

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

SACA. 060
CRBIB# 000806
374 / 133116

CRBIB # 000806

Military History
PROPERTY OF LIBRARY 3
DIVISION OF CULTURAL
RESOURCES, NARO

Saratoga NHP
(Area)

FILE CODE: H2215

HISTORICAL OUTLINE FOR REVISION OF HISTORIC BASE MAP

Drawing NHP - SAR - 2011

(Revision of 1951 Historical Outline)

John F. Luzader
Park Historian

Saratoga National Historical Park

March 1, 1960

IMPORTANT

FROM:

TO:

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge.

All Files should be returned promptly to the File Room. Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

HISTORICAL OUTLINE FOR REVISION OF HISTORIC BASE MAP

Drawing SHP - SAR - 2011

(Revision of 1951 Historical Outline)

John F. Luzader
Park Historian

Saratoga National Historical Park

March 1, 1960

Introduction

This study represents an effort to effect a revision of Drawing SHP - SAR - 2011 (2 sheets) that will bring the Historic Base Map up to date, reflecting information obtained since the revision prepared by former Park Historian Charles W. Small and submitted April 9, 1951. Because the information upon which this revision is based does not result in radical departures from Mr. Small's work, this study will indicate changes suggested by recent information and a reevaluation of earlier evidence.

Before proceeding with the report, it should be noted that a degree of cautious skepticism is appropriate in using the Historic Base Map because its authority is not constant - varying among the various sites, depending upon the balance between proof and conjecture. Some sites are located and delineated with a comforting degree of certainty. Other features are conjectural in the location and delineation, their lineaments inferred from the incomplete and indefinite sources that are available. What has resulted is a document based upon the best evidence obtained - evidence that sometimes falls short of proof.

It may also be noted that because of the existence of the maps prepared by William Gumberledge Wilkinson, the physical features of the area occupied by the British army can be more easily identified and located than can those in the American sector. No contemporary American source has been located that provides a remotely comparable body of information. In spite of errors in scale and topography, the Wilkinson maps do present a relatively full and accurate depiction of the natural and cultural features of the areas occupied by the British. Neither of two contemporary American maps: Rufus Putnam's An Orthographical View of the American and British Armies on the 7th & 8th of October 1777 and Richard Varick's map on the back of a letter to General Schuyler, dated September 12, 1777, contains more than a diagrammatic representation of military features.

Documentation of Physical Features

A. Roads

The three major roads associated with the battlefield and the American and British camps were the Saratoga - Albany Road (later termed the Whitehall Turnpike), the Anker Springs Road, and the Saratoga Springs Road (perhaps better termed the Saratoga Lake Road).

a. Saratoga - Albany Road

Recent studies do not result in any significant changes in the alignment of this road. Wilkinson's maps remain the best sources of information concerning its route.

b. Saratoga Springs Road

Local tradition records that this road ascended the hill from the present hamlet of Lewis Heights along the alignment of the current town road, called "School House Road".

This is supported by Samuel Geil's Map of Saratoga County, New York, published by E. A. Balch, No. 17 & 19 Minor Street, Philadelphia, 1856, which shows the road to Saratoga Lake following the alignment of the "School House Road" until reaching 16F, where it converges with the current road alignment, which is also that depicted on the Historic Base Map.

c. Quaker Springs Road

The 1951 version of the Historic Base Map shows the Quaker Springs Road leaving the road to Saratoga Lake in grid 15D, traversing 11D and 13E past the Neilson farm lot and thence northward. The drawing indicates this road as following a straight line at a right angle from the road to Saratoga Lake. The alignment has been altered in this revision upon the basis of an evaluation of the terrain.

The soil immediately north of the junction of the two roads and on the alignment of the Quaker Springs Road, as indicated on the 1951 Historic Base Map, is so marshy as require fill to afford a firm base for the road bed. Such a fill would have been unusual for the construction of a rough frontier trace of the period of the 1770's. Instead, the road would probably have avoided such ground wherever possible, following a more elevated and better drained route. On the basis of distinct surface evidence, such a practice was followed in this instance. A trace that would correspond to the expected alignment and width of the historic road ascends the hill to the north and west of the intersection, climbing to the crest of the ridge in an easy arc, thence northward and northward along the crest, as indicated on the drawing revision. This trace is clearly outlined on the Aerial Photographs Nos.

