The Historical Military Geography of The Hudson Highlands

A Geographical Perspective of the Role of the Hudson Valley and West Point During the American War of Independence


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PART I

THE REVOLUTIONARY WAR LANDSCAPE OF THE LOWER HUDSON VALLEY:
A MILITARY GEOGRAPHIC ANALYSIS

* Introduction *

Prior to the Revolutionary War, the Thirteen Colonies stretched nearly 1,200 miles along the Atlantic coast, with approximately 2.5 million people (Lemon, 2001) settled in a long sweeping arc from Boston in the north to Savannah in the south (see map 1). Slightly less than half of the people were clustered in New England towns, while the remainder lived on dispersed farmsteads and plantations or in small villages throughout the Middle and Southern Colonies. All of the prominent cities were on the coast or along navigable waterways. Only four cities (Boston, New York, Philadelphia, and Charleston) hosted populations of over 10,000 people (Palmer and Tripp, 1977).
Source: Adapted from Department of History, USMA.
The Hudson River and Chesapeake Bay, with its main tributary, the Susquehanna
River, formed natural divides, separating the inhabited portions of the colonies into three regions. As a consequence of their physical geography, the regions differed in terms of climate, soil, and natural resources. As populations increased, regional settlement patterns, and unique economic and political systems provided early evidence of distinct cultural geographic regions. Eventually three culture hearths emerged: New England, Middle Atlantic, and Tidewater-Virginia. The principal water routes that penetrated deeply into the interior shaped these sub-regions of Colonial America, influenced settlement patterns, and provided the mediums for spatial interaction (Palka, 2004).

Patterns of regional complementarity emerged by the mid-eighteenth century. Subsistence farming was widespread throughout the Colonies and areas that produced grain and cattle for interregional markets were generally divided by the Hudson River. The Middle and Southern Colonies were the leading producers of grain, while large numbers of livestock were reared on Connecticut farms and were driven to markets elsewhere. Small mills and factories in New England provided the Continental Army with clothing and military equipment and through its ports passed munitions and armaments from France, destined for the American Army west of the Hudson. Conversely, New England received substantial food supplies from the more productive agricultural lands in the Middle Colonies (Palmer, 1969; McIlwraith and Muller, 2001).

The Hudson River was one of the central links to interregional commerce since it was navigable for large sailing vessels from New York harbor - upriver to Albany. Long before the Revolution it had been a frequent invasion route between Canada and the Colonies for both French and British expeditions. Use of the waterway had opened settlement north of the Hudson Highlands, and by 1775, New York’s population within the Hudson River Valley was estimated at 185,000 (Thompson, 1966). The leading edge of settlement included a narrow corridor penetrating west into the fertile Mohawk and Cherry Valleys. The powerful and hostile Iroquois Nation, traditionally allied with the British, had been steadily forced westward by advancing settlers. Conflict between colonial frontiersmen and Native Americans was inevitable. American military action against the Indians and their British supporters was deemed necessary to gain and maintain control of the Hudson-Mohawk river system and to protect settlers against sporadic Iroquois raids.

★ The Strategic Setting ★

Prior to the Revolutionary War, navigable rivers served as the principal transportation networks on the North American continent (Brown, 1948). A few
bridges spanned only the narrowest streams near the larger settlements. Ferries or fords were used exclusively to cross major rivers. Spatial interaction entailed slow overland movement, sailing from port to port along the eastern seaboard, or tedious movement inland via major river systems. In the latter case, a break-in-bulk point, smaller boats, and occasional portage were involved.

The significance of the Hudson River was apparent even before the Revolution, as it provided the only non-oceanic avenue of approach for the French into the Colonies, or the British into Canada (Miller et al, 1988; Rutledge, 1956; Kagan, 1966) during the Colonial Wars. By the outset of the Revolutionary War, the Hudson River was perhaps the main inland thoroughfare within the colonies (see map 2). The river linked New York Harbor and Canada either via a route through Lake Champlain, or via the Mohawk River, Lake Oneida, Oswego River, and Lake Ontario. Ferry-crossing sites along the Hudson also linked New England with the Middle Atlantic colonies. The main crossing points between New York City and Albany were at Newburgh and at Verplanck’s Point. King’s Ferry (between Verplanck’s Point and Stony Point) linked a trunk road from Massachusetts and Connecticut to one extending southwest into New Jersey and Pennsylvania (Stowe, 1955; Adams, 1996). The Albany Post Road paralleled the Hudson River on the east, passing through Peekskill, Continental Village and Fishkill. As such, the river was vital to both north-south and east-west travel and communications (see map 3).

During the Revolutionary War, American and British commanders alike recognized the strategic importance of the Hudson River as a major thoroughfare into the interior of the colonies and as a vital link between New England and the Middle-Atlantic. A concerted effort was made by the Continental Army to construct and fortify positions along the lower Hudson in order to protect crossing sites, ensure the continued flow of logistics and commerce, and prevent the British from using the river as a major thoroughfare to transport troops and supplies (Palka, 2001).

*The British Perspective*

The British sought to control the Hudson River for both strategic and practical reasons (Coakley and Conn, 1992). First, by seizing control of the Hudson, the British could literally divide the Colonies in half and isolate the rebellion in New England. Second, the Hudson was the most efficient link necessary to reinforce their Indian allies in upstate New York. The Saint Lawrence Seaway provided and alternative route, however, the latter required several portages and was rendered unusable by ice during much of the winter. Third, by controlling the Hudson, the British could deny
agricultural supplies from the interior of New York, commercial trading between the New England and Middle Atlantic Colonies, and logistics reinforcements to the Continental Army.

Map 2. The strategic setting.
Source: Adapted from Dunwell, 1991.
Map 3. Lines of communication.
Source: Adapted from Palmer, 1991.
The Patriot Perspective

In one respect, the Patriot effort to control the Hudson was intended to deny British use of the river to accomplish tactical and strategic objectives (Palka, 1994). The river was a vital transportation corridor that constituted "decisive terrain" for both the British and the Colonists. The following issues, however, were chief concerns of the Continental Army. First, the Hudson River was the crucial link for providing logistical support to the continental Army in the field. Second, it was necessary to maintain the flow of commerce throughout the Colonies, where patterns of regional complementarity had already developed. Third, the Patriots wanted to cut the supply lines between the British and their Indian allies in the interior. Fourth, it was important for the Continental Army to maintain the flexibility to maneuver. It was imperative to preserve the capability of either massing or economizing their force as necessary in response to British attacks throughout New England and the Middle Atlantic, while avoiding the prospect of being cut-off and/or divided from other American forces. Finally, Patriot control of the Hudson required the British to garrison troops in Canada in order to deter a Continental invasion (Miller et al, 1988).

Military Geographic Analysis

Given the strategic significance of the Hudson to both the British and the Patriots, it was necessary for the latter to assess the physical characteristics of the river, as well as the adjacent terrain, in order to develop an effective defensive scheme. The Hudson is tidal from its mouth into the Atlantic Ocean south of New York City, upriver to Albany. Consequently, sailing ships were affected by tides, current, and winds. From a defender's perspective, ideal locations included those locales where the river was narrow, ebb tide was at its strongest, wind was unpredictable and treacherous, and where adjacent terrain had a commanding view of the river and could be easily fortified (Miller et al, 1988). This military geographic analysis directed the Continental Army towards three specific locations: Dunderberg, Anthony’s Nose, and Martelaer’s Rock (see map 4).

In addition to securing defensive positions to attack British vessels sailing up the Hudson, it was also necessary for the Patriots to protect East-West lines of communications. As such, river-crossing sites constituted key terrain and required protection. Most important were the ferry crossings between Stony Point and Verplanck’s Point in the south (known as Kings Ferry), and between Fishkill Landing
and Newburgh in the north. The above analysis explains the eventual construction of fortifications at Stony Point, Peekskill, Fort Clinton, Fort Montgomery, Fort Constitution, West Point, and Plum Point.

*The Makings of a Military Geographical Imprint*

With the idea of focusing the initial effort on the treacherous part of the river known as “World’s End,” work to fortify Martelaer's Rock (later named Fort Constitution) began in August 1775, and the island was formally garrisoned on September 21, 1775 (Adams, 1996b). In June 1776, Continental soldiers began construction of Forts Montgomery and Clinton (Dunwell, 1991). In August of that same summer, efforts to erect Fort Independence were also undertaken (Dunwell, 1991). Additionally, between 1775 and 1777, twenty-seven redoubts were established and occupied throughout the Highlands (Dunwell, 1991). Redoubts were small fortifications that were located on principal mountaintops throughout the region. Each functioned as an observation point manned by a group of five to seven Continental soldiers, and in some cases, the redoubts protected key terrain features such as a mountain pass (USMA, Department of History, 1998). In an effort to protect the Kings Ferry, Stony Point was fortified on the west bank of the Hudson while Fort Lafayette was constructed on the east bank at Verplank’s Point.

