT: July 1986

REPORT 2 TITLE: The Schuyler House. In *Saratoga National Historical Park Archeology Progress Report—1985*, edited by David R. Starbuck, pp. 47-49. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: David R. Starbuck

DATE OF REPORT: July 1986

REPORT 3 TITLE: The Schuyler House. In *Saratoga National Historical Park Archeology Progress Report—1987*, edited by David R. Starbuck, pp. 1-61. Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: David R. Starbuck

DATE OF REPORT: March 1989

DATES OF FIELDWORK: Field work was conducted over two field seasons: 1985 and 1987.

PROJECT GOALS: The primary goal of the survey was to locate the foundations for those structures that had been burned by the British in 1777 so that the site could be better understood and interpreted as it had existed in the late eighteenth century. Achieving this goal would be challenging since (1) documentary sources suggested that at least 40 features dating between the early eighteenth and twentieth centuries may have left archeological traces on the estate, and (2) the surviving estate was extensive and the size of outbuildings was typically small (Starbuck 1989a:16-17).

METHODS: The investigation began with a magnetometer survey in order to identify subsurface anomalies. The survey was confined to a 100 x 140 meter area surrounding the existing Schuyler House (Figure 53). A 20 x 20-meter grid was laid out with each unit subdivided into 400 points on a 1-meter grid. Approximately 10,000 magnetometer readings were taken. Procedures for the survey were described in detail in the first progress report (Howe 1986:9-12).

Also in 1985, twelve STPs and a meter square excavation unit were placed in the southeast corner of the Schuyler yard where a comfort station had been proposed (Figure 54:Area B). All units were excavated to a depth of one meter (Starbuck 1986d:47).

The 1987 investigations focused on selected portions of the yard while avoiding others (Figure 54). The area south of the house had been intensively excavated by Larrabee and was not tested further. The area north of the house proved to contain foundation remains and dense artifact concentrations and became the focus of much of the testing. The testing relied on using backhoe trenches (1 meter wide and of varied lengths) to locate foundations and other features. This strategy was chosen because it exposed long stratigraphic profiles for examination and interpretation, and ensured that foundations would be encountered rather than missed as was possible if transects of STPs had been used. Where the trenches encountered foundations or other features, these were explored more thoroughly with meter square excavation units, sometimes grouped into contiguous blocks. A total of 28 trenches were excavated (Starbuck 1989a:17).

Areas of most intensive testing were designated as Areas A-F (Figure 54). Trenches were designated with numbers (1-28). Within each Area, meter squares were designated as Pit 1, Pit 2, etc., except where block excavations were made. Individual meter squares within blocks were designated by their southwest corner coordinates in relation to a local datum (e.g., N3W5) (Starbuck 1989a:17-19).

RESULTS: The 1987 excavations exposed the foundations of three structures as well as a sizeable Native American site in the yard north of the house (Starbuck 1989a:19). Results of the magnetometer survey, while more interesting than the uniformly negative results from the Barber Wheatfield and American Headquarters, were "rather inconclusive" (Starbuck 1989a:17). Raw data from the readings were processed into a contour map (Figure 53). This showed a number of anomalies with various shapes and sizes. Although some of these were clearly linked to recent features, others were of greater archeological interest. These were located to the east and southeast of the house and included a dipole typical of a large buried mass of iron (Figure 53:A), an elongated anomaly typical of a structural trench (Figure 53:B), and square anomalies that could represent filled-in cellar holes (Figure 53:C and D) (Howe 1986:12-15).

Northern Yard, Areas A, E, and F: Native American artifacts, many if not most of them predating European contact, were found in abundance in the northern yard. They were found from the surface down to 80 cm deep and were thoroughly mixed with eighteenth through twentieth-century artifacts in all but the lowest levels. Diagnostic projectile point types recovered included Otter Creek, Normanskill, Susquehanna Broad, Jack's Reef Corner Notched, Greene, and Levanna, spanning the Late Archaic through the Late Woodland, and possibly postcontact periods—more than 6,000 years. Most lithic material was chert. Native ceramics were also recovered. A single **Native American hearth** feature was found in Area A (Figure 54). This feature was encountered at about 45 cm below the surface. Artifacts associated with the hearth included a Greene projectile point, a scraper, and numerous ceramic sherds dating from the Middle Woodland period—approximately A.D. 400-800. Abundant precontact material was also recovered from the excavations in Area F (Starbuck 1989a:19-27,44).

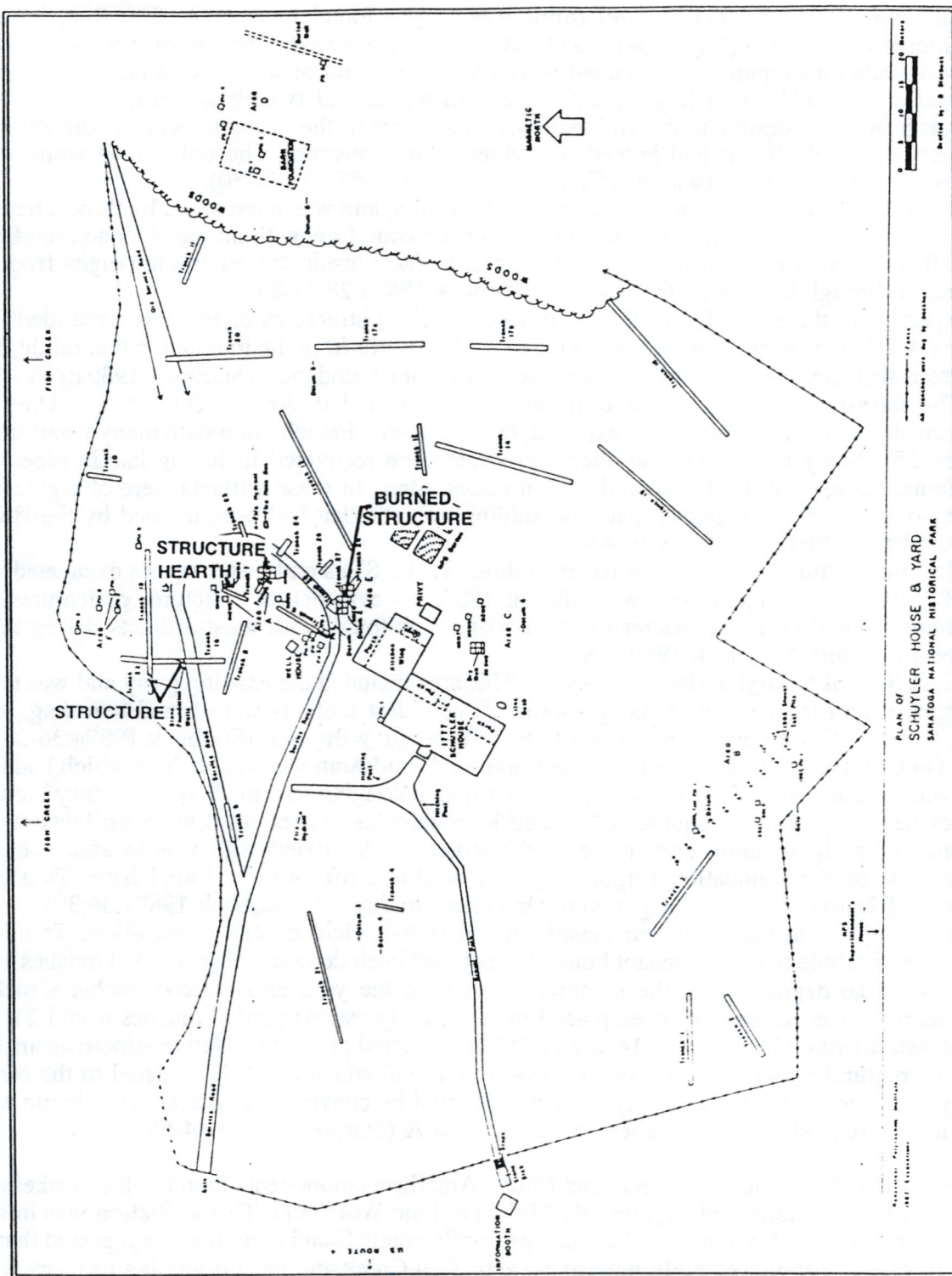


Figure 54. Plan of archeological tests at the Schuyler House, 1985, 1987 (Source: Starbuck 1989a:Figure 6).

Remains of **two historic-period foundations** were found in Area A. The first, initially encountered by Trench 5 (Figure 54), was located where Larrabee (1960:40) had observed above-ground foundations reputedly associated with a large wood house and slave quarters. Although scattered stone rubble with large quantities of nineteenth and twentieth-century artifacts was found, it proved impossible to determine the size and shape of the structure, its construction date, its function, or whether it had indeed served as a slave quarters. The only intact stone work appeared to have been the base of a fireplace (Starbuck 1989a:21,28-30).

The second foundation was located north of the first, and was intercepted by three Trenches (15, 16, and 22) (Figure 54). This proved to be in good condition, with mortared stone foundation walls. It was buried more than 1 meter of fill and artifacts inside the cellarhole ranged from the eighteenth through the twentieth centuries (Starbuck 1989a:28,31-35).

Apart from these two foundations, no historic-period structures or features were identified in Area A. There was no evidence of a wing extending north from the foundation that might have suggested that the present house was set upon an earlier foundation (Starbuck 1989a:28).

The **foundation of a burned building** was uncovered in Area E (Figure 54). Only the southern side of the foundation was exposed; this included a French drain with many small stones (Figure 55). Many burned or heat-altered artifacts were recovered including kaolin pipe stem fragments, glass, ceramic sherds, and animal bones. Many of these artifacts were of eighteenth-century origin, which suggested that this building was one that had been torched by the British after the battle (Starbuck 1989a:39-43).

Southern End of Yard, Area B: In addition to the STPs and meter square excavated here in 1985, three meter square pits were dug in 1987. No evidence of structures or features was encountered. Instead, a thin scatter of sheet refuse was found with most artifacts dating to the nineteenth century (Starbuck 1989a:28).

East Side of Schuyler House, Area C: This area included the existing privy and was tested for signs of an earlier privy. Although some of the oldest artifacts were found here (e.g., delft tiles), the only feature uncovered was a **twentieth-century drywell** (Starbuck 1989a:36-38).

Woods East of Yard, Area D: A **rectangular foundation** was visible here which had been observed by Larrabee (1960:40) who identified it as belonging to a nineteenth-century barn but did not test it. Four meter squares excavated here unearthed twentieth-century artifacts and no evidence of a significantly earlier use of the structure. A **buried wall** was located about 15 meters east of the foundation (Figure 54). No datable artifacts were found here. Two chert scrapers of Native American origin were also found in Area D (Starbuck 1989a:36,39).

The many trenches excavated outside of Areas A-F yielded little information. Trench 10 encountered rubble from the "tenant house," which had been demolished in 1963. Trenches 1 and 2, in the large depression in the southwest corner of the yard encountered neither structural remains nor sheet refuse. Trenches placed in the front (western) yard (Trenches 4 and 21) and back (eastern) yard (Trenches 11-14 and 17-20) encountered precontact Native American artifacts but no structural remains. No Dutch artifacts were found which might have dated to the earliest Schuyler occupation here. The only artifact that could be convincingly dated to the battle was a fragment of exploded cast-iron shell, found in Area A (Starbuck 1989a:44-59).

INTERPRETATIONS: The site's precontact Native American components found in the northern part of the yard were interpreted as primarily Middle to Late Woodland. This affiliation was inferred from the quantities of pottery and Levanna projectile points found here. It was suggested that this pattern reflected an increasingly intensive use of Fish Creek and its surrounding terraces during those periods (Starbuck 1989a:21).