A second change in the alignment of the Quaker Springs Road has been made in 8D and 9D, where the road crossed the head of the Middle Ravine. The alignment indicated on the 1951 Historic Base Map crossed Mill Creek at a point where the elevation of the southern slope of the ravine falls from an elevation of 280 feet to 250 feet within a distance of approximately 10 feet, resulting in a grade of approximately 20 degrees. While the grade on the northern slope is less steep, it would be logical to believe that the historic road lay to the west along

an alignment that would have avoided the steep grade mentioned above.

d. Minor Roads (interior roads of Battlefield Area)

The basic sources of information concerning these roads are Wilkinson's maps. Because no contemporary sources have been located that dispute his delineations, their locations on the 1951 Historic Base Map represent the best that may be obtained. In those areas where the roads do not follow the terrain or topography, a change has been made to bring the alignment into agreement with these factors.

B. House Sites

The location of the John Neilson House has been changed as a result of the archeological investigations that were conducted in connection with the restoration of that structure.

The putative site of the John Neilson Barn, as indicated on the 1951 Historic Base Map, has not been changed because the location is logical, and in the absence of any contemporary data. However, the term "Fort Neilson" should be discontinued because of the lack of evidence that such a term was ever applied to the barn until the middle of the 19th century. Future archeological study may result in a change of this site.

The conjectural site of the log cabin west of the Neilson farmlet has been added. This cabin was used by John Neilson while his war-time house was being erected. The cabin was apparently standing at the time of the battles, and was probably used by Colonel Daniel Morgan for quarters. Although the site of the cabin was probably uncovered during the CCC operations, its location was not recorded, and the exact identification of its location must await archeological study.

The "Powder Magazine" should be obliterated from the Historic Base Map. There is not a known contemporary source that supports the location of such a feature. The location is too close to the main line of defense; and a field fortification, such as was constructed on Bemis Heights, would not have a conventional masonry hive-shaped magazine. The authority for its location was Neilson's book, and when the site was uncovered by New York State employees, a phone call was placed to the engineer in Albany, a man by the name of Nelson. Without visiting the site, he informed the supervisor that the workmen had uncovered the "Powder Magazine", and it was so "restored" and identified. ¹

Place Names

The stream that drains the Great Ravine has been labeled "Krummach Kill" (Crooked Creek). The Map of the Champlain-Hudson Canal Survey, 1818, contains this designation, as do several colonial maps of the area.

F. American Entrenchments

Of all the major features of the park, the alignment of the American fortifications is the most difficult to establish. The physical appearance of the several redoubts, barricades, and entrenchments that comprised the fortifications is described in varying degrees of detail; and these have been compiled by former Park Historian in A Report on the American Fortified Camp at Bemis Heights, September 12 - October 8, 1777, February 15, 1950. However, the determination of the exact location of the fortified line is, in some instances, difficult to establish; and until such time as a comprehensive archeological study of the sector can be conducted, the information upon which to base a depiction of the fortifications will remain incomplete and inferential. Any revisions that have been made in

connection with the American fortifications were the results of an effort to effect a careful revaluation of the probable influence of topography upon the location of the fortifications.

The major obstacle that exists in connection with the study of this problem is the absence of adequate contemporary maps. Neither Putnam's nor Varick's are drawn to scale, and topography is either lacking or diagrammatically noted. Wilkinson's maps, because he had no opportunity to investigate the area under conditions that would permit its charting, gives little information beyond the noting of peripheral features. Later maps vary in value; the Brandon map being the best, and Neilson's the worst; however, both represent an interpretation of available evidence and have serious limitations.

For both the first and second sheet of Drawing NEP - SAR - 2011 the problem of determining the location of the fortified line is the same. There is not enough conclusive information upon which to base a definitive depiction of the alignment of the site. Any delineation of the fortification, including the one undertaken in this revision, must be diagrammatic and the result of interpretation of documentary materials and the topography. Recourse may be had to 18th century field fortification practices, and these have been consulted; however, the degree of adherence to these practices in this particular instance is perhaps impossible to determine.