On October 6, 1777, British forces under the command of Sir Henry Clinton seized Forts Montgomery and Clinton, and Constitution Island (USMA, G&CS, 1983). After brief occupations, the forts were destroyed and the British forces withdrew (see map 5). In the aftermath, General Washington recommended the fortification and defense of West Point, and so the latter was occupied in January 1778. Preparations commenced three months later on the construction of Fort Putnam on the dominant piece of terrain overlooking West Point, Constitution Island, and the Hudson River. Additionally, several mutually supporting redoubts were emplaced and in the spring of 1778, Colonel Thaddeus Kosciusko directed the construction of Fort Arnold on the level of the present-day parade ground (Adams, 1996b; see map 6). The fort was later renamed Fort Clinton after Benedict Arnold’s defection in 1780 (G&CS, 1983). "Fortress West Point" was never attacked, but on June 1, 1779, the British captured Forts Lafayette and Stony Point (Adams, 1996). The latter was retaken by General "Mad Anthony" Wayne and about two thousand Continental soldiers during a daring night attack on July 16, 1779. After winning the battle decisively, Wayne evacuated the fort three days later (see map 7).
Map 4. Key terrain and fortifications along the Hudson River.
Source: Adapted from Dunwell, 1991.
Map 5. British attacks on Forts Montgomery and Clinton.
Source: Adapted from Department of History, USMA.
Map 6. The defensive plan for the West Point.
Source: Adapted from Department of History, USMA.
Conclusion

The Hudson Valley provided the context for a pivotal era in American history. During the course of the Revolutionary War, the pristine, scenic valley experienced a concerted effort by the Colonial Government and Continental Army to reinforce the natural terrain in an attempt to deny the British use of the Hudson River, while maintaining the strategic thoroughfare to suit their own needs. The cultural material residual on the landscape and the numerous toponyms on current local maps reveal a distinct and enduring imprint that was superimposed on the region more than 225 years ago. Some of the features are only subtle reminders. Others are more obvious, and as either tourist attractions or relict structures, they provide clear evidence of the attempts to shape the landscape for defensive purposes during the struggle for independence. As such, they collectively recall the significance of the region during a
celebrated part of American history.

The historian, Sidney Fisher, in his study of the Revolutionary War, concluded that, "West Point and the Highland Passes constituted the most important American strategic positions. If Benedict Arnold’s treachery had succeeded in delivering West Point to the British, the war might have ended sooner and otherwise." (Fisher, in Steele, 1951, p. 14).

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★ Bibliography ★


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PART II
A STRATEGIC POINT ON THE HUDSON RIVER

West Point, the site of the United States Military Academy, is one of the oldest continuously occupied pieces of military land in North America. As a place, it was destined to become highly important because the Hudson Highlands were the key terrain of the American War of Independence and West Point was the most dominating position in the region (Palka, 2004). In fact, General George Washington among others identified West Point as the decisive terrain of the war. Nevertheless, initial efforts at fortifying this strategically vital place were unsound and all but ignored West Point dominating topography. Instead, the Colonists fortified Constitution Island as well as other peripheral locations at the outset, neglecting West Point’s commanding position. This flaw proved nearly fatal in 1777, when British forces took and held the Highlands for twenty days in October before withdrawing. The Continental Army recovered however, and with the help of more accomplished military engineers, finally developed a sound system of fortifications, thus taking advantage of West Point’s dominating terrain.
Early History and Settlement

Notwithstanding West Point’s importance during the Revolutionary War, it was decidedly not a significant place in the spring of 1775. The area’s rugged terrain and poor soils meant that it was largely uninhabited. Settlement was established principally to fulfill the terms of the land grants from the British Crown. West Point proper was originally ceded to Captain John Evans on March 1, 1694. Finding it too difficult to make a living there, he soon vacated the property and it reverted to the Crown. The northern portion of modern day West Point, an area embracing 1,463 acres, was granted to Charles Congreve by royal patent on May 17, 1723, and another section of the original Evans grant, southwest of the Congreve patent, encompassing 332 acres, was patented to John Moore, on March 25, 1747. In later years, Moore bought the Congreve patent and conveyed it by will to his son Stephen Moore, a North Carolina merchant (Knowlton, 1839).

The absence of arable land limited settlement on these tracts; although some wealthy landholders in the area built large mansions before the military occupation of West Point (refer to Map 1). The Moore House (or Red House), sometimes referred to as "Moore's Folly" because of its pretentious construction, would later serve as headquarters to Washington and other general officers. Another noteworthy home, the Beverly Robinson House on the east bank of the river, opposite Buttermilk Falls two miles south of West Point, would serve as headquarters for General Benedict Arnold. A short distance to the north of Robinson’s House stood another mansion, frequently mentioned in the records as “Mandeville's.” Parts of the Mandeville structure stands today near the junction of routes 403 and 9D in Garrison, New York. Each of these estates contained a few cultivated fields and some outlying tenant farm dwellings in 1775; otherwise, the region was largely devoid of development.

Much like the landscape, West Point’s toponymy developed over time as well. The first known use of the term "West Point" was entered in correspondence on August 6, 1757, in the diary of Goldsbow Banyar, deputy secretary of the Province of New York, who recorded, “At 7 this Evening came to an Anchor at the W. Point of Marbling's Rock [Constitution Island],” (Knowlton, 1839, p. 17). In property deeds, land papers and military records of the Revolutionary period, the form used was always "the West Point," with the definite article being retained, because the place was referenced from older, better-known, and more populous locations on the Hudson’s eastern bank. Overtime, common usage fixed the name as West Point (Berard, 1886).
Map 1: Villefranche’s map of West Point ca. 1780. Courtesy of the U.S. Military Academy Library.
Military Geography and Geology of the Highlands

The geological configuration of the Highlands and river valley lent logic to their fortification (Map 2). The geologic structure of the region is part of a mountainous belt of granite and complex gneiss stretching northeast from Pennsylvania, across northern New Jersey and southeastern New York, into western New England (Berkey and Rice, 1919; Miller, 1924). In crossing the Hudson Valley, these hills form a 15-mile barrier. A characteristic feature of the river’s effect on this geologic structure is the deeply incised river gorge, the independent mountain masses on both sides of the river, and numerous small rocky islands.

The Highlands include fluvial and glacial terraces, about one hundred fifty feet above sea level, one of which is West Point. Perhaps the most critical features of the Highlands are the three remarkably sharp turns in the river — at West Point, Anthony’s Nose, and Dunderberg — where the hard crystalline rock has withstood the erosive power of the water and glacial ice (Figure 1). At West Point, the river channel is narrowed even more by the rocky island, now called Constitution Island, directly east of West Point.

Map 2. Geologic map of the Hudson Valley.
Source: adapted from Raisz, 1957.
Figure 1. Terrain map and color infrared image of the Hudson Highlands illustrating critical terrain features and terrain compartmentalization. Source: terrain map adapted from Palmer, 1969.
Thus, the critical phase of the war was the contest for control of the Hudson, and West Point played a central role in this struggle (Palka, 2004). West Point is clearly the most dominating river position in the Highlands because of the structure of the terrain and it forms the sharpest angle on the river. Here the Hudson, which normally flows in a north and south direction, turns abruptly west and then back again to the north (Figure 1). In the days of sail, boats were vulnerable to shore batteries when forced to slow to navigate this turn (Nickerson, 1928). Furthermore, sailing around the bend at West Point is problematic because of tricky winds and the ebb and flood tide currents.

Not long after the war began, British and Colonial forces labored to control the strategic Hudson River–Lake Champlain–St. Lawrence River waterway (Miller et al., 1979). This corridor was essential to the strategic geometry of the American War of Independence for two reasons. First, the Hudson River was the natural dividing line between New England and the mid-Atlantic colonies. By controlling the Hudson, the British could drive a wedge between the manufacturing and agricultural centers of the colonies, thus rupturing the Colonial war effort. Second, this waterway physically connected the British military centers in New York City and Montreal (Map 3). Colonial control of the waterway was necessary to prevent concentration of British military power and thus, to fragment British ability to act in unison (Diamant, 1994).

Therefore, from a geographical perspective the Highlands were the natural place for the Colonists to exert control because of the rugged terrain and three sharp river bends, and West Point is unquestionably the strongest position because here the river forms its sharpest bend and is dominated by imposing terrain on each bank (Galgano, 2004). Although many recognized West Point’s dominating position, early attempts to fortify the area focused instead on Constitution Island. This was the major flaw in the Colonial effort to secure control of the Hudson River.

**Early Blunders: 1775 Constitution Island**

The strategic importance of the Hudson River came into focus during the spring of 1775. In May, the Continental Congress received information that Colonial militia under Ethan Allen and Benedict Arnold seized Fort Ticonderoga, a wilderness fortress 225 miles north of New York City. Upon hearing this news, Colonial leaders realized that they faced the imminent prospect of war. Hence, they immediately appointed a committee to consider the defense of New York. George Washington, who believed that the Colonists would have to secure the Hudson Highlands, chaired the committee.

From their experience, Colonial leaders understood that the natural invasion route
between the Colonies and Canada was along the Hudson Valley (Map 3). Furthermore, they appreciated that the Highlands controlled important communication links that crossed the Hudson from Fishkill to Newburgh in the north and from Verplanck’s to Stony Point in the south (Figure 1). Should the British cut these links, they might prevent the Colonists from moving supplies between New England and the mid-Atlantic colonies and also block the movement of reinforcements. Ensuring freedom of movement along this corridor was particularly important because New England was to provide most of the troops during the war (Boynton, 1863).