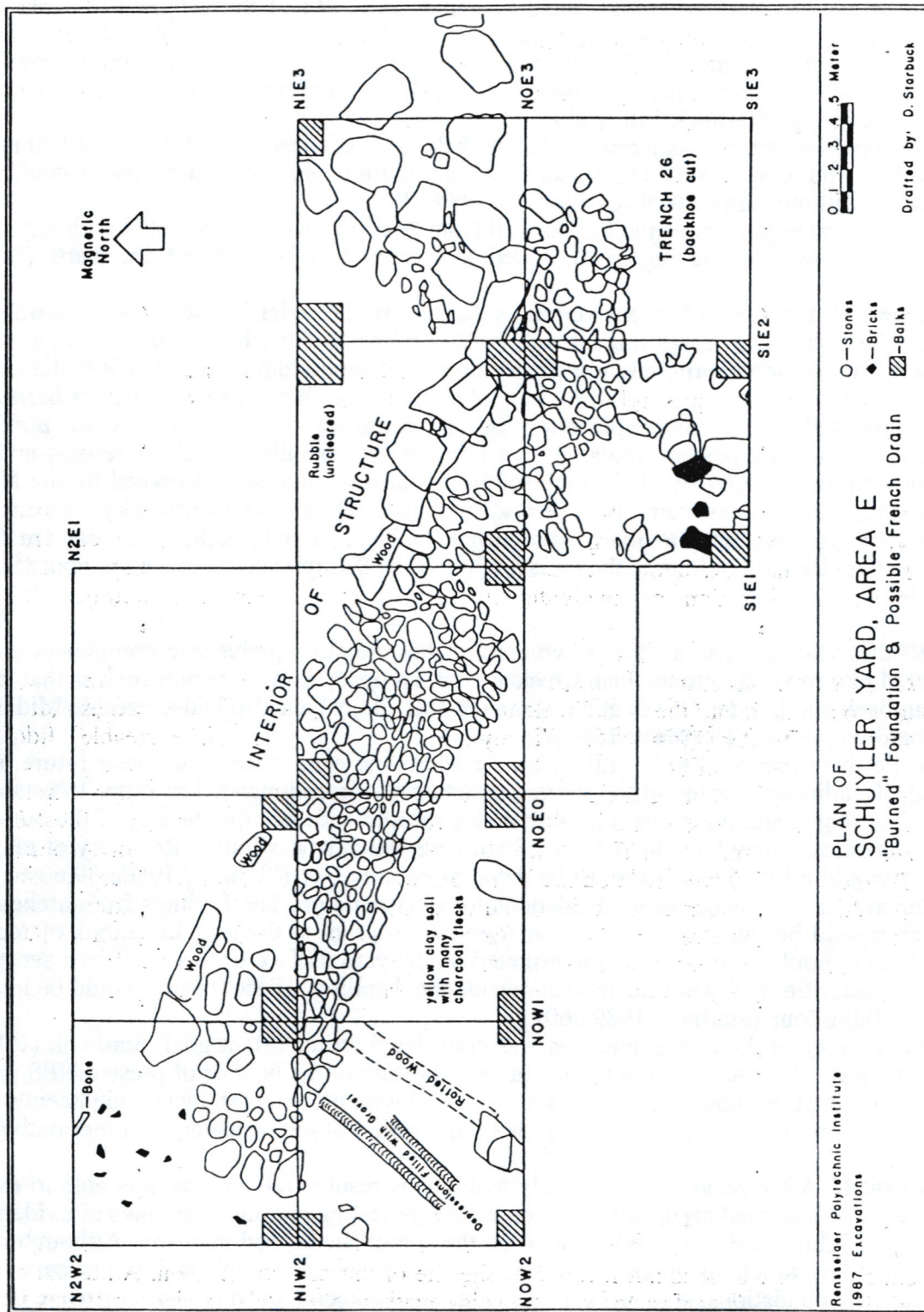


Figure 55. Plan of excavated portion of foundation of burned structure, Area E, Schuyler House (Source: Starbuck 1989a: Figure 10).

The foundation and cellarhole found near the north end of the property in Area A was interpreted, based on its excellent condition, mortared walls, and range of artifact dates, as a nineteenth-century construction that was not demolished until the twentieth century, when it was buried by a thick layer of fill. There was no evidence that any part of the structure dated to the eighteenth century (Starbuck 1989a:28).

The burned structure was interpreted as probably one of those burned by the British in 1777. However, the building's exact date of construction, its function, and its dimensions could not be determined without further testing (Starbuck 1989a:39).

The excavated portion of the buried wall from Area D was not associated with any datable artifacts. However, its having been buried suggested that it predated the barn (Starbuck 1989a:39).

In general, the years of extensive excavations at the Schuyler House, first by Larrabee and Cotter, who focused on areas immediately south and east of the house, and most recently by Starbuck, have yielded surprisingly little in the way of outbuildings from the Revolutionary or French and Indian War periods and no trace of the mansion that Burgoyne's troops burned. The author suggested that the best explanation for this failure was that the mansion was not located within the property's present yards. It and most of its outbuildings, sheet refuse, and other features were most likely situated to the south or southeast in areas not owned by the National Park Service. These areas were overgrown with brush and had been disturbed by construction of the Champlain Canal and a State maintenance facility. Therefore, the prospect for finding significant additional portions of the eighteenth-century Schuyler estate appeared poor (Starbuck 1989a:59-60).

RECOMMENDATIONS: The author recommended that the site's prehistoric component could be integrated into research into the Fish Creek area or the upper Hudson region such as that initiated by Brumbach and Bender (1986) at the Winney's Rift site, which also had a sizeable Middle-Late Woodland component (Starbuck 1989a:21).

While there appeared to be little need for additional excavation in the near future, a small amount of additional testing at the burned structure was recommended in order to establish its dates, size, shape, and functions. The author also recommended further testing of the buried wall in Area D since it may have predated the barn near which it was found. Recovery of diagnostic artifacts would allow the structure to be dated more precisely (Starbuck 1989a:39,60-61).

The author also made recommendations for interpretation. The findings from archeological research should be integrated into the interpretive program at the site. Locations of recovered outbuildings should be marked and interpreted on the yard surface to give visitors a sense of the variety of activities that were carried out outside the dwelling. These features could be integrated into a walking tour (Starbuck 1989a:60).

If discovery of the earlier mansion was considered an important goal, Starbuck (1989a:61) suggested that this would require testing in areas outside of the bounds of present NPS property. If only two structures could be located and identified with buildings shown on eighteenth-century maps, then it might prove possible to predict the location of the mansion and other outbuildings.

EVALUATION: After years of frustratingly ambiguous results, this project was able to establish, and to make a reasoned argument based on extensive testing and multiple lines of evidence, that the present Schuyler House is not located on the site of the burned mansion. Although much of the evidence on which this inference was made is negative—the notable lack of artifacts, features, sheet refuse, foundations, and outbuildings from the eighteenth century—the extensive trenching, and integration of results of that trenching with those from Larrabee and Cotter—makes that negative evidence more compelling. In addition, integration with information from historic sources adds to the argument.

Careful backhoe trenching appears to have been a successful technique for finding features and foundations. It was efficient; a very large area was excavated in the six-week 1987 field season. It was effective, especially when compared with remote sensing (which yielded ambiguous results and, in some cases, may indicate no anomalies even where subsurface features are present), or transects of STPs (which contain sizeable gaps that may miss narrow linear features like foundation walls). Each of the latter methods has its uses. Remote sensing can be effective, especially when a number of different, complementary methods are employed. STP transects can be useful for quickly estimating the extent of artifact concentrations or buried strata.

It was curious that after 10,000 magnetometer readings were taken and four interesting anomalies were identified, the results were dismissed as "rather inconclusive." None of the meter squares were placed to test any of the anomalies. Although two of the anomalies appear to have been intersected by trenches, it was never indicated whether the trenches were excavated in order to test the anomalies. It was also not indicated whether any of the anomalies coincided with previously excavated foundations, recently installed utilities, or other known features that made it unnecessary to test them.

The author's recommendations for interpretation and future research were well founded and would be an effective way of using the archeological finds that have been made as a way of getting the visitor in touch with the daily activities of a nineteenth-century rural estate.

PREVIOUS ARCHEOLOGICAL RESEARCH AT SARATOGA NATIONAL HISTORICAL PARK: SARATOGA MONUMENT

Archeological Impact Assessment at the Saratoga Monument (1980)

This archeological testing was undertaken as part of Section 106 compliance procedures. The proposed project was the construction of a five-car parking area, accessway, and a paved walkway between the restrooms and the Saratoga Monument (Figure 56). Construction of this facility would require soil removal to a depth of up to 6 inches below surface. Since the Saratoga Monument was located in the vicinity of two known precontact Native American archeological sites—the Schuyler Mansion and Evergreen sites—the project area was considered to have potential to contain significant archeological resources relating to the precontact Native American occupation of the area. In addition, since the monument was located within the site of Burgoyne's final encampment before his surrender, it was considered to have potential for containing Revolutionary War-related archeological resources (Mahlstedt 1980:1-3).

REPORT TITLE: *Archeological Impact Assessment, Saratoga Monument, Schuylerville, New York, Saratoga National Historical Park.* Report on file at Museum Services Center, Marine Barracks, Charlestown Navy Yard, Boston.

AUTHOR: Thomas F. Mahlstedt

DATE OF REPORT: 1980

DATES OF FIELDWORK: Field work was conducted on July 28 and 29, 1980.

PROJECT GOALS: The goal of the project was to determine whether the proposed parking area and walkway would disturb significant archeological resources. This required initial testing to determine whether any archeological remains were present within the project area. If archeological materials were found, the next step would be to evaluate their significance and decide on an appropriate course of action based on this evaluation.

METHODS: A total of 30 STPs were excavated within the areas of the proposed parking area and walkway, which was delineated by stakes set by Park maintenance staff (Figure 57). All excavated material was screened (Mahlstedt 1980:4).

The initial sampling strategy called for a 15-foot interval grid of STPs in the parking area and a 15-foot interval transect of STPs along the center of the pathway and accessway. This was modified as it became apparent that a former gravel roadway existed beneath the accessway (STPs 1-11) and continued into the parking area and the pathway (Figure 58). STPs were placed within the parking area along the projected course of the roadway to verify its presence or absence (STPs 17, 20, and 22) and the remaining, presumably undisturbed portion of the parking area was more intensively tested (STPs 12-16, 18, 19, 21). Within the parking area and accessway, a total of 22 STPs were excavated. Along the pathway, the original plan for 16-17 STPs at 15-foot intervals was abandoned upon discovering that the gravel roadway existed here too (Figure 58). In addition, evidence of previous earth removal was observed in an exposed bank. Therefore, the interval was increased to 40 feet and an additional unit was placed on the north side of the restroom building. A total of eight STPs was excavated along the pathway (Figure 57) (Mahlstedt 1980:5, Figures 5 and 6).

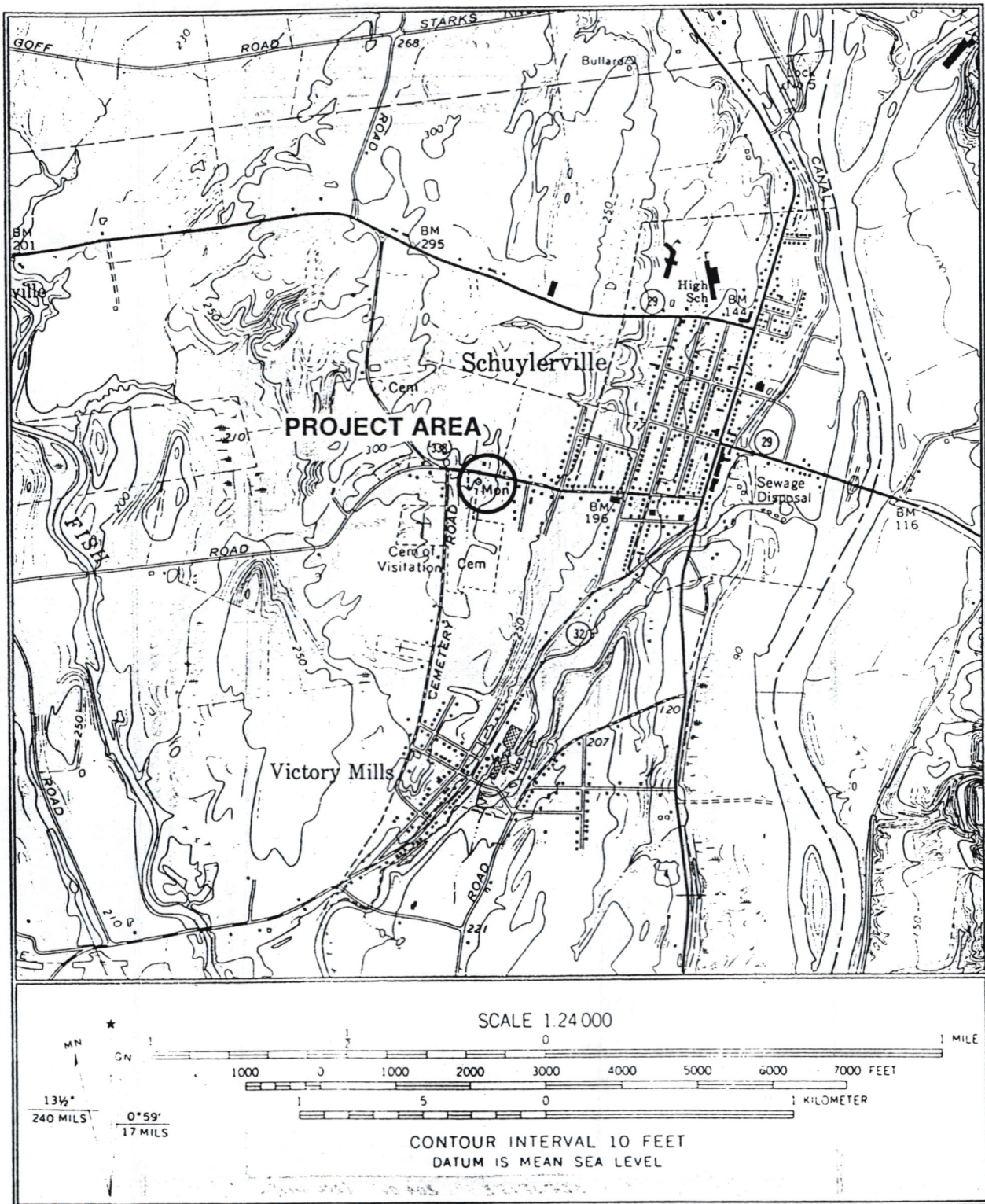


Figure 56. Location of the Saratoga Monument project area on the Schuylerville USGS quadrangle (Source: Mahlstedt 1980:Figure 1).