James Wilkinson described the American camp, as of October 4, 1777, in the following words:

...his camp, in the form of a great circle, the convex towards the enemy, extended rather obliquely to his rear, about three-fourths of a mile to a knoll occupied by his left; his front was covered from the right ~~to the~~ left of the center, by a sharp

-5-

J. H. P.

ravine running parallel with his line and closely wooded; from thence to the knoll at his extreme left, the ground was level and partially cleared.... 2

This description conforms very closely to the primary line of defense as it is depicted on Putnam's map.

While the location of the eastern portion of the main line of resistance is easy to locate because of its relationship to the ravine to its immediate front. Thus the alignment shown on the 1951 Historic Base Map from 160, through 150, 15H, 140, and into 14F is not subject to question.

However, beginning in 14F and continuing northwestward to the apex of the line on the crest of "axis Heights, the location of the fortified line is less certain.

The critical point in question is the apex of the line, or its angle, on the crest of the hill. The location of this portion of the line has always been based upon two assumptions: (1) that the angle of the line was located in the immediate vicinity of John Neilson's barn; (2) that the current (1960) Blockhouse stands on the site of the Neilson barn.

The first of these assumptions has no basis in any contemporary documentary source, its authority being Charles Neilson's An Original, Compiled and Corrected Account of Burgoyne's Campaign and the memorable Battles of Bemis Heights, Sept. 19 and Oct. 1, 1777 From the most authentic sources of information; including many interesting incidents incidents connected with the same, published in 1844.

The second assumption is based upon a traditional identification of the location of the present Blockhouse with the site of John Neilson's barn. The nearest thing to an authority for this is Benson J. Lossing's

sketch of the Neilson farmlet, drawn in 1848, in which he noted that
a barn in the background was on the site of the historic barn.³

In the absence of any authoritative documentary evidence, an appeal must be made to the evidence which may be deduced from two sources: (1) the terrain, always a controlling factor in any field fortification planned by professional soldiers, which Gates and Kosciuszko were; (2) the canons of field fortification practice, which have not been radically changed since the latter half of the 18th century, modifications made only in so far as increased fire power has dictated.

Turning to the first of these factors, it is necessary to note the relationship of the terrain to the purpose of the primary line of resistance. The strategic reason for the fortification of Bemis Heights was to prevent the British from flanking the American positions that had closed the route to Albany. In order to accomplish this, the area from the bluffs above the river to the ridge west of the crest of the heights was secured, taking advantage of the terrain features that could serve to strengthen the position.

Fundamental to the positioning of the line was the complex of ravines, streams, and defiles that cut the hills. The fortifications' location needed to be of a nature that full advantage could be obtained from these natural defenses. The fortified line had to be so situated that the defiles, etc. would be covered in a manner that would preclude their becoming "head areas" that could afford cover for an attacking force. Secondly, this defensive

position would be improved if the fortification were near enough to the defiles to command not only the defile, but also the opposite slope, which would be particularly vulnerable to fire because it would present a relatively unsheltered approach. (One of the most dangerous situations in which an attacking force can find itself is to be required to make an assault down the face of a slope, presenting to the defenders a target in depth.) At the same time, the defense of a defile or ravine should be planned in such a way that infilade fire may be directed along the length of the feature. Thus, by commanding the opposite slope under a field of fire the enemy could be brought under fire before he had an opportunity to reach the shelter of the defile or ravine, from which he could operate against the defended position. In brief, a defensive position is concerned not only with interdicting the ground to the immediate front, but also with utilizing the terrain in a way that will make the exploitation of all features within range of the armament possible.

On Bendis Heights, the defensive line was concerned, not only with area between its face and the defile to its front, but also with denying the defile to the enemy before he could reach it and with infilading the defile in the event that it was gained by the attackers.

Having labored this point at some length, attention should be directed to relating it to the problem of establishing the location of the apex, or angle, of the American line.

For the eastern portion of the line, the ravine that separated the main line and the fortifications, usually termed the American River Redoubts, provided the type of front required. For the position from the head of the ravine to near the crest of the heights a clear field of infilade fire into the intervals facing the line made the position relatively secure,

since any attack against it would be made over terrain that offered relatively little cover within musket range of the line.

However, the crest of the heights and the apex of the fortified line presented a different situation. At this point, the relationship of the main line and the defile formed by the South Fork of Mill Creek was changed by their being in closer proximity than had been the case with the line to the east (right) of the center. This necessitated the locating of the apex of the line in such a manner that it could cover the stream's defile and its northern slope.