From the very beginning of the war, George Washington urged the fortification of the Highlands. As a representative to the Continental Congress from Virginia, he served with the congressional committee that drew up and introduced the proposal to establish batteries to prevent enemy vessels from using the river (J.C.C., II, 1904-22). Notwithstanding Washington’s clear grasp of the geographic realities in the Highlands, the Colonial effort was to be plagued by a series of near fatal missteps. Perhaps the most difficult problem the Colonial Army faced as a lack of trained topographic engineers. Consequently, initial attempts to fortify the region were decidedly amateurish and failed to incorporate West Point’s dominating terrain. To make matters worse, the British understood the vital nature of the Highlands and were making plans to secure them as well.

The New York Provincial Congress was responsible for this vital region and kept well informed of British plans (Force, III, 1837-53). Thus, they quickly ordered a survey of points along the Hudson most suitable for defense. On 30 May 1775, they appointed a committee, headed by Colonel James Clinton and Christopher Tappen, to survey the terrain and prepare plans for the region’s defense (J.P.C.N.Y., 1775). In the end, they decided upon the erection of the works on Constitution Island and North and South Redoubt across the river from West Point (Map 1). They also recommended the construction of Forts Montgomery and Clinton six miles south of West Point. The committee urged, “that ...by means of four or five Booms, chained together on one side of the river, ready to be drawn across, the passage can be closed up to prevent any vessels passing or repassing.” (J.P.C.N.Y., 1775). For some reason they mostly overlooked the commanding position of West Point; only making a brief notation in their final report. Congress accepted their proposals and ordered the necessary work to begin under the direction of several commissioners and Bernard Romans. Shortly thereafter, work began on Constitution Island.
Map 3. The Hudson River was the geographic link between major British bases in New York City and Canada, and separated the New England from the Mid-Atlantic. Source: modified from Raisz, 1957

This was the seminal defect in the American effort to fortify and defend the Hudson Highlands for the next several years—a flaw that was nearly disastrous to the Patriot cause. From the river perspective, and even in modern imagery (Figure 2), it is easy to see how one could be attracted to viewing Constitution Island as the key terrain in the
river bend at West Point. At first glance, it would appear that guns positioned on Constitution Island should dominate naval craft advancing from the south. However, positions on Constitution Island are dominated by the terrain on either bank of the river, but by West Point in particular. Furthermore, batteries positioned on Constitution Island lack the elevation to deliver plunging-fire onto the relatively thin decks of an advancing man-o-war.

Figure 2. Color-infrared aerial photograph of West Point and Constitution Island. The black dashed line illustrates the path of a British ship and the arrows indicate sight lines from batteries emplaced on the island. It would appear that the ship would have a difficult time negotiating the bend, fighting the river current, the wind and the Colonial fortifications.
The 1775 Clinton-Tappen plan focused on Constitution Island because they, and others, mistakenly believed that from there, batteries would dominate the bend in the river. However, geographic realities demonstrate just how flawed their thinking was. Guns positioned on Constitution Island (Point C, Map 4) can be dominated by those placed at points A, B, or any location on the eastern bank of the river. This disadvantage is further illustrated in the line-of-sight diagram given in Figure 3. Positions on Constitution Island are subject plunging fire from batteries emplaced on either bank of the river, but especially from West Point (Point B, Figure 3). Finally, West Point masks the approach of ships from two-thirds of the positions on the island, and river batteries cannot engage a ship until it is too late (Figure 4).

Map 4: Topographic map of the West Point-Constitution Island area demonstrating Constitution Island’s terrain disadvantage. A digital elevation model line-of-sight diagram of Line A-D is given in Figure 7.
Figure 3. Line-of-sight diagram drawn along the line between Points A and D (Figure 6). Constitution Island is clearly at a tactical disadvantage given its location and elevation.

![Diagram showing line-of-sight]

Figure 4. Range fan diagram illustrating the artillery engagement fan from Fort Constitution. The maximum effective range of the largest guns was only 1000 m. The range fan lines have been extended to 2000 m to highlight the masking effect of West Point.

![Diagram showing range fan]

Notes:
1. View is north to south.
2. Vertical exaggeration is 2:1.
Nevertheless, from the very beginning of their efforts, the Patriots were drawn to Constitution Island and Colonel Romans, a Dutch civil engineer, cartographer and naturalist planned and directed the construction of the first fortifications in the area. Unfortunately, he was hardly trained to establish these important fortifications; however, he could boast that the British had previously employed him in various technical capacities, and at the time he was the only person available with any aptitude to oversee the fortification of the Highlands. The work party under his direction arrived at Constitution Island and preliminary construction began on August 29, 1775. Official reports from the island later that year were headed "Fort Constitution" (J.P.C.N.Y., 1775). However, soon afterward, a sharp difference of opinion arose between Colonel Romans and the Commissioners over the division of authority and the efficacy of the work on Constitution Island (Force, III, 1837-53).

★ Fall 1775: Doubts About Fort Constitution

Fort Constitution was intended to be Romans' grand bastion, but in reality, it was a poorly sited, badly constructed fort that failed to take advantage of the range of its guns and the constricted Hudson River channel (as illustrated in Figures 3 and 4). Moreover, in practice Romans inexplicably ignored recommendations made by Washington and others to fortify the dominating heights at West Point (Bradley, 1976). Consequently, if the Colonists had been required to rely on Romans' bastion to stop the Royal Navy in 1775, an aggressive British commander probably would have been able to run the river gauntlet with ease and the Highlands would probably have fallen (Palmer, 1969).

Even as Romans began implementing his plan, some officers doubted its wisdom because they perceived the tactical shortcomings of the position. Thus, an acute difference of opinion arose between Romans, local commanders, and the Congressional Commission over the division of authority and prudence of the plan (Force, 1837). This dispute contributed to doubts about the usefulness of the works, but more importantly, instead of focusing on solving the problem, it delayed construction of all fortifications and further endangered the near-term security of the Highlands (Forman, 1950).

This ongoing debate compelled the Continental Congress to scrutinize fortification plans for the region again, and the Commissioners did not like what they found. The works were incomplete, badly constructed, and so poorly sited that in reality, Fort Constitution was not a barrier at all. Furthermore, the garrison had not secured the landward approach from the east. Like Clinton and Tappen before them, the commissioners saw that the ground at West Point dominated Romans' position. Before
they left the island, the inspectors concluded that Romans could not handle the job of fortifying the Highlands (Bradley, 1976). These findings were reported on 23 November 1775 and include the first official suggestion recommending occupation of West Point:

“The fortress is unfortunately commanded by all the grounds about it; but the most obvious defect is that the grounds on the West Point are higher than the Fortress, behind which an enemy may land without the least danger. In order to render the position impassible, it seems necessary that this place should be occupied, and batteries thrown up on the shore opposite [at West Point].” (Force, 1837, p. 175)

However, recognizing a problem and implementing practical alternatives are distinctly different issues. The disagreement over the value of the fortifications on the island exposed a fundamental problem that plagued the Colonists throughout the course of the war—the difficulty of obtaining qualified engineers to oversee construction of important fortifications (G&CS, 1983). Thus, when Romans refused to deviate from his plan, Captain William Smith replaced him in January 1776. Smith too was replaced, and there followed a succession of officers. Thus, the defense of the Highlands remained at risk throughout 1776 because numerous changes in leadership and lack of expertise resulted in inaction, and worse; inertia meant that fortification of Constitution Island would continue in spite of its obvious defects (Palmer, 1969).

★ 1776-1777: Dilution of Effort and Near Disaster

Perhaps the most important outcome of the debate over Constitution Island was a dangerous dilution of effort and the nearly disastrous concentration on other, peripheral positions in the Highlands (Galgano, 2004). The Congressional report of 23 November troubled the New York Provincial Assembly greatly and they appointed their own committee (the third) to evaluate the defenses. This committee was unable to agree on a solution, but did recommend fortification of Popolopen Creek rather than Constitution Island. The idea of fortifying the area near Popolopen Creek was a good one (certainly more effective than Constitution Island), but the inspectors ignored West Point. To encumber further the logical fortification of the Highlands, the Continental Congress approved building new fortifications near Popolopen Creek, a project that eventually brought work on Constitution Island to a standstill (Bradley, 1976).

Shortly thereafter, Washington heard about the disjointed efforts in the Highlands. He assigned a new officer (COL James Clinton) to command the area, and sent an inspection team under Brigadier General William Alexander Lord Stirling to examine the situation (Fitzpatrick, 1934). Lord Stirling conducted a systematic evaluation (the
fourth) of the terrain and ongoing efforts in the Highlands. He recommended that works be built at Stony and Verplanck’s Point and that a new position be built on the south side of Popolopen Creek, on high ground that overlooked Fort Montgomery. At Constitution Island, Stirling’s saw that West Point dominated the island and recommended that a redoubt be placed there. Unfortunately, Stirling did not mention West Point in his final report and this critical area was again ignored. Consequently, during the spring of 1776, George Clinton, Governor of New York, in cooperation with his brother, Colonel James Clinton, erected Forts Clinton and Montgomery at the mouth of Popolopen Creek, 6 miles south of West Point (Bradley, 1976).

In 1775 and 1776, the British could have easily taken control of the Hudson River, but fortunately, the British too were overcome by a curious inability to act decisively. Since holding the Highlands was so important, it is hard to believe that the Colonists accomplished so little in 1775 and 1776. Even historic problems such as raising a new army and lack of money do not explain the pervasive lack of focus and just plain incompetence demonstrated by the Colonists. Yet, they could not count on British inaction forever, and as 1776 drew to a close, they were galvanized into action because preparations in New York indicated that the British were about to make a concerted effort to seize the Highlands.