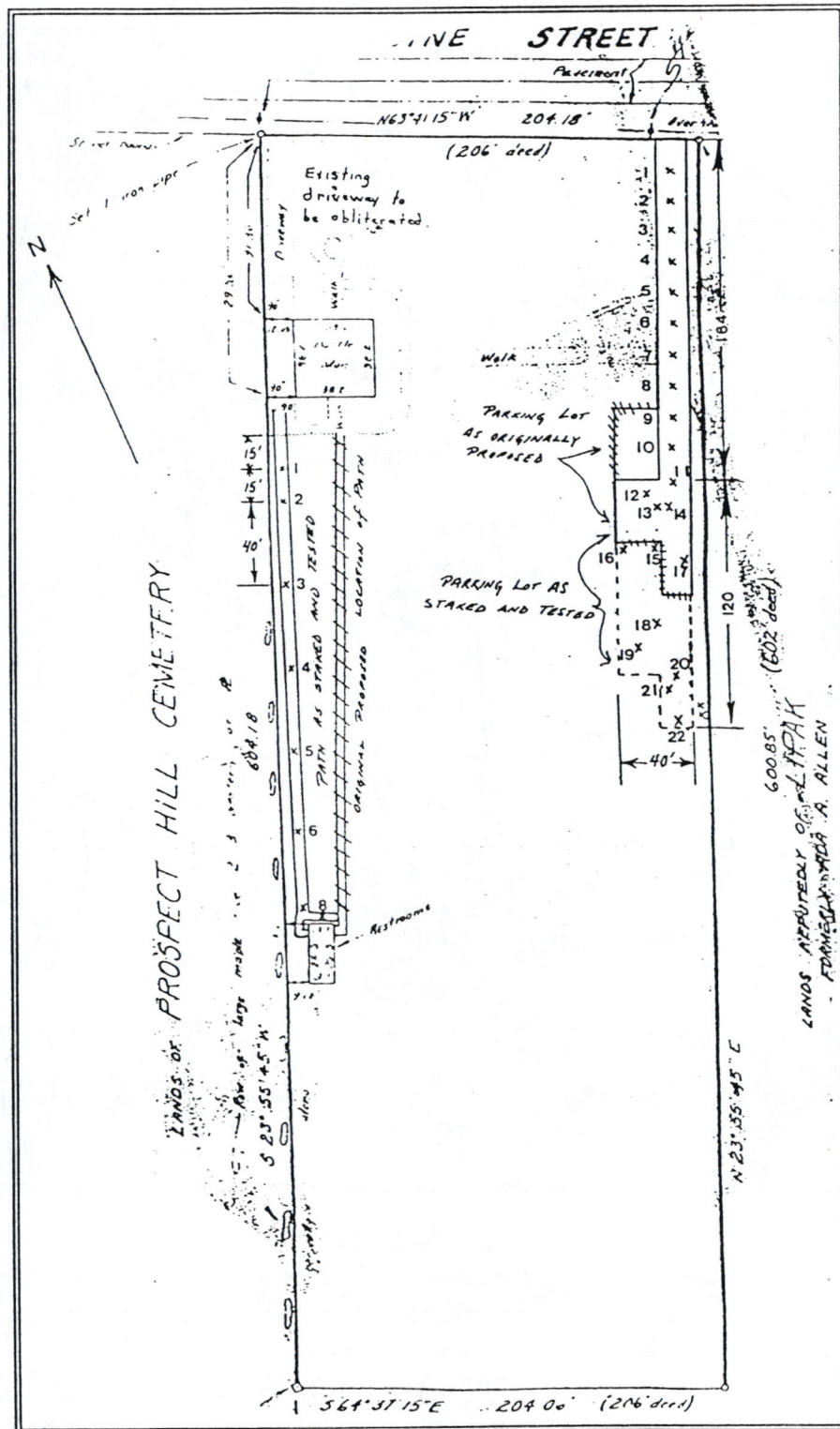


Figure 57. Plan of project area and STP locations at Saratoga Monument (Source: Mahlstedt 1980:Figure 5).

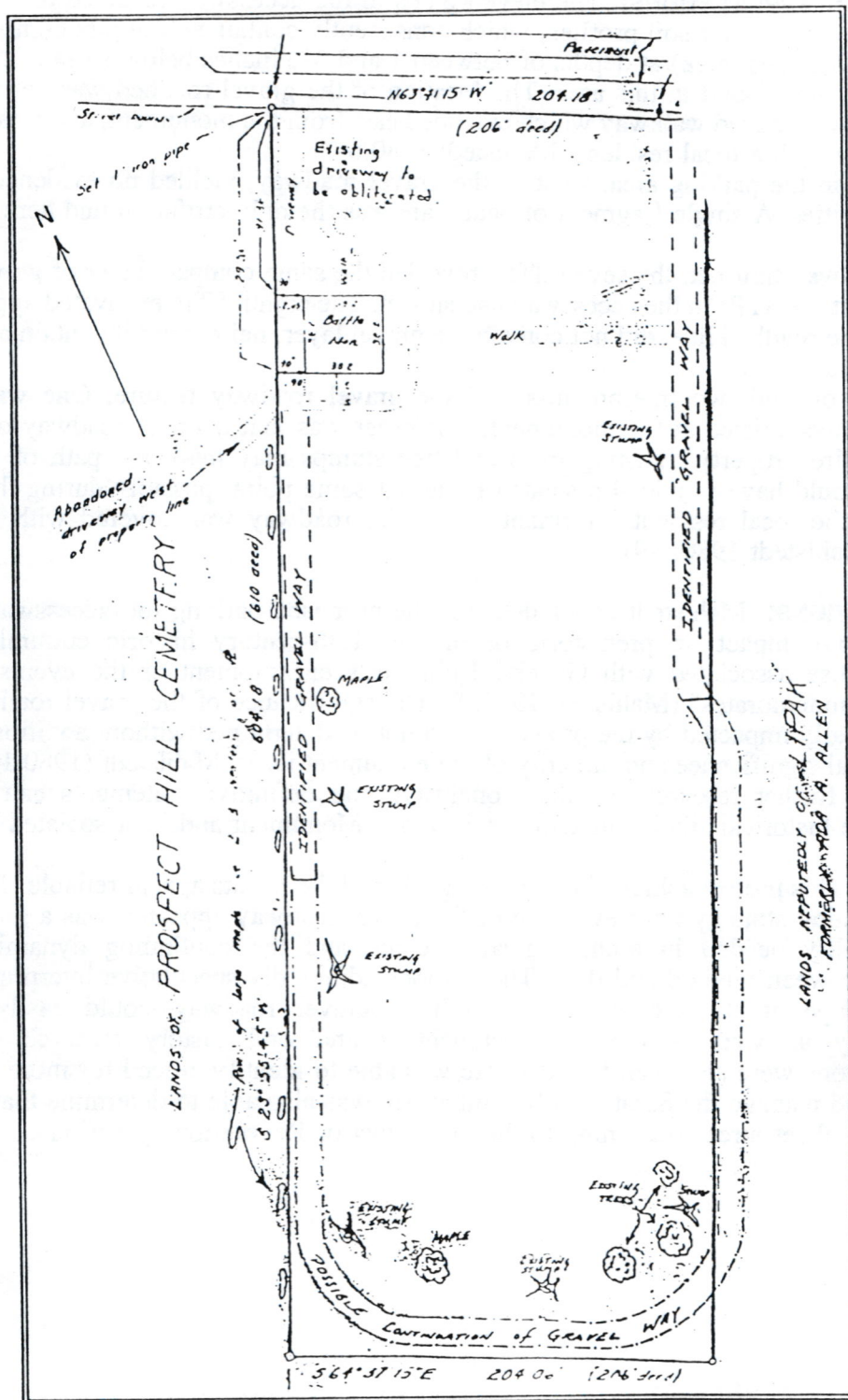


Figure 58. Plan of known and projected course of gravel roadway, Saratoga Monument (Source: Mahlstedt 1980:Figure 6).

RESULTS AND INTERPRETATIONS: The eleven STPs in the accessway revealed the presence of the gravel roadway in their soil profiles, which consistently contained a highly compacted layer of gravel (5½-7 inches thick) at depths of between 1 and 3½ inches below surface. No artifacts of significance were found in this area. The location of the gravel roadbed was consistent with the termination of a paved walkway which extended east from the monument, and was confirmed by an interview with a local resident (Mahlstedt 1980:6-7).

The STPs in the parking area, west of the gravel roadway, yielded no evidence of Native American activities. A single fragment of pearlware was the only artifact found here (Mahlstedt 1980:7).

In the pathway transect, the seven STPs revealed the same compact layer of gravel covered with topsoil that the STPs in the accessway had shown. The eighth STP, excavated approximately 7 feet east of the roadbed line, did not contain the gravel layer; neither did it contain any artifacts (Mahlstedt 1980:8).

Mahlstedt offered two interpretations of the gravel roadway feature. One was that two separate roadways existed at the monument. The other was that a single roadway once looped around the entire property. Existing trees and tree stumps may mark the path of this former feature, and would have provided a shaded route. At some point, possibly during the 1960s as suggested by the local resident informant, the entire roadway was covered with topsoil and landscaped (Mahlstedt 1980:8-9).

RECOMMENDATIONS: Mahlstedt concluded that the proposed parking lot, accessway, and path would have "no impact on prehistoric or pre-mid-19th-century historic cultural resources, particularly those associated with General Burgoyne's encampment or the events which the monument commemorates" (Mahlstedt 1980:9). The significance of the gravel roadway, which would be partially impacted by the project, could not be determined without additional study of the architectural significance and integrity of the monument itself. Mahlstedt (1980:10) therefore recommended further research "so that conclusive and definitive statements can be offered concerning the historical significance of the Saratoga Monument and its associated grounds."

EVALUATION: This project achieved its limited goals and the results appear reliable. The decision to alter the testing strategy once evidence of the gravel roadway appeared was a good example of the flexibility needed in archeological research and the continuing dynamic feedback relationship between method and data. The author's admittedly speculative interpretation of an earlier landscape at the monument—a tree-lined gravel roadway—could easily be tested archeologically as well as through documentary and oral history research. Mahlstedt's recommendations were also well founded. He was able to identify a need for more information to interpret and manage the Saratoga Monument. He was also able to determine that there were no archeological resources pertaining to the precontact or Revolutionary periods.

KNOWN AND POTENTIAL ARCHEOLOGICAL RESOURCES AT THE SARATOGA NATIONAL HISTORICAL PARK

The known and potential archeological resources of the Saratoga National Historical Park are varied. For convenience of discussion, they have been divided into six categories for the purposes of this report. These categories are:

1. known and potential Native American archeological resources;
2. known and potential Revolutionary War-period archeological resources including:
 - a. military archeological resources and;
 - b. domestic archeological resources;
3. known and potential post-Revolutionary War archeological resources;
4. archeological collections; and
5. archives.

Known and Potential Native American Archeological Resources

Precontact (often called "prehistoric") and postcontact ("historic") periods may be separated for convenience because the archeological research that is most relevant to them is itself often conducted under separate research designs, using different sources of background information, with different assumptions about the archeological record and the behaviors that produced it, and because the cultures, lifeways, and behaviors that produced the respective archeological records may be different in important ways. Native American archaeological resources may be precontact or postcontact or both. Many precontact sites and materials may be easy to identify because of their characteristic technology and material culture. After 1600, the introduction of European goods and their presence in the archeological record can make identification of Native American archeological resources more difficult. Historic-period sites may be associated with Native American individuals or groups even when the material culture seems indistinguishable from non-native occupations. At the same time, some postcontact Native American sites may contain traditional material culture or evidence of traditional practices and may thus be difficult to distinguish from precontact sites. The reader should, therefore, be cautioned that some sites may be wrongly attributed to particular times or cultures simply because of the sometimes ambiguous nature of the archeological record.

Within the Battlefield Unit, seven areas have been recorded where Native American materials were found. All of these were encountered incidentally in the course of investigations of non-native archeological resources. No more than a few artifacts have been found at any of these areas. The seven areas are mapped in Figure 59 and listed in Table 5.

Since Native Americans participated on both sides in the Saratoga campaign, it is likely that the Battlefield Unit contains some Native archeological materials associated with the battle. It seems unlikely, however, that these would have consisted solely of stone projectile points, bifaces, and debitage since Native people had been using firearms and metal weapons for many years before 1777. Most of the archeological traces left by the Stockbridge, Oneida, Mohawk, and other Native participants in the campaign may in fact be indistinguishable from those left by the American, British, or German soldiers.