The location of the apex immediately north of the current Blockhouse in 13D placed it in a position that seriously limits its effectiveness. The distance between the apex, as indicated on the 1951 Historic Base Map, and the South Fork is 1520 feet, or approximately 506 yards, and the distance to the slope on the north side of the defile is even greater. The result of locating the apex at this point would have been the creation of a "dead space" that would have made it possible for the British to approach under cover to within less than 1,000 feet of the main line of resistance, at the same time limiting the power of the Americans to interdict the northern slope of the defile.

Therefore, it would be unlikely that Kosciuszko would locate the apex of the line at as close a point to the site of the Blockhouse as the 1951 version of the Historic Base Map indicates. Rather, he would have placed it at a point where the defile and its northern slope could be covered with the best effect. In the light of these considerations, the angle of the main line of resistance has been moved 160 feet north of the site indicated on the 1951 map, or to the 300 foot contour line.

The tracing of the line west of the apex is not so clear from the contemporary materials, and reliance must be placed upon inferential evidence and the archeological studies that were accomplished in 1941 by former Archeologist Robert Ehrich.

While Putnam's map does not indicate the existence of an acute angle in the main line of resistance at any point, Wilkinson's description notes: "... his camp, in the form of a segment of a great circle, the convex towards the enemy, extended rather obliquely to his rear, about three-fourths of a mile to knoll occupied by his left..." However, the terrain offers a valuable clue to the clue to the location at this point, and alignment on the 1951 map seems valid, altered only by a 460 foot extension northward to form the western leg of the angle as altered.

The outpost in 12F has been relocated in 11 F. This change was made because its location on the 1951 map was on the southern slope of the defile formed by the South Fork where its command of the adjoining terrain was so limited as to be ineffective and in a position that was commanded by the high ground across the ravine to the north. Moving it to its new position placed it on a more logical site. This does not contradict the evidence presented by Putnam's map and is in agreement with Varick's letter to Schuyler in which noted that outposts were located on the hill north^h of the fortified camp.

A lunette outpost has been placed in 14F in accordance with the results of Archeologist Ehrich's research.

G. British Entrenchments

The basic cartographic sources for the locating of the British fortifications are the two Wilkinson maps. Documentary source materials on the

the subject were compiled by former Park Historian Charles W. Snell and incorporated into two reports: A Report on the Physical Appearance and Method of Construction of the Balmores and Braymann Redoubts, about which centered the Second Battle of Freeman's Farm on October 7th, 1777, dated February 2, 1949, and A Report on the Left Wing of the British Fortified Camp at Freeman's Farm, September 20 to October 8, 1777, dated February 28, 1950.

The authority of Wilkinson's maps is compromised by errors in topography and scale, but they are sufficiently accurate to permit their use, especially in view of the fact is no contemporary source of comparable quality.

While there are probably points at which the 1951 Historic Base Map falls short of absolute accuracy, no source has been studied that offers authoritative evidence that would justify significant changes on the map. The only way in which there seems to be much hope of enhancing the accuracy of the delineation of the British lines is in the exhaustive archeological examination of the sector.

The location of the various components of the British fortified line on the 1951 map is supported in detail by the Wilkinson maps and by the documentary sources that have been examined. The locations of the various features also appear to be consistent with contemporary fortification practices.

The identification of the "Great Redoubt" has been altered to include the entire fortified area in M7, M6, M5, M6, M7, and M5. While Mr. Snell and a majority of those who have written concerning the site have concluded that the "Great Redoubt" was located in M6 and M7, i. e.,

on the second spur or knoll north of the Great Ravine. However, this designation has been changed for the following reasons:

(1) Wilkinson's map shows redoubts on each of the first three spurs of the hill north of the Great Ravine, i. e., in 7M, 6M, and 5M. The first of these is depicted as the largest, containing four cannon. The second is portrayed as smaller, containing two guns; and the third as the smallest, containing no armament.

(2) The Map of the Champlain Canal, drawn by Edwing P. Johnson during 1819-21, identifies a hill as the site of "the Redoubt in which Gen. Frazer is buried," and the site was used as a reference point for a triangulation. However, this tied to a station point that has been located that indicates that the hill was the first spur north of the Great Ravine. Because the survey was not drawn to scale, the station points constitute the best clues to the location of referenced points.