The British invasion of the Highlands began in fall 1777 when General Sir Henry Clinton, the British commander in New York, departed to capture the Highlands. Early in October, the British landed at Verplanck’s Point (Figure 1) and drove out the garrison. They quickly crossed to Stony Point, moved north, and took Forts Montgomery and Clinton from the landward side. On 8 October, two thousand men under General Tryon proceeded up the river to Constitution Island to complete demolition of the Colonial fortifications (Heath, 1798).

The British victory was short-lived, however, because Burgoyne’s defeat at Saratoga unhinged Sir Henry’s plan. Consequently, he had to abandon the Highlands after a 20-day occupation. Nonetheless, Colonial control of the Highlands, and perhaps the entire war effort, hung in the balance for those 20 days. This temporary British success thrust West Point into a position of prominence, and crystallized Colonial opinion on its strategic importance. Thus, on 2 December 1777, Washington directed construction of new works on the Hudson River, making special mention of the west bank, recommending that a “. . . strong fortress should be erected at the West Point, opposite to Fort Constitution.” (Fitzpatrick, 1931, p. 236)
1778: Decision to Build Fortress West Point

The Colonists should have acted immediately to build new and better fortifications in the Highlands after Sir Henry Clinton retired to New York, but remarkably they did little during the balance of 1777. Notwithstanding Washington’s clear orders, a strong debate emerged over where to build major forts. Even though most local leaders wanted to abandon Forts Montgomery and Clinton and build a new fortification at West Point, expert opinion held otherwise. Washington’s chief engineer in the Highlands, French Lieutenant Colonel de la Radiere, wanted to fortify the Popolopen Creek area again (Palmer, 1969). After much discussion, local military leaders prevailed, and it was decided that West Point would be fortified after all. Finally, in mid-January 1778, Radiere outlined the trace of a new fort on the plateau at West Point. Later that month, Colonial soldiers marched across the frozen river to West Point for the first time, and established a post that has been occupied continuously ever since (Bradley, 1976).

The first unit to occupy West Point was a brigade under the command of General Samuel Parsons. They crossed the frozen river on 20 January 1778, and occupied the tip of West Point (Galgano, 2004). An officer of Parson’s Brigade recorded the first occupation of West Point:

“Coming on to the small plain surrounded by very high mountains, we found it covered with a growth of yellow pines 10 or 15 feet high; no house or improvement on it; the snow waist high. We fell to lopping down the tops of the shrub pines and treading down the snow, spread our blankets, and lodged in that condition the first and second nights. Had we not been hardened by two years of previous service we should have thought it difficult to endure this. The pines not being large enough for logs for huts, we were under the necessity of making temporary covers of these scanty materials until we could draw logs from the edge of the mountain and procure the luxury of log huts; this we effected but slowly, the winter continuing severe. In two or three weeks we had erected our huts, and a French engineer by the name of La Radiere arriving, the snow being removed for the site of the present main fort, the works were traced out, and parties sent out every fair day up the river to cut timber and drag it on to the ice, to be ready to float it down to the Point when the river should be clear of ice. This service was rather fatiguing to the men, but as they had a cabin to lodge in at night and provisions served out with tolerable regularity, they thought themselves comparatively happy, though their work was incessant” (Richards, IV).

West Point’s fortifications began to slowly take shape throughout the winter and spring, yet there were still problems to overcome. Radiere continued to discount the logic of fortifying West Point. Arguments between Radiere and local leaders,
reminiscent of earlier disputes slowed progress. However, in March 1778, things began to improve. Colonel Thaddeus Kosciuszko, a French-trained Polish engineer who distinguished himself at Ticonderoga and Saratoga, arrived to assume the duties of Chief Engineer at West Point (Bradley, 1976). Kosciuszko too clashed with Radiere, and Washington tried to persuade the two to work together. In late April, Radiere was finally removed, and West Point now had an expert engineer who could organize the important task ahead (Bradley, 1976). Under Kosciuszko’s supervision, an integrated system of fortifications began to take shape.

★ Kosciuszko’s Integrated Fortification System

Kosciuszko’s innovative plan linked an integrated system of forts, each sited on commanding terrain (Map 5). The lynchpin of this system was a bastion located on the tip of West Point. This bastion was sufficiently complete by July 1778 to receive the name Fort Arnold to honor Benedict Arnold, the hero of Quebec. Renamed Fort Clinton following Arnold’s defection, it consisted of tree trunks piled on a rock ledge and hand-hewn stones (Galgano, 2004). Fort Clinton was the principal river fortification and it was supported by four river-line batteries (Map 5).

Meanwhile, Captain Thomas Machin, an experienced artillery officer, had charge of laying the chain and boom across the Hudson (Map 5). The links were forged in the winter of 1778 at the Sterling Iron Works, in the mountains about twenty-five miles from West Point. The chain, which weighed 140 to 150 tons, was mounted on logs, and each spring, until the end of the war, it was stretched across the Hudson and taken up before the river froze (Bradley, 1976). Links of the chain with a swivel and clevis may still be seen displayed at Trophy Point. Thus, Fort Clinton, the river-line batteries and the soon-to-be rebuilt works on Constitution Island, when combined with Machin’s floating boom-and-chain apparatus, offered for the first time a “system” to control the Hudson River (Diamant, 1994).

However, this network of forts needed protection from landside attack. Thus, the immediate rear of Fort Clinton was protected by Colonel Henry Sherburne’s redoubt also on the level of the Plain. On higher ground to the west, Colonel Rufus Putnam’s 5th Massachusetts Regiment built a large stone fort which would eventually bear his name. Fort Putnam was a substantial, well-sited structure, whose ramparts enclosed a powder magazine, cistern, and garrison quarters (Figure 5). Its batteries commanded the open plain behind Fort Clinton as well as the two major land routes from the south. Battery Sherburne and Fort Putnam were completed during summer 1779 (Palmer, 1969).
Along the ridgeline south of Fort Clinton, covered by Fort Putnam, three Connecticut regiments built Forts Webb, Wyllys, and Meigs, naming them after their colonels (Map 5). These redoubts covered the southern approaches to West Point along the river terrace and the dead space south and east of Fort Putnam (Bradley, 1976).

Figure 5: Modern image of Fort Putnam indicating the direction to The Plain and Fort Clinton. Source: U.S. Military Academy.

West Point’s fortifications attained their highest level of development by the end of 1779, after redoubts were completed on the hills south and west of Fort Putnam (Map 5). Kosciuszko originally intended to build Redoubt 4 in 1778, but it was not completed until 1779. This redoubt was especially critical to the defense of Fort Putnam because it stood on higher ground where enemy cannon could be placed to fire into the fort below. That same year (i.e., 1779) the garrison also built the southern and western redoubts (Nos. 1, 2, and 3) with their batteries and outlying works. These new fortifications added depth to the West Point position and further protected the approaches to Fort Putnam, which was the key to the defense of Fort Clinton (Bradley, 1976). Thus, after nearly three years and numerous missteps, a credible bastion was finally built on the river (Steele, 1951).

The final element of the defensive network was the troublesome position on Constitution Island. Nearly three years after their unpromising beginning, these fortifications were finished. The island was reoccupied in 1778, and soldiers partially rebuilt the Marine and Gravel Hill Batteries to cover the river line and chain. They also
constructed Redoubts 5, 6, and 7 along the crest of the island to protect the vital river batteries from a landslide attack (Map 5). At the same time, soldiers completed North and South Redoubts on the high ridge above the eastern shore, further solidifying Colonial control of this most critical point in the Hudson Highlands (Bradley, 1976).

🌟 Conclusion

In the final analysis, the completed fortifications on West Point and its surrounding terrain, along with the Great Chain, discouraged a repetition of Sir Henry Clinton’s 1777 campaign. In fact, after 1778, the security of the Highlands was never again in doubt. One thing is clear; as a fortress, West Point was far ahead of its time, because as 19th and 20th century soldiers discovered, a fortified position consisting of mutually supporting strong points is the basis of a modern defensive system and is considerably stronger than a single position built in the 18th century tradition. In this regard, Kosciuszko’s fortification concept was at the same time revolutionary, complex, and elegant. The West Point fortification system—unlike earlier attempts on Constitution Island and at Popolopen Creek—was truly integrated, mutually supporting, and took fullest advantage of the commanding terrain and geography of the Hudson River valley.

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PART III

THE FORTIFICATION OF THE HUDSON HIGHLANDS: A CHRONOLOGY

In May 1775, as the Second Continental Congress was meeting in Philadelphia, word reached anxious members that Ethan Allen and Benedict Arnold seized Fort Ticonderoga. Upon hearing this news, American leaders realized that the colonies were effectively at war with Great Britain. These events prompted the Congress to at once appoint a committee, chaired by George Washington, to consider the defense of New York. The committee believed that the Colonists would have to secure the Hudson Highlands, which stretched, from the Tappan Zee to the river town of Newburgh.