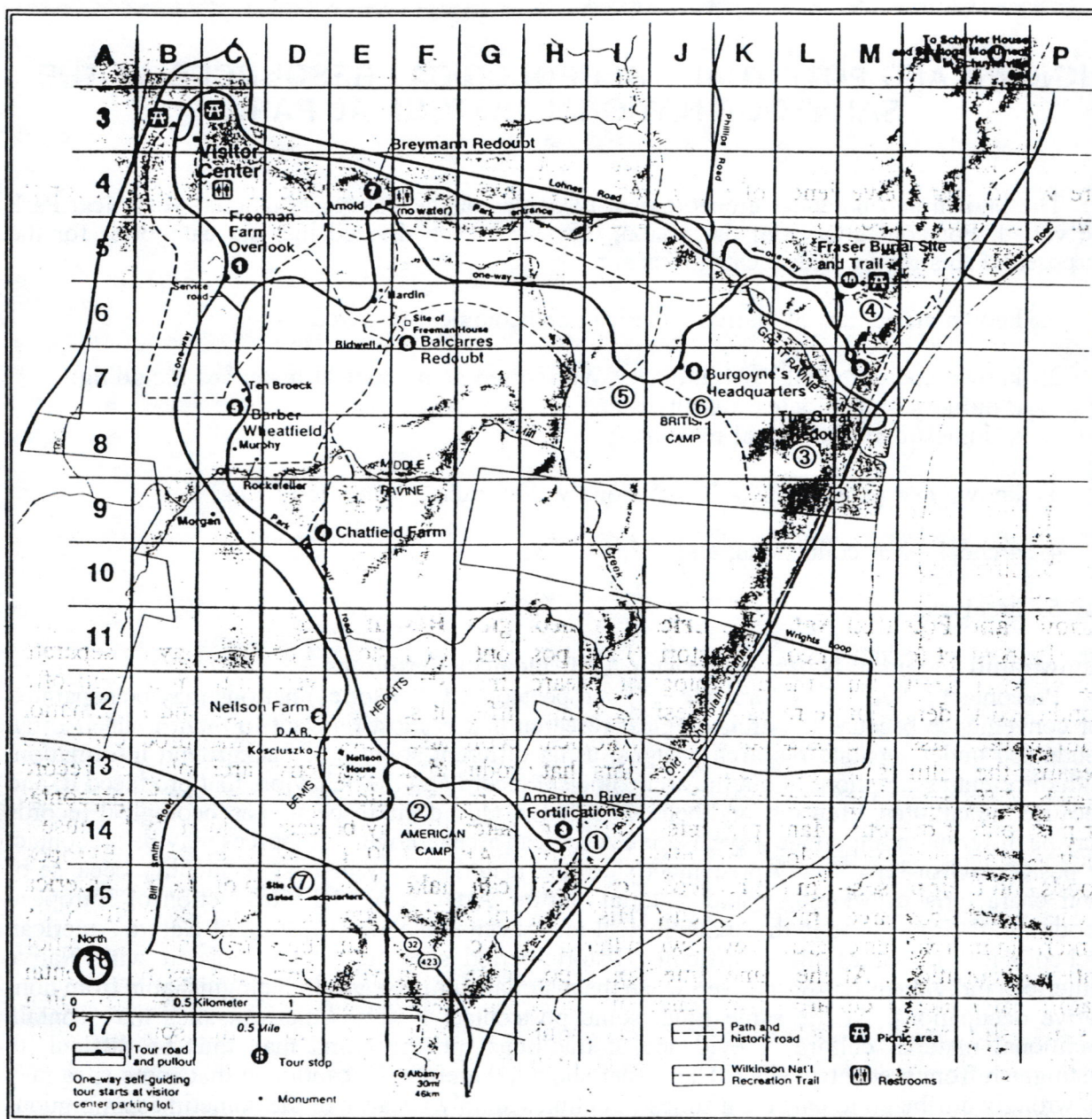


Figure 59. Locations of finds of Native American artifacts in Battlefield Unit, Saratoga National Historical Park

Table 5

**Finds of Native American Artifacts
in Battlefield Unit, Saratoga National Historical Park**

| NUMBER,
FIGURE 59 | LOCATION OF FIND(S) | DESCRIPTION | REFERENCE |
|----------------------|--|---|---------------------------|
| 1 | Test Trench 3, American river overlook positions | Madison projectile point fragment (Late Woodland-Contact) | Reeve and Snow 1975:24,65 |
| 2 | Test Trench 2, American east flank | untyped projectile point | Ehrich 1941a:15 |
| 3 | British east flank | untyped projectile point fragments and chert flakes | Ehrich 1941a:21-22 |
| 4 | Trench B | projectile point base, possibly partially fluted | G. Ritchie 1958 |
| | Trench 1 | projectile point base, Laurentian tradition | G. Ritchie 1958 |
| 5 | Old Woods | projectile point base, lithic debitage | Browne 1986:40 |
| 6 | Burgoyne Headquarters | lithic debitage | Linck 1981:3-4 |
| 7 | American Headquarters | three bifaces | Starbuck 1987:28-29 |

A sizeable Native American archeological site exists on the grounds of the Schuyler House. Archeological testing in the northern and eastern portions of the yard surrounding the house yielded abundant artifacts of Native American origin. Materials found here range in age from the Late Archaic through Late Woodland (and possibly Contact) periods. Middle and Late Woodland materials appear to make up most of the site's components. A Middle Woodland hearth feature was excavated here in 1987 (Starbuck 1989a:19-27).

In addition to these known Native American Archeological resources, portions of the Saratoga National Historical Park have varying potential to contain such resources. In general, areas near streams with well-drained soils and level surfaces are considered likely to contain Native American archeological sites. Such areas are mostly located in the eastern portion of the Battlefield Unit, particularly near Mill Creek and Kroma Kill (the two largest streams), along the bluff tops overlooking the Hudson River valley, and on the valley floor of the Hudson itself (Figure 5). For example, Ehrich (1941a:21-22) recovered what he presumed were precontact lithic tools and debitage from the British east flank, which was situated on the sandy soils near the bluff tops (Figure 59:3). Two other finds (Figure 59:1 and 4) are located along the bluff tops. All seven of the areas in which Native materials have been found are situated in the eastern portion of the Battlefield Unit (Figure 59).

Areas less likely to contain such archeological resources include places where the upper or surface layers of sediments are glacial till or glaciolacustrine clays. Such areas are most common in the Battlefield Unit's western section (Figure 5). Bedrock outcrops should be considered to have moderate potential. Although such places are not well suited for habitation, the rock itself

may have been used for lithic tools and there may be quarry and/or workshop sites in the area. This is especially likely if the rock in question is chert, which is sometimes found in the Normanskill formations of the west side of the Hudson River.

Known and Potential Revolutionary War-Period Military Archeological Resources

These archeological resources include fortifications, encampments, burials, battlefields, command centers, and field hospitals. Figure 60, adapted from Snow's (1977) *Archeological Atlas of the Saratoga Battlefield* shows the locations of the known and expected military-related archeological resources at the Saratoga National Historical Park. These resources are summarized in Table 6. Despite the destruction of parts of some of these sites and features due to cultivation, collecting, looting, and archeological research, the extant physical remains that have been investigated archeologically and have either been minimally confirmed or been studied in more detail constitute an impressive variety. These include two large battlefields, the American headquarters, American and British lines including encampment sites, American and British fortifications, and British redoubts. In addition, hearths and burials (but no large cemeteries) have been found, removed, and, in some cases, studied (Snow and Wilkinson 1986).

The **Freeman Farm** area (Figure 60:1) and the **Barber Wheatfield** (Figure 60:2) were the sites of some of the fiercest open field fighting in the campaign. Both the Freeman farmhouse and the Barber Wheatfield have been tested archeologically. The original Freeman farm has thus far not been detected archeologically despite several attempts at its discovery (Campbell 1963; Cotter 1960; Snow 1973). The Barber Wheatfield has been subject to only a preliminary reconnaissance survey (Reeve 1974) which did not find any conclusive evidence of Revolutionary-period archeological resources.

The **American Headquarters** (Figure 60:3), also known as the **Woodworth farm**, was rediscovered in 1985 by archeologists working under the direction of David Starbuck. Starbuck's team found the stone foundations of the farmhouse and of the barn, which had been used as the field hospital, but found little in the way of Revolutionary War-period materials and none of the many burials that were reputed to have been located here (Starbuck 1986c:26; 1987:11-22,28-40).

The **American Lines** (Figure 60:4 and 5) were first among the first military features tested here. Robert Ehrich (1941a) investigated Western, Central, and Eastern sections of the lines in 1941. He exposed and excavated a segment of a ditch and earthwork/abatis in the Western section, but found no evidence of the encampment of Poor's Brigade (Ehrich 1941a:3-6). In the Eastern section he found a 50-60-foot segment of a zig-zag fortification ditch and a small (40-foot) outwork (Ehrich 1941a:7-20). These features were rediscovered in 1973 by Snow (1974:4-9). In 1957, John Cotter found traces of a ditch and bank feature along the bluffs overlooking the Hudson at the east end of the American lines (Cotter 1957:4-8). Years later, Reeve and Snow (1975:20-28) reported uncovering and tracing a complex of earthworks including wooden elements along portions of the bluffs in a pattern similar to that depicted by the 1777 map of Rufus Putnam.

The **Neilson House** area (Figure 60:6), located near the American west flank, has been the subject of several archeological research endeavors. In 1957, Cotter (1957:1-3) discovered the foundation of the house. Further excavations in the area of the Neilson House (e.g., Moore 1961; Reeve and Snow 1975:9-16) failed to recover any military features or eighteenth-century outbuildings or domestic features.

The **British Lines** were also first excavated by Ehrich. At the British east section (Figure 60:7) he found evidence of a detached fortification consisting of a ditch containing quantities of decomposed wood in an area reputedly manned by Hesse-Hanau Artillery (Ehrich 1941a:20-22).

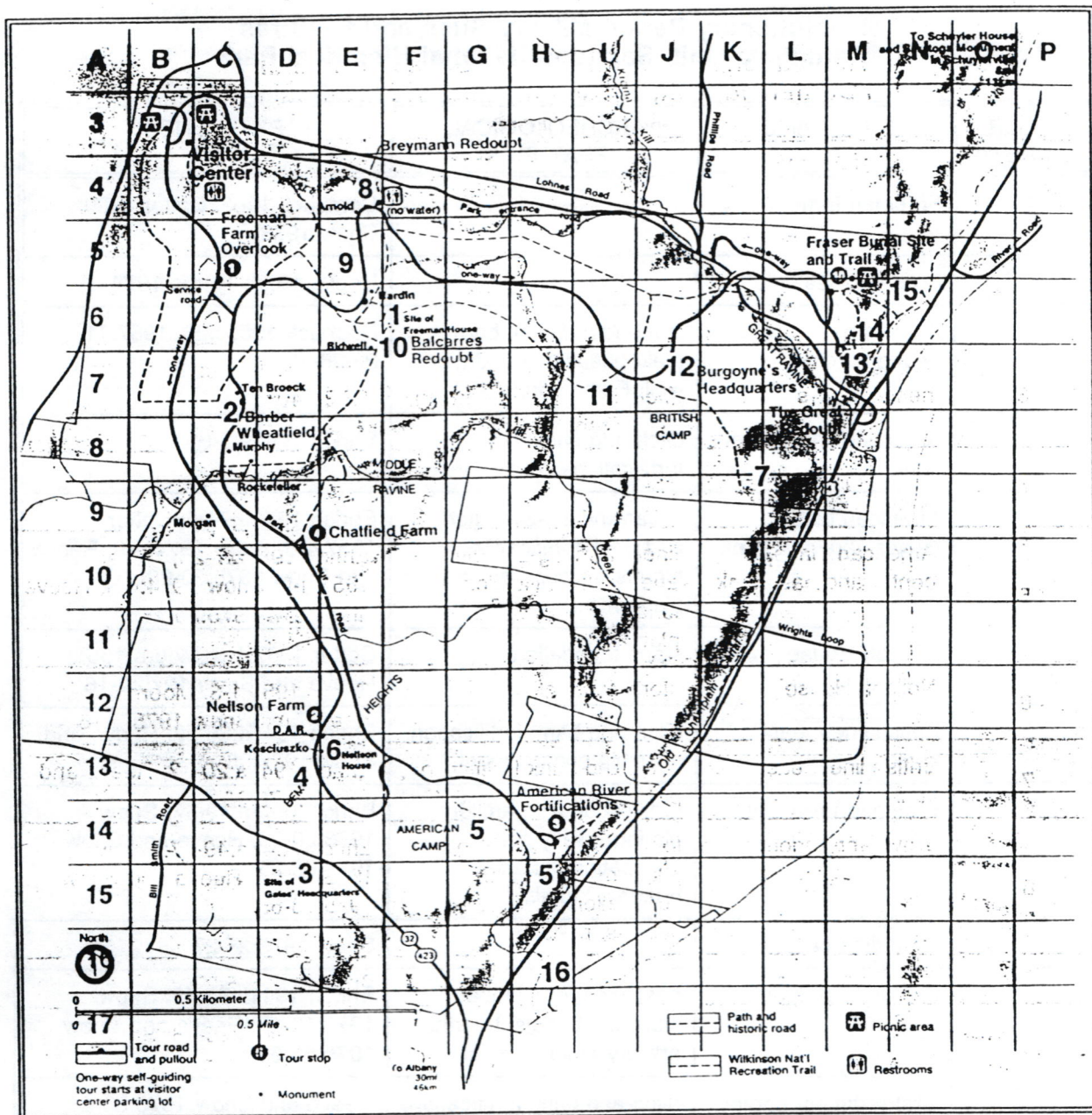


Figure 60. Projected and known locations of Revolutionary-period military related archeological resources in Battlefield Unit, Saratoga National Historical Park.

Table 6

**Revolutionary Period Military Sites and Features
in Battlefield Unit, Saratoga National Historical Park**

| NUMBER,
FIGURE 60 | SITE NAME | ARCHEOLOGICAL
FEATURES | REFERENCES |
|----------------------|--|---|--|
| 1 | Freeman farm | | Campbell 1963; Cotter 1960;
Snow 1973 |
| 2 | Barber Wheatfield | | Reeve 1974; Torres 1974 |
| 3 | American
headquarters | stone foundation, barn
(field hospital) foundation,
well, French drain | Starbuck 1986c:26; 1987:11-
22,28-40 |
| 4 | American lines, west
flank | ditch and bank
fortifications | Ehrich 1941a:3-6 |
| 5 | American Lines,
center and east flank | linear and zig-zag ditch
and bank fortification,
lunette outwork, artillery
platforms | Ehrich 1941a:7-20; Cotter
1957:4-8; Snow 1974:4-9; Reeve
and Snow 1975:20-28 |
| 6 | Neilson House | stone foundation | Cotter 1957:1-3; Moore 1961;
Reeve and Snow 1975:9-16 |
| 7 | British lines, east
flank | ditch and bank fortification,
possible encampment | Ehrich 1941a:20-22; Reeve and
Snow 1975:36 |
| 8 | Breymann redoubt | fortification line, artillery
platform, sally port,
occupation surface,
hearths, burials | Ehrich 1941a:49-57; Snow
1973:20-25; Reeve and Snow
1975:63-65 |
| 9 | Canadian cabins | | Snow 1973:25-27 |
| 10 | Balcarres redoubt | postholes from timber
cribwork, burials, hearths,
artillery emplacement | Ehrich 1941a:25-48; Snow
1973:10-17; Reeve and Snow
1975:53-61 |
| 11 | 21st regiment camp/
line (Old Woods) | ditch and bank fortification,
logs, military artifacts | Reeve and Snow 1975:38-43;
Browne 1986:34-42, 1987:54 |
| 12 | British headquarters | | Reeve and Snow 1975:30-32 |
| 13 | Great redoubt | hearths, postmolds | Snow 1974:13-19 |
| 14 | Fraser burial | empty shallow pit | Snow 1974:13-16 |
| 15 | Taylor house | stone foundation | Snow 1974:20-23; Demers 1988;
Starbuck 1989b |
| 16 | American water
battery | | |

The **Breymann Redoubt** (Figure 60:8) was located first by Ehrich, who observed what he believed to be a cut and leveled occupation surface, traces of a fortification ditch, a hearth, a refuse pit, and Revolutionary-period military artifacts (Ehrich 1941a:49-57). Later excavation by Snow exposed posthole patterns suggestive of a zig-zag fence as well as a possible artillery platform, a sally port, a burial and hearths and camp refuse consistent with the German and Tory encampments. Snow may have located both the northern and southern ends of the redoubt (Snow 1973:20-25). Testing in search of further traces of the Tory Camp within the redoubt were not successful (Reeve and Snow 1975:63-65).