(3) The existence of the remains of a curtain type entrenchment in 5M and 5N suggests that all three redoubts may have been joined by a connecting curtain to form a unit of fortifications.

H. Ground Cover

The ground cover has been changed in front of the American fortified line in 12E, 12F, and 13F to provide for a field of fire that would conform to the relocation of the apex of the line.

Changes in the ground cover in the Freeman Farm Area in 8E, 7E, 6E, and 6F have been made to bring the Historic Base Map into agreement with

Historic Base Map - Freeman Farm Area, 7 Oct., 1777, Drawing HBP - 3A1 - 2017, which represents the most accurate map of that area, reflecting very closely the data recorded on Willkinson's map.

Description of technique Employed in Revision of Historic Base Map

The first step in undertaking the subject revision was the review of all of the source materials cited by Mr. Snell in his documentation of the 1951 Historic Base Map. A summary check was made of contemporary sources not cited by Mr. Snell that were considered promising. Because of the exhaustive character of Mr. Snell's documentary research, these sources did not prove fruitful for this study. Several materials that have been acquired since 1951 were examined, but they did not provide important new information concerning physical features.

The next step was the examination of the aerial photographs prepared by Tactical Air Command on October 16, 1959, from shots taken during August, 1959. It was hoped that these would reveal significant evidences of the possible locations of historic roads, encampments, and entrenchments. In so far as the Historic Base Map is concerned, the results were disappointing.

The existence of an unusual grid pattern on Photographs Nos. 13, 32, 33, on the site of the Neilsen Farm and including a part of the American Fortified Camp and Nos. 63 and 64 on the Freeman Farm seemed at first blush to indicate evidences of a formal encampment. While this interpretation has not been disproven, the possibility that these are the result of agricultural use and the absence of similar patterns in other areas known to have been sites of encampments render further study necessary before conclusions may be stated. Even if these should prove

to be the results of military use, they will not have a direct bearing upon the revision of the Historic Base Map.

A review of the aerial photographs will be submitted as soon as possible.

In an effort to supplement the fragmentary information that exists concerning the fortifications in the American sector with an appeal to the basic principles of 18th century field fortifications, the following sources were consulted:

Guibert, Jacques, Comte de, Essai General de Tactique, 2 vols, Liege, 1775. This was perhaps the most important military book of its day. It is a scholarly discussion of 18th century tactics by a general officer of great experience whose theories were studied by most professional soldiers and students of tactics.

Hase, H. W. L., Stray Military Papers, London, 1897. This is an interesting and important collection of military essays on various subjects, including infantry tactics and fortifications.

Jähns, Max, Geschichte der Kriegswissenschaften, 3 vols., Hannover und Leipzig. This is a classification and review of literature affecting the study of the history of military institutions and systems. It is invaluable in that it summarizes numerous books otherwise inaccessible.

Turpin, De Cresse, Count, Essay on the Art of War (translated by Joseph Otway). Forbes based his successful Duquesne expedition of 1758 upon this the doctrines propounded in this work. Washington learned of it at that time, and later used and recommended it.

Vauban, M. de, De l'attaque et de la defense de places, Le Hays, 1737. This is the great French classic on the subject. Its influence on the subject of fortifications was profound among European trained soldiers.

Vernon, Col. de, A Treatise on the Science of War and Fortification, 2 vols. and plates, New York 1817. (translated by O'Connor) This was a basic text in France and was translated by a member of the faculty at West Point.

In concluding, it should be noted that a Historic Base Map for Saratoga National Historical Park can not be produced in final form until the presumed sites of the historic features have been subjected to comprehensive archeological research. Until that is accomplished, much of the map will have to remain conjectural and diagrammatic.

Footnotes

1. Slingerland, George, Slingerland Papers, Saratoga N.Y.
2. Wilkinson, James, Memoir of My Own Times, 3 vols, Abraham Small, Philadelphia, 1816, Vol. I, pp. 235 - 6.
3. Lossing, Benson J., Pictorial-Field-Book of the Revolution, 2 vols, Harper Bros., New York, 1851, Vol. I, p. 46.