From their French and Indian War experiences, American leaders understood that the natural invasion route into the colonies from Canada was the Lake Champlain-
Hudson River axis, and that conversely, the same corridor was the natural invasion route into Canada. Furthermore, the Americans were aware that the Highlands controlled the strategic northeast to southwest land routes of communications, which crossed the Hudson from Fishkill to Newburgh in the north and from Verplanck’s Point to Stony Point (King’s Ferry) in the south. If the British should cut these land routes, they might stop the Americans from moving supplies between New England and the Middle Atlantic colonies and also block the movement of military reinforcements. Loss of the Hudson Highlands, moreover, would isolate the American colonists in upper New York and would leave them at the mercy of the Indians whom the British could more adequately supply and who would become dangerous to the local settlers. The strategic importance of this region to the American war effort was thus quite apparent.

In recognition of these geographic realities, Washington and his committee quickly recommended that the Congress take steps to defend New York and the Hudson Highlands. Congress, in turn, sent resolutions to the New York Provincial Convention suggesting that:

“... a post be taken in the Highlands, on each side of the Hudson River, and batteries be erected; and that experienced persons be immediately sent to examine said river, in order to discover where it will be most advisable and proper to obstruct the navigation.”

New York leaders reacted promptly and on the 2nd of June two members of the Convention, Colonel James Clinton and Mr. Christopher Tappen, sailed north to reconnoiter positions to be fortified in the Highlands (Map 1). As they sailed up the river, Clinton and Tappen saw several possible sites for fortification in the rugged Highlands: Stony Point and Verplanck’s Point, Anthony’s Nose, Popolopen Creek, Constitution Island, and West Point. What the two men were looking for, however, was a place where both sides of the river could be fortified. The best choice appeared to be West Point, where the river narrows into a sharp bend between Constitution Island (called Martelears Rock on Map 1) and the west bank and is buffeted by unpredictable winds and subject to difficult tides. In addition to recommending the emplacement of batteries on West Point and on Constitution Island, Clinton and Tappen urged that a boom be constructed to block the channel. Surprisingly, they mistakenly recommended that the largest garrison in the area be established on the low ground at Constitution Island, which West Point dominates.
Map 1: Clinton-Tappen survey of the Hudson Highlands ca. 1775. Map courtesy of the West Point Library.
Although the New York Provincial Convention accepted the Clinton and Tappen recommendations and forwarded them to the Continental Congress, it delayed the start of construction. Only after Washington alarmed the New Yorkers with a report of a possible British raid on New York City, did the Convention act to fortify the Highlands.

★ 1775: Work Begins on Constitution Island ★

Late in August the New York Convention finally appointed a five-man commission to supervise the fortification of the Hudson Highlands. Shortly thereafter, the commissioners engaged Bernard Romans to be their military engineer, but Romans had few credentials to recommend him for military work. However, because there were so few engineers in America, the commissioners had little choice and counted themselves lucky to find anyone with a modicum of training or experience to construct the proposed fortifications.

When Romans arrived in the Highlands, he moved onto Constitution Island and immediately reconnoitered the terrain looking for the best possible sites for fortifications. Concentrating on a grand bastion (named Fort Constitution) on the southwest end of the island, Romans began to build a poorly sited fort, which failed to take best advantage of the range of his guns and the constricted Hudson River channel between the island and West Point (Figure 1). Moreover, Romans ignored the recommendations of Tappen and Clinton to fortify the dominating heights of West Point across the river although his initial plan indicated that he intended to build a fort on the tip of West Point (Figure 1).

When the commissioners discovered Romans’ plans for siting the defensive works, they were furious. Unfortunately for the Americans, Romans and the commissioners then argued bitterly, delaying construction even further and endangering the security of the Hudson Highlands. When news of the argument reached the Continental Congress, it decided to arbitrate the dispute by appointing a committee to inspect the fortifications on the island. Arriving in November 1775, the Congressional commissioners did not like what they found. The works were so incomplete and so poorly sited that Fort Constitution did not represent a plausible barrier to the British. In addition, Romans had not secured the landward approach from the east. Moreover, they saw that the ground across the river at West Point dominated Romans’ position. Before they left the island, the inspectors concluded that neither the New York commissioners nor Romans could handle the job of fortifying the Highlands.
Figure 1: Development of Fort Constitution. Map courtesy of the West Point Library
This report naturally concerned the New York Assembly. Consequently, they appointed their own committee to visit the island and smooth out the differences and perhaps redirect the effort to fortify the region. Although the New York commiteemen were likewise unable to improve conditions on the island, they did recommend that the ground near Popolopen Creek, about seven miles south of West Point should be fortified instead of Constitution Island. This idea was a good one, if not new. Romans and the commissioners, in one of their rare moments, agreed that fortifications there would be better than on Constitution Island. Still, the New York inspectors ignored West Point.

Since only relatively few, simple field-type works were required on Constitution Island, it is hard to believe that the Patriots accomplished so little in the fall of 1775. This was especially problematical because news from England indicated that they were going to have a stiff fight on their hands as soon as British reinforcements arrived in the Americas. The haphazard efforts in the Highlands meant that the British could have easily taken the Highlands in 1775. Thus, in the spring of 1776, new efforts were directed at blocking the river at Popolopen Creek, south of Constitution Island, and the Americans began to build Fort Montgomery—named for the American commander killed the previous winter during the invasion of Canada.

News of the inadequate fortifications in the Hudson valley reached Washington about this time. In response he sent an inspection team under Brigadier General William Alexander Lord Stirling, to assess the situation for him. Lord Stirling and his assistants did a thorough job of examining the terrain and state of the defenses. They recommended that works be built at Stony Point and Verplanck’s Point and that a new position be built on the south side of Popolopen Creek on the high ground which overlooked Fort Montgomery. At Constitution Island, Stirling’s party, like previous ones, saw that West Point dominated the island and recommended that a redoubt be placed on the west bank (i.e., on West Point). Unfortunately, in his summarized report to Washington, Stirling did not mention West Point and the Patriots again ignored this critical area. Consequently, the Colonists continued to overlook West Point, and their overall labors in the region lacked unity of effort, thus leaving the Highlands dangerously exposed to invasion.

★ 1776: Twin Forts at Popolopen ★

During the summer of 1776, the British at last began to move against the Hudson Highlands. In July 1776, British warships ran past American positions on Manhattan
Island and anchored in the Tappan Zee out of range of American land batteries. This threat triggered furious action in the Highlands and the Americans did everything possible to complete their forts on Popolopen Creek and to stretch a chain across the river between Fort Montgomery and Anthony’s Nose, on the east bank.

After the British defeated Washington on Long Island and at White Plains, the fortified positions in the Highlands assumed an even greater importance to the American cause. However, Washington, after visiting the area in November, apparently thought that the Highland forts were strong enough to withstand a British advance and decided to move his army into New Jersey. While some American soldiers completed the two forts at Popolopen Creek, others constructed Fort Independence overlooking Peekskill Bay, just south of Anthony’s Nose. Simultaneously, engineers completed assembling an iron chain\(^3\) and moved it into place between Fort Montgomery and Anthony’s Nose. Because of design and structural weaknesses, the chain broke, and the Americans could not physically block the river in 1776. Farther north, other soldiers attempted to block the river between Plum Point (near Cornwall) and Pollepel Island (now called Bannerman’s Island) with underwater obstacles.

After facing several British threats in 1776, soldiers in the Highlands settled down for the long, cold winter while Washington went south to fight his winter campaign at Princeton and Trenton. From there Washington was able to threaten the route between New York and Philadelphia, and thus his little army prevented Sir William Howe from moving between the cities and forced him to evacuate New Jersey. At the same time the Morristown camp and the Hudson defenses protected the only remaining land line of communications from Boston to Philadelphia, which ran down the valleys west of the Highlands. On the strength of those meager forces, buttressed by Patriot militia controlling the countryside, the Revolution survived its second winter. For that reason, the meager American forces in the Highlands were poised for a defeat as the British finally overcame their own inertia and moved north, up the Hudson Valley.

\* 1777: Defeat in the Highlands \*

Beginning early in 1777, the situation in the Highlands changed radically. British commanders in London and America well knew the value of the Hudson Valley, and accordingly General John Burgoyne developed a plan to strike south from Canada along the Lake Champlain-Hudson River route toward Albany in conjunction with a

\(^3\) This first chain should not be confused with the second chain the Americans installed at West Point in 1778.
supporting attack along the Mohawk River by Lieutenant Colonel Barry St. Leger. If all went well, the British commanders would crush Patriot forces between their pincers and link up with a British force moving northward from New York City.

Luckily for the Americans, the British government did not coordinate the armies of Burgoyne and Howe. In London, Lord George Germain, the Colonial Secretary, actually approved three different plans submitted by Howe, none of which considered a coordinated movement with Burgoyne toward Albany. When Germain finally sent an order calling for Howe to support Burgoyne, it arrived after the British Commander-in-Chief (i.e., Howe) already set into motion a previously approved campaign and was at sea enroute to Philadelphia. However, before sailing for Philadelphia, Howe could have defeated the Americans in the Highlands if he had moved vigorously: In January 1777, only 156 soldiers remained on Constitution Island and reportedly as few as 6 remained at Fort Montgomery above Popolopen Creek. These hardly formed a strong defense force.