South of the Breymann Redoubt, Snow (1973:25-27) observed surface evidence of one of two **Canadian Cabins** (Figure 60:9), but excavations failed to recover definite traces of the cabin or its surrounding fortification.

Balcarres Redoubt (Figure 60:10) was also first excavated by Ehrich. He exposed the remnants of a ditch and timber cribwork barricade, as well as burials, hearths, a possible artillery emplacement, and numerous military artifacts (Ehrich 1941a:25-48). More than thirty years later, Snow found surface indications of most of the western wall of the redoubt and subsurface evidence of a ditch and bank fortification. He found evidence of a double-wall fortification at the redoubt's southeastern section. Within the redoubt, he found a burial of an American soldier and two hearths presumably from the British occupation (Snow 1973:10-17). Testing at what was believed to have been the southern end of the redoubt, however, yielded no traces of fortifications (Reeve and Snow 1975:53-56).

Between Balcarres Redoubt and the Great Redoubt, segments of the British line and encampments have been uncovered. Reeve and Snow (1975:36) reported finding traces of what they believed was an encampment of German soldiers. West of this area, in the Old Woods, the SUNY archeologists (Reeve and Snow 1975:38-43) found evidence of a ditch and bank fortification and the encampment area of the **British 21st regiment** (Figure 60:11). Subsequent intensive testing there by RPI archeologists (Browne 1986, 1987) yielded little in the way of materials or features. The location of the **British Headquarters** (Figure 60:12), situated in this general area, has been tested but has yielded no definitive results. Remains from the British occupation here may have been destroyed by collecting, cultivation, and sand mining (Reeve and Snow 1975:30-32).

The **Great Redoubt** (Figure 60:13) has yielded no traces of its fortifications. Within its projected limits, Snow (1974:13-19) discovered several hearths and postmolds as well as a shallow pit feature which he interpreted as the **Fraser Burial** (Figure 60:14). Near the Great Redoubt, the site of the **Taylor House** (Figure 60:15) was discovered by Snow (1974:20-23) and was more thoroughly explored by Demers (1988) under the direction of Starbuck (1989b). In addition to exposing and recording the house's stone foundation, Demers and Starbuck recovered a sizeable assemblage of domestic items.

The integrity of fortifications, encampments, and other military features appears to vary considerably. Those fortifications that have most consistently yielded archeological traces of their structure include the eastern portions of the American lines, Breymann Redoubt, and Balcarres Redoubt. The western portion of the American lines and the Great Redoubt have proved more elusive. In general, it seems that two factors have contributed to these differences. First, the method of construction of the fortifications appears to have varied in ways that have influenced their subsequent archeological visibility. Timber cribworks built over bedrock, for example, have left no traces, while ditch and bank features dug deep into the soil may still be detectable. Second, postwar disturbances, particularly those associated with farming, have destroyed many fortifications. In order to make cultivation easier, timbers have been removed and ditches and banks have been levelled. Levelling ditch and banks does not always destroy their subsurface traces but may make them difficult to detect at the surface. These processes probably have affected fortifications comprised of surface elements more than they have affected those with

deep ditches or deeply sunk posts. As Reeve and Snow (1977:35,67) noted, past land use has been a dominant factor in archeological preservation, and assessment of archeological potential of any specific area within the Battlefield Unit should be based on land use histories as much as on the location of original Revolutionary-period features.

Known structures associated with the battle also vary in their archeological integrity. The American Headquarters and field hospital, Neilson House, and Taylor House have been successfully located and tested, while Burgoyne's Headquarters, the Freeman Farm house, and Neilson barn have not been found and may in fact no longer be detectable archeologically. The major factor in the preservation of these structures appears to be their construction and use. Those structures that were more substantial and were occupied for longer periods of time have the greatest archeological integrity. Unfortunately, the consequence of such prolonged use is that few or no discrete deposits and little or no material dating from the Revolutionary era remains at the sites that are best preserved. Almost all of the materials and features at these sites probably reflects their postwar histories.

Encampment areas and burials have also been preserved very unevenly within the battlefield. Postwar disturbance through collecting, apparently most of which took place before the Saratoga National Historical Park was established, has been a major factor in the disappearance of materials from camp areas and the disappearance of bodies from graves. While this has clearly compromised the integrity of portions of the battlefield, given the vast size of the area and the limited extent of excavation, there undoubtedly remain some graves, hearths, and deposits of military artifacts that retain some research value.

Known and Potential Revolutionary War-Period Domestic Archeological Resources

Apart from specifically military-related archeological landscapes, sites, features, and artifacts, the Saratoga National Historical Park contains archeological resources related to domestic life just prior to the events of 1777. These include domestic structures and their surrounding archeological landscapes including homelots, agricultural fields, pastures, orchards, etc., outbuildings, activity areas, privies, wells, refuse middens, roads, paths and walkways. Evidence for domestic structures comes from maps of the area (Wilkinson 1777a; Neilson 1844), historical studies (e.g., Brandow 1919; Gjessing 1958; Snell 1951a), and archeological testing (e.g., Cotter 1957, 1960; Snow 1973, 1974; Starbuck 1986c; 1987). Among the archeological finds are Cotter's (1957) discovery of the Neilson House foundation, Starbuck's discovery of the foundations of the farmhouse that served as the American Headquarters and the nearby barn that was used as the field hospital (Starbuck 1986c:26; 1987:11-22,28-40), Snow's recovery of what he believed to be a corner of the foundation of the Freeman Barn (Snow 1973:18), and the stone foundations of the Taylor House (Demers 1988; Snow 1974:20-23). Artifact assemblages dating to the late eighteenth century have been recovered from the Woodworth Farm and the Taylor House (Demers 1988; Starbuck 1987, 1989b). In general, few of these structures have been investigated archeologically, except for those that played the most important roles in the battle. Conspicuously absent in the roster of archeologically tested domestic sites are the Bemis Tavern, McBride Farm, and Chatfield Farm sites.

Figure 61 shows the projected locations of structures and roads on the map of the Battlefield unit prepared by Snow (1977). This map includes Snow's projected revolutionary-period roads (1976), regardless of their verification by archeological testing. Structures were located based on their position relative to period roads. Therefore, it is possible that the locations of some structures differ appreciably from those indicated in Figure 61. Unnumbered structures are those that are shown on historic maps but are not identified; numbered structures are those which can be identified. Numbered structures are summarized in Table 7.

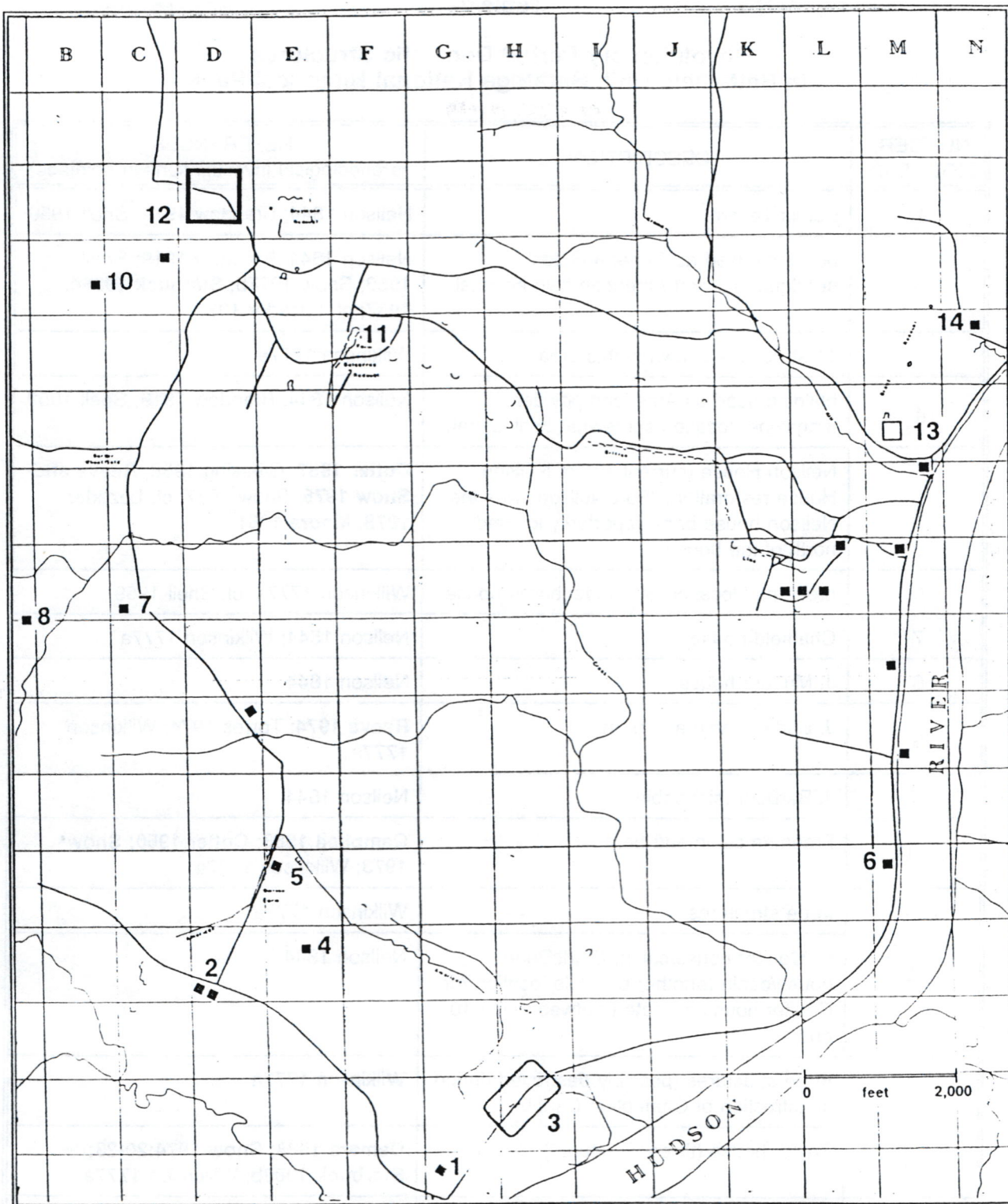


Figure 61. Projected locations of Revolutionary-period roads and domestic structures in Battlefield Unit, Saratoga National Historical Park (Source: Snow 1977:5).

Table 7

**Revolutionary-Period Domestic Structures
in Battlefield Unit, Saratoga National Historical Park**

| NUMBER,
FIGURE 61 | DESCRIPTION | REFERENCES
(archeological investigations in boldface) |
|----------------------|--|---|
| 1 | Bemis Tavern | Neilson 1844; Brandow 1919; Snell 1959 |
| 2 | buildings used as General Gates' headquarters and American field hospital | Neilson 1844; Brandow 1919; Snell 1959; Snow 1977b; Starbuck 1986c, 1987 ; cf. Luzader 1973 |
| 3 | 11 structures shown in this area | Wilkinson 1777a |
| 4 | building used as American powder magazine (location somewhat conjectural) | Neilson 1844; Brandow 1919; Snell 1959 |
| 5 | Neilson House (current site of Neilson House restoration) "Fort Neilson" was the Neilson house barn, reportedly located north of the house | Cotter 1957 ; Gjessing 1958; Reeve and Snow 1975 ; Snow 1977; cf. Luzader 1973; Moore 1961 |
| 6 | presumed location of Vandenburg house | Wilkinson 1777a; cf. Snell 1959 |
| 7 | Chatfield house | Neilson 1844; Wilkinson 1777a |
| 8 | J. Munger house | Neilson 1844 |
| 9 | J. Barber cabin and barn | Reeve 1974 ; Torres 1974; Wilkinson 1777a |
| 10 | J. Barbour (sic) cabin | Neilson 1844 |
| 11 | Freeman cabin and barn | Campbell 1963 ; Cotter 1960 ; Snow 1973 ; Wilkinson 1777a |
| 12 | three structures | Wilkinson 1777a |
| | C. Coulter house/cabin, S. McBride house/cabin (another possible location for Coulter house indicated between nos. 10 and 11) | Neilson 1844 |
| 13 | three structures (possibly destroyed during construction of Champlain Canal) | Wilkinson 1777a |
| 14 | Taylor house (three structures) | Demers 1988 ; Snow 1974:20-23 ; Starbuck 1989b ; Wilkinson 1777a |
| not shown | McBride farm | Wilkinson 1777a |

The Schuyler House has yielded little in the way of archeological materials that can be dated confidently to the Revolutionary period. One small burned structure (Figure 55) was dated to that period by Starbuck, who interpreted it as probably one of those burned by the British in 1777. However, the building's exact date of construction, its function, and its dimensions could not be determined (Starbuck 1989a:39-43).

The Victory Mills Unit constitutes the final encampment of the British army before its surrender. It has the potential to contain the remains of fortifications and camp area.

Known and Potential Post-Revolutionary War Archeological Resources

In addition to Revolutionary War-period archeological landscapes, sites, features, and artifacts, the Saratoga National Historical Park contains archeological resources related to the history of the area after the events of 1777. Many of these are domestic structures and their surrounding archeological landscapes including homelots, agricultural fields, pastures, orchards, etc., outbuildings, activity areas, privies, wells, refuse middens, roads, paths and walkways. Other kinds of resources include transportation-related features such as a ferry landing (Figure 62:A,B), commercial structures (e.g., Figure 62:6), mills (e.g., Figure 62:27), and small hamlets (e.g., Figure 62:40 and 42). Evidence for these structures and features comes from the Geil (1856), Beers (1866), and USGS (1929) maps. Information on farm ownership comes from the *Farmer's Directory* (Anonymous 1890). Figure 62 shows the projected locations of structures on the map of the Battlefield Unit prepared by Snow (1977:7). This map includes the road network as it existed in 1927, which appears little changed from the road network of the mid-nineteenth century. Structures that were located in the same or nearly the same position in the Geil and Beers maps were assumed to have been the same structure, but this may not always have been the case. Structures are summarized in Table 8. Note that the Taylor House and Woodworth Farm, both of which were occupied after the battle and have been tested archeologically, do not appear on the maps. This suggests that some of the dwellings in this area that were occupied after 1777 have never been mapped.

The archeological testing that has been done at these sites has been incidental to the search for Revolutionary War-period features and structures. The foundation of the nineteenth-century Neilson House was exposed during the search for its eighteenth-century predecessor (Cotter 1957). The Neilson House midden, a large, possibly stratified deposit dating mostly to the nineteenth century, has been located to the east of the House. This appears to have some research potential (Reeve and Snow 1975:13-16). The Freeman Farm area has been investigated several times (Campbell 1963; Cotter 1960; Snow 1973). Remains of foundations for structures, a domestic midden (Cotter 1963), and building debris from a 1906 barn (Campbell 1963:5) have been found. They have not been researched beyond determining whether they were associated with the eighteenth-century occupation.

The Schuyler House Unit contains numerous structural remains and archeological features that appear to postdate the Revolution (Figure 63). Although most of the features excavated or exposed by Cotter (1958a, 1958b, 1958c, 1959, 1964), Larrabee (1960), and Starbuck (1986d, 1989a) cannot be dated with certainty or precision, a few have been assigned date ranges. Most appear to date to the nineteenth century and are associated with the occupation of the present Schuyler House. The stone foundation on which the present Schuyler House stands contained evidence of having held a structure which burned (Larrabee 1960:35-39). The paucity of evidence of eighteenth-century activity in the surrounding yard suggests that this was not the site of the Schuyler residence that was burned by the British (Starbuck 1989a:59-60). Recorded features at the Schuyler House are shown in Figure 63 and are listed in Table 9.

Remember, Catherine Schuyler made @ least 3 recorded trips to SH in July - August ¹⁷⁷² presumably to remove materials from the house. Has any archaeological report tried to correlate known Schuyler purchases of glass, ceramics & metals

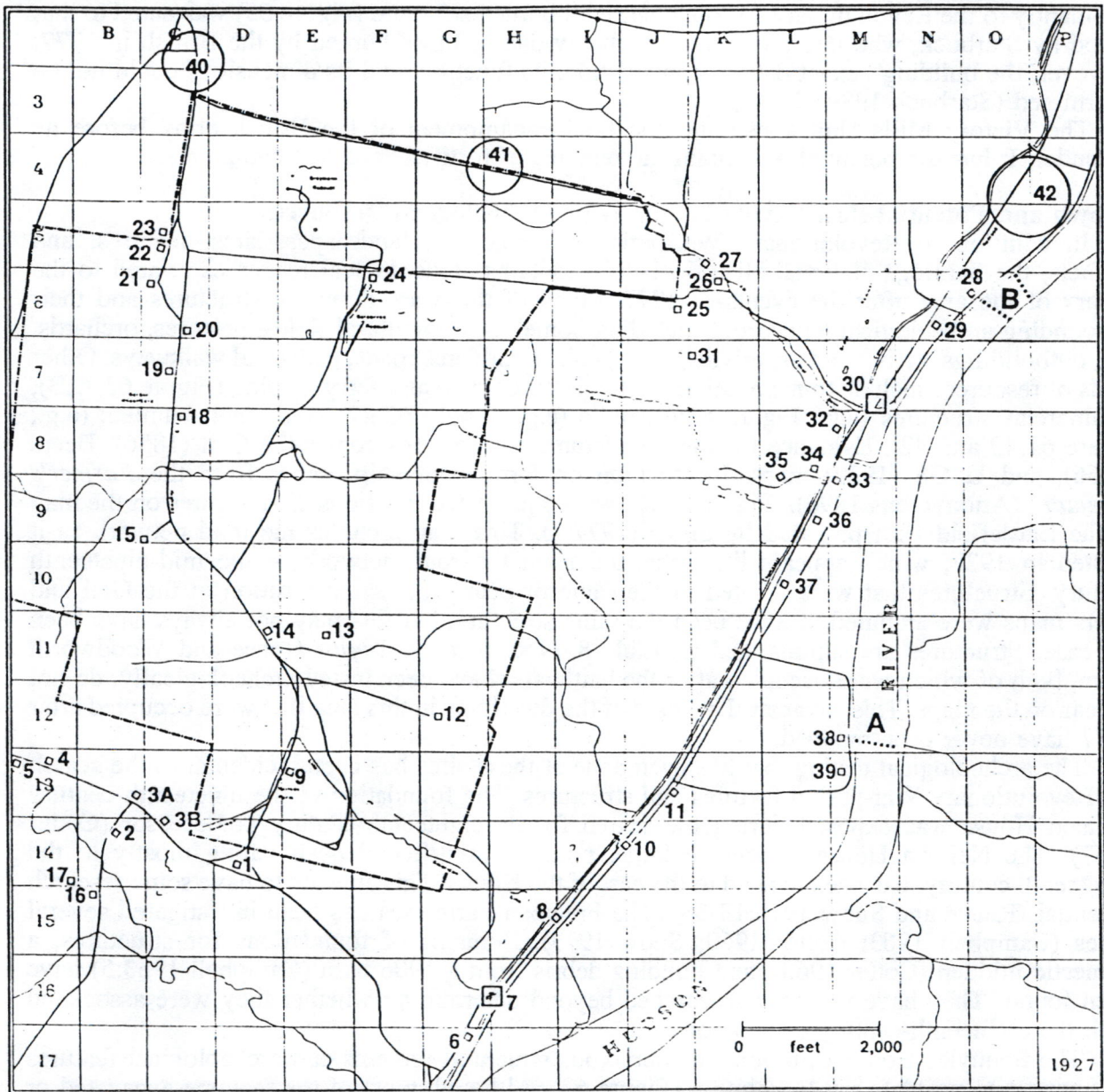


Figure 62. Projected locations of post-Revolutionary War-period roads and structures in Battlefield Unit, Saratoga National Historical Park.

Table 8

**Post-Revolutionary War-Period Structures
in Battlefield Unit, Saratoga National Historical Park**

| DESIGNATION,
FIGURE 62 | DESCRIPTION AND/OR NAME GIVEN ON MAP(S)
1856 Geil Map; 1866 Beers Map; 1890=Farmers' Directory; 1929 USGS map | | Archeological
Investigation |
|---------------------------|--|---|--|
| A | 1856 | ferry | |
| | 1866 | Wright's Ferry | |
| B | 1856 | ferry (upper) | |
| | 1866 | rope ferry (lower) | |
| 1 | 1856, 1866 | W.L. Denison | |
| 2 | 1856 | J. Lee | |
| | 1866 | P. McCarthy | |
| | 1890 | within 21-acre parcel, James Sheehan estate | |
| 3A | 1856, 1866 | heirs of D. Newland | |
| | 1890 | within Farm #72 | |
| | 1929 | possibly one of three structures around this location | |
| 3B | 1856, 1866 | heirs of D. Newland | |
| 4 | 1856, 1866 | H. Smith | |
| | 1890 | within 100-acre parcel, Horace Bratt farm | |
| | 1929 | could be one of several structures around this location | |
| 5 | 1856, 1866 | unidentified structure | |
| 6 | 1866 | store and post office (location approximate) | |
| 7 | 3 buildings, 2 west of Champlain Canal, the third east of the canal | | |
| | | | 1856 west, W. Danscomb east, illegible |
| | | | 1866 west, S. Danscomb east, unidentified |
| | | | 1890 1 or more within 240-acre parcel, William Steele farm |
| | | | 1929 1 building shown in this area |

| DESIGNATION,
FIGURE 62 | DESCRIPTION AND/OR NAME GIVEN ON MAP(S)
1856 Geil Map; 1866 Beers Map; 1890= <u>Farmers' Directory</u> ; 1929 USGS map | Archeological
Investigation |
|---------------------------|---|---|
| 8 | 1866 N. Hall | |
| | 1890 within Farm #153 | |
| | 1929 structure shown here | |
| 9
Neilson
Farm | 1856, 1866 C. Nelson (sic) | Cotter 1957; Reeve
and Snow 1975:13-16 |
| | 1890 within 140-acre parcel, Willie E. Neilson farm | |
| 10 | 1856 J. Adkins | |
| | 1866 unidentified | |
| | 1890 within 42-acre parcel, Edward Chever (sic) estate | |
| 11 | 1856 A.J. Adkins | |
| 12 | 1856, 1866 E. Hewett | |
| | 1890 within 100-acre parcel, Van Burcn Searles farm | |
| 13 | 1856 A. Post (?) | |
| | 1866 J. Cheever | |
| 14 | 1856 I. Freeman (?) | |
| | 1866 B. Searles | |
| | 1890 within Jesse Billings farm | |
| 15 | 1856 Mrs. Earls (sic) | |
| | 1866 B. Sarles (sic) | |
| | 1890 within 200-acre parcel, Benjamin Searles farm | |
| 16 | 1856, 1866 W.H. Sherman | |
| 17 | 1856, 1866 E. Smith | |
| 18 | 1856 J. Dalton | |
| | 1866 P. Walsh | |
| 19 | 1856 Mrs. Walker (2 buildings) | |
| | 1866 M. Rogers (1 building) | |
| | 1890 within 105-acre parcel, Perry Condon farm | |

| DESIGNATION,
FIGURE 62 | DESCRIPTION AND/OR NAME GIVEN ON MAP(S)
1856 Geil Map; 1866 Beers Map; 1890=Farmers' Directory; 1929 USGS map | Archeological
Investigation |
|---------------------------|--|--|
| 20 | 1856, 1866 J. Freeman | |
| | 1890 within 100-acre parcel, Mrs. Isaac Freeman farm | |
| 21 | 1856 Walker | |
| | 1866 J. Walker | |
| | 1890 within 115-acre parcel, James Walker farm | |
| 22 | 1856, 1866 J. Walker | |
| 23 | 1856 O. Bishop | |
| | 1866 heirs of E. Newland | |
| | 1890 within 113-acre parcel, John B. Newland farm | |
| 24
Freeman
Farm | 1856, 1866 E. Leggett | Cotter 1960; Campbell
1963; Snow 1973:17-
20 |
| | 1890 within 108-acre parcel, William W. Esmond farm | |
| 25 | 1856, 1866 J. Wilbur | |
| | 1890 within 100-acre parcel, E.K. Wilber (sic) farm | |
| 26 | 1856, 1866 D. Smith | |
| | 1890 within 48-acre parcel, Daniel Smith farm | |
| 27 | 1856, 1866 saw mill Cotter (1959) may have observed remains of this mill on Kroma Kill. He cited local tradition that the mill was in existence by 1792 if not earlier. Possibly a plaster mill (Phillips 1973). | |
| 28 | 1856 illegible | |
| | 1866 A. Cotton | |
| | 1890 within 100-acre parcel, Calvin Cotton farm | |
| 29 | 1856 illegible, 1866 unidentified | |
| 30 | 1856 W. Ensign (3 structures) | |
| | 1866 P.E. Van Wie (unidentified building and store) | |
| | 1890 within 70-acre parcel, Clarence Curtis farm | |
| 31 | 1856 A.W. Davis | |
| 32 | 1856 unidentified | |
| 33 | 1856, 1866 J. Hodgeman | |

| DESIGNATION,
FIGURE 62 | DESCRIPTION AND/OR NAME GIVEN ON MAP(S)
1856 Geil Map; 1866 Beers Map; 1890= <u>Farmers' Directory</u> ; 1929 USGS map | Archeological
Investigation |
|--|--|--|
| 33 | 1890 within 180-acre parcel, William P. Curtis farm | |
| 34 | 1866 unidentified | |
| 35 | 1866 J. Pangborn | |
| | 1890 within 112-acre parcel, Eugene Curtis farm | |
| 36 | 1856, 1866 J. Pangborn | |
| 37 | 1856, 1866 D. Van Wie | |
| | 1890 within 105-acre parcel, Mrs. Eliza Tompkins farm | |
| 38 | 1856, 1866 H.A. Van Wie | |
| | 1890 within 209-acre parcel, Joseph Holmes, occupant | |
| 39 | 1856, 1866 J.V.N. Houghtaling | |
| | 1890 within 150-acre parcel, Ephraim Ford farm | |
| 40
(north of
current Park
boundary) | 1856 area illegible | |
| | 1866 crossroads hamlet including residences of A. Leggett and W.D. Shepherd, whitesmith's shop, blacksmith's shop | |
| | 1890 Leggett house appears within 170-acre parcel, Ebenezer Leggett estate | |
| 41 | 1856 area illegible | |
| | 1866 (a) D. Dean (b) W. Dean (c) P.D. (Dean?) (d) J. Salisbury (north of current Park boundary) | |
| | 1890 (a) within 61-acre parcel, Joseph E. Buck farm (c) within 30-acre parcel, Charles Handy farm (d) within 237-acre parcel, Lewis Salisbury farm | |
| 42
(north of
current Park
boundary) | 1856 hamlet including Mrs. Smith's residence, district schoolhouse, grocery store | |
| | 1866 hamlet including 3 residences (Mrs. Smith's, Mrs. Smith's, C. Ensign's), district schoolhouse #3, grocery store | |
| | 1890 data not collected | |
| 43 | Woodworth Farm, not recorded | Starbuck 1986c:26;
1987:11-22,28-40 |
| 44 | Taylor House, not recorded | Snow 1974:20-23;
Demers 1988;
Starbuck 1989b |