Nonetheless, the American militiamen made sporadic progress in the Highlands. A labor detail built underwater obstacles between Plum Point and Pollepel Island. At the same time a young engineer, Thomas Machin, worked diligently to solve the problem of securing a chain at Anthony’s Nose before the ice broke and once again opened the river to navigation. We can only speculate that if the river obstacles had been emplaced and if Forts Montgomery, Clinton, Independence, and Constitution had been completed—not to mention a credible fort on West Point—perhaps the Patriots in the Highlands might have foiled British plans during 1777.

Regrettably, such was not to be the case. In March, the British quickly and efficiently raided the American depot at Continental Village near Peekskill, triggering feverish activity farther north as American regiments manned Constitution Island and Fort Montgomery. The British, however, retired to New York and the threat to the area seemed to diminish.

In April, having solved his engineering riddle, Thomas Machin finally installed the chain across the Hudson under the guns at Fort Montgomery while Governor George Clinton supervised the completion of the underwater obstacles at the north end of the Highlands between Plum Point and Pollepel Island. Meanwhile in New Jersey, Washington pondered the situation in the Highlands. American leaders in the Highlands had not to date distinguished themselves in reacting to the British raids or at constructing credible defenses. He clearly understood that something had to be done to improve this condition. To remedy the situation, Washington considered appointing
Benedict Arnold to command the forces in the Highlands, but he was not available. Washington then ordered Major General Israel Putnam to command the Highlands. He then sent Major General Nathaniel Greene to the area to inspect the Highland defenses and ensure that they were prepared to meet British attacks, particularly one from the west. Greene and his associates—Brigadier Generals Henry Knox and Anthony Wayne—inspected the defenses, recommended the construction of a boom to protect the chain (at Anthony’s Nose) and concluded that the river obstacles were sound. However, they generally ignored the problem of overland attack from the west because the ground appeared to be too difficult. Brigadier General George Clinton, would soon reap the reward of this inadequate terrain analysis.

When General Putnam arrived in the Highlands in May 1777, the American defenses were still in disarray, and finally, the Patriots were called to account for their inefficiency when British troops, aided by the Royal Navy, advanced up the Hudson. In June, General Burgoyne, marching south from Canada, maneuvered Patriot forces out of Fort Ticonderoga on Lake Champlain. Washington immediately sent Arnold to upper New York to assist General Philip Schuyler, the American commander there; then he marched his main army toward the Hudson and sought a position from which he could respond to any possible move by General Howe.

However, Washington was completely in the dark about Howe’s intentions, and it was not until he finally learned that the Englishman had sailed for the Chesapeake Bay that he moved toward Philadelphia. Howe’s movement south doomed Burgoyne’s campaign plan for 1777 and gave the Americans in the Highlands another chance to complete their preparations. Not surprisingly, when the immediate threat diminished, the Patriots relaxed, and recently mobilized militia went home in early August. As the summer came to an end, the Americans still had not completed the fortifications. To make matters worse, after suffering defeat at Brandywine in early September, Washington ordered Continental forces from the Highlands to join him. Barely two weeks later, 1,700 British and Hessian troops arrived to reinforce the small garrison left

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4 Major General Israel Putnam was a renowned Indian fighter. Appointed Colonel, 3d Connecticut on 1 May 1775, then a brigadier general of Connecticut militia troops the next month, Putnam became one of the first major generals of the Continental Army on 19 June 1775. He was one of the senior officers in the Continental Army. He had a lack-luster record during the war. For many months he commanded the forces in the Highlands.
by Howe in New York, and these events set the stage for the capture of Forts Montgomery and Clinton.  

On the same day that the British defeated Washington at Brandywine, General Sir Henry Clinton, Howe’s deputy in New York, informed Burgoyne that he might attack Fort Montgomery and move north to assist his movements. The message reached Burgoyne on 21 September just after he had fought the indecisive Battle of Freeman’s Farm—the first Battle of Saratoga—and caused the British commander to withhold his attack against Major General Horatio Gates’ American forces.

Sir Henry planned to attack the Highlands with three divisions. These he would land at Stony Point, sending them west through Timp Pass and Doodletown. Then, splitting his force, he would march one column around Bear Mountain to attack Fort Montgomery from the rear while the main attack force would move north along the riverbank and attack Fort Clinton from the south. To deceive the Patriots, Sir Henry decided to feint toward the east before he landed his troops at Stony Point. This ingenious and sophisticated plan was based upon the advice of Colonel Beverly Robinson, an American Loyalist who was also an old friend of Washington’s.

On October 3rd Clinton moved, and on the 6th, British soldiers landed at Verplanck’s Point. Later, the naval force demonstrated against Fort Independence and Peekskill, occupying the former when the Patriots withdrew. These moves so confused the Americans that Israel Putnam finally decided, as Clinton wished, that the British were headed toward Peekskill.

Clinton, however, landed his main forces at Stony Point on the west side of the river at 6 a.m., and pressed his soldiers forward rapidly. Splitting his forces into columns, Clinton sent them north, one to the east and one to the west of Bear Mountain. Patriot scouts detected the move, but believing that their orders did not call for engaging the British, they withdrew, giving up Timp Pass, a critical bottleneck in the rugged mountains. This permitted Clinton’s two columns to advance unhindered until they converged on Forts Clinton and Montgomery from the south and west. Battle was joined in mid-afternoon when the westernmost British column, eventually commanded

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5 Three Clintons participated in the Hudson Campaigns. Brigadier General George Clinton (Governor of New York) and Brigadier General James Clinton, his older brother, served the American cause with distinction. Ironically their chief opponent throughout most of the war was Sir Henry Clinton who was a “local” full general. Sir Henry, eventually the British Commander-in-Chief in North America, later was involved in the Arnold treason.
by Beverly Robinson, attacked George Clinton’s force of 300 in Fort Montgomery and the other column of 1,200 attacked James Clinton’s force of 300 in Fort Clinton. Sir Henry’s troops fought without cannon, but even without them, British soldiers bested the American forces and seized the two most important Highland defenses by dark. Victory came after a determined thirty-minute assault. As the Americans surrendered, George Clinton and his wounded older brother escaped in the darkness.

Sir Henry Clinton.

Israel Putnam and George Clinton tried to stop the British advance northward, but failed. Sir Henry’s men first took Fort Constitution without a fight on 8 October, then prepared to move against water the obstacles near Pollepel Island. With little difficulty, British force moved farther north, burning and pillaging as they went, in an attempt to join Burgoyne. But without firm word from "Gentleman Johnny" they were uncertain of what lay ahead and did not press their advantage. Word finally reached the British on
the Hudson that Burgoyne had surrendered at about the same moment that Howe (now operating against Washington near Philadelphia) called for reinforcements to the south. There was nothing left to do but fall back to New York City. Abandoning the Highlands because he did not have enough men to hold them, Sir Henry ordered his men to destroy Forts Constitution, Clinton, Montgomery and Independence.

For about 20 days the strategic Hudson Highlands were in the hands of the British and perhaps, the entire Patriot cause hung in the balance. While 1777 had brought disaster to the Highland forts, the American victory at Saratoga and Washington's determined resistance in the Philadelphia area impressed all of Europe and set the stage for the eventual American victory. France soon declared war on England, tipping the scales in favor of the colonies. But, more importantly, new energy was devoted to the fortification of the Highlands and presently, new forts would appear, creating a formidable obstacle.

Thaddeus Kosciusko
1778: Fortification of West Point

Following their decisive defeat during the fall of 1777, it would seem that the Americans would have been compelled to take immediate action to build new and better fortifications in the Highlands after Henry Clinton retired to New York. Curiously however, they did little during the remainder of 1777. Additionally, dilution of effort and a lack of focus still plagued the Americans in the Hudson Valley. Even though the majority of the commanders wanted to abandon Forts Montgomery and Clinton and build a new set of fortifications centered on West Point, expert opinion held otherwise. General Washington’s chief engineer in the Highlands, French Lieutenant Colonel Louis de la Radiere insisted on fortifying the Popolopen Creek area once again. After much discussion, Israel Putnam, George Clinton, and James Clinton prevailed: West Point would be fortified. Finally, in mid-January 1778, La Radiere outlined the trace of a new fort on the plateau at West Point, beginning a new era in the Highlands. Later in the month American soldiers marched across the river to West Point for the first time, and established a post, which has been occupied continuously ever since. Nonetheless progress remained was slow.

While Washington and his troops suffered through the winter at Valley Forge, Americans at West Point did little to ensure that the vital waterway would be closed come spring. Arguments between La Radiere and American leaders produced few tangible results and the window of opportunity for the British to retake the Hudson Highlands remained open. Thankfully, in one area however, the Patriots progressed: the determined young engineer, Thomas Machin, moved ahead with details of building a new chain to span the river between West Point and Constitution Island.

Finally, in March 1778, things began to improve at West Point. Colonel Thaddeus Kosciusko arrived by order of the Continental Congress to assume the duties of Chief Engineer. He had already established his credentials and an expert engineer during previous battles, and he quickly grasped the potential offered by West Point’s terrain. Kosciusko immediately clashed with La Radiere, and although George Washington tried to encourage the two engineers to work together, he was forced to finally remove La Radiere in late April. West Point now had an expert engineer who could organize the massive undertaking ahead. Under Kosciuczko’s supervision and with support of more dedicated commanders, a fortified area began to take shape at West Point. As the construction got well underway in April, Thomas Machin emplaced the Great Chain between West Point and Constitution Island (Map 2).
Map 2: Thomas Machin’s map of the emplacement of the Great Chain. Courtesy of the West Point Library.

On the plain at West Point overlooking the river and Constitution Island, Brigadier General James Clinton with New York Militia and Continental soldiers worked on the main fort on the river, soon to be named Fort Arnold (Figure 2), and its river line batteries: Chain, Lanthorn, Green, and South. To the west, other soldiers built a major position called Sherburne Redoubt to protect the rear of Fort Arnold (Map 3). Farther west, above the plain, Colonel Rufus Putnam’s 5th Massachusetts Regiment constructed a substantial work called Fort Putnam. Along the ridgeline south of Fort Arnold, covered by Fort Putnam, three Connecticut Regiments built Forts Webb, Wyllys, and Meigs, naming them after their colonels: Samuel Webb, Samuel Wyllys, and Return Jonathan Meigs (Map 3).

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6 Sometimes called Chain, Lanthorn (also Lantern, Lanthern), Water and Knox Batteries.
Figure 2: Original map illustrating the layout of Fort Arnold (later Clinton) on the tip of West Point. Map courtesy of the West Point Library.

The fortifications at West Point reached their complete development by 1779, after additional redoubts were completed (Map 3). Once complete, the forts and redoubts represented a series of interlocking strong points, which at the same time covered all landward approaches to the principle river fort (i.e., Fort Arnold and its outlying batteries) and provided depth to the position. Redoubt #4, which was essential because it protected the terrain overlooking Fort Putnam, was completed in 1779. That same year the garrison built the southern and western redoubts (i.e., #1, #2, #3) with their batteries and outlying works (Map 3). These new fortifications were mutually supporting and added depth to the West Point position and protected the approaches to Fort Putnam, which was the key to the defense of Fort Arnold, and the lower positions on the river's edge.
Map 3: Map of West Point’s fortifications ca. 1780. Courtesy of the West Point Map Library.
Figure 3: Modern interpretation of a typical redoubt battery.

On Constitution Island, which the Americans reoccupied in 1778, soldiers partially rebuilt Marine Battery and Gravel Hill Batteries to cover the river line and Great Chain (Map 3). They also constructed Redoubts #5, #6, and #7 along the crest of the island to protect the vital river batteries from attack from the landward approach, just as they constructed the western redoubts to protect Forts Putnam and Arnold. By the same time, the soldiers completed North and South Redoubts on the high ridge above the east shore overlooking Constitution Island, across from West Point (Map 3).

Thus, Kosciusko’s design was all at once expertly conceived and ahead of its time. We can only speculate if the completed fortifications on West Point and the surrounding terrain, along with the Great Chain, would have prevented a repetition of Sir Henry Clinton’s 1777 Campaign. However, one thing is clear, as a fortress, West Point was much ahead of its time, because as 19th and 20th century soldiers soon discovered, a fortified area consisting of mutually supporting strong points is the heart of modern defensive position and is considerably stronger than a single position built in the 18th century tradition.
★ 1779: Stony Point ★

After 1777, two important threats placed West Point at the forefront of the war once again, but neither brought combat to the area. In 1779, after a lull of a year, Sir Henry Clinton seized Stony Point from the Americans. Because the British seizure of Stony Point cut the American line-of-communications across the river and apparently threatened West Point, General Washington reinforced the Highlands and subsequently decided to retake Stony Point. To accomplish the task, Washington brought Baron Frederick von Steuben to West Point to train the light infantry, which would be given this mission. He then entrusted the attack to Brigadier General Anthony Wayne, one of his best combat commanders. Wayne seized Stony Point on 16 July 1779 with a night bayonet attack, which has become a classic study in light infantry assault for its daring and elegant design. By destroying a British force, Wayne’s attack gained wide acclaim in the fledgling nation, boosting Patriot morale and impressing many foreign observers.

★ 1780: Treason ★

Perhaps the most serious threat to West Point came in the fall of 1780 when Major General Benedict Arnold—hero of Quebec, Valcour Island, Danbury, Saratoga, and then commander of West Point and the Hudson Highlands—tried to sell the fortress to the British.

Arnold’s drift to treason can be traced from his earliest actions in the war. In May 1775, after being commissioned by the Massachusetts Assembly to capture Fort Ticonderoga, he found himself in company of, rather than in command of, Ethan Allen and his Green Mountain Boys. Forced to accept an unwanted subordinate role, Arnold did little except irritate his fellow soldiers. Taking command after Allen left, Arnold soon found himself again subordinated to a new commander. This irritated him deeply and he resigned, only to return to active service as a colonel in the Continental Army. At this point he began to plan an invasion of Canada through the rugged interior of Maine. In November, after completing an incredibly difficult march up the Kennebec River to the Chaudiere River, Arnold and his force approached Quebec. He could not capture the fortress alone with small force of badly weakened soldiers, and therefore had to wait until December 31st to attack the city in coordination with the forces of Major General Richard Montgomery, who marched on Quebec from Montreal. After Montgomery was killed and Arnold fell wounded, the American assault failed. The Americans had to content themselves with an imperfect siege of the British citadel.

Within a few weeks, Arnold, newly promoted to brigadier general and now in command of the American forces around Quebec, found himself replaced once again.
At this he was bitterly disappointed, and he retired to Montreal where he nursed his wound and harbored his grievances. Arnold next saw action in early 1776 when reinforced British forces attacked to drive the Americans away from Quebec toward Montreal. Later, after retreating southward to Ticonderoga, Arnold built and commanded a small naval flotilla on Lake Champlain. There he hurled his crude little navy at the British as they advanced toward Ticonderoga. Suffering tactical defeat in a small deadly naval fight off Valcour Island, the Americans nevertheless stopped the advancing British and ultimately forced their return to Canada. After once again demonstrating superb combat leadership, Arnold burned his fleet and withdrew.

From Valcour Island Arnold returned home to Connecticut where his list of grievances mounted. During the winter Congress angered Arnold by promoting five junior brigadier generals to major general ahead of him. Subsequently, he received his promotion to major general, but did not receive an adjusted date of rank, further rankling him. To make matters worse, some members of Congress charged him with misuse of public funds and would not accept his final accounting for the Canadian expedition. Furious about such treatment, Arnold submitted his resignation.

However, outstanding performance in battle saved Arnold one more time. In mid-July 1777, General Washington sent Arnold north to assist Major General Philip Schuyler with the campaign against Burgoyne. During the ensuing campaign, Arnold defeated British forces in the Mohawk Valley, fought with distinction in the first Battle of Saratoga (Freeman’s Farm), but then angered his new commander, Major General Horatio Gates, in a dispute over the conduct of the battle. Consequently, Gates relieved him of his command. Several days later, when the British attacked the American positions at Bemis Heights, Arnold galloped impetuously on to the field, led several charges directed at critical positions along the British line, and finally inspired an American victory.

Arnold was seriously wounded during that fight, but he clearly reached the height of his martial glory at Saratoga. However, he would not fight again for the United States. After Saratoga, Arnold’s career and reputation deteriorated. Assigned to Philadelphia, he administered his command poorly and found himself censured by a court-martial and reprimanded by Washington. Although Washington barely slapped his wrists for his improprieties, Arnold never got over the reprimand.

Also while in Philadelphia, Arnold, a widower since 1775, met and married Peggy Shippen, daughter of an old friend of General Washington, and a known Tory sympathizer. It was about this same time that Arnold first contacted Captain John
André, aide to General Sir Henry Clinton (British commander in New York), and offered to turn his coat for money. Apparently, Arnold’s resentment of his treatment led him to finally decide to change sides. His personal bitterness, fueled by his desire for money to support his teenaged wife lavishly, led him to sell his services to the British.

Soon after they had made contact, André informed Arnold that Clinton wanted West Point. With that news, Arnold began planning to obtain command of the key American position. He fixed the price for his treason: first he asked for £10,000 sterling; later he upped his fee to £20,000, a considerable fortune in those days. Ironically, just after Sir Henry agreed to his price, Arnold gained a $25,000 advance from Congress to return to field duty.

Shortly thereafter, Arnold sought out Washington at Peekskill. The American commander, hoping to attack Clinton in New York City, told Arnold of his plans for the conspirator to command the American left wing during that campaign. Shocked, Arnold begged off the assignment, pleading that his wounds were still disabling. Washington was mystified by Arnold’s uncharacteristic desire to pass up a combat command, but finally gave Arnold what he wanted: command of West Point and the surrounding Highland positions.

Once in command of the Highlands, Arnold re-established communication with Sir Henry through local contacts. In the meantime he went through the motions of "improving" the West Point defenses. Finally, on 21 September 1780, Arnold met André secretly at Dobbs Ferry, near Haverstraw, after André had come ashore from HMS Vulture, a sloop of war anchored just south of Verplanck’s Point. After a long conference, the two men stayed the night at a nearby house. Unexpectedly and to the great dismay of André, as dawn broke the American commander at Teller’s Point shelled the Vulture and forced André’s transportation to withdraw southward. Now the British officer was in a terrible fix.