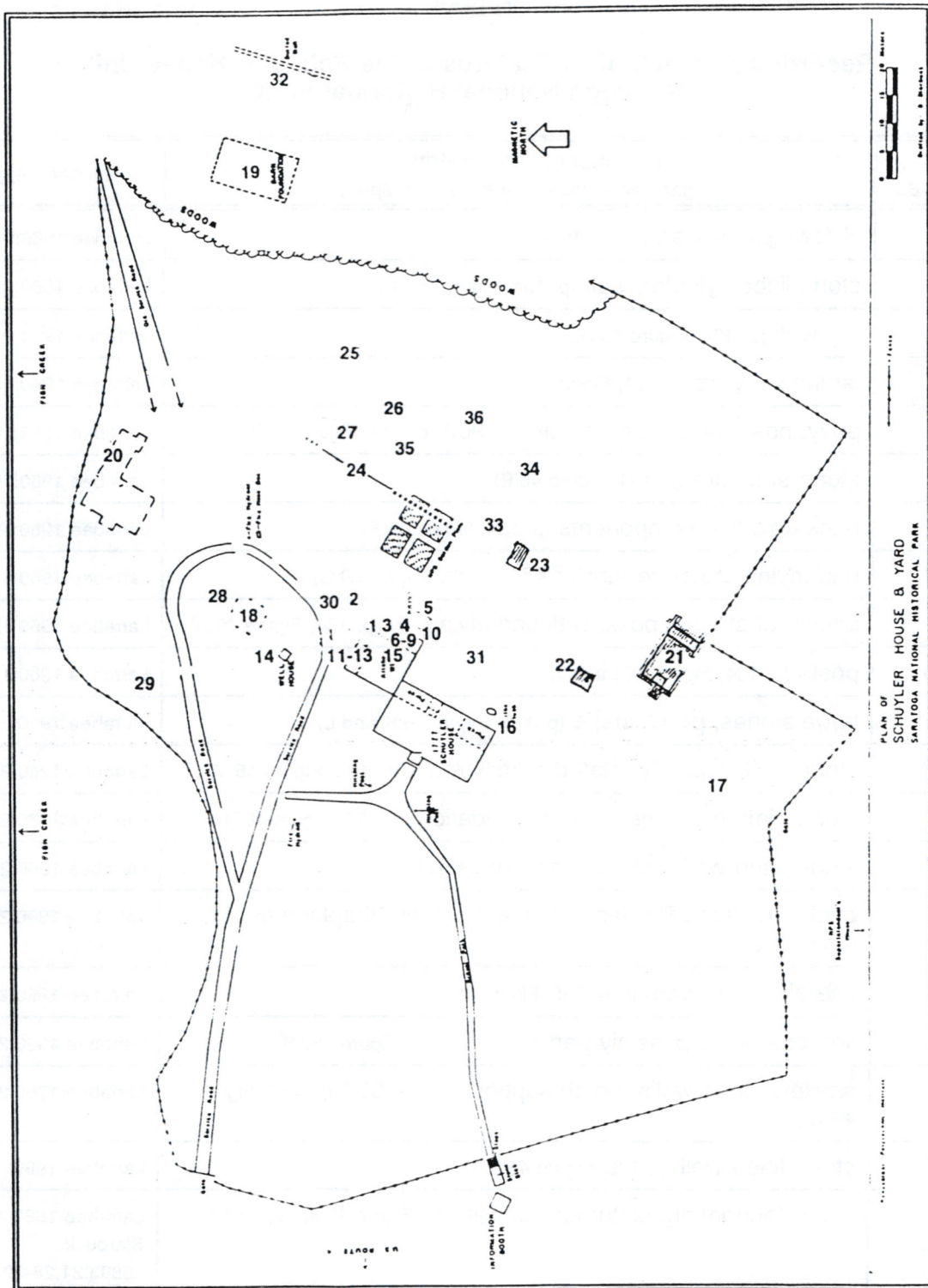


Figure 63. Known and potential archeological features at the Schuyler House Unit, Saratoga National Historical Park (Sources: Howe 1986:Figure 1; Larabee 1959a; Starbuck 1989a:Figure 6).

Table 9

**Recorded Archeological Features at the Schuyler House Unit,
Saratoga National Historical Park**

| Number,
Figure 63 | Description/Interpretation
(page and Figure reference, this report) | Reference |
|----------------------|--|---|
| 1 | cistern (pp. 134-135, Figure 46:A) | Larrabee 1960:9,26 |
| 2 | stone-lined cylinder, well (p. 134, Figure 45:10) | Larrabee 1960:9 |
| 3 | dry well (p. 134, Figure 46:B) | Larrabee 1960:9-10 |
| 4 | latrine/privy pit (p. 134, Figure 46:C) | Larrabee 1960:10 |
| 5 | privy, postdates #4, built before 1900 (p. 134, Figure 46:D) | Larrabee 1960:10 |
| 6 | stone structure (p. 134, Figure 46:E) | Larrabee 1960:10-11 |
| 7 | brick box, two components (p. 134, Figure 46:F) | Larrabee 1960:11 |
| 8 | underlying structure (under #7) (p. 134, Figure 46:G) | Larrabee 1960:11-12 |
| 9 | jumble of stones, poss. wall underlying #6 (p. 134, Figure 46:H) | Larrabee 1960:12 |
| 10 | posts (p. 134, Figure 46:I and J) | Larrabee 1960:12-13 |
| 11 | large stones, porch steps (p. 135, Figure 46:K and L) | Larrabee 1960:25-26 |
| 12 | stone wall, possibly related to milk room (p. 135, Figure 46:M) | Larrabee 1960:26 |
| 13 | stone platform, pavement or foundation (p. 135, Figure 46:N) | Larrabee 1960:26-27 |
| 14 | stone-lined well, extant (p. 135, Figure 45:9) | Larrabee 1960:27 |
| 15 | brick and stone fireplace, beneath present fireplace (p. 135, Figure 46:O) | Larrabee 1960:27-28 |
| | line of stones, waste (p. 135, Figure 46:P) | Larrabee 1960:28-31 |
| | line of stones, possibly part of #8 (p. 135, Figure 46:Q) | Larrabee 1960:28-31 |
| 16 | shallow stone walls, porch supports, pre-1900 (p. 135, Figure 45:13) | Larrabee 1960:32-33 |
| 17 | stone-lined well (p. 136, Figure 45:20) | Larrabee 1960:41 |
| 18 | stone foundation, disturbed (pp. 136, 153 Figure 45:8, Figure 54) | Larrabee 1960:40;
Starbuck
1989a:21,28-30 |
| 19 | foundation, 30 x 40 ft, possible barn, probably 20th C (p. 136, Figure 45:1) | Larrabee 1960:40;
Starbuck 1989a:36,39 |

| Number,
Figure 63 | Description/Interpretation
(page and Figure reference, this report) | Reference |
|----------------------------------|---|----------------------------------|
| 20 | tenant house, ca. 1840 (pp. 136, 146-148, Figure 45, Figure 52) | Larrabee 1960:40;
Cotter 1964 |
| 21 | burned structure, small frame building, built by 1798,
destroyed by 1840 (p. 136, Figure 45:18, Figure 48) | Larrabee 1960:44-47 |
| 22 | vegetable cellar, filled early 19th C (p. 136, Figure 45:16, Fig. 50) | Larrabee 1960:56-58 |
| 23 | ash pit, filled rectangular stone foundation, 19th C (p. 136,
Figure 45:20, Figure 49) | Larrabee 1960:61-63 |
| 24 | dry-laid field stone wall or walkway, appx. 40 ft long (p. 138,
Figure 45:5 and 4) | Larrabee 1960:68-69 |
| 25 | ditch and planting (p. 138, Figure 45:2) | Larrabee 1960:68-69 |
| 26 | dry-laid stone construction, possible garden structure (p. 138,
Figure 45:3) | Larrabee 1960:68-69 |
| 27 | thick humus w crushed shells, garden area (p. 138, Figure 45) | Larrabee 1960:69-78 |
| 28 | Native American Middle Woodland hearth (p. 150, Figure 54) | Starbuck 1989a:19-
27,44 |
| 29 | mortared stone foundation, probably 19th-20th C (p. 153,
Figure 54) | Starbuck
1989a:28,31-35 |
| 30 | burned structure w French drain, possibly burned by British
in 1777 (p. 150, Figures 54 and 55) | Starbuck 1989a:39-43 |
| 31 | drywell, 20th C (p. 153, Figure 54) | Starbuck 1989a:36-38 |
| 32 | buried wall (p. 153, Figure 54) | Starbuck 1989a:36,39 |
| 33 | magnetic anomaly, possible buried iron mass (p. 150, Figure
53:A) | Howe 1986:12-15 |
| 34 | magnetic anomaly, possible filled trench (p. 150, Figure 53:B) | Howe 1986:12-15 |
| 35 | magnetic anomaly, poss. filled cellarhole (p. 150, Figure 53:C) | Howe 1986:12-15 |
| 36 | magnetic anomaly, poss. filled cellarhole (p. 150, Figure 53:D) | Howe 1986:12-15 |
| in parking
area, not
shown | stone foundation, 20th-C apartment bldg (p. 145, Figure 51) | Moore 1960 |
| | concrete wall, 20th-C drainage system (p. 145, Figure 51) | Moore 1960 |
| not shown | early 19th-C fill along east side of house (p. 141) | Cotter 1959:1-2 |
| | large, flat stone (p. 141) | Cotter 1959:1 |
| | rectangular unit of rubble masonry (p. 141) | Cotter 1959:1 |

The Saratoga Monument has been tested archeologically and has yielded evidence of an earlier landscaping around the monument which included a tree-lined gravel roadway. This probably dates from around the time the monument was completed (1895), but it may postdate the completion by several decades.

Archeological Collections

An important category of archeological resource is collections. The importance of archeological collections as sources of important data for research and management, as well as sources of specimens for display and interpretation has increasingly been realized in recent years (see Cantwell et al. 1981). The Saratoga National Historical Park holds an estimated 43,000 artifacts recovered from the Battlefield Unit and Schuyler House. Most of these are from the RPI excavations in the 1980s at the American Headquarters, Old Woods, Taylor House, and Schuyler House sites. These collections and associated archival materials are curated at the Visitors Center at the Battlefield Unit (NPS 1994).

Archival Resources

The Park also holds an archival record of land-use and archeological research that may prove useful to future archeological research. Correspondence regarding the site has been collected going back to the early twentieth century, when the battlefield was a state park and underwent considerable use and many landscaping changes. These may be useful in assessing specific disturbances, or in reconstructing the land-use history of various parts of the battlefield. Archeological archives include field notes, slides, photographs, maps, proposals for research, and official correspondence on matters archeological. This material dates from the 1930s to the 1990s.

Field documentation (e.g., notes, drawings, narratives, maps, photographs, and slides) include materials of Robert Ehrich from the early 1940s, John Cotter from the 1950s and 1960s, Dean Snow from the 1970s, and David Starbuck from the 1980s.

Aerial photographs have been used effectively in archeological research at Saratoga National Historical Park. Snow used them to locate features, to reconstruct past land use, and to estimate archeological integrity at various locations. Snow also compiled an index of aerial images for the Battlefield Unit (Snow n.d.), which could be useful to researchers.

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RESEARCH AND INTERPRETIVE VALUE OF KNOWN ARCHEOLOGICAL RESOURCES

The research value of the known archeological resources at Saratoga National Historical Park lies in the analysis of data that have already been excavated as well as in archeological resources that have not been removed from the ground. The former include field notes, archives, maps, and photographs, as well as artifacts and features. This material, artifactual and archival, is presently curated at the Park. Certainly many of the known archeological resources that have not been completely excavated also have considerable interpretive and research value.

Archeological resources relevant to the Native American inhabitants of what is now Saratoga National Historical Park exist in known and potential in situ archeological remains as well as in collections and associated archives. These sites and excavated materials could be used to address a wide range of research questions which could include, but need not be limited to, the following broad topics: chronology, land use, human ecology, technology, settlement, seasonality, subsistence, diet, social organization, political organization, gender roles and relations, ritual, exchange, ceramic style, and demography. The Native American archeological components on the Schuyler House grounds appear to be significant resources and constitute the known archeological resource with the greatest potential for researching and interpreting these questions.

At the Battlefield Unit, none of the known Native American finds to date have shown high research potential. It is possible that Native American sites with sufficient integrity and research and interpretive value may exist here, most likely in the eastern portion of the Unit along the bluff tops and on well-drained soils near the streams.

The military sites from the Battlefield Unit have been subjected to a variety of disturbances that have, to varying degrees, compromised their research values. The 21st Regiment camp, for example, has not been cultivated, and because of its less disturbed condition it is expected to hold considerable research value. Much of the Old Woods area, where the encampment is located, has not been excavated or collected. Almost all of the Battlefield Unit resources have been disturbed by cultivation and other agricultural practices as well as by surface collecting over many years. Some sites have been subjected to more serious vandalism, and some have been partially destroyed by archeological testing. Table 10 lists the major known archeological resources, each with its disturbances and its estimated research and interpretive potential.

The area of Freeman Farm and Balcarres Redoubt has been disturbed by cultivation and by some archeological testing. Although the farmhouse itself has never been found, despite several efforts, and may have been obliterated, portions of the redoubt exhibited clear evidence of the fortifications and gun emplacements and remains of camps and burials. Similar remains may exist in unexcavated portions of the redoubt, and the area should be considered potentially significant. The Balcarres Redoubt is presently a main interpretive point at the Battlefield Unit (NPS 1992:19).

The Breymann Redoubt, although disturbed by agriculture, has been shown to contain some intact traces of its fortifications as well as encampments and burials. As a result, it remains extremely sensitive archeologically and retains high research potential. The Canadian cabins have proven less intact. The one that has been located was tested but yielded very little archeological information.

| | | |
|-------------------|--|-------------------------------------|
| Location | Disturbances | Research and Interpretive Potential |
| Freeman Farm | Cultivation, surface collecting | High |
| Balcarres Redoubt | Cultivation, surface collecting, archeological testing | High |
| Breymann Redoubt | Cultivation, surface collecting | High |
| Canadian Cabins | Cultivation, surface collecting | Low |

Table 10

Research and Interpretive Potential of Known Archeological Resources, Saratoga National Historical Park

| Known Resource | Disturbance(s) | Research and Interpretive Potential |
|--|---|--|
| Schuyler House, Native American site | landscaping, scattered construction, archeology | high |
| 21st regiment camp & line (Old Woods) | archeology | high (fortification structure, form encampments) |
| Freeman farm | agriculture | low (never found) |
| Balcarres Redoubt | agriculture, archeology | high (fortification structure, form, encampments, burials) |
| Breymann Redoubt | agriculture, archeology | high (fortification structure, form, encampments, burials) |
| Canadian cabins | agriculture | low |
| British headquarters | sand mining, agriculture | low |
| Great Redoubt | vandalism, agriculture, archeology | low |
| Fraser burial | vandalism, archeology | low |
| British lines, east | agriculture, sand mining | moderate (around wetter areas) |
| Barber, Chatfield, McBride farms, Bemis tavern | agriculture | unknown (never found) |
| American headquarters | agriculture, archeology | high (19th-C rural life and agriculture) |
| Taylor farm | archeology, scavenging of building materials | moderate, especially for homelot (19th-C rural life and agriculture) |
| Neilson farm | agriculture, archeology, development | moderate, (19th-C rural life and agriculture) |
| American lines | agriculture | variable, lower in the west, higher in the east |
| American water battery | agriculture, flooding | unknown |
| Schuyler House, 18th C | landscaping, scattered construction, archeology | low-moderate (1 small foundation identified) |
| Schuyler House, 19th-20th C | | high |
| Victory Mills | vandalism | unknown |

The British headquarters appears to have lost much of its research value as sand mining and agriculture have destroyed what was once a significant site. Other parts of the British line have also been seriously disturbed. The Great Redoubt and the Fraser Grave have been vandalized and plowed and have yielded little information despite several episodes of testing. These sites are presently interpreted with wayside exhibits. In general, the British east flank appears to have only moderate potential owing to severe disturbance. However, archeological testing near boggier, less often cultivated areas, has yielded more intact features and sites, suggesting that such areas may hold greater potential.

The American lines possess similarly varied research potential. The western flank has yielded little to archeologists, while relatively intact fortifications have been found along the center and eastern bluff top sections. The American water battery, on the Hudson River floodplain, has not been investigated. Although it may have been destroyed by flooding and agriculture, it is also possible that flood deposits have covered and preserved portions of the site.

Of the several domestic or domestic-military sites that date from the battle, several besides Freeman farm have never been found, although none have been specifically targeted for archeological discovery. These include the Barber, Chatfield, and McBride farms, and Bemis tavern. Their research potential should be considered unknown until archeological research proves otherwise. Other domestic sites have been found and, despite the disturbances of agriculture and the inevitable destruction involved in archeological research, still retain archeological integrity. Examples of such sites are the American Headquarters and field hospital, the Taylor House, and the Neilson House. The archeological research value of these sites (beyond identifying their locations) is largely in the information they contain about postwar rural life and agriculture. Much of this information is contained in the homelot areas surrounding the houses where outbuildings and features may contain significant archeological resources, resources, however, that are not related to the Revolutionary War era. The Neilson farm, for example, has a largely intact midden located to the east of the house. Other portions of the yard around the house have been disturbed by nineteenth and twentieth-century construction. The Taylor House is interpreted with a wayside exhibit. The Neilson house has been fully reconstructed and serves as a major interpretive point. The American Headquarters site has not yet been developed for interpretation.

The research and interpretive potential of these resources has been best developed in regard to studying and interpreting the geography of the battle: the disposition and movements of troops; the placement of fortifications; and the structure and form of defensive works. Less attention has been paid to studying daily life in the military. This is not surprising, since the soldiers occupied the site for a relatively short time compared to other, well-known military sites, the British, at least, were short of supplies and thus may have left little behind, and the entire site has been collected for many years. The few burials that have been professionally excavated and analyzed have thrown interesting light on individual soldiers. Analysis of the health, stature, age, and causes of death of these individuals has provided a view of living conditions in the Revolutionary armies. Such intimate information, telling the stories of individual, anonymous soldiers, is well-suited for interpretation. Any additional burials should be considered to possess significant information for research and interpretation.

The Schuyler House grounds contain few materials suitable for research into the Revolutionary War or the battle. Conspicuously absent is solid evidence of the Schuyler Mansion that was burned by the British. Instead, the property offers features, structures traces of land use, and artifacts related to the nineteenth and early twentieth centuries. These archeological resources appear to have considerable research and interpretive value for those periods.

The Victory Mills area has suffered serious vandalism. The research and interpretive potential of this area remains unknown pending archeological evaluation (NPS 1992:19).

The postwar archeological record at Saratoga National Historical Park has not been thoroughly studied, but can be characterized as generally promising for research into rural life

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and agriculture in the nineteenth and twentieth century. If development accelerates in the area, and rural sites are destroyed to make way for modern homes, businesses, and infrastructure, the protected lands of Saratoga and their remains of nineteenth-century farmsteads, will become increasingly unique archeological resources. Although nineteenth-century rural life is not the focus of interpretation or research at Saratoga National Historical Park, the Park's archeological resources could eventually contribute to research and interpretation of this topic at some other regional institution or museum.

RECOMMENDATIONS

Threats

Archeological resources in Saratoga National Historical Park are, in general, not imminently threatened. Cultivation, Park development, and vandalism are the major threats. None of these appears to be a serious problem at the Battlefield Unit. Those fields that are cultivated have been in agricultural use for many decades, and any resources located in such areas will not suffer significantly more disturbance from continued farming. New land use practices such as use of deeper plows, forest clearance, landscaping, or construction of new facilities may affect significant resources and must be evaluated through Section 106 review. Vandalism has been a problem at the Victory Mills Unit, less so at the other Units. Most of the damage from collecting and looting appears to have been done before the establishment of the Park. Nevertheless, serious vandalism can occur unexpectedly and may go undetected given the size of the Park and the remoteness of some areas. Once destroyed, archeological resources are not renewable. Therefore, the systematic cultural resources monitoring program recommended in the *Resource Management Plan* (NPS 1992:89) should be implemented as soon as possible.

Survey Priorities

Several known or projected sites have not yet been located. Archeologists have searched unsuccessfully for some of these, such as Freeman farm or the Neilson barn; others have not yet been sought. These include McBride farm, Chatfield farm, Barber farm, and Bemis tavern. Archeological survey designed to locate the structures and features associated with these properties, and to evaluate their integrity, research and interpretive potential, and National Register eligibility, should be a top priority. The Victory Mills area should also be tested with the goal of locating and evaluating any remaining archeological resources.

The possibility that the American cemetery is still in existence, somewhere near the American Headquarters, suggests that this feature also be a high priority for survey. Starbuck recommended testing in as yet untested places with relatively high ground surrounding the headquarters. In addition, he recommended that the hospital area itself should be more thoroughly tested in search of archeological evidence of medical activities. Testing for additional outbuildings was also recommended in the area to the west and south of the farmhouse and barn, especially the area to the west of the farmhouse that is enclosed by the French drain (Starbuck 1987:43).

Archeological Research Goals and Methods

The as yet unlocated archeological resources of the Battlefield Unit are scattered over a very wide area, have little or no conspicuous surface expression, and cannot be located with great precision. Therefore, remote sensing offers the best opportunity to find them. Aerial photography has already been used successfully and should be used again. It should be combined with other remote sensing methods as are deemed most appropriate. As Reeve and Snow (1975:37) noted, analysis of past land use using remote sensing techniques can be useful in identifying areas where archeological potential is greatest.

Surface collecting of plowed fields is a time-tested method of acquiring basic locational information over large areas with minimal time and expense. As Linck (1981:4-5) recommended, all cultivated fields in the Battlefield Unit should be subjected to a thorough archeological walkover following spring plowing, and any sites identified at that time should be mapped, described, and, if necessary, protected. Such a procedure could identify precontact Native American sites, military features, and historic-period domestic sites. Interviews with local informants might also lead to the identification of sites, the recovery of artifacts taken from the

Park property in the past, and land-use information that may prove valuable in assessing site integrity or interpreting excavation results. It is sometimes possible to record information removed from the ground more than a century ago. Such a program, if done carefully, can also help to build cooperative relationships with the local community.

Once sites have been located, more intensive investigations should begin with more focused remote sensing programs, for example, the use of a suite of techniques within a delineated or estimated homelot in order to locate features such as foundations, paths and walkways, fences, trash pits, privies, and the locations of earthfast structures.

One such technique is the use of metal detectors. With the aid of such a device, Juno (Snow 1976:6) retrieved a sizable collection of artifacts and simultaneously demonstrated the potential value of a relatively simple, inexpensive survey technique. With adequate controls, this technique may provide a feasible means of surveying several areas of the battlefield where surface features are no longer evident and where more conventional archeological artifact recovery techniques would prove too costly. It is important to use several different, complementary techniques for successful remote sensing. For example, magnetometer survey alone has proved useless in several areas within the Park. Other techniques, such as ground penetrating radar and electrical resistivity, should be combined with magnetometry in order to maximize the possibility of recovering useful information. Remote sensing data should always be "ground-truthed," evaluated through a program of subsurface testing.

If necessary, archeological data recovery of the Native American components at the Schuyler House or at any Native American sites that might be discovered at the Battlefield or Victory Mills Units, should be designed to address three of the four goals suggested by Bender and Curtin (1990:59-60). These are: to collect data on site formation and site occupation sequences in order to understand the variety among sites; to reevaluate the existing cultural histories (e.g., Ritchie 1958; 1980; Funk 1976); and to recover subsistence and seasonality data using modern data recovery techniques such as flotation.

Preservation of Archeological Collections and In Situ Features

Preserving the research and interpretive value of Saratoga National Historical Park's archeological resources requires the adequate curation of artifacts and associated records as well as some stabilization and/or protection of in situ features. The recent *Saratoga National Historical Park Collection Management Plan* (NPS 1994) contains detailed recommendations for curation. These should be used in planning appropriate steps for curating the thousands of artifacts recovered from the Park. The segment of the British lines discovered in 1974 in the Old Woods will continue to deteriorate from natural processes. The recent *Resource Management Plan* (NPS 1992:76) recommended that procedures for preserving and interpreting this feature be developed and implemented.

Interpretation

Saratoga National Historical Park has made use of the information gained from archeological research in the content of its waysides, exhibits, reconstructions, and general interpretation. Additional opportunities include the development of exhibits, tours, and publications devoted specifically to the archeology that has been done here. A short publication or pamphlet describing the archeological finds at the Park and noting the ways in which archeology has contributed to our understanding of the battle would be of interest to many visitors and could be written in such a way that it could be used as the visitor proceeds along the various stops of the self-guided tour. Dean Snow's "Battlefield Archaeology" article (1981) could be a starting point from which such a pamphlet could be prepared.

Although the Park's known and potential archeological resources include sites and collections with potential for research and interpretation concerning nineteenth-century agriculture and rural

life, these are not considered contributing resources to the Park's Revolutionary War theme. However, these resources should be protected and preserved in order to maintain their research value. For example, further research could be done with the collection of recovered artifacts from the Taylor House. This could be compared with material excavated from the Woodworth Farm and several other excavated farm sites in the region in order to learn more about eighteenth-nineteenth-century agriculture and rural life in the Bemis Heights area or in the upper Hudson Valley region in general. The collections from these sites could be used in an exhibit if the Park decides to develop this as an ancillary interpretive theme (Starbuck 1989b:67).

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