Stranded ashore in his scarlet regimentals, André removed his uniform and donned civilian dress. He then pocketed a pass signed by Arnold and crossed the Hudson by row boat, beginning a thirty mile ride south to British lines near White Plains. After spending another hair-raising night within the American zone, André finally neared friendly troops. But, just short of safety, three American "volunteer militiamen," probably bent upon plunder, accosted the British major and forced him to halt. The three Americans searched André after he admitted to being British and discovered maps and papers concerning the fortifications at West Point concealed in André’s boot.
Bribery failed to do more than convince the Americans that they were on to something of greater value than the contents of his purse. In search of a reward, the three militiamen took André to Lieutenant Colonel John Jameson at New Castle. Jameson immediately sent a message to his commander, Arnold, informing him of André’s capture and reported the whole incident to Washington, including in his report the maps and papers found out André.

Events unfolded thereafter with incredible slowness. The message concerning André’s capture reached Arnold at his quarters (the Beverly Robinson House on the eastern shore across from West Point) during the early morning of 25 September. The message to Washington missed the general at Danbury, Connecticut: Washington and his party had already departed that place and arrived in the West Point area. Two officers in Washington’s party had ridden ahead and had joined Arnold for breakfast. Receiving word of André’s capture in the midst of his meal, Arnold excused himself and went upstairs to tell his wife the news. After their hasty conference, Arnold announced that he had to go to West Point to prepare for Washington’s arrival. Riding at the gallop, he raced to his barge and ordered his crew immediately to row him downstream to the Vulture. Climbing to safety aboard the British ship, Arnold turned his oarsmen over to the British as prisoners of war, and sailed to infamy.

Washington arrived at the Robinson House about thirty minutes after Arnold had ridden off. Disappointed that Arnold was not there, the general immediately crossed over to West Point to find Arnold and to inspect the fortifications. At West Point, the local commander informed Washington that Arnold had not been there all morning. Puzzled, Washington proceeded with the inspection, discovering to his dismay that the fortifications had fallen into a deplorable state. Washington thereupon arranged a conference with West Point officers and his own staff to correct the many deficiencies.

Crossing back to the east shore, Washington returned to the Robinson House. There in the late afternoon, messages finally arrived which explained Arnold’s strange behavior. The Commander-in-Chief finally understood: Benedict Arnold had deserted after discovering that André had been captured.

Washington tried to overtake Arnold, but these efforts failed because Arnold was safely aboard the Vulture by that time. Unsure of British intentions, the general ordered defensive forces in the Highlands alerted to protect West Point. But this was unnecessary, for Clinton was not prepared to attack. As the crisis subsided, Washington directed that André be brought to West Point and on 29 September he
ordered a board of officers to investigate the case and to recommend a suitable punishment for the British officer.

After serious deliberation at the American commander's headquarters in Tappan (about 20 miles south of West Point), the officers recommended that André be hanged as a spy. Washington approved the sentence, and although Clinton tried to bargain for the release of André, Washington was unrelenting. He offered to trade André for Arnold. This time Clinton refused, and the young major's fate was decided. Even though André asked to be shot, as befitting an officer, Washington was adamant: André had been captured as a spy, and he would die as one.

On 2 October 1780, the dashing John André, whose principal mistake had been to take off his scarlet regimentals, died a brave man. After he had blindfolded himself and adjusted the noose about his neck, the wagon lurched forward, dropping him earthward. His partner, Arnold, went on to serve England as a brigadier general, leading a devastating raid through Virginia. Later, his darling Peggy joined him, and they lived out their lives in London, pensioned by the Crown for their treachery.

★ 1781-1783: Yorktown to Peace —

With Arnold's treason a thing of the past, days of boredom returned to the Highlands and the war in America turned south for its final campaigns. In 1781, Washington and his army, joined by a French army and supported by the French fleet, marched to Yorktown and the final military victory. As Americans waited for peace, he returned to the West Point area in 1782, encamping the army at New Windsor, near Newburgh.

Back in the Highlands, Washington faced new but equally important challenges. In 1783, Washington thwarted what has come to be known as the "Newburgh Conspiracy" in which some of his disgruntled officers proposed to disband the Army or take violent action forcing Congress to act favorably on their pay grievances, life pensions, and claims for food and clothing. In a poignant address to his officers, Washington shamed the conspirators and held the loyalty of the officer corps. By his inspiring performance, Washington possibly saved the young nation and the Army from the possibility of a military dictatorship.

★ 1802: The United States Military Academy

The history of the Hudson Highlands and West Point provides an excellent microcosm of the Revolutionary War. Out of this experience came the traditions and
character of American military policy and of United States Army, which has now endured for 230 years. From her rich legacy of the American Revolution, the United States bolstered her traditional dedication to civilian supremacy over the military and has continued to emphasize the traditions and responsibilities of the citizen-soldier. Simultaneously, the nation came to realize that it required the services of professional officers to lead a citizen army in time of war and to command a Regular Army in time of peace. Ironically, although Washington, Knox and Hamilton urged the establishment of a national military academy to provide needed professional officers for the Army, it was Thomas Jefferson, an anti-militarist, with consuming interests in the natural sciences and engineering, who actually provided the impetus to found the Military Academy as an engineering school.

West Point—the fortress where Washington and so many other key officers of the Continental Army had served during the eight years of the Revolutionary War—became the home of the Military Academy in 1802. Since then West Point has served the nation's peaceful needs and provided leaders for the nation's armed services in war based in great part upon the legacies of the American Revolution. ★
PART IV

THE CULTURAL MATERIAL RESIDUAL

More than 225 years later, the cultural landscape of the region still bears proof of earlier military geographic analyses by commanders and politicians as they sought to gain and maintain control of the river. Toponyms, fortifications, obstacles, and battlefields continue to endure as recognizable, if not distinctive, imprints on the cultural landscape of the lower Hudson Valley. These features contribute to the spirit of the region and remind us of its strategic importance during the American Revolution.

Among the remnants of the Revolutionary War landscape, West Point and its environs are perhaps the most distinctive and most celebrated. The United States flag has been flown at West Point since 1778, and the post has housed the US Military
Academy since 1802. On the Academy grounds, Fort Putnam has been well preserved, as have numerous redoubts and fortifications on Constitution Island, and parts of the original Fort Arnold. Stony Point battlefield, located to the south of West Point, is also well preserved and continues to be a tourist attraction. During peace negotiations in 1782, General Washington ordered the encampment of American troops in New Windsor. The last encampment of the Continental Army has been preserved and partially restored, and includes the Public Building or Temple of Virtue, a spacious hall erected for religious services and other large assemblies, and one other surviving wooden structure built by Revolutionary soldiers, an Officers' hut.

Examples of individual built structures of historical significance include Washington's headquarters in Newburgh, the Mandeville house in Garrison, and Knox's headquarters in New Windsor. The earliest part of the Jonathan Hasbrouck House was built in 1724 and enlarged in 1750 and 1770 (Adams, 1996b). General Washington used it as a headquarters from 1782 to 1783. The Jacob Mandeville House was built in 1737 and is perhaps the oldest major building in the Garrison area. The house served as officers' quarters from 1778 to 1783. Major General Henry Knox, Washington's commander-in-Chief of Artillery, established his headquarters in New Windsor in a house built in 1754 by Colonel Thomas Ellison (Eberlein and Hubbard, 1990). During the war, General Knox and General Nathaniel Greene, the Quartermaster of the Army, occupied rooms in this historic stone house. Each of these structures was important not because of its form, but because of its function. The specific location of each was of course dictated by security, accessibility, and the feasibility of providing command and control of the Continental forces throughout the Hudson Valley.
VIEW DESCRIPTIONS

★ View 1—Fort Putnam

You are standing on the high ground immediately dominating the West Point and Constitution Island defenses. Because it offers a magnificent view of the surrounding terrain, there is no better place from which to visualize West Point's significance in the Revolutionary War.

Rufus Putnam's Massachusetts Regiment built Fort Putnam beginning in 1778 (Figure 1). This was the key defensive fortress in West Point’s system of “fortifications in depth.” The rampart walls of the original fort were constructed of large logs. Stone gradually replaced these as the position was improved. The parapets were of earth and fascines (bundles of long sticks). The profile of atypical battery is shown in the sketch given in Figure 2. The fort was substantially improved in 1794 but abandoned soon after. Partially rebuilt and restored as an historical site in 1910, Fort Putnam was completely restored as part of the Bicentennial actives in 1976. Fourteen replica cannon are positioned along the parapets, and a small museum in the form of a typical wooden barracks of the period has been constructed as shown in the sketch given in Figure 1.

Figure 1: Sketch of Fort Putnam.
Figure 2: Cut away view of a typical battery in the West Point fortification system.
From the Department of History Historical Atlas.

★ View 2 – Fort Clinton

You are now on the level of the Plain at Fort Clinton (called Fort Arnold until Benedict Arnold’s defection in 1780). This became the main fortress and firing position near the river’s bend. Designed to destroy British ships by enfilade fire when they attempted passage, only the earth mounds of the fort’s parapet are still extant. A statue of Thaddeus Kosciuszko, appointed engineer at West Point in 1778, is located here. Kosciuszko supervised the construction of Fort Clinton and other defensive works from 1778 to 1780. The map below shows the fort’s completed design (Figure 3).

By June of 1778 work on the fort had been sufficiently completed to enable it to be occupied by its garrison. Other redoubts and firing batteries were located nearer the river. A large chain and boom stretched from the rocks below Fort Clinton across the river to Constitution Island. By the time the Americans had completed the last of these defensive works in 1779, West Point was a formidable position.
Figure 3. Fort Clinton. Courtesy of the West Point Library.